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**University of
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UK | CHINA | MALAYSIA

Jewish Culture and History as an Inspiration to Design Jewish Museums

A Case Study of Jewish Museum Berlin

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Abstract

This research investigates the effect of Jewish history and culture as an inspiration to conceptualise the architecture of Jewish museums in order to connect the visitors intellectually and/ or emotionally with spatially enhanced and evocative spaces. Since there are now sixty-nine Jewish museums devoted to Jewish history, a rational model has been applied to select the most appropriate case study for detailed consideration. Using this model resulted in identifying the Jewish Museum in Berlin (JMB), Germany, as the focus of this research. The examination of this study delves into two issues: first, how the Jewish history and culture can affect the design of the JMB; second, how the general public will interpret the meanings of its museum architecture. Based mainly in ‘a cognitive theory of religious transmission’, the research develops a conceptual framework of ‘divergent modes of meaningful transmission experiences’ as an approach to examine the effect of Jewish history and culture in designing and interpreting the museum architecture of the JMB.

This research is a combination of conceptual and empirical research. In terms of the conceptual part, the theoretical framework for analysing the visitor’s experience in the JMB has been arranged in a hierarchical structure consisting of two main layers. The first layer is based on two modes of transmission of religious knowledge in Harvey Whitehouse’s philosophy – doctrinal and imagistic. The second layer containing two separate theories: kabbalah as interpretive method and epic theatre. Also, as part of the conceptual research, a wide review of the literature draws on various key aspects such as interpretive museum, performing the museum and architecture. As far as the empirical research is concerned, the case study method is the main approach to examine the phenomenon of this research within its real life context by collecting and analysing different sources of evidence (interviews, direct observation, responses from the museum’s visitors from different platforms, and formal analysis).

Two categories of experience have been identified in JMB (cognitive and embodied experience) demonstrating the effect of Jewish history and culture on conceptualising the museum architecture. Based on the analysis of the visitor's interpretation, it is apparent that the embodied experience has more psychological impact on the visitor than the impact of the cognitive experience. In contrast, the cognitive experience has more socio-political impact on the visitor than the impact of the embodied experience. However, the combination of these two modes in one museum can help to create a spatial environment that each mode of the two most likely will overcome the limitation of the other mode. This combination seems to work well in the basement level, whereas it does not work appropriately in the permanent exhibition of the JMB.

Dedication

In the Name of Allah and all praise is [due] to Allah, lord of the worlds, I dedicate this work to:

Those who have a special place in my heart:

My Father ‘Sultan’ and My Mother ‘Latifah’

To the soul of my Grandfather ‘Mazi’ and the soul of my Aunt ‘Mohrah’ who both taught me the meaning of life

My Grandmother ‘Monirah’ and my second mother Aunt ‘Shawayhinah’

My beloved Wife ‘Maram’ and my lovely Daughters ‘Alyah – Mohrah – Fahdah’

My uncle ‘Fahad’ and My Anut ‘Manal’

My Anut Modhy and My Stepmother ‘Mzainah’

My brothers and sisters

And to my whole family

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1 Chapter One - Introduction

1.1 Introduction

This research looks at the use of Jewish history and culture as an inspiration to conceptualise the architecture of Jewish museums in order to connect the visitors intellectually and emotionally with spatially enhanced and evocative spaces, and to communicate the museums' visions and missions. By conducting a detailed case study research, the investigation delves into how Judaic religion and culture affect both the design and the interpretation of the architecture of their museums. This research aims to discover the effect of using two categories of experience (textual and embodied) in exploring museums in general and Jewish museums specifically, because these two experiences demonstrate the effect of Jewish culture and history in designing and interpreting the selected case study (JMB). The research in general has the intention of achieving a clear explanation of the nature of the relationship between the visitor as perceiver, and the architecture of the museum as communicator. Overall, the study sets out to explain the closely intertwined link between cultural aspects and museum architecture. It seeks to identify meaningful findings in order to generate a discussion of the recent practices in both the field of architecture and of museums.

Since there are now sixty-nine Jewish museums devoted to Jewish history, a rational model has been applied to select the most appropriate case study for detailed consideration. Using this model resulted in one case study being selected, namely the Jewish Museum in Berlin, Germany.

It is essential to state that this research is a combination of conceptual and empirical research. The motivation for using this method is that most of the research that has discussed interpreting museum architecture is of a theoretical base which sometimes cannot reflect the nature of interpreting museum architecture, especially because of the different types of actions taking place in the museum. Therefore, the use of empirical evidence and

then analysis of this evidence using appropriate theoretical frameworks can help to understand the nature of interpreting museum architecture through the connection between the theoretical and practical levels of reading museum architecture.

This chapter presents the introduction to the research. It is divided into six sections. It begins by describe the motivation. Then, it will discuss the Jewish museum as an architectural phenomenon, and the reasons that led them to become highly respected by the public. This is followed by the challenges facing Jewish museums, and from these challenges the main research questions will emerge. It will then go on to formulate the research aim and objectives. The fourth section will present the Jewish museum phenomenon in terms of their growth and the main motivation of their narrative. The last section in this chapter will present the overall structure of the thesis.

1.2 The Motivation

Why the architecture of Jewish Museums?

My interest in the architecture of Jewish museums has a long story. It started when I was an undergraduate student at the Department of Architecture and Building Sciences, King Saud University, specifically in my third year. At that time, we, as students, had been asked by Professor Nasser Al hamdi, the course director of studio three, about the difference between the architectural concept and the architectural philosophy. Indeed, we did not have any clear answer, and when we posed the question back to our professor about the difference between these two terms, he responded that he did not know the main difference exactly either. However, he explained for us that recognising the difference between the architectural concept and the architectural philosophy can help us to become more intellectual designers. This question remained in my mind throughout my studies until I graduated still without a clear answer for this question, though I had asked many specialists and I did some research about the difference between these two terms. It seems to me that one of the main reasons for not finding the answer to this question is that the philosophy as a science is somehow forbidden in Saudi culture and it is rarely found that Saudi people study philosophy. For this reason, I needed to search further afield.

Three months after my graduation, I started my new job as a teaching assistant in the same university. During my work in the university, I assisted many academic staff in teaching graduate projects. In this studio, the academic staff frequently ask the students to come with unique architectural concepts and philosophies and many of them came with exaggerated architectural concepts and philosophies. Therefore, I started to ask myself whether the users of these proposed buildings, if we imagined them as built, explore the effects of the architectural concept and philosophy. This, in turn, has turned my question from thinking about the difference between architectural concept and philosophy to thinking about the capacity of these two terms for enhancing the role of the architecture and the users' experiences. As a first step to discuss and explore this question, I strived in my Master's thesis to focus on the role of the architectural concept and philosophy in developing the function of the architecture in society and the users' experiences. Therefore, the title of my Master's thesis and its primary question was Can Architecture Mitigate Religious Differences to Resolve Conflicts? In this study, it has been found that one of the major useful resources that can be used as an inspiration to build the architectural concept and philosophy, to reinforce the function of architecture and to mitigate religious difference to resolve conflict was interfaith dialogue. Since my Master's thesis focussed on the Israeli-Palestinian conflict as an example of religious conflict, it has been discovered that there are three different religions taking part in this conflict: Judaism, Christianity, and Islam. The primary commonality between these three religions is that they all believe in prophet Abraham as the father of everyone. Therefore, I proposed an Abrahamic Religions Museum as a way to show visitors the common points between these three religions and in order to encourage people to engage in interfaith dialogue. As a key part of this research, I started looking for case studies that could help me in developing the architectural concept of Abrahamic Religions Museum. There is a remarkable creativity in designing the architectural narrative of many Jewish museums. Also, there are many things in common between them in terms of their architectural narrative. Consequently, I came up with a hypothesis that Jewish culture and history are tools that were used in designing the architectural narrative of many Jewish museums. Since then, I have become more interested and determined to understand the complexity of the architectural narrative of Jewish museums. After that, this interest became the main motivation for to me to explore

the effect of Jewish culture and history as an inspiration to conceptualise the architecture of Jewish museums in order to connect the visitors intellectually and/ or emotionally with spatially enhanced and evocative spaces.

1.3 Jewish Museum as an Architectural Phenomenon

The increase in the number of Jewish museums in recent years constitutes a coherent architectural phenomenon (Figure 1-1). Historically, the emergence of these museums began at the end of the Second World War, and was largely unheralded. Most of the museums that were established before the 1980s, however, could not compete with other large museums around the world for many different reasons (Seldin, 1991). One of the most significant reasons relates directly to the architecture of these museums, since almost all of them were opened in historical buildings, which were reused and adapted for their new functions. The idea of ‘adaptive reuse’ weakened the possibility of creating architectural landmarks, which could in themselves help to attract larger numbers of visitors. The image of Jewish museums has now changed for two main reasons. The first reason is the establishment of many large Jewish museums. The high degree of architectural innovation in these museums has encouraged a large number of people (both Jews and non-Jews) to visit them. Some of them have become very popular globally, such as (1) the United States Holocaust Memorial Museum, 1993 (Washington, DC, USA), (2) the Jewish Museum in Berlin, 2001 (Berlin, Germany), and (3) the new building of Yad Vashem, 2005 (Jerusalem, Israel). The second reason, and the most significant one, is the development of a professional standing which has applied to almost all Jewish museums which has helped to develop the quality of Jewish museums, especially in terms of their programmes. Both the council of American Jewish Museums (founded in 1977) and the Association of European Jewish Museums (founded in 1989) play a key role in developing the professional standing of Jewish museums and enhancing their values. These two factors have played an important role in making Jewish museums highly respected by the public (Seldin, 1991).

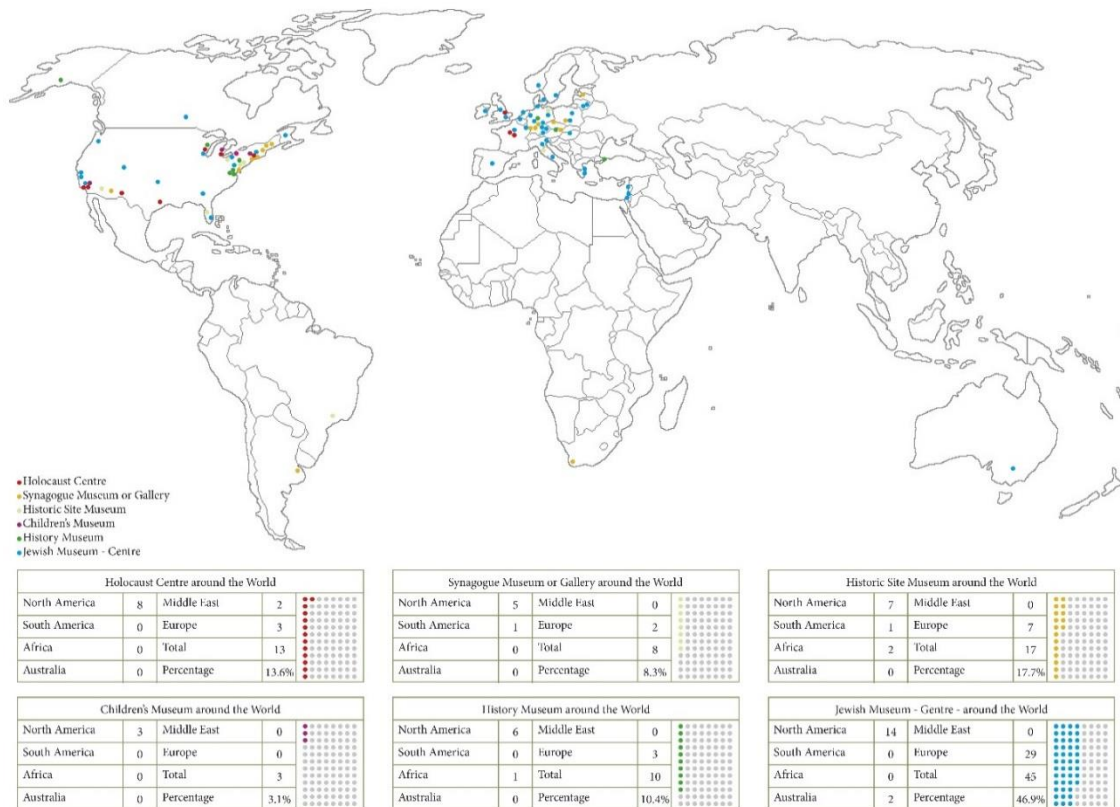


Figure 1-1 The spread of historical Jewish museums around the world. Source: the author.

1.4 The challenges Facing Jewish Museums and the Research Questions

Jewish museums face many challenges with regards to different aspects. Some of these challenges have a strong connection to the architecture of these museums and the way of communicating their messages. Since this current study will primarily discuss issues related to the architecture of these museums, three major difficulties related to the architecture will be discussed. These difficulties include Jewish museums' shortage of material in their collections, their main messages and their visitors' feelings.

It is known that historical objects can produce many different meanings inside museums. Jewish museums, however, suffer from a lack of historical materials because the vast majority of their historical materials were destroyed or lost as a result of fleeing the death camps and different groups such as the Nazis. The lack of historical materials became the main motivator for focusing on the architectural narrative of these museums, because of its role in telling the story of Jewish people and making the non-visible visible. In designing

museums, the shortage of collections makes the architects' role more difficult, because they need to create museums that can convey meanings. One of the main resources that the architects of Jewish museums have used to find creative inspiration is Jewish culture and history. Since there is little published research which has discussed this relationship, this current study will explore the use of Jewish culture and history as an inspiration for designing Jewish museums, focusing on the meanings that lie beyond these inspirations which can help to connect the visitors (Jews and non-Jews) with the spaces. Therefore, as a point of departure, the first main question of this research asks:

How can Jewish culture and history become an inspiration to conceptualise Jewish museums that connect their visitors intellectually and/ or emotionally with spatially enhanced and evocative designs?

The effect of Jewish culture and history in conceptualising the museum architecture of the selected case study (JMB) can be examined through *the theory of divergent modes of religiosity* developed by Harvey Whitehouse (a professor of anthropology at the University of Oxford, the director of the Institute of Cognitive and Evolutionary Anthropology and one of the establishers of the *cognitive science of religion field*). According to this theory, there are two categories of transmitting religious knowledge: the doctrinal mode (semantical-based) and the imagistic mode (experienced-based). Also, this theory indicates that the development of any religion revolves around one of two poles. The first one is based on how religious rituals and beliefs are remembered. In the imagistic mode, the infrequent repetition of highly arousing rituals has a long-lasting impact on the participants' minds. The effect of these infrequent repetitions of highly arousing rituals is not only limited to the memory, but also affects the way of meditating about different spiritual matters. These psychological features are intended to bond together small groups of people, and as a consequence they remain localised and foster exclusive and isolated communities. On the other side, the religious knowledge in the doctrinal mode is transferred through both the frequent repetition of ritual activities and the intensive teaching, hence this mode is intended to be widespread and inclusive, as forms of religious practice are widespread. With regards to this research, it is important to state that these two forms of adoption of religious beliefs are somehow compliant with the two experiences that have been identified in the JMB: cognitive and embodied experiences. Since these two

experiences demonstrate the effect of Jewish history and culture in designing and interpreting the JMB, the nature of each form of transmission of religious knowledge will be used as a theoretical framework to interpret its compatible experience.

The second challenge that Jewish museums face is related to applying their main message, which requires the creation of an effective learning environment connected to the architectural narrative of the museum. George Hein stated that “[l]earning is now seen as an active participation of the learner with the environment” (1998, p. 6). However, since Jewish people see themselves as the people of the book, most of the architecture of their museums has been affected by the way of interpreting the religious book. They have been designed in a way to be read like religious books; in other words, the communication between the architecture of most Jewish museums and the visitor of these museums is text-based; and this somehow affects the educational role of their museums in delivering their messages, for two reasons: (1) the visitors are not active participants and cannot interact with most of the museum architectural elements; and (2) the museum architecture contains many signs and clues that are not easy to be decoded and understood. To meet this challenge the architects, curators and the exhibition designers of Jewish museums need to work as a team to shift the museums “from the written word to learners’ active participation through interactions with objects [also applicable to the museum architecture and its contents]” (Hein, 1998, p. 6).

Many architects of Jewish museums strive to design museums which deal directly with emotions. This type can be seen very clearly in the United States Holocaust Memorial Museum. However, there are two problems with this type of design, which have led some scholars to name the type of museums that deal with emotions ‘memory museums’. The first problem is connected directly to the educational role of the Jewish museums because museums of this type usually focus on the past. This can be a major problem, especially because they do not present programmes that mitigate conflicts. The second problem is that these museums have complex code systems, which usually prevent visitors from understanding the meanings beyond the design. It is important to state that some of the codes that are used in Jewish museums are related to Jewish culture and history. The second and third challenges facing Jewish museums lead to the study’s second main question:

How will the general public explore, interpret and respond to the architecture of the Jewish museum?

1.5 Research Aim and Objectives

1.5.1 Research Aims

The research focuses on exploring the relationship between *Jewish culture and history* and *the design of Jewish museums* by studying the use of Jewish culture and history as an inspiration to design meaningful places for visitors.

1.5.2 Research objectives

There are three specific objectives that the study intends to achieve. These objectives collectively, in fact, build up to address the research questions. The three objectives are:

- To provide evidence of the relationship between the history of Judaism and the architecture of JMB in terms of using Jewish culture and history as an inspiration.
- To examine the public visitor's perceptions of the meanings beyond the design of the JMB.
- To analyse the effect of using two categories of experience (textual and embodied) in exploring museums in general and the JMB specifically.

1.6 The Jewish Museum Phenomenon

1.6.1 Growth

For nearly half a century, the number of Jewish museums around the world has increased significantly. During this time, and at a quick pace, Jewish museums have developed gradually from being just an adventitious presence in the life of the Jewish community to one of its most important urban fixtures, appearing in both cities that are considered as central places for the Jewish community and places where Jews have a lower population. They have become “a staple of Jewish culture” all over the world in the post-world War II era, particularly in North America and Europe (Shandler, 2016, p. 6). These museums have

become ‘vogue’ all over the world as a result of the support that they obtained from national and local governments. These days, there are more than two hundred museums globally devoted to Jewish content. These museums can be classified according to their characteristics, such as size, type of collection and programme. However, the common aim between all of them is to collect, preserve and present materials which are related to Jewish culture which, in turn, can help to increase the value of their culture (Seldin, 1991).

Seldin (1991) believed that all Jewish museums have one basic concept which has not changed for about a hundred years. She stated that the common concept of any Jewish museum is that it is “an institution devoted to the collection, preservation, and presentation of art and objects associated with the Jewish people and heritage” (1991, p. 77). However, this definition clearly cannot indicate many aspects related to these museums. On the basis of this definition, for example, it is impossible to know what type of Jewish subjects or artworks should be presented inside the museums. Also, this definition does not outline the characteristics of the main message which these museums want to give, nor who will be the receivers.

Historically, the identification of the characteristics of Jewish museums was an easy task in the 1980s, the time when the first Jewish museums were opened around the world. At that time, the main aim of building these museums was to preserve precious Jewish objects. The process of collecting these objects was carried out by a small group of Jewish experts. The main aim of preservation was to inspire future generations. It is important to understand that there were two motivators for this process of collection. The first was connected directly to the *Wissenschaft des Judentums* movement. The primary goal of this movement was to analyse and investigate the origins of Jewish traditions in order to establish ‘Jewish studies’ as a discrete subject in universities. The second motivator can be considered to have been a reaction from Jewish people to others who believed that the Jewish religion was hostile to art in order to change this incorrect perception.

It is important to note that Jewish museums cannot be limited to ‘art museums’, because during most of Jewish history “Judaism had emphasized the written word over the visual image (among other reasons), [and] there [is] simply no body of paintings and sculpture and other ‘fine art’ such as Christians had produced” (Seldin, 1991, p. 78). This is the main

reason that led Heinrich Frauberger to recommend that the owners of early Jewish museums should endeavour to “combine the points of view of the historical museum, the art museum, and a museum of ethnography” (Seldin, 1991). However, although a small number of Jewish museums did apply this recommendation, the vast majority of them focus on one or more of three main aspects: (1) local history; (2) Holocaust remembrance; and (3) contemporary art. The architecture of the last one cannot be differentiated from that of other art museums. However, the architecture of Jewish history museums has been defined by a higher degree of innovation, as a result of applying different types of architectural genres which can deal with the challenges posed by Jewish history.

1.6.2 Jewish Museums as Narrative Museums

In her article *Choosing among the Options: An option about Museums Definitions* (2002), Elaine Gurian divided museums into five classifications: “object-centered, narrative, client-centered, community, and notional”. Based on Gurian’s explanation of these five classifications, it can be seen that many Jewish museums can be classified under the category ‘narrative’. Some Jewish museums, however, can be considered to be a mixture of some or all these categories. In this section, the narrative museum will be discussed because it is one of the main factors that have influenced the architecture of Jewish museums (Gurian, 2002).

Owing to the shortage of historical materials which can produce multiple meanings, many Jewish museums have adopted the idea of telling the story by using a specific narrative as an alternative method for creating meanings for the spaces. Both the United States Holocaust Memorial Museum and the Jewish Museum in Berlin are excellent examples of narrative museums. Although the function of historical materials in these museums is limited, they play an important role because they are used as evidence for particular events. The explication of a story inside narrative museums is the most significant issue in designing these museums, and it must be considered deeply in order to make it easy for the visitors to understand it (Gurian, 2002).

Holocaust survivors and other cultural groups have found that a narrative museum is one of the best choices for telling outsiders about their stories, especially because some of them do not have collections. Narrative museums endeavour to make ‘the non-visible visible’.

The environment of these museums is an important aspect of their designs; the main common element in the environment of these museums is that their creators aimed to design places which make visitors feel comfortable, and at the same time they strived to design places that can have an effect on visitors' emotions, such as pathos. The main task of these museums' visitors is therefore to interpret the narrative of the space in order to understand the stories that are behind the design of these spaces (Gurian, 2002).

Owing to the importance of visitors' interpretation in narrative museums, their designers have tried to apply any possible interpretive means (technology, reproductions and objects) which can help visitors to understand the stories that are behind the design. However, applying these means inside exhibitions is a difficult task for designers.

In the design of a narrative museum, the narrator or storyteller presents his/her viewpoint. Consequently, some museum experts have criticised these museums by raising the lack of objectivity in the design of these museums. In presenting the history of a people, however, it is impossible to create galleries which are 'objective'. Gurian argued that "narrative museums' curatorial bias can be seen more forthrightly and less apologetically than in any other museums" (2002, p. 81).

The creators of narrative museums have used many techniques to enhance the experience of these museums and to easily deliver their stories to visitors. Live performance, sound and smell are excellent example of these techniques. The use of these techniques, however, is still in the very early stages, and needs more development (Gurian, 2002).

James Ingo Freed, the architect who designed the United States Holocaust Memorial Museum, has described the four possible ways which he considered to design the museum. He discussed these four ways in his article *The United States Holocaust Memorial Museum* (1989) by stating that:

I've thought very hard about other ways. One is to use an existing building, a found building, which is the case with ninety-five percent of the museums like this. If it's a found building, the building itself resonates. Another way is a perfectly neutral building, so neutral that your teeth ache over it. Just nothing. If it could be done. The third way, which is what many people do, is to make a black box, and let the exhibits carry all the weight. The fourth way, which I chose, is to see if you can do something that deals very directly with the emotions. Now, who's going to see this museum? People who don't even know what the Holocaust is. (Freed, 1989, p. 73)

Freed did not give the main reason that made him prefer the fourth possible way as a concept to design the museum. As discussed above, it seems that the hidden reason that forced him to choose the fourth way was the lack of collections.

1.7 Structure of the Thesis

The thesis is composed of three parts representing the inductive process of developing both the research methodology and theoretical framework to carry out a systematic inquiry to answer the research questions. These three parts are:

Part 1: Foundation and Methodology

Part 2: Literature Review and the Case Study

Part 3: Theory and Application

The purpose of **part one** - Foundation and Methodology - is to introduce a background to the thesis, setting the challenges facing Jewish Museums in general and how they have affected the design of Jewish museums and the way of interpreting these museums, and developing the method of study. The first part consists of two chapters: introduction (chapter 1) and research methodology (chapter 2).

- **Chapter 1** looks at the Jewish museum as an architectural phenomenon and describes some of the challenges affecting the design of this architectural phenomenon and the way of communicating their meanings. It aims to present the overall structure of this research, delineating the research questions, aims and objectives.
- **Chapter 2** describes in detail the research approach, and the reasons behind selecting a case study method as a research methodology, as well as the process of selecting the single case study which will be described. Also, the five qualitative methods of collecting relevant data in this research will be presented. More importantly, four general strategies of analysing the complex multiple sources in the adoption of the case study method will be described. As a key part of the data analysis procedure, the nature of the philosophical framework of this research will be discussed, and the philosophical

framework has been arranged in a hierarchical structure consisting of two main layers in order to delve into the two categories of experience that have been identified in the main case study (text-based and body-based communication).

Part two - Literature Review and the Case Study - contains a comprehensive review of the literature surrounding the subject matter under investigation and an overall demonstration of the main case studies. This part consists of three chapters: theoretical literature review (chapter 3), argumentative literature review: interpretive museums (chapter 4), and the JMB as the focus case study (chapter 5).

- **Chapter 3** develops a fundamental theoretical framework for this research, and is divided into two sections. The literature review in this chapter will first discuss Whitehouse's cognitive theory of religious transmission, and secondly will provide a critical survey of the current theory of the most commonly used approaches in interpreting museum architecture.
- **Chapter 4** consists of a literature review of the interpretation of museums. In this chapter, the dispute between museological and architectural scholars about the most appropriate framework for interpreting museum architecture will be discussed, with specific focus on the disputes between the supporters of the most famous schools of semiotics and phenomenology.
- **Chapter 5** demonstrates the main case study (JMB) by providing the background information in relation to six aspects: the history of the first Jewish Museum in Berlin, the new Jewish Museum in Berlin, the relationship between the new museum and Berlin history, the architectural competition for the new extension building, the main concept of the new building and the fourfold theme behind the design.

The purpose of **Part three - Theory and Application** - is to discuss the two identified experiences in the JMB, cognitive and embodied experiences. With a strong connection to one of the two forms of adoption of religious knowledge in Whitehouse's cognitive theory of religious transmission, two specific theories will be used separately to examine one of the two categories of identified experience in the JMB. Each one of these two experiences shows the effect of Jewish culture and history in designing and interpreting the museum

architecture of JMB. This part consists of four sections: the phenomenon of text-architecturization - chapter 6, the phenomenon of performance (chapter 7), overall discussion (chapter 8) and conclusion (chapter 9).

- **Chapter 6** discusses the use of staging of the museum architecture as a mode of textual interpretation in the JMB. This mode of interpretation is the first category of the experiences that have been identified in the museum, and it has been linked to Jewish history and culture. This mode has been named as the phenomenon of text-architecturization. This chapter will first present *PaRDes* (a Kabbalistic approach to interpret religious texts) in order to use it as a specific theoretical framework to analyse the design and the interpretation of the first experience; and then it will discuss the idea of text-based interpretation of the architecture of JMB as a journey, starting outside the building and ending in the upper level of the museum.
- **Chapter 7** discusses the use of staging of the architecture of JMB as a mode of body-based communication. This mode of communication is the second category of the experiences that have been identified in the museum, and it has been linked to Jewish history and culture. This mode has been named as the phenomenon of performance. This chapter will first consider epic theatre, a theatrical stream that aims to change the social attitude regarding social circumstances through representing historical events in a non-realistic way, in order to use it as specific theoretical framework to analyse the design and the interpretation of the second experience. Then, it will discuss the idea of body-based communication with some of the architectural spaces and elements in JMB, which will be examined as nodes of three different ideas: performing in dead-end spaces; disrupting the performing; and performing in the labyrinth.
- **Chapter 8** discusses and compares the two identified experiences in the JMB. The discussion in this chapter will be divided into three parts. It will first discuss the mode of textual interpretation in the Jewish Museum Berlin. In this part, two main issues will be examined. The first issue is the impact of spreading curatorial commentaries in exhibitions whilst the second one is the phenomenon of text-architecturization. It will be followed by a discussion of the mode of body-based interpretation in the Jewish Museum Berlin. This section will consider three different performative ideas in the JMB. The last part in this

chapter will compare the two identified experiences in the JMB based on Whitehouse's theory of transmission of religious knowledge.

- **Chapter 9** draws an overall conclusion for the idea of the research. The contribution of the research to the recent practices in both the field of architecture and museums are also addressed in this chapter. Suggestions for possible research in the area are made in the last part of this chapter.

2 Chapter Two - Research Methodology

2.1 Introduction

The research methods are “plans and procedures that cover the steps from broad assumptions to the detailed methods of data collection, analysis and interpretation.” Creswell (2009, p. 3)

The aim of this chapter is to present the methodology and analysis adopted in this research project; and it has been divided into five main sections. It will begin by rationalising the theoretical assumption that derived the research methodology utilized in this research. The second section will describe the rational model of selecting the most appropriate case study for detailed consideration. This model will result in identifying the JMB as the focus case study of this research out of more than two hundred Jewish museums around the world. It will then go on to explain the various methods that have been used to collect data in this research. Then, the four general strategies of analysing the complex multiple sources in the adoption of the case method will be described. The last section will explain the limitation of the research methodology.

2.2 The Research Methodology: Case Study Rationale

Although the research study’s main question addresses the effect of Jewish history and culture on designing the museum architecture of the JMB, *architectural historical research* has not been chosen as a research method for this study, because this study examines the effect in a contemporary sense. This research explores the effect of the Jewish history and culture in designing the JMB as a modern project opened to the public in 2001 for the purpose of understanding and illuminating the relationship between that Jewish history and the design of JMB. More importantly, this research will study in a comprehensive manner the real picture of the visitors’ interpretation of the museum architecture, whose design is claimed to have been inspired by Jewish history and culture. The word ‘history’ in this research is not discussing the dead past, instead it discusses reviving Jewish history and

culture as an inspired tool to design the museum architecture of the JMB in a way to create distinctive approaches to communicate different meanings.

The broad purpose of this research is to explore the Jewish history and culture as an inspiration to conceptualise the architecture of the JMB in order to connect the visitors intellectually and emotionally with spatially enhanced and evocative spaces. The research questions and objectivities have a ‘how’ and ‘why’ nature which seek to explore the complexity of this phenomenon. According to Yin (2009), “[t]he more that [the research question] ... seeks to explain some present circumstance [of how and why nature] ..., the more that *the case study method* will be relevant” (2009, p. 4). Furthermore, Yin (2009) has showed one of the main differences between *historical* and *case study* methods:

The distinctive contribution of the historical method is in dealing with the “dead” past- that is, when no relevant persons are alive to report, even retrospectively, what occurred and when an investigator must rely on primary documents, secondary documents, and cultural and physical artefacts as the main sources of evidence. (2009, p. 7)

Although *historical* and *case study* methods depend on many of the same sources of evidence, two major sources of evidence can be added to the case study method and are rarely used in *historical methods*, and these two major sources are a direct observation of the phenomena and interviewing of participants in the phenomena’s events. It is important to state that these two major sources have been used in this research, as will be discussed in section 0.

Yin (2009) divides the definition of *the case study method* into two parts. In the first part, the scope of this method has been defined; *the case study method* is “an empirical inquiry that investigates a contemporary phenomenon in depth and within its real-life context, especially when the boundaries between phenomenon and context are not clearly evident” (Yin, 2009, p. 18). The second part of the definition explains the technical features (including the process of collecting and analysing the data) of *the case study* in order to show that a case study is a comprehensive research method (comprising an all-encompassing method). Yin (2009) stated in the second part of the definition that:

The case study inquiry copes with the technical situation in which there will be many more variables of interest than data points, and as one result relies on multiple sources of evidence, with data

needing to converge in a triangulating fashion, and as another result benefits from the prior development of theoretical proposition to guide data collection and analysis. (Yin, 2009, p. 18)

Groat (2002) identifies five main characteristics of *the case study*: (1) it can rely on either one-single case study or multiple case study investigated within their real-life contexts; (2) it has the ability to show the relationship between different factors; (3) the theory development is a very important part in the process of designing the research; (4) it depends on multiple empirical evidence; (5) it has the power to be generalized as a theory.

Stake (1995) has classified the cases of *case study method* into three types: intrinsic, instrumental and collective. In terms of an intrinsic case, the main aim of conducting such a study is the researcher's interest in exploring a specific phenomenon, because they want to know more about the nature of this phenomenon; therefore, the result of such a case will define the main features of this phenomenon. The instrumental case involves studying a single case as an example of a phenomenon or putting it in order to gain a full understanding of the phenomenon or the setting. In the collective case the researcher uses more than one case to illustrate a particular issue. It is important to state that one of the unique features of *the case study* as a research method (either one or multiple cases) is that it does not simplify the investigation and just focuses on studying a phenomenon in the field; instead it focuses on studying the effect of multiple factors intersecting with the phenomenon (Groat, 2002). This, in turn, helps the researcher to show the link between the different factors and the phenomenon.

The development of theory in *the case study* is an extremely important phase in the process of designing the research, and it needs to be finished by the researcher before they proceed with collecting the data of their work. The idea of starting the research by developing theory before collecting empirical evidence is one of the features that makes the case study different from 'grounded theory' and 'ethnography'. Yin (2009) stresses the importance of theory in the research by stating that "theory development as part of the [research] design is essential, whether the ensuing case study's purpose is to develop or to test theory" (2009, p. 35). The objective of the theory development is to provide "a sufficient blueprint for the study" (2009, p. 36); this, in turn, will play a key role in determining the nature of the data being collected and the methods of analysing this data. It is essential to state that the

‘theoretical position’ is one of the main strategies for analysing the data in *the case study* method, as has been stated by Yin (2009), and as will be discussed in section 2.5.

According to Creswell (Creswell, 2009), the multiple sources of evidence that are comprised in *the case study method* are not limited to qualitative evidence; instead a combination of quantitative and qualitative evidence can be used in case study research. On top of these two strategies of collecting data, Groat (2002) added the possibility of using historical strategy in a case study method as a way to create combined strategies.

Although there are many scholars who criticised *the case study* ability in creating a basis for scientific generalisation, Yin (2009) claimed that *the case study method* has the same capacity of a single ‘experiment’ to generalise the theory. He stated that “*case studies*, like experiments, are generalizable to theoretical propositions and not to populations or universes” (p. 15). However, Groat (2002) stated that focusing on the case study ability in generating theory might hide the fundamental value of what the different types of case study, including intrinsic, instrumental and collective (Stake, 1995), can offer to the researcher, since each one of these three has a unique purpose, as has been mentioned above.

2.3 The Selection of the Single Case Study

There are more than two hundred Jewish museums and galleries around the world; the vast majority of them has private and independent entities focusing on Jewish history and culture, while a few are a part of museums that do not focus specifically on Jewish history and instead they have various interests. The common aim of these museums is to preserve and present materials which are related to Jewish culture.

As a method to narrow down the focus of this thesis, all the Jewish museums that only show the works of Jewish visual art and do not present historical events have been excluded because the architecture of these museums, like many art museums, are based on applying the idea of a *white cube* to create neutral spaces (see O’doherly (1999) for more information about the idea of white cube). The main reasons that led the architects of these museums to apply this idea is to isolate the works of art from the outside world; however, the museum architecture of Jewish art museums as a medium is limited in communicating meanings,

because their architecture are neutral; thus, these type of museums cannot be used to identify the relationship between Jewish history and culture and the design of these museums.

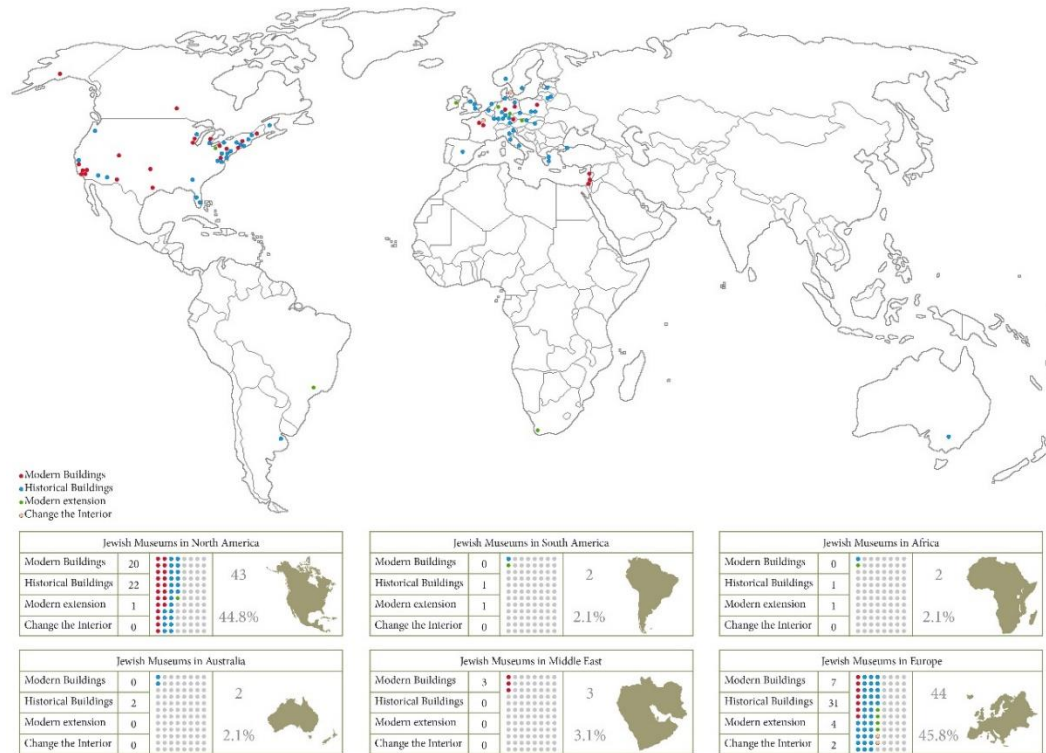


Figure 2-1 The locations of the ninety six Jewish historical museums. Source: the author.

As a result of applying the first strategy of excluding all the Jewish art museums, the number of case studies has gone down from more than two hundred museums to ninety-six (Figure 2-1). The research will mainly consider history museums that fundamentally present Jewish historical events, because the architecture of these museums and their exhibition designs are usually able to communicate meanings. After that, the architecture of these 96 museums and their exhibition designs has been compared in terms of their architectural content and appearance, aiming to find a logical way to narrow down the number of selected case studies at this stage (see Appendix 1).

This compression has shown that not all of the Jewish history museums are capable of being used as case studies for this research because not all of them have a relationship between the Jewish culture and the design of these museums, which is the aim of this research. Therefore, the second strategy to narrow down the number is connected directly

to the main question of this research in order to define the most suitable case studies. The purpose of this study is to find the relationship between the history of Judaism and the design of Jewish museums, and this relationship can only be found in modern museums; these museums can be one of two types of building. The first type is buildings which were specifically built to be museums; the other covers any historical buildings that have been reused as a museum and where the owners of these museums have built modern extensions to the historical buildings. Consequently, 64 historical buildings were excluded from this study. Thus, the number of museums that are capable of being used as case studies is 32 (Figure 2-1).

Evidently, a critical technique needs to be applied to narrow down the number of possible case studies. Deep analysis was therefore carried out of the 32 museums in order to select the best twenty museums in terms of their architecture and their exhibition designs. The reason for excluding each one of the twelve Jewish museums at this stage can be one or more of the following three: (1) the museum is for children; (2) the architecture of the museum is very simple; and (3) the museum is a part of a multi-use building, with an exterior that does not suggest that the building is a museum.

After this, these twenty museums were classified in terms of four important aspects: currency, size, cost and architectural genres (see Figure 2-3, Figure 2-4, Figure 2-5 and Figure 2-6). As a result, the number of suitable museums was narrowed down to six museums, three in Europe and three in North America for two main reasons. The first reason is related to author accessibility. All the Jewish museums that are located in Israel have been excluded for a political reason, because the Author is banned by his government (Saudi Arabia) to travel to Israel, and this applies to all Saudi citizens. Therefore, two museums out of the twenty have been excluded from the study because they are located in Israel; these two museums are Yad Vashem and the Israel Museum. In terms of the second reason, since the other eighteen museums spread over just two continents (ten in North America and eight in Europe), a comparison between the most three interesting museums on each continent could help with discovering the main architectural features of each group. The six selected museums are (1) United States Holocaust Memorial Museum, (2) Los Angeles Museum of the Holocaust, (3) Illinois Holocaust Museum, (4) JMB, (5)

Museum of the History of Polish Jews, and (6) Jewish museum Vienna; the first three are located in North America, whereas the last three are located in Europe.

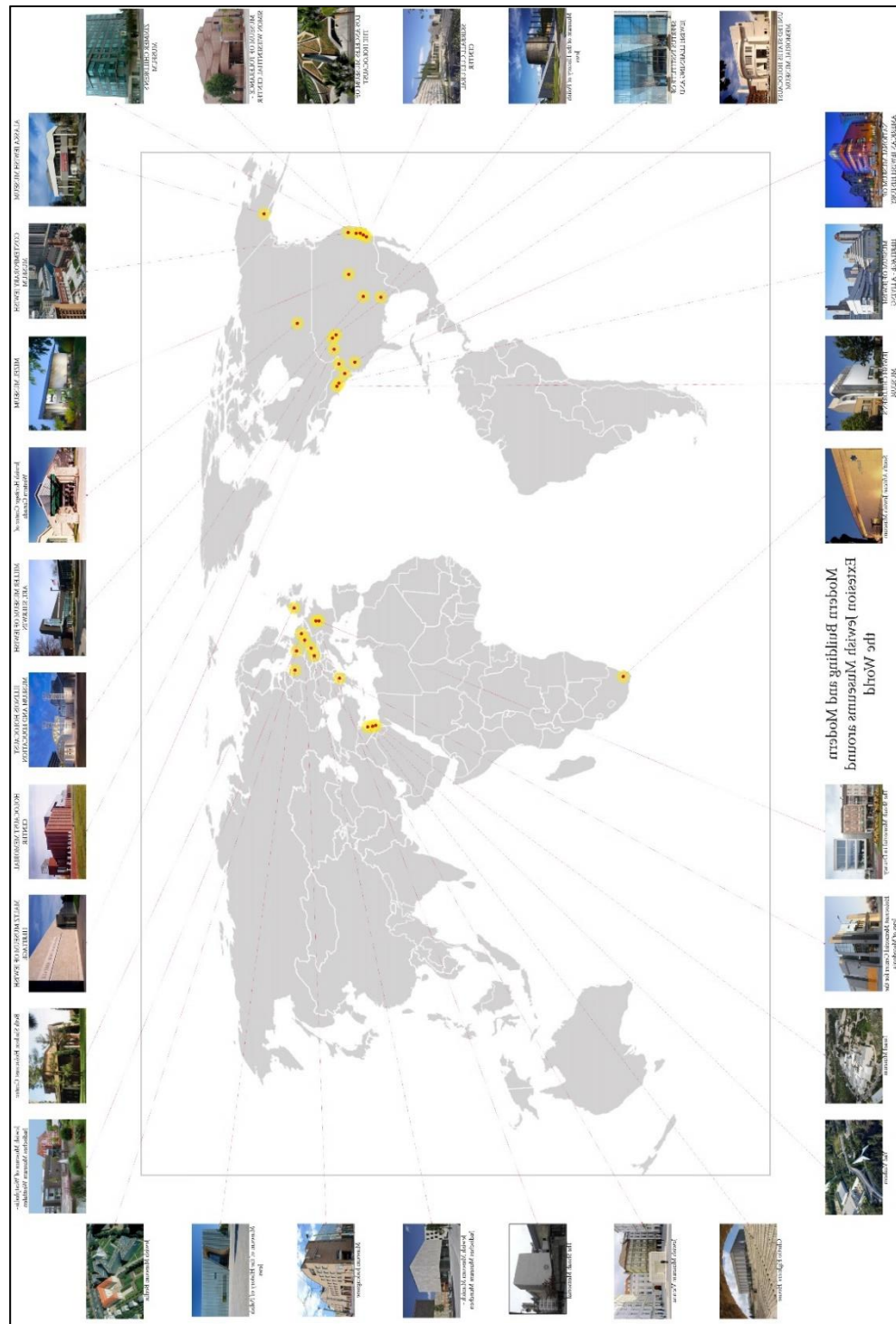


Figure 2-2 The location of the thirty two modern building or modern extension Jewish museum. Source: the author.

A set of twelve factors has been identified to compare and contrast the architectural genres of these six museums. These factors are (1) architectural style; (2) circulation; (3) entrance; (4) contemplation spaces; (5) the relationship with their surroundings; (6) landscape; (7) the use of religious symbolism; (8) immaterial architecture – light and sound; (9) experience; (10) literal symbolic; (11) direct symbolic; (12) and indirect symbolic (see Appendix 2).

This compression concluded in selecting the three Jewish museums in Europe, since the Jewish people have a long history in Europe, and this long history, in turn, has impacted the design of these Jewish museums compared with those in North America, where the Jewish people have not had such a long history. The second reason of selecting the three in Europe is that they focus on nearly the entire perspective of Jewish history in a specific context; whereas the Jewish museums in North America focus on the Holocaust. Therefore, the case studies have been narrowed down to three: [1] the Jewish Museum in Berlin, Germany [2] the Museum of the History of Polish Jews in Warsaw, Poland and, [3] the Jewish Museum in Vienna, Austria.

Based on a deep examination of the three case studies in Europe, and in order to conduct a deep study about the relationship between Jewish history and culture and the design of their museum, it has been decided to select just the JMB as the one single case study for this research. There are two main reasons for excluding the Museum of the History of Polish Jews in Warsaw. The first reason is that there is a limited relationship between the architecture of the museum and the design galleries, because these galleries have been created inside a black box space to prevent any effect of the exterior environment. Therefore, the effect of the museum architecture in creating the interior space of the galleries is restricted. The second reason is the exterior of the building is simple (it is just a cube) while the main reason for excluding the Jewish Museum in Vienna is that it is quite small, when it is compared with the other two museums.

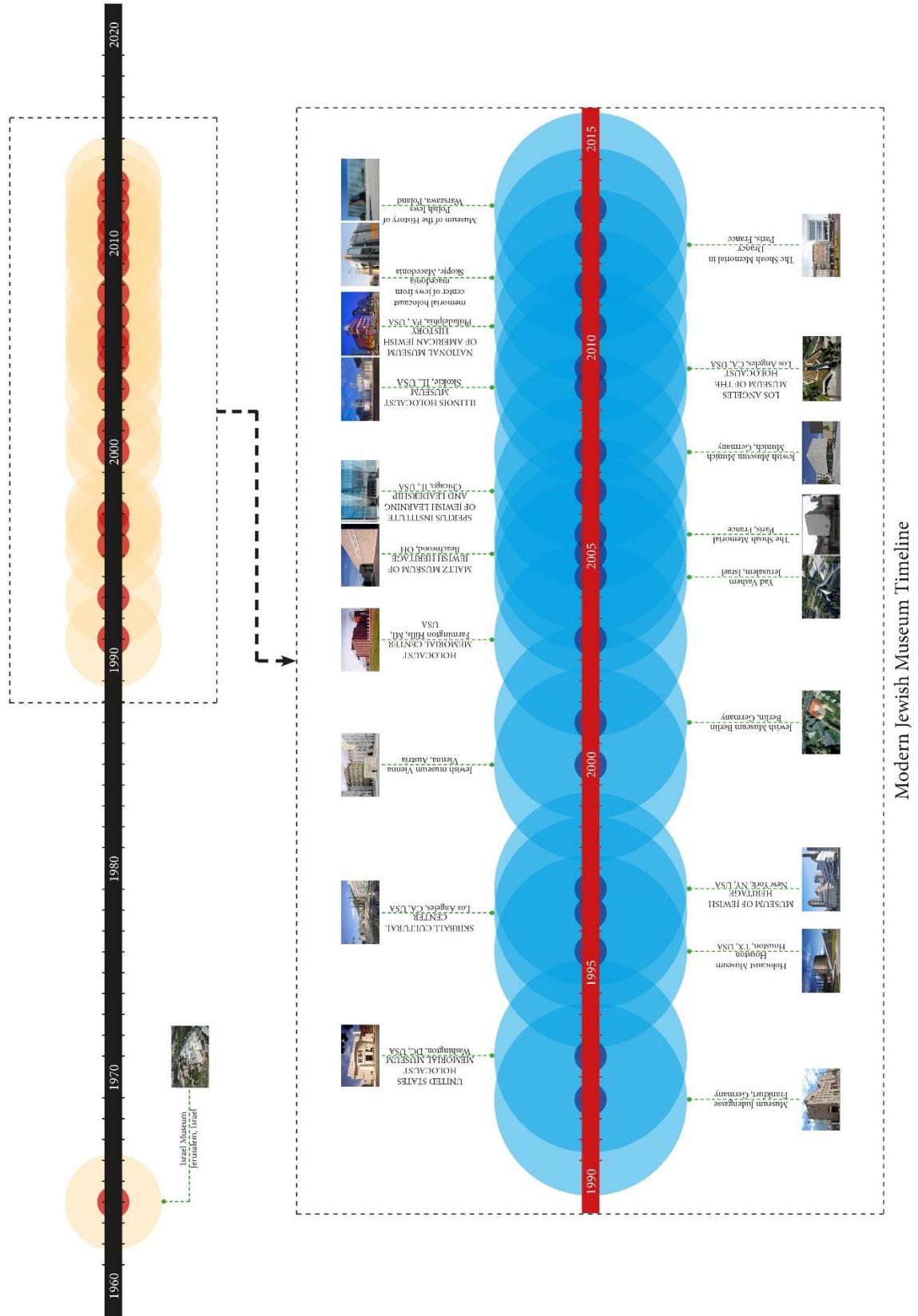


Figure 2-3 The time line of the twenty selected Jewish museums. Source: the author.



Figure 2-4 Classification based on the cost to the twenty selected Jewish museums. Source: the author.

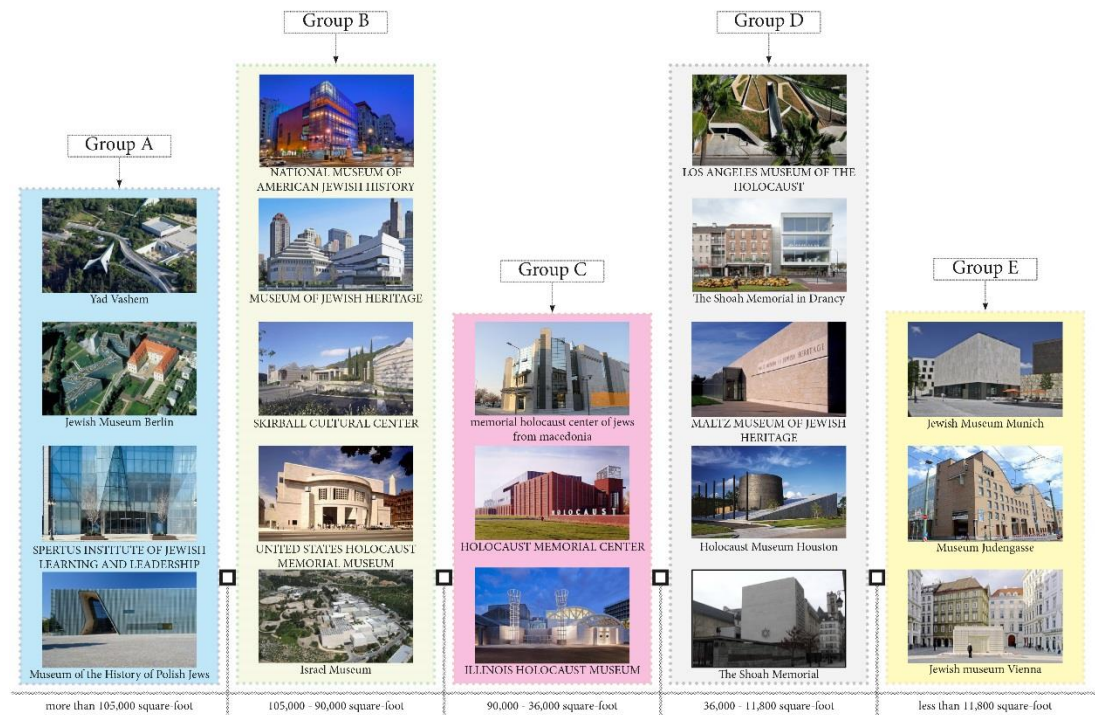


Figure 2-5 Classification based on the size to the twenty selected Jewish museums. Source: the author.



Figure 2-6 Classification based on the architectural genre of the twenty selected Jewish museums. When it is moved to the left, it means it is more evocative of Jewish culture. Source: the author.

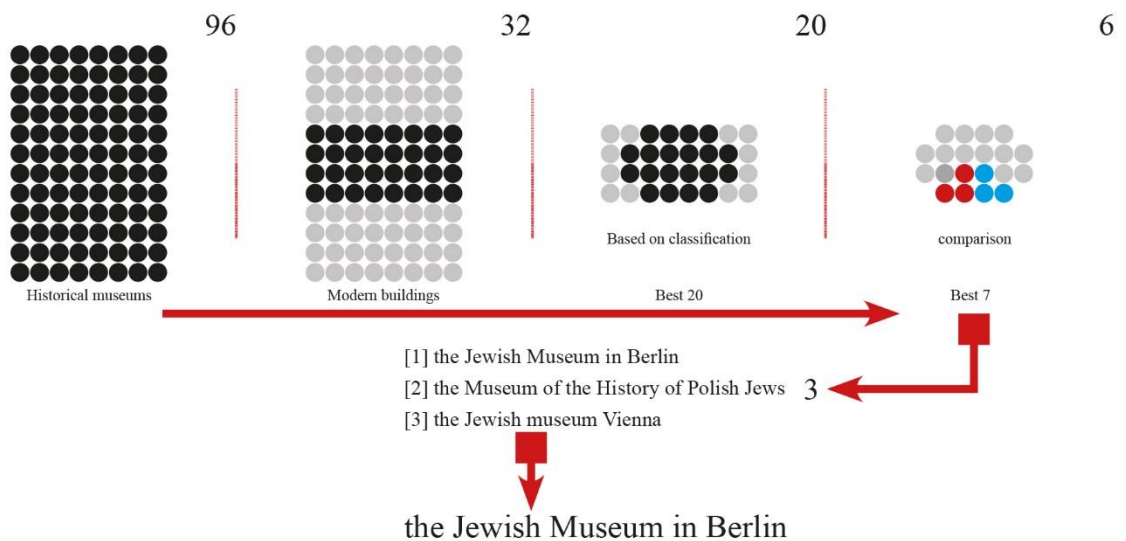


Figure 2-7 The process of selecting the single case study for this research. Source: the author.

2.4 Methods for Data Gathering

This research has used five qualitative research methods in order to address the research aims and objectives. These methods are: interview, direct observation, collating visitors' opinions about the museum from different platforms, literature review and spatial analysis.

2.4.1 Interview

Interview is one of the most frequently used qualitative research methods. The primary aim of conducting interviews is to explore the opinions, beliefs and experiences of individuals about specific issues. Interview as a qualitative research method can provide a deep understanding of social phenomena. Also, the interview is an appropriate method for studying phenomena of which little is already known, especially in a case like the architecture of the JMB that has been analysed by many researchers using theoretical frameworks and focusing on the architect's opinion about the design without any empirical evidence, whereas the focus of this study is to understand how the visitors themselves interpret the museum architecture. It is important to state that there are three kinds of research interview: [1] structured [2] semi-structured and [3] unstructured. For this current study, the second type will be used because it is the most appropriate. "Semi-structured interviews consist of several key questions that help to define the areas to be explored, but also allow the interviewer or interviewee to diverge in order to pursue an idea or response in more detail" (Gill et al., 2008, p. 291). In this study, the interviewees are classified into two different groups:

- The first group is the public visitors, and the main purpose of interviewing this group of people is to find out their opinions about the museum architecture and its contents. The semi-structured interviews with the public visitors were carried out using four prepared major themes that guided the conversation. At the beginning, participants were asked about their main motivation for visiting the museum and the most memorable part of their visit. In the second section, individuals were asked to describe their experience inside the museum. The third part of the interview aimed to understand the visitors' opinions about the museum architecture. In the last part, the interviewees were asked about their opinion about the exhibitions. During the interviews, the participants were asked key questions; and based on their answers, they were asked different questions in order to explore some

ideas in more detail. It is important to state that there were two main aspects that were considered before conducting the interview with the visitor. First, the participant must have finished their tour inside the museum, because the interview was mainly about their interpretation of the museum. Second, the participant must be over eighteen years old, because interviews could not be conducted with children. In this research, thirty six visitors were interviewed. Twenty of the interviewees were men and sixteen were women. It is essential to state that the vast majority of the interviews with the visiting public were audio-recorded, and most of these records were transcribed. Also, these interviews have been analysed using NVivo qualitative analysis software.

- The second group consisted of two of the museum staff members, and the aim of conducting the interview with them was to discover their opinion about how the visitors interpret and explore the museum, and how the museum architecture affects their experiences both positively and negatively. It is important to state that the plan was to conduct interviews with three of the museum staff members, but one of them could not do it due to illness. The first person was Christiane Birkert (Head of Visitor Research and Evaluation) and the interview was conducted on 25th April 2017. The second person was Dr. Johannes Rinke (Head of Visitor Services) and the interview was conducted on 3rd May 2017. The semi-structured interviews with the staff members were covered the same four main themes as with the visitors. These two interviews with the visitor museum staff member were audio-recorded and transcribed. In addition, both of them were analysed using NVivo qualitative analysis software.

2.4.2 Direct Observation

Direct observation as a source of evidence is one of the most commonly used in doing a case study as a research method because the case study takes “place in the natural setting of the “case,”” (Yin, 2009, p. 109); this, in turn, gives the researcher a good opportunity for direct observation. It can help the researcher, general speaking, in observing some of the available behaviour and environmental conditions that are relevant to the study. The direct observations ranged from formal to casual approaches of collecting data about different activities in the case study.

Observation is a fundamental method of discovering detailed information about architectural spaces through people's senses. There are many aspects related to observation which must be considered. First, the observers need to decide and plan what they want to observe, because the act of observation must be systematic. Second, the observers must record all the important information in order to analyse it. It is essential to note that observation is a tool for gathering information which can be easily applied to study the visitors to museums and the architecture of these museums.

Direct observation was conducted in this study in both a formal and a casual way throughout a variety of onsite field research - (between 27 and 30 July, 2015), (between 15 and 22 November, 2016) and (between 20 April and 4 May, 2017). The two ways of gathering the data were:

- Formal approach: The movement of thirty different visitors was tracked in three different spaces in the museum (the Garden of Exile, the Holocaust Tower, and the Memory Void); the reason for selecting these three spaces will be discussed in chapter seven. It is important to state that observing the museums' visitors in general and timing and tracking their movements specifically has a long history, as it goes back to the early part of the 20th century, and has become more systematic in the past 30 years. "[T]iming and tracking refers to following and recording visitor behavior in an area larger than a single exhibit component, usually an exhibition" (Yalowitz and Bronnenkant, 2009, p. 49). The main aim of tracking the visitors is to study the visitors' behaviour and to measure the amount of time that they spend in specific spaces. In *Timing and Tracking: Unlocking Visitor Behavior* (2009), Yalowitz and Bronnenkant classified the variables that can be collected in a timing and tracking study into four classifications: (1) stopping behaviours; (2) other behaviours; (3) observable demographic variables; and (4) situational variables. Each one of these four classifications includes an exhaustive list of common variables, and most of them have been recorded in this research. However, and most importantly, tracking the visitors in this research is looking more into what visitors do (the body responses to the space) more than looking at where visitors go, because this can measure the effect of the museum architecture on the visitors. This became the main reason that led the research of

this study to use a paper-and-pencil timing and tracking method, because it is easy for the researcher to record the visitors' body responses in the spaces.

- Unstructured observation: during the days of onsite field research the author has spent time observing and writing notes about the behaviour of the visitor in all of the museum's exhibitions. The main purpose of this method is to explore the effect of spatial conditions on the behaviour of the visitor and how they perceive the architecture of the museum and its contents.

2.4.3 Collating the Visitors' Opinions about the Museum from Different Platforms

The main reason for selecting this method is related to the delay in getting consent to conduct the interviews, which took about five months of waiting (I requested permission to conduct the research on 9th November 2016 and they allowed me on 20th April 2017). Also, when I asked them to allow me to distribute questionnaires in the museum, they refused and they just allowed me to conduct interviews with the visitors during one week (from 28th March to 4th April 2017). Owing to the limitations during these waiting times, I started looking for alternative resources to discover the visitors' opinions about the museum. These alternative resources are responses from the museum's visitors in three different platforms: in (1) Google Review, (2) the visitors' book in the museum and (3) the visitors' comments on sticky notes posted in a gallery at the end of the permanent exhibition. In terms of the visitors' responses about the museum in Google Review, it is important to note that Google Review is a free website service adopting 'user-generated content'. It allows people who have a Google account to publicly post a review describing and ranking (out of five stars) their experience of a business and visit to a landmark. Museums in general are one of the main landmarks that have been reviewed by many people in Google Review. It is important to note that to publish a single review in Google the users must score the place first (compulsory) then they can write a review about the space (optional). To analyse the visitors' reviews about the museum, all the visitors' reviews in Google Review from May 2006 until November 2016 were collected (1225 reviews). All these collected reviews were analysed using NVivo qualitative analysis software.

2.4.4 Literature Review

There are two main reasons to use the literature review as a method for data gathering:

- Building up a conceptual framework to understand the effect of Jewish history and culture as an inspiration to conceptualise the architecture of JMB in order to connect the visitors intellectually and/ or emotionally with spatially enhanced and evocative spaces. This conceptual framework has been arranged in a hierarchical structure. This hierarchical structure consists of two main layers: general theoretical framework and specific framework. The general one is built upon a literature review of ‘a cognitive theory of religious transmission’ in Whitehouse’s theory whilst the specific one is built upon a literature review of two specific theoretical frameworks that has a link to the Jewish culture: The Kabbalah’s interpretation method (to examine the text-based communication) and epic theatre (to examine the body-based communication). This conceptual framework will be discussed in section 2.5.
- Providing background information about the case study context covering many historical aspects regarding the Jewish museum as an institution in Berlin and the architecture of its new extension building.

2.4.5 Spatial Analysis

Based on the author’s background in architecture, spatial analysis has been applied in the research during the process of analysing the focus case study. This method mainly sought to describe the actual spatial environment of some parts of the building as well as the spatial analysis being used to analyse the architectural presentation of the building and its concept.

2.5 Methods for Analysis

Without doubt, the data analysis is considered the most challenging stage in the adoption of a case study method because of the complex multiple sources of evidence and enormous data collected. As a way to make the process of analysing the data less severe, Yin (2009) suggests four general strategies to analysing the data when conducting a case study method. These four strategies are (2009, p. 130-133):

- (1) Relying on the theoretical propositions

- (2) Developing a case study description
- (3) Using both qualitative and quantitative data
- (4) Examining rival explanations

These four strategies have been applied as a main guide to analyse the data in this research.

In terms of ‘relying on the theoretical propositions’, Robert Mugerauer, Professor at the College of Built Environments (University of Washington), suggested that ‘A combination approach consisting of physical conditions and philosophical positions need to be made in order to interpret the environments’ (Mugerauer, 1995); specifically in interpreting museum architecture because museums “are a fertile theoretical field” and most of them make determined efforts to deal with “a range of theoretical perspectives which cross many of the established divisions of the disciplines “making them ‘a kind of theoretical thoroughfare’” (Macdonald, 1996b, p. 6). Based on these statements, and in order to delve into the two categories of experience that have been identified in the main case study (text-based and body-based communication), the theoretical framework for analysing these two types of experience has been arranged in a hierarchical structure. This hierarchical structure consists of two main layers: general theoretical framework and specific framework (see Figure 2-8).

In terms of the former one, the general theoretical framework is based on ‘a cognitive theory of religious transmission’ in Whitehouse’s theory. The primary aim of this theory is to develop a conceptual framework of ‘divergent modes of meaningful transmission experiences’ in the JMB. In Whitehouse’s theory, there are two categories of transmitting religious knowledge: the doctrinal mode (semantical-based) and the imagistic mode (experienced-based). These two forms of adoption of religious beliefs are somehow compliant with the two experiences that have been identified in the JMB: cognitive and embodied experiences. Therefore, the nature of each form of transmission of religious knowledge can be used to interpret its compatible experience in the JMB. Based on five psychological features and six sociopolitical features of the two modes of transmission of religious traditions in Whitehouse’s theory, the two identified experiences in the JMB, cognitive and embodied experiences, will be compared. The main purpose of this comparison is to indicate the impact of each type of experience on the visitor.

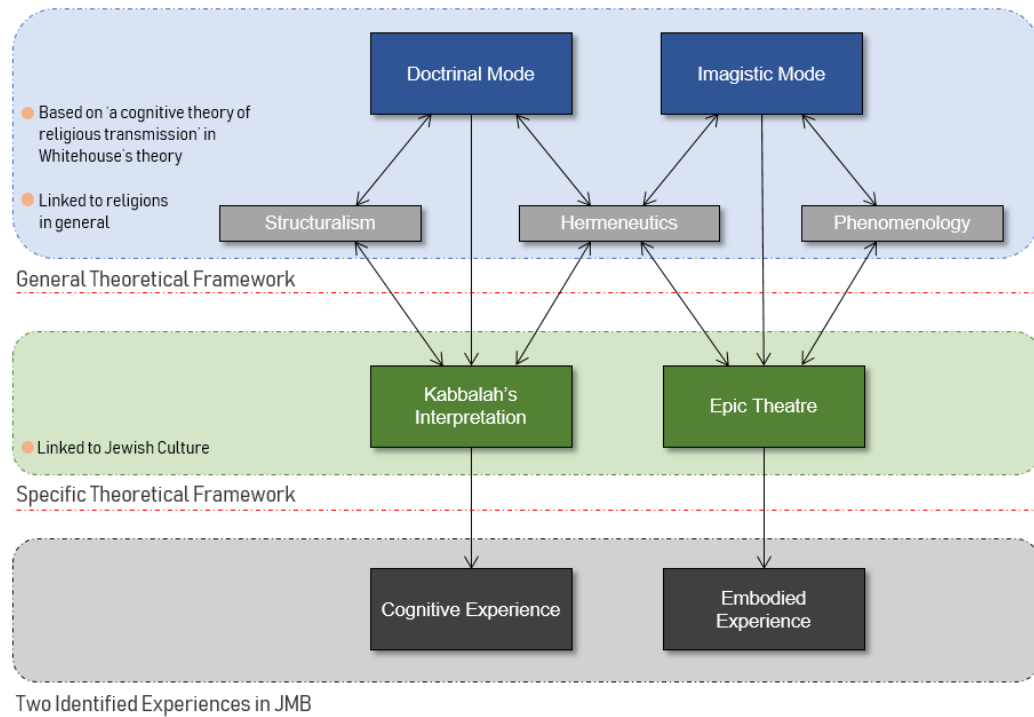


Figure 2-8 The theoretical propositions of this research consist of two main layers: general theoretical framework and specific framework to analyse the two identified experiences (cognitive and embodied) in JMB. Source: the author.

Coupled with this general theoretical framework, and as a tool to fully understand how these two modes of transmitting religious knowledge can be used as a theoretical framework to examine the two identified experiences, three approaches to exploring architectural issues (structuralism, hermeneutics, and phenomenology) will be used as a bridge to understand how these two modes can be applied to interpret the two identified experiences. The main benefits of using these three approaches as a bridge is because most of the techniques that are used in the transmission of religious knowledge in each mode are connected somehow to one of these approaches. As an illustration, the nature of the doctrinal mode has both structuralist and hermeneutic dimensions, whereas the nature of the imagistic mode has both hermeneutic and phenomenological dimensions, as will be illustrated in chapter three. Also, it is essential to state that some of these approaches to exploring architectural issues are a large umbrella of the specific theory so it can be seen as an introduction to them.

The second layer in the hierarchical structure of the theoretical framework, the specific one, consists of two specific theoretical frameworks that have a link to the Jewish culture; and at the same time, each one of them has a direct link to one of the two modes of transmitting religious knowledge in Whitehouse's theory. Each one of these two specific theoretical frameworks is used to examine one of the two categories of experience in the case study (text-based and body-based communication). The Kabbalah's interpretation method has been applied to analyse the text-based communication in the museum architecture, whereas epic theatre has been used to examine the body-based communication.

The main motivation of selecting some of the Kabbalah's methods of interpretation as methods to examine the text-based communication is that there are some well-known architectural critics who indicated that Libeskind was inspired by Kabbalistic tradition. Charles Jencks, a cultural theorist and architectural historian, stated that "[Libeskind's] early avant-garde projects influenced architects in the 1980s, their mixture of cabalistic and innovative spatial qualities took ambiguity and contradiction as far as they could go" (2002, p.245). Jonathan Glancey, an architectural critic, stated that the drawings made by Libeskind before he built any building such as the 'Micromegas' and 'Chamberworks' are the nucleus of his buildings (see Figure 2-9), particularly the JMB and the Imperial War Museum in Manchester. These drawings are evidence of Libeskind's approach to architecture, and the distinctive aspect of this approach is the difficulty of interpreting its content since they point to something that 'cannot be spoken about'. Glancey believes that there is a strong connection between Libeskind's approach to architecture and Jewish mysticism because it gives formative principles to Libeskind's design.

Libeskind's route was his matrix of drawings, models and writing. He reminds us, in an age of so much slick, fashion-driven, soulless architecture, that one of architecture's goals has been to connect heaven to earth, humankind to God. This is a very Biblical view of architecture, but then Libeskind is steeped in the Bible. (Glancey, 2001, para. 9)

On the other side, the main motivation of selecting some of the epic theatre's principles as methods to examine the body-based communication was influenced in his design of the JMB by Walter Benjamin (1892-1940), a German Jewish philosopher, specifically his book *Einbahnstraße* (one way street - 1928). It is important to state that Benjamin was influenced

by epic theatre and he published many texts about it. More importantly, Stanley Mitchell stated that:

Intellectually, the relationship [between Benjamin and Bertolt Brecht, the founder of epic theatre] is certainly more complex and two-sided. There are, for instance, strong indications that the ideas and implications of 'epic theatre' were common to them both before they met. Mitchell cited in (Benjamin, 2003, p. viii)

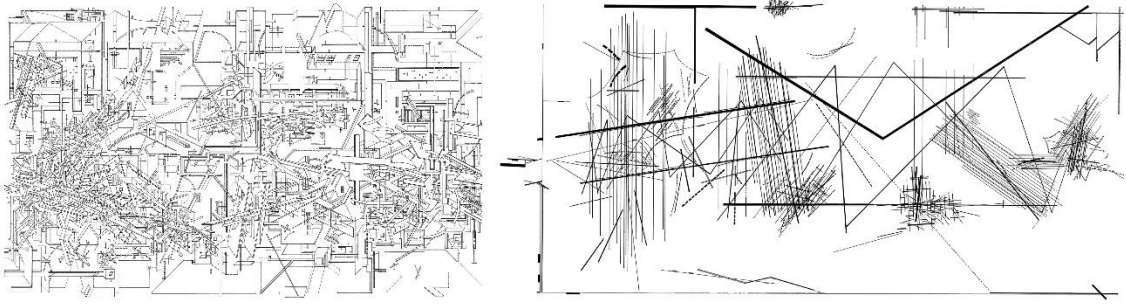


Figure 2-9 Two suites of drawings which reflected Libeskind's thinking about the nature of architectural space: Micromegas (and one of them on the left) and Chamberworks (and one of them on the right).
Source <https://libeskind.com/>

With regards to the second strategy, developing a case study description, if the effect of Jewish history and culture as an inspiration to conceptualise the architecture of Jewish museums in order to connect the visitors intellectually and/ or emotionally with spatially enhanced and evocative spaces can be recognized through using the previous theoretical propositions, how can the detailed examination explain this effect? How do these tools of inspiration in conceptualising the museum architecture connect the visitors intellectually and/ or emotionally with spatially enhanced and evocative spaces? Based on both recognising the above theoretical propositions and the initial review of literature about the case study, the descriptive framework for organising the focus case study has been developed through establishing a compositional structure, meaning its sequence will lead to understanding how Jewish culture and history can become an inspiration to conceptualise the JMB that connects their visitors intellectually and/ or emotionally with spatially enhanced and evocative design (see Figure 2-10).

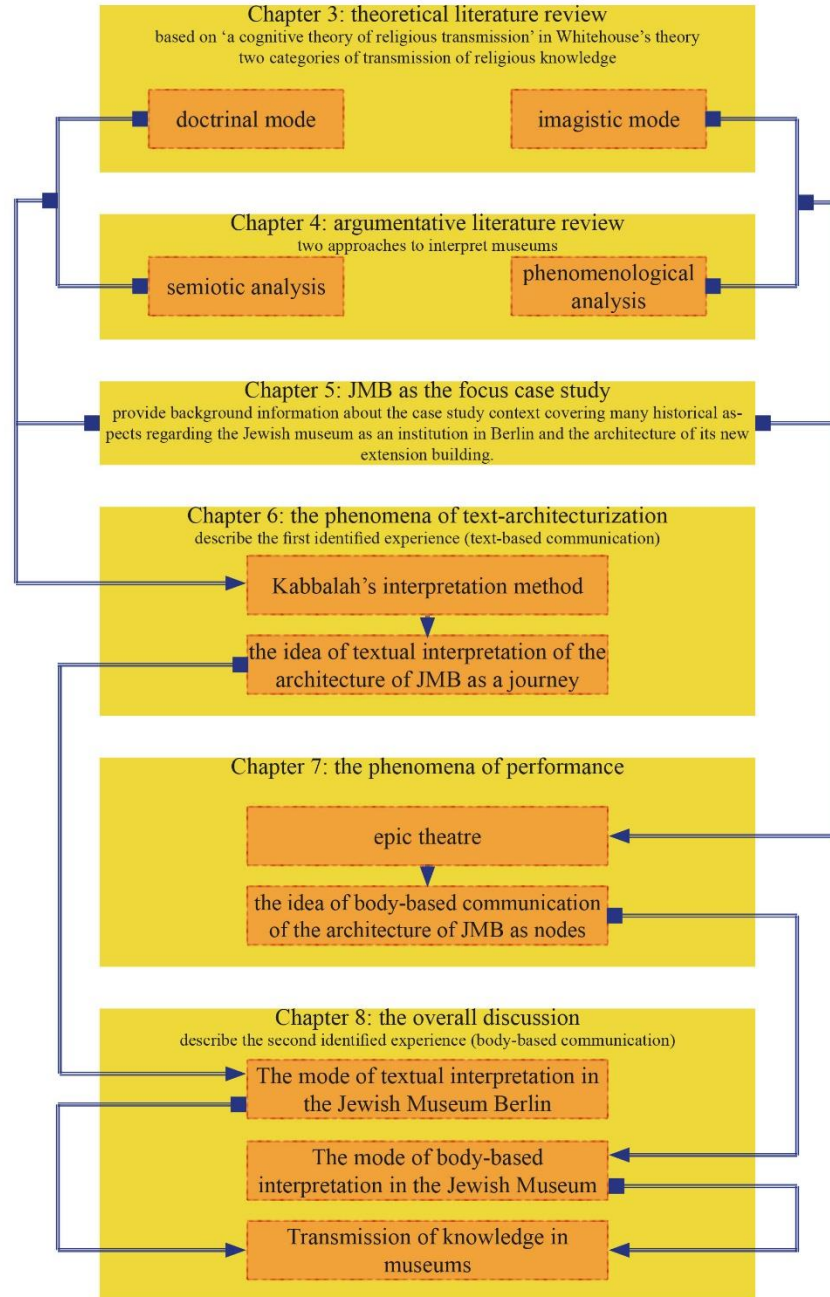


Figure 2-10 The compositional structure of the thesis. Source: the author

The third strategy to analyse data when conducting a case study is the use of both qualitative and quantitative data. This research has adopted five qualitative methods for data gathering in order to address the research questions. These qualitative research methods are: interview, direct observation, collating the visitors' opinions about the museum from different platforms, literature review and spatial analysis. The theoretical

proposition of this research is considered to be a qualitative method because it has the ability to analyse and interpret many aspects related to the key research questions. With regards to the quantitative research method, although the research does not use any statistical methods of analysing data, it does frequently determine the total number of repetitive phenomena that are related to the research aims and objectives.

Fourth, in terms of ‘examining rival explanations’, it is essential to state that this principle has a strong connection to the three above strategies and it constantly works with them because each one of these three might include, produce and/ or cover rival issues. The main aim of this strategy is to “define and test rival explanations” in order to justify the findings (Yin, 2009, p. 133). In this research project, many rivals have been either addressed or rejected in the three above strategies for two main reasons related to the key research questions. The first one is to explain how the Jewish history affects the design of JMB by producing two types of experiences. The second one is to examine how the visitors interpret each one of the two identified experiences.

2.6 The Limitation of the Research Methodology:

It should be acknowledged that the research has a number of limitations; however, every possible effort has been made to succeed in dealing with these limitations in order to reduce their impact on the final outcome of the entire research. Below, the methodological limitations of this research will be presented.

The first limitation was the difficulty of collecting quantitative data for the study. Although it is highly recommended by many methodological specialists to use both qualitative and quantitative data when conducting a case study method, the researcher of this study faced many restrictions that prevented him from collecting quantitative data. First, when the author asked the museum administrator their permission to distribute questionnaires, they started questioning the benefits of the questionnaires with an attempt to indirectly suggest the futility of its outcomes. Although the benefits of the questionnaires were explained to the museum administrator, they did not allow the researcher to distribute the questionnaires for three main reasons:

- distributing questionnaires usually disturbs the visitors

- distributing questionnaires needs a lot of time
- there are many scholars who strive to conduct empirical research in the museum so they seek to reduce the research period for each scholar

As a way to deal with this restriction, the author considered distributing the questionnaires outside the museum; however, the University of Nottingham's ethical codes prevented the researcher from taking such an action without getting the permission from the museum. The author also looked for alternative resources to discover the visitors' opinions about the museum, and at the same time they were treated as quantitative data. These alternative resources that could be treated as quantitative data are responses from the museum's visitors in three different platforms:

- Google Review
- The visitors' book in the museum
- The visitors' comments on sticky notes posted in galleries at the end of the permanent exhibition

It is important to state that the vast majority of the visitors' responses about the museum in these three platforms revolve around their general opinion about the museum; therefore, it can be easily treated as quantitative data, especially because the number of the comments are around 1500.

The second limitation is related to the validity of interview data. Although thirty-six participants is acceptable for qualitative research, as has been stated by many methodological specialists, the researcher hoped to conduct interviews with fifty participants to achieve the highest degree of validity. However, the museum allowed interviews to be conducted with visitors during only one week (from 28th March to 4th April 2017), and thirty-six participants is the maximum number that the author could get especially because most of the visitors could not participate because they were busy.

There were several limitations in terms of the procedure of analysing the data and how to deal with the vast amount of raw data. Although the use of the four general strategies to analyse the data when conducting a case study method has helped to make the process less

severe, a series of steps has been taken before starting the use of the four strategies in order to treat the complex multiple sources of evidence and enormous data collected in a more simple way. All the raw data has been coded and analysed using NVivo analysis software, and after that the different codes were classified into multiple sub-themes and themes. Then, those sub-themes and themes have been linked to the four general strategies.

2.7 Conclusion

This chapter has described and justified the methodology adopted in this research. As the research endeavoured to understand how Jewish culture and history became an inspiration to conceptualise the JMB, the case study method can be the best approach to answer such a question about nature, as stated by Berg and Lune (2004). Since there are now more than 200 Jewish museums around the world, a rational model has been applied to select the most appropriate case study for detailed consideration. Using this model resulted in identifying the JMB as the focus of this research.

This research has adopted five qualitative methods for data gathering in order to address the research questions. These qualitative research methods are: interviews, observation, spatial analysis, collating responses from the museum's visitors from different platforms and literature review. The data analysis procedures used in this research were based on the four general strategies to analyzing data when conducting a case study. The use of these four general strategies play a key role in developing three principles, which, in turn, help with addressing the research questions. First, it established the conceptual framework, which will help to examine the effect of Jewish history and culture as an inspiration to conceptualise the architecture of JMB in order to connect the visitors intellectually and/ or emotionally with spatially enhanced and evocative spaces. Second, it developed the case description which will organize the thesis structure. Third, it will triangulate the data, and this will enhance the validity of this study.

Part two (literature review and case study) consists of three chapters (chapter three, four, and five); the first two chapters in this part are considered to be literature review, whereas the last chapter is an introduction to the case study. Chapter three will develop the general theoretical framework, which has been discussed briefly in section 2.5. Chapter four will

define two frameworks to interpret museums within the museum studies, and these frameworks are compatible with the two forms of transmission of religious knowledge in Whitehouse's theory. Chapter five will provide background information about the case study and its architecture.

Part Two - Literature Review and the Case Study

Chapter Three - Theoretical Literature Review

Introduction
A Cognitive Theory of Religious Transmission
Three Approaches to Explore Architectural Issues
Conclusion

Chapter Four - Argumentative Literature Review: Interpretive Museums

Introduction
Interpretive Museums
A Semiotic Analysis:
A phenomenological Analysis
Conclusion

Chapter Five – Jewish Museum Berlin as the Focus Case Study

Introduction
The First Jewish Museum in Berlin
The New Jewish Museum in Berlin
Conclusion

3 Chapter Three - Theoretical Literature Review

3.1 Introduction

This chapter provides a theoretical framework for the research. The literature review in this chapter will first discuss Whitehouse's cognitive theory of religious transmission, and secondly will provide a critical survey of the current theory of the most commonly used approaches in interpreting museum architecture. The importance of this material will become apparent later when considering the effect of Jewish history and culture as inspiration to conceptualise the architecture of the JMB in order to create meaningful places for visitors, specifically in terms of examining the two identified experiences (cognitive and embodied).

The first section of this chapter consists of four parts. The first part will discuss Whitehouse's cognitive theory of religious transmission in general. The second part will describe different types of memory and their relationship to the two categories of transmission of religious knowledge in Whitehouse's theory. The third part will explain the first category of transmission of religious knowledge in Whitehouse's theory, namely the doctrinal mode. The last section will discuss the second category of transmission of religious knowledge in Whitehouse's theory, namely the imagistic mode of religiosity.

In the second section, three theoretical paradigms to explore the museum architecture as a medium of spatial narrative will be discussed separately. The main aim of discussing these three theoretical paradigms is because they will be used as a bridge to understand how the two modes of transmission of religious knowledge can be applied to interpret the two identified experiences in the JMB. These three theoretical paradigms are structuralism, hermeneutics and phenomenology. The first theoretical paradigm of interpreting architecture is structuralism (theory of meaning). The base of this theory within the architectural studies is the idea of dealing with the architecture as a system of signs. However, this paradigm of interpretation has some limitations, which will be considered

in the hermeneutics as a method of interpreting buildings (which is the second theoretical paradigm). The way of interpreting text in the philosophical hermeneutics discusses both ontological and epistemological issues. It is important to note that the modern hermeneutics is not limited to written communication; it also includes verbal and non-verbal communication. In the museums, generally speaking, the visitors experience the museum through their movements, and as will be seen in the next chapter, the interaction between the subject and the object occurs in the world between them where they both meet. As a consequence, phenomenology (the last theoretical paradigm in section one) is needed because of its ability to explore how phenomena appear, especially in exploring both the interaction between the subject and the object and the space between them which the museum architecture is a key part of. Phenomenology will be discussed with reference to the work of Edmund Husserl, Martin Heidegger and Maurice Merleau-Ponty. The notion of bodily movement as a tool to construct meanings in Merleau-Ponty's theory will be the main focus of this part; and it will be followed by discussing the theory of affordance in James J. Gibson's theory, which can be seen as an extension to Merleau-Ponty's theory of perception. The theory of affordance will describe the action possibilities for a living organism offered by different features of their surrounding environment. The adopted methodology for this chapter is a literature review of these theories, mainly in the field of philosophy.

3.2 A Cognitive Theory of Religious Transmission

3.2.1 Background

The central idea of Whitehouse's cognitive theory of religious transmission is that there are two divergent forms of religiosity: the doctrinal (semantically based) and the imagistic (experienced based). Drawing from current progress in the field of cognitive science, Whitehouse's theory indicates that the development of any religion revolves around one of two poles. The first one is based on how religious rituals and beliefs are remembered. In the imagistic mode, the infrequent repetition of highly arousing rituals has a long-lasting impact on the participants' minds. The effect of these infrequent repetitions of highly arousing rituals is not only limited to the memory, but also affects the way of meditating on different spiritual matters. These psychological features are intended to bond together

small groups of people, and as a consequence they remain localised and foster exclusive and isolated communities. On the other side, the religious knowledge in the doctrinal mode is transferred through both the frequent repetition of ritual activities and the intensive teaching, hence this mode is intended to be widespread and inclusive, as forms of religious practice are widespread. It is essential to state that the aim of this theory is not to classify any religion into one of these two modes. Instead, this theory explains how the religious beliefs and rituals are spread between people.

3.2.2 Modes of Religiosity and Memory

The major contribution to Whitehouse's cognitive theory of religious transmission is that it has a strong connection to different types of memory. As has been explained above, the activation of semantic memory plays a key role in constituting the doctrinal mode by repeating religious ideas frequently whereas the imagistic mode is constituted by the activation of episodic memory through high emotional arousal. However, before discussing the two modes in detail, the different types of memory will be explained.

There are two types of memory: implicit and explicit (Figure 3-1). Implicit memory is related to an experiential form of memory that is known by people without them being conscious of recalling this memory. The most obvious example of such a memory is recalling the functional form of successfully riding a bike. Explicit memory is related to a memory that can be recalled by people at an intentional and conscious level. Explicit memory is divided into two main categories: short-term and long-term memory. Short-term memory is related to the capacity of a person to hold concepts (small amounts of information) for a short time; remembering a new phone number for a matter of seconds in order to write down before failing to recall it as an example of short-term memory. Long-term memory is related to the capacity of a person to hold concepts for a long time (placed in the memory for hours and in some cases they can be kept for a whole lifetime). Long-term memory is divided into two classifications: semantic memory and episodic memory. Semantic memory contains 'general world knowledge' that has been acquired throughout people's daily lives. The accumulation of world knowledge (concepts, ideas, facts and meanings) is interweaved with people's experiences and connected to their culture. Examples of this world knowledge is recalling the name of a capital city of a specific

country. In contrast, episodic memory contains personal events in a person's life experience that can be recalled because of their uniqueness, for example, recalling a person's first kiss, or the day a war stopped.

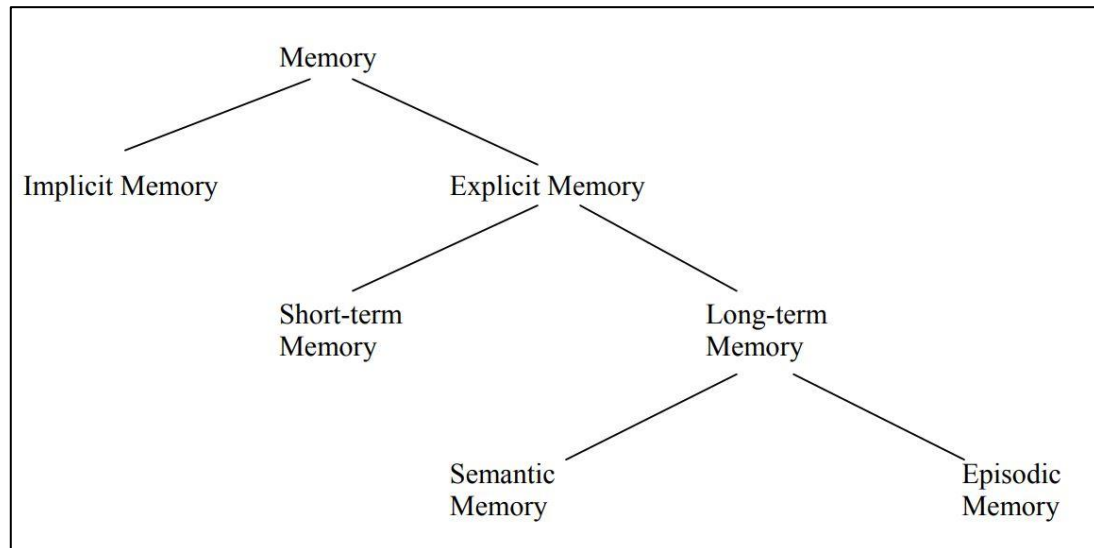


Figure 3-1 Types of memory. Source (Whitehouse, 2002, p. 295)

3.2.3 Doctrinal Mode of Religiosity

The doctrinal mode of religiosity involves frequent repetition of ritual activities and spreading through spoken transmission of the religious knowledge. Whitehouse links these routine ritual activities in the doctrinal mode to the implicit memory, whereas the verbal transmission of the religious knowledge has been linked to the semantic memory. The noticeable features of this mode are widespread, centralized, standardized, inclusive, and impersonal forms of spiritual practice. In order to have a full understanding of this mode of religiosity, the eight features of Whitehouse's hypotheses of doctrinal modes of religiosity are listed below, and are summarized in Figure 3-2.

1. "Frequent repetition activates semantic memory for religious teachings" (Whitehouse, 2004, p. 66): the frequent repetition of ritual activities is the key action of transmitting religious teaching in the doctrinal mode. These highly routinised activities, in turn, help the participant in memorising a large amount of explicit verbal knowledge in their semantic memory; this frequent repetition, therefore, acts as a great benefit for the follower of the doctrinal mode of religiosity because it is difficult for them to memorise a

great amount of verbal knowledge through infrequent repetition (when the ritual is rarely performed). However, one of the disadvantages of this frequent repetition is that it can affect the religious motivation by decreasing its level. Through a number of empirical studies Whitehouse has described this decrease and labelled it the ‘tedium effect’. As a way to make many routinised religious followers carry out these frequent repetitive rituals, they use a set of mechanisms containing supernatural sanctions or incentives.

2. “Semantic memory for religious teachings and the presence of religious leaders are mutually reinforcing” (Whitehouse, 2004, p. 67): it is most likely to state that one of the main reasons leading to the rise of religious leaders above the common herd in doctrinal mode of religiosity is that they are the orators who express religious knowledge in words. In many religions around the world, the admiration of religious leaders is a key part of their tradition. Those religious leaders take different forms, such as prophets, gurus, or high priests. These various types of religious leaders are an indicator to show how the prevalence rate of the phenomenon is. It is important to state that the religious leaders are the establishers of the basic tenets through their pronouncements, and their actions become the central foundation for recounting religious narratives. These two types of knowledge are accumulated in the semantic memory of the follower.

3. “The presence of religious leaders implies a need for orthodoxy checks” (Whitehouse, 2004, p. 67): since the religious leader becomes the legislator of the religious knowledge, proving the validity of their religious teachings before it is preserved is considered to be a necessary step. In most religions, there are principles of agreement which aim to prevent and extract any unauthorised innovation in their religions. It is important to state that religious routinisation plays a main role in detection of unauthorised innovation additions because the performance of religious routinisation is based on giving priority to orthodox resources over nonorthodox forms. This, in turn, helps the religious followers in memorising these teachings through their frequent repetitions. More importantly, although the new teachings in most religions are written down in texts, the standardised versions of their religious texts are more acceptable than modern versions as a result of frequent repetitions of teachings in the standardised versions. Returning to ancient teachings in standardised versions of the religious teachings makes the detection of unauthorised innovation possible.

4. “Frequent repetition leads to implicit memory for religious rituals” (Whitehouse, 2004, p. 68): to some extent, the daily and/or weekly repetition of ritual performances make the participants memorise them in their implicit memory as routinised procedure. In psychology, the repetition of specific behaviours as a part of routinised ritual leads people to behave this way without being aware (*unconscious* processes).

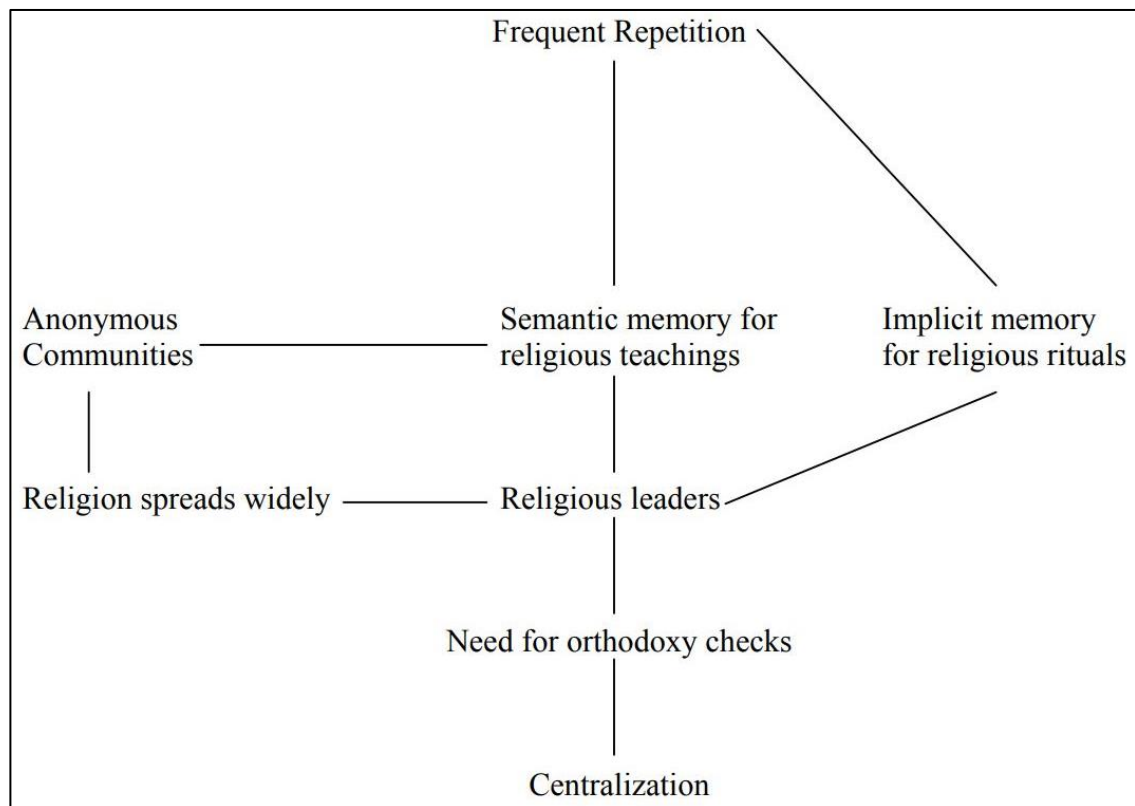


Figure 3-2 The doctrinal mode of religiosity. Source (Whitehouse, 2002, p. 297)

5. “Implicit memory for religious rituals enhances the survival potential of authoritative teaching stored in semantic memory” (Whitehouse, 2004, p. 68): performing routinised rituals as unconscious processes based on the use of implicit memory might constitute a lower level of reflection for the participants and at the same time, it might reduce the meanings obtained from such performances. Performing rituals without being aware (as *unconscious* processes) makes it possible for religious authorities to give meanings to these rituals, which most likely will be accepted by the participants. Also, providing a standardised orthodox way could decrease the elaborateness of exegetical

innovation. Since the routinised rituals are controlled by principles of selection, they will play a key role in suppressing unauthorised innovation.

6. “The need for orthodoxy checks encourages religious centralization” (Whitehouse, 2004, p. 69): the main reason for establishing the principle of agreements is to make sure that authorities’ sources are the base of any generated innovation. Frequent repetition of ritual can help to obstruct the unintended innovation to be part of the orthodoxy; but the routinisation can do little to prevent the determined heretic. Policing is one of the tools that is used to maintain religion. However, to create and apply the policing, the routinised religion needs first to create a central authority that contains different rankings of authorities. This central authority most likely will create protection of legislation to police the orthodoxy stretching around its community and containing a number of sanctions.

7. “Semantic memory for religious teachings leads to anonymous religious communities” (Whitehouse, 2004, p. 69): most of the religious knowledge obtained through the frequent repetition is organised in the semantic memory. This means that the frequent repetition of rituals prevents religious participants from storing any religious ideas and principles that are part of their ritual events in their episodic memory, because the routinisation does not contain any unique event which can be remembered as episodes. For a single participant in doctrinal mode most of the aspects that makes them follow their religion are considered to be abstract properties that most likely will be ascribed to other followers.

8. “The presence of religious leaders is conducive to the religion spreading widely” (Whitehouse, 2004, p. 70): the religious ideas and principles are conveyed in words (oratory), and the transmission of these religious teachings is an easy task. They need just a small amount of proselytising and sometimes just one leader to spread these teachings around large populations.

3.2.4 The Imagistic Mode of Religiosity

The imagistic mode of religiosity involves infrequent repetition of highly arousing ritual activities. Such rare performances cannot help the participants to memorise verbal knowledge. However, these infrequent repetitions of highly arousing ritual activities can place the participants in conditions being able to recall many details of the ritual procedures, because these rare and highly arousing activities can help the participant in

memorising these exceptional performances in their long-lasting episodic memory. The noticeable features of this mode are small group, uncentralized, ideologically heterogeneous, exclusive, and personal forms of spiritual practice. In order to have a full understanding of this mode of religiosity, the eight features of Whitehouse's hypotheses of imagistic modes of religiosity are listed below, and are summarized in Figure 3-3.

1. "Infrequent repetition and high arousal activate episodic memory" (Whitehouse, 2004, p. 70): the infrequent repetition of highly arousing ritual activities helps the participant in memorising these exceptional performances in their long-lasting episodic memory. These seldom performed and extremely arousing rituals remain in the autobiographical memories because they are "a combination of episodic distinctiveness and emotionality" (Whitehouse, 2004, p. 70). Some psychologists have named these memories a flashbulb, since they are kept for a whole lifetime.
2. "Activation of episodic memory triggers spontaneous exegetical reflection, leading to expert exegetical frameworks stored in semantic memory" (2004, p. 72): infrequent repetition of highly arousing ritual activities can place the participants in conditions being able to recall many details of the ritual procedures. However, such rare performances cannot help the participants to memorise verbal knowledge. Unlike the doctrine mode, this information is not essential for the imagistic mode's followers. The meanings of these exceptional ritual performances are based on their ability to trigger spontaneous exegetical reflection (SER). This simply means that the participants of infrequent repetition of highly arousing ritual activities deal with religious procedures with complete awareness; this most likely will lead them to reflect extensively on these performances which, in turn, develop in detail exegetical knowledge that is organised in the semantic memory. It is important to state that sensory stimulation (such as kinaesthetic, auditory, olfactory, etc.) is the primary cause of high arousal.
3. "SER leads to a diversity of religious representations" (2004, p. 72): what each participant gets from performing the infrequent repetition of highly arousing ritual activities as a personal experience is most likely to be unique. Although these ritual activities intend to revolve around specific thoughts and concepts, they do not contain any features that can create a sort of uniform belief like the doctrinal orthodoxies. If there is a need to apply the principle of agreement, it will be connected to the ritual procedures and

not the meaning that the participant may get from these procedures. Also, if there is a need to verbally transmit exegesis, it will be the expert's responsibility by stating the importance of commitment to the principle of agreement most often without any explanation.

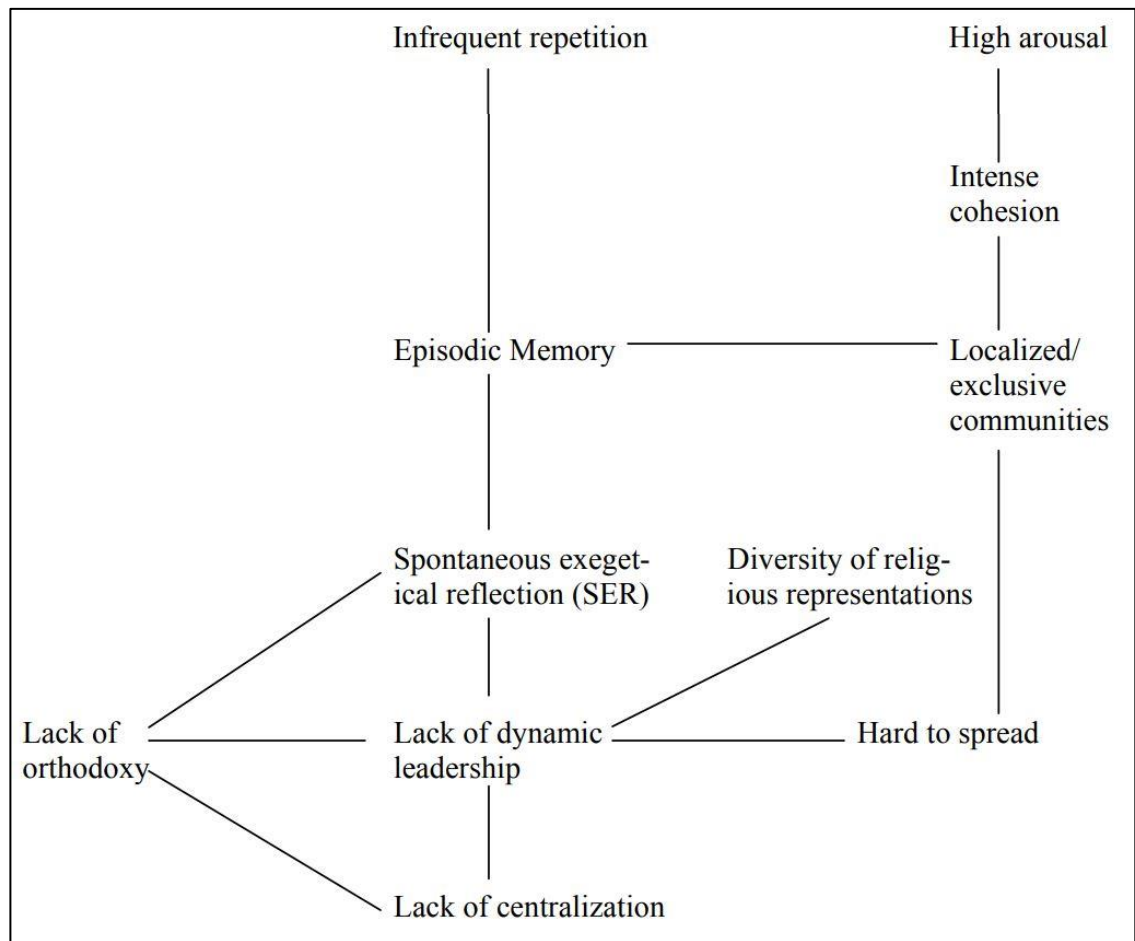


Figure 3-3 The imagistic mode of religiosity (Whitehouse, 2002, p. 303)

4. “SER and representational diversity inhibit dynamic leadership” (2004, p. 72): as the participants in the infrequent repetition of highly arousing ritual activities produce the meanings of these rituals independently based on their own interpretation, the possibility of establishing dynamic leadership is very low. If a leader offers help to the participant at the infrequent repetition of highly arousing ritual activities in order to develop and create high harmony in the body of doctrine, the participants may follow what they ask. After a short time, however, the participants most likely will forget what they have been asked to do or they might reproduce it in a distorted way. Therefore, in an obligatory manner the

participant most likely will go back to their inspirational ideas, garbling or forgetting what they have been asked to do by the religious leader in their formal speech, particularly in the long run. Based on the above arguments, it can be stated that there are limited opportunities for the religious leaders (if they exist) in the imagistic mode to interpret the meanings of the rituals for the participant. As a consequence, the leadership in this mode is not dynamic, instead it is symbolic.

5. “Lack of dynamic leadership, lack of centralization, and lack of orthodoxy are mutually reinforcing” (2004, p. 73): the centralised authority does not exist in the imagistic mode because the inspiration in their religious rites comes from the gods directly without any mediator, specifically the religious leaders. Therefore, Orthodoxy is not present in this mode since there is no authorised doctrine restricting the way rituals are performed.

6. “High arousal fosters intense cohesion” (2004, p. 73): as the infrequent repetition of rituals in the imagistic mode is high arousal, it is most likely to produce emotion between the participants in these rituals which, in turn, will create strong social cohesion. Therefore, such a mode can play a key role in bonding the participants together to form small communities.

7. “Intense cohesion and episodic memory foster localized, exclusive communities” (2004, p. 73): as the participants of the infrequent repetition of highly arousing ritual activities store these activities in their episodic memories, they can recall the other people who are involved in these ritual activities so, the participants of such rituals share some episodes. It is nearly impossible for a person to become a member of such rituals unless they join them in religious activities. At the same time, it is nearly impossible for a community to exclude one of its members because it is not easy to forget their participation. This feature of imagistic mode plays a key role in creating exclusive communities.

8. “Localized and exclusive communities and lack of dynamic leadership inhibit spread or dissemination” (2004, p. 73): unlike the doctrinal mode of religiosity, beliefs associated with the imagistic mode do not reach a large group of people. The unit of spreading the practices and beliefs associated with the imagistic mode is based on their participation as a ritual group, unlike the doctrinal mode of religiosity where the unit of transmitting their beliefs is based on a few talented orators. The transmission of the practices and beliefs associated with the imagistic mode costs a lot and, and it cannot

achieve the highest degree of productivity. For example, there are two techniques to spread the practices and beliefs associated with the imagistic mode. First, this is done by obliging each group to perform their ritual with their nearby local groups. Second, it is achieved by obliging the local group to travel and perform with and for a large group of people. However, the form of ritual performances tends to be changed once it moves to another local group as a result of an absence of religious leaders who can control these ritual performances based on orthodoxy.

3.3 Three Approaches to Explore Architectural Issues

This section will discuss three theoretical paradigms to explore the museum architecture as a medium of spatial narrative. The discussion of these three theoretical paradigms can help to create a bridge for understanding how the two modes of transmission of religious knowledge can be applied to interpret the two identified experiences in the JMB.

3.3.1 Structuralism

Well-known critics and architectural historians such as Kenneth Frampton and Charles Jencks have adopted the theory of meaning (structuralism) as an instrument to analyse architecture (Coyne, 2015). Structuralism “is a theory that conceives of all cultural phenomena, including artistic artefacts, as sign systems, and those systems as operating according to the dictates of a deep structure” (Sim, 2014, para 1). During the twentieth century, the use of structuralism as a tool for critique and analysis spread to many disciplines that have intellectual endeavours, such as anthropology, psychoanalysis, and aesthetic theory and criticism. In terms of architecture, however, structuralism has the ability to discuss three issues: “(1) the invariant, universal, and collective structures in human thinking (2) binary, distinctive pairs (3) semiology/ semiotics (synonymous) that can be translated as ‘sign system’” (Söderqvist, 2011, p. 2). This section contains a discussion of the work of four important scholars (Ferdinand de Saussure, Claude Lévi-Strauss, Roland Barthes, and Umberto Eco) to consider the use of structuralism as an approach to studying architecture (see Figure 3-4).

Ferdinand de Saussure (1857-1913), a Swiss linguist, became the forerunner of modern structuralism since his ideas came to be essential for creating the theoretical foundation of

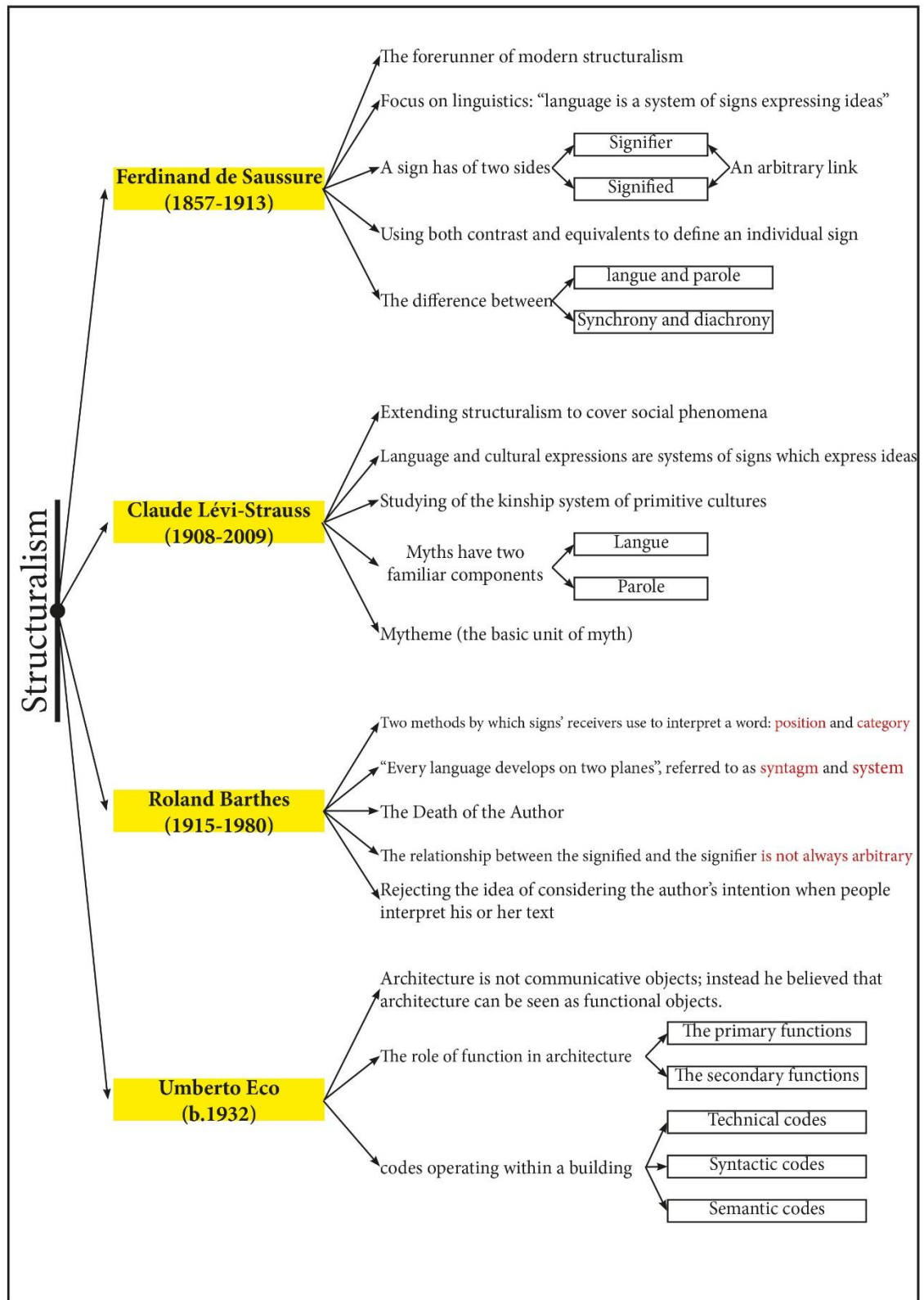


Figure 3-4 Summary to the structuralism as a theoretical paradigm to explore the museum architecture as a medium of spatial narrative. Source: the author.

modern descriptive linguistics. Saussure never published a book, but after his death, based on a collection of concise lecture notes taken by his students in his university lectures, two of Saussure's disciples compiled a compendium of his work in the book '*Course in General Linguistic*' in 1916. Saussure asserted that finding the facts of language is the primary task of linguistics; and it is clear that both sound change and meaning change were the most obvious facts looked at by Saussure. It is therefore important to discuss his approach to analysing these facts related to changes in sound and meaning (Waterman, 1956).

Saussure was the first scholar to establish a unified discipline to study linguistic phenomena based on his central concept which discussed a radical new theory of language as a structural system (the linguistic sign). Roy Harris explained the implications of Saussure's new approach to studying linguistics:

Saussure opened up a new approach to the study of many other human patterns of behaviour. It was an approach later to be exploited by theorists in such diverse fields as art, architecture, philosophy, literary criticism and social anthropology. The implication of Saussure's technique for dealing with linguistic analysis extend far beyond the boundaries of language, in ways which make the *Course in General Linguistic* without doubt one of the most far-reaching works concerning the study of human cultural activities to have been published at any time since the Renaissance (cited in Saussure, 1983, p. xv).

Saussure believed that "language is a system of signs expressing ideas" (Saussure, 1983, p. 15). Human languages are inherited social systems consisting of arbitrary signs. According to Saussure, a sign consists of two sides: signifier (which is the word, acoustic image or pointing finger) and signified (which is the mental concept or the meaning): neither side can exist without the other. Also, the link between these two sides is arbitrary since there is no natural reason for calling, for example, a tree '[ə tri:]', and this is the main reason why different languages have different words for a particular thing. The unique aspect of human language is that it is conventional, which means that people in a particular speech community will share the same concept when they hear a particular word. Saussure stressed the importance of using both contrast and equivalents to define an individual sign (Saussure, 1983).

One of the essential ideas discussed by Saussure is the difference between *langue* and *parole*. *Parole* is the use of language by an individual (the actual utterance), whereas *langue*

is the whole system of language which makes speech possible. Langue is an abstract system, and the sign is its basic unit. Langue has a large number of elements, and by arranging these elements people can create meanings of their speech. Saussure also explained the difference between two important terms: synchrony and diachrony. Synchrony is the study of a complete system of language at a specific point in time. However, diachrony is the study of the development of a particular language over time, known as ‘historical linguistics’ (Saussure, 1983).

Claude Lévi-Strauss (1908-2009), a French social anthropologist, became interested in linguistics after attending lectures given by Roman Jakobson in 1942 and 1943; Lévi-Strauss found structuralism helpful because it provides a “satisfactory psychological explanation of reciprocity”, since he believed that there was no psychological theory that can provide an explanation for this issue. Lévi-Strauss developed a scientific approach which enables people to fully understand “that world as a world of meanings”, based on Saussure’s structuralism (Clarke, 1981). Both Saussure and Lévi-Strauss sought to find the same system of ‘differences’, but Lévi-Strauss covered many aspects compared with Saussure’s more focused work on language (Hale, 2000).

In ‘*The Elementary Structure of Kinship*’ (1949), Lévi-Strauss achieved a complete development of his philosophy of reciprocity; this model became the foundation of Lévi-Strauss’s structuralism, which, in turn, helped him to develop his theory of culture and society and to discover the true meaning of human social existence. Using this model, Lévi-Strauss conducted a study of the kinship system of primitive cultures. He found that primitive people have complex rules which control marriage on different levels within their culture. The complexity of these rules is related to a combination of codes and prohibitions which allow a man to know the woman he can marry. The main reason for these marriage laws is to maintain humankind. They show how a large social pattern has a strong effect on individual decisions, especially in a person changing his or her orientation in terms of marriage. This point presents the difference between Lévi-Strauss’s anthropology and the traditional ones which focused on family as the basic unit of communities. Studying the relationship between patterns of intermarriage and the factors that affect this relationship is considered the main difference between Lévi-Strauss and Saussure, who studied the

relationship between the units. The study of these patterns led Lévi-Strauss to discover that ‘a ritualised process of exchange’ plays the key role in creating connections between groups of families. In primitive society, people treat women as property which can be exchanged, particularly under the concept of exchanging women which is the core of alliance theory, since they believe that this exchange can maintain humankind. As a result of studying these patterns, Lévi-Strauss found that any “community forms a microcosm of the world, and procreation becomes a metaphor for creation” (Hale, 2000, p. 137).

Lévi-Strauss advanced many theories to explain some issues related to cultural expressions in his book *Structural Anthropology* (1963), a collection of essays written between 1944 and 1957. In this book, Lévi-Strauss extended structuralism to cover social phenomena, since both language and cultural expressions are systems of signs which express ideas. Lévi-Strauss discussed many aspects related to myth and its relationship to language. He found that myths in different cultures have many things in common in terms of the facts that are related to these myths (Lévi-Strauss, 1963). In ‘*The Structural Study of Myth*’ (1955), he stated that “myth is language: to be known, myth has to be told; it is a part of human speech” (Lévi-Strauss, 1955). Myths have two familiar components in terms of language: *langue* (with its changeable meaning over time) and *parole* (with its historical setting). Lévi-Strauss introduced the mytheme, which is the basic unit of myth. The mytheme consists of several sentences to present an event, and this led Lévi-Strauss to say that a mytheme is a ‘bundle of relations’ (Lévi-Strauss, 1963).

Roland Barthes (1915-1980), a French social and literary critic, was one of the most significant figures to apply structuralism in studying social context, especially contemporary culture. Barthes identified some political dimensions that have a fundamental effect on people’s understanding of sign systems. He extended the work of Lévi-Strauss in understanding the different methods that signs use to send their meanings; as a result, he concluded the study by stating that there are two methods by which signs’ receivers use to interpret a word: position and category. In terms of position, there are two main factors that play an important role in creating the meaning of a sign, its context and its position, since its context combines many signs, and each sign in this ‘linear combination of signs’ has a relationship with the others. On the other hand, people can

understand signs through their classifications or by being a part of a group or one word or more from a system to present the whole system (Hale, 2000). It is essential to observe that Barthes stated in '*Elements of Semiology*' (1964) that "every language develops on two planes" (1964, p. 58), referred to as syntagm and system. The combination of two or more signs can create a new sign, and this is known as a syntagm. The systematic plane can invent a new sign by choosing one sign to present its association (Barthes, 1964).

In contrast to Saussure's model, Barthes argued that the link between signifier and signified should no longer be seen as an unchangeable relationship, since he believed that signifieds are always temporary, unlike signifiers which are permanent (Leach, 1997). As already discussed, according to Saussure, a sign consists of two sides: signified (which is a representation of a concept) and signifier (which is the sound-image of that concept). Barthes stressed that the link between the signifier and the signified plays a key role in creating meaning. Barthes stated that "the words in the field derive their meaning only from their opposition to one another, and that if these oppositions are preserved, the meaning is unambiguous" (Barthes, 1964, p. 38). Therefore, a new sign can be created if this sign is considered outside this link. This led Barthes to introduce a new concept (the motivated), because he believed that the relationship between the signified and the signifier is not always arbitrary. People can create a new sign by using the concepts of syntagm and system (Barthes, 1964).

Barthes wrote his critical essay '*The Death of the Author*' (1967) to address the relationship between the author of a text and its readers. He argued that any literary work is not original, since authors create their texts by arranging pre-existing ideas or 'quotations'. In his essay, Barthes explained why the author of a text cannot be considered the real author:

We know now that a text is not a line of words releasing a single 'theological' meaning (the 'message' of the Author-God) but a multi-dimensional space in which a variety of writings, none of them original, blend and clash. The text is a tissue of quotations drawn from the innumerable centres of culture. (Barthes, 1967, para. 5)

The Death of the Author as a concept to criticize a text rejects the idea of considering the author's intention when people interpret his or her text. This concept emphasises the role of readers to create various meanings for the same text, because their backgrounds have a direct effect on their interpretations. It is important to stress that Barthes did not reject the

author's interpretation, since his or her own interpretation is one interpretative model of many possible models of interpretation. More importantly, *Death of the Author* can be used as a method to interpret any artworks, including architecture (Barthes, 1967).

Umberto Eco (b.1932), an Italian semiotician and literary critic, built upon the work of Barthes, especially in the field of architecture. In his essay *Function and Sign: The Semiotics of Architecture*, Eco discussed architecture and the built environment on the basis of his general semiotic theory. Eco stressed in his essay the idea that architecture is not communicative objects; instead he believed that architecture can be seen as functional objects. As a way of stressing the role of function in architecture, Eco discussed the primary functions (which are the denotative meanings) and the secondary functions (which are the connotative meanings) (Broadbent et al., 1980).

Eco used the terms 'architectural codes and subcodes' as interpretative tools which allow the interpreter to make different readings. According to Eco, there are three types of code that operate within a building: (1) technical codes (dealing with the logic of engineering design which has a strong effect on architecture); (2) syntactic codes (typological codes concerning articulation into spatial type); and (3) semantic codes (dealing with 'the relations established between individual architectural sign-vehicles and their denotative and connotative meanings') (Broadbent et al., 1980).

3.3.2 Hermeneutics

Architecture has required a specific interpretive method for decades because it contains several kinds of direct and indirect meanings. This has led many scholars to research an appropriate approach to respond to this need. Hermeneutics is a method suggested by many scholars because it has the ability to respond to this call since it can help interpreters to understand a meaning beyond the physical level by allowing them to become "immersed in, and implicated in, the realities that the architecture seeks to embody" (Kidder, 2011, p. 8). The uniqueness of hermeneutics as a method of interpreting architecture is that it encourages people to fully understand the architecture of a building by using methods such as Socratic dialogue, since "both the work and its interpreter are products of history and are shaped by a horizon of question, concepts, assumptions, affects, habits, stories, images, and convictions" (Kidder, 2011, p. 8). Hermeneutics as a method of interpreting buildings

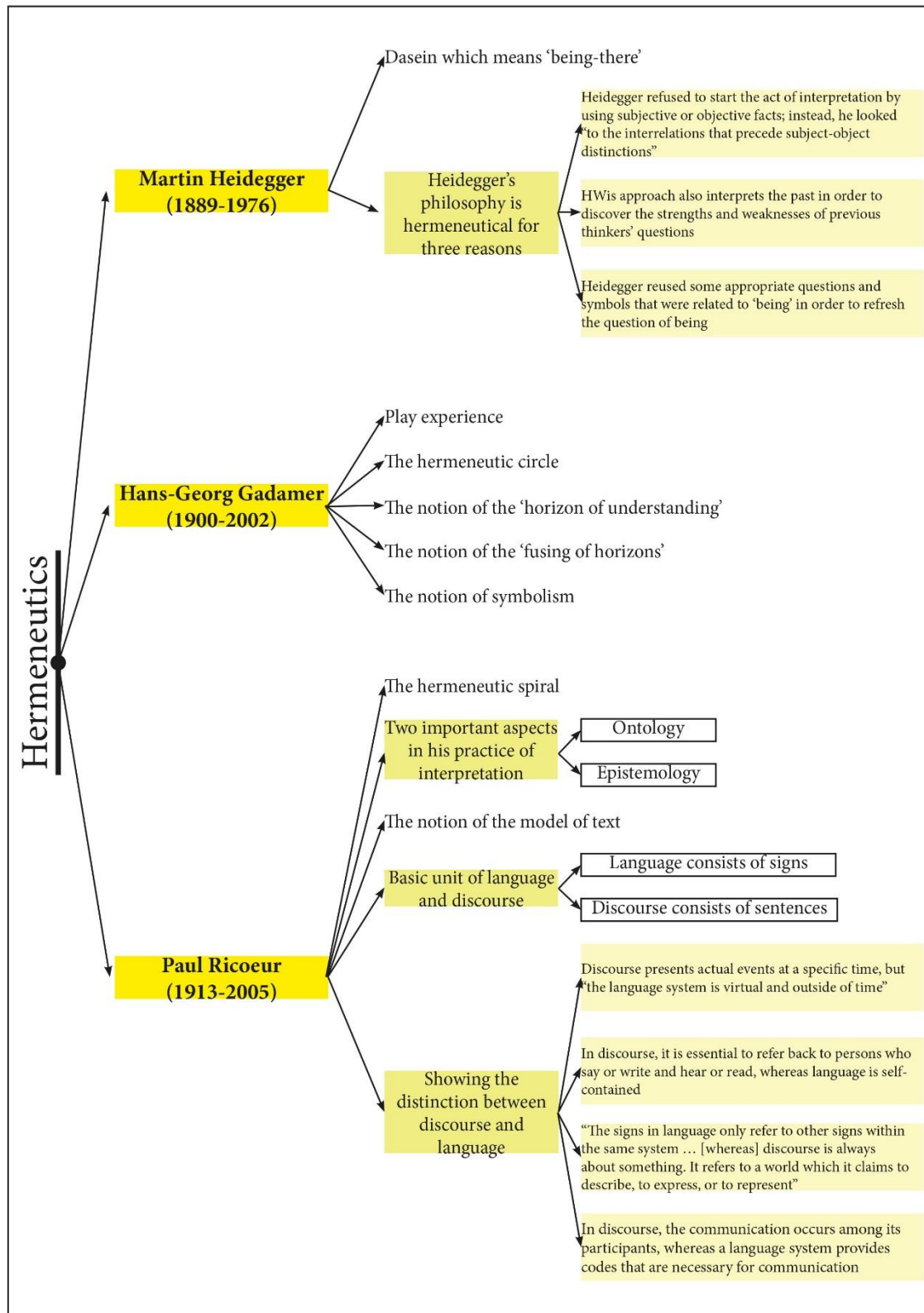


Figure 3-5 Summary to the hermeneutics as a theoretical paradigm to explore the museum architecture as a medium of spatial narrative. Source: the author.

is essential because it can help to fill the gap between the meanings that creators want their audiences to receive from an object and the meanings that their audiences will receive beyond the creators' intentions (Leonardo, 2003). To understand the relationship between hermeneutics and architecture, the work of three well-known figures, Martin Heidegger, Hans-Georg Gadamer and Paul Ricoeur, will be discussed.

One of the most pertinent points that Karsten Harries made in his book *'The Ethical Function of Architecture'* (1997) about the philosophy of Martin Heidegger¹ is that buildings are able to present primary information about human existence using philosophical and poetic terms. For Heidegger, the act of interpretation was not just limited to studying "human subjects who interpret objects", but he also involved most of the natural existence, since he believed that these could affect human experience (Kidder, 2011, p. 3).

The meaning of the word 'being' has a long history; it is a question which has been discussed in western traditional philosophy by many thinkers. The main aim of this question in Ancient Greek thinking was to identify the actual qualities of entities. Focusing just on obvious qualities has led many modern philosophers to rethink hidden qualities. The primary purpose of Heidegger's ontology was to manifest this question, since he believed that the question has not been fully covered in the whole of the western tradition.

Heidegger used a phenomenological method to realize the mystery of being. This approach makes it possible to "imagine the world as one of subjects confronting objects, or as objects impinging on the senses of subjects" (Kidder, 2013, p. 99). In this idea, Heidegger was influenced by Husserl's phenomenology which consists of two steps: the first is to explain experiences, and the second is to distinguish between the subjective and the objective. However, the main difference between Heidegger's and Husserl's approaches is that Heidegger stated that hermeneutical principles must be the primary creator of his phenomenology in a way which makes the acts of both thinking and being become woven

¹ Heidegger joined The National Socialist German Workers' Party (Nazi Party) on 1st May 1939, exactly ten days after being elected as Rector of the University of Freiburg. Although after a year he resigned the rectorship and stopped attending the Nazi party meeting, he stayed as a member of the party until the dismantling of the party at the end of the Second World War.

together. In this interwovenness, there is a separation between the mind and the body, which was the base of Heidegger's approach to studying the meaning of being. He explained this idea in his book, *Being and Time* (1927), using the German word *dasein* which means 'being-there'. Also, this idea of separation helps someone to create his/her own meaning, since each person has his/her unique goal (Hale, 2000).

In order to explain "how human openness to the question of being constitutes being's openness to itself" (Kidder, 2013, p. 99), Heidegger supported his idea using some points from both Kierkegaard and Nietzsche to stress that people's connection with being is limited by their existence, and that these limitations have a strong influence on people's understanding of the meaning of being. Paul Kidder (2011) discussed the meaning of 'being' in Heidegger's philosophy and commented that:

Being is not something other than the ontological dimension of entities, to preserve the primacy of the primary phenomenon it is necessary to think in terms of an ontological difference, of being as more fundamental than, and as irreducible to, beings and their qualities. For being is not a particular being, nor the totality of beings, nor a supreme being. It is being in their granting of that totality, and the locus of the clearing inasmuch as the event of clearing has occurred. In this sense, being is obvious in some ways to everyone but is also deeply mysterious and typically obscures, for the clearing is bounded by horizons of common sense, the philosophical assumption of a tradition, and the distraction of everyday life.

There are three main reasons which led Kidder to state that Heidegger's philosophy is hermeneutical: (1) in his interpretive approach, Heidegger refused to start the act of interpretation by using subjective or objective facts; instead, he looked "to the interrelations that precede subject-object distinctions" (Kidder, 2011, p. 5); this leads to understanding things that are involved in this relationship, and using them as a start point which, in turn, will help to find "the large pattern of these involvements" (p. 5); (2) his approach also interprets the past in order to discover the strengths and weaknesses of previous thinkers' questions; and, (3) Heidegger reused some appropriate questions and symbols that were related to 'being' in order to refresh the question of being.

The most noticeable point for Gadamer about Heidegger's philosophy was his "conviction that something had been overlooked in all ordinary categories of philosophy, science, and the arts". This was the main reason for Gadamer to mention the importance of studying consciousness in his magnum opus of (1960), *Truth and Method*. For Gadamer, it is

essential for interpreters not to lose touch with what they interpret, ‘to be immersed in interpretation’, known by ‘play experience’, since he believed that this involvement can help to obtain a better understanding. This was the primary reason for not establishing a strict approach for interpretation (Jahnke, 2012).

Gadamer endeavoured to revive western philosophers’ dialogue; he used the word ‘hermeneutic’ to refer to his dialogue to be like the word ‘dialectic’ which was used by Plato (Kidder, 2013). This dialogue requires asking and answering questions in continuous movement; this active questioning and answering is the main characteristic of Gadamer’s hermeneutic pattern, and is known as “the hermeneutic circle” (Jahnke, 2012); in fact, this idea was established by Dilthey, a German thinker, in the hermeneutics of the nineteenth century. Dilthey believed that the act of interpretation of a text needs a continuous movement between the hidden and the obvious, the specific and the entire (Kakabadse and Steane, 2010). The uniqueness of Gadamer’s movement in his hermeneutics pattern is that it begins from people’s prejudices which are related to their ‘horizon of understanding’, and because of carrying these prejudices, people may face the ‘other’; and by using their interpretive method, they can gradually understand the horizon of the other until they become part of the new horizon. This summarises Gadamer’s notion of the ‘fusing of horizons’ (Jahnke, 2012).

The notion of symbolism was one of the most significant topics discussed by Gadamer in many of his publications. This idea came to him from an historical resource which discussed the world ‘symbol’. To show the importance of this idea, in his essay *Aesthetics and Hermeneutics* (1964), Gadamer stated that “in the last analysis, Goethe’s statement ‘Everything is a symbol’ is the most comprehensive formulation of the hermeneutical idea. It means that everything points to another thing ... the universality of the hermeneutical perspective is all-encompassing” (para. 12). Also, Gadamer connected this idea to works of art by stating that a work of art has meanings beyond the physical level, so it is symbolic. Although this symbolic is missing part of the complete meaning, Gadamer believed that it is fundamental. This incomplete part usually makes people strive to find it, and the realization of this meaning becomes unforgettable because it was subject to insistent demand (Kidder, 2013).

Paul Ricoeur (1913-2005), a French philosopher, stated that “the primary sense of the world ‘hermeneutics’ concerns the rules required for the interpretation of the written documents of our culture” (1981, p. 197). It is clear that Ricoeur’s hermeneutics is a combination of Gadamer’s historical hermeneutics and Schleiermacher’s romanticisation of the author (Leonardo, 2003). The primary reason for Ricoeur to create this combination was that Gadamer’s hermeneutics alone could not help him to cover many aspects related to interpretation. This led Ricoeur to establish a new approach to interpreting text, known as a ‘hermeneutic spiral’ (Jahnke, 2012).

In order to understand Ricoeur’s new approach, the hermeneutic spiral, it is essential to discuss the ontological dimension that Ricoeur has in his philosophy, and the difference between his approach and that of both Heidegger and Gadamer. Although Ricoeur admitted the importance of the notion of *dasein*, he disagreed with making ontology create the whole meaning. As a way of solving this problem, Ricoeur used an idea which had been established by Karl Jaspers to support his approach. Jaspers believed that ontology can be used as indications which provide continuous communication for interpreters. By using this idea, Ricoeur developed two important aspects in his practice of interpretation: (1) ontology, which can help to interpret objects, and (2) epistemology which can make the act of interpretation more critical and can also help to cover many dimensions related to the objects (Jahnke, 2012).

It is important to mention that the main motivation for Ricoeur to establish the hermeneutic spiral was Jürgen Habermas, a German sociologist and philosopher, who criticised Gadamer’s hermeneutics. He believed that history can block people from extending their understanding because he stated that there are many distortions in historical language that will affect people’s communication related to some dominant ideologies. Ricoeur used Habermas’s critique of Gadamer’s work to support his idea about the impotence of applying a critical method to his interpretation to make sure that the communication will continue. This led Ricoeur to “propose a fusion between the critical attitude of Habermas’s focus on explaining and the interpretive approach of Gadamer’s aim for understanding” (Jahnke, 2012, p. 35), since he believed that this integration will help to open up the layers of meaning that objects have. This combination summarised the notion of the model of text

which was established by Ricoeur to interpret text. The meaning of the word text has been divided into two classifications. The first refers to any written material and discourse that is fixed by writing; the second classification refers to text-interpretation (Ricoeur, 1981).

Ricoeur explained important aspects related to his approach to understanding text in his essay *The Model of the Text: Meaningful Action Considered as a Text*. First, he defined the term ‘discourse’ by stating that “discourse is language-event or linguistic usage” (Ricoeur, 1973, p. 92). Also, Ricoeur showed the difference between language and discourse in terms of their basic unit. Language consists of signs, whereas discourse consists of sentences. More importantly, Ricoeur discussed four traits that show the distinction between discourse and language:

(1) discourse presents actual events at a specific time, but “the language system is virtual and outside of time” Ricoeur (1981, p. 198)

(2) in discourse, it is essential to refer back to persons who say or write and hear or read, whereas language is self-contained

(3) “The signs in language only refer to other signs within the same system ... [whereas] discourse is always about something. It refers to a world which it claims to describe, to express, or to represent” (p. 198)

(4) in discourse, the communication occurs among its participants, whereas a language system provides codes that are necessary for communication (Ricoeur, 1981)

3.3.3 Phenomenology

Phenomenology can be defined as the interpretive study of how phenomena appear. It is a study which not only covers the visual domain, but also examines and describes human life (which includes human experiences, meanings, events and situations). In other words, phenomenology is the analysis of the human senses (Leach, 1997). It is impossible to separate being from phenomenon, since if there is ‘no subject who experiences the phenomenon’, there will be no phenomenon (Sadala and Adorno, 2002, p. 283).

Phenomenology has become a pivotal instrument in striving towards knowledge of development in architecture, and offers credible displays of living knowledge for architecture. According to David Seamon, phenomenology as an approach for interpreting architecture provides an excellent method for studying the relationship between people and their environment; this method also helps us to recognise and understand the complication

of this relationship because of its multi-dimensional structure. The importance of the phenomenological approach for environmental designers (including architects) is its ability to create a conceptual language which presents the relationship between feeling and thinking, which, in turn, can help environmental designers to create reconciliation between them (Seamon, 2000). In order to establish a brief understanding of the field of phenomenology and its relationship with architecture, the work of three significant figures in this field (Edmund Husserl, Martin Heidegger and Maurice Merleau-Ponty) will be examined.

Phenomenology became a disciplinary field in philosophy in the early twentieth century in the central ideas of Husserl. However, the term ‘phenomenology’ was used by many philosophers before this, particularly by Kant and Hegel. Kant discussed many issues, such as perception, imagination and thought, which are related to phenomenology, and he also used the term ‘phenomenology’ occasionally (Smith, 2003). Kant analysed the relationship between the mind and the world and the effect of this connection on the way that people obtain knowledge. He found that the mind can have a negative effect on people’s understanding of reality since it plays an important role in limiting people’s understanding (Hale, 2000). Hegel uses the term ‘phenomenology’ in a distinctive way in his book *The Phenomenology of Spirit* (Smith, 2003). Neither Kant nor Hegel, however, were the primary motivator for Husserl to develop his philosophy in phenomenology; rather, it was Franz Brentano (1838-1917), who applied the term ‘descriptive psychology’ or ‘descriptive phenomenology’ in his philosophy (Dowling, 2007).

Edmund Husserl (1859-1938), a German philosopher, was the founder of the school of phenomenology. One of the main things that Husserl adopted from Brentano was the notion of ‘intentionality’, which works as the basis for recognising and categorising both ‘experiential mental practice’ and ‘conscious acts’. Intentionality can be seen as the principle that connects any mental act with some object; this means that any perception has a meaning. Based on this point, all thinking, such as remembering, perceiving and imagining, is related to something, which a person thinks about. Therefore, intentionality is about “the internal experience of being conscious of something” (Dowling, 2007).

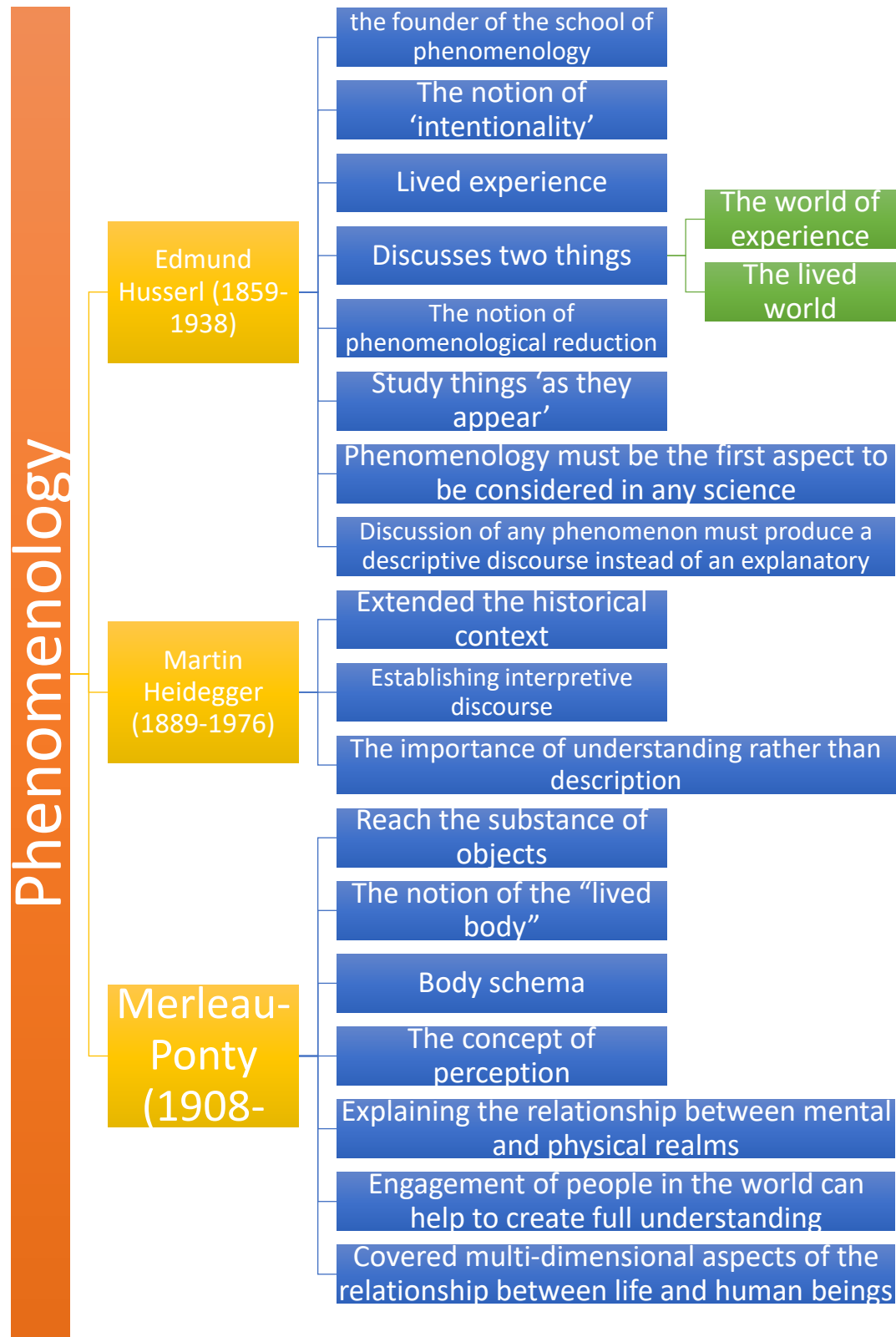


Figure 3-6 Summary to the phenomenology as a theoretical paradigm to explore the museum architecture as a medium of spatial narrative. Source: the author.

Husserl believed that phenomenology must be the first aspect to be considered in any science, since it discusses two things: the world of experience and the lived world, and these two are the foundation of all science. As was suggested by Husserl, discussion of any phenomenon must produce a descriptive discourse instead of an explanatory one, because phenomenology focuses on things that are obvious (Sadala and Adorno, 2002). According to Husserl, to achieve the main purpose of phenomenology, people need to study things ‘as they appear’, since this is considered to be necessary to recognise human experience and consciousness (Dowling, 2007).

Husserl introduced the notion of phenomenological reduction in order to simplify the establishment of the understanding of phenomena and to prevent subjective views that could affect this understanding. It is essential for the phenomenologist to isolate the object from its cultural context, since this is the most significant element in this notion. Husserl explained that the ‘lifeworld’ is the immediate understanding of an object without the need to interpret or reflect on it (Dowling, 2007). It is noticeable that by this notion Husserl moved the understanding of phenomena from ‘cerebral structures’ (which are related to traditional philosophy) to ‘lived experience’ (Seamon, 2000). Heidegger’s hermeneutic phenomenology is compatible with Husserl’s phenomenological ideas in terms of the lived experience (Dowling, 2007).

Martin Heidegger (1889-1976), a German philosopher, was one of the most significant of Husserl’s students; he also assisted Husserl in 1916. One of the main common areas between Husserl and Heidegger is that they believed in the essentiality of focusing on ‘the things themselves’, but Heidegger extended the historical context (Hale, 2000). Contrary to Husserl’s phenomenology, Heidegger argued that phenomena are more than just descriptive discourse, since he believed in the importance of understanding rather than description. Heidegger used hermeneutics as a method for exploring the lived experience; this hermeneutic approach led to establishing interpretive discourse (Dowling, 2007).

In Heidegger’s book *‘Being in Time’* (1927), he stressed the idea that it is impossible to isolate human experience and its world from consciousness, since interpretation is an essential part of human experience. Heidegger’s approach is a combination of phenomenological methods and some aspects related to Soren Kierkegaard’s existential

philosophy. The most important point of Heidegger's phenomenology is that the interpretation of any phenomena can help to create a deeper meaning (Dowling, 2007). However, Merleau-Ponty covered multi-dimensional aspects of the relationship between life and human beings in terms of the physical body in order to find the true meaning of life (Seamon, 2013).

Maurice Merleau-Ponty (1908-1961), a French phenomenological philosopher, developed his theory based on Husserl's and Heidegger's thinking in deeper detail, since their approaches were somehow abstract. The aim of Merleau-Ponty's phenomenology was to reach the substance of objects, especially their qualities. He believed that people and the object are parts of the lived world, which is a world consisting of things that have already existed without any reflection. The notion of the "lived body" deals with the body as an object that has the ability to make actions in order to experience the world. Merleau-Ponty tried in his method to avoid simplifying objects and their qualities; he believed that the engagement of people in the world can help to create full understanding. He argued that the truth is not inside people, but can instead be found in the world when people explore it, which, in turn, can help them to find facts about themselves. This idea became the replacement of 'a self-contained consciousness'. The main point in Merleau-Ponty's phenomenology is that the truth in the world is neither hidden nor clear (Sadala and Adorno, 2002).

In *'Phenomenology of Perception'* (1945), Merleau-Ponty explained the concept of perception by defining it as 'the immediate, taken-for-granted givenness of the world'. Merleau-Ponty argued that the concept of perception plays an essential role in establishing the meaning of life as a result of the interaction between the body and its world. Merleau-Ponty defined the human body as an "animal of perceptions and movement" (Merleau-Ponty, 1964, p. 167). Based on Merleau-Ponty's description, it can be said that the questions that people ask about the phenomenon around them are their visions and the actions they take forming in their movements are the answer to their question.

The human body is the convergent point between the body as immediate object and the body as a mediate object. In reality, nobody in this world can separate his/her body from him- or herself, since the body is the physical part of the human being. However, the body

is the primary instrument to explore and inhabit the world. Based on this aspect, even if people are not aware of their bodies, the human body acts as a mediating instrument (Merleau-Ponty, 1967).

Merleau-Ponty succeeded in explaining the relationship between mental and physical realms. He stated that people begin obtaining their knowledge about the world through their embodiment experiences of objects and these experiences will then be classified in an intellectual way in people's minds.

Merleau-Ponty stated that the contouring of any part of a human body cannot be achieved through the description of its ordinary spatial relation because the contouring of such a situation is broader than being limited to an ordinary spatial relation description. He gives an example for this situation by describing the rest of his own arm on the table by saying that, he “will never think to say that it [means his arm] is next to the ashtray in the same way that the ashtray is next to the telephone” (Merleau-Ponty, 1945). The main reason for not limiting the describing of one single part of a human body to the ordinary spatial relation is because there is an unusual connection between different parts of the human being, since each of one of these human parts wraps up the others; as a result, it is impossible to separate them in the situation of describing a single part of them spatially. Merleau-Ponty, therefore, indicates that, “the entire body is not ... an assemblage of organs juxtaposed in space”. Merleau-Ponty believes that a human being's control of his/her body as ‘an indivisible possession’ can define the position of their limbs through a *body schema*, which is the notion that can wrap up all the human beings' limbs. Merleau-Ponty explained that body schema is a complicated structure that allows people to deal with any situation within the limitations of their ability. This statement shows that the people embody the world just when they have the ability to engage with it. It is important to state that from the ongoing interaction with the world the body schema is gradually emerged and developed.

3.3.3.1 The Theory of Affordance

James Jerome Gibson (1904-1979), an American psychologist, rejected the idea of a cognitive process of perceiving the environment, and indicated that a person can directly realise the meanings and the values of things in the environment. He developed an “ecological approach” to study the visual perception; and one of his main theories is the

theory of affordance. In Gibson's philosophy, affordances are relational, because of the complementary relationship between the environment and the observer. Gibson said that:

The affordances of the environment are what it offers the animal, what it provides or furnishes, either for good or ill. The verb to afford is found in the dictionary, but the noun affordance is not. I have made it up. I mean by something that refers to both the environment and the animal in a way that no existing term does. It implies the complementarity of the animal and the environment. (Gibson, 1979, p. 127)

Andrew J. Wells described the relationship between the environment and the animal in Gibson's philosophy as asymmetric inter-dependence. He said this relationship is inter-dependence because of the complementary relationship between them, however, he described the relationship as an asymmetric relationship because the environment is a more important component in the act of perception than the animal (Wells, 2002).

Although the properties of any object in the environment can be physically measured, the affordances of the object need to be measured in a way to be related to the animal being considered. The unit used to measure the affordance of the object is connected to the behaviour and posture of the intended animals. An affordance refers to both the environment and the observer. This suggests that in the theory of affordance these realms of matters and consciousness cannot be separated. Gibson denied the idea of dualism in the theory of affordance, because the relationship between the environment and the observer is inconsistent with dualism and the nature of animal/environment relation "is wholly inconsistent with dualism in any form, either mind-matter dualism or mind-body dualism. The awareness of the world and of one's complementary relations to the world are not separable" (Gibson, 1979, p. 141).

Gibson showed the distinguished difference between the habitat and animal from its niche. The habitat of an animal points out where it lives, whereas the niche indicates how it lives. A niche an animal occupies constitutes "a sets of affordances" (Gibson, 1979, p. 128).

Since the reality of the world consists of many different layers, it can be analysed, as suggested, at different layers. Gibson confirmed that the ecological layer is the most suitable layer to analyse the behaviour of humans and animals. Ontologically, the ecological layer contains all the objects and events that are connected to the behaviour of the human or other species. Gibson asserted that the perception of the environment in the

ecological approach is connected directly to an unfettered vision. This approach cannot be simplified to the bodily structure and the normal functions of a human's eye or the brain process to perceive the environment. Gibson stated that:

We are told that vision depends on the eye, which is connected to the brain. I shall suggest that natural vision depends on the eyes in the head on a body supported by the ground, the brain being only the central organ of a complete visual system. (Gibson, 1979, p. 1)

Without doubt, the theory of affordance is the essence of the ecological approach since it inspects the relationship between the environment and the mobile observers.

Animals can perceive directly the fundamental affordance of the environment. The main notable difference in the idea of perceiving the environment in Gibson's theory and theories, specifically according to Kurt Koffka, a Gestalt psychologist, is that in the theory of affordance the environment is perceived directly, whereas the perception of environment in Koffka's theory emerges from the dynamic relation between the ego and the object. Gibson stated that the gestalt psychology is intelligible, and confirms that the values and the meaning of objects can be perceived immediately. He said:

There is an easier way of explaining why the values of things seem to be perceived immediately and directly. It is because the affordances of things for an observer are specified in stimulus information. They seem to be perceived directly because they are perceived directly. (Gibson, 1979, p. 139-140)

In the field of ecology, it is important to note that one of the main features of the affordances is that they are meanings. Animals perceive the meanings that are offered by the objects in the environment. "[T]he composition and layout of surfaces constitute what they afford. If so, to perceive them is to perceive what they afford. This is a radical hypothesis, because it implies that the "values" and "meanings" of things in the environment can be directly perceived" (Gibson, 1979, p. 127). The meanings that are offered by the objects in the environment do not link to the observer. Gibson stated that the meaning is independent of the need of the observers and their way of preserving. "An affordance is not bestowed upon an object by a need of an observer and his act of perceiving it. The object offers what it does because it is what it is" (Gibson, 1979, p. 139).

The affordances are both fact of the environment and fact of the behaviour. They are fact of the environment because they are invariant and what the things offer does not depend

on the way of perceiving them. “The observer may or may not perceive or attend to the affordance, according to his needs, but the affordance, being invariant, is always there to be perceived” (Gibson, 1979, p. 139). Meanwhile, the way of perceiving the environment by the observer and their activity is a key part of the ecological approach. The perception of the environment can be achieved through the activity of the observer. “The eyes, ears, nose, mouth, and skin can orient, explore, and investigate. When thus active they are neither passive senses nor channels of sensory quality, but ways of paying attention to whatever is constant in the changing stimulation” (Gibson, 1966, p. 4). The theory of affordance shows a connection between visual perception of the environment and the behaviour of the observer. It “implies that to see things is to see how to get about among them and what to do or not do with them.” Therefore, the affordance is a fact of the behaviour.

3.4 Conclusion

This chapter provides a literature review of the cognitive theory of religious transmission and the three theoretical paradigms to explore the museum architecture as a medium of spatial narrative. It also develops a conceptual framework of ‘divergent modes of meaningful transmission experiences’ in the JMB as an approach to explore the effect of Jewish history and culture as an inspiration to conceptualise the architecture of the JMB in order to create meaningful places for visitors, specifically in terms of examining the two identified experiences (cognitive and embodied).

The discussion of the two categories of transmission of religious knowledge in the field of anthropology stresses the importance of discussing their compatible framework to transmission of knowledge within the museum studies. Therefore, in the following chapter, two main frameworks to interpret museums generally will be discussed. It is essential to state each one of these two frameworks is somehow compatible with one of the two ways of transmitting religious knowledge in Whitehouse's cognitive theory of religious transmission.

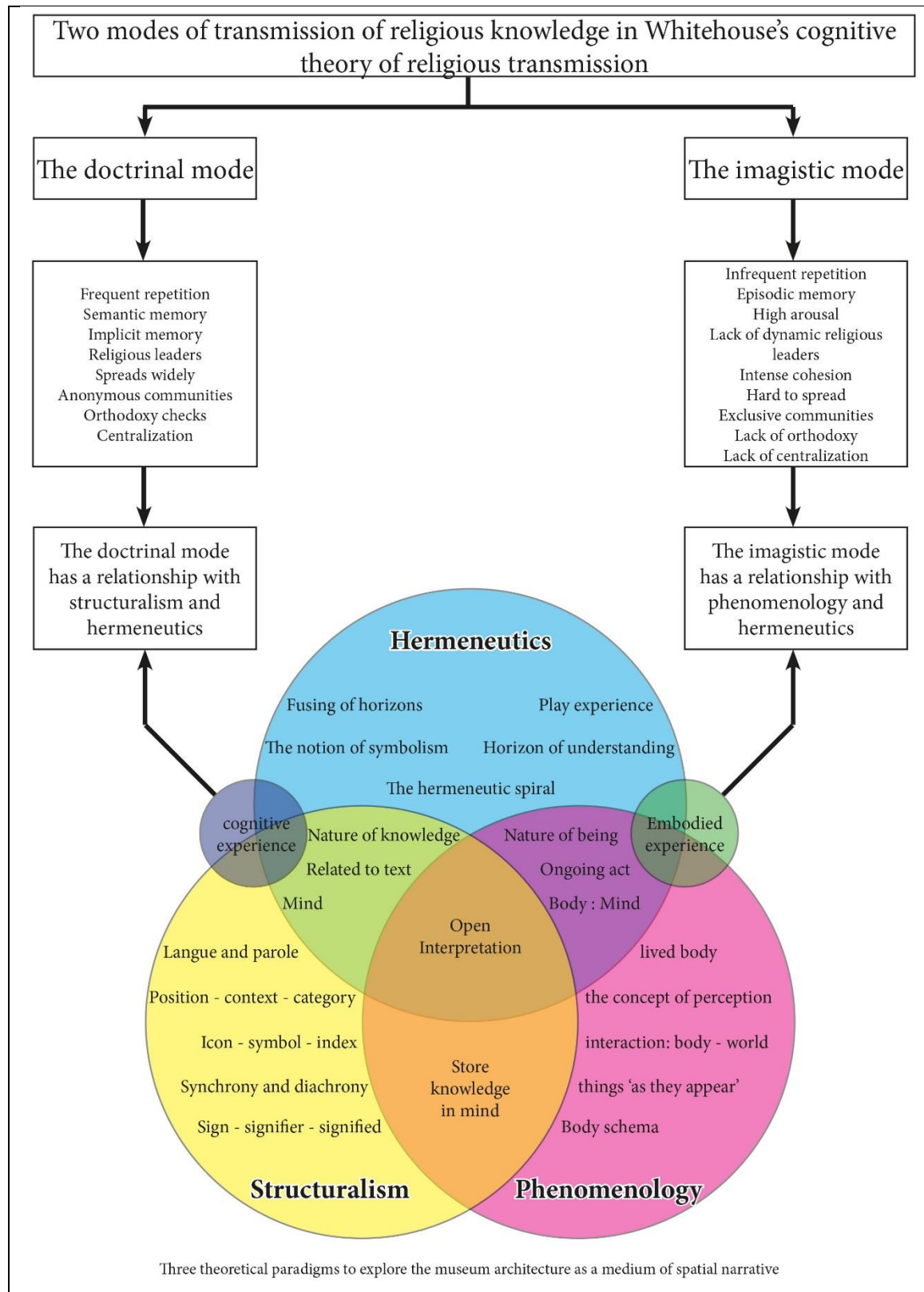


Figure 3-7 Overall diagram explaining the theoretical framework. Source: the author.

4 Chapter Four - Argumentative Literature Review: Interpretive Museums

4.1 Introduction:

The museum is not only a place to protect valuable materials, but also a place to communicate different ideas and meanings; therefore, the act of interpreting the museum's contents and space is a fundamental issue. However, defining a framework to interpret museums generally is one of the most complex issue, because there are unlimited number of theoretical and practical aspects that can affect the manner of interpreting them. Nowadays, there is a strong debate between scholars within the museum studies about the most suitable framework for interpreting museums specifically between the advocates of two school of thought: semiotics and phenomenology. In this chapter, many issues associated with the use of these two famous schools of interpretation will be examined to clarify their advantages and disadvantages as methods to interpreting museums. This chapter strives to conceptualise the complex and interdisciplinary discourses on the act of interpreting museums in these two schools of thought. It seeks to set up an underlying basis for the examination of the two identified experiences in JMB.

This chapter is divided into three sections. The first section will discuss briefly the complexity of interpreting museums and the importance of defining a framework to interpreting museums. In the second section, the advantages and disadvantages of using semiotic approach as a method to interpret museums will be discussed. It is important to state that this section will discuss first the nature of using the written word as an interpretive method, and then will discuss the use of some semiotic techniques as tool explore museums. The last section investigate some aspects related to the use of phenomenology as method to interpret museums. The applied methodology for this chapter is a literature review of interpreting museums mainly in the field of museum and architecture.

4.2 Interpretive Museums

Creating a framework by which to interpret architecture in general is one of the most complicated issues in the architectural field, and it becomes even more complicated when a scholar needs to select an approach to interpret some particular buildings. Museums are an example of these buildings. The problem with the museum is related directly to its nature as an institution dealing with a range of both theoretical and practical perspectives. Eight aspects related to the museum will be listed as examples to show the difficulty of dealing with its nature: (1) the effect of their physical fabric as both meaningful resources and controlling of the users' motions, (2) their functional and entertainment environments, (3) the layout of contents, (4) containing various programmes, (5) practical management of the museum, (6) influences of social and political forces, (7) the large number of professionals who play a role in creating them, and (8) how the people interact with the museum. Each one of these aspects is complicated and there is a huge debate in terms of understanding their nature. These aspects and more are clear evidence not only to indicate that museums are *one of if not the most* complicated building typologies, but also to indicate that interpreting museums is very complex because all of these aspects and others affect the way of interpreting museums. Therefore, selecting a theoretical framework to analyse how the visitors read museums is a complex issue; this, in turn, requires a careful examination to clarify the advantages and disadvantages of the methods used to analyse the interpretation of museums by the visitors.

As far as the interpretation of the museum is concerned, defining a theoretical framework for interpreting museums is a paramount issue because “[m]useums are not only protectors but also communicators of the living memory” (Hodge and D’Souza, 1979, p. 252). A museum in general is considered to be one of the main spots that can express the culture of a specific community through its exhibitions and what they display. They can present many facts about a community and show its identity and distinctive characteristics. Therefore, Beth Lord, a philosopher specialising in the history of philosophy, stated that “Museum[s] are fundamentally about interpretation – about attempting to bridge the gap between things and systems” (2005, p.148), because museums are the main connector between cultural production and consumption. This means that museums link between experts and the knowledge that they want to provide to the visitor. This relationship is still under discussion

in relation to two main issues: The nature of this relationship and the different approaches that are used to interpret it (Macdonald, 1996a). These days, there is a dispute between museological and architectural scholars about the most appropriate framework for interpreting architecture in general and museums in particular. The dispute occurs between the supporters of the most famous schools of semiotics and phenomenology.

According to Lord (2005), objects are not the central part of the museum; instead the space of representation is the fundamental part of any museum. The museum “presents and questions the space between objects and conceptual systems” (Lord, 2005, p. 153). These conceptual systems can be either imposed by the creator so the role of the visitor is to understand the system, which usually leads to discovering a single perspective; or, it can be open to the visitor to build their own system, which leads to discovering multiple interpretations. The former system (the imposed one) is associated with the semiotic approach, whereas the second one is connected to the phenomenological approach. Each one of these two approaches will be discussed separately.

4.3 A Semiotic Analysis:

Sharon Macdonald, a professor of cultural anthropology at the University of York, claimed that using a semiotic approach to interpret a museum “seeks to analyse the classification, analogies and juxtapositions of museum displays in order to reveal the cultural assumptions and political motivations that they may contain” (1996a, p. 4-5). According to Macdonald (1996), the interpretation of museums as texts is an important issue. Although she believed that this idea is still underdeveloped, she showed two benefits of applying this idea. First, it can help to create an approach to interpret museums based on literary theories. Second, some of the questions that arise from literary theories are connected directly to both the reader and the authorship. Below, some issues associated with the use of this approach will be discussed.

In the Museum as a Communicator: a Semiotic Analysis of the Western Australian Museum Aboriginal Gallery' Perth (1979), Robert Hodge and Wilfred D'Souza stated that objects and artefacts constitute the foundation of an exhibition showcase; however, they believed that placing objects and artefacts alone without any interpretive methods cannot help the

audience to achieve the desired meaning of these collections because through these collections alone the visitor will not have access to the way of life depicted in or around them. This access can be achieved through describing one or more of the relationships that are connected to these collections as listed in (Hodge and D'Souza, 1979): (1) origins; (2) manufacture; (3) use and (4) places 'in a system of values or meanings'.

(Hodge and D'Souza) believed that museum visitors can use all their five senses to explore the meaning of museums' objects and artefacts in an immediate and open way; however, they more strongly believed that "these meanings are only potential, and liable to disappear unless they are coded and retained in language" (p. 257). For (Hodge and D'Souza), language as a medium to communicate messages in museums does not need any outside help from other mediums in satisfying its function; unlike other mediums in the museum display which really require the help of other mediums to communicate their meanings, they said:

Language is the only medium that can communicate self-sufficient messages about themes of the display; the pattern of life of the Aborigine people [also applicable for other groups of people], their history and the relations between their way of life and the environment. The other media only communicate such messages in combination with language and each other (Hodge and D'Souza, 1979, p. 260)

According to Hodge and D'Souza (1979), language can be used in the museum in two ways: as labels and as full sentences. They are attached to museums' contents in order to communicate the meanings of these contents. Language in its label form is limited in terms of the meanings that it can communicate; it just communicates two types of message: 'this is an X, or these are kinds of/parts of a Y', whereas the use of language in its sentence form is 'the best "system of communication known to man" (1979, p. 258).

The approach that Hodge and D'Souza (1979) supported as a way for telling stories about specific history is known as 'Book-on-the-wall' approach which is one of the oldest approaches to tell a story in museums. This approach is a two-dimensional presentation consisting of a set of panels installed on the building structure. These panels contain text, drawings and photographs that have been organised by the curator in a thematic way (Hale and Schnädelbach, 2009). However, this approach has been criticised by many museological scholars. Ting (2010) stated that the interpretive texts in conventional

museum text cannot help the visitor to see the object from various perspectives to discover their multiple meanings. In addition, she explained that the roles of these interpretive texts are nearly limited to give some historical facts about the objects, and rarely they can give sensual clues helping the visitor to act reciprocally with the object (2010). For Hooper-Greenhill (2000), encountering objects is unlike encountering text, because text is abstract and has no materiality, whereas objects are concrete and material. Ricoeur (1981) clarified the matter of seeing any text as an abstract idea of any discourse that has been fixed by people. He said “a text is any discourse fixed by writing” (1981, p. 145). Hooper- Greenhill (2000) stated that linguistic skills are needed to understand the meaning of texts in museums. In other words, cognitive processes are required in order to make sense of the text in museums. “Textual meaning remains for the most part within the realm of ideas, of discourse. It does not relate to the body or the senses” (2000, p. 114-115). Contrary to Hodge and D’Souza 's hypothesis (1979), Hooper- Greenhill (2000) asserted that the object is used to make the visitor realise the meaning of the text; she said “Objects are used to materialise, concretise, represent, or symbolize ideas and memories, and through these processes objects enable abstract ideas to be grasped, facilitate the verbalization of thought, and mobilise reflection on experience and knowledge” (2000p. 111)

The organisation of objects in museums and designing their space play a key role in communicating a specific message. Mike Crang stressed that the act of arranging objects and artefacts in a museum can support the appearance of a particular form of history (Crang, 2003) (Crang, 1999) (Psarra, 2005). In *Objects of Ethnography* (2012), Kirshenblatt-Gimblett has explained this idea in a more general sense. She said:

Ethnographic artefacts are objects of ethnography. They are artefacts created by ethnographers. Objects become ethnographic by virtue of being defined, segmented, detached and carried away by ethnographers. Such objects are ethnographic not because they were found in a Hungarian peasant household, Kwakiutl village, or Rajasthani market rather than in Buckingham Palace or Michelangelo's studio, but by virtue of the manner in which they have been detached, for disciplines make their objects and in the process, make themselves" (p. 387)

In more detailed analysis, Andrea Witcomb, a professor of cultural heritage and museum studies in Deakin University, has discussed the role of linear narrative in making the visitors gain specific meanings; she stated the strong linear narrative “allows spaces for only one point of view – that of the curator/institution” (1994, p. 240). According to

Witcomb (1994), the linear narrative consists of three levels. Spatial level is the first one. This occurs when the exhibition is designed in a way to be “a one way flow, with exhibits lining either side of a rectangular space, creating a tunnel through which the visitor must pass” (Witcomb, 1994p. 240). The collection of artefacts is the second level. This is achieved when the artefacts of an exhibit is arranged by using “another single narrative such as an evolutionary chronology from primitive to modern” (p. 240). Artefacts as individual cases constitute the third level. These artefacts are “organised in a linear fashion, replicating the master narrative in the way they are classified, labelled and displayed” (p. 240). Witcomb has stressed that applying these three levels of arranging the museum’s components will create a strong linear narrative “which is authoritative and positions itself as the source of knowledge” (p. 240). Instead of making these different components produce multiple meanings, this linear narrative will reduce to the intended perspective by the creator or the institutions. Therefore, the visitor is “unambiguously placed as reviver of knowledge, as the end-point of the production process” (p. 240)

There are many scholars who showed the benefit of applying semiotics as an instrument to interpret museums, such as Robert Hodge, Wilfred D'Souza and Georges Henri Rivière in their article *The Museum as a Communicator: A semiotic analysis of the Western Australian Museum Aboriginal Gallery, Perth* (1979); Carol Duncan and Alan Wallach in their article *The Universal Survey Museum* (1980); Susan M. Pearce in her book *Museums, Objects and Collections: A Cultural Study* (1993); Gaby Porter in her paper *Seeing through Solidity: a Feminist Perspective on Museum* (1995); and Glykeria Anyfandi, Vasilis Koulaidis and Kostas Dimopoulos in their article *Social-semiotic Framework for the Analysis of Science Exhibits* (2009); Macdonald has criticised this approach by stating that this method can lead to many problems. The first one is related to the reader, where there is no clear evidence that the reader (audience) will receive the same intentional message. In other words, there is no study that shows that there are strong links between production, text and consumption. This approach does not take into account some factors that affect the process of the design such as the various people who participate in the design. This approach assumes that all the users share the same background. More importantly, this approach ignores the fact that the environment of the building is dynamic and changeable, which affects the capturing of this environment.

In *Mangles, Muck and Myths: Rural History Museums in Britain* (1991), Gaynor Kavanagh claimed that, within the field of museum studies, some researchers have used semiotic theories to analyse museums and their exhibitions. Those researchers have examined the museums and their exhibitions based on their points of view, which are determined by “social and semiological theory, personal perspective and sometimes emotional response” (p. 188). As a key part of the structure of their studies, they strived to test their own hypotheses in a museum or an exhibition in order to demonstrate the validity of their hypotheses or extend them. The main subject that has been discussed in these studies is the ideological messages (the invisible agenda of museum practices). “The results [of these studies] often demonstrate conclusively that museums as a whole are ideologically constructed, that they make solid and graphically evident dominant value-systems, and carry if not promote class, gender and ethnic biases” (p. 188). This led to Kavanagh stating that, “Museums are no more created in a moment of intellectual purity than are history texts and learned journals” (p. 188).

Using semiotic theory to evaluate museum practice in detail might lead to museum professionals losing confidence or enthusiasm because such an approach rarely allows for the same amount of freedom in discussing different arguments within the museum practice; this approach assumes a specific argument as fact instead of giving evidence that clearly shows the truth of the argument.

In *The New History in an Old Museum Creating the Past at colonial Williamsburg* (1997), Handler and Gable explained that most of the researchers within museum studies focused on the messages that are produced by museums, and strived to evaluate their primary statements in an analytical way using a semiotic approach. However, they believed this way of reading missed a unique feature of “the museum as social arena in which many people of differing background continuously interact to produce, exchange, and consume, messages” (p. 9).

There are two main benefits of applying the semiotic model for interpreting museums. The first one sometimes helps to discover the intended meanings while the second one has some techniques, which can help to create meaning beyond any display inside museums. In terms of the first benefit, Eilean Hooper-Greenhill, in her book *Museums and the Interpretation*

of *Visual Culture* (2000), proposed an idea based on the notion of intertextuality which was first created by Julia Kristeva, a Bulgarian-French philosopher. Hooper-Greenhill named her developed idea ‘inter-artefactuality’ to think about the notion of intertextuality in the curatorial practice. In order to understand this idea, the concept of intertextuality will first be briefly explained. Intertextuality is the use of prior knowledge which comes from texts to constitute a text’s meaning. According to Hooper-Greenhill (2000), each object has verbal and tacit dimensions. The tacit dimension (tacit way of knowing) is related to what is discovered through the five human senses, which will be discussed in A phenomenological Analysis, whereas the verbal way of knowing is related to the historical and cultural dimension of the objects and how they can affect the meanings of these objects when they are displayed in a museum. This type of knowledge “enable[s] an examination and evaluation of what is known, facilitates comparison with the ideas of others, enables sharing and discussion” (Hooper-Greenhill, 2000, p. 116). The verbal way of knowing gives the object a hermeneutic dimension because it “is textual knowledge – knowledge through the written, spoken or heard text” (p. 116). The following study is an example of the effects of verbal knowledge on the meaning that is given by visitors to the objects displayed in a museum.

In *Raising spectres: welcoming hybrid phantoms* (2007), Anne Lorimer has shown that semiosis and materiality have an influence on each other inside one space. She reached this conclusion through her examination of an exhibition in the Museum of Science and Industry, *Learning and learning disabilities: explorations of the human brain*. She stated that one of the images that came into the visitors’ mind when they were exploring the exhibition was ghosts, and this is not part of what the creators wanted the visitors to get from the exhibition, since the main aim of this exhibition is to educate the visitors about some facts related to the human brain. Based on Levi-strauss’s theory, Lorimer stated meanings cannot be divided from the materials because materials can carry with them meaning that connect to the history. These meanings are the verbal knowledge.

For a long time the obtaining of information in museums was the main consideration of the establishment of museums whilst material objects took a secondary part inside museums. This perspective has changed as a result of many studies that showed the important role

that objects can play inside exhibitions from different points of view. Therefore, Mary Bouquet in her article *Thinking and doing otherwise: Anthropological Theory in Exhibitionary practice* (2000), indicated that an anthropologist as a member of the exhibition-makers can provide more techniques than an ethnographic scholar might provide, especially in terms of discovering the relationships between different elements inside the museum. The process of designing a museum usually goes through different stages, and part of this process is the role of ethnographers to translate history as a lived experience in a written document. This document will be used by architects, exhibition-designers, curators and interior designers in order to create the museum space. One of the difficulties that can be understood from Bouquet's article is that the relationships between different elements cannot be strong in order to connect them smoothly, since ethnographic scholars think about history events separately; also, they do not provide any information to connect their findings with the museum's space. Therefore, Bouquet believed that anthropologists could play an important role before the translation of a written document into a physical form by creating some strategies to connect different elements inside museums.

As far as the second benefit is concerned, Chris Dorsett in his article *Making Meaning Beyond Display* (2010), stated that a large number of artists reject any type of interpretation of their work, so they often strive to create artworks that are easy to understand. In semiotic terms, artworks of this kind are known as icons, based on Charles Sanders Peirce's theory of signs. Peirce, an American philosopher (1839-1914), classified signs into three kinds: icon, index and symbol. An icon is the simplest since it is a direct representation of the real thing. A picture of a person, for example, is an icon of that person. The signifier, or the index sign, has a direct connection in some way to what is signified. Observers need to use their experience and make inferences in order to understand this sign. Smoke is an index sign of fire. Symbol is the mode in which the signifier does not resemble the signified, so this sign is an arbitrary sign. Observers need to learn how to decode signs of this type and language in general is an example of symbol signs. Dorsett (2010) stated that in order to create meaning beyond any display inside museums, designers need to extend the use of index and symbol signs. He said that:

To value icons in the museum environment is to extend the range of semiotic possibilities out beyond the curator's commitment to indexical and symbolic meaning. As a result, when an artist joins a curatorial team as an agent of change it is the span of overlapping interpretative activities that automatically provoke subversive tension not the asymmetric pairing of practices. (p. 254-255)

Taking everything into account, both cultural and social theories play an important role in three ways. They can discover things that are omissions and valuable at the same time. Second, they can find the connection between different elements and they can be used as an inspiration to form the exhibitions in an inventive way. However, the interpreters of museums, as has been stated by Macdonald, should not limit their understandings of the museum to literary theories and think about the museum like text; instead they need to analyse the museum unlike text, for six reasons; (1) museums are the key loci of material culture; (2) museums' visitors are not normally static, instead they explore the museum through their movement; (3) many of their messages have a non-verbal nature; (4) museums have a strong connection with legitimising and authority issues; (5) their objects are durable and solid; (6) their 'sitedness' (Macdonald, 1996a).

4.4 A phenomenological Analysis

According to Merleau-Ponty (1986, p.vii), phenomenology 'tries to give a direct description of our experience as it is, without taking account of its psychological origin and the causal explanations which the scientist, the historian or the sociologist may be able to provide.' In this part, the phenomenological model of interpretation will be discussed to discover the limitations and the possibilities of using this model as an interpretive tool in museums.

In her paper *Myth, Memory and the Senses in the Churchill Museum* (Watson, 2010), Sheila Watson wrote that people can experience history in many different ways, such as reading an historical book or watching a documentary film. For her, however, the practising of history in museums is the most interesting way of experiencing history. Watson stressed an important point about presenting history in museums by saying that curators often strive to present history in exhibitions in ways which are reliable, since they believe that visitors will question these contents. Watson showed the importance of using a phenomenological approach in understanding the Museum's environment, because this approach is appropriate for exploring different techniques related to human senses, such as touch,

hearing and sight, which were applied by the designers of the historical museum (Watson, 2010).

In *Dancing Pot and Pregnant Jar? On Ceramics, Metaphors and Creative Labels* (2010), Wing Yan Vivian Ting argued that bodily experience is the basis of understanding the object-human relationship. Ting based her argument on the notion of object as metaphor in Chris Tilley's theories in the study of material forms. Tilley believed that objects contain various symbolic meanings which can communicate ideas to people; however, he stressed that the human body is the base of the relationship between object and human, which discovers the inherited meanings including the symbolic meanings. For Tilley, understanding the metaphorical meanings of objects cannot be achieved through the mental process alone; instead it involves several expository tools to incorporate objects, actions and events in the process of understanding the metaphorical meanings. Tilley stated that "cognition is essentially a process of seeing something as something and this is the core of metaphorical understanding. Seeing something as something is grounded in culturally mediated bodily experiences" (Tilley, 1999, p. 34-35). Ting extended Tilley's notion of object as metaphor to claim that "metaphor is a critical interpretive strategy that equips visitors with the means to associate familiar concepts or experiences with the translating of the 'lifelessness' of the collection into a dynamic and stimulating object-human manifold" (Ting, 2010, p. 191). The vital relationship between the object and the subject play a pivotal role in creating meanings of the experience. For Ting, the purpose of applying the notion of metaphors in museums is to give the visitor the authority to experience the formal qualities of their objects and artefacts through their five senses; this in turn can help the visitor to detect the sensuous beauty of these objects and artefacts and create meanings from them based on the visitor's personal contexts.

In *Art and Agency: An Anthropological Theory* (1998), Alfred Gell argued that the material objects have the quality to be considered as individual persons. Gell refused the idea of putting the art object in a position to be just interpreted by people, and read like a text, because the art object is a part of the social relation. For Gell, art objects do not contain any meanings in themselves and at the same time, people are not alone in appointing meaning to these objects; however, the interactive world between the people and objects is

the creator of meaning to both components (objects and individuals) based on the effect of each component on the other. Therefore, it can be said that there are interchangeable roles between people and art objects. Sandra h. Dudley, professor of museum studies at University of Leicester, stated that, “neither object nor subject has the last or only word; rather, it is in their mutual intersection that sensory responses and subsequent ideas are generated” (2010c, p. 12), specifically in the world between the subject and the object where they both meet. “[T]he engagements which matter happen not in objects, not in minds nor social relationships but, physically as well as emotionally and cognitively, in the spaces in between all three” (2010c, p. 13). The architecture of museums is considered to be the central area where the interaction between the visitors and the museums’ collections take place. The effect such a space has can be seen in *The Eyes of the Skin* (2005) by Juhani Pallasmaa who discussed in this book the role of the body in discovering the effect of the architectural materialities through the five human senses. He stated that “the world and the self inform and redefine each other constantly. The percept of body and the image of the world turn into one single continuous existential experience” (2005, p. 44).

Therefore, in *Exhibition Experiments* (2007), Sharon Macdonald and Paul Basu suggested that the design of exhibitions should be moved from the space of representation to the space of encounter. The main difference between these two spaces is in the former one the space has been designed to be read like a text on the wall using one sense, whereas the interpreter of the second space needs to engage with the exhibitions’ ideas as a three-dimensional environment using all of their senses.

The three-dimensional structure of spaces can extend the limitation on storytelling imposed by texts. To explore the advantages of the experiences which can be found in spaces such as museums, Jonathan Hale proposed a paradigm of embodiment as a model for interpreting such spaces in his article *Narrative Environments and the Paradigm of Embodiment* (2012). This interpretive approach was based on Maurice Merleau-Ponty’s notion of bodily experience. Merleau-Ponty believed that our body is the primary tool for communicating with our world, and that bodily experiences can help people to structure meanings to the environment around them. The perception of the world is not such an easy task for people as it was thought to be in the eighteenth century but engagement with the

world can enable people to learn new skills by understanding the capacity of their body. Based on the theory of the same philosopher, Hale and Back (2018) in *From Body to Body: Architecture, Movement and Meaning in the Museum* have discussed the role of embodied experience in the interaction with the museum's content and space with a clear shift from theoretical world to practical one. In this paper it has been stated that the visitor can gain knowledge in museums generally through the interaction between their bodies and overall spatial environment. In *An Ethical Future for Museum and Gallery design: Design as a Force for Good in a Diverse Cultural Sector* (2018), MacLeod discussed the idea of embodied narrative experience in her examination of the some visitors' interpretation of the Tower of London. As a key part of this idea, she stated that multisensory engagement with the overall spatial environment can play a key role in connecting the visitor emotionally with the evoked story.

In *Narrative transformation and the architectural artefact* (2012), Stephen Wischer stressed the importance of design to increase the depth of imagination in designing architectural artefacts, since he believed that this can help to create a tangible design. This idea focuses on the relationship between architectural artefacts and their preservers, because this approach can help to “[pull] memory and imagination into an empathetic with material reality, inspired by, and for, life as it is lived” (Wischer, 2012). The imitation of any phenomenon can create objects or tools that “always leave room for memory and imagination – opening upon situations that are familiar and relatable, as well as completely new and wondrous” (Wischer, 2012).

It is essential to note that Wischer developed this idea from Merleau-Ponty's theory of perception. He also supported his proposal by some strong notions developed by Heidegger and Gadamer. Wischer used Merleau-Ponty's view about the connection between our body and the world. In his theory of perception, Merleau-Ponty sought to enhance the connection between thought and experience, especially because of the spread of creations that have no tangible relationship with the body, which, for Merleau-Ponty, is the producer of the meaning of our world. Merleau-Ponty stated that:

Time and space finally appear as the expression of a universal, positing power. I am no longer concerned with my body, nor with time, nor with the world as I experience them in antepredicative knowledge, in the inner communication that I have with them. I now refer to my body only as an

idea, to the universe as an idea, to the idea of space and the idea of time. Thus, objective thought is formed – being that of common sense and of science – which finally causes us to lose contact with perceptual experience. (Merleau-Ponty, 1945, p. 82)

The idea of bodily movement is a key part in perceiving the space and there are many scholars from different disciplines who stress the importance of movement inside a building as an approach to obtaining multiple meanings. The role of movement as a producer of meaning can be seen very clearly in Le Corbusier's idea of promenade. Also, Macdonald and Basu have showed in their book entitled *Exhibition Experiments* the importance of movement in such exhibitions as an approach to discovering perhaps unintentional meanings.

Le Corbusier strived to create buildings that can be seen from multiple perspectives in order to enhance his idea of promenade. In this type of architecture, the users of the building obtain the knowledge through their experience of movement inside buildings. These multiple subjectivities become the key factor of completing buildings. According to Flora Samuel in his essay *Architectural Promenades through the Villa Savoye* (2015), the meaning of building for Le Corbusier was connected directly to individuals and society, since each individual will obtain their meaning about the building through their own movements. As an approach to applying this idea of promenade, Le Corbusier used “abstract, didactic, rigid and formal techniques”, because these will help to create multiple readings by the visitors. These multiple subjectivities for Andrew Ballantyne is the main aspect that makes a building have a long life; he stated “what gives buildings longevity is not what they meant for their designers, but what they come to mean for others”. Samuel stated that the idea of promenade is one of the more significant aspects that made the works of Le Corbusier of great interest.

As part of the process of fully understanding the definition of experiment inside museums and its applications, the editors of *Architecture and Movement: The Dynamic Experience of Buildings and Landscapes* (2007), Macdonald and Basu, have invited many scholars from different disciplines, particularly anthropology, ethnography and art, to participate in their book. The aim of this involvement is to explain the contribution that each of these disciplines can add to enriching the experience of experiments inside museums.

The process of combining and integrating the apparatus of display (including people, texts, different media and spaces) should establish a place of discovery. This combination would make the display active, because of the interaction between its apparatus; and this might lead to producing new outcomes. The main purpose of creating this experiment is to make the visitors of museums able to see invisible aspects, thus the experiment, as a new approach in designing exhibitions, has the potential to make intangible things tangible. This argument is the main reason that made Basu and Macdonald (2007) state that the role of the designer of exhibitions is not to represent a thing, but rather to enact it in order to make the visitors generate knowledge. This enactment would influence the visitors' behaviours and performances and these types of actions by the visitors might help them gather new evidence or what is known as new knowledge. It is clear that most of the ideas in Macdonald's and Basu's book *Exhibition Experiments* is connected to some extent to Tim Ingold's theories; who indicate that perception "is not the achievement of a mind in a body, but the organism as a whole in its environment ... immanent in the network of all our sensory pathway that are set up by virtue of the perceiver's immersion in his or her environment" (Ingold, 2012, p. 3).

4.5 Conclusion:

This chapter endeavoured to shed light on the complexity of interpretation museums and to define backdrop and framework to interpret museums generally. Defining a framework to interpret museums is fundamental issue, because currently museums are more communicators of the identity and distinctive characteristics of different communities than just protectors of their valuable materials. Because of the importance of establishing an interpretive framework, the most widely used approaches for interpreting museum, namely semiotics and phenomenology, have been discussed in this chapter.

This chapter presented multiple of theoretical and practical aspects that can be seen as a proof not only pointing out that museums are one of if not the most complex building typologies, but also to indicating that interpreting museums is very complicated. In addition, it is essential to state that currently museums are more communicators of the identity and distinctive characteristics of different communities than just protectors of

them. Therefore, defining a framework to interpreting museums is fundamental issue within the museum studies.

The first approach was the semiotic analysis, and it has discussed the use of written word and some semiotic techniques as method to interpret museums. In terms of the use of the written word as interpretive method, it is appeared that the written word can give some historical facts about objects in museums, and these facts somehow can help the visitor to achieve the desired meanings, because these interpretive methods can give the visitor access to the way of life depicted in or around these objects. However, many scholars criticised the spread of curatorial commentaries as tools to enhance the intellectual experience specifically text panels for four main reasons related directly to the nature of the written word. First, texts usually impose specific meanings and rarely enable the visitor to see the object from various perspectives to discover their multiple meanings. Second, texts infrequently can provide sensual clues for the visitor to make it possible for them to act reciprocally with the collections. Third, cognitive processes are required in order to make sense of the text in museums. The last limitation of text is that it text is an abstract idea (Ricoeur, 1981), and it has no materiality (Hooper-Greenhill, 2000). This is not to say that the basic components of the text have not a material form, instead it is to state that the physical characteristics of the text have a minor role in the meaning of the text, as it will discussed in chapter eight.

With regards to the use of some semiotic tools as method to interpret museums, there are three benefit of using these techniques. First, they play a key role in exploring both the political dimension and the common ideas of a specific culture through examining different themes that are inherent in their displays. Second, the use of these methods can help to discover the hermeneutic dimension of the museum's collection. Finally, some of the semiotic techniques can help the designers to create meanings beyond the display. However, there are some problematic issues related to the use of semiotic approach as interpretive method in analysing or designing museums. First, there is no study indicated that the visitor will receive all of the intended meanings. This approach pay less attention to the fact that the visitors have different background

On the other side, phenomenology as the second framework to interpret museums generally has the ability to describe the visitor experience in museum as a phenomena in itself. This leads to identify three main features related to the act of interpreting museums. The first feature is that understating the meaning of objects in museums cannot be achieve trough the mental process alone; instead it is stressed that the embodied experience is the foundation of understanding the object-human relationship. the second feature is that objects in museums do not have meanings in themselves and at the same time, the visitor is not alone in assigning meaning to these objects (Dudley, 2010a, Gell, 1998). Instead, the meaning of an object emerges from the interaction between the visitor's body and the object. It is essential to state that the museum architecture is a key part of this world in between. Part of this point it is evident that the concept of bodily movement is a primary instrument to perceive the museum architecture, and there are many studies from different disciplines stressing the importance of movement as method to obtain multiple meanings. The last feature stated that multisensory engagement with the overall spatial environment can play a key role in connecting the visitor emotionally with the evoked story. However, although the phenomenological analysis has the ability to interpret multiple aspect related to the act of interpretation museums, it is limited in exploring the political and social dimension in museums.

Although there is a huge debate between scholars within the museum studies about the most suitable framework for interpreting museums specifically between the advocates of two approaches, it is clear than each approach has advantages and drawbacks. However, it can be claimed that the combination of these two approaches can help the interpreter to make each approach overcome the limitation of the other.

The discussion of the use of the two theoretical approaches specifically, namely semiotic and phenomenological analysis, as a framework to interpret museums generally helps to create the base for the understanding of the two identified experience in JMB, cognitive and embodied experiences. These two types of experiences will be discussed in chapter six and seven respectively.

In the following chapter, the discussion will move from the literature review to discuss the JMB as the focus case study for this research by focusing on many historical aspects related

to the Jewish museum as a public institution in Berlin, and some aspect regarding to the design of the new building.

5 Chapter Five – Jewish Museum Berlin as the Focus Case Study

5.1 Introduction

The aim of this chapter is to provide background information about the case study context covering many historical aspects regarding the Jewish museum as an institution in Berlin and the architecture of its new extension building. The process of selecting the JMB as a case study has been explained in the methodology chapter so this chapter mainly focuses on the JMB aiming to give contextual information as a general background for the examination that follows. This chapter comprises two sections. The first part provides readers with an introduction to the first Jewish Museum in Berlin, and the main reason that led to the destruction of that building. The second section describes the new Jewish Museum in Berlin, showing the relationship between the new museum and Berlin history generally and Berlin Museum specifically, explaining why it was built, demonstrating the architectural competition for the new extension with an explanation of a fourfold theme behind the design.

The applied methodology in the writing of this chapter combines a brief literature review, architectural analysis, and unstructured observations and interviews with two of the museum staff members. The brief literature review covers five issues: the history of the Jewish Museum in Berlin; the design of the new extension building; the controversial debates around the new design; the architect's early works; and the relations between the early works and the design of the new extension building. All of the architectural analysis, the unstructured observation and the interviews with two of the museum staff members have been used to analyse some aspects related to the museum architecture of the new extension building.

5.2 The First Jewish Museum in Berlin

The history of the Jewish Museum in Berlin started after Albert Wolf, a jeweller from Dresden, donated his extensive collection of archaeological finds, medals, coins, manuscripts, portraits, prints, and religious artefacts to the Jewish Community of Berlin in 1907, a few months before his death. Wolf began collecting these Jewish artefacts in 1874, and the main reasons for Wolf to bequeath his collections to the Jewish community in the capital city were to first maintain these collections and second, to encourage them to look for more collections, while the third was to make it accessible for the scholars of Jewish culture and tradition (Metzler, 2012). The Jewish Community of Berlin decided to display the collection in two rooms located a short distance from the community library and under the supervision of the library director at that time, Moritz Stern; however, it was found that Wolf 's collections were neglected during that time. As a result of enabling the representatives of the cultural-Zionist Jewish People's Party to encourage the Jewish community to preserve their culture, the situation gradually became better. The Jewish Community of Berlin began gathering funds in order to buy art produced within their lifetime so they could provide financial support to their artists. In October 1927, Karl Schwarz, an art historian, was selected to become the curator and director to house the Jewish community's art collection in the Jewish museum (Bertz). Schwarz stated that the main role of the museum was to exhibit "Jewish art and culture as living history" (cited in Zipes and Morris, 2016, p.158).

The first Jewish museum was established on 24th January 1933, exactly six days before Hitler was appointed as chancellor on 30 January 1933. The museum was located on Oranienburger Strasse (Berlin) which was at the centre of Jewish life in the city of Berlin. It was Schwarz and Max Liebermann, the honorary chair of the museum, who decided to rebuild a former Community Hospice located next to the stunning synagogue as a space to exhibit the collection. In summer 1933, Schwarz decided to move to Tel Aviv to set up a new art museum, and Erna Stein-Blumenthal became the new director of the Jewish Museum. Between 1933 and 1938, a team consisting of Stein-Blumenthal, Franz Landsberger (an art historian from Breslau), librarian Irmgard Schüler, and Wischnitzer-Bernstein (an independent curator) worked together and displayed many exhibitions. They also succeeded in making the museum a central part of the Jewish community's cultural

life. They gave many living Jewish artists chances to present their artwork in the museum side by side with the work of artists of the past. More importantly, the museum played a key role in making the visitors aware of their culture whilst living under pressure to applaud a wave of anti-Semitic incidents, which corresponded with the government's desires at that time (Bertz).

Liebermann led the first exhibition composed of artwork of artists of the Berlin Secessionists. As has been stated by James E. Young (2000), a professor of English and Judaic Studies, this exhibition showed that one of the museum's objectives was to intertwine Jewish culture with German culture in order to make each one of them a permutation of the other and this was not compatible with Nazis' desires of not accepting any interaction between German and Jewish cultures. However, the question of what constituted a Jewish museum was one of the major issues in this museum which created conflict between the community's members. One question was whether the museum should display any artwork illustrating the Jewish religion made by Jewish and non-Jewish artists or whether they should present any work of art made by Jewish artists. In addition, the definition of Jewish art came up for discussion after the first exhibition that was led by Liebermann, for although he was of Jewish birth, his works of art did not carry any reference to Jewish culture, as has been critiqued by Curt Glaser, a German art critic.

Although the museum gradually encountered a lot of difficulties from National Socialism over the next five years of its establishment, the museum continued to display artwork that was made by German Jewish artists showing their social environment. However, Nazi law began to stifle the nature of artwork being displayed in the museum and the identity of visitors. After issuing the Nuremberg Laws which excluded Jewish people from becoming Germans, Nazis prevented German people from visiting Jewish museums and restricted what Jewish museums could exhibit, limiting them to works made only by Jewish artists. Nazis classified Jewish art and others as degenerate art, and they legally prohibited Jewish artists from creating such work (Young, 2000).

The Jewish Museum in Berlin, like other Jewish museums in Germany, was forced to close its doors under Nazi rule of Germany. On 9–10 November 1938, Nazi Germany proclaimed a programme against Jewish people called Kristallnacht (also referred to as the Night of

Broken Glass). As a result of this the museum, like many Jewish buildings, was destroyed and the German authorities stole all of its collections. 400 paintings of the collection were found after World War Two in the basement of the former Ministry for Culture of the Reich. All these paintings were held by the Jewish Relief Organization and they transferred them to what is now known as the Israel Museum (Young, 2000).

5.3 The New Jewish Museum in Berlin

5.3.1 The Jewish Museum in the Berlin Museum

In contrast to the state of destruction passing through Jewish museums in Germany at the time, the Märkisches Museum, which was founded in 1876 as the museum of the city of Berlin telling its history and political status, was enjoying a state of growth and was flourishing. The museum was located in the Eastern part of Berlin after World War Two and was accessible for both Berliners who lived in East or West Germany before the construction of the Berlin Wall in August 1961. After the erection of the wall, however, it became impossible for West German Berliners to visit the museum, and this led them to ask for the authority to build a museum in the western sector of the city to tell the story of Berlin. In 1962, the Berlin Senate agreed to fund the project of establishing a museum depicting the history of Berlin on the Western side. Finding a place to exhibit the history of Berlin in the Western Sector was not an easy task as a result of the Berlin Wall that divided the city. In 1969, the city decided to reuse Collegienhaus (the last existent baroque building in Friedrichstadt, designed by Philipp Gerlach in 1735 as a supreme court building for the Royal Court of Justice) to be the museum of the city of Berlin and present its history. During the 1960s, the building was carefully restored due to damage caused by World War II. In Collegienhaus, approximately 2,500 square metres was available to display historical and cultural objects (including artwork, artefacts, maps, models and plans) about the city of Berlin specifically between 1876 and 1945. However, as the space was not sufficient for displaying many of the antiquities associated with this date, a larger group of them has been stored in different places throughout the city, and most of these antiquities were related to Judaica, and theatrical history (Young, 2000).

The authority looking for a place to house the collection of the Berlin Museum, Heinz Galinski, as a president of West Berlin's Jewish community, asked the government to

establish a Jewish museum in Berlin to take the place of the one that was destroyed by the Nazis. It was for two reasons that Galinski asked the authority to find a replacement for the old Jewish Museum in the western sector of Berlin; the first one was that the old museum was part of Oranienburger Strasse Synagogue complex which had been damaged as a result of the war; and, the second one was that the location of the old museum was in the Eastern sector of Berlin, and this meant that it could not be accessible for Berliners in the Western part of Berlin (Young, 2000). In addition, Galinski was considered the first person to insist that “the history of the Jewish people...be exhibited in the Berlin Museum” (cited in Zipes and Morris, 2016). He wanted the Jewish culture to be presented inside the Berlin Museum in order to enhance the idea of German Jewish culture, highlighting that Jewish culture is an integral part of Berlin’s history and culture (Agnew, 2007).

After the authorities’ determination to make the Jewish history a part of the permanent exhibition of Berlin Museum, the museum started gathering collections about Jewish history in Berlin. The first exhibition depicting the history of Jews in the museum was entitled “Achievement and Destiny: 300 Years of the Jewish Community in Berlin, 1671–1971” which opened in 1971, two years after the opening of the museum (Young, 2000). It is essential to state that the exhibition was large in scale, and paid particular attention to famous Jews from Berlin, but it could not cover all the Jewish history in the city. The establishment of this exhibition led the public to discuss the need to establish a Jewish museum of its own inside the Berlin Museum (Agnew, 2007, Zipes and Morris, 2016).

Thus, the executive body governing Berlin opened a Jewish department to be part of the organisational structure of the Berlin Museum. To confirm the functions and importance of the existence of this department within the museum, the Senate declared that, “close association with the Berlin Museum in the shape of one of its departments protects the Jewish Museum from isolation and conveys an interwoven relationship with the whole Berlin cultural history” (cited in Isenberg, 2002, p. 159). As an ideal approach to supporting the project of making the Jewish history an integral part of Berlin history (as a department of the Berlin Museum), the Society for a Jewish Museum was established in November 1975 chaired by Hanns-Peter Herz and Galinski. Outside the museum, a number of Berliners formed a group under the name of Friends of the Jewish Museum in order to

support the idea of building a separate structure for a Jewish Museum in the city of Berlin (Young, 2000).

In 1985, the issue of establishing a Jewish museum in Berlin was put up for discussion in a leading article of *Die Welt*. One of the contradictions relating to the relationship between German Jews and the city of Berlin was that although pre-1933 Berlin had witnessed the best interaction between Jewish Germans and the other members of the community, the city of Berlin was the central point from where the massacre of the Jews was launched between 1933 to 1945. For the writer, the idea of founding an autonomous Jewish Museum could not be classified as a necessity or as carrying meaning because the museum could not possibly compensate for what the Jews suffered from in their extermination. For this reason, the writer believed that the history of German Jews must remain an integral part of the history of the Germans and they must present their history within the context of German history (Young, 2000).

The discussion about the location of the Jewish museum in Berlin took a long time, and became more intensified between 1982 and 1987. There were two main issues regarding its location. The first one was whether the Jewish museum should be part of the Berlin Museum and sited inside the museum, or whether the Jewish Museum should be outside the Berlin Museum. The second issue was connected to the first one in that if the Jewish Museum were to be sited outside the Berlin Museum where would the appropriate place for a Jewish Museum in Berlin be? Some of the places suggested were Moritzplatz, Hollmannstrasse, and Ephraim Palais. It is important to note that some of the places that were suggested, such as Prinz-Albrecht Palais, were refused in an indignant way by the Society for the Jewish Museum for political issues connecting this building to the Nazi history (Young, 2000, Agnew, 2007).

In November 1986, as a way to present part of their collection, the Jewish Museum department of the Berlin Museum decided to take a temporary place in the Martin Gropius Bau (Young, 2000). From this time on the Jewish collections were exhibited in two galleries in different parts of the city of Berlin, one on the ground level of the Berlin Museum and the other in the Martin Gropius Bau. Both sites somehow presented similar collections in terms of their themes, consisting of a wide range of paintings, photographs,

craftwork and records related to Judaism, Jewish tradition or artistic works imitating Jewish themes and made by Berlin artists. Consequently, the aim of joining these two galleries in one space came to be one of the main reasons for foregrounding the idea of building a separate structure for the Jewish Museum (Libeskind, 1992). At the day of the opening of the new place for the Jewish collection in the Martin Gropius Bau, Volker Hassemer (senator for culture) explained the current and the future image of the Jewish Museum department of the Berlin Museum. He said:

The new display rooms are a milestone in the gradual process to reconstruct and extend the Jewish department of the Berlin Museum. . . . They remain, nonetheless—and this must be stated quite frankly to the public—a temporary solution on the path to the ideal solution desired by us all. That is, a Jewish department as a recognizable component of the Berlin Museum. . . . We must make it quite clear that the creators and the products of this culture were not something “exotic,” not something alienated from this city and its cultural life, but that they were and still are a part of its history. . . . In view of this obligation . . . , I am convinced it is both correct and justified not to develop the Jewish department of the Berlin Museum as the core of an independent Jewish Museum in Berlin, but as an independent department within the Berlin Museum. (cited in Young, 2000, p. 7-8)



Figure 5-1 Martin Gropius Bau was designed by Martin Gropius and constructed between 1877 and 1881.
Source photography Christian Riis Rüggeber.

5.3.2 The Architectural Competition of JMB

5.3.2.1 Background

The Society for a Jewish Museum's desire centred around building a museum that would have a strong connection to the Berlin Museum. What the Society for a Jewish Museum sought to accomplish was approved by the official authorities in 1988 (Young, 2000). The Senate of Berlin decided to build an autonomous building for the Jewish Museum but at the same time this building should be a part of the Berlin Museum. Then, a competition for designing a building for the 'Extension of the Berlin Museum with the Jewish Museum Department' was announced in December 1988 (Noah, 2016). The title of the competition publication was 'Competition for an Extension to the Berlin Museum to include the Jewish Museum Project to be Built: Invitation to Compete' (Maden, 2008). The name of the competition and the title of the competition publication showed that the new building would be an independent structure and at the same time entwined with the Berlin Museum. As stated by both Rolf Bothe, the director of Berlin Museum, and Vera Bendt, the director of the Jewish Department:

The history of the Jews of Berlin is so closely tied up with the history of the city that it is virtually impossible to separate the two; i.e., an autonomous Jewish Museum is necessary but almost inconceivable without the history of Berlin, in the same way as, conversely, a Berlin Museum of urban history would lose all meaning if it did not take its Jewish citizens into consideration. (Isenberg, 2002, p. 160)

In addition, three aspects that need to be taken into consideration with respect to the content of the Jewish museum in Berlin have been stated by both Bothe and Bendt: (1) contents that are linked to Judaism, Jewish daily routine and their religious rituals; (2) tracing Jewish history as community in Germany and the role of Nazism in the destruction of this community in Germany; (3) the nature of Jewish life in Germany and what they have contributed as professionals and workers throughout their long history in the region (Bothe, 1992, Young, 2000). These three aspects show that the main aim of the Jewish Museum is not to focus on the holocaust; instead it is to present the legacy of Jewish life in Germany, focusing on different sides of their life in Germany. It is important to stress that the emphasis on the issue of the Holocaust in the conceptual brief had one main reason that the architects participating in the competition needed to admit, which was that the discharging of Jewish life from Germany by the Nazis made the need for this museum a necessity (Young, 2000).

5.3.2.2 The Winner

The competition was opened to all architects of West Germany (Federal Republic of Germany). Additionally, the competition committee invited another twelve international architects. There were 165 architects who entered this competition and the winner was a Polish American architect named Daniel Libeskind. He was born 12th May 1946 in Lodz, Poland and while his parents survived the holocaust, a large number of his family members were murdered in the Nazi death camps. Libeskind and his family emigrated to Israel when he was eleven. Then, in 1959, he emigrated to New York City (USA) with his family and he has been a US citizen since 1965. He started his passion for music at a young age, and as a step to develop this passion he studied music at the Łódź Conservatory. Despite the development of his music skills and his ability to play a variety of instruments, he refrained from continuing to study music because he believed that he had learned all the music techniques there were to offer; subsequently, he decided to shift from music to architecture (Young, 2000, Libeskind et al., 2001). He studied Architecture in the School of Architecture at The Cooper Union for the Advancement of Science and Art, under the supervision of two famous architectural figures, John Hejduk and Peter Eisenman. He graduated in 1970. Then, in 1972, he received a Master's degree in History and Theory of Architecture at the School of Comparative Studies in the University of Essex (United Kingdom). After that, he became an architectural professor in more than forty institutions, as well as obtaining high positions in some of them; for example, between 1978-1985, he was the head of the Cranbrook Academy of Arts School of Architecture in Bloomfield (Michigan) and between 1986 and 1989, he established his own architectural school, Architecture Intermundium, in Milan (Italy), and became the director. In addition, he was Sir Bannister Fletcher Architecture Professor at the University of London (England). He was also appointed to the first Louis Khan Professorship at Yale University (Libeskind et al., 2001).

5.3.2.3 Discussion over Libeskind's Proposal

Before we discuss the main ideas of the architecture of the JMB, it is essential to note that there was a great deal of discussion about Libeskind's design of the JMB before it was built and this was due to five main reasons: (1) this project was the first realized building by Libeskind as he had never built a building before winning the competition and he was only famous as an academic and not a practitioner; (2) the history museum as a tool to present "loss and absence" since the concept mainly focuses on the idea of using history as an

inspiration to create a memorable space and a memorable history (Maden, 2008, p.129); (3) as stated by Jonathan Hale (2000) , Libeskind’s drawing of the JMB became the main tool to communicate his concept as so many researchers had studied the building before it was finished: “it has taken on a life of its own through drawings and photographs” (p.2); (4) the ambiguity of Libeskind’s drawings, especially those he made before he designed the JMB, led to many researchers trying to decode his previous works to find the connection with the design of the JMB, for example Fehmi Dogan and Nancy J. Nersessian and their article *Conceptual diagrams in creative architectural practice: the case of Daniel Libeskind’s Jewish Museum* (2012). There were many discussions within the museum studies about the effectiveness of the building to function as a museum, for example, many chapters in *Reshaping Museum Space: Architecture, Design, Exhibitions* edited by Macleod (2005) discussed the effectiveness of the architecture of JMB.

5.3.2.4 Reasons for Selecting Libeskind’s Proposal

There were two main reasons for the jury to choose Libeskind’s proposal as the most suitable one over the other 164 proposals submitted by other architects who participated in the competition. The first one was that his proposal was the only one that evoked Jewish life before and during the holocaust and also, it presented a Jewish future; therefore, the jurors have described his approach as “an extraordinary, completely autonomous solution” (Spens, 1999, p. 40). W.Michael Blumenthal, the first director of the new Jewish Museum in Berlin, supported this point by stating that Libeskind’s design is “[r]ich in symbolism, the museum’s design integrates concepts related to the tragic Jewish past with a future-orientated aesthetic asserting the vitality of Jewish life” (Blumenthal, 1999 in Libeskind 1999). The second one was that Libeskind’s proposal was “neither dogmatic nor glib”, as stated by the jury (Libeskind, 2004, p. 85); and this, for them, could make the museum architecture open for different interpretations by each visitor, which is better than limiting the building to just one way of reading it.

5.3.2.5 History as a Foundation of the Museum Architecture’s Narrative

In terms of how Libeskind dealt with the project at the beginning, he obviously did not respond in his proposal to the objective requirements in the conceptual brief of the competition because for him the major issue of designing the JMB was not either inventing

a program or studying the form of the building in a systematic way; instead, he was thinking about the history as the base of the museum's narrative and the best way of making it an integral part of the design and the experience that the visitor gets when they wander inside the museum. Therefore, when he visited the site with the other entrants before they submitted their proposals and as a part of the design process, he did not pay a great deal of attention to site analysis like the other entrants who spent most of the day taking pictures of the site trying to understand its relationship with its surrounding area because placing the building in harmony with its surrounding area was not the primary aim that Libeskind strived to achieve in the building. Instead, he endeavoured to make the new extension like a tool to trace the unborn (Libeskind, 1999a).

Libeskind believed that the organisers of the competition did not logically consider the importance of the history in designing the new extension, because, as he pointed out, the organiser of the competition saw Jewish people as outsiders (Libeskind, 2004). Libeskind responded to this issue of seeing Jews as outsiders by asking and answering this question:

[H]ow can you separate the history of non-Jewish Berliners from the history of Jewish Berliners? You can't, any more than you can easily separate the molecules in a glass of water. They are, as Amos Elon put it, "two souls within a single body," sharing a tangled thousand-year history, and together creating what once seemed an enviably evolved culture. If Berlin had been a success as a city-and most agree that it had-it was because of the efforts of Gentiles and Jews alike. So, it makes no sense to continue to treat Jews as outsiders, cordoning them off in a separate "department." (Libeskind, 2004, p. 80)

It is clear that Libeskind disagreed with the idea of presenting Jewish history in a separate department like the other three departments (sculpture, film and fashion) that were asked for in designing a separate space for each department by the competition organisers (Bothe, 1992). However, this museum, for Libeskind, was "not only a response to a particular program, but an emblem to hope" (Libeskind et al., 2001, p. 28). This, in turn, led him to think about merging Jewish history with Berlin history by combining both the new extension (presenting Jewish history) and the Berlin Museum (presenting German history) in a single entity to form one history. From the beginning, Libeskind refused the idea of designing the new extension as a neutral annex to the old building with a soothing effect to the old building or the surrounding area like the other entrants. Instead, he believed that the new extension must not be designed as a neutral space. He also thought of each part

(the old building and the new extension) as an extension of the other; the Jewish Department is an extension to the Berlin Museum and vice versa. Libeskind strived through his design to make the visitor interact and engage with this combined history on a mental, emotional and visceral level in order to make the visitor feel the history and understand what happened. Eberhard Diepgen, the Governing Mayor of Berlin, supported Libeskind's idea by mentioning the agreement of the participants of a conference at the Berlin Aspen institute about the impossibility of imagining the history of the Germans without the history of the German Jews (Diepgen, 1992).

Daniel Libeskind's concept of design for the JMB relied on three insights and these insights played a decisive role in forming the museum's foundations. First, in order to understand the history of Berlin, it is necessary to understand the immense intellectual and economic contribution made by the Jewish citizens of Berlin. Second, the meaning of the Holocaust must become an integral part of the consciousness and memory of the city of Berlin. Finally, it is essential for both the city of Berlin and the German government to acknowledge the erasure of Jewish life in its history in order to have a human future (Libeskind, 1999a). These three insights somehow correspond to Bothe's and Bendt's statement about what the building would comprise.

5.3.3 'Between the Lines' as a Main Concept of the New Extension

Although 'Extension of the Berlin Museum with the Jewish Museum Department' is the official name of the new project as shown in the competition publication, Libeskind named it 'Between the Lines' because for him the project is "about two lines of thinking, organization and relationship" (Libeskind, 1991, p. 86). The building in its microscopic scale is formed through the interaction between two lines of thinking and according to Libeskind, this aims to stress the interaction between German culture and Jewish tradition in Berlin. The first line is straight, but it has been split into small parts; this straight line represents the Jewish history in Berlin whereas the second line is tortuous, but it continues infinitely, representing Berlin's history (see Figure 5-2). When the straight line cuts through the zigzagging plan, it creates the holocaust void which is a straight but at the same time broken into many pieces. These voids represent the absence of Jewish life while the straight line has an "impenetrability [that] becomes the central focus around which

exhibitions are organized” (Libeskind, para 4). Rolf Bothe stated that Libeskind through the architecture of the Jewish Museum strived to make the Jewish history in Berlin fuse with Berlin history. This in turn would make the visitor aware of Jewish history in the city, which becomes part of Berlin history in both the past and the present (Bothe, 1992). It is important to state that there is also interaction between lines of thinking in the macroscopic, which will be discussed in (section 5.3.4.1).

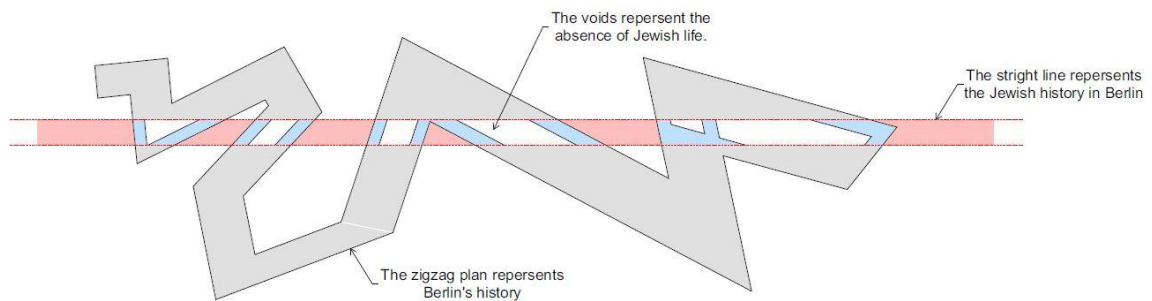


Figure 5-2 Between the Lines: the interaction between two lines of thinking. The first line is a straight line representing the Jewish history in Berlin, whereas the second line is a zigzag representing Berlin's history. Source: the author

5.3.4 Four Lines of Thinking in the JMB

Designing the architectural layout of the JMB centred around a fourfold structure, aspect or theme. Each one of these four structures are connected directly to either the position of Jewish people in Germany or their culture. Libeskind summarised these four structures of thinking in the projects as follows:

The first is the invisible and irrationally connected star that shines with absent light of individual address. The second is the cut-off of Act 2 of Moses and Aaron, which culminates with the non-musical fulfilment of the word. The third is the ever-present dimension of the deported and missing Berliners; the fourth is Walter Benjamin's urban apocalypse along the One-Way Street. (Libeskind et al., 2001, p. 26-27)

Each one of the four structures of thinking can be seen as one source of inspiration in designing the museum architecture. Owing to the complexity of each one of these four aspects, each one will be discussed separately.

5.3.4.1 The Idea of the 'Irrational and Invisible Matrix'

For Libeskind, tracing the history of Berlin was a central aspect in the process of designing the museum. Therefore, he started the process of designing the museum by collecting historical data such as stories, events, information about famous figures and pictures in order to investigate the historical value of the site and its relation to the city. Based on this study, Libeskind determined ‘an invisible matrix of connection’ defining a strong connection between Berlin history and Jewish history in Berlin (Libeskind et al., 2001, p. 26). In this matrix, a connection of relationships was made between well-known German and Jewish people as a way to connect the two histories, as has been stated by Libeskind (Libeskind, 1991). The criterion of selecting these names was based on Libeskind’s interest as he stated “I looked for the specific address of people I’ve admired” (Libeskind, 2004, p. 92). Libeskind plotted the address of a number of artists, composers, poets, scientists and writers both German and Jewish in order to create the link between the two histories. This list of addresses that were marked on the map of Berlin include the addresses of: Arnold Schomberg (1874-1951), E. T. A Hoffmann (1776-1822), Friedrich Schleiermacher (1768-1834), Heinrich Heine (1797-1856), Heinrich von Kleist (1777-1811), Mies van der Rohe (1886-1969), Paul Celan (1920-1970), Rahel Levin Varnhagen (1771-1833) and Walter Benjamin (1892-1940). Marking and connecting these former residents on the map created what Young (2000) named ‘Libeskind’s own metaphysical map of the city of Berlin’. Libeskind explained this idea:

Great figures in the drama of Berlin who have acted as bearers of a great hope and anguish are traced into the lineaments of this museum ... Tragic premonition (Kleist), sublimated assimilation (Varnhagen), inadequate ideology (Benjamin), mad science (Hoffmann), displaced understanding (Schleiermacher), inaudible music (Schoenberg), last words (Celan): these constitute the critical dimensions which this work as discourse seeks to transgress. Cited in (Young, 2000, p. 12)

Plotting the addresses of these figures, Libeskind argued, can be seen as an unimportant aspect generally speaking; however, architecturally, the importance of these figures is not just because they connect Berlin history and Jewish history in Berlin, but also because “they formed a particular urban and culture constellation of University History” (Libeskind, 1992, p. 63). For Libeskind, the unique thing about plotting the addresses of these figures and the establishment of multiple connections between them is that it produces one of the main symbols associated with the Jewish people which is the Star of David. This star extended dramatically to cover large parts of the city of Berlin over both

West and East Berlin. The outline of the zigzag building, as has been stated by Libeskind, is obtained from dismantling and recombining the star's elements with some stretching or shrinking of its elements.



Figure 5-3 Libeskind's collage of the main concept. Source (Libeskind, 1999a, p. 2-3).

It is essential to state that the outline of the Star of David appeared after Libeskind identified and plotted the addresses of six figures and then divided them into three pairs by creating a line to connect each pairing. He stated: “when I had plotted six names and three pairings, I studied the shapes made in the process, and discovered that they formed a distorted Star of David over the map of Berlin” (Libeskind, 2004, p. 92). In Libeskind's collage of the main concept (Figure 5-3), there are four lines of connection between well-known German and Jewish people in Berlin. Three out of the four lines of connection are the main inspiration for creating the Star of David, whereas the fourth one created a strong connection for Libeskind, and this connection will define the direction of one of the main corridors in the basement level, namely the Axis of Exile (which will be discussed in chapter six). All these four lines of connection will be analysed respectively, starting by the three lines that are formed by the Star of David and ending by explaining the last line stressing an important connection for Libeskind (see Figure 5-4).

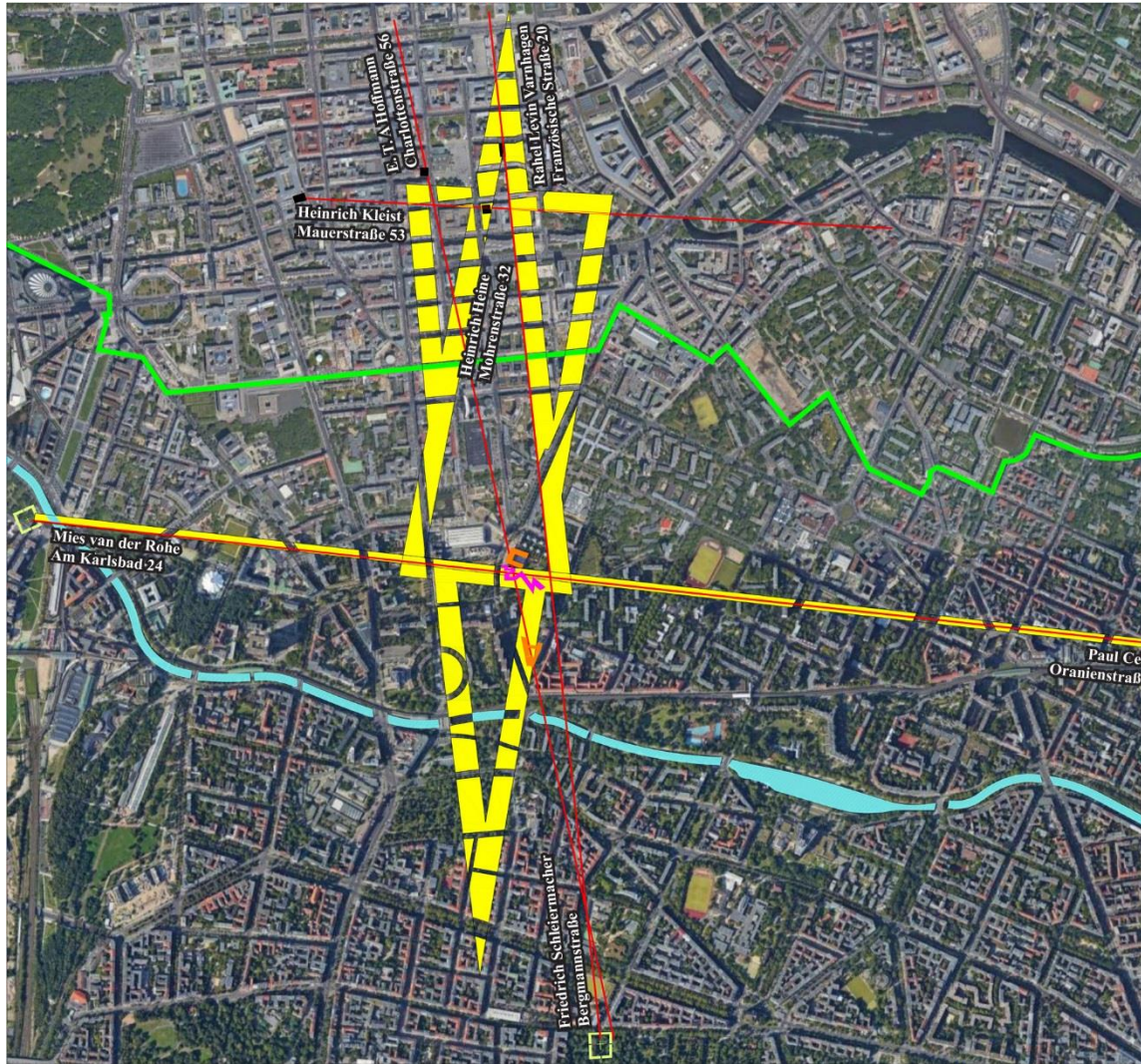


Figure 5-4 The superimposition of the Star of David over an historical Berlin map. Source: based on Libeskind's collage of the main concept, the author drew a sketch on the Berlin map

The first connection made by Libeskind was between Varnhagen and Schleiermacher. Libeskind described this connection as a marital relationship by stating that “I “married” Rahel Levin Varnhagen to the innovative Lutheran theologian Friedrich Schleiermacher”. Varnhagen was a German Jewish writer, and one of the most important intellectual figures in Europe generally and in Germany specifically. She was the first Jewish woman to establish and run an intellectual salon in Europe located in her house in Berlin. Many periodic and formal meetings of intellectuals, politicians, sociologists and writers were held in her salon. One of the regular visitors to these meetings was Schleiermacher, a German theologian, and the establisher of modern theology. Owing to the relationship between

these two figures (one is German-Jewish and the other is German), Libeskind drew a line to link their two addresses (Figure 5-5). This line cuts the city in two and passes through Lindenstraße 14 (where the museum is located). In Libeskind's collage of the main concept, he located the Varnhagen address at Französische Straße 20; on the other side he located the Schleiermacher address in the cemetery where he was buried (the Cemetery II of Trinity Church at Bergmannstraße).

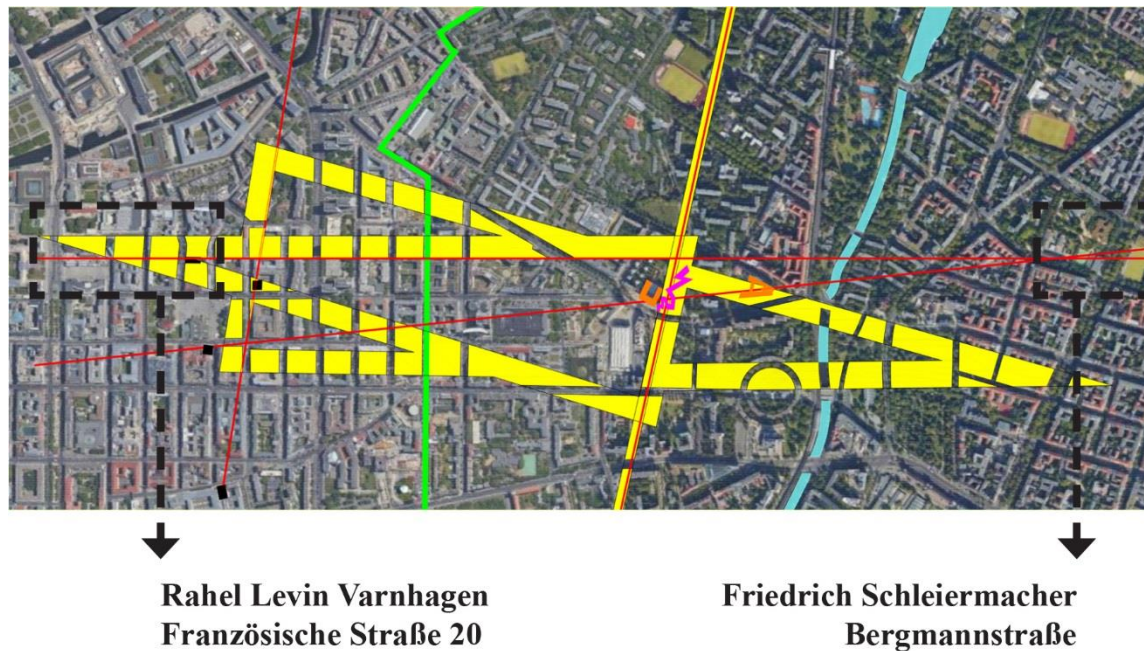


Figure 5-5 Close-up detail of (figure 5.4) to show the line that connects Varnhagen with Schleiermacher

Likewise, Libeskind drew another line as a connection between Celan and Mies van der Rohe (Figure 5-6). This line also cuts through the city and passes through Lindenstraße 14. Celan was a German poet of Jewish origin, whose parents were killed in Nazi concentration camps and who barely escaped from falling into one of these camps himself. Mies van der Rohe, on the other side, was a German-American architect. He was born in Aachen (German Empire), and he began his career as an architect in Germany. However, as a result of the pressures of the Nazi government and their rejection of his architectural style, which, for them, was not committed to German architectural tradition, Mies van der Rohe decided to emigrate to America after he was offered a job as head of architectural department in Illinois Tech (Chicago). Libeskind in his architectural collage of the concept located the

Celan address at Oranienstraße 1 whereas he located the Mies van der Rohe address in Am Karlsbad 24.

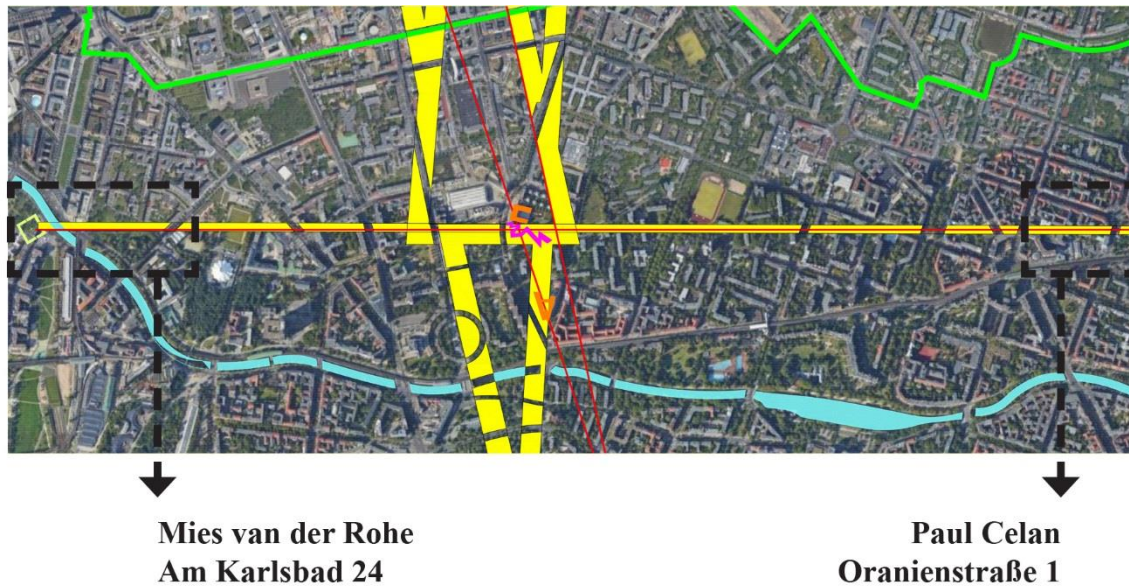


Figure 5-6 Close-up detail of (figure 5.4) to show the line that connects Mies van der Rohe with Celan

The last connection was made between Heine and Kleist (Figure 5-7). Libeskind in his architectural collage of the concept located the Heine address at Mohrenstraße 32 whereas he appeared to plot the Kleist address without naming the exact address. However; after doing research about the buildings around the area that were plotted by Libeskind as an address of Kleist and about his biography, it was discovered that Libeskind plotted Kleist's address at Mauerstraße 53, where the Kleisthaus building is located. This building was designed by architect Bodo Ebhardt, and it was named after Kleist, because he rented an apartment in this building from 1810 until he committed suicide in 1811. Kleist was a German poet, novelist, dramatist and journalist. He also studied philosophy, politics, mathematics and physical sciences. He had a strong relationship with his girlfriend (Henriette Vogel) who had cancer which would lead to her death so both decided to commit suicide together in November 1811. Heine was also a German poet and despite his Jewish origins, he changed to Protestantism in order to be able to work in the civil service in 1825 (Kossoff, 1983).

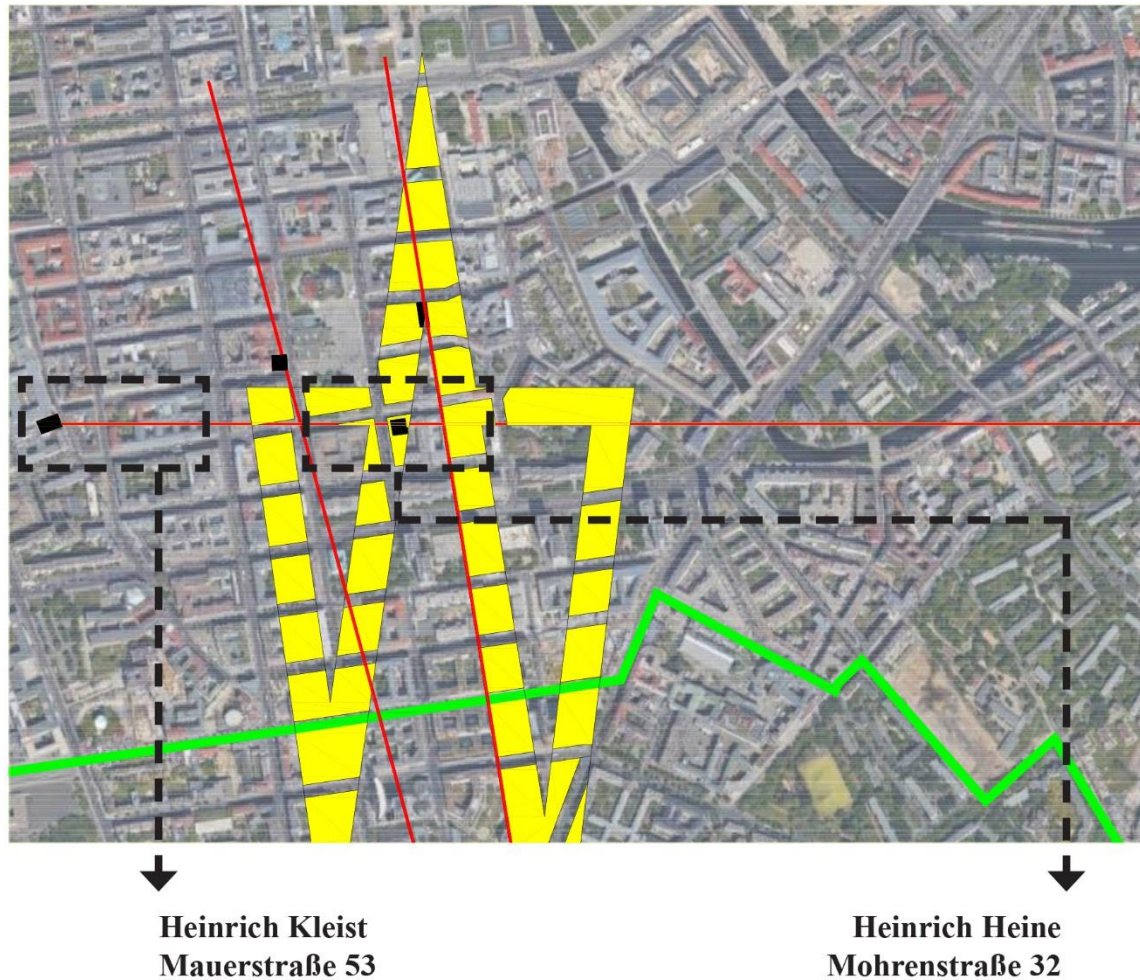


Figure 5-7 Close-up detail of (figure 5.4) to show the line that connects Kleist with Heine

The connection in Libeskind's collage of the main concept is not limited to figures, as he also made a connection between buildings, specifically the metalworkers union building (designed by architect Erich Mendelsohn) and Collegienhaus (the Berlin Museum). These two buildings were the only two major buildings in the area surrounding the museum that remained after the destruction of the region as a result of World War II (Giannachi, 2005). Libeskind drew one straight line to connect three addresses; the first two addresses were the above two buildings, and the third one was the address of Hoffmann's residence in Berlin at Charlottenstraße 56 (Figure 5-8). For Libeskind, Hoffmann was one of the most important German figures living in Berlin. He worked as a jurist, and wrote many fantasy and horror novels as well as being a composer. Another aspect that made Hoffmann an important person for this project for Libeskind was when he discovered that Hoffmann was

working as a jurist in Collegienhaus (the building that has been adapted to house the Berlin Museum).

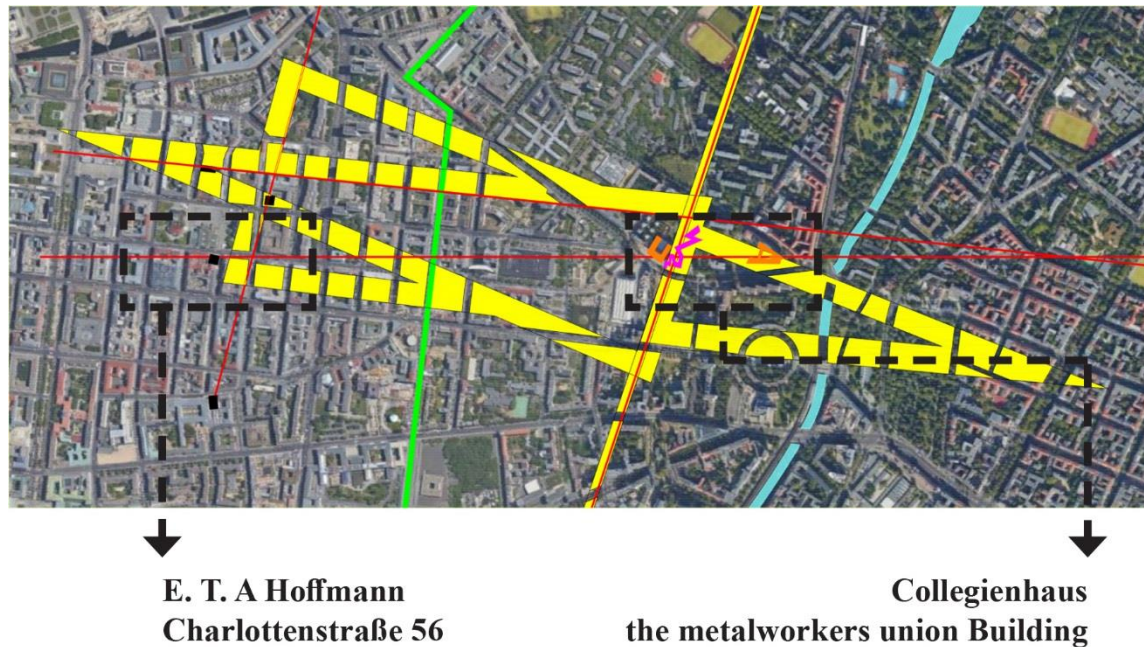


Figure 5-8 Close-up detail of (figure 5.4) to show the line that connects Hoffmann with two buildings (Collegienhaus and the metalworkers union building)

The concept of the ‘irrational and invisible matrix’ has multiple dimensions. Libeskind, through this concept, was not only aiming to create a connection between German culture and Jewish culture, which is related to the historical dimension, but he also strived to create a link between East and West Germany generally and Berlin specifically. Creating a connection between East and West Berlin is considered to be the future dimension of the concept. Libeskind anticipated the future of the city, and he expected that these two parts would merge again to form one city. Therefore, Libeskind plotted four addresses in both East and West Berlin; two out of the four lines that connected different addresses in Libeskind’s collage of the main concept linked between an address located in East Berlin and its counterpart located in West Berlin. Libeskind described the reason for creating this connection by stating that “I attempted to build this kind of marriage across East and West Berlin into the practical everyday happiness of the work” (Libeskind, 1997, p. 113).

5.3.4.2 Schoenberg’s Opera Moses and Aron

The second source of inspiration in designing the JMB was the unfinished three-act opera, *Moses und Aron*. The composer of this opera was Arnold Schoenberg (1874-1951), an Austrian-American theorist, writer, teacher, music and painter, who created the opera in an area adjacent to the museum. One of the main reasons for Libeskind's interest in this opera was that Schoenberg began working in the opera when he was in Berlin but, he was not able to finish it (Libeskind, 1992). Libeskind saw this point as a chance to finish the opera architecturally. According to Libeskind, the subject of *Moses und Aron* can mesh together with his main idea of the two lines of relationships between German culture and Jewish tradition in Berlin that conceived the form of the building, as has been discussed in section 5.3.3. Schoenberg, like many Jewish people, changed to Christianity not for religious reasons, but rather to be able to work in the civil service in a music school where he later became the head of school. When he felt he was no longer welcome to live in Berlin, he formally declared his abandonment of Christianity and returned to being Jewish. After that, he started writing the text of *Moses and Aron*.

Schoenberg divided the opera of *Moses and Aron* into three acts, and wrote the first two (act I and act II). Regarding the last act, although Schoenberg had no inspiration to write act III, he did start to work on this part, but the work slowed down and then stopped specifically at its musical structure. Not finishing the third act of this opera aroused the curiosity of Libeskind in wanting to find out why this genius man could not finish his work. Libeskind began looking for an answer to this question by reading the libretto of the opera. Act I started by showing the main assignment to prophet Moses by God to take Jewish people out from Egypt and lead them to the promised land. After that until nearly the end of the second act, the opera is mostly a dialogue between *Moses und Aron*. Aaron was aiming to communicate with his people to deliver them to the Promised Land, whereas Moses seemed bewildered being unable to find a way to inform Jewish people about the revelation of God. At the end of the second act, Moses was alone on the stage after the gradual disappearance of Aaron and the Jewish people. Moses was dismayed because of the breakdown of the relationship between him and Aaron with Jewish people:

Moses is left alone to sing the words: inconceivable god! Inexpressible, many-sides idea, will you let it be so explained? Shall Aaron, my mouth, fashion this image? Then I have fashioned an image

too, false, as an image must be. Thus am I defeated! Thus, all was but madness that I believed before, and can and must not be given voice. (Libeskind, 1992, p. 63)

In the last part of act 2, all the musical instruments have stopped producing any sound, so there is no singing any more, and just Moses speaks, saying “oh word, thou word that I lack!”. He stated this trying to deal with both failing to find a way to transmit the word of God and the breaking of the tablets. As the last part of the act has not been given any musical expression, Libeskind called it ‘spoken’, which can be seen as ‘verbal text’. This, in turn, for Libeskind, “is the call for the deed” (Libeskind, 1992, p. 63). Therefore, Libeskind decided to make the new extension of JMB serve “as the opera’s third act. In its stone walls, in the final space of the void, the characters of the opera would sing silently. And in the end, their voices would be heard through the echoing footsteps of the visitors” (Libeskind, 2004, p. 93).

5.3.4.3 Memorial Book

The third idea forming the basis for the architectural design of the Jewish museum architecture Berlin is “the ever-present dimension of the deported and missing Berliners” (Libeskind et al., 2001, p. 27). Libeskind was interested in knowing the name of Jewish people who were transported to concentration camps during World War Two. Therefore, he asked the competition organisers for documents that could provide such information, and he received a memorial book in two large volumes entitled *Gedenkbuch* from the city of Bonn (German). These two volumes contain four facts about the Jewish people who were deported from Germany: (1) their names (2) dates of birth (3) dates of deporting them and (4) places where they are presumed to have been killed showing the name of the concentration camp. When Libeskind received the book, he started looking for Jewish people and marking their names and addresses on his own map of Berlin paying specific attention to Jewish Berliners who Libeskind admired (Libeskind et al., 2001). The effect of plotting the names and addresses of these people in designing the architecture of JMB has been discussed in section 5.3.4.1.

The competition organisers asked all the entrants of the competition to submit a report and a model of their proposals. As Schoenberg’s opera Moses und Aron was one of the main aspects in forming the design of the museum, Libeskind decided to write the report on

manuscript paper but using the same genre of writing the information in the *Gedenkbuch* (Figure 5-9). It is important to mention that writing the report on manuscript paper that is full of lines emphasises the importance of returning to the name given by Libeskind of the museum (between the lines), and the need of reading the building as a kind of text, as has been imagined by Libeskind (Libeskind, 2004, p. 94). Also, it stresses the importance of finding the meaning hidden between the lines, which most likely will be discovered through the use of a hermeneutic approach. In terms of the model, Libeskind used techniques of collage in producing the model of his proposal, and in part of this collage he used copies of pages from *Gedenkbuch* to cover the ground base of the model. These pages contain the four personal facts about some of the holocaust victims (Figure 5-10). The reason behind this was explained by Libeskind:

The exterior of the competition model was clad in a collage of copies of pages from the book, names of victims from Berliner-and named Berlin. Many Jews had proudly taken the names as their own when they'd moved from the countryside into the city; their death struck me as particularly tragic. I felt a significance in the six letters B-E-R-L-I-N, which one could use to form a six-pointed star. (Libeskind, 2004, p. 93-94)

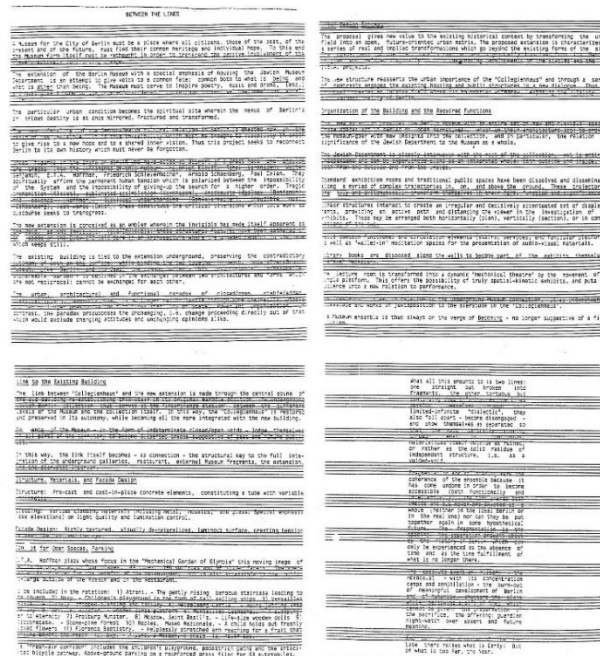


Figure 5-9 Competition entry on music paper. Source (Libeskind et al., 2001, p. 29)



Figure 5-10 pages from Gedenkbuch covers the ground base of the model. These pages contain the four personal facts about some of the holocaust victims. Source (Libeskind, 1991, p. 95)

5.3.4.4 Benjamin's Book of Einbahnstraße

The last source of inspiration for Libeskind in designing the architecture of the JMB was the book of Benjamin Einbahnstraße (one way street - 1928). Einbahnstraße consists of a collection of aphorisms, diary jottings, philosophical pieces and dream protocols written as fragments in an unconventional way. Benjamin divides its book into sixty sections, each one of these sections is considered as one fragment of the book. These fragments recall the visual appearance of an imaginary street including most of a street's features such as cafes, shops, and buildings. It imitates the hustle and bustle of everyday life and the interaction between people (Benjamin, 2009). In terms of using the book as a source of inspiration in designing the building, Libeskind explained that the bodily form of Benjamin's book of Einbahnstraße was formed as a continuous series of 60 sections along the way of the zigzag outline of the new extension; each one of these 60 sections along the building symbolises one of Benjamin's 'stations of the star' in his book Einbahnstraße (Libeskind et al., 2001). Both Libeskind and scholars who discussed his building did not indicate where these sections physically can be found; however, based on the author's analysis of Libeskind's drawing of the museum and the site analysis of the building, it can be claimed that the 60

sections along the zigzag outline are 60 straight lines cutting the floors of zigzag except for the interaction space between the two lines of thinking in the main concept (the straight line and the zigzag line in section 5.3.3). Figure 5-11 shows the locations of the 60 straight lines that cut the zigzag outline except for the interaction space between the straight line and the zigzag line. The previous figure also shows what the cut of these straight lines looks like inside the building specifically on the floors. For Libeskind, Benjamin's book of *Einbahnstraße* played a key role in structuring the museum architecture in order to trace the unborn. Libeskind used the *Einbahnstraße* as a 'para-architectural means' "to make a building whose use would open up that uni-directional text to other perspectives" (Libeskind, 1999a, p. 24).

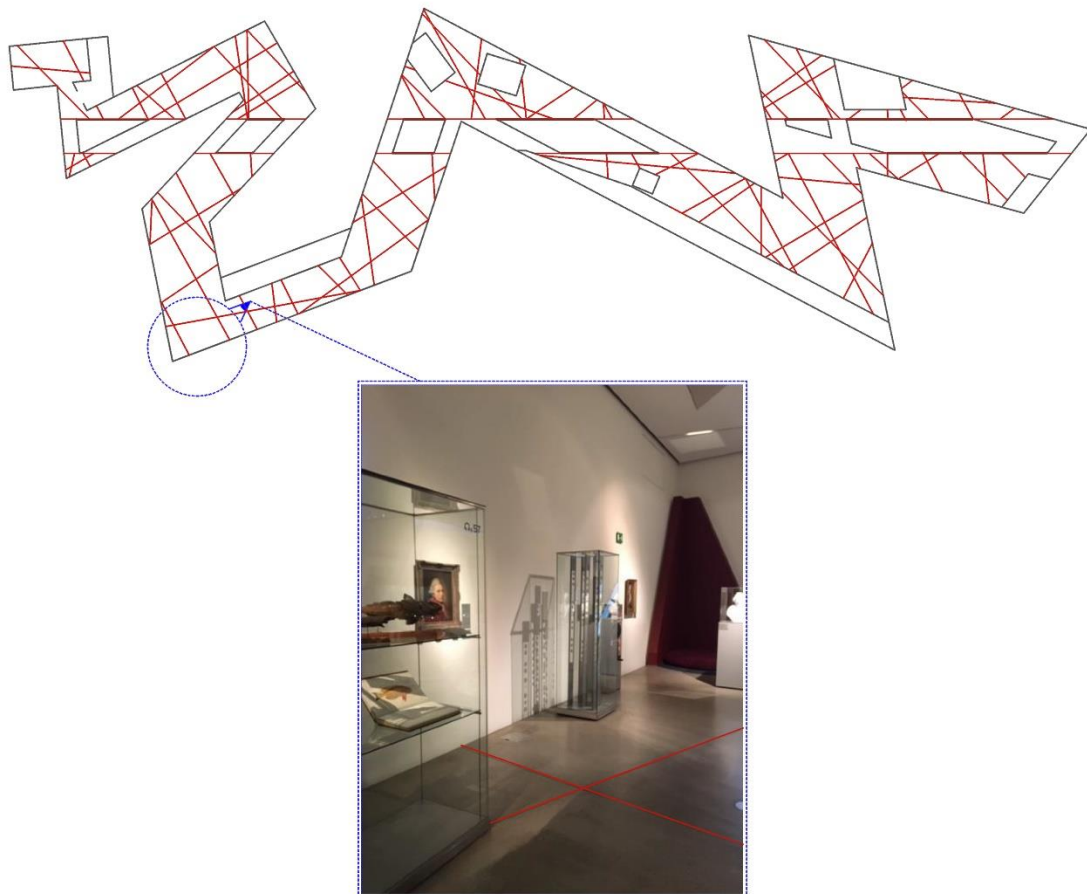


Figure 5-11 plan shows the locations of the 60 straight lines that cut the zigzag outline except for the interaction space between the straight line and the zigzag line, and an image shows what the cut of these straight lines looks like inside the building. Source: the author

5.3.5 Critical Reading of the Process of Designing JMB:

JMB was the first completed building of Daniel Libeskind. Although he designed many buildings after this first considerable international success, JMB is still the most remarkable in terms of the creative faculty of the architect and the durability of their concepts. In this critical reading of the JMB, I intend to explain some of the reasons why JMB is distinct as both a museum and an architectural landmark.

In my opinion, the historical approach that explained by Libeskind and discussed in (section 5.3.2.5) does not explain the whole work done by the architect in the design process. In other words, seeing Libeskind's method of designing the museum as a historical approach can prevent us from seeing the bigger picture regarding his metaphor-led methodology. It can be argued that the main approach that Libeskind used in designing the building is somehow an attempt to make sense almost to all the physical fabric and the spatial environment of the museum using both tangible and intangible dimensions.

The four lines of thinking in the JMB (the irrational and invisible matrix, Schoenberg's opera *Moses and Aron*, memorial book and Benjamin's book of *Einbahnstraße*) are not only related to Jewish history in Berlin, as has been mentioned by many scholars (Young, 2000, Arnold-de Simine, 2012). Instead, each one of them covers multiple aspects such as politics, religion, culture, literature and society. As a result, each one of them will create multiple layers of meanings to the building, and this is what is meant when stating that the main job of the architect was to make the museum architecture 'make sense'. To explain this idea of making sense, some of the details of both the process of the design and the actual building will be discussed.

In the irrational and invisible matrix (section 5.3.4.1), although it seems that the distorted Star of David appeared coincidentally, it is clear that Libeskind's strong metaphor-led methodology contributed significantly to the emergence of this form. The main aim of his metaphor-led methodology is to add meanings to the museum architecture by drawing multiple connections between many figures; and after that, the architect studies the forms that emerge from these different lines in order to find a shape that can add meaning to the design. Libeskind explained this point by stating, "When I had plotted six names and three

pairings, I studied the shape made in the process, and discovered that they formed a distorted Star of David over the map of Berlin”.

The plotting of the addresses of many figures in Libeskind’s collage of the main concept (Figure 5-3) does not only help the architect to form a distorted Star of David, which has religious dimensions, but also adds other various meanings to the museum architecture. For example, Libeskind drew a line to connect Paul Celan and Mies van der Roh, and this line cut through the city and passed through the museum’s site; in this interaction point between the line and the museum’s city an artistic courtyard has been built (see). This courtyard has been named after Paul Celan (a German poet of Jewish origin, whose parents were killed in Nazi concentration camps and who barely escaped from falling into one of these camps himself). This courtyard becomes part of the experience that the visitor can explore in the museum, and it has been designed in a way to imitate Libeskind’s design. Since both the death of Celan’s parents and his experience in the Holocaust were a major influence in his poetry, his story and poetry become a key part of the museum architecture, and some of the visitors strive to create a connection between the museum architecture and Celan’s poems. In this way, Celan’s poetry becomes an extended part of the museum’s story.

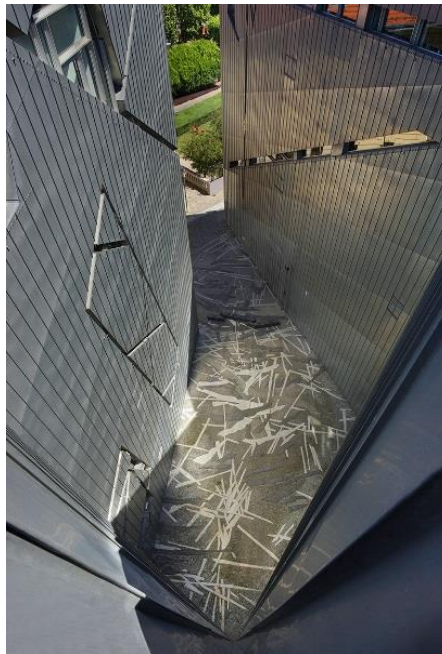


Figure 5-12 Paul Celan Courtyard. Source <https://www.jmberlin.de>.

In addition, Libeskind's collage of the main concept has added a political dimension to the museum architecture, because the architect has created a link between East and West Germany generally and Berlin specifically. In such an approach, the architect encourages the visitors to think about the political dimensions of the story that are depicted in the museum.

It can be stated that these four lines of thinking as a metaphor-led methodology have helped the architect to create multiple layers of structure that can build and manage in a harmonious way the different layers of meaning in the museum. These multiple layers of thinking not only affect the outline of the museum but also affect the spatial environment and how the visitors explore and understand the space.

To conclude, the question is posed as to whether we should introduce this metaphor-led methodology as a driver of museum architecture narratives or not. I believe this approach can help the designers to create multiple direct and indirect meanings to the museum architecture; and this, in turn, helps to revitalize the museum architecture continuously over time, because day after day the meanings of the museum architecture begin to appear more clearly. Also, the visitor can establish new meanings through the act of understanding the relationship between different tangible and intangible elements in the museum.

5.4 Conclusion

The chapter begins by addressing a brief historical background of the Jewish Museum in Berlin through different times and several aspects that influenced its work as a public institution in the city of Berlin. It highlighted the controversial debates about the replacement for the old Jewish Museum in the Western Sector of Berlin and the importance of selecting an appropriate location for the new museum. Although the Berlin government provided a wide range of alternative sites for the new Jewish Museum, the Jewish community insisted on making the new museum a part of the Berlin Museum for a variety of reasons. The most significant one is that they believed the Jewish Culture is an integral part of Berlin's history and culture. As a result, it was decided that an autonomous building for the Jewish Museum should be built which was planned to be a key part of the Berlin Museum. An architectural competition for designing this building was announced in 1988

and the title of the competition was ‘extension of the Berlin Museum with the Jewish Museum Department’. Out of 165 architects who participated in this competition Libeskind’s proposal was selected for two reasons: it was the only one that evoked Jewish life before and during the Holocaust and also presented a Jewish future; and its architecture was open for different interpretations by the visitors. In fact, Libeskind thought about the history as a foundation of the museum’s narrative and the best genre of making it an integral part of the design and the experience that the visitor gets when they wander inside the museum. Naming the project and the main concept of the new extension ‘between the lines’ is one of the primary aspects that shows how the architect had success in interweaving the history of Jews with the history of Berlin to create one history. He did that by creating an intersection between two lines of thinking; the first line is straight and presents the Jewish history in Berlin, whereas the second line zigzags and presents Berlin’s history. It is essential to state that the six voids were formed as a result of the six intersection points between the zigzag line and the straight line, and these voids are empty spaces in order to metaphorically represent the absence of Jewish life. In addition, the architectural layout of the JMB was centred around a fourfold structure. These four are: the idea of the ‘irrational and invisible matrix’; Schoenberg’s opera *Moses and Aron*; Memorial Book; and Benjamin’s book of *Einbahnstraße*. The common aspect between these four structures is that they have a direct connection to either the position of Jewish people in Germany or to their culture. All these four structures also stress the idea that the history is the base of the museum’s narrative.

Part three (theory and application) will first discuss the two identified experiences in the JMB, namely the cognitive and embodied experiences, in two separate chapters, chapter six and seven. The structure of both chapters is somehow similar, since both of them start by presenting a specific theory as a framework and then they discuss the application of theory in the museum’s museum architecture. However, the key difference between the following two chapters is that chapter six will discuss the idea of textual interpretation of the architecture of JMB as a journey starting outside the building and ending in the upper level of the museum. In contrast, chapter seven will be examined as nodes of different ideas. These two chapters are followed by an overall discussion of the two modes of communication in JMB, the cognitive and embodied experiences. Based on ‘a cognitive

theory of religious transmission’ in Whitehouse’s theory, the last part of the overall discussion chapter will develop a conceptual framework of ‘divergent modes of meaningful transmission experiences’ in the JMB. The last chapter of this part is the conclusion deriving from the research.

Part Three - Theory and Application

Chapter Six - The Phenomenon of Text-Architecturization

Introduction
Kabbalah
The Text-based Interpretation in the JMB
Conclusion

Chapter Seven - The Phenomenon of Performance

Introduction
Epic theatre
The idea of Body-based Interpretation in the JMB
Conclusion

Chapter Eight - Overall Discussion

The Mode of Textual Interpretation in the JMB
The Mode of Body-based Interpretation in the JMB
Transmission of Knowledge in Museums

Chapter Nine – Conclusion

Overall Ideas of the Study
Contributions of the Research
Suggestions and Areas for Future Research

6 Chapter Six - The Phenomenon of Text-Architecturization

6.1 Introduction

This chapter investigates the use of staging of the museum architecture as a mode of textual interpretation in the JMB. This mode of interpretation is the first category of the experiences that have been identified in the museum, and it has been linked to Jewish history and culture based on the data analysis procedures adopted in this research. This mode has been named as the phenomenon of text-architecturization. The discussion in this chapter is mainly about the idea of reading the architecture of JMB as a sort of ‘religious’ text. This is done by first analysing its architectural elements in order to understand how these elements convey the meanings; and second, examining the different interpretations of these meanings by the visitors.

The chapter comprises two sections. The first section presents Kabbalah as the base of mystical religious interpretations within Jewish culture, followed by reviews of *PaRDes* (a Kabbalistic approach to interpret religious texts) and its four levels of interpretation. These four levels of interpretation in *PaRDes* will become the main theoretical framework of interpreting the architecture of JMB as a kind of religious text in order to explore its meanings. The second section of this chapter will discuss the idea of text-based interpretation of the architecture of JMB as a journey, starting outside the building and ending in the upper level of the museum. The research methods applied in this chapter are interview, direct observation, collating visitors’ opinions about the museum from different platforms, literature review and spatial analysis.

6.2 Kabbalah

6.2.1 Background

Kabbalah (also spelled Qabala, Cabala, Kabalah) – sometimes transited as ‘occult knowledge’ and ‘mysticism’ – is considered to be a part of the Jewish religious tradition that deals with the essence of God. Whether it involves a religious text, an experience, or the manner in which things work, it is believed that God moves mysteriously. However, Kabbalists believe that the mysterious process and truth knowledge can be obtained; and through these knowledge people can achieve the greatest intimacy with God.

Historically, Kabbalah began to emerge after the first appearance of various forms of Jewish mysticism between the twelfth and thirteenth centuries, especially in southern France and Spain. In the sixteenth century it was reinterpreted in Ottoman Palestine.

The common characteristic of all mystic in many different religions, particularly in Judaism, Christianity and Islam, is their continual effort to achieve objective validations for most of the issues that are related to their religions. This continuous effort can help them to establish the collective experience of the society through its components, which are individual experience and occasionally mystical intuition (Idel, 2002).

In Kabbalah, hermeneutic enterprise is a significant method for interpreting Jewish scriptures for Jewish mystics. This interpretative approach has deep roots in the methods of understanding the bible and is less connected to understanding mystical lore in both Christian mystics and Sufis (Idel, 2002).

In postbiblical Jewish interpretation, there are two major actions that have provided more knowledge to the speculative hermeneutical body. The first one is the use of a different philosophical framework (that deals with intellectual, theosophical, cosmological and psychological issues) as a method of interpretation by Jewish religious scientists, instead of limiting themselves to using the ancient tools. They have used these different philosophies, because they believed in their ability to discover allegorical, symbolic, numerical and anagrammatic meanings that are inherent in the Jewish texts. The second action is connected directly to the first one. This action consists of the establishment of various types of exegetical systems to interpret the complexity of classical texts and has led to them becoming an integral part of the canonical text. It is also important to note that

the proliferation of exegetical methods is a result of the different dimensions covered by religious scientists.

6.2.2 Two Models of Interpretation Religious Texts

There are two models of kabbalistic thought for interpreting religious texts: theosophical-theurgical model and ecstatic. Each one of these two models will be discussed briefly.

1. Theosophical-theurgical model: this model has a strong influence on the different aspects of Spanish kabbalah, and it became popular in the sixteenth-century. One of the primary assumptions in this model is that language shows the internal formation of the divine realm (the sefirotic system). Also, in this model it is believed that language plays an essential role in achieving the theurgical activities in order to make people feel in harmony with the divine realm. Although the two characteristics of this model are different, it must be understood that each one of them is complementary to the other. Therefore, it is essential to not deal with each one of them separately or independently.

2. The second model is ecstatic; in this model controlling and handling elements of language in a skilful way was considered along with other mystical techniques to be a useful tool to achieve a mystical experience. The difference between this model and the theosophical-theurgical one is that the ecstatic model does not pay attention to a divine inner structure. Instead it focuses on dealing with human psyche through organising it in a new and different way to make it ready to encounter the divine.

6.2.3 Conceptualization of the Torah

The post-biblical rabbinic conceptualisation of the Torah is based on four main characteristics that can define the boundaries of the Torah. These characteristics are:

1. Torah existed before the creation of the world, and was also used as a paradigm to create the world.

2. Torah consists of “the whole range of supernal and mundane knowledge”, making it the primary resource for the complete knowledge of spiritual mysteries. This makes it an absolutely necessary resource to provide a connection or contact between man and the divine.

3. Torah includes the will of God, so the study of Torah becomes a religious imperative, since it can help to discover the meanings that are inherent in the text, and this is the main reason for making the understanding of the Torah a divine command.
4. Torah is considered as the “daughter” of God by a larger number of Kabbalistic and some rabbinic texts.

6.2.4 Torah: the Hidden Dimension

Moses, as explained in various rabbinic and Jewish magical sources, knew the secret divine names, and this allowed him to understand the hidden meaning inherent in the Torah. Also, knowing the secret divine names allowed him to defeat the angels in completions, and because of this the angels opposed God to reveal the Torah for Moses. The most significant point in this myth is that the understanding of the Torah can be achieved easily through knowing the divine names.

It is important to explain one of the Jewish assumptions that is related to knowing the divine names, which gives the ability to the interpreter to discover the hidden meaning inherent in the Torah. This assumption is that the power of divine names can be extracted from some verses of the Torah by using a specific linguistic exegetical technique. One of the pieces of evidence that supports this assumption is found in medieval midrash (Midrash Konen), which described an operation carried out by God himself looking in the Torah three different times to extract one of his three divine names each time. The operation performed by God himself, as stated in the book, is that “[h]e took the Torah and opened it and took out from her one name, which has not been transmitted to any creature, as it is written, ‘this is my name forever’ ... He opened the Torah and took out a second name ... He opened the Torah and took out a third name” (Idel, 2002, p. 30). Based on this operation performed by God, some rabbis believe that the power of divine names is deposited into the Torah in a secret manner. In response to this religious fact, Idel recommended an intra-textual approach (called intra-corporal) not as a tool to interpret the Torah, but rather as a tool to use the Torah in order to discover different dimensions that are inherent in it. It is important to explain the purpose of the intra-textual as a method for understanding text. The intra-textual approach aims to create a new layer of interpretation through the rearrangement of its units to produce new meanings in the text.

6.2.5 PaRDes (Jewish Exegesis)

One of the most significant methods for analysis and developing a clear understanding of the stratified relationship between the different kinds of Jewish exegesis is the fourfold method of interpretation known as PaRDes. The name of this fourfold system (PaRDes) is an abbreviation formed from the initial letters of its four levels of interpretation. The first level of the four exegetical methods is Pshat that is used to find the plain meanings of Jewish scriptures (Idel, 2002). It is important to note that, as mentioned by Hillel ben David, Pshat is not limited to the literal meaning of the text, but it must cover the accepted traditional understanding of the literal meaning of the text. For instance, the meaning of ‘an eye for an eye’ is related to its monetary compensation and not its literal meaning (David, 2016). The second level of PaRDes is Remez, which is used to discover meaning behind the literal meaning through using some hints in the text (Idel, 2002). The third level of this interpretive approach is Drush, which is used to give allegorical meanings of the texts (David, 2016). The last level of this methodology is Sod, which is aimed at finding the secret meaning of the text (Idel, 2002).

As stated in (Idel, 2002), there is a strong relationship between the interpretive Kabbalah method (PaRDes) and the four cosmic worlds or layers: (1) the highest one is the world of ‘Atzilut (also known as the world of emanation), which is to be realized as the world of the divine power; (2) the world of Beriy’ is the next world (also known as the world of creation), which is to be understood as the world of the divine chariot; (3) the next is the world of Yetzriah (also known as the world of formation), which is the world of angels; (4) the lowest layer is the world of ‘Asiyah (also known as the world of making), which is the world of tangible materials (Turda, 2013). The connections between the four levels of the Kabbalah method of interpretation (PaRDes) and the four cosmic layers or worlds is that each one of the four levels of interpretation corresponds to one of the four worlds. The sod matches the world of ‘Atzilut; the Drush matches the world of Beriy’; the Remez matches the world of Yetzriah; finally, the Pshat matches the world of Asiyah’.

6.2.6 From the Phenomena of Textualization to Text-architecturization

The phenomena of textualization should be a key aspect of discussion with almost any piece of Jewish artwork (such as literature, painting, sculpture and architecture), because

this phenomenon centralises its culture, especially religion. Jewish sacred texts have dominated Jews' lives. Historically, the lives of Jewish people were fundamentally changed. They moved from centralising their lives around a mobile Tabernacle as nomads to living around a stationary temple as a civilised society; and finally, they moved to making canonical writing their focal point, since it is the object that presents the voice of God. Therefore, sacred texts and anything related to them are a key aspect in Jews' lives.

It is essential to state that *the phenomena of textualization* covers many aspects related to Jewish religious texts. One of the primary aspects covered by this phenomenon is the method of interpreting Jewish religious books. Interpreting these books is not an easy task for scientists and ordinary people. Sacred texts are full of hidden meanings, which need one or more interpretive methods, such as PaRDes, in order to discover these meanings that are inherent in the text. Such methods require the use of some techniques, such as numerological methods of reading texts, that can help the discovery of new meanings. It is also important to note that some of these techniques require some reading movement between various books from different disciplines, such as intellect, theosophy, cosmology and psychology. More importantly, understanding some issues in this discipline requires contemplation of some of its phenomena, such as planets in cosmology.

Understanding the architecture of the Jewish museum in Berlin requires using a hermeneutic approach because of the different dimensions that are inherent in the physical fabric of the building. Terry Smith in his article, *Daniel among the Philosophers: the Jewish Museum, Berlin, and Architecture after Auschwitz* (2005), states that the building looks like a philosophical programme. Clemens Beeck said that, "Libeskind likes to think interdisciplinarily and philosophically. This thinking has allowed him to create expressive buildings with unmistakable qualities that challenge the imagination of their viewer" (2011b, p. 15). Therefore, it is claimed that Libeskind has used the Kabbalistic interpretive method (PaRDes) as a literary device in the design of the spatial environment. However, before discussing this specific approach of transposition, the four different possibilities of medial transformations and interrelations will be described. Wolf has classified the medial interrelation into three categories: (1) primary intermediality, which is a combination of at least two media such as song (which amalgamates sound with text); (2) secondary

intermediality, which is a conversion of media into another media, such as picturization; (3) figurative intermediality, which is based on changing some parameters of a medium, and the medium transforms into another medium. The fourth type was added by Peach and in this intermediality the designer reshapes in a similar way the structure of a medium using another medium.

The fourth type is the one that was applied by Libeskind, and this approach will be named the phenomenon of text-architecturization, and it refers to the transposition of the four layers of interpreting religious text in the making of a meaningful spatial environment in the JMB. Therefore, based on the above claim, the Kabbalistic interpretive method (PaRDes) will be used as a theoretical framework to interpret the architecture of JMB. This theoretical framework consists of four levels of interpretation in order to be consistent with the explanatory framework in (PaRDes). These four levels are:

- First level of interpretation: in the phenomenon of text-architecturization, the use of this level as a method to read the museum as a sort of text enables the discovery of the literal interpretation of the museum architecture including all its contents. This level of interpreting the architecture of the JMB reveals three types of meaning: (1) literal architectural symbol; (2) spatial thematic organisation of the spaces; and (3) the explicit meanings of abstract knowledge.
- The second level of interpretation: in the phenomenon of text-architecturization, this level is related to the act of reading any architectural element of the museum metaphorically or through numerological methods based on the use of some obvious hints.
- The third level of interpretation: this is related to the architectural experience that can be read allegorically.
- The fourth level of interpretation: it is aimed at revealing the secret meaning of the architecture.

It is important to state that these four levels of interpretation of the phenomenon of text-architecturization in the JMB will be described as a journey in the following section.

However, the analysis of these four levels will be discussed in the overall discussion chapter.

6.3 The Text-based Interpretation in the JMB

The idea of text-based interpretation of the architecture of JMB will be discussed as a journey starting outside the building and ending in the upper level of the museum.

6.3.1 Extension

The JMB is located in Kreuzberg, a noted area of Berlin, which was built as an extension area to the city of Berlin between 1732 and 1738 (Figure 6-1). This area was significantly damaged as a result of the Second World War, and because of the urgent need to provide houses for the citizens in Berlin after the war, many of the historical traces in Kreuzberg were replaced by housing projects (Armleder et al., 1999). One of a few historical buildings remaining in the area after the war was the Kollegienhaus, a two-storey baroque building designed by Philippi Gerlach and opened in 1935 to house a court of appeal (see Figure 6-2 and Figure 6-3). This building was part of a huge baroque urban development plan in the city under the Prussian King, Friedrich Wilhelm (Beeck, 2011a).

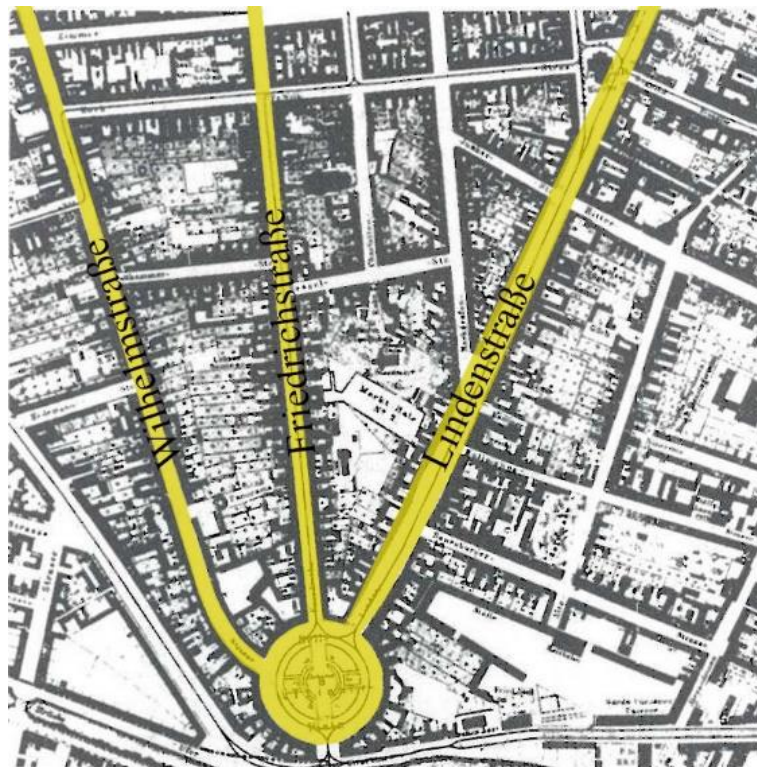


Figure 6-1 Map of the Southern Friedrichstadt (part of Kreuzberg) shows the baroque intersection of Lindenstraße, Friedrichstraße and Wilhelmstraße on Berlin map 1888. Source (Libeskind, 1992). The three streets are marked by the author.



Figure 6-2 Royal Protestant Consistory with 19th century extension along Hollmannstrasse, around 1914. Source (Libeskind, 1992, p. 35)

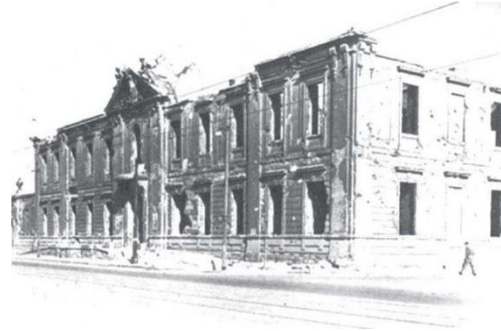


Figure 6-3 Main façade of Royal Protestant Consistory after destruction in the Second World War. Source (Libeskind, 1992, p. 35)

As part of the competition requirements of the design of the JMB, the entrants of the competition were asked to create a strong connection between the new extension and both the Kollegienhaus and the surrounding area. Libeskind responded to this requirement with an inventive concept that connected his proposal to both the Kollegienhaus and the surrounding area (Armleder et al., 1999).

Although the conceptual brief of the competition stressed the ideas of creating an extension to include the Jewish museum within the Berlin Museum, Libeskind did not simplify the issue to just create a connective building from a specific type of material that is in harmony with its surrounding area; instead, he believed that creating a philosophical relationship to intertwine the baroque history that symbolises the old history and the profundity of that history in the current state of the city was the best way to create a meaningful link. This new link would help to create a harmonious relationship between these two histories (past and present), which “hardly be matched and pieced together into a whole” (Libeskind, 1999b, p.19). Libeskind started his design of the JMB with a vision that aims in an explicit way to “combine the incredible legacy of Baroque Berlin – with its Jews, its Enlightenment, its extraordinary ideas of modernity, and its ideas that have undoubtedly changed the world – and the vacuity which is also connected to the history” (Libeskind, 1999b, p. 19). This led Libeskind to create no entrance for the new extension from the outside; however, the people can only enter the new extension through the Kollegienhaus

(the baroque building). When he was asked by the Berlin Senate's Administration about the reason behind not having an entrance in the new building, Libeskind responded:

Because there is no way into Jewish history and into Berlin's history by a traditional door. You have to follow a much more complex route to understand Jewish history in Berlin, and to understand the future of Berlin. You have to go back into the depth of Berlin's history, into its Baroque period, and therefore into the Baroque building first. (Libeskind, 2004, p. 98)

In terms of the architectural connection between the historical building and the new extension, Libeskind avoided using any banal way to connect these two histories because applying common architectural connections, for him, might not link these two histories in a way to make it noticeable for the visitors. This led him to create a “vertical or spiritual dimension” as an appropriate way to link these two histories, since this vertical dimension, for Libeskind, “can be seen as representing the light and darkness of history” (1999b, p.28). Libeskind did not use any metaphorical architectural approach to apply this idea in the building; instead he used a concrete approach that the visitors could see and feel “by going down into the depths of the foundations of the Baroque building – from the Enlightenment of Hegel, Schinkel, Moses Mendelssohn, and the great Berliners, to the undercurrents that support the structure of society” (Libeskind, 1999b, p. 29). Therefore, and as a way to move to the new extension from the historical building, the visitors need to enter a gate in a concrete-walled void (Figure 6-4), that penetrates through all the floors of the historical building, in order to go down through a long zigzag stair and start their journey inside the museum exhibitions (Figure 6-5). Peter Chametzky, a professor of art, stated that “The descent downward to pass from the Kollegienhaus to the Jewish Museum is thus a historical descent, into the darkness of history” (Chametzky, 2001p.258). In a film about the museum, Libeskind stated that it is essential to connect the authentic capacity of the space with the experience of it by viewers in order to make the existing architecture link to a need. In the practical world, the way of entering the museum from the old building and going down twelve metres below the street level in a way is not expected by the visitor as a movement of sequences is one of the architectural tools to communicate meanings and make the visitor experience the Jewish history in Berlin. One of the main pieces of evidence that supports the argument of whether the visitor will expect that they will start their journey inside the museum through moving down instead of going up or not is what is

stated by Dr. Johannes Rinke's (Head of Visitor Service). Although the visitors who need or prefer to use the elevator pass by the staircase and they often saw the other visitors going down, many of them, as has been stated by Rinke, go up to the second level in the historical building instead of going to the basement level where they can start their journey. He said:

Many people take the lift going to the second floor of the old building expecting they will find the permanent exhibition [t]here, but there is nothing on the second level of this building, only offices.
Dr. Johannes Rinke's (Head of Visitor Service)



Figure 6-4 Entrance to the Jewish Museum from the historical building. Source: the author.

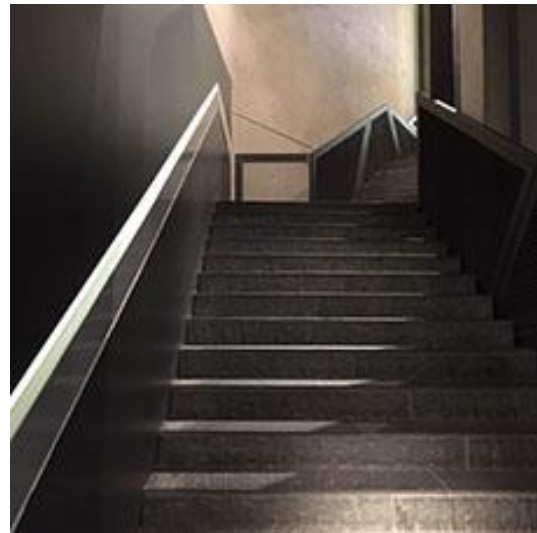


Figure 6-5 A long zigzag stair leads to the Jewish Museum Berlin. Source: the author.

This irregular way of starting the journey inside the exhibition might encourage the visitor to ask the question to find the meanings beyond this concept. It seems that Libeskind wanted to show that the Jewish histories in the city of Berlin have a frightening appearance but the details of the monstrous interaction between German and Jewish history are hidden underground. It is essential to state that the act of understanding these various meanings requires the use of the notion of play in Gadamer's philosophy, since it can help the visitor to gradually understand the different meanings in the building as a new horizon.

Although the main entrance of the new extension is located in the historical building, the architectural language that was used on the stairs (the main entrance to the new extension building from the historical building) is in contrast to the building style as well as to the nature of its materials. Libeskind used architectural language that is largely consistent with

the elements and principles of the new building. The staircase is placed at the bottom of a concrete void, like the six concrete voids cutting through the zigzag, that penetrates through all the floors of the historical building to confirm the idea of the depth of Jewish history in Berlin. It can be seen that Libeskind did not deal with the historical building using a conservative approach; instead he dealt with it radically by making its walls pierce the Kollegienhaus at every level. Although the conceptual brief emphasises explicitly the importance of perceiving the historical building, Libeskind used a radical way to create a marvellous connection that preserved the historical building from the outside but made a wonderful experience for the visitor inside. As has been stated by Libeskind, radicalisation is a key inspiration in his design, because the architecture for Libeskind, 'is a living connection to the cosmic event that we are part of, and a story that is certainly ongoing.... It's actually a story in which our acts themselves are pushing the story in a particular way' (Libeskind, 2009). It seems that Libeskind, through this radical entrance, is pushing the visitor to think about the story of Jews in Berlin, which 'is slightly below the level of real estate...it's not really deeply buried...it's few centimetres certainly below the ground'. In this metaphorical statement, Libeskind wanted to confirm that the Jewish history in Berlin is deep and at the same time it is slightly hidden, cited in (McCormick et al., 2011).

The proportion of the void is huge compared to the scale of the human body, especially because the staircase is located at the bottom, so the void is almost empty, which in turn, it seems that this emptiness makes some visitors stop and look thoughtfully for some time. The layout of the void and the staircase is consistent with the layout of the new extension in terms of using non-orthogonal forms. When we zoom in to analyse the details of the architectural elements of this concrete void, it can be seen that it contains many binary relationships and sometimes they are contrary to other elements in the same place or in other parts in the museum. The staircase has a zigzag shape with many landings, which are irregular shapes compared to the existing types of staircases, and its edges are sharp. The staircase's barriers constitute a strange situation for the visitor. While one of the stair's barriers is made of a concrete black wall, its opposite is steel fence panels. The heights of these two barriers are not equal, as the concrete black wall is nearly double the height of the steel one. Additionally, the strange thing about these two steel and concrete barriers is that they take turns at the edges; this means that when the left side is made of

concrete the opposite side is made of steel and vice versa. Also, one of the anomalous situations in creating a state of instability for the visitor is that the wall handrail-stair is not orthogonal with the axis of the stair movement. It is important to state that the wall handrail-stair is engraved inside the wall in a way to stimulate the visitor to investigate and ask questions to find the meanings, especially when it is compared to the wall handrail-stair on the stairs at the end of the axis of continuity (see Figure 6-6). Based on Saussure's philosophy, it can be stated that the staircase is full of architectural elements that can be seen as signs. These signs are an indication of various meanings related to the story told in the museum.

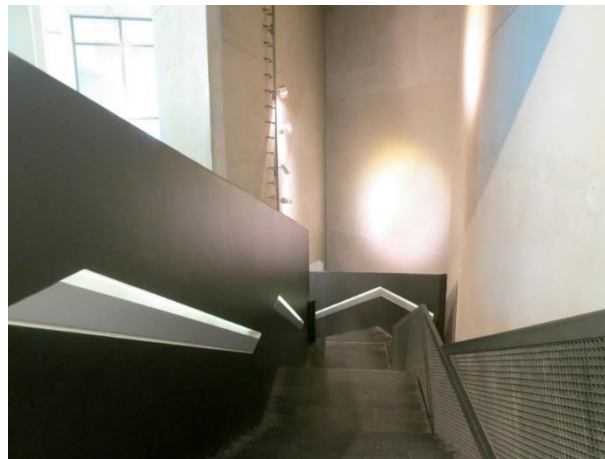


Figure 6-6 The picture shows the zigzag stair with its multiple landings, and the two stair's barriers: concrete black wall and steel fence panels, This picture also shows the height of each of these two barriers and how they take turns at the edges. Moreover, this picture shows that the wall handrail-stair is not orthogonal with the axis of the stair movement. Source: the author.

In terms of finding the museum's entrance from the outside, there are some visitors who find it really difficult to understand which of the two buildings is the new one and which is the old one in the museum; and also they are confused when locating the main entrance of the museum. One of the visitors stated:

When I arrived, the first thought I have was, "Where is the museum?" Then I asked it to people, "Please, what is that?" They say, "This is the museum." "This is the museum too," I said, "the old building." He didn't speak English, but he tried to explain me that, "Don't worry, go to the entrance and then you will see the difference and what does it mean." Then I understood it was just the way to go to the magic place. PF-04 semi-structured-interview, 2017

Another visitor was convinced that the entrance was in Libeskind's building, but after she realised that the entrance was in the historical building and that there was a relationship between the two buildings, she was impressed:

Before I entered the museum I actually took a few photos from the outside, and I didn't check both buildings were the museum, I was just excited just looking at the contemporary structure also taking photos of it. Then I looked around and one of the policemen asked me, "Where are you going?" I said, "I'm going to the museum." I was pointing at the steel structure, and he said "no, no. This is the museum, this is the entrance of the museum," "Wow, interesting." Then I capture a photo showing the contrast between. PF-23 semi-structured-interview, 2017

Tourist brochures and other types of tools to show tourist information about Berlin play a key role in confusing the visitor when it comes to finding the entrance because they show Libeskind's building as an icon to the JMB without showing the historical element of the entrance; as an example, Figure 6-7 is a bus tour map that presents Libeskind's building as representative of the museum without showing the historical building. However, it seems that the visitors like the idea of using the historical building as a gateway to the museum and the story of the interaction between Jews and Germans in Berlin. One visitor stated that:

It's a good starting point. It's like an important element of direction so you don't know anywhere near the new building. You stand at a certain distance of the new building and then to access the new building, you have to go through the old so the old acts as a door, as a gateway. PM-07 semi-structured-interview, 2017

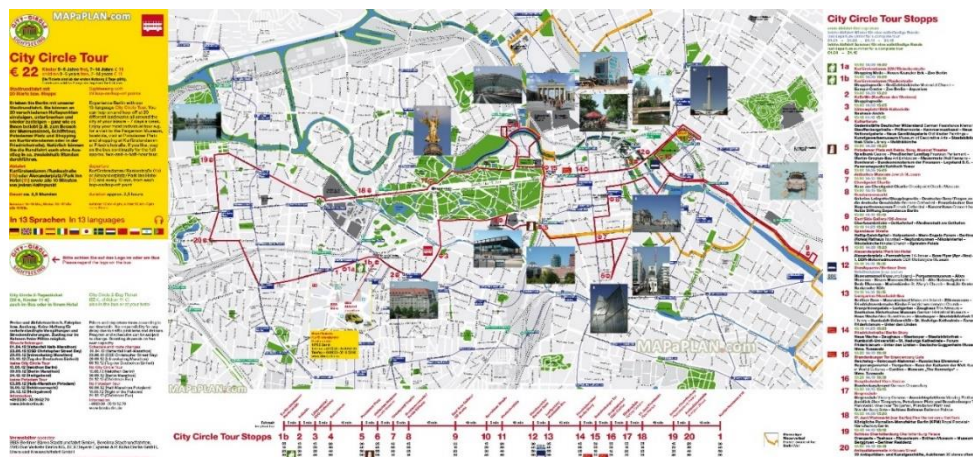


Figure 6-7 This is a map of one of the bus tours showing the track of the buses and the main landmarks that the bus passes by; it can be seen that they used a picture of Libeskind's building as representative of the Jewish Museum without showing the historical building. Source <http://www.mapaplan.com>

From the outside the zig-zag building looks like a large solid structure of zinc, whereas the Holocaust Tower and the Garden of Exile look like blocks of concrete. All of these three solid pieces (zig-zag building, the Holocaust Tower and the Garden of Exile) can be seen as a set of sculptures in the urban scale of the city, because they do not have explicit architectural references indicating that these blocks have been designed for people to dwell in; there is not a door, all of their windows are irregular, and all of their elements are not in harmony with a human scale (Figure 6-8). One of the respondents affirmed that the exterior of the building has been designed in an unconventional approach. He said:

[The building is] very intense and a sculptural element. A decorative element with an urban scale because it has presence in the city but none in the traditional or the conventional way. In an unconventional way like a sculpture like this where furniture of a park or texture or something. That's the feel from outside so you see these and they're blocks. They're not buildings. It's a block with some fixtures, some materiality, some elements. You don't identify any constructive element as part of a traditional building. PM-07 semi-structured-interview, 2017

The building as a sculpture has some literal and figurative meanings. These literal and figurative meanings of the building exterior can be explored through the three categories of signs in Peirce's theory. The most obvious literal meaning is the broken Star of David in its main façade (Figure 6-9). The shape of a broken star is spread over two walls. This symbol is one of the main identifying symbols of modern Jews. This star in the wall can be read in many different ways. It can be seen as an icon to associate the building with Jewish culture. Also, it is a broken shape, which can be seen as a message to reject the kind of racism which forced Jews to wear a yellow star so that they could be recognised by all and consequently, become victims of racial discrimination. On the other side, the physical fabric of the building contains some figurative meanings. The concrete material can be seen in the building as a representative of German Jews; however, the architect deals with this in three different ways to tell different stories. First, the six concrete voids have been hidden by covering them using zinc material to tell the viewer that much of Jewish history is invisible. The concrete material of the Holocaust Tower is in an enclosed space, so it cannot be seen from the outside (Figure 6-10). The intended meaning is that although many people have heard about the holocaust, the stories of most of its victims are still unknown. In contrast, the unenclosed concrete in the Garden of Exile indicates that the story of Jewish immigrants is visible despite its ambiguity.

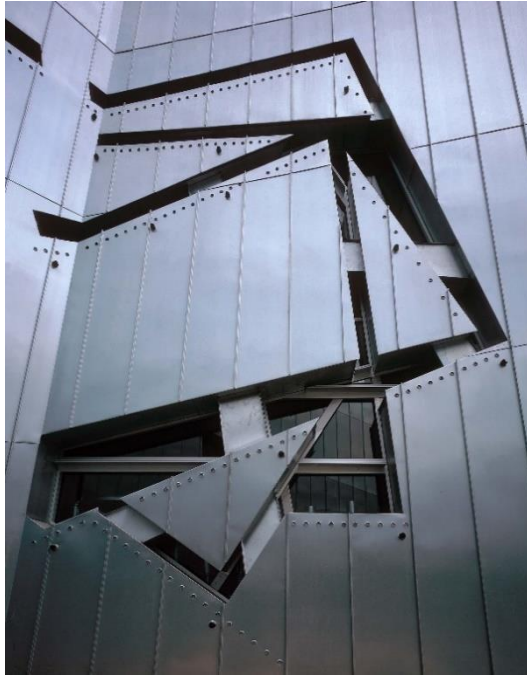


Figure 6-8 Examples of irregular windows in the JMB's main façade. Source <https://libeskind.com/>.



Figure 6-9 The broken Star of David in JMB's main façade. Source photography Jan Bitter (2014).



Figure 6-10 Holocaust Tower (left) and the Garden of Exile (right) and behind them the zigzag building as memorial figures. Source <https://libeskind.com/>.

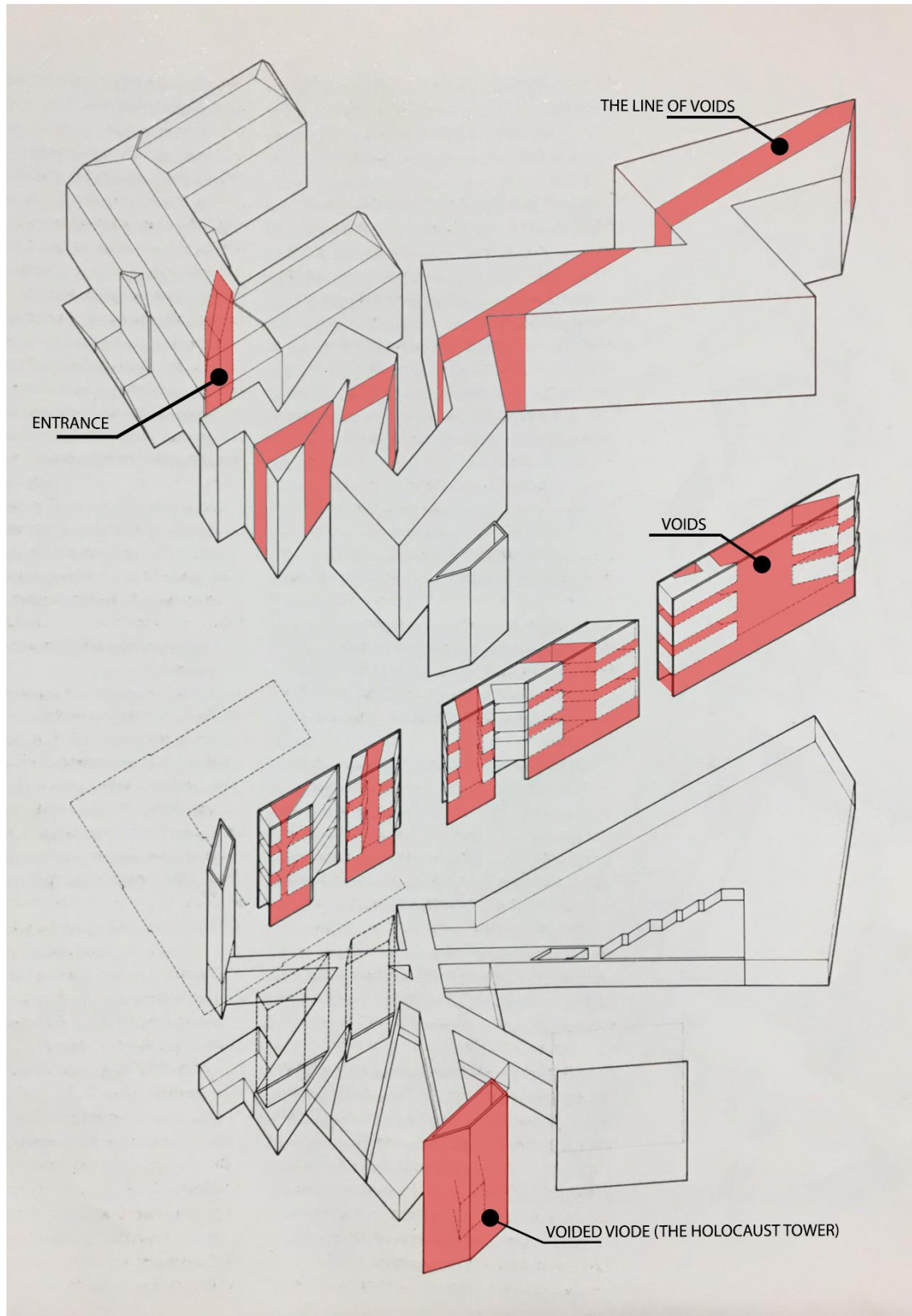


Figure 6-11 The line of Voids. Source (Libeskind, 1992, p. 38). Manipulated by the author.

6.3.2 Three Axes and Three Different Stories

Once the visitors descend into the underground, they will be in the middle of what they do not expect to see in a museum, namely an empty space without any objects. It is considered to be a surprise moment because most likely the first thing that the museum-goers expect to see in a museum is a gallery displaying many artefacts and not a space containing nothing. Some of the respondents were surprised about the idea of starting their journey in the museum with the empty space that does not include any resources that can communicate with them intellectually; instead they face a space that was designed to narrate a specific story about the relationship of Jews to the city of Berlin. One of the respondents stated:

When I entered the building, I was astonished about this empty and the coloured floor down there. So, you enter, you go downstairs and you enter the floor or a hallway which is empty on both sides.
PM-03 semi-structured-interview, 2017

This empty space that the visitors face when they start their journey in the basement level is the Axis of Continuity. This axis is one out of three main axes that intersect with each other and spread throughout the whole basement level. These axes are also known as the streets, roads and corridors. Programmatically, each one of these three roads or axes tells a different story related to the Jewish experience in the city of Berlin.

The first axis, the 'Axis of Continuity', is the longest one. The meaning lying beyond this axis is a representation of the Jewish future in the city of Berlin. This axis becomes the main connector that links the historical building with the new museum extension, and it leads to the main staircase of the museum. The second axis is the 'Axis of Exile' that recalls the Jews' emigration; this axis leads the visitors to a place outside the museum, known as the Garden of Exile. The last axis is the 'Axis of the Holocaust' symbolising the Jews' extermination in the Shoah, and this axis leads the visitor to the Holocaust Tower, which is known as the "Voided Void", as defined by Libeskind (1999a, p. 30). It is important to state that the last two axes, the Axis of the Holocaust and the Axis of Exile, have no entrance and they rely on the Axis of Continuity for their entrance points.

These three connections reveal historical paths that have been taken by Jews and others; two paths are against humanity which no one would like to experience, since one of them

led to the inevitable death while another led to exiling Berliners from their city; therefore, the city of Berlin, as stated by Libeskind, is “in exile from itself; that is to say, it is distant from itself and not reachable again” (Libeskind, 1999b, p.29). In the museum, these two paths led to dead-end spaces to emphasise the idea that behind the phenomenon and these walls there is a different city. Berlin “is apocalyptic, reborn out of something impossible” (Libeskind, 1999b, p.29) whereas the third path continues along the length of the building, despite attempts to be chopped off by other paths to represent the main connection to Berlin. While the movement from the historical building down to the basement level of the new extension symbolised reading the history in a vertical way, as has been shown in section 6.3.1, the relationship between the paths in the basement level represent the reading of the history in a horizontal way.

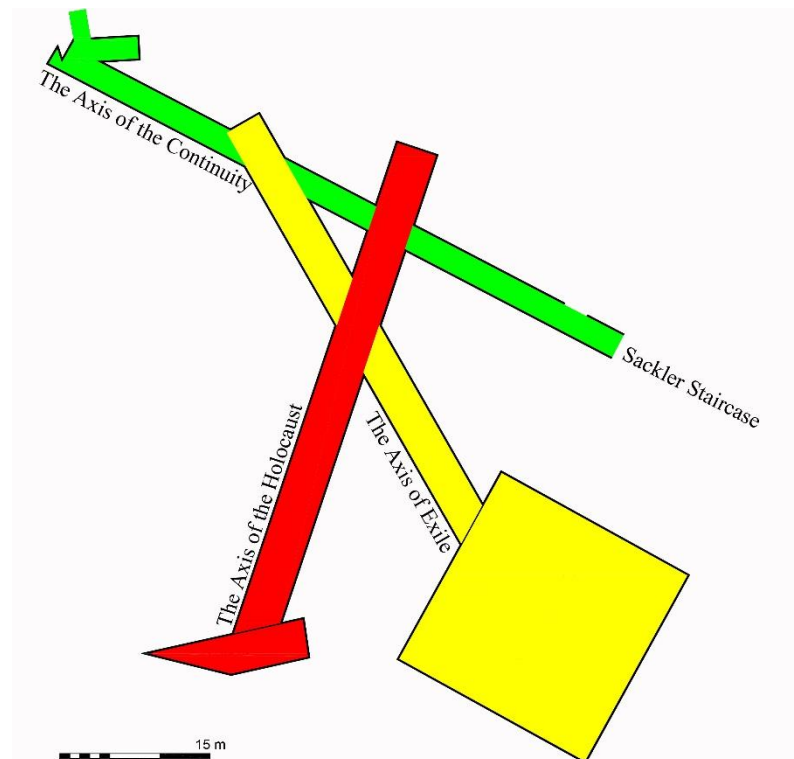


Figure 6-12 Three underground axial roads. Source: the author.

Owing to the island (Figure 6-13), which is a service space to present artefacts on the Axis of Exile and the Axis of the Holocaust, in the interaction point to all three axes, it is impossible for the visitors to see more than two axes at once. The visitor can only see any of the two axes completely in one of the three intersection points of the three axes; and

each of these three intersection points seems to tell a different story based on the relationship between the interactive axes. The first intersection point occurring between the Axis of Continuity and the Axis of Exile tells of the fact that the people who are in exile outside of Europe generally and of Germany particularly saved their lives and continue on building their future. In the second intersection point that is located on the crossing of the Axis of Exile on the Axis of the Holocaust informs the visitor that although some Jews did succeed in escaping, they left some members of their family to one of two fates: either death or torture. The third intersection occurring in the intersection of the Axis of Continuity and the Axis of the Holocaust narrates the story of how both the children who were transported to different countries and those holocaust survivors got the chance to continue building their future.

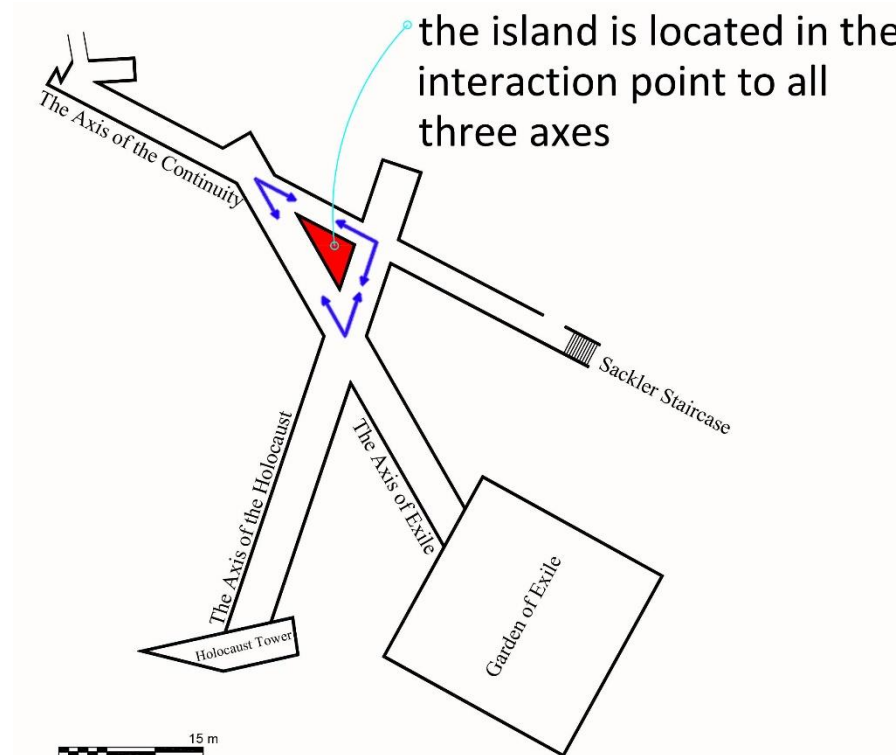


Figure 6-13 The island in the interaction point to all three axes prevents the visitors from seeing more than two axes at once. Source: the author.

Explaining the layout of these three axes is an important issue because it can show the different layers of meaning that their spatial environments contain. In spite of their differences, the three axes also have many similar architectural aspects. The borders of

these axes do not have any right angles, and none of them are orthogonal with the other; consequently, there are no right angles at their intersection points so all the corridors' corners are angled. The second similarity is that all the floors of the three axes have a gentle slope which start from their beginning and move upwards to their end (see Figure 6-14). These sloping floors affect the visitors' movement in the basement and mostly tend to increase or decrease the visitors' speed. It is important to note that one of the aspects that made the visitors feel surprised is both the angles of the corridors and their sloping floors, as one respondent stated that:

When you turn around a corner, you get surprised because of the angles of the windows or the walls or even the floor. PF-03 semi-structured-interview, 2017

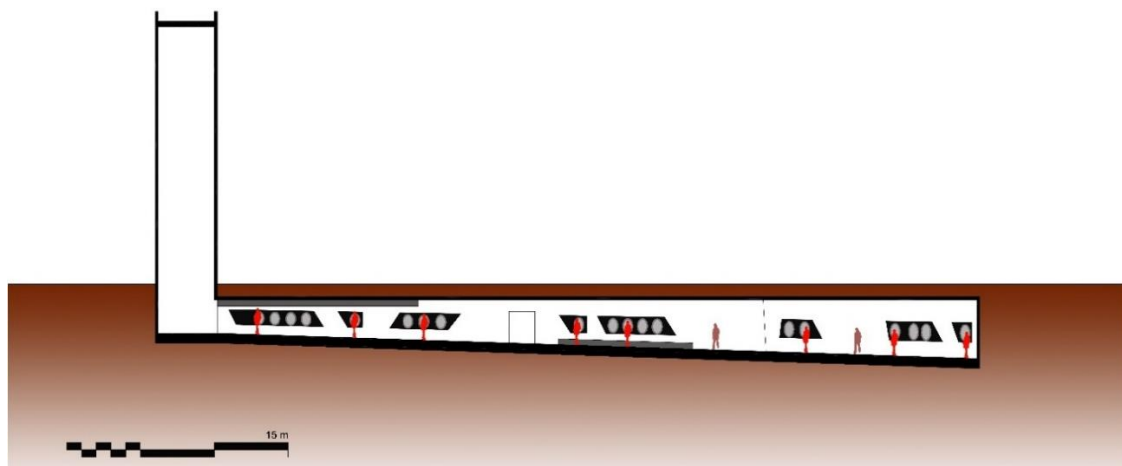


Figure 6-14 Section through the Axis of the Holocaust showing the gentle slope in the three axes.
Source: the author.

The ceilings on the three axes have a black colour, and they have to be cut by a thick diagonal line that starts from nearly one-third of the width at the beginning to the opposite one-third at the end of each axis. This cut shows other high levels in the ceiling which have a white colour and through these cuts indirect light comes into the space; therefore, in each corridor there is an indirect linear light that starts at the beginning and goes to the end of each path (see Figure 6-15 and Figure 6-16). Although these linear lights seem to direct the movement of the visitor towards the end of each corridor, in fact this might confuse and interrupt the movement of the visitors, especially in the three intersection points between the axes.

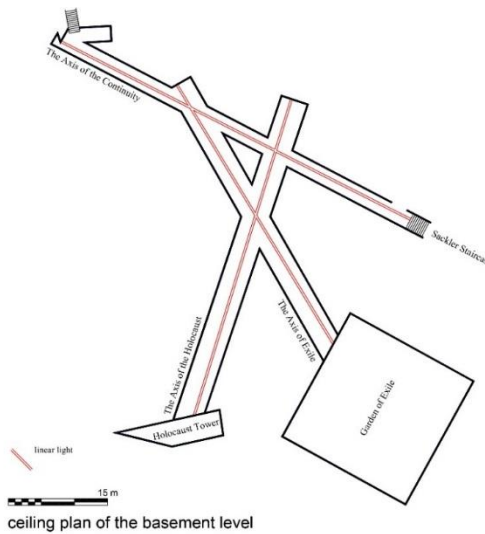


Figure 6-15 Ceiling plan of the basement level showing a thick diagonal line of indirect light. Source: the author.

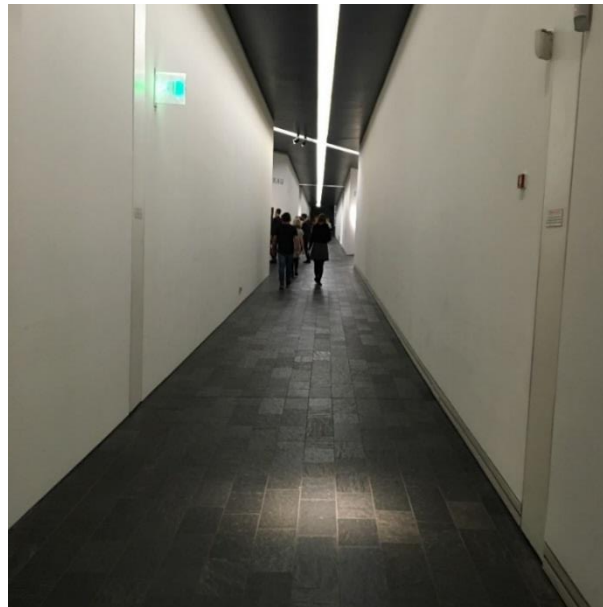


Figure 6-16 Picture shows the Axis of Continuity and its black and white ceiling; also, it shows the indirect light that came from the top level and the interaction with the other lights of the two axes. Source: the author.

Although there is a considerable similarity in the overall shape of these three corridors, there are some differences in their layout that play a key role in narrating the different stories. The first difference is linked to the dimensions of those corridors and the nature of the relationship between the length and width. Despite the fact that the Axis of Continuity is the longest of these three corridors, it is also the narrowest of them. In second place in terms of the length is the Axis of the Holocaust, though this axis is the widest one. While

the Axis of Exile occupies the last rank in terms of length, it is wider than the Axis of Continuity. The dimensions of these axes are not the result of coincidence, but rather it seems that they were indented in order to create a different scenario for each axis. The length and width of the Axis of Continuity plays a key role in narrating the Jewish history, since the corridor is the longest one in the basement, see its end from a position at its beginning is difficult compare to the other two; especially when we know first it is the narrowest corridor so there is a limited angle of view for human vision, and second the corridor has a gentle slope upwards so the end becomes smaller. In other words, the Axis of Continuity looks like an endless corridor. Therefore, the layout of the Axis of Continuity enhances the idea that the future of the Jews is fuzziness. In comparison with the length of the Axis of Continuity, the width of the Axis of the Holocaust, as the widest one out of the three axes, seems to recall the great impact of the Holocaust on Jewish life.

The relationship between the floor tiles and the main borders of the axes is considered to be the second main difference between these three corridors. While the floor tiles in the Axis of Continuity are parallel with its borders (walls), it is not parallel with the other two corridors (the Axis of the Holocaust and Axis of Exile) (see Figure 6-17). It seems that the architect intended to make the floor tiles in all three corridors parallel to the Axis of Continuity but not parallel to the others to show that both the Axis of the Holocaust and Axis of Exile represent the instability of Jewish life in the city. With reference to Ricoeur, there are two important aspects in the act of interpretation: (1) ontology, which can help to interpret objects, and (2) epistemology which can make the act of interpretation more critical and can also help to cover many dimensions related to the objects. Through the use of these two aspects which a key part of the hermeneutic spiral, the visitor can explore the various meanings of the three axes and the relationships between them.

The three axes are full of visual texts that gave brief explanations about the museum's objects including its architecture. However, in this part, the discussion will be limited to the visual texts that explain the architectural spaces or elucidate some facts behind the story that the museum architecture in general and the three axes specifically attempt to highlight. In terms of the layout of these visual texts, the spatial arrangement of these texts has taken the shape of a trapezoid without any outlines surrounding the texts. The invisible trapezoid

shape is formed in the visitor's mind since their left and right sides of the text blocks both have a straight edge, which formed a trapezoid shape parallel with the ceiling (see Figure 6-18). It is important to state that these trapezoid outlines of the visual texts are in harmony with other elements inside and outside the building which have trapezoid shapes, such as interior showcases and exterior windows.

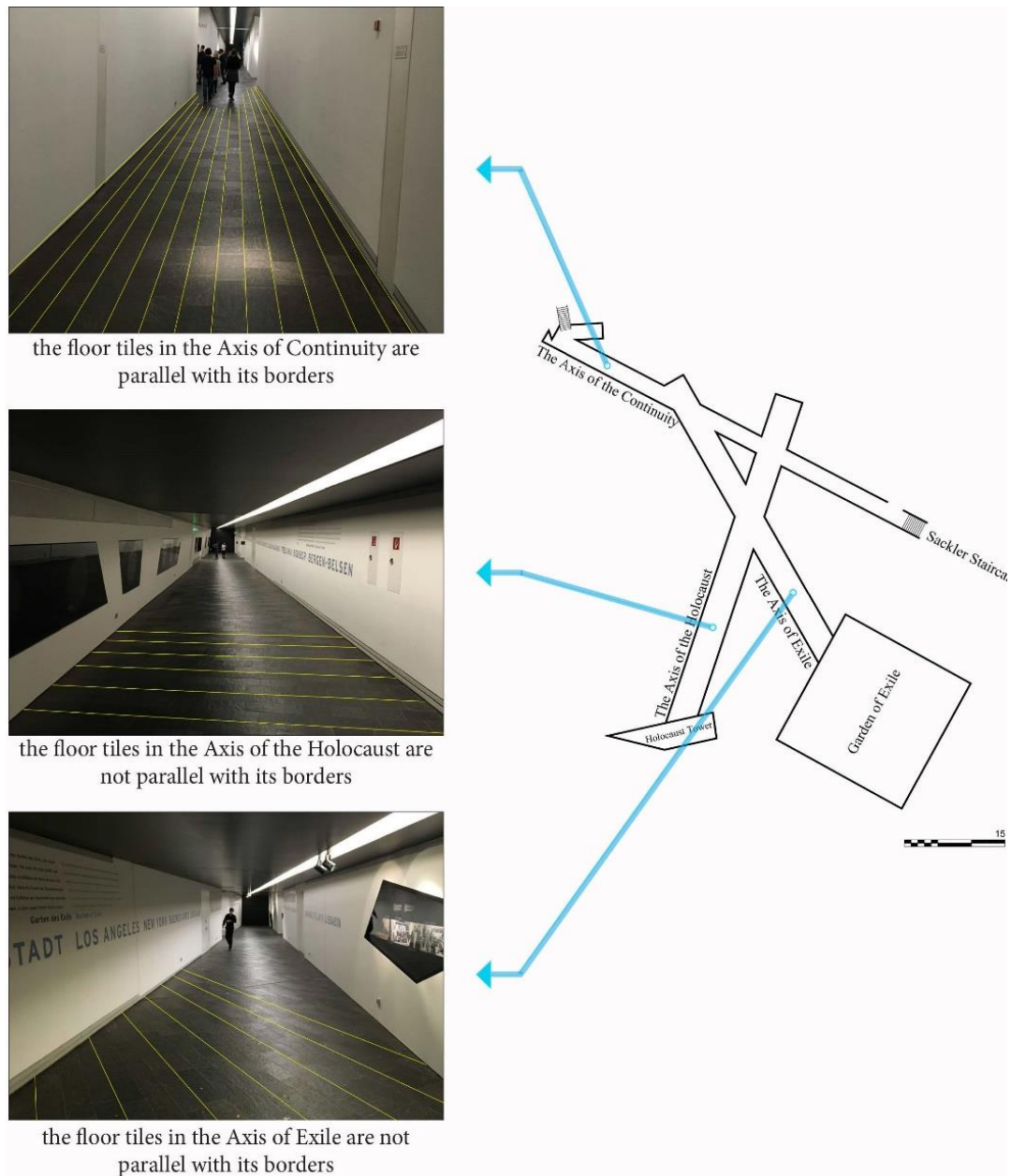


Figure 6-17 The floor tiles in the Axis of Continuity are parallel with its walls, whereas it is not parallel with the other two axes. Source: the author.

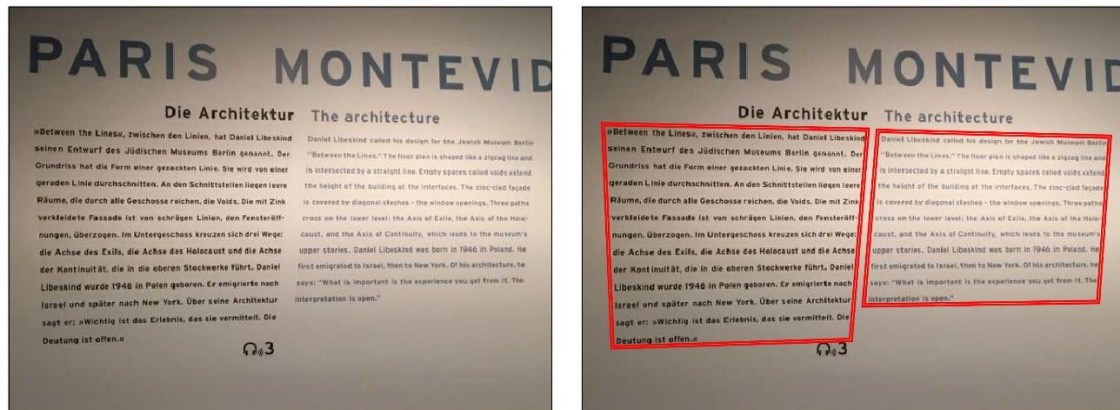


Figure 6-18 The spatial arrangement of these texts has taken the shape of a trapezoid without any outlines surrounding the texts (left). The invisible trapezoid shape is formed in the visitor's mind since their left and right sides of the text blocks both have a straight (right). Source: the author.

All these visual texts have many common features except one which is located inside the Garden of Exile; the common features of the similar visual texts will be explained next. The number of visual texts that have common features is five and all of them are located inside the building (see Figure 6-19).

All of these visual texts have been written in two languages: German and English. And they have been printed in two colours: black and grey. The black colour is for the texts that are written using the German language, whereas the grey colour is for the English language. It is important to state that all these texts have been written on white colour walls; therefore, the combination of these three colours of black, white, and grey make these visual texts.

Each one of these visual texts has a title with a font size larger than the font size of its content in order to make it the first thing that attracts the visitors' attention. This is particularly important for those who do not read all the visual texts in the museum so they can have at least some idea about the space they are exploring or the space they might explore. One of the different features of these five visual texts is the location of their title. The title of three of them is located on the top; (1) one in the intersection between the Axis of Continuity and the Axis of Exile, this one gives a brief explanation about the concept of the museum architecture in general; (2) the second one is located on the Axis of Exile, and gives an introduction about the story of exile; (3) the third one is located on the Axis of the

Holocaust, and gives an introduction about the story of the holocaust and the architectural idea of the space. The main common characteristics of these three texts is that they explain the idea of the spaces around them. The other two explain the idea of the following spaces, so their titles are located on the bottom. The text that explains the idea of the Holocaust Tower is located in the space that precedes it, which is the Axis of the Holocaust; and the text that gives some facts about the architectural features of the Garden of Exile is also located in the space that precedes it, which is the Axis of Exile.

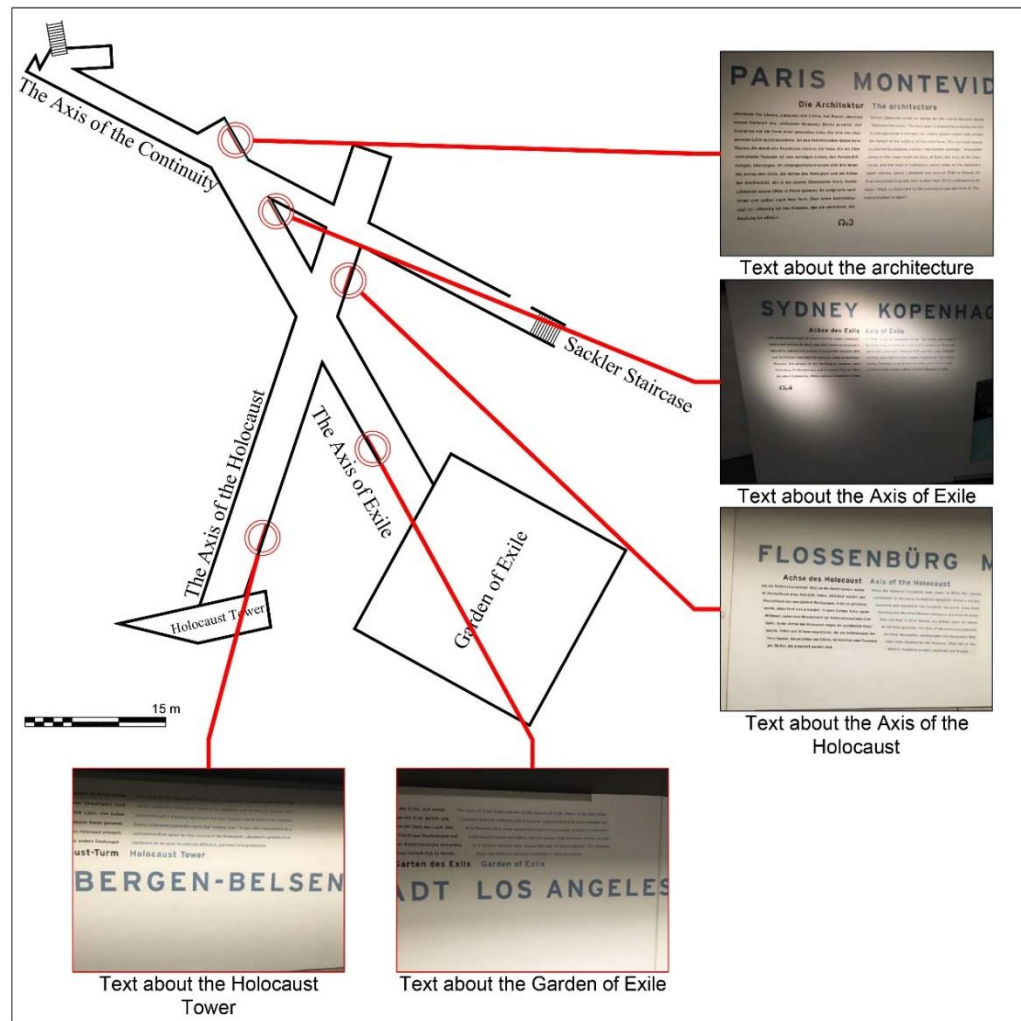


Figure 6-19 The five visual texts in the basement level. Source: the author.

One of the key differences between the design of the exhibition on the basement level and the exhibitions on the first, second and third floors is that Libeskind designed the cabinets on the basement level whereas on the other floors they were designed by different

exhibition designers and the architect has not collaborated with them in the design. Therefore, it is clear the exhibition on the basement level strongly supports the experience of the space around it, based on the visitor's opinion about the design in both parts. In contrast, the way of presenting objects in the permanent exhibition affects the experience of the space around it.

6.3.3 The Axis of the Holocaust

The Axis of the Holocaust contains the largest number of cabinets to display historical materials related to the Jewish history on the basement level, and because of that it will be discussed first. Although the Axis of the Holocaust is not the longest one out of the three passages in the basement, it is the only one that was cut completely by the two others; therefore, it is divided into three fragments with various sizes (see plan A and B in Figure 6-20). Each one of these split fragments has several cabinets to display objects. Both the complete cuttings by the other two axes and the division of the corridor into three fragments with different sizes can metaphorically show the effect of the Holocaust as a tragic event in Jewish life during and after the Second World War. It is important to state that the Axis of the Holocaust has no start point (main entrance or door), and it can only be accessed through the two axes that cross it, namely the Axis of Continuity and the Axis of Exile (see plan C in Figure 6-21). Not having an obvious entrance to the axis can signify another metaphorical meaning recalling the ambiguity about the beginning of the Holocaust.

As far as the layout of the Axis of the Holocaust is concerned, the corridor is surrounded by four walls: two longitudinal walls and two latitudinal walls. The two longitudinal walls have been split into three pieces as a result of their intersection with the other two axes (see plan D in Figure 6-21). Although this axis is a straight line, all its four bordered walls are not parallel with their opposites. The two longitudinal walls are not parallel because one of them is diagonal, whereas the two latitudinal walls are not parallel because each one of them has a different direction (see plan E and F in Figure 6-22). In terms of the colours of the four walls, the two longitudinal walls, which contain all the display cabinets and interpretive text, are white, whereas the two latitudinal walls are black (see G in Figure 6-23). It is essential to state that one of the latitudinal walls is a plain wall, whereas in the opposite side the wall contains a door leading to the Holocaust tower. These two black

walls display nothing, but they seem to present a key narrative of the story of the holocaust. While the first one at the beginning evokes the unknown beginning of the genocide, the other one is a gateway to the dead-end of the holocaust which is represented by the Holocaust Tower.

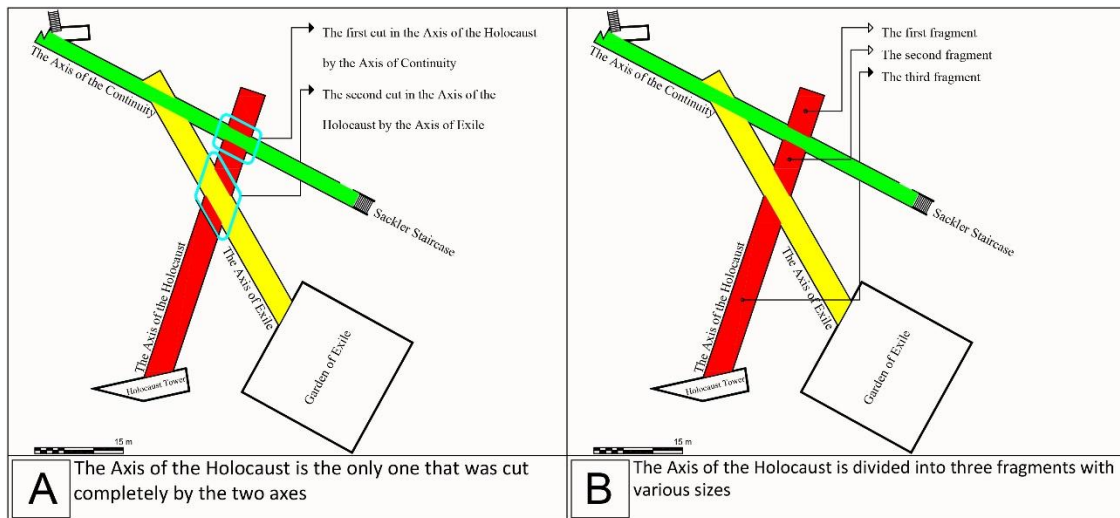


Figure 6-20 Some architectural features of the Axis of the Holocaust. Source: the author.

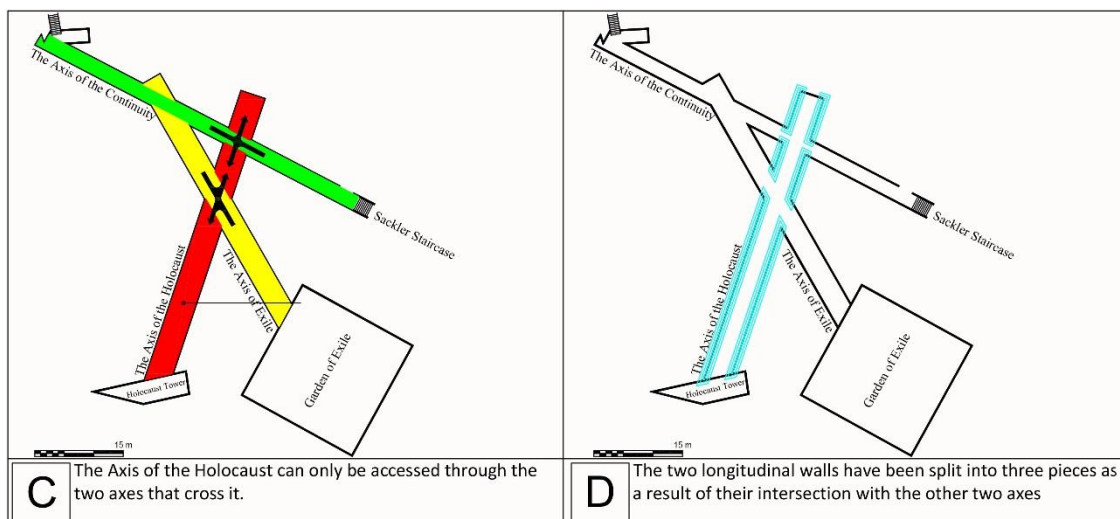


Figure 6-21 Some architectural features of the Axis of the Holocaust. Source: the author.

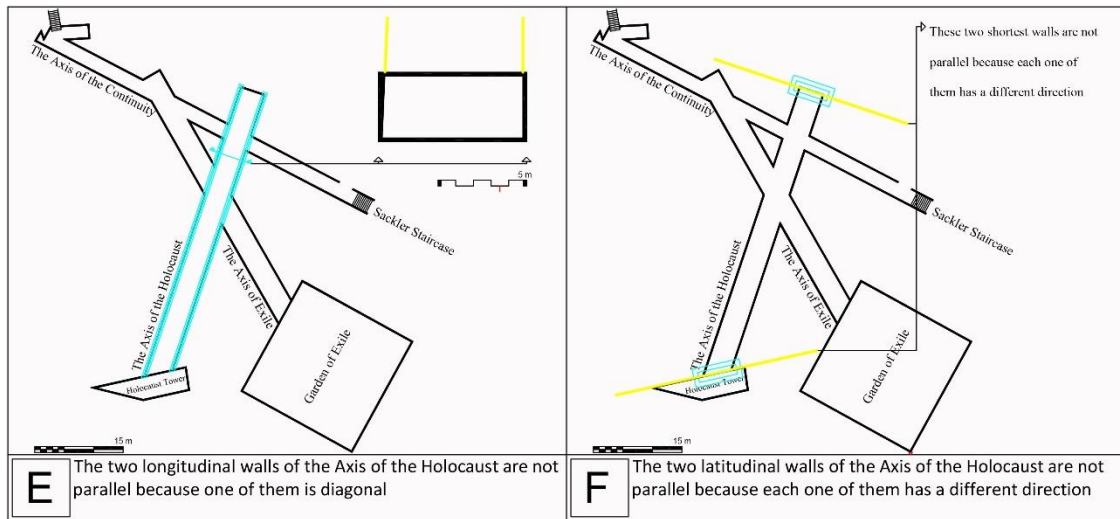


Figure 6-22 Some architectural features of the Axis of the Holocaust. Source: the author.

Since there are two longitudinal walls and each one of them presents different information, each one of them will be named in order to make it easy for the reader to distinguish between them; as a consequence, one wall will be called north-west longitudinal wall and the other will be called the south-east longitudinal wall (see H in Figure 6-23). Below, each one of these two walls will be described separately.

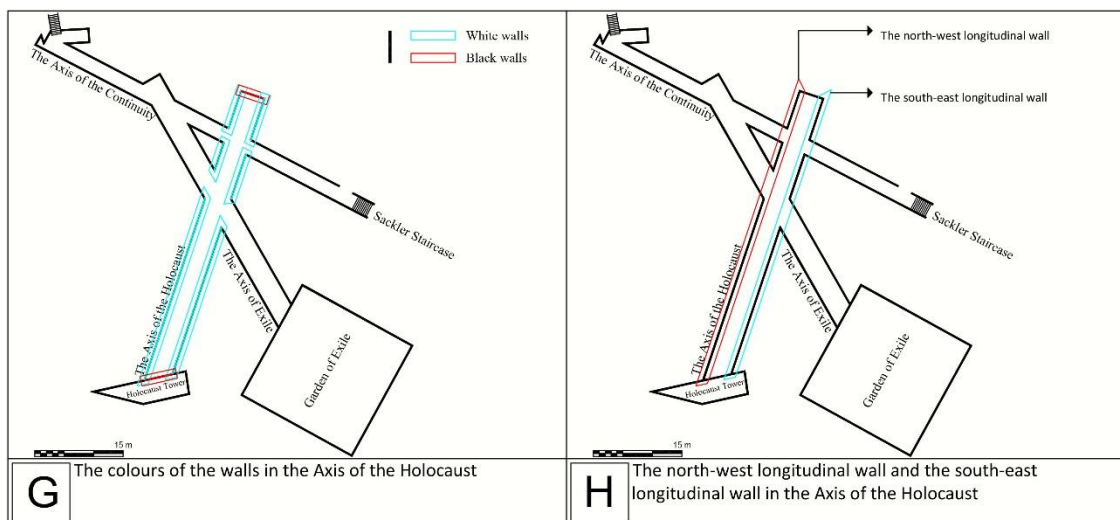


Figure 6-23 Some architectural features of the Axis of the Holocaust. Source: the author.

The north-west longitudinal wall has three focal points: (1) two interpretive texts mainly about the museum architecture; (2) the name of fourteen concentration camps written on the wall in large font size; (3) two small windows presenting nothing.

The Axis of the Holocaust has two interpretive texts helping the visitor somehow to interpret the spatial environment of the axis. Both of these interpretive texts are located on the north-west longitudinal wall. One of these texts explains the idea of the axis, whereas the other one explains the idea of the space that the visitor will access at the end of the Axis of the Holocaust, namely the Holocaust tower. The architect through these two interpretive texts tries to give the visitor some hints in order to help them understand the meaning behind these spaces. As has been stated before, this wall has been divided into three fragments, and the interpretive text that explained the idea of the Axis of Holocaust is located on the one in the middle. This location is considered to be the best position for the visitors entering the axis from either the Axis of Continuity or the Axis of Exile because the text will be one of the first things that they see when they enter the axis from any one of the other two axes. Under the title of Axis of the Holocaust, it is written that:

When the National Socialists took power in 1933, the Jewish population in Germany numbered 560,000. Hitler's regime deported and murdered two hundred thousand Jews from Germany and the other Western European countries to which they have fled. In all Europe, six million Jews fell victim to the Nazi genocide. The Axis of the Holocaust presents personal documents, photographs and keepsakes that have been donated to the museum. They tell of the donors' murdered parents, relatives and friends.

Libeskind did not present any images showing the atrocious acts of inhumanity and violence during the holocaust, instead it seems that he wanted to tell the story through the traditional architectural techniques. Understanding such a mode requires some hints to help the visitor create connections between what they perceive (the space and its contents) and what they read (the text on the wall and other facts that the visitor knew about the holocaust), especially for the visitor who does not know about the history. It is important to state that this text does not give facts explaining the architectural concept or the environment of the space; instead it shows two things: (1) some historical facts about the holocaust (2) the type of documents displayed in the space. This text focuses more on giving facts about the history of the Holocaust than explaining the architectural concept or the environment of the space. However, it can be seen that giving some facts about the history and explaining the architectural concepts through texts on walls works in line with the architectural environment that evokes the same story, since the facts that are present in the text can help the visitor to associate them with the meanings in the physical fabric.

The other interpretive text on the north-west longitudinal wall provides architectural information in a separate space that the visitor enters through a door at the end of the Axis of Holocaust. Under the title Holocaust Tower, it is written:

The Axis of the Holocaust slopes gently upward to an empty, 24-metre-high space called the Holocaust Tower. It is unheated and lit only by natural light falling through a diagonal opening in the wall. Sounds can be heard from outside. Daniel Libeskind called this room the “voided void.” It was later interpreted as a commemorative space for the victims of the Holocaust. Libeskind’s architecture continues to be open to entirely different, personal interpretations.

Different to the first text in this Axis, this text explains some architectural facts about the following space, but without giving any information about the meaning beyond them. Instead, the text mentions directly the importance of personal interpretation. This is compatible with Ricoeur’s two issues of interpreting the text. The first one focuses on thinking about the person behind the text and how the reader thinks about the author when they read his or her text so in this context, the focus is on Libeskind and the reason for naming the following room ‘Voided Void’. The other issue is related to the idea of forgetting to think about the person in front of the text, which in this context is the visitor of the museum and the effect of their background on interpreting the space. Also, this is related to Barthes’ theory of freedom from authorship. So, it is clear that Libeskind strives to remind the visitor about the importance of their interpretations.

The second feature that the wall presents are the names of 14 concentration camps written on the wall (Figure 6-24), divided into three groups, each group on one of the three split parts of the wall. Respectively, from the beginning to the end, the first part has the name of three camps (Dachau - Sachsenhausen – Buchenwald); the second has three as well (Flossenbürg - Mauthausen – Ravensbrück); and the third part has the name of eight (Łódź - Riga - Minsk - Chelmno - Belzec - Theresienstadt - Auschwitz - Lublin-M). The last mark on this wall are two small openings, which present nothing, and all these two openings are located on the first part of the three fragments. Although these two openings are small, they were able to stop the visitor and attract them to have a look at them (Figure 6-25).



Figure 6-24 The names of 14 concentration camps written on the wall of the Axis of the Holocaust. Source: the author

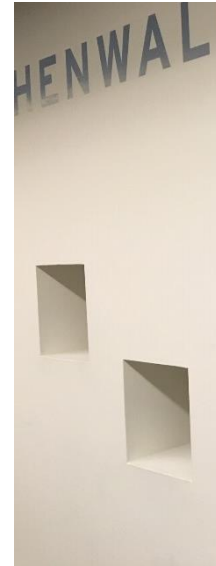


Figure 6-25 The two small openings in the Axis of the Holocaust. Source: the author

The opposite longitudinal border (south-east longitudinal wall) contains 19 showcases that present different types of artefact that tell personal stories. All these showcases are along the whole longitudinal wall, which as it has been stated before, is split to three fragments, each one presenting a number of these showcases: four, two, and thirteen showcases, respectively from the beginning of the axis to the end. All these showcases are presented as a group or individually on eight windows that have unequal trapezoid shapes (See Figure 6-26). These windows are spread out in the three split parts of the wall: two, one and five windows respectively from the first part of the wall at the beginning to the last part of the wall at the end.

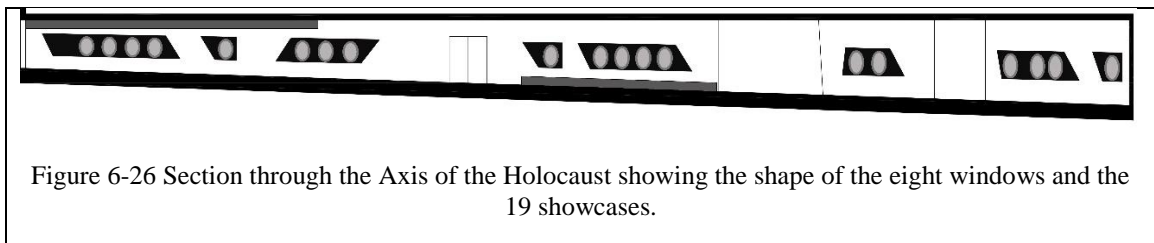


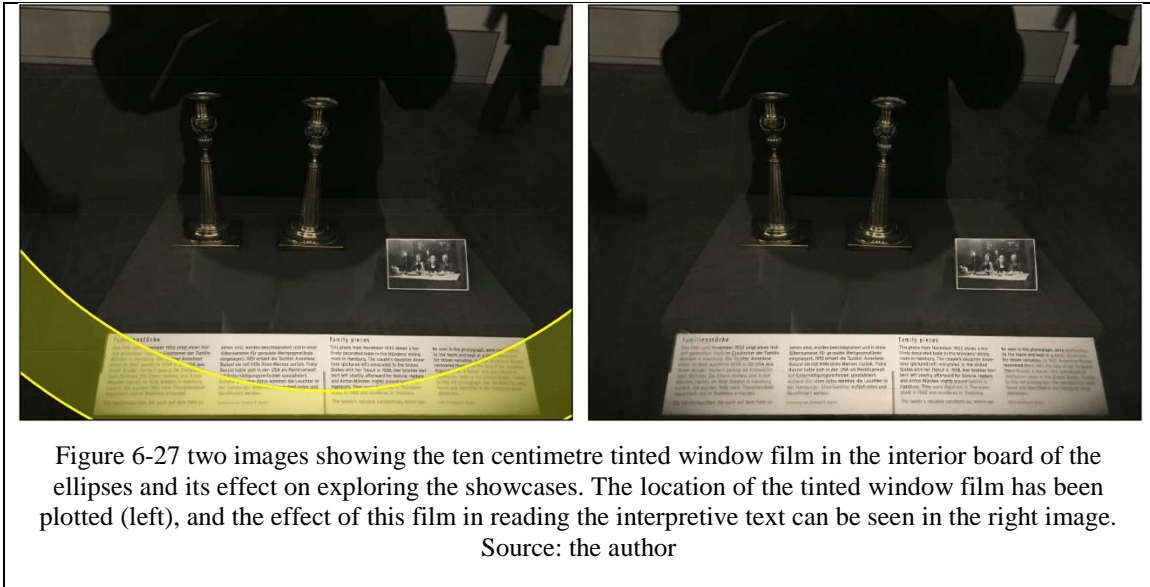
Figure 6-26 Section through the Axis of the Holocaust showing the shape of the eight windows and the 19 showcases.

The windows and the showcases that display the personal artefacts have been designed in such a way as to create a personal connection between the viewer and the artefact. Each

one of the unequal trapezoid black windows, which most of their parts are not-transparent, has a different number of ellipses openings that display the artefacts. Inside each one of the ellipses opening, there is either a single artefact or a group of artefacts that tell one story. These artefacts usually are presented on top of a black box, and sometimes they add a black board at the end of the box in order to hang some of the collections on. On the front of the black box in each of the ellipses opening, there is a small diagonal text board that presents some facts about the artefacts in German and English. Each one of these texts has a title in a larger font size compared to the rest of the text. Also, at the end of each text, in small font size, the name of the person who donated the artefact has been mentioned.

All the artefacts that are displayed inside these ellipses openings belong to Jews most of whom were killed in the Holocaust but some who were survivors. The story of the presented artefacts and their owners has been told through their text boards in the same style and tone of a newspaper piece; this style has encouraged many of the visitors to explore almost all historical materials in the 19 showcases and read the texts that are related to historical objects.

The width of these ellipses openings is about 75 centimetres, and this usually allows only one visitor to see the artefacts at a time. It is difficult for two people unknown to each other to explore one showcase at the same time because of personal boundaries whilst two or three people who do know each other might explore the artefacts that are displayed in one of the ellipses windows. There is another architectural aspect of the ellipses that needs to be mentioned since it plays a key role in also creating a personal connection between the viewer and the artefacts in the ellipses windows. There is a ten centimetre tinted window film in the interior board of the ellipses; this window makes it difficult for the visitor to read the interpretive text of the artefact and to see the details of the artefact. As a result, the viewer needs to stand in front of the ellipses openings and also needs to move his/her body to read and see the details of the showcases. It is important to be clear that one of the most important tools in the design, which emphasises the importance of the personal relationship between the artefact and the viewer, is the black background, which makes the viewer focus on the artefacts.



Based on the observation of the visitors who explored the artefacts in the Axis of the Holocaust, sometimes it is impossible for the visitor to see the showcase in sequence, particularly in the peak hours where there are many visitors in the museum because seeing these showcases in sequence requires waiting for variable times until the other visitor in the next showcase moves away from it.

Christiane Birkert (the Head of Visitor Research and Evaluation) stated that “because it is an intimate moment, ... [the visitors] sometimes have to wait or ... [they] can’t right away go to the next, you have to jump and leave one out.” And this is what happens often especially in the peak hours when the visitor moves from one showcase to another empty showcase, which can be in a forward or backward motion.

There is another architectural aspect that affects the way of experiencing the artefacts in these 19 showcases. Although all the eight trapezoid windows that contain the 19 showcases have the same height, there is a gentle slope in the corridor, so towards the end of it there is a distance between the artefacts displayed in the 19 showcases and the viewer’s body. The distance between the artefacts and their interpretive text at the beginning of the Axis is closer to the viewer’s head compared to the showcases at the end of the Axis which is further away. This means the visitors are required to bend and sometimes kneel in order to see some details of the artefacts or read the interpretive text at the bottom of the showcases (See Figure 6-28). All these movements are considered to be ritual activities

regarding the way of reading these texts and the historical materials. The reason behind these ritual movements is that the straight line that defines the sill of all eight windows is not parallel with the floor. At the same time, the straight line that defines the head of all eight windows is not parallel with the ceiling. Instead the straight line defining the sill of all eight windows moves downward closer to the floor as you go towards the end of the corridor. In a different direction the straight line defining the head of all eight windows moves upward closer to the ceiling as you go towards the end of the corridor. These spatial features are the main reasons the visitors have to bend and kneel in front of the last showcases (see Figure 6-28 and Figure 6-29).



Figure 6-28 Picture shows that the way the objects are presented in the Axis of the Holocaust made some visitors bend and kneel. Source: the author.

The movement of the body to be closer to the artefact in the Axis of the Holocaust is one of the things that makes some visitors enjoy the pleasure of exploring them and reading the story behind them. Also, at the same time this movement makes the information that they obtain more likely to remain in their minds for a long time. One visitor stated that:

It was very important for me to bend a little down and go closer and, and when you go close to the object you-you indulge more rather than when I see it from far. When I go close and if I struggle a little bit, the memory is much more strong. PM-11 semi-structured-interview, 2017

A Swiss visitor wrote a comment to Dr. Johannes Rinke (Head of Visitor Service) telling him that he does not like the way the artefacts are presented in the Axis of Holocaust because he suffered from seeing them as a result of the darkness and the shadow. However, Rinke stated that the way of presenting the objects was intended to create a strong connection between the viewer and the objects. He said in his response to the Swiss visitor that:

These are objects of people who died in the Holocaust and the presentation of the objects differs in the axis from the presentation in the permanent exhibition. We want to point out the intimacy of these objects [that] belong to a person and we don't want to share only the object but the biography of this person who died in the Holocaust. We don't want to show it for the great masses but it's one person, one object and one visitor. You have to look very, very carefully like a memory, a last memory of this person. Rinke (Head of Visitor Service)

As a result of these architectural features of these showcases, visitors cannot easily explore these personal documents from a distance or through simply passing by them. Instead they need to be standing in front of them which can make the relationship between the objects and the subjects become more personal, and this most likely will made the visitor concentrate more on the document and the story behind it. Rinke said the design of the 19 showcases is intended to create this personal relation in order to make the visitor more concentrated. He said:

[The design of the 19 showcase] is very calculated by the designer. Because to get an idea of this person, of this object, is not very easy. Don't walk, just look around and okay, okay, okay but look very close, get concentrated. Rinke (Head of Visitor Service)

Making the artefacts smaller or fewer in number and size is one of the main factors for some visitors liking the way of presenting objects in this axis and the following one, which is the Axis of Exile. Non-Jewish males (his age range 50-59) stated the reduction is one of the important aspects that made the way of presenting artefacts in the axis strong. He said:

[The way of presenting artefact on both the Axis of the Holocaust and Axis of the Exile] is strong ... presentation of it's a limitation. It is only a few things, maybe a knife, a photo, a letter, but it is not too much. The reduction is very important.

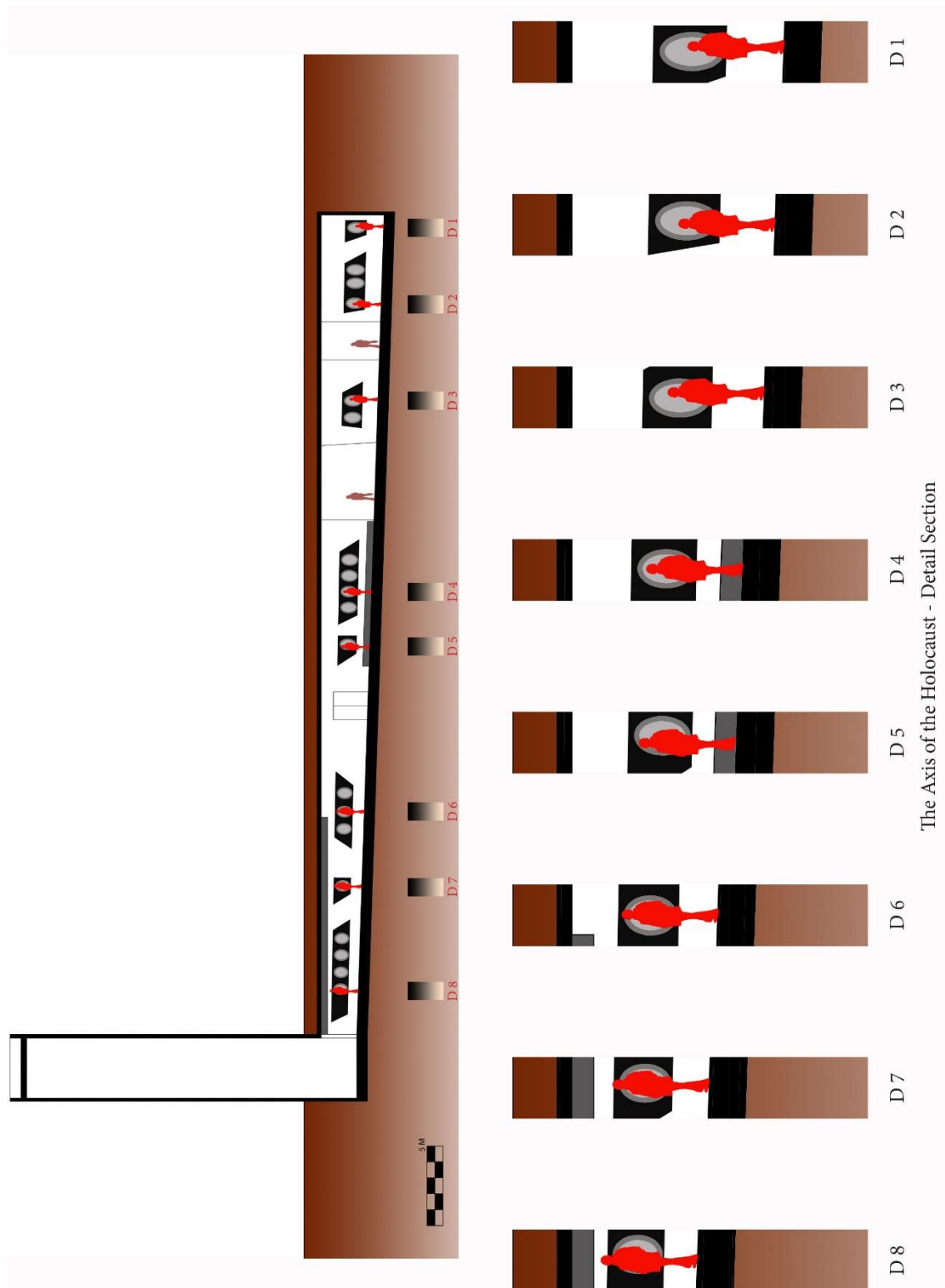


Figure 6-29 Section through the Axis of the Holocaust showing how the slope can affect the relation between the visitors' bodies and the showcases, which most likely will lead to making the visitors bend and kneel in order to explore the content of these showcases. Source: the author.

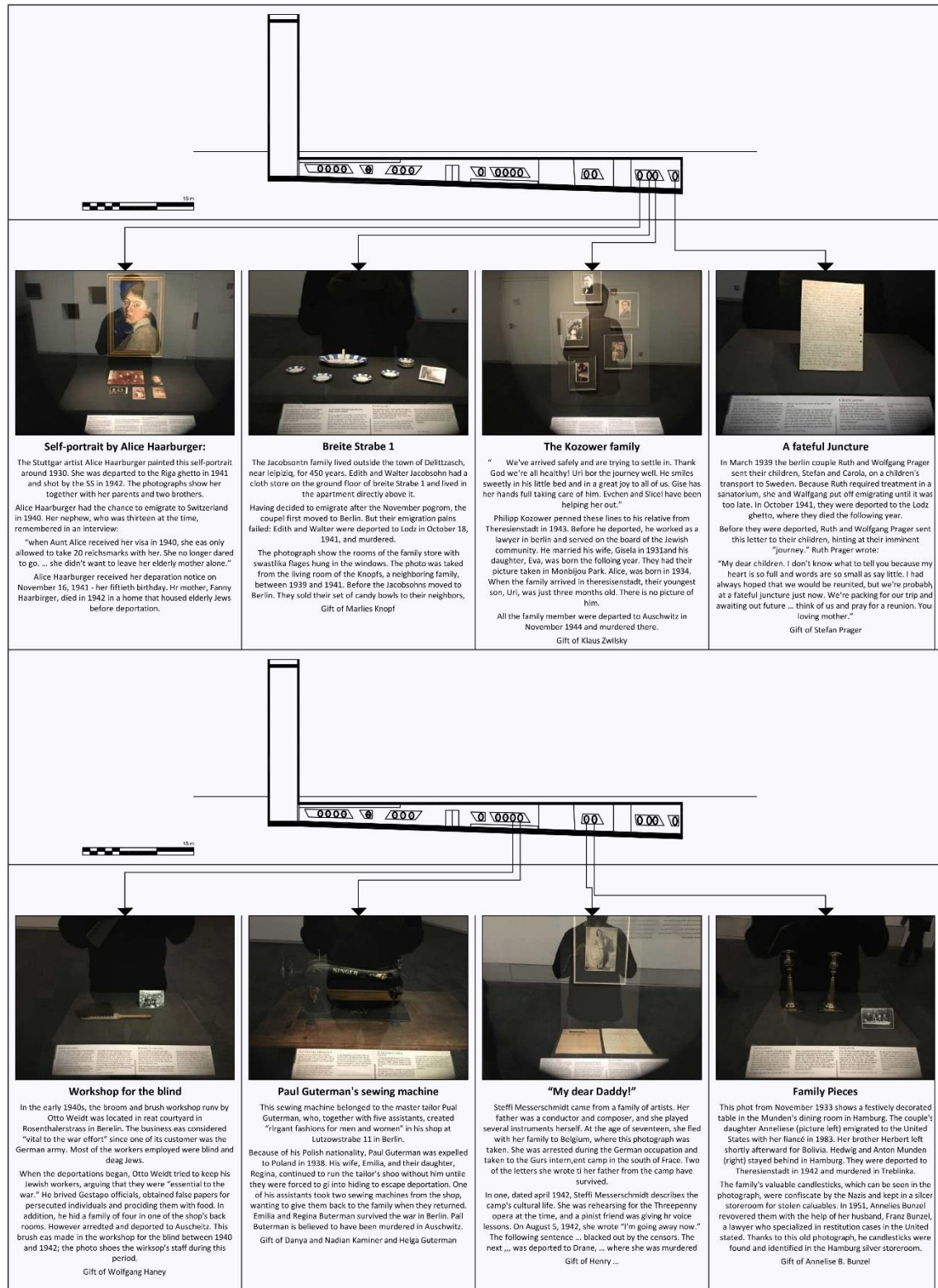


Figure 6-30 The showcases in the Axis of the Holocaust. Source: the author.

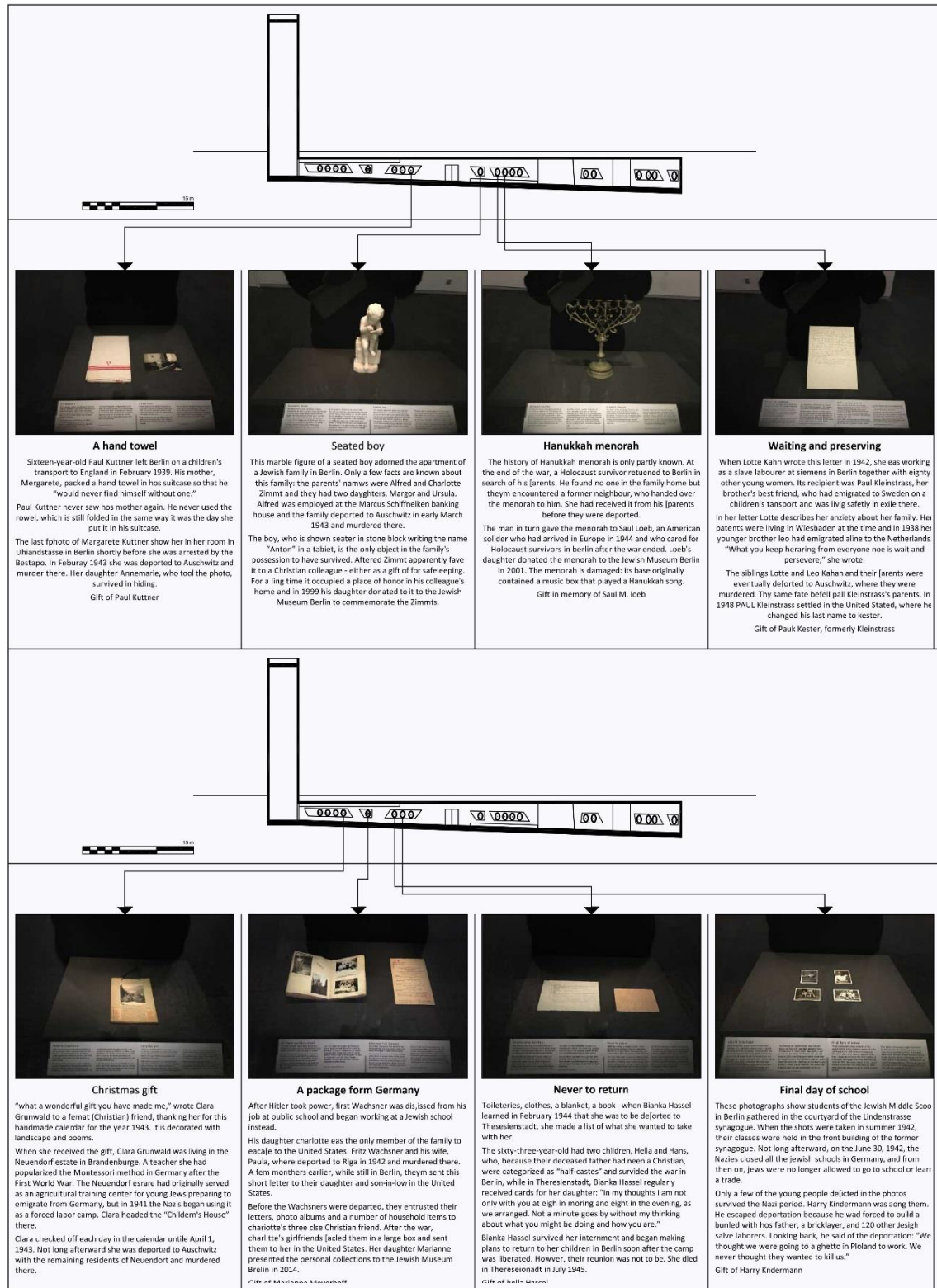


Figure 6-31 The showcases in the Axis of the Holocaust. Source: the author.

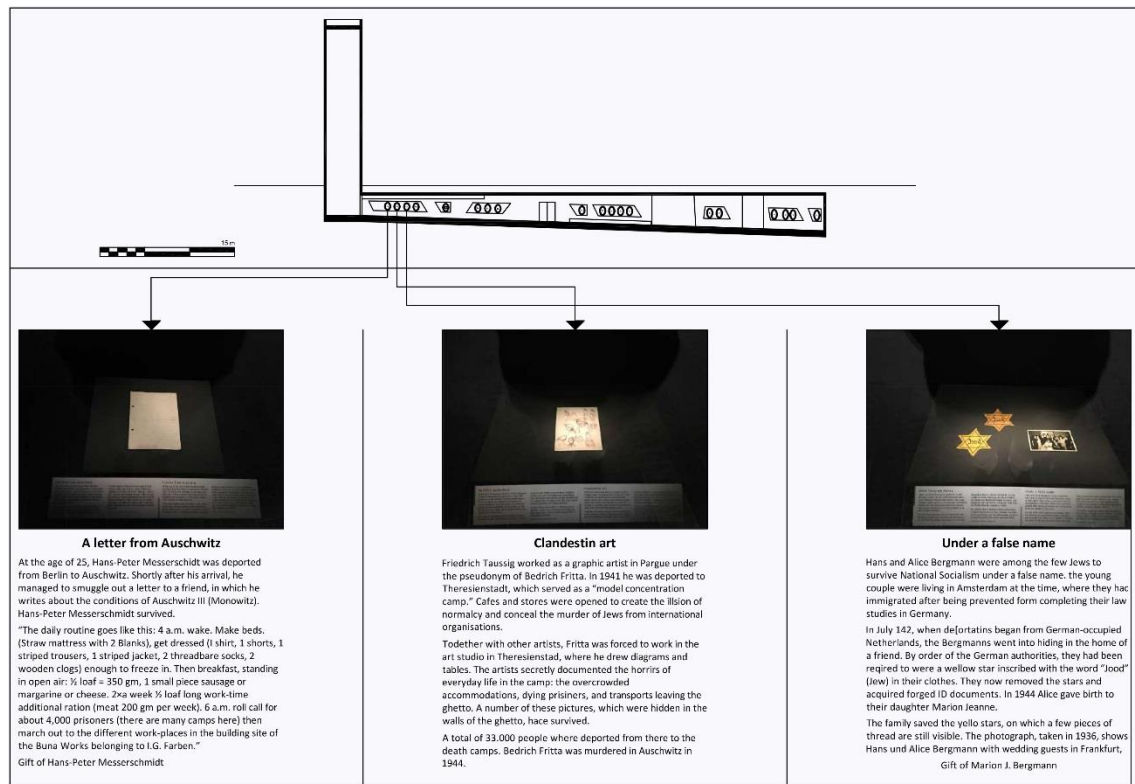


Figure 6-32 The showcases in the Axis of the Holocaust. Source: the author.

6.3.4 The Holocaust Tower

The Axis of the Holocaust leads to a dead-end space known as the Holocaust Tower, which is the only space that has been described as a dead-end space in the museum by Libeskind. Libeskind has named this tower 'Voided Void' because, for him, this space alludes to the end of the old history of the city of Berlin, which started before 1933 with the beginning of anti-Semitic campaigns back in history in different parts of the world. However, the Germans' campaign against Jews was the most significant event of their lives throughout all of history. To enter this space the visitor needs to pull a heavy, black steel door, and with this the architect wanted to create a metaphorical melodrama. The tower is an empty space, meaning that it does not include any artefacts on display (Libeskind, 1999a, p. 30).

As far as the layout of the Holocaust Tower and its materiality are concerned, the tower has a disturbingly irregular shape, its footprint is a scalene trapezoid so the length of all its sides are not equal and just two sides are parallel to each other (Figure 6-33). It is 24 metres high. The Holocaust Tower's walls are made of bare concrete and it has a black ceiling.

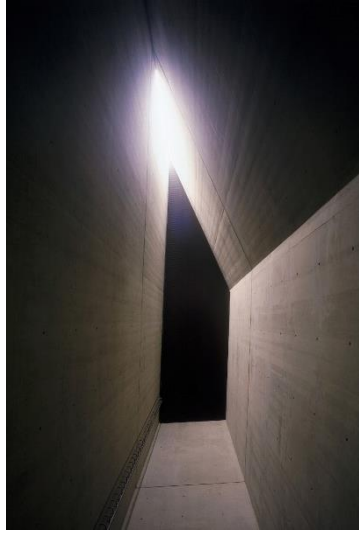


Figure 6-33 The disturbingly irregular shape of The Holocaust Tower. Source photography Jan Bitter (2014).



Figure 6-34 The single narrow window in the Holocaust Tower. Source photography Jan Bitter (2014).

There are no cooling or heating machines for this space so the visitors feel cold in the winter and hot in the summer and this is part of the experience that the architect wanted the visitors to feel. The light accesses the space only through a single narrow window (Figure 6-34). At the beginning, Libeskind attempted to design the Holocaust Tower with no lamps or any source of light, because he wanted to make this room simulate the environment the Jews experienced in the gas chambers. However, he changed his mind about creating a space that had no light, after reading the story of a survivor in Yaffa Eliach's book, *Hasidic Tales of the Holocaust* (1982). This story is about a woman's journey by train to the Stutthof concentration camp. For this woman, despite all the circumstances indicating that her fate was inevitable death, she saw the action of gazing to the sky through a narrow opening in the boxcar as a hopeful sign. Libeskind thus incorporated the woman's vision in his design of the Holocaust Tower by creating a long, narrow window in one of the walls of its acute angles (Libeskind, 2004, p55-56). The architectural imitation of the woman's story has contributed significantly to creating a space evoking the story. One of the responses pointed out that the experience of the Holocaust Tower somehow recalled some of the events connected to the story of the holocaust such as the train trip. He said:

I think it's very evocative of how it must have been during that war. Not must have been but it's evocative of that period of time of the locals. How you can only imagine. It's a dark space. It's like coming through, I actually think of having read about the trains that they were sent off to camps in that. PM-08 semi-structured-interview, 2017

This statement stresses that the relationship between the signified and the signifier is not always arbitrary as has been stated by Barthes. This respondent has established a meaning to the space through the connection between the story and the space.



Figure 6-35 Exterior of the JMB showing that the Holocaust Tower is located at the heart of the landscape area. Source <https://libeskind.com> (manipulated by the author).



Figure 6-36 Collage and colourpoint by Libeskind (1990) showing acoustic and optical issues in designing the JMB. Source (Libeskind, 1999a)

The indoor environment of the Holocaust Tower cannot be seen as a separate part of the tower's outdoor context because the exterior world is an extension of the tower's narrative. It is important to distinguish between the outdoor context of the urban element of the museum's surrounding area and the outdoor context that was created by the architect within the museum's land. Although both contexts have a strong effect on the experience of the Holocaust Tower, the effect of the context that was created by the architect will be explained to emphasise the importance of the landscape within the museum's land in enhancing the experience of indoor spaces. Libeskind did not create any restrictions that would limit the movements of the general public around the building particularly around both the Holocaust Tower and the Garden of Exile. There are no fences around the building and a large area of the museum's land has been designed to be a landscape area for two main reasons: (first) to be used as a public space area, and this reinforces the idea of the museum as a public space area; and secondly, and more importantly, to allow the general public to move to different parts of the city through the museum land. Since the Holocaust Tower is located at the heart of the landscape area as shown in Figure 6-35, most of the sound that is produced by people in the landscape area will be heard by the visitors who experience the Holocaust Tower. The relationship between these two worlds (inside and outside) has been mentioned by some of the respondents. One of them stated that:

It really gave to me that feeling of when you are in there, you know there's the outside world and you can hear it, but then you're just trapped and you can't do anything. You're just stuck in this big space. PM-21 semi-structured-interview, 2017

In a follow-up question to one of the respondents about selecting just one space of the museum where they can experience part of Jewish history, he responded:

I think I would suggest him to go to the Holocaust Tower, and just stand there for five minutes, and just think about the space and hear the muffled sound of the city. I think that can create a lot of things in [sic] person's mind. And he can relate and interpret in a very different way. But I think that is a good place I can suggest to a visitor. PM-11 semi-structured-interview, 2017

These two quotations show the role of the Holocaust Tower as a spatial environment in inducing a feeling of isolation in the visitor by the multisensory stimulations, especially the sound. This feeling of isolation in the Holocaust Tower somehow evokes the feelings of isolation experienced by many Jewish people in the Holocaust in an allegorical way.

Such an allegorical approach in evoking the experience of many Jews in the Holocaust can be seen in many Jewish museums, for example Los Angeles Museum of the Holocaust.

6.3.5 The Axis of Exile

The Axis of Exile does not have many cabinets like the Axis of the Holocaust, it just contains two cabinets. However, unlike the showcases in the Axis of Holocaust, these two are bigger and contain many historical materials related to Jewish history in Germany. Before discussing the contents of these two cabinets and the story that they intend to tell, the layout of the axis and its material will explained.

Although the Axis of Exile does intersect with the other two axes, it is important to mention that this axis does not entirely overlap one of the two other axes, namely the Axis of Continuity, as the beginning of the Axis of Exile becomes somewhat an extended space of the Axis of Continuity. This is an incomplete intersection and the other complete intersection with the Axis of the Holocaust makes the Axis divided into three fragments, one of which is an incomplete fragment of the corridor (see A and B in Figure 6-37).

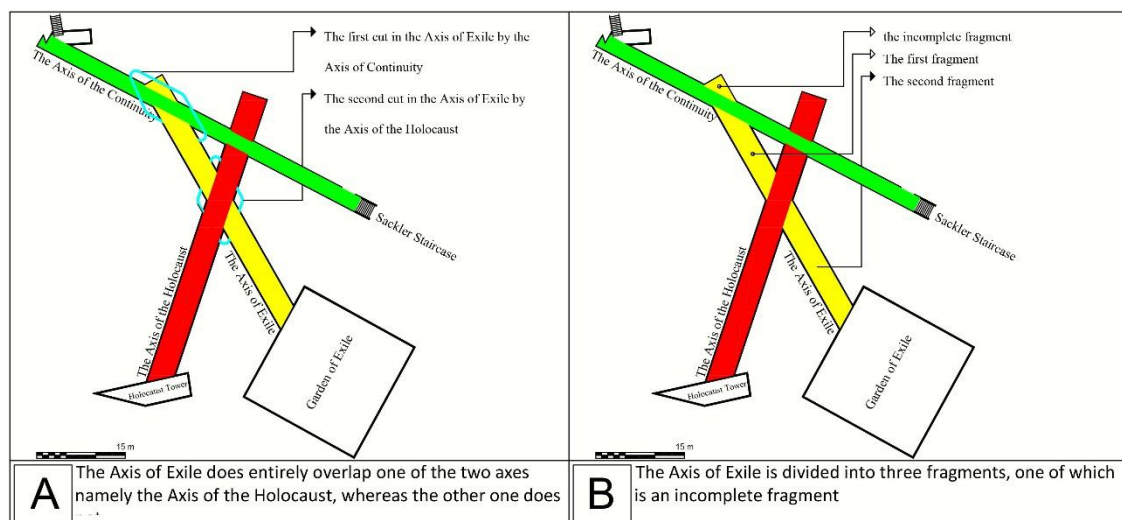


Figure 6-37 Some architectural features of the Axis of Exile. Source: the author.



Figure 6-38 Libeskind initially intended to present the collage of his main concept of the JMB (the star matrix) at the beginning of the Axis of Exile. However, this wall is plain. Source (Libeskind, 1992, p. 79).

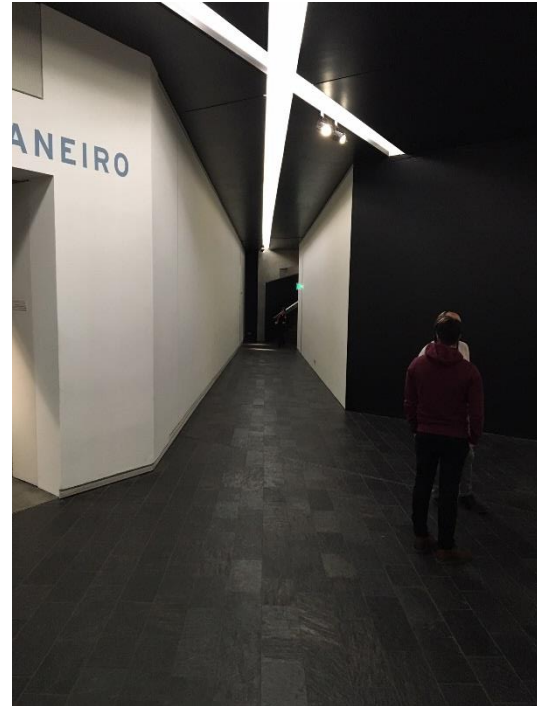


Figure 6-39 The latitudinal at the beginning of the Axis of Exile has a black colour. Source: the author



Figure 6-40 The wall that has the main interpretive text that explains the architectural concept of the museum architecture. Source: the author.

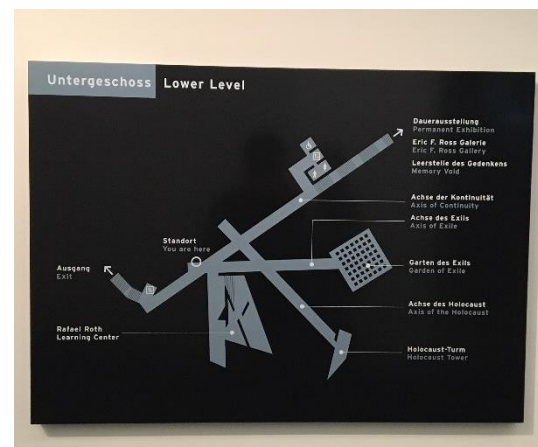


Figure 6-41 A panel showing a simple diagram of the museum's space. Source: the author.

The incomplete fragment, which is considered to be an extended space of the Axis of Continuity, is surrounded by two walls. The first one is one of its two latitudinal walls defining the corridor boundaries, and it has a black colour. This wall is considered to be the beginning of the axis. It is important to mention that Libeskind initially intended to

present the collage of his main concept of the museum (the star matrix) in this wall as it showed in his book *Extension to the Berlin Museum with Jewish Museum Department* (1992) which contains many architectural renderings of the museum (Figure 6-38); however, this wall is plain (Figure 6-39) and all the architectural information about the architectural concept of the museum has been transferred to the other wall (Figure 6-40). The second wall is a part of one of the corridor's two longitudinal walls, and it has the main interpretive text that explains the architectural concept of the museum architecture, and also has a panel that shows a simple diagram of the museum's space (Figure 6-41). Under the title 'The Architecture', it is written:

Daniel Libeskind called his design for the Jewish Museum Berlin "Between the Lines." The floor plan is shaped like a zigzag line and is intersected by a straight line. Empty spaces called voids extend the height of the building at the interfaces. The zinc-clad façade is covered by diagonal slashes – the window openings. Three paths cross on the lower level: the Axis of Exile, the Axis of the Holocaust, and the Axis of Continuity, which leads to the museum's upper stories. Daniel Libeskind was born in 1946 in Poland. He first emigrated to Israel, then to New York. Of his architecture, he says: what is important is the experience you get from it. The interpretation is open."

This interpretive text discusses three main issues. The first issue is that the text refers to three meaningful aspects of the museum architecture: (a) the most ambiguous architectural aspect in the building, which is the interaction between the zigzag line and the void line; it could be claimed that the architect refers to this in the beginning because it is difficult for the visitors to notice because of the zigzag layout of the new extension, as was stated by Libeskind, it is "surely an image only seen by an angel" (Libeskind et al., 2001, p. 26); (b) the text strives to give some hints to the meaning of the window shape in the exterior façade represented in the word 'slashes' which is one of its meanings in the oxford dictionary, "a long narrow wound or cut"; these windows or slashges seem to recall somehow the effect of the holocaust in the Jewish history; (c) the text points to the three Axes in the basement aiming to evoke their narrative. The second issue is that the text gives some background about the architect, and such information can make the visitor believe most of the intended meanings in the building because they believe that the architect is an integrated part of the museum's story since he is Jewish. This is compatible with Ricoeur's idea of focusing on thinking about the person behind the text and how the reader thinks about the author when they read his or her text. The last issue can be seen as an opposite point to the second one; although in the text they mention some background information of the architect, which can

affect the interpretation of the museum, the last issue states that the interpretation is open; this point is compatible with Ricoeur's idea of forgetting and thinking about the person in front of the text. Therefore, such a statement will encourage the visitor to establish their own interpretation which can be different to the architect's interpretation.

Like the Axis of the Holocaust, the Axis of Exile is surrounded by four walls; two of them represent the beginning and the end, and these two are the shortest ones compared to the other two that are along longitudinal boundaries of the axis. Also, similar to the four walls in the Axis of the Holocaust, all the four walls in the Axis of Exile are not parallel with their opposites for the same reason. The two latitudinal walls are not parallel because each one of them has a different direction whereas the longitudinal walls are not parallel because one of them is diagonal (see C and D in Figure 6-42).

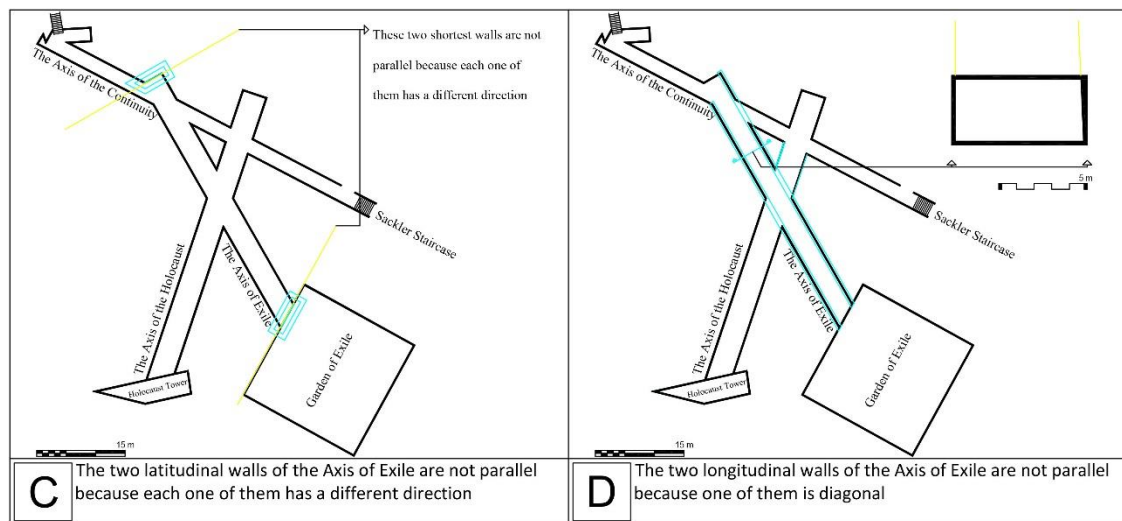


Figure 6-42 Some architectural features of the Axis of Exile. Source: the author.

As far as the two latitudinal walls are concerned, the latitudinal wall at the beginning is black, and as stated before, it does not have the axis's entrance because this axis can be entered through the other two axes (see F in Figure 6-43). While the other latitudinal wall at the end has a window that allows the visitor to see the Garden of Exile, the wall also has a steel door that leads to the garden. Both the window and the door are similar in two characteristics. They both extend from the floor to the ceiling. In addition, they have a trapezoid shape, and there is a diagonal column that starts at the bottom and ends at the top of the wall, and this column divides the wall into two parts - one a window and one a door.

In terms of the size, it is important to state that the size of the window is larger than the size of the door (Figure 6-44).

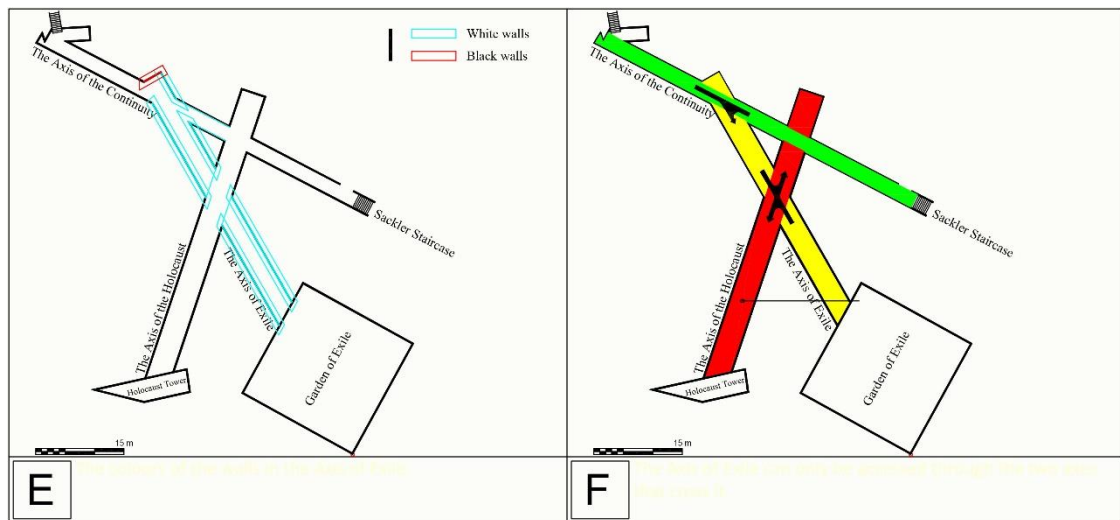


Figure 6-43 Some architectural features of the Axis of Exile. Source: the author.

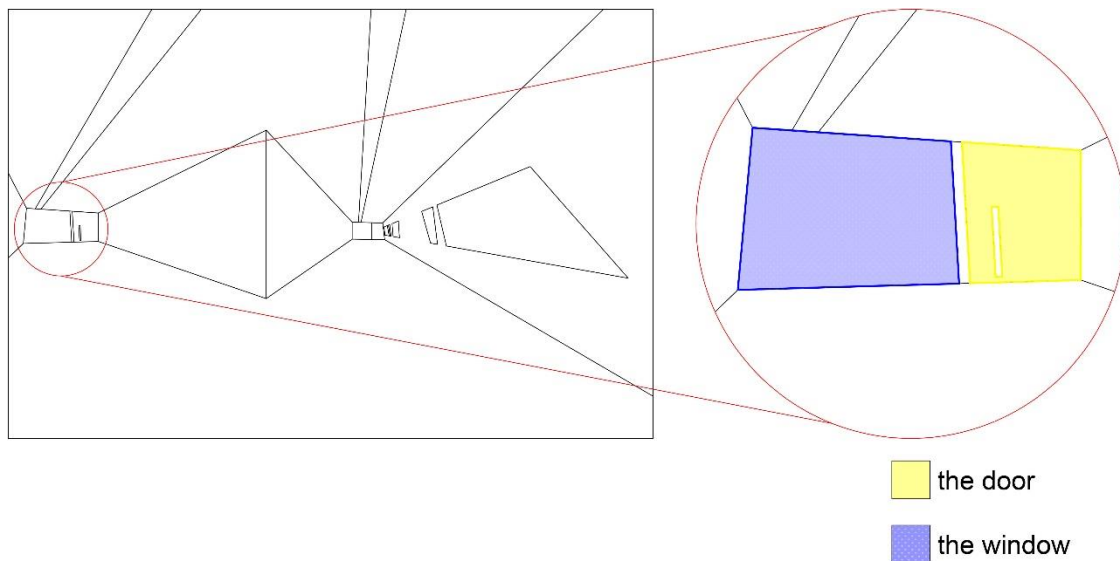


Figure 6-44 Sketch shows the trapezoid shape of both the door and the window at the end of the Axis of Exile. Source: the author.

It could be claimed that the window at the end of the Axis of Exile tells a different story when it compares the solid wall at the end of the Axis of the Holocaust. The ability to see people in the Garden of Exile through the window suggests that the people who could not

emigrate could only know part of the story of the people who could emigrate. However, at the end of the Axis of the Holocaust, the solid wall prevents people from seeing people inside the Holocaust Tower; this somehow recalls the mystery about the fate of prisoners in the concentration camps (Figure 6-45).



Figure 6-45 The window at the end of the Axis of Exile allows the visitor to see the garden. Source: the author.

In terms of the two longitudinal walls, since the Axis of Exile has been split into three sections as a result of intersections of the other two axes, one of which is an incomplete intersection, one of the longitudinal walls has been split into three pieces whereas the opposite one has been split into two pieces. In order to make it easy for the reader to distinguish between them, each one of these two walls will be named. As a consequence, one wall will be called north-east longitudinal wall and the other will be called the south-west longitudinal wall (see G in Figure 6-46). Below, each one of these two walls will be discussed separately.

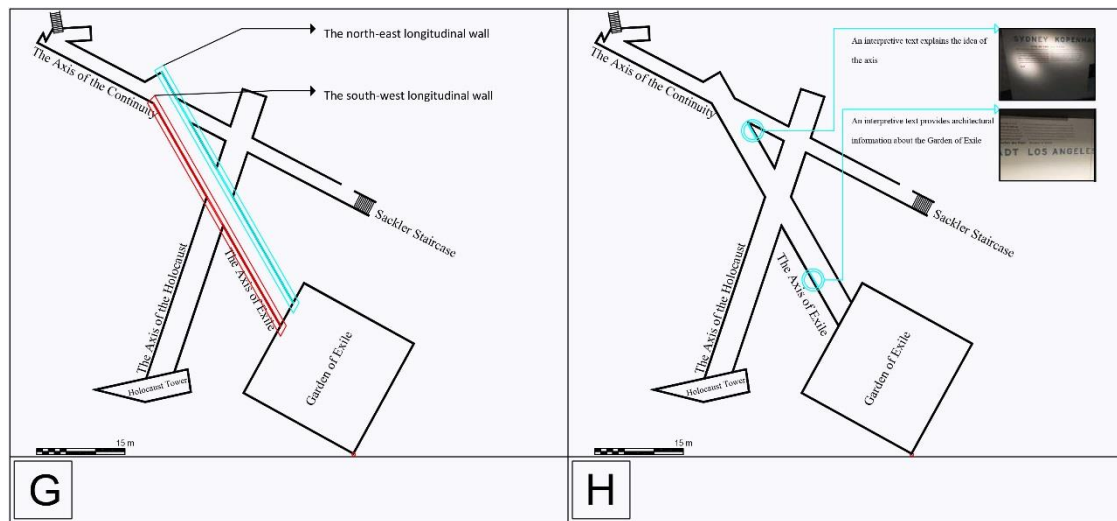


Figure 6-46 Some architectural features of the Axis of Exile. Source: the author.

The first thing that the visitor can see when they start their journey in the Axis of Exile, specifically on the north-east longitudinal wall, is an interpretive text written on the wall. This text somehow is considered to be an introduction to the story that led many Jews to leave Germany and emigrate to other countries; in other words, this text is an introduction to the story evoked by the Axis of Exile (see H in Figure 6-46). Under the title of the Axis of Exile, it has been written:

In 1939, a Jewish newspaper wrote: “for every Jew living in Germany today, probably the most urgent question is: ‘When and where can I emigrate?’” Between 1933 and 1941, some 280,000 German Jews fled the Nazi regime, heading for the United States, Palestine, Great Britain and other parts of the world, including South America, Africa and even Shanghai in China.

This interpretive text started with a quote from a Jewish newspaper published after around a year of the Kristallnacht (known as the Night of Broken Glass). Instead of introducing facts about the main reason that led Jews to think about going into exile out of Europe in general and from Germany specifically; this quotation takes the visitor to 1939 and encourages them to think about the two main questions that most German Jews were confronted with and how they needed to make appropriate decisions about it. This quotation most likely will make the visitor think about the space as a journey through time. The second part of the text mentions some facts about the German Jews who successfully ran away from Germany. However, the text has not mentioned the daily life of Jews in Germany after the Nazis took power of the country, and how the Nazis treated them during

World War Two and before they sent them to the concentration camps. Therefore, the first part of this text plays an important role in directing the visitor to link the space and its contents to around that time (1983) with a main question in mind which was to think about the main reasons why many Jews thought about leaving the country, especially when it was clear that the second part of the text does not explain the big picture of the story.

One of the two cabinets, the larger one, Figure 6-47, is located at the beginning of one of the north-east longitudinal walls of the Axis, and next to the interpretive text that explains the Axis of Exile whereas the second cabinet, the smaller one, is located at the end of the north-east longitudinal wall.

With regard to the larger cabinet, the opening of this cabinet has the same shape as other windows presenting artefacts on the basement level, which is a trapezoid shape; however, the main difference between the window or the opening in the Axis of the Holocaust and this one is that the parallel sides of the trapezoid windows in the Axis of the Holocaust are nearly parallel to the ceiling level. In contrast, the parallel sides of this trapezoid opening are orthogonal with the ceiling. It is important to state that the trapezoid opening does not cut the wall orthogonally. Instead, it cuts with obtuse angles, which in turn, creates a huge shift between the internal and external border of the opening. This shift affects the way of seeing what is inside the cabinet. The colour of the trapezoid opening edges is light green which shows a strong contrast with the white colour walls in the corridor, so this light green colour emphasises the importance of this cabinet.



Figure 6-47: The larger cabinet in the Axis of Exile. Source: the author.

At the bottom edge of the trapezoid opening, there are two small interpretive texts. These two texts explain the main sequential events that happened to the Jews in Germany. The first text tells the story of the clear message that was sent to Jewish informing them they were unwelcome in Germany; the text is entitled “Jews unwelcome here”. This text explains the story of Werner Fritz Fürstenberg who took many pictures of signs of anti-Semitism in small towns in Germany. Fürstenberg’s family business was seized by Nazis and this led them as a family to move first to the Netherlands and then to Switzerland. This text describes the main reasons why Jews were forced to leave Germany, while the second text tells about the subsequent stages on their way to leaving Germany. The second text has been formulated in a way to be read as a law that was approved for the people who wanted to leave Germany between 1938 and 1940. This law was aimed to strip Jews of property except some things that were necessary or indispensable, such as clothes and wedding rings.

The artefacts are not presented on the trapezoid opening; instead, this opening allows the visitor to see a number of artefacts, images, and interpretive texts inside a huge cabinet that has a triangle footprint and one of its sides is parallel to the trapezoid opening. The beginning and the end of the parallel is orthogonal with the beginning and the end of the trapezoid opening. Therefore, this cabinet can be described as a small room that has a triangle footprint. Since one of the room sides has an opening, there is nothing present in it because it is difficult for the visitor to see, especially because there is a glass at the furthest edge of the opening to prevent the visitor from touching the artefacts.

At the middle of the other two walls of the cabinet, there is a set of images collected by Werner Fritz Fürstenberg in 1935 showing anti-Semitic signs in small towns, villages and the countryside from Lower Saxony and Westphalia. All the presented images contain a clear signal that Jews were unwelcome in these small towns and indicate how many Jewish families were forced to move to live in a large city to protect their lives.

This cabinet is the largest one in the basement level, and it presents a miscellaneous collection of five different types of objects. These five objects indicate how Jews were not allowed to take things when they wanted to leave the country as a result of the law that prevented them from taking any worthy objects. These five objects are: (1) Moshe Wolff’s

camera which he used to take pictures of his parents after leaving Hamburg in 1938; (2) silverware belonging to the Jacobson family, a cutlery set that was the only valuable object that they were permitted to keep with them when they travelled to Cuba in 1939; (3) Doctor Edith Weber's syringe which she used when she worked in the Jewish Hospital in the city of Berlin before emigrating to Palestine in 1935; (4) Margarete's and William Sachs's wedding rings which was the only jewellery that Jewish people were allowed to take with them when they left the country; (5) a number of four suitcases. All the objects are displayed inside four open suitcases which are arranged gradually in line with the bottom side of the trapezoid opening in order to make them obvious to the visitor. In each of the four suitcases' outer side facing the visitors, there is a small text board. Each text explains briefly some facts about the artefact that is inside the suitcase (see Figure 6-48).

As has been explained, the cabinet is like a small room that has a triangle footprint, and the visitor can see what is inside it through a trapezoid opening which is not parallel to the wall and therefore creates obtuse angles that shift between the inside and the outside openings. All these characteristics make it impossible to explore all the cabinet's content from one position, so the visitors need to move all the way from nearly the beginning of the opening to nearly its end in order to see everything. This can be seen as a part of the story told through the way of displaying the collection and the visitors' movements. Walking is a way to find the hidden parts of the history, which are like the hidden anti-Semitic signs in small towns.

The way of presenting artefacts in the Axis of Exile is different from the way of presenting the artefacts in the Axis of the Holocaust, for whereas the latter one enhances the idea of creating a personal relationship between the viewer and the object, the former one aims to create a collective relationship between the visitors as a group and the collection in the cabinet. Since the trapezoid opening of this cabinet is very wide, many visitors can see the collection at the same time.

It can be stated that the design of this cabinet is not arbitrary, as the depth of the opening provides an appropriate space to watch the two sequential events before and then during the exile of Jews from Germany. In the cabinet's background the visitor can see the main reason that forces Jewish people to leave Germany and in the cabinet's foreground can be

seen the items that they were allowed to take with them when they left the country. This is related to Barthes's two methods by which signs' receivers used to interpret a word: position and category. In terms of position, there are two main factors that play an important role in creating the meaning of a sign, its context and its position, since its context combines many signs, and each sign in this 'linear combination of signs' has a relationship with the others. On the other hand, people can understand signs through their classifications or by being a part of a group or one word or more from a system to present the whole system.

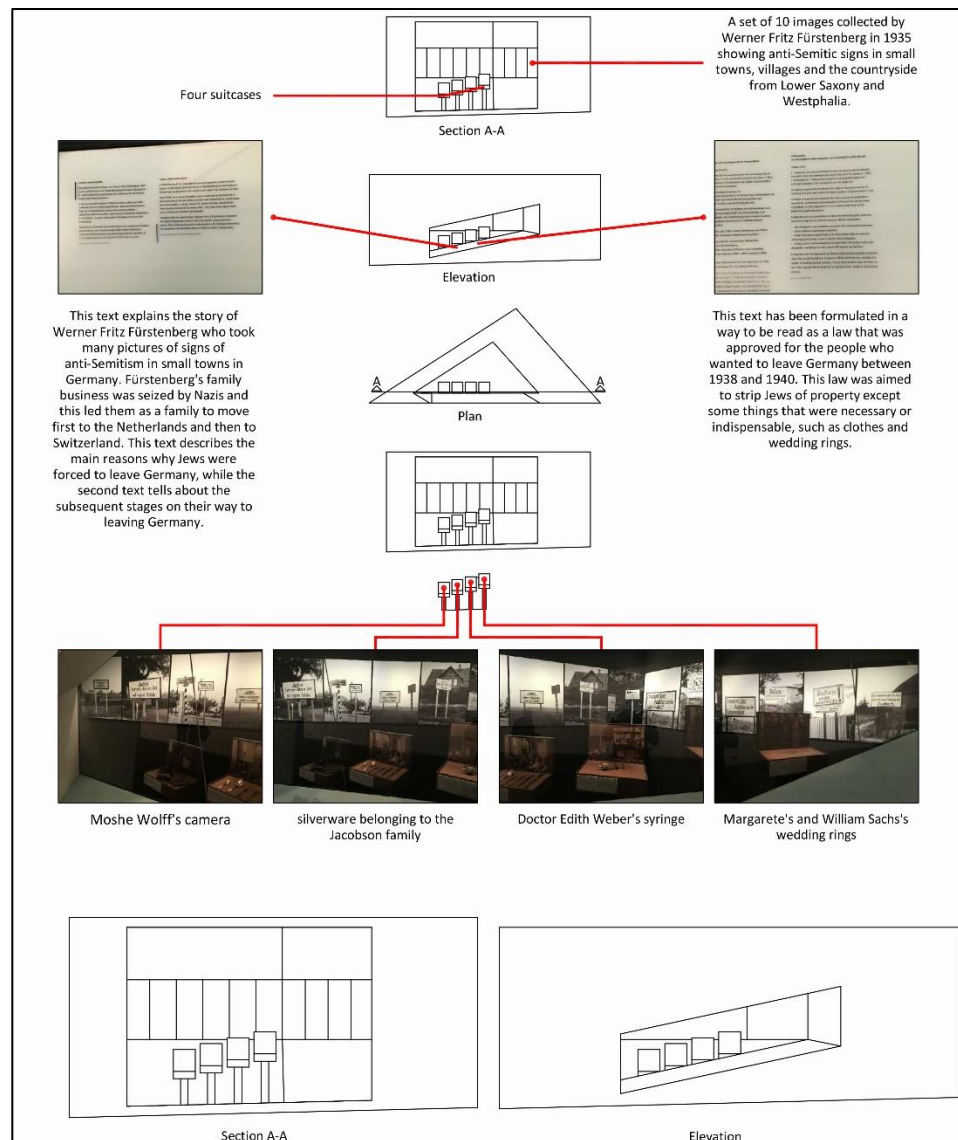


Figure 6-48 Details of the large cabinet in the Axis of Exile. Source: the author.

The second cabinet is located at the end of the wall and next to the entrance of the Garden of Exile (Figure 6-49). In terms of its shape, this cabinet has the same shape of all the cabinets in the basement level, which is a trapezoid shape; however, the main difference between this trapezoid cabinet and the others is that all of its sides are not either orthogonal or parallel with the ceiling. This cabinet is distinctive from the first cabinet at the beginning of the axis in two aspects in terms of their depth and style. The second cabinet does not have a huge depth because the trapezoid shape has been engraved on the wall about five centimetres deep to house a plastic frame which has a black background and includes some photos and interpretive texts whereas the first cabinet is deeper because the wall has been cut to have a trapezoid opening that allows the visitors to see what is inside a small room, which is the real cabinet. Regarding the shape of these two cabinets, for the visitor who explores the museum from the beginning of the axis, they will see that the shape of the first cabinet is sloping upward, while the second cabinet is sloping downward. These two shapes of the two cabinets can be seen as alluding to the beginning and end of the tragedy for some German Jews.



Figure 6-49 The second cabinet in the Axis of Exile. Source: the author.

The second cabinet includes six photographs of German Jews who left Germany between 1934 and 1939 in order to settle permanently in different countries such as USA, Shanghai, Palestine, Chile and South Africa. Either on the top or the bottom of these six photos there is a short interpretive text that describes briefly the people in the photos and what they are

doing and where they are heading to. It is important to state that the photographs have been arranged consecutively in straight lines that are inconsistent with the cabinet's border; instead the line of the consecutive images is parallel with the ceiling. These series of photos cover nearly half of the cabinet so there are some parts above and under the photos that contain almost nothing, just the black background; however, at the top of the cabinet there is a small text in German and English explaining the story of exile of the Jews from Germany.

Between the two cabinets there is an interpretive text written on the wall which is not aimed at giving an explanation about the Axis of Exile, instead it is aimed to interpret the following space (the Garden of Exile). Under the title of the Garden of Exile, it has been written:

The Axis of Exile outside the Garden of Exile, where forty-nine tiled columns stand on a sloping plot of ground. They are filled with earth and planted with Russian olive trees whose branches form a canopy of leaves in summer. Exile meant rescue and safety, but the escape from Germany and the arrival in a foreign country also caused feeling of disorientation. The refugees often had difficulty gaining a foothold in their new home.

To a certain extent this text strives to create a connection between some historical facts related to the difficulties the Jews faced after they went into exile from Germany and the experience of the following space that was intended to make the visitor lose their sense of direction. The historical facts become like prior knowledge that help the visitor to understand the meaning of their experience in the Garden of Exile. The connection between these facts and the experience of the Garden of Exile has been mentioned by many respondents. One of them stated that:

[Jews] came to Germany and they wanted to stay here but after the situation became tense, they were tortured or being harassed, it is human nature like to ... you cannot be under pressure or torture. You want to be free. They wanted to go somewhere else but it was forced on them. It was not their choice but they had to go because of the situation. So, so that hope was like to get free, free from this bondage but when they were going, it was also a loss for them because they had their land here and possessions, maybe families. So it was also a depressing moment in their life to leave everything and go to some other kind of place. PM-11 semi-structured-interview, 2017

As has been mentioned, the Axis of Exile does overlap the Axis of the Holocaust, but it does not entirely overlap the Axis of Continuity; this leads to dividing the Axis of Exile into three fragments, one of which is an incomplete one. Therefore, the north-east

longitudinal wall has been spilt into three separate pieces where the south-west longitudinal wall has been spilt only into two separate pieces. These five separate walls or, in other words, the Axis of Exile's longitudinal border, contain the name of thirty five cities that many Jews emigrated to when fleeing from the Nazis. On the north-east longitudinal wall, the name of fifteen cities have been spread on its three separate walls. From the beginning to the end, the first part has the name of three cities (Paris – Montevideo – Moskau), the second part has the name of five cities (Sydney – Kopenhagen – Chicago – Kapstadt – Lapaz), and the third part has the name of seven (Ankara – Sao Paulo – Manchester – Amsterdam – Shanghai – Tel Aviv – Lissabon). On the opposite border, the south-west longitudinal wall, the names of twenty cities have been spread on its two separate walls. From the beginning to the end, the first wall has the name of eleven cities (Zürich – Stockholm – Santiago De – Chile – Toronto – Auckland – Bombay – Nairobi – Prague – Haifa – Rio De Janeiro), and the second wall contains the name of nine cities (Mexico - Stadt – Los Angeles – New York – Buenos Aires – Jerusalem – Istanbul – London – Brussels).

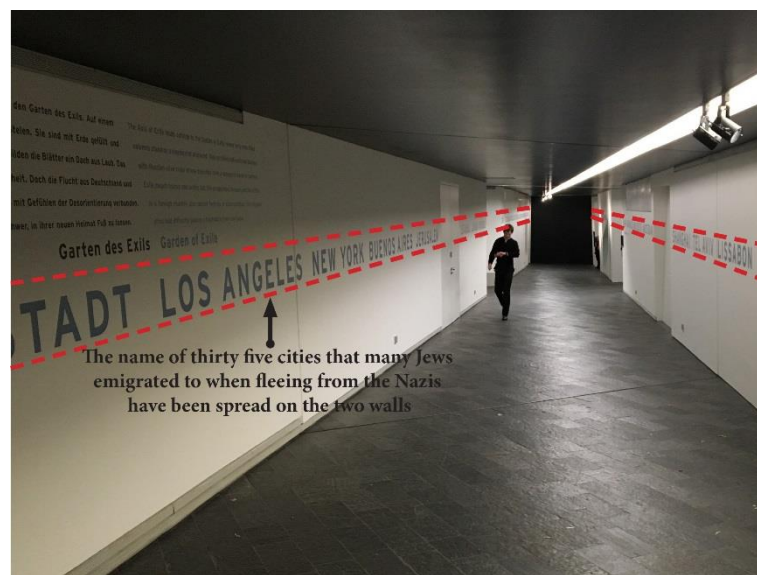


Figure 6-50 The names of thirty five cities that many Jews emigrated to when fleeing from the Nazis written on the wall of the Axis of Exile. Source: the author.

6.3.6 The Garden of Exile

The Axis of Emigration leads the visitors to the Garden of Exile, the only outside space in the new extension. This space aims to symbolise the life of European Jews, who fled from Nazi Germany.

To enter this garden, the visitors need to push a heavy door which cannot be pulled, and the architect did this on purpose as he wanted to evoke the difficulties that the Jewish people faced living in exile, which was the only way to freedom. The large window at the end of the Axis of Exile and next to the door makes it possible for the visitors to see the Garden of Exile before they enter. Through this window the visitors also can establish what the current weather is so they can decide either to go outside to explore the garden because the current weather is suitable for strolling or they stay indoors because the weather is not suitable for strolling as a result of, for example, heavy rain. The location of the window, which is close to one of the corners, allows the visitor to peer through and have a general idea about the space. In addition, the visitors who are indoors can see and read the only text board that is located inside the garden of exile. On this text board there are some facts about the garden in the form of points and a quote from Libeskind about the experience of the space; so, for those who cannot enter the garden for their own reasons they can see the garden through the window and read some information about it without the need to go outside. On the text board it has been written that:

The Garden of Exile

49 columns filled with earth are arranged in a sequence, standing vertical on a slanting floor.

Olive willows grow out of the columns.

The garden's form – a square – is the only completely rectangular form in the building.

“One feels a little bit sick walking through it. But it is accurate, because that is what perfect order feels like when you leave the history of Berlin.”

Daniel Libeskind

The Garden of Exile has a square form; and this square form is almost surrounded by a straight path leading to an emergency exit that can be used in dangerous situations such as fire; since the path almost surrounds the garden except for a part that was added to the

garden's floor, the final shape of the garden and surrounding path from the top is a large square (Figure 6-51). As a tool to separate the garden's space from the path, the garden is almost surrounded by two types of walls; (1) the first one is around an 80-centimetres-tall wall surrounding two sides of the garden's borders taking the form of upward growth in parallel with the garden's floor; (2) the second wall is surrounding the other two borders, and this wall extends from the basement level to a height of 140 centimetres above the ground level. It is important to state that the length of the first wall and its reversed L-shape (Figure 6-52) offer to the visitor a place to sit and contemplate the garden and watch what can be seen from the garden, such as the zigzag-building, the holocaust tower and some of the landscape elements. Therefore, some of the visitors describe the garden as a place of contemplation, and others describe it as a place to understand the complexity of the building and the relationship between its elements. The second wall, because of its higher part being corroded by natural elements, became dark, so the visitors wrote their memories on the wall through scratching it with sharp tools such as small stones (Figure 6-53).

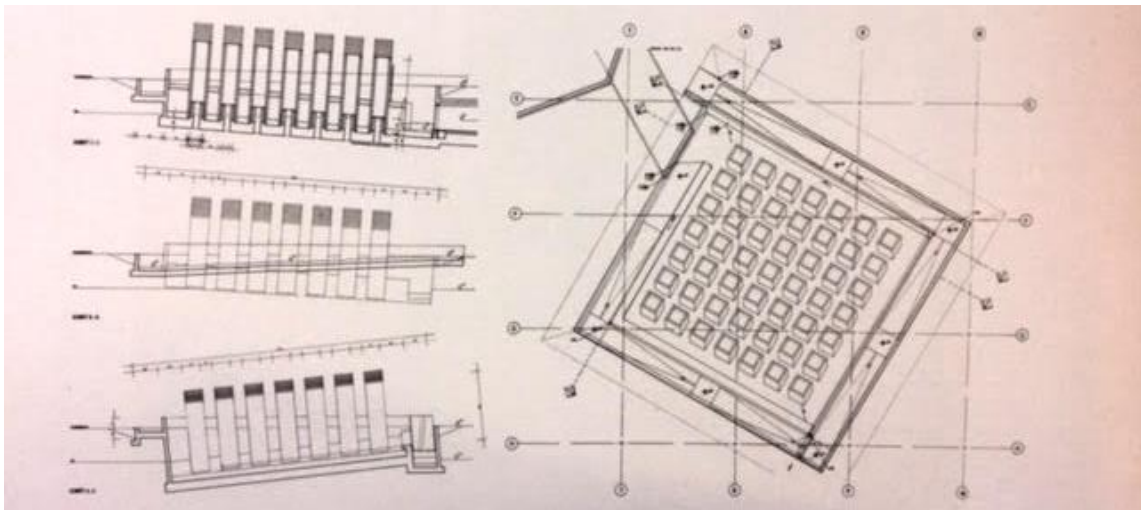


Figure 6-51 Plan and sections of the Garden of Exile. Source (Bitter, 2014, p. 22).

The visitors can walk just in the first part of the surrounding path, because the other part has been blocked first by a portable barrier at the end of the first quarter of the path's length and next by the emergency door in the middle of the path. If the first barrier cannot restrict the visitors' access, the door for sure can because it opens just for emergencies. The architect blocks this path to confirm his main idea that the only way to leave the building

is through the main entrance, which is located in the historical building. It is important to note that the curiosity of knowing what the path leads to encourages some visitors to reach the portable barrier in order to discover what they can see behind it.



Figure 6-52 The first wall and its reversed L-shape offer to the visitor a place to sit. Source: the author.



Figure 6-53 The visitors wrote their memories on the wall through scratching it with sharp tools such as small stones. Source: the author.

The type of paving stones used in the Garden of Exile are different from the paving stones used in the paths. The stones covering the garden are uneven and they are different in size, shape and colour, and they do not follow a regular pattern. In contrast, the stones used in the path have square shapes and they are small and nearly equal, with a surface more even than the garden's floor, and unlike the garden's paving, it does follow a regular pattern (Figure 6-54).



Figure 6-54 Two types of paving in the Garden of Exile. Source: the author.

Although the Garden of Exile is the only space in the new extension where all the borders are placed at right angles, the floor's closest corner to the door was tilted, which led to the creation of a double thirteen-degree slope. This double degree slope makes the visitors' movement inside the garden more difficult, especially when compared with the movement in the three corridors, which just have a single degree slope.

Libeskind claimed that the way of designing the garden's floor was aimed at making the visitors feel unbalanced in their movement. One of the most important issues visitors are alerted to is the issue of roaming inside the garden, as the museum has written a message on the window next to the garden's door stating: "Enter the Garden of Exile at your own risk. Please walk carefully" (Figure 6-55). Disorienting the visitor in the garden is intended in order to make the visitor feel the historical story through their movement. The Garden of Exile "represents a shipwreck of history... one feels a little bit sick walking through it. But it is accurate, because that is what perfect order feels like when you leave the history of Berlin" (Libeskind, 2011, p. 40). One respondent stated that:

It was so interesting the ground because it was tilted so it wasn't flat so you felt like when you were walking through it, it was even difficult to walk. That was really interesting and my boyfriend pointed it out because we were really into the concept of the space, what was the meaning of that garden there. And it was really difficult to walk because of the landscape. Clearly, I can say that the architect wanted to give that impression. PF-23 semi-structured-interview, 2017



Figure 6-55 A text written on the window next to the door of the Garden of Exile alerting the visitor about the risk of walking in the Garden of Exile. Source: the author.

Inside the Garden of Exile and on top of the tilted floor, there are 49 concrete columns in a seven by seven grid. Before discussing other aspects related to the layout of the garden, it is essential to state an important issue regarding the use of the number seven in designing the garden and its connection to Jewish traditions. Number seven in the Jewish numerology tradition is considered to be sacred because it represents many things such as creation and blessing. Number seven is the symbol of status of the Sabbath, the most important day in the week in Jewish culture. Most importantly, the Jewish religious text is full with aspects put together in a group of seven.

From the numerical side, 48 columns stand for the year of establishment of Israel, which was 1948, and the one in the centre presents the city of Berlin. The 48 pillars contain sand from Berlin, while the centre one is filled with sand from Jerusalem. As a symbol of hope, a willow oak was planted on the top of these 49 columns. However, it is impossible for the visitor to reach and touch these trees, so they can just see it from a distance, and this could be meant, metaphorically, that although there are some Jews who successfully fled from the Nazis, the departure from their homes and properties was very harsh on them. One respondent stated that:

You also have this column which represents some kind of order but at the end, you have those trees on top which is like new hope but it is difficult for you to adjust into the new situation like because you had to leave your country, Germany and go to a different part. So, it was a new way, new hope but it was hard for you to leave your old place and go to a different area. PM-11 semi-structured-interview, 2017

The nature of the interrelationship between the text as an abstract tool to communicate the idea of the space and experience of being in the space is very clear in the Garden of Exile. The text board interprets the Garden of Exile as an experimental space located at a collision point of the visitors' movements, because the majority of the visitors who enter as well as many of the visitors who leave the Garden of Exile will collide with the text. This means the visitors who experience the Garden of Exile must be in a position in front of this text, which will lead them to read it, and they try to make some connection between what they read and what they will experience or they have already experienced. The location of the text board and its contents plays a key role in reinforcing the idea of communicating the meaning of the space. Indeed, one respondent explained how the information in the text board helped him to understand the meaning of experience in the Garden of Exile, especially the historical meanings. He said:

There is the garden of exile outside... That for me, the garden was really nice. I think it was a good idea. The person who designed it, he was talking about that this was the history. When you walk through that garden because the pillars are juxtaposed, they're all in a really strange angle and the floor is also running like a mini hill. The person wrote on it like this "when you walk through these pillars, you get this feeling of sickness, dizziness and this is the history that Berlin has been left in after the Holocaust." This is a really good experience that you get that it's distinct from the rest of the museum as well. More interactive than the Holocaust Tower. PM-33 semi-structured-interview, 2017

The same respondent shows that the physical fabric of the Garden of Exile did not give direct facts about the history, but he interpreted the space based on drawing a connection between his experience and semantic meanings embedded in the physical fabric. This in turn led the respondent to made a connection between his experience and the history of Berlin.

The garden if you classify, garden and the hollows quartile, are kind of things where you're not really showing people direct information, you're letting them experience for themselves a first-hand message or like a specific way. You're trying to show how something maybe that's a bit semantics relations that's symbolic to that era. PM-33 semi-structured-interview, 2017

It can be seen that this respondent, through his reading of the Garden of Exile through his movement and reading the text board in the space, could get the meaning that the architect wanted to deliver to the explorers. Therefore, both the text as an abstract way of communication and the real experience of the space have successfully reinforced each other in communicating the meaning.

6.3.7 Axis of Continuity

The Axis of Continuity starts with the zigzag stairs (which is the main gate to the museum physically and gate to the unknown history metaphorically), and it ends with a straight staircase (which is the gate to the permanent exhibition physically and gate to unknown future metaphorically). Therefore, the Axis of continuity is the main connector between the unknown history and the unknown future. The zigzag staircase is located in a raw concrete void which first does not have an opening that allows the daylight to go inside the building and second its walls are black. This is in contrast to the straight stairs, which are located in a quadruple height space, and does have openings that allow the daylight to penetrate into the building and where the walls are white. The Axis of Continuity is a pathway that moves the visitors from the dark history to a space that is full of light and represents the Jewish future.

The experience of the Axis of Continuity and the other two axes that spread throughout the whole basement level cannot be seen separately, because the meaning of each axis can be understood through its interaction with the other two. One respondent explained that:

When you go down you see the axis which is actually continuing. You see the axis the two other axes, which are cutting that continuity so one is leading you to a dark space maybe you discover later that is the Holocaust Tower and other to the Garden of Exile. But, uh, maybe the visitors they get this feeling like how the continuity is trying to cut from the both the parts like from the garden to the axis of the garden and the axis of holocaust. It has a certain kind of meaning maybe not so strong, but after you get out of the building, maybe at the end, you understand what happened. And when you were in that place, maybe you don't understand everything, but after you finish the whole journey. PM-11 semi-structured-interview, 2017

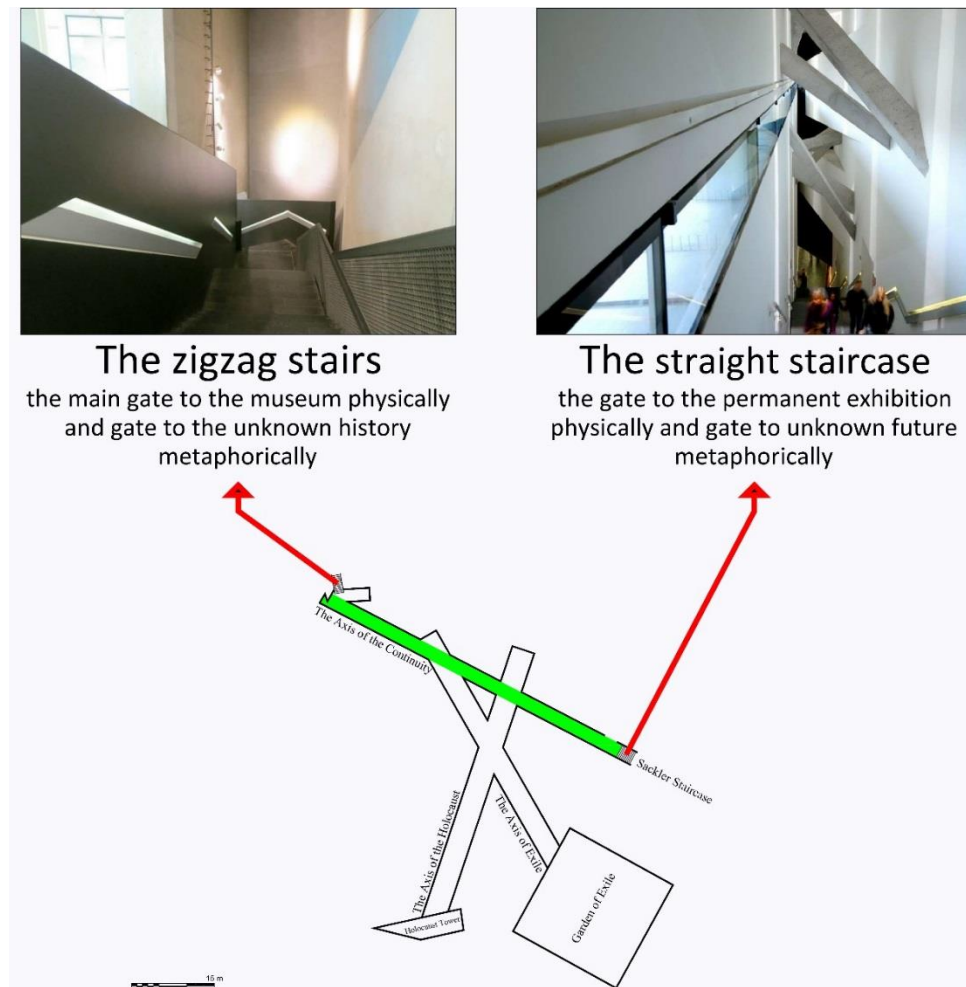


Figure 6-56 Diagram shows the claim that the Axis of continuity is the main connector between the unknown history and the unknown future. Source: the author.

This quotation stresses two aspects. The first aspect is that the visitor, through their movement and exploration of the Axis of Continuity and its intersection points with the other two axes, can extract some implicit meanings. The different ways of intersection of the other two axes with the Axis of continuity can be seen as a measurement of the magnitude of the events the two axes depicted of the Jewish future. The incomplete intersection between the Axis of Continuity and the Axis of Exile shows that the effect of exiling Jews from Europe has less impact on the Jewish future when compared with the effect of the Holocaust. In the second intersection, the effect of the holocaust on the Jewish future appears in the form of a complete intersection between the Axis of Continuity and the Axis of the Holocaust to show the great effect of this event on the Jewish future. The second aspect is that understanding the implicit meanings of any space cannot happen at

the time when the visitors are in that space but rather later after the end of the journey in the museum. This reinforces the importance of discussing the issue of arranging spaces within the building. Understating of such meanings is compatible with the hermeneutic spiral in Ricoeur's philosophy, since the cautious use of epistemological and ontological aspects in the act of interpreting the space can help to explore different meanings of the space.

6.3.8 Stair of Continuity

The longest corridor in the basement, the Axis of Continuity, leads to the Stair of Continuity, which has been pointed out by some as a symbol of Jacob's ladder, which, as mentioned in the Book of Genesis, is a ladder leading to heaven that was seen by Jacob in a dream during his flight from his brother Esau. The Stair of Continuity lead to three spaces in the museum: (1) the core exhibition (Two Millennia of German Jewish History), which is a journey that starts on the second floor and ends on the first floor; (2) the temporary exhibition on the ground floor; and (3) the only accessible void in the whole new building known as the Memory Void, which is located on the ground floor as well.

The Stair of Continuity can be read from two points of view: metaphorical and numerological reading. In terms of the metaphorical reading, the staircase can be read metaphorically as the unknown future of Jews, because it is located in a quadruple height space (Figure 6-59), and does have openings that allow the daylight to penetrate into the building and its walls are white. Moreover, from the basement level, the stairs look like endless stairs, and this seems to declare the fact of the unknown future. Although the last level that the visitor can reach through this staircase is level two, the stairs do not end in this level. There are further steps leading to a dead-end space which does not contain any doorway; this future also seems to declare the idea of the unknown history of Jews. It is important to state that the continuity of the stairs has been cut by a white wall, however the staircase does not end at this wall because there are more inaccessible parts of the stairs behind the white wall (see Figure 6-57 and Figure 6-58).

Regarding the numerological reading of the stair's elements, the first part of the main staircase contains 18 risers, because this number is considered to be spiritual in Judaism. This number comes from the numerical value of Chai, a Hebrew word (חי), which means

life or living. This word contains two letters: Yud (י) and Chet (ח). In gematria (a mystical tradition of assigning a numerical value to a Hebrew name, word or phrase based on its letters) the letter Yud (י) has a value of 10 and Chet (ח) has a value of 8; so the total value of combining the two letters is 18. As the meaning of the word Chai (חי) has a spiritual dimension in the Jewish tradition, the numerical value of the word (18) and its multiples (36, 72,...) are considered to be spiritual. This alone is not the reason for selecting the number of 18 risers. The real reason is that the stair is located at the end of the Axis of Continuity which represents the future life of Jewish in Germany.

Although, as has been stated above, the Stair of Continuity leads to three parts, only one of them will be discussed in the following subsection, which is the core exhibition. However, the Memory Void will be discussed in the following section, because it is mainly considered as an embodied experience, whereas the temporary exhibition will not be discussed because it is changeable and outside the scope of the research.

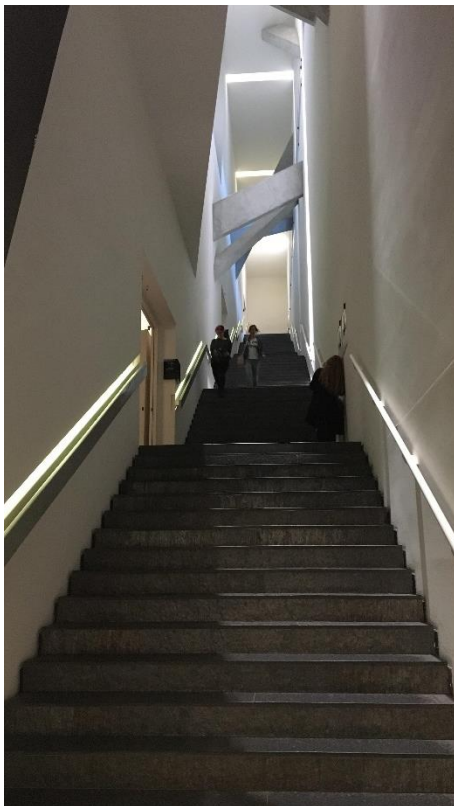


Figure 6-57 From the basement level, the stairs look like endless stairs, and this seems to declare the fact of the unknown future. Source: the author.

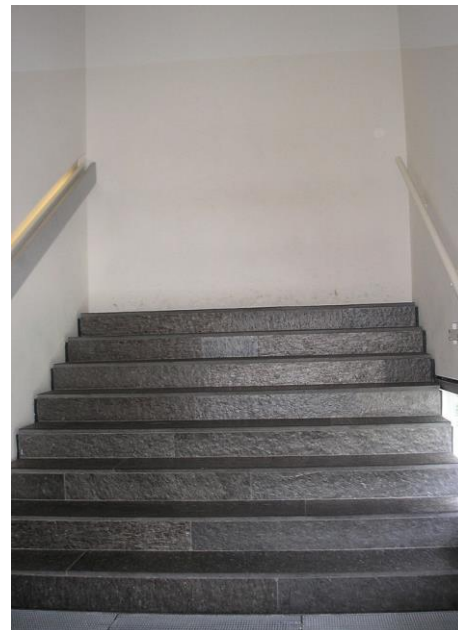
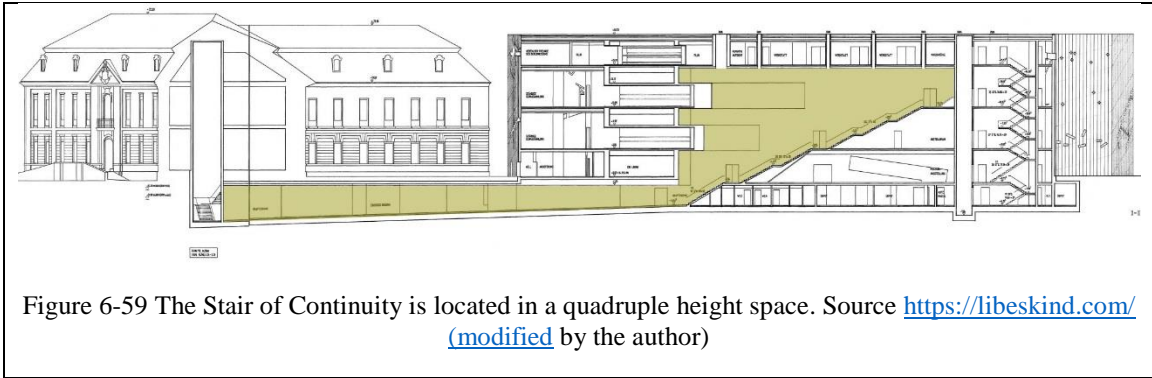


Figure 6-58 The stairs have been cut by a white wall, however, the staircase does not end at this wall because there are more inaccessible parts of the stairs behind the white wall. Source: the author.



6.3.9 Christians Cross Windows as Irritating Instruments

It is common and widely acceptable to see a spread of Jewish symbols in Jewish museums, symbols like the Menorah, Four Species, Shofar, Star of David, Tablets of Stone and Lion of Judah because most of these museums aim to present the Jewish culture and history, and these symbols are a key part of their daily life and represent their shared identities. The Jewish symbols, like other religious symbols, are more likely to be presented in museums like a book on a wall using the same way that these symbols are presented in sacred places. However, what seems to not be acceptable in any type of ethnic museum is the presentation of a symbol of other ethnic groups and particularly the symbols of their enemies, either currently or historically, and yet, this is what occurs in the Jewish Museum, Berlin. In the museum, there is a large number of cross windows spread all over the building. The main issue of these windows is that in the simplest way, they can be seen as a Christian symbol, based on the three categories of signs in Peirce's theory: icon, index, and symbol. This symbol for many Jewish visitors is seen as unacceptable in a building supposed to be dedicated to Judaism. In more complex terms, this also is a symbol of their historical enemy who had many historical conflicts with them. Without discussing the historical details of the conflict between Jews and Christians, the main question is why Libeskind decided to include cross windows in his building which would be perceived as a Christian symbol. In fact, Libeskind has not mentioned this issue explicitly in his essays or lectures. However, the inclusion of cross shapes can be seen more clearly also in one of his earlier series of drawings, namely Micromegas Project (1979) (see Figure 6-60). This series of drawings, completed by Libeskind before he designed any buildings, is claimed to be the nucleus of his buildings and particularly the Jewish Museum of Berlin, and yet, it has not been

explained how they affect his design. Moreover, reading *Symbol and Interpretation*, an essay written by Libeskind in 1981, can help to explain the main reason of the spread of such cross shapes in his drawings and the museum architecture of the JMB.

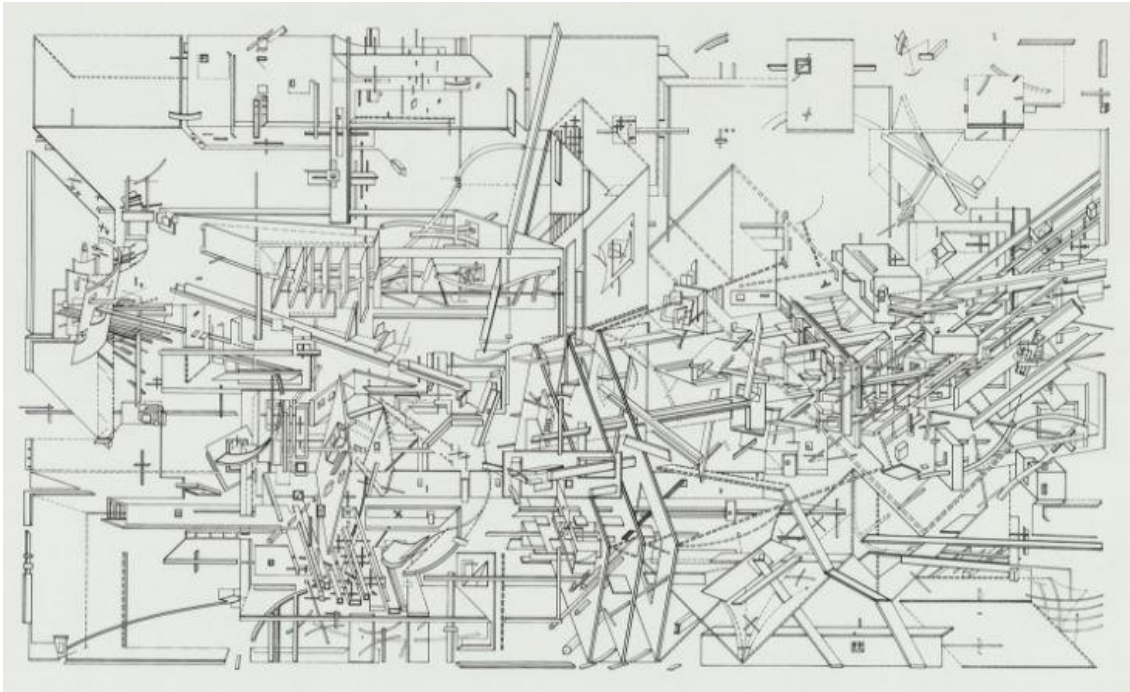


Figure 6-60 One image of the Micromegas Project. Source (Libeskind, 1992, p. 22-23)

To explore the link between Libeskind's previous drawings and the design of the Jewish Museum focusing on one aspect which is the cross shapes, it will be claimed that Libeskind has transferred the spread of cross shapes from his previous drawings to be applied in a more concrete approach in the museum architecture. He has transferred these cross shapes to cross shape windows in the museum for two main reasons. The first one is to disrupt the visitors' movement through presenting an unacceptable symbol in such a building and the second, as a result of disrupting the visitors' movements, Libeskind strives to make the visitors open up their interpretation and to think about any sign freely without setting any restrictions. The above statement is based on two reasons. The first reason is that many visitors have complained about the existence of these cross shapes, and they have argued with some of the museum staff about their religious meanings, thus showing that the cross shape windows have disrupted the visitors' movements. The second reason is that, as stated above, there is a connection between the spread of cross shapes in both Libeskind's JMB

and the drawings in the Micromegas Project. These drawings, as stated by Melanie Domino “are not representation of a physical space but architecture in themselves” (Domino, 2002, p. 208). The name of this project is quoted from the title of a short novel written by Voltaire, a French historian and philosopher. Voltaire was known for his advocacy of freedom of worship and supporting many principles of fundamental human rights. Since the project was named after one of Voltaire’s short novels, the novel should be seen as a part of discussing the meaning of Libeskind’s project and especially the spread of cross shapes in the drawings, which have been transferred to the museum architecture. Voltaire strived through his fictional story (Micromegas) to help people to be logical in their thinking and not limit themselves to any of their prejudices but rather to go beyond them. In a similar approach, Libeskind strived through his project (Micromegas) to help the viewers to expand their way of thinking and to not limit their thoughts to any preconceived opinions. John Hejduk believed that “the lines of Voltaire that Daniel has chosen as moto for his series are a shameless mockery on the reader’s perceptual limits” (Libeskind, 1981, p. 7). Libeskind explained the reason of why people do not accept the meaning of some symbols, stating:

The ideology of formal configuration and the limits beyond which forms become unacceptable and are simply considered as irrelevant and disorderly. This condition seems to arise from the close historical collaboration which exists between the reality of building, its symbolic milieu and the reciprocal consequences of their mutual transposition. (Libeskind, 1981, p. 27)

When the main idea of Libeskind’s Micromegas Project is linked to the inclusion of cross shape windows in the museum, it can be claimed that Libeskind endeavoured to make the visitor open up in their interpretations and not limit the meaning of any sign to its initial meaning (for example, the cross shape window as a Christian symbol); instead they should think beyond the initial meaning (for example, the cross window could be seen as a plus sign). In the Space of Encounter, Libeskind stated the importance of thinking beyond the initial meaning to open up an interpretation of meaning of geometries. He said:

The invisible ground from which it is possible to scaffold moving layers of consciousness enables one to recover modes of awareness quite removed from the initial hypothesis of rationality. These drawings seek to reflect on a deeper level of consciousness the inner life of geometrical order whose nucleus is the conflict between the voluntary and the involuntary. Once again, this duality (like that of realism-formalism) appears as an unsurpassable condition pointing to a dynamic ground, which testifies to an experience that receives only as much as it is capable of giving, draws only that which allows itself to be drawn into. (Libeskind, 1981, p. 81)

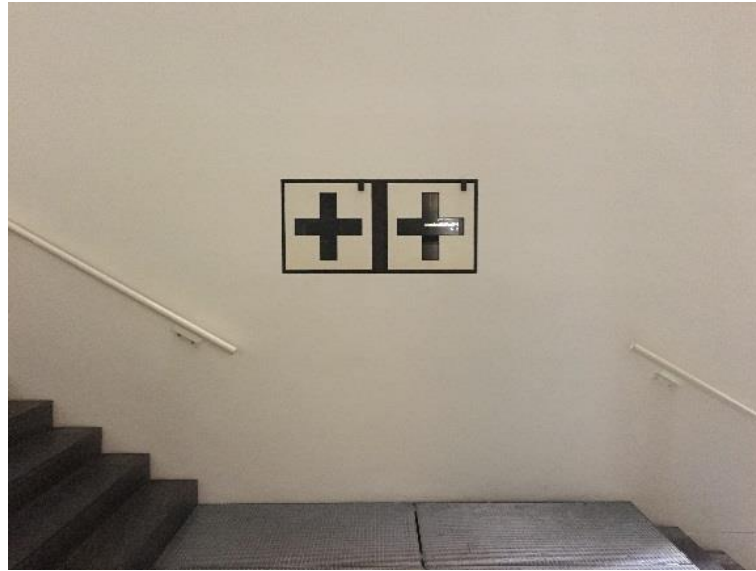


Figure 6-61 Two cross windows in the JMB. Source: the author.

In the interpretive texts that describe the museum architecture in the basement level, Libeskind said about his architecture: “What is important is the experience you get from it.” And after that he said, “[t]he interpretation is open.” These two sentences can be used as a guide to explain the whole issue of the main reason of presenting cross shape windows in the JMB. As a practical way to explain this issue, one of these cross windows will be used as an example. The first thing that the visitor sees when they leave the temporary exhibition is a straight wall that contains two cross windows (Figure 6-61). In this moment, the visitor is in a position to experience the cross windows and for some, everything is normal in these two windows and they will continue exploring the space whereas for others this is a disruptive moment because they see these windows as a Christian symbol, which for them is not acceptable to be presented in such a museum depicting Jewish history. Therefore, it can be said that the cross window becomes a tool to disrupt the visitors’ movement. However, although the experience of such symbols can irritate some of the visitors, they need to understand that the interpretation is open, as stated by the architect, and they need to not limit the meaning of this symbol to just the story that is depicted in the museum. Therefore, the visitors need to discover different meanings of any symbol, as explained by Dr. Johannes Rinke (Head of Visitor Service) in the form of a discussion between him and unknown visitors. He said:

One great problem for many visitors are the cross windows, these windows...Many people get upset—yes, like this. They ask, why do you show crosses here at the Jewish Museum? We say, “Why not? It's a Christian Center.” They say, “No, it's not only Christian Center, it's also just marked. When you want to mark something on paper, you make a cross, not in this way, but in this way, and it's also a plus in mathematics.” Many people get irritated when they see the crosses, and when you try to talk with them about the idea of the crosses and of the lines, they say, “That's very interesting.” It's too narrow the way to understand the crosses, not in a religious context but in a very secular context. Dr. Johannes Rinke's (Head of Visitor Service)

It is clear that museum staff try to encourage the visitors to open their interpretation and not be limited to religious meanings. This is compatible with Barthes' theory of freedom from authorship. Rinke has explained to some visitors that the cross windows can be seen in a secular context as an X mark or a plus sign. Moreover, Libeskind believes that learning new skills is one of the museum's primary roles, and one of the main skills that the architect wants the visitors to learn through their journey in the museum is to open up their minds to interpretation. Libeskind explained:

A museum is no longer just a place to dream; instead, it is a place to be educated, a place to be given new skills, and to see the world in a new way. Accordingly, museums are no longer simply elitist institutions. They are institutions for everyone, and they play a large role in shaping the evolving view for a city. (Libeskind, 1999a, p. 17)

Many visitors of the museum like the idea of opening up the interpretation of the museum architecture. For example, in response to a question about what was the most moving in the museum, a visitor wrote their answer on a sticky note, stating that one of the things that is considered as the most moving part for them is “the freedom of interpretation of architecture” (see Figure 6-62). Another visitor mentioned in their review of the building in a Google review that:

Even if these don't float your boat, the building itself is worth the entrance fee, never before have I both experienced, interacted and related to a building. The signage stated that the building is open to interpretation, I would encourage anybody to visit with their heart and mind. GR-0588 comments-in-Google-Review (5*)

In addition, one of the responses stated that the visitor might relate the museum architecture to something not related to the story that is depicted in the museum:

Maybe you don't even relate it with the history of Berlin and you relate it with some spiritual place or something else for your own. But architect has tried to keep very open in the interpretation and he is not trying to force certain things. PM-11 semi-structured-interview, 2017

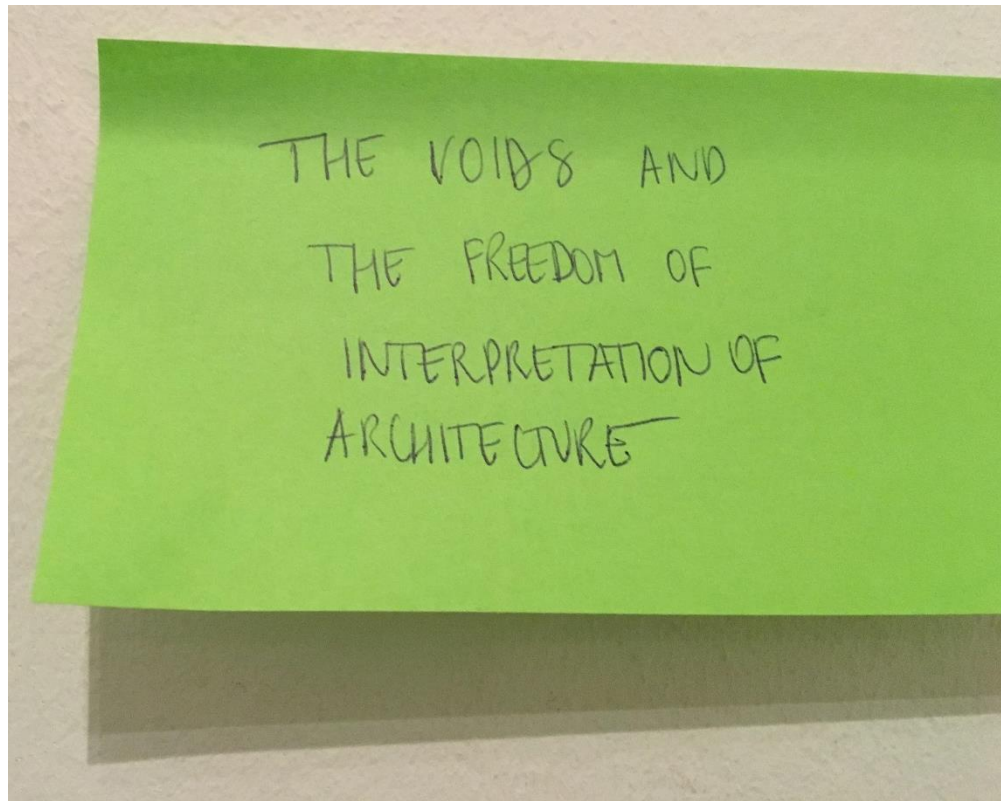


Figure 6-62 A visitor left a sticky note showing that one of the things that is considered as the most moving part for them is “the freedom of interpretation of architecture”. Picture by the author.

6.3.10 Permanent Exhibition in the Jewish Museum

The permanent exhibition in the Jewish Museum traces two thousand years that shows the relationship between Germans and German Jews. The entrance of the permanent exhibition is located at the end of the longest corridor in the basement (Axis of Continuity), which ends with stairs taking the visitors from the basement level to the third floor where the visitors start the journey inside the permanent exhibition.

The size of the permanent exhibition is more than 3000 square metres. The collection consists of different types of materials including: paintings, books, documents, craft objects, everyday objects and objects used for religious rituals and ceremonies. The layout of the exhibition has been divided into thirteen areas based on chronological order. It starts by presenting early middle Ages and ends with present things related to present days (see Appendix 6).



Figure 6-63 Overall diagram explaining the idea of text-based interpretation of the architecture of JMB as a journey starting outside the building and ending in the upper level of the museum. Source: the author.

6.4 Conclusion

To summarise, this chapter begins by introducing the Kabbalah as a specific theoretical framework to explore the phenomenon of text-architecturization. It was followed by analysing the architectural elements in order to understand how these elements convey meanings. Also, this chapter has examined the different interpretations of these meanings by the visitor. However, both the analysis of the meanings that the architectural elements can convey and the different interpretation to the act of reading the museum architecture as sort of religious text will be discussed in more detail in the overall discussion chapter.

The next chapter will discuss the second identified experience in the JMB, which is the embodied experience.

7 Chapter Seven - The Phenomenon of Performance

7.1 Introduction

This chapter investigates the use of staging of the architecture of JMB as a mode of body-based communication. This mode of communication is the second category of the experiences that have been identified in the museum, and it has been linked to Jewish history and culture based on the data analysis procedures adopted in this research. This mode has been named as the phenomenon of performance. In this chapter, the discussion focuses on the role of bodily performance in the perception of spatial environment of the JMB. It is done by first analysing the effect of the tangible and intangible properties of the architectural space in creating the visitors' performances; and second, examining the different interpretations of these performances.

The chapter comprises two sections. The first section presents epic theatre as a theatrical stream that aims to change the social attitude regarding social circumstances through representing historical events in a non-realistic way; this, in turn, helps to make the audience active participants in the play by observing and raising questions. It is followed by a review of epic theatre principles and performing in the museum. The epic theatre as a theatrical metaphor of treating the museum architecture as a form of scenography will become the main theoretical framework of interpreting the architecture of JMB as a bodily experience. As visitors explore museums through their movements, as distinct from theatre where the viewer is normally static, both the notion of movement and affordance are key additional features to consider when epic theatre conventions are employed inside the JMB. These two notions were discussed in chapter three. The second section of this chapter will discuss the idea of body-based communication with some of the architectural spaces and elements in JMB, which will be examined as nodes of three different ideas:

1. Performing in dead-end spaces: (A) performing in the Holocaust Tower; (B) performing in the Memory Void; and (C) performing in the Garden of Exile.

2. Disrupting the performing: (A) doors as disruptive instruments; (B) the linear lighting as a diversionary instrument.
3. Performing in the Labyrinth: performing in the labyrinth in the zigzag building and performing in the labyrinth in the basement level.

The research methods applied in this chapter are interview, direct observation, collating visitors' opinions about the museum from different platforms, literature review and spatial analysis.

7.2 Epic Theatre

7.2.1 Introduction

The point is not to leave the spectator purged and cathartic but to leave him a changed man; or rather, to sow within him the seed of changes which, must be completed outside the theatre. Brecht cited in Solomon (1974, p. 355).

Bertolt Brecht (1898-1956), a German poet and playwright and the founder of epic theatre, believed that one of the huge problems of dramatic theatre is that the audience cares about the lives of the actors on the stage, and this, in turn, impacts on their emotions (this phenomena in theatre is known as catharsis), and so as a result, they forget for a while about their own lives. Brecht was against this phenomena (cathartic theatre); he described the status of the audiences who attended cathartic theatre by stating that they 'hung up their brains with hats in the cloakroom' (cited in Rush and Lowe, 2004, p. 72). Therefore, as a way to force the society to make a change, Brecht strived to awaken the audiences of his plays out of watching a presentation of life, which is indeed different from the real life, in order to make them think of solutions to the problems in their lives through the use of different theatrical techniques. Brecht used those techniques, such as *Verfremdungseffekt* (alienation effect or estrangement effect), to remind them that they were in the theatre watching a play, and avoid any emotional involvement. Epic theatre aims to make the audience think objectively about the events in the play, and alienate them from any emotional charge. This can help them to judge the situation (usually related to socio-political issues), and after this they can make a decision (2017).

Brecht spent more than twenty years working on defining the aesthetic of a specific type of performance (epic theatre) and particularly in explaining its theoretical statements, technical indications and excursions. Brecht stated that the aesthetics of the theatre had not been developed comprehensively as a result of the lack of the studies that discussed its nature deeply. Brecht, through his analysis and assessment of the aesthetics of theatre performance, had three main achievements: (1) expanding the function of theatre in society; (2) examining the aesthetics of the artistic methods of theatre thoroughly in order to isolate the most important or useful techniques, and at the same time, Brecht strived to make these artistic techniques completely free from defect; (3) establishing the aesthetics of his new type of theatre performance (Brecht, 1964).

7.2.2 The Notion of Gestus

Gestus is a notion that addresses the connection between the cultural artifact and the everyday subject: theatre and audience, image and spectator, politics and art. It is a critical instrument that was developed in the first half of the twentieth century to demonstrate the struggle of society against fascism (Varney, 2007). ‘Gest’ is a physical substance “of overall attitudes. A language is gestic when it is grounded in a gest and conveys particular attitudes adopted by the speaker towards other men” (Brecht and Willett, 1966, p. 104). The clearest translation of the German term ‘Gestus’ into English was made by John Willett (Willett, 1959, p. 173): “It is at once gesture and gist, attitude and point: one aspect of the relation between two people, studied singly, cut to essentials and physically or verbally expressed”.

Gesture as a technique plays an essential role in the organising of epic spatial-temporality, since it is used as an aesthetic instrument to structure the play and as a signifier that can give social and historical dimensions to the play. The notion of gesture elucidates the relationship between different characters on the epic stage as a whole and as separate scenes, so gesture is the bodily form of the relationship between the characters. Gestic is all different type signs in the epic theatre from the smallest to the largest one, and these gestics act out a role of defining the gesture (Bryant-Bertail, 2000). In terms of spatial-temporal aspects in epic theatre, gesture has the ability to enhance both the special and temporal dimensions on epic stage. First, gesture enables the time to be more concentrated

in each episode (separable scene). Further, since gesture is defined by gestic (which is sign), gesture can both imitate a past event and project a future (Bryant-Bertail, 2000).

7.2.3 Architecture as a Frozen Gesture

Ludwig Wittgenstein, an Austrian-British philosopher, is one of many philosophers who strives to offer a clearer explanation of showing the difference between a building as a piece of architecture and a purely functional one. He stated that to describe a building as a piece of architecture is to move it from the status of mere functional building to the status of art. Based on Wittgenstein's perspective, the artistic work of a piece of architecture is formed in its ability to produce gestures. He said "[a]rchitecture is a gesture. Not every purposive movement of the human body is a gesture. And no more is every building design for a purpose architecture" (Wittgenstein, 1984p. 49).

Architecture, in Wittgenstein's point of view, is a frozen gesture because it does not have the ability to move its parts, however, buildings can express a meaning or significance through certain architectural devices. Wittgenstein was influenced by Loos's idea of the role of architecture's gestures in arousing different emotions in the users (Macarthur, 2014). Loos stated that:

Architecture arouses moods in people, so the task of the architect is to give these moods concrete expression. A room must look cozy, a house comfortable to live in. To secret vice the law courts must seem to make a threatening gesture. A bank must say, "Here your money is safe in the hands of honest people." (Loos and Opel, 1998p. 84)

It is clear that architects need to design the building in a certain way to arouse specific emotions in the users. The understanding of these architectural gestures is cultural matter, since each culture has specific conventions to understand the meaning of a specific gesture. Although Wittgenstein was influenced by this idea, it is considered to be secondary for him, because he believed that thinking about architectural gestures just as an emotive issue can limit the importance of them. Architects should think about architectural gestures as conceptual, which have the ability to express a large number of meanings (Macarthur, 2014).

Gestures can be distinguished from different kinds of purposive movements of the human body by two features (Table 7.1). The first feature is that gestures intend to convey a

meaning or significance. There are many purposive movements of the human body that are simply for functional aims and do not express any meaning. A spontaneous blink of the eye, for example, is considered a purposive movement to do a specific task, which is to provide moisture to the human eye, so blinking is a non-intentional movement. The second feature is that gestures are communicative actions. There are many everyday activities, such as walking, that are intentional (they do them for a specific reason), but not all of these actions are communicative, because they do not express a meaning or significance through their actions. It is important to state that, there is some form of expressive walking that aims to express a meaning or significance, for example, a man walking like a Nazi Soldier in order to show some people that he is angry. This can be summarised by stating that, a gesture is a non-verbal communicative action (Macarthur, 2014).

Table 7.1 Comparison between non-gesture action and gesture action. Source: the author.

| | Communication | Meaning |
|---------------------------|--|--|
| Non-gesture action | May have a reason but it is a non-communicative action | Functional task but it is a non-intentional action |
| Gesture action | Has a reason and it is a communicative action | Expresses a meaning or significance |

Macarthur states that the architecture achieves the status of art when it becomes “capable of inviting and sustaining our attentive interest such that we feel the object in question has a further or deeper significance than we can capture in criticism or theoretical pronouncement” (Macarthur, 2014, p. 10-11). He explained two main terms (architecture and gesture) in Wittgenstein’s description of a piece of architecture by stating that, “Architecture [functional building that has achieved the status of art] is a gesture [a non-verbal communication action]” (Macarthur, 2014, p. 6).

7.2.4 Performing the Museum

Like medieval religious art, ritual, and architecture, the museum serves as a performative space, a “choreographed environment” that is designed to heighten viewers’ experiences of symbolic artefacts. Similar to the performative strategies of the church, those of the museum sanctify culture artefacts through a variety of environment conditions that evoke a bodily response in viewers. As the viewers embody these conditions, they experience the “etiquette” of the museum’s secular myths. (Garoian, 2001, p. 246-247)

This part is begun by this quotation from *Performing the Museum* (2001) to invoke Charles R. Garoian's link between museums and medieval religious art, ritual, and architecture. Garoian explained that the human body acts out a performance through their experiences of museums as a response to the symbolic meanings that exist in them, and that these performances are similar to bodily responses to the physical environment of ritual spaces. "[T]he museum is a performance site in the sense that the architect, the designers, and the management of the museum produce representations through the objects and so produce a space and a subjectivity for the spectator" (Patraka, 1996, p. 99). This strong relationship between the visitor and the physical fabric of museums confirms a kind of dialogue that occurs between them.

Therefore, it is essential for professionals who are responsible for creating the museum to understand the nature of the performance in the museum through an understanding of its components: the body (the visitor) and the museum fabric (which includes all the material in the museum). Performance studies is the main discipline that can help professionals to understand the nature of performance in museums, because it plays an important role in understanding of "materiality, embodiment, sensory experience, liveness, presence, and personhood as they bear on being-in-the-world and as they are mediated by technologies old and new" (Kirshenblatt-Gimblett, 1999, p. 49-50). Below, the organisation of movement as the main motivator of creating the museum's dialogue between the physical fabric of the museum and the visitor will be discussed.

The structure of the movement inside museums is the primary motivator that influences the perception of museum galleries and their physical fabric, because it plays a pivotal role in defining both the way of presenting objects and placing the visitor in front of the exhibition. According to Kirshenblatt-Gimblett, "[e]xhibition is how museums stage knowledge. They do this by the way they arrange objects, broadly conceived, in space and by how they install the visitor. The experience, however visual it may be, is corporeal" (1999, para. 27). Therefore, Garoian, in his article *Performing the Museum* (2001), makes the performing perception one of the five pedagogical strategies for creating a dialogical relationship between the viewers and the museums in order to educate people in museums. The strategy of performing perception shows that the way that the body perceives the world

can influence its performance. In *Movement in Museums Mediating between Museum Intent and Visitor Experience* (2014), Kali Tzortzi showed that the organisation of movement plays an essential role in designing museums in terms of two aspects. Firstly, the designer can build the main message and intention of the museum based on the pattern of accessibility and visibility of the museum spaces. Secondly, the organisation of movement can define the foreground and the background of the display and its presentation, and this, without doubt, can influence the experience of the visitor. It is important to note that if the museum becomes restricted in terms of determining visitor movement, there is a greater chance they will explore most of its contents (Tzortzi, 2014). This in turn can affect the performance of the visitor inside museums and make it more authentic.

7.2.5 Performance and Epic Theatre

Based on the previous discussion of two aspects (1) the nature of epic theatre (particularly its narrative and the notion of *gestus*), and (2) the notion of movement in Merleau-Ponty's philosophy, it can be said that there is a kind of performance speech that occurs between the visitor and the museum's physical fabric through their communicative gestures (between the visitor and the physical fabric as a medium) and the attitude of the visitor's body inside the museum. In *Exhibition Rhetorics: Material Speech and utter Sense* (1996), Bruce W. Ferguson believed that exhibition (also applicable to the architecture of the museum) as a medium has the ability to perform speech acts, which can demonstrate both its identity and social value. Countries, companies and individuals around the world have invested great amounts of money in building museums to act as their wise storytellers, continuously communicating their identities to other countries, regions and individuals. Exhibition and the architecture of the museum cannot be seen separately from their components (media, form, etc.) and their expressed forces that are influenced by the environmental and historical conditions. Ferguson stated that:

The exhibition [also applicable to the architecture of the museum] and its institutional body beyond this provisional metaphor, is that the building, its agents and its projects have personalities and traits, which combine to produce what might be called a character - the speaking and performing body by which it is known and judged, seen and heard. This complex projection is sent outward to its constituents through the sound and image of its exhibitions. This institution has a perceivable image of itself and a set of images which others have of it; a marketing strategy and a set of demographic

responses. It is in closing the gap between the differences and, even antagonisms that it is most effective, most readable. (Ferguson, 1996)

Based on the theory of J. L. Austin, Garoian has classified the performance of the narrative in museums into two types: constative and performative performance. Garoian showed that the three different types of performance speech (locution, illocution, and performative) in Austin's theory can be used in museums to analyse the act of the visitor and how their speech can influence their experience (Garoian, 2001).

It is important to stress that the way of designing the movement inside the museum plays an essential role in defining the performance speech between the visitor and the museum's materiality and the attitude of the visitor. The built environment and its materials play a pivotal role in defining the movement of the people. In addition, the built environment has the ability to change the attitude of the users through changing the way of contacting with the body using the physical fabric and its environment, which are connected directly to tactile senses; and the users can activate these senses through walking and moving their hands and bodies to create actions. These tactile senses can be found in Marcel Mauss's *The notion of techniques of the body* (Mauss, 1973).

7.3 The Idea of Body-based Interpretation in the JMB

The idea of body-based interpretation of the architecture of JMB will be discussed and examined as nodes of three different ideas:

1. Performing in dead-end spaces: (A) performing in the Holocaust Tower; (B) performing in the Memory Void; and (C) performing in the Garden of Exile.
2. Disrupting the performing: (A) doors as disruptive instruments; and (B) the linear lighting as a diversionary instrument.
3. Performing in the Labyrinth: performing in the labyrinth in the zigzag building and performing in the labyrinth in the basement level.

7.3.1 Performing in Dead-end Spaces

The only space in the JMB that has been described by Libeskind as a dead-end space is the Holocaust Tower. Yet, the building is full of spaces that can be described as dead-end spaces, such as the Memory Void and the Garden of Exile. Undoubtedly, dealing with a dead-end space as a medium to communicate meaning is a complex task for the architect not in terms of just how to communicate meaning, but also how the architect can encourage the visitor to walk in these spaces in order to communicate with the spaces through their bodily experience. The first question that may come to the visitor's mind when they enter dead-end spaces is why they need to walk in these spaces, particularly when they know that these spaces will not take them to another space; instead, they know for sure that they will have to go back to the point they started at, which can be considered for some to be a waste of time and effort. As a result of this, the architect needs to pay attention to the physical quality of these spaces in order to encourage the visitor to explore the museum through their movement so as to communicate with the dead-end space. The speech act that will occur between the space and the visitor will be through communicative gestures of the architectural spaces and the attitude of the visitor's body inside these spaces. The following encounters refer to three dead-end spaces in the Jewish Museum, the Garden of Exile, the Memory Void and the Holocaust Tower (Figure 7-1).

The performance of thirty visitors has been observed in all three dead-end spaces aiming to understand how the physical fabric of these spaces can affect the behaviour of the visitors. Then, the notion of Gestus will be used as a theoretical framework to analyse the

most significant findings that show how the gestures of the three dead-end spaces and the attitudes of the visitors' bodies create a speech act occurring between the space and the visitor. This speech act occurring between the space and the visitor will help the visitor to understand the meanings of the three spaces. As the notion of Gestus has been borrowed from the epic theatre where the viewer is normally static, the notion of movement and affordance are key additional features to consider how the notion of Gestus is applied in the museum for visitors exploring museums through their movement is distinct from theatre. To support the argument and make the result more solid, evidence from the interviews and the visitors' comments about the museum in Google review will be used to strengthen the discussion. It is important to state that the methods used to track the visitors include stopwatches, observation and pencil sketches in all three spaces.

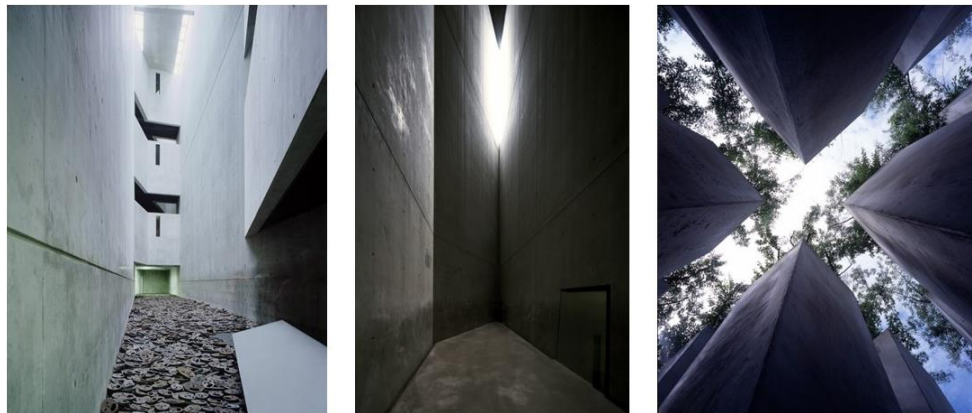


Figure 7-1 The three dead-end spaces in the JMB: the Memory Void (left), the Holocaust Tower (middle) and the Garden of Exile (right). Source <https://libeskind.com>.

7.3.1.1 Performing in the Holocaust Tower

As has been described before, the Holocaust Tower is located at the basement level of Libeskind's new extension building, specifically at the end of the Axis of the Holocaust. From outside the building, the Holocaust Tower can be described as a building splinter which has been isolated from the zigzag building, and the only way to reach it is through an underground connection which is hidden from the outside. The building splinter is made of bare concrete, and it has only one long slit window that just allows a small amount of daylight to penetrate into the building. The slit window is too far to be reached by people from both outdoors and indoors. In the *Space of Encounter* (2001), Libeskind described the Holocaust Tower and the metaphorical meaning of making it a dead end space, stating:

The space is not heated in the winter and not cooled in the summer, and is connected from the underground, but disconnected outside. There is only a refraction-without-source of a narrow line of light, which ends high above. This chamber resonated with the hum of the city. The Holocaust Void is a place that has to be experienced as an end, which will forever remain a dead end. For they will not return. (Libeskind et al., 2001, p. 27)

From inside the building, the visitor cannot know what they will see inside the Holocaust Tower before they open its door. The uncertainty of what the visitor can see inside the tower is connected directly to the disappearance of any architectural elements that allow the visitor to discover some of the spatial environment's features before they enter it such as windows. This point seems to be intended in order to make the visitor emotionally aroused by the experience of the space, which is unique in the experience of other parts in the museum. However, through an interpretive text written on the wall at the end of the Axis of the Holocaust, the visitor can somehow imagine the spatial environment of the tower. In this text the holocaust Tower has been described as:

an empty, 24-metre-high space called the Holocaust Tower. It is unheated and lit only by natural light falling through a diagonal opening in the wall. Sounds can be heard from outside. Daniel Libeskind called this room the "voided void." It was later interpreted as a commemorative space for the victims of the Holocaust text is an abstract idea, and it has no materiality.

As has been stated in chapter three, the text is an abstract idea of any discourse (Ricoeur, 1981), and it has no materiality (Hooper-Greenhill, 2000). For that reason, although some of the architectural features of the Holocaust Tower have been described in the interpretive text for the visitor entering the tower, it is impossible for them to imagine the real effect of these features. The height of the space alone cannot depict the nature of the visitor experience inside the tower, because the effect of the height of the space, which has been mentioned in the text, is connected to the length and width of the space, which in turn can define the nature of the body responses to the space and the emotional effect on them. Also, knowing that the space is unheated alone cannot show the degree of the effect because the indoor temperature of the Holocaust Tower is connected to many parameters such as the air temperature outside the building and thermal conductivity of the space materials. Furthermore, mentioning in the text that natural light lights the space is, in fact, not describing the reality of the space because although the diagonal window allows the natural light to penetrate the space, it only allows a very small amount of light to enter and cannot light the Holocaust Tower. Therefore, the space is either dark or semi-dark depending on

the amount of natural light penetrating the space which varies during different times of the day and during different days of the year. One of the respondents described the Holocaust Tower and the nature of the light that enters the space by stating that the Holocaust Tower is:

An enclosed space, totally dark and just a beam light, natural light at the top of the tower and it transports you there. PF-23 semi-structured-interview, 2017

It is clear that the text in itself cannot describe the reality of the space, because it just presents abstract ideas whereas the spatial environment presents concrete ideas with features that have a direct effect on the visitors' movement, behaviours and reflections. Therefore, the findings of the visitors' performance in the Holocaust Tower will be presented in the shape of four trends: (1) spatial encounter; (2) the door as an orientation point; (3) the Holocaust Tower as a claustrophobic experience; (4) different feelings.

Before the findings are discussed, it is important to state that the average time the thirty observed visitors spent exploring the Holocaust Tower is 01:08 min, which is far less than the average time the thirty observed visitors spent exploring both the Garden of Exile and the Memory Void. Nevertheless, in the interviews with the 36 respondents, the top place that was selected by them as the most memorable space in the museum was the Holocaust Tower (nine out of thirty six – 25% of the respondents). This point seems to show the effect a space has on a visitor does not strongly connect to the amount of time that the visitor spends in the space; instead, it seems related to the ability of the space to create an emotional arousal in the visitor, as will be presented in the findings.

Spatial encounter

Unlike exploring both the Garden of Exile and the Memory Void, exploring the Holocaust Tower is different, especially at its start point. In the Holocaust Tower, there is no such area that can be described as an 'explorative milieu' where the visitor usually will stop and think what they can do inside the space, especially at the beginning. The disappearance of such an 'explorative milieu' inside the Holocaust Tower most likely will be related to the direct spatial encounter between the space and the visitor, because once the visitor opens the door they will be in the middle of the space surrounded by most of the features of the

space and mass involving all the features of physical quality. It is important to state that the interaction between the body and the world is the main establisher of the meaning of the world, as has been stated by Merleau-Ponty in his notion of perception. As evidence to support this point, one of the respondents described his experience of entering the Holocaust Tower as follows:

When you are inside, you are into a space. It's almost like the old churches or synagogue which has a high roof. You feel like something is floating over you because of the mass. PM-11 semi-structured-interview, 2017

It is obvious that when the visitors open the door of the Holocaust Tower, they will encounter one space that for them seems there is no huge difference in experiencing the space from any position inside the space. The visitor can fully contemplate the tower from any position. The vast majority of the observed visitors (seventeen out of thirty – 56.66%) explored the Holocaust Tower from just one position. This a clear indicator that the Holocaust Tower is a controlled space and it can be fully explored from one position. However, defining the next step of exploring the Holocaust Tower by the thirty observed visitors is related somehow to a few different features of the space and the visitors' emotional reactions. These different factors will be discussed in the following section.

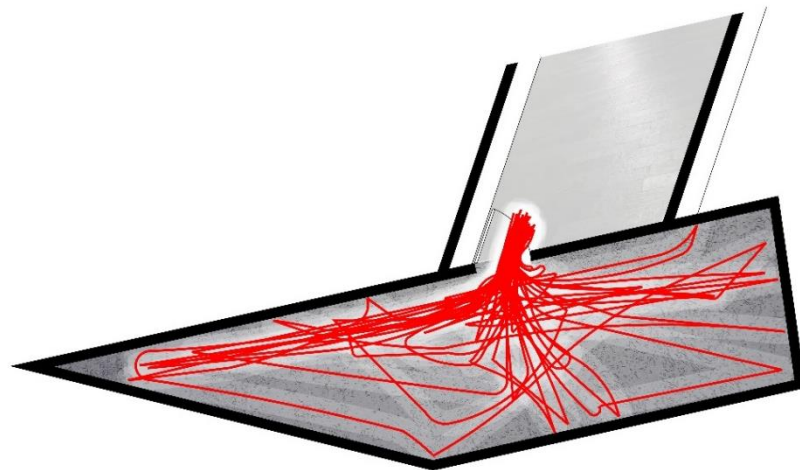


Figure 7-2 Visitor paths of 30 observed visitors inside the Holocaust Tower. Source: the author.

The door as an orientation point

When the visitors' paths are analysed in (Figure 7-2 and Figure 7-3) specifically after the visitors open the door of the tower, four repeated behavioural patterns are detectable. The visitors' movements starting from the door are split into three groups towards different parts inside the Holocaust Tower, whereas one group decided to explore the space just from the door. In terms of the last group who decided to explore the space from the door, (three out of thirty – 10%) of the observed visitors held the door open by their hands, bodies, or feet while they were exploring the space from the door. It seems that they are scared maybe because of the dark environment, the huge scale of the space or they might be afraid of exploring such a confined space.

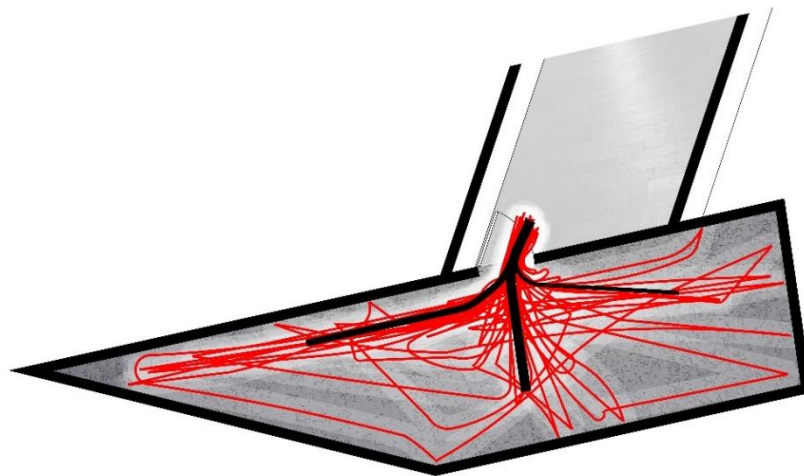


Figure 7-3 The visitors' movements starting from the main door are spilt into three groups towards different parts inside the Holocaust Tower. Source: the author.

As far as the other three groups are concerned, the first group (thirteen out of the thirty – 43.33%) go straight mainly to the area in front of the door. It is most likely that those visitors moved to the area in front of the door because it was the only semi-lighted area in the space (the rest was semi-darkness) as a result of the light that came mainly from one spotlight located exactly at the base of the door's headers; the light of this one spotlight penetrates the Holocaust Tower just when the door opens because when the door is closed the light will be blocked from entering the space since the door will be orthogonal with this one spotlight in their closed position; it will prevent the light from penetrating the space. Therefore, when the visitor opens the door of the Holocaust Tower, the area in front of the door becomes semi-dark. Still, since this area is lighter than the other parts, a large number

of the observed visitors moved to this area, especially when the door slowly closed. Before the door closed, the visitors had enough time to walk to this area before the door blocked the light. As the door closes this area also becomes semi-dark like the other areas inside the Holocaust Tower. The second group (nine out of thirty – 30%) turned right towards the part where the long slit window is located. It seems that the visitors moved to this area because it was lighter than the area on the left as a result of the small amount of daylight that entered the tower through the window that is located in this area. The third group (five out of thirty – 16.66%) turned left towards the darkest area in the tower. One of the respondents stated that the main reason that led many people to avoid the dark parts of the Holocaust Tower is the cold feeling that they got from the dark parts. He says:

Even in the Holocaust, there's the corner right at the end where there's no light reaches it. Nobody went in there. Everybody wants to stay with light. It's a cold feeling that you get from them. PM-33 semi-structured-interview, 2017

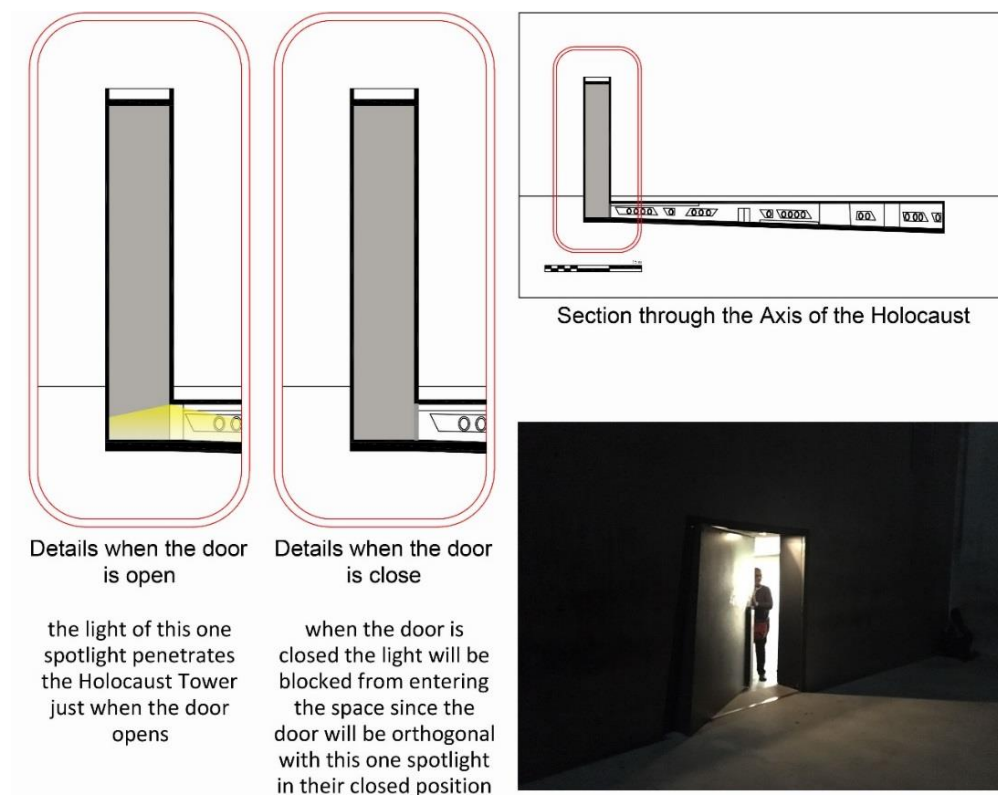


Figure 7-4 Two detail sections show the effect of a spotlight located exactly at the base of the door's headers in lighting the Holocaust Tower just when the door opens. Source: the author.

The Holocaust Tower as a claustrophobic experience

Many of the respondents and the visitors who wrote comments about the museum in Google Review have described the experience of the Holocaust Tower as claustrophobic. It seems that there are three spatial features playing a key role in creating this feeling. The first physical quality of the Holocaust Tower making the visitor describe the experience of the space as trapped or claustrophobic is the darkness of the space. This is despite the long window allowing the natural light access, and despite the one spotlight located on the header of the door penetrating the space when the door is open. All these lights only partly light up some areas of the space. Therefore, the Holocaust Tower is in semi-darkness most of the day, and this is one of the reasons for visitors feeling claustrophobic. One of the visitors has described the Holocaust Tower as:

A room [when] you enter which is entirely pitch black, save for a tiny, tiny, strip of light way up in the corner. You feel extremely claustrophobic and trapped, yet with a hint of brightness. It is an extremely effective piece. GR-1065 comments-in-Google-Review (4*)

One of the respondents described how the spatial environment made her feel like ‘a dim person’. she said:

I like dim person, I like- I enter in there and it was there alone and it was horrible. It was like a nightmare, actually. It's like a structure you are not used to and like the feeling of not being able to go out. PF-36 semi-structured-interview, 2017

The second reason that can make the visitor feel trapped, as was seen by the comment of the visitor of the Holocaust tower, is the size of the space and its relation to the size of the visitor and the movements of their body. Since the Holocaust Tower is 24 metres high and less than 4 metres wide, the visitor needs to raise their head up to a very great degree to be able to explore the space, and this is what twenty one out of thirty (70%) of the observed visitors did to explore the space. This, in turn, can become one of the main reasons for making the visitor feel ‘trapped’. One of the respondents commented on this issue:

It's too high and, and you just hear the muffled sound of the city like children playing nearby, or maybe a vehicle passing by. But, and, and how the light is, you, you have a small slit window at the top. So, I think it talks about a hope for the people who were being tortured or, I don't know much about the history of the, the people of Jews but I think it was more about like a hope. You have little hope, a slit of light. You are still in a situation but maybe someday you'll get out of it. So, I can actually understand how people were maybe feeling that time and the architect has tried to convey that feeling by creating that space. PM-11 semi-structured-interview, 2017

The fear of being unable to open the door of the Holocaust Tower is considered to be the third reason that lead some of the visitors to feel that the experience of the Holocaust Tower is claustrophobic. (Three out of thirty – 10%) of the observed visitors explored the space from the door without entering the space. This can be seen as a sign that these visitors were afraid to be trapped inside the Holocaust Tower after closing the door.

Different feelings

A large number of scholars who analysed the work of Libeskind in the museum paid much attention to the form and its resources of inspiration, but they did not focus on the feelings that the architect wanted the visitor to perceive. The feelings that the visitors experience in the museum are formed by the nucleus of the museum's architecture. Many responses emphasised that the Holocaust Tower made them have the same or close to the feeling that Jews got in the Holocaust which, in turn, for some of them, made them understand the issue more deeply. One response was:

It's because it started with more feelings of -- that's what I like actually. It started with getting to know the feelings of Jews, what the Jews felt like even if you get closer to the topic. So, I felt -- it made me feel more concerned about it. Feeling like the Holocaust tower. PM-03 semi-structured-interview, 2017

The slit window has been placed far away from the visitor, and at an angle; therefore, it is difficult for the visitors to see anything outside through the window. This window just allows a little daylight to creep into the room, so it becomes a sign of hope for some of the visitors. One of them stated that:

You have a small slit window at the top. So, I think it talks about a hope for the people who were being tortured or, I don't know much about the history of the, the people of Jews but I think it was more about like a hope. You have a little hope, a slit of light. You are still in a situation but maybe someday you'll get out of it. So, I can actually understand how people were maybe feeling at that time and the architect has tried to convey that feeling by creating that space. PM-11 semi-structured-interview, 2017

However, other responses did not mention any sign of hope in the Holocaust Tower; instead they believed the space had been made to torture the visitors. One remarked:

I was in there. That's a really fascinating product. I couldn't even be in there for 10 minutes. I needed to get out as soon... It's just in the dark cold, you have this aperture of light coming from the top. You can never reach it. You can see like a torture that was for people being inside. You have to

experience that to actually get the full feeling from this being inside there. That stuff for me was like a really big milestone in actually touring the museum. PM-33 semi-structured-interview, 2017

Although the Holocaust Tower is an empty space and does not have any elements enhancing the intellectual experience such as a text board, a great deal of information can be gained through the sensorial experience of the space. The human body unconsciously and consciously can perceive a lot of information related to the space through the five senses, and these aspects can be tangible and intangible. One respondent indicated that the sensorial experience of the Holocaust Tower is richer than the intellectual experience in other spaces. He said:

[The Holocaust Tower was] a very immersive experience. The character that the experience involved temperature, light, elements that go beyond the perception, the understanding. They are felt. They are experienced. That's an important thing.

Interviewer: So, it's more about the experience? Not about the form?

No, the form is also there to enhance, to make the experience even greater because you could have an experience watching a movie, but if you have the experience entering a place that has these conditions, that has temperature that is low, that has resonance, that has a material so you touch it and you feel comfortable. That is part of that and that's a richer experience than the intellectual. I would say it's a sensorial experience. PM-07 semi-structured-interview, 2017

7.3.1.2 Performing in the Memory Void

The Memory Void is located on the ground floor of Libeskind's new extension building. In spite of the name of this space, there is more than just one void as is shown in the name; in fact, there are two voids in the Memory Void. These two voids are parts of a set of six voids that cut in straight lines through the whole zigzag building and symbolise the absence of Jewish people from Germany, as has been discussed in chapter five. As exceptional cases, the two voids in the Memory Void out of the six voids are the only accessible voids, and through the Memory Void alone the visitor can access these two voids since both are an integral part of the space, whereas the other four voids can just be seen through rectangular windows in bridges that pass over the voids in the zigzag building.

The two voids in the Memory Void are the largest and the smallest voids of the series of the six voids (Figure 7-5). These two voids, like the other voids, cut the whole building vertically from the ground level until the roof level, and they both meet in a long floor with single height. Therefore, the ceiling level of the Memory Void is varied whereas in

the voids part the ceiling is double height level, and the ceiling in the other parts are single height. Furthermore, both voids have a series of skylights on parts of their roof, and these skylights play a key role in illuminating the space during the day time. However, the main difference between the skylights in these two voids is that the roof of the large void has a double line of series of skylights, whereas the roof of the small one has just one line of a series of skylights (see Figure 7-6).

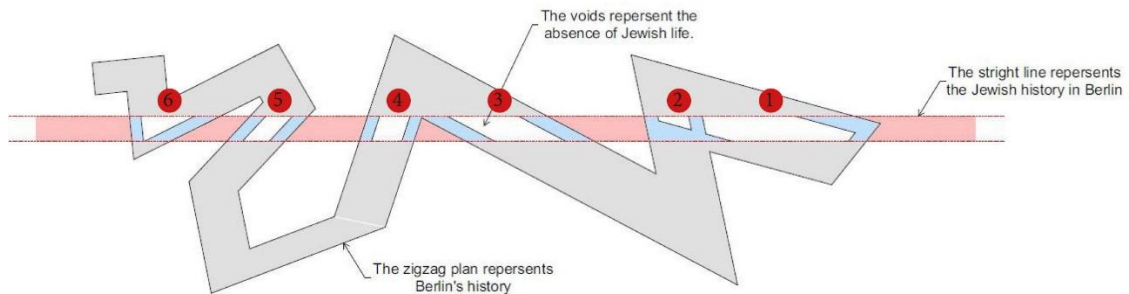


Figure 7-5 The two voids in the Memory Void are the largest (number 1) and the smallest (number 2) voids of the series of the six voids. Source: the author.

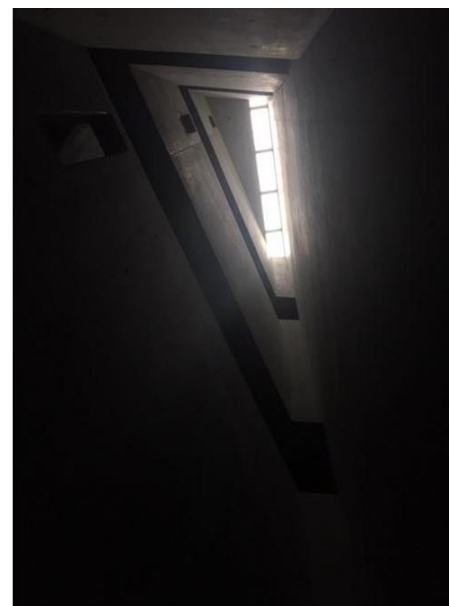
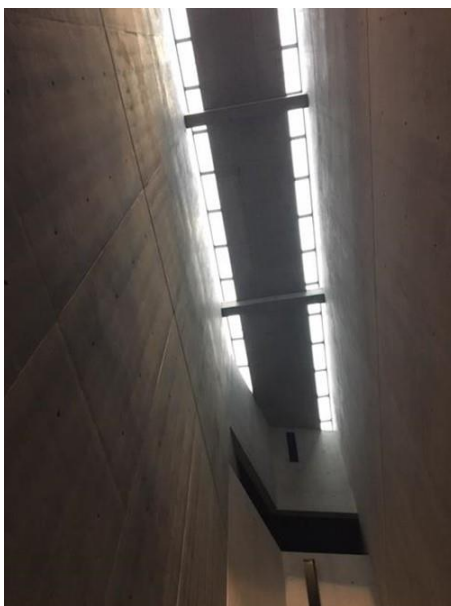


Figure 7-6 The large void has a double line of series of skylights (left), whereas the small void has just one line of a series of skylights. Source: the author

The layout of the Memory Void and its two voids are irregular shapes, and all its walls, roofs and floors are made of concrete. The Memory Void houses an installation (Fallen

Leaves) by Menashe Kadishman, an Israeli artist. This installation consists of 10,000 steel faces frozen in horror that spread all over the floor of the Memory Void starting from the large void until the end of the space. At the beginning of the space, there is a short wall that defines the beginning of the installation art and at the same time it prevents the faces from spreading outside the space as a result of walking on top of them by the visitors. Also, this wall defines the entrance to the space, because it does not extend around the space. Instead it was built around part of the Memory Void's boundaries and a small part has been left without a wall to make the space accessible. The left wall has a window and three protrusions in the concrete in regular shapes in different directions. It is important to note that the Memory Void does not have any cooling or heating system, and it has one artificial lighting source which is used at the night time to make it possible for the visitors to see the space.

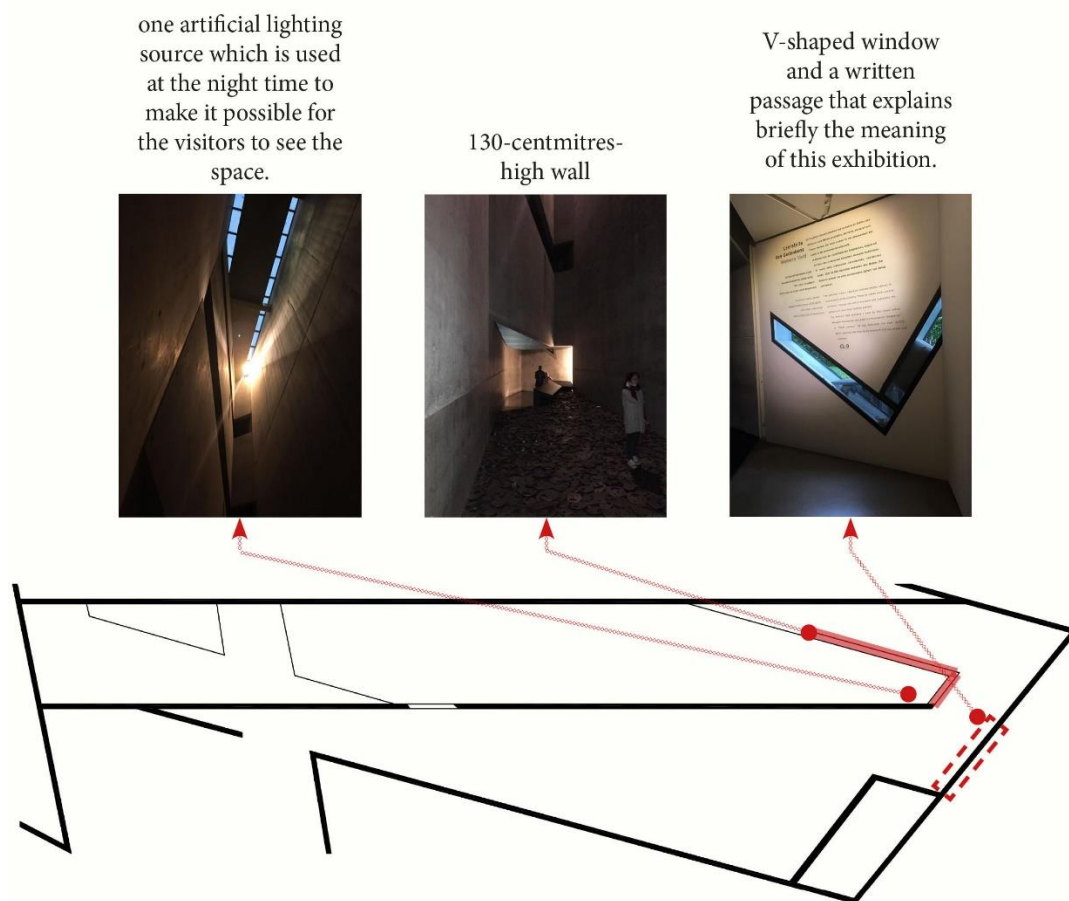


Figure 7-7 Some spatial features of the Memory Void. Source: the author.

Before the visitors reach the Memory Void, they will reach a wall that has a V-shaped window and a written passage that explains briefly the meaning of this exhibition. The unique feature about the window which attracts the attention of many visitors is that it shows the relationship between the inside and the outside. On top of the V-shaped window, there is a written passage giving information about three aspects: (1) the concept of the Memory Void; (2) the Fallen Leaves installation; (3) basic facts of Menashe Kaddishman's life, the creator of the Fallen Leaves installation. Under the title of the Memory Void, it is written:

The architect Daniel Libeskind created empty space in several parts of the building, these so-called voids extend vertically through the entire museum and represent the absence of Jews from German society.

The Memory Void contains a work by the Israeli artist Menashe Kaddishman, who calls his installation “Shalekhet,” or “Fallen Leaves.” He has dedicated the over 10,000 faces covering the floor to all innocent victims of war and violence.

On the left of this passage a list of facts about the artist and his artwork has been presented:

Shalekhet (Fallen Leaves)

Menashe Kaddishman (1932-2015)

1997-2001, sheet steel

Gift of Dieter and Si Rosenkranz

The visitors cannot see the Memory Void from a distance because it is a hidden space; however, they can hear the sound that was produced as a result of people stepping on top of the faces. This sound cannot tell the visitor what they can find behind the wall; instead it most likely will give them a set of expectations regarding the function of the space behind the wall.

It sounded like there was a kitchen or cafe because it's hidden around the corner. Then when you get around there, you're really surprised at what you would find. PM-33 semi-structured-interview, 2017

I was really interested when we were walking around and I could hear noises, like rings, like ringing, ringing, all the time but I didn't click on what it was, when we arrived, because the corridor takes you and I realised the noise was people stepping on these steel little rings or circles. PF-23 semi-structured-interview, 2017

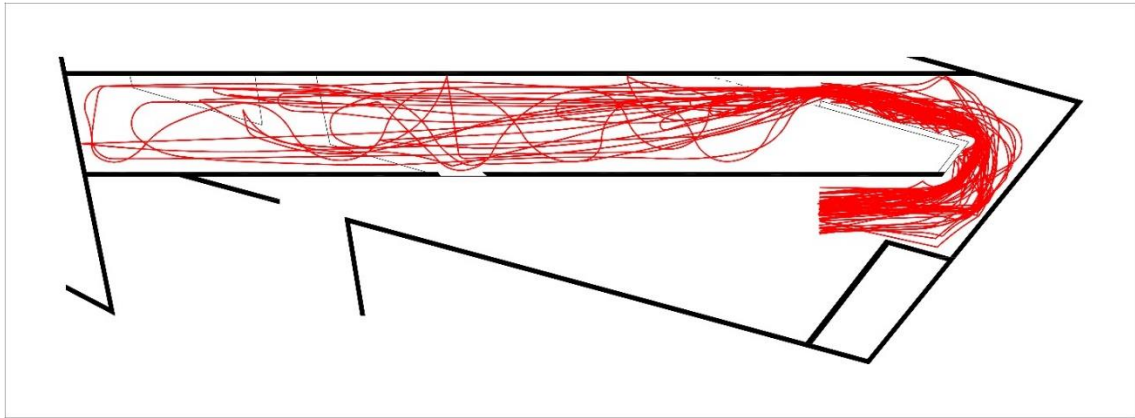


Figure 7-8 Visitor paths of 30 observed visitors inside the Memory Void. Source: the author.

As far as the observations of the thirty visitors are concerned, the average time that they spent rambling in the Memory Void is 03:26 min, which is significantly higher than the average time that visitors spent in both the Holocaust Tower and the Garden of Exile. This obvious increase in time raises many questions about the reasons why visitors spend more time in this space compared to the other two. These reasons may be related to the physical fabric of the space, its immaterial qualities, its intended meanings, the idea of embodied space, or all of them at once.

The findings of the visitors' performance in the Memory Void will be presented in the shape of four trends: (1) multi explorative positions in the milieu; (2) embodying screaming; (3) the scandal of architecture; (4) different spatial conditions and meanings.

Multi explorative positions in the milieu

Unlike the Garden of Exile, the Memory Void is an open space and the visitors can identify all of its physical content from its entrance. However, most of the visitors spent some time in the explorative milieu (Figure 7-9) exploring the space before either starting to walk on top of the faces or leaving the space without walking on top of the faces. One of the unique behaviours that many visitors (thirteen out of thirty – 43.33%) showed in the explorative milieu is that they explored the space from multiple positions in the explorative milieu before either walking on the faces or leaving without walking on them. Questions raised here then are to consider why and how the Memory Void can be explored from one position

in the explorative milieu, and what the main motivator that led some of the visitors to explore the space from different positions is.

Before discussing the reasons that drive many visitors to explore the space from more than one position, some facts about the nature of the movements in the space will be explained. Also, a wall at the beginning of the Memory Void will be described, since it restricts the movements of the visitors in the space and limits their way of exploring it.

To enter the Memory Void the visitor needs to do a 180 degree turn at the end of the corridor that leads to the space, and once they make the turn the first architectural element they will face is a wall. This wall is 130-centmitres-high, and has two sides (short and long); the short side is next to the entrance, and its diagonal direction is towards the latitudinal line of the Memorial void whereas the direction of the long side is towards the longitudinal line of the Memorial void.

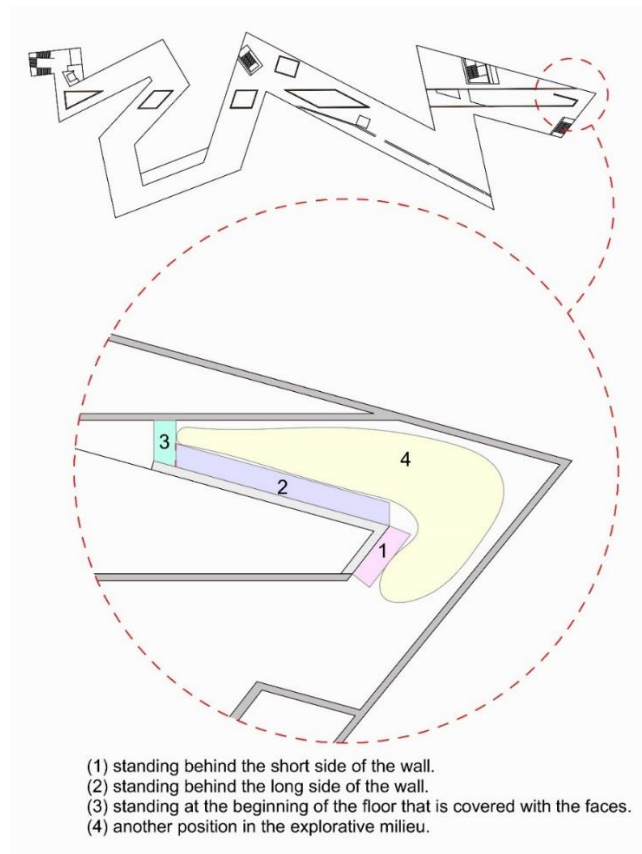


Figure 7-9 Most of the thirteen visitors who explore the Memory Void from multiple positions in the explorative milieu have explored the space in two or more positions of four presented positions. Source: the author.

Most of the thirteen visitors who explore the Memory Void from multiple positions in the explorative milieu have explored the space in two or more positions of four positions in the explorative milieu. These four positions are: (1) standing behind the short side of the wall; (2) standing behind the long side of the wall; (3) standing at the beginning of the floor that is covered with the faces; (4) another position in the explorative milieu (see Figure 7-9).

The main reason that seems to have led the thirteen visitors to explore the space from a different position is that from each position they can realise more deeply different aspects about the space and its content. For example, in the above first and second position, the visitor can see the content of the Fallen Leaves installation, namely the faces, and they might realise its intended meaning, but they cannot know the nature of their materiality or weight because the short wall becomes like a boundary making it difficult for the visitor to reach or touch the faces in those two positions. In the third position, the visitor can realise the materiality and weight of the face through touching them with their hands or feet; it is important to state that five out of the thirteen did touch the faces by either their hands or feet before they left the space without walking on top of the faces; two out of the five touched the face with their hands and the other three by their foot. It seems that they were looking for three aspects: materiality, their weight, or the expressions of their faces. Although the space open for the visitors in position one and two is larger, their positions are darker than exploring the space in position three. Exploring the Memory Void in the fourth position is the worst because exploring the space in this position is limited in terms of realising both the space and its contents, because owing to the limited height of the ceiling in this area, the visitor cannot explore all the physical features of the space. Also, in this position the visitor cannot realise very clearly the expression of the faces of the installation.

Embodying Screaming

In the Memory Void, the visitor can embody the experience of either silent or clamorous screaming. As a way to explain these two types of screaming, a strong connection will be made between the experience of these two types of screaming and the feeling that the audience will get from watching a scene in a play entitled *Mother Courage and Her*

Children. This play is the most famous play written by Brecht in 1939; and one of the powerful scenes in *this play* is *Mother Courage's* 'silent scream' (see Figure 7-10). This 'silent scream' was emitted by Mother Courage over her son's dead body. The scenes started when soldiers carry the dead body of Mother Courage's son (Schweizerkas) to her in order to identify him. When the soldiers asked her whether she can recognise the dead body or not, she remained calm in her chair without any expression, and just communicated with them through gesture by shaking her head to indicate that this dead body is not her son. However, when they lifted the dead body to bury it, she turned her head in the opposite direction and opened her mouth without producing any sound in a 'silent scream'. Such an unscreaming open mouth will make the audience think about the reason of hiding the feeling; at the same time this will help to stop the audience from creating any emotional connection between them and the actors, because of the lack of sad expressions. The 'silent scream' scene in the play is a 'Gestus' because it contains both gestures and social comments. All the gestures that Mother Courage produced in the scene portraying her son's dead body can show what type of woman she is.



Figure 7-10 Mother Courage's famous 'silent scream', performed by Helen Weigel. Source <https://reallyc1.wordpress.com>.

The common ground between Mother Courage's gestures in the 'silent scream' scene and the 10,000 steel faces, frozen in horror that spread over the Memory void, is that both scream silently. However, the main difference between the silent scream in the theatre and

the museum is that the silent scream faces can speak because when the visitors start walking on top of these 10,000 steel faces, these faces will start producing a loud and confused noise as a result of grinding them into the ground beneath the visitors' feet. Therefore, it can be stated that the active role that the audience can take in the play is to think about the reason that led Mother Courage to produce this 'silent scream' whereas the visitors in the museum can think about this issue in many ways. The visitor of the museum can watch these faces from different positions without walking on top of them, and this in turn can help them to think about the meaning behind them, and this is what seemingly 50% of observed visitors did. Furthermore, the visitor can think about the same issue while they are walking on top of them. However, the sound that they produce when they walk on top of them might make them think differently than the first group who refused to walk on top of them. The way of embodying the space is the key aspect that can shift the steel faces from being silent to clamorous, and this shift can also make the visitors think differently. Some respondents have explained this:

Because it's when you enter it's very silent but when you start walking there-- it's very loud and maybe you can understand what people, during the deportation feel. PF-20 semi-structured-interview, 2017

In fact, in the exhibition where there are all those, all the faces, the metal faces, people are walking over without realising the sound aren't quite so much and it's very evocative of the way that Jewish people were downtrodden, I guess. That's what I got from it anyway. So, I think it's really, really effectively done. PM-08 semi-structured-interview, 2017

It is important to state that the visitor, through their performance, builds their own meanings and not necessarily the curator's meanings, because the space has been designed as a performance stage with a few hints about the intended meanings. This, in turn, will help the visitors to perform differently and also is a technique that will encourage the visitors to discuss and negotiate the meaning of the space. Some of the respondents explained how the gestures of the faces are connected to the victims, and at the same time they show how their attitudes to walking on these faces helped them to understand the meanings. They said:

Some of the faces are quite young, they're quite scary. They show some really graphical expressions even though they're inanimate and they're made from metal, you really get a strong flow of emotions just going over that. It's true, it is shocking. It is a great piece of art so to speak, but you get this kind of a double-edged kind of emotions. You want to do this, you want to walk over because everyone

else is doing it too. When you're doing it at the same time, you do get this kind of dreaded feeling inside. PM-33 semi-structured-interview, 2017

I felt very guilty, I felt guilty. I felt like walking on someone's skull and I felt the story of people who are forgotten. We will never know their names, who they were, what their age was, what they liked and we are here -- For us, it's something much different. We can see the story, we are-- this is-- this happened a long time ago. For us -- like we're very young people, we can't remember any of these events. For us this is something much different and we see nowadays in our world. So, it evokes all those, all this knowledge that we learned in school about what happened during the Holocaust. PF-34 semi-structured-interview, 2017

However, some visitors rejected the idea of walking on top of these faces because for them these faces and their frightening feelings are representative of innocent victims. One respondent stressed his opinion about this issue. He said:

Interviewee: But I don't like when people walk around on the faces, I can understand it, it is a funny option-- for me, it's not, impossible.

Interviewer: So, why you do not like the people walking over them?

Interviewee: Because I think that is a human being, and all faces are different, and remembering people, and, for me it isit's my shame. I do not know, it is not okay to walk on these faces. I have, for me, it would be better to forbid that, but, maybe, the artist would give the decision to the public. If they make this step or not. That it is good. PM-27 semi-structured-interview, 2017

Rinke indicates some of the reasons that prevent the visitors from walking on top of the faces. At the same time, he explains his approach to urge them to walk on these faces. He explained:

When people see other visitors walking on the faces, they don't understand it. They don't want it because these faces symbolise somehow the dead of the concentration camps and you don't walk on the dead people. But then, you have to confront the people with the idea of the artist. It's not a holocaust memorial, but it's a memorial for all victims of injustice and of terror and of power. So, it's not a holocaust memorial.

That's your idea. And it's very interesting. When you see this installation with no people walking on, it is really like a cemetery. But when you see people walking on it, it's very, very, very hard and you can say, "Well, it's like a cry." It's like a cry. It's like an appeal to the people who are still alive to engage for better future, for example. And so, there are different moods to deal with this installation. Rinke's (Head of Visitor Service)

The effects of the Memory Void exist in the visitors' performance in the space, because the performance of the visitor in the space can help to evoke different meanings, of which some are connected to the intended meanings by both the architect and the artist. It is essential to state that, when the visitor interprets the exhibition through their walking,

actions and reactions of the body, they will generate multisensory reactions and this will produce multiple layers of meaning for them. One of the visitors stated that he needs to walk for a long time to mediate the meaning of the Memory Void; he commented that:

My favourite part of the whole museum was a specific art piece (unfortunately, I do not know the name of it). It was a long room and on the floor were hundreds and hundreds of carved metal faces, which you are encouraged to step on. I could have spent hours walking around this room and contemplating its message. Very moving. GR-1065 comments-in-Google-Review (4*)

One of the respondents stressed that the performance in the Memory Void is more effective than watching pictures that depicted the story. He said:

The most effective part is that-- For me, it was the voyage of space with all the faces on the-- I thought that was more powerful than-- Actually, a lot of the paintings and things that you see a little bit. It's just, the space. PM-12 semi-structured-interview, 2017

These two quotations indicate the essential nature of the act of embodiment as a tool to acquire knowledge about the world, as has been described in Merleau-Ponty's notion of embodiment.

'The scandal of architecture'

The physical fabric of this exhibition plays an important role in defining the movement of the visitor inside the space, which in turn leads to defining the way of perceiving the Memory Void by the visitor and performing their informal reaction in the space. Although the Memory Void has no door, the short wall, which is a boundary to part of the space, becomes the main architectural element that defines the entrance to the exhibition. More importantly, this short wall defines the direction of visitors' movements to the space, because the diagonal form of the wall makes the width of the space's entrance less towards the wall than in front of the wall that has a window, and as a result, the visitor enters the Memory Void from the right corner of the space. This way of forcing the visitor to enter the space from the right corner of the space seems to be intended by the architect to give the visitor space to explore and mediate the wall that has a window. As evidence to support this assumption, it is clear that the architect only artistically manipulates one of the two long walls through creating negative space and creating three protrusions in the concrete in regular shapes in different directions. These architectural techniques catch the eye of the

visitor especially because there is enough space to mediate the wall; and this is what is seen in the analysis of the visitors number 9, 26 and 29 when they noticed these architectural elements and went to explore them. This is what Libeskind alluded to as ‘the scandal of architecture’ in *Space of Encounter* (2001), when he stated that “The scandal of architecture” is precisely that “its figures are mute and the architecture’s silence speaks resonantly to the soul” of the viewer (Libeskind et al., 2001, p. 21). As the capacity of architecture can “present and de-present reality in the making of the set, its mobility and dynamic quality, its elementary nature, and its nonfigurative dependence on language are counterparts of the drama” (Libeskind et al., 2001, p.21). The way of repeating the protrusions creates a rhythm in the wall with the window creating what we can call metaphorically a repeated speech act, asking the viewer to look at (them) first and to explore them next. In other words, this architectural technique asks the viewer to perform different actions.

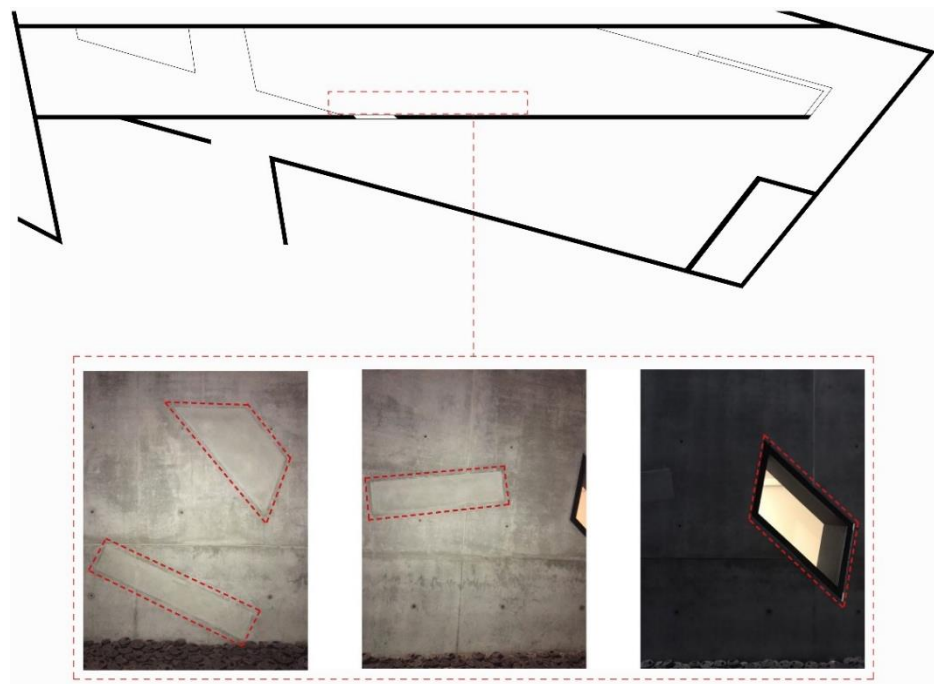


Figure 7-11 The architect only artistically manipulates this wall through creating negative space and creating three protrusions in the concrete in regular shapes in different directions. Source: the author.

Different spatial conditions and meanings

Both the proportion of various spatial conditions inside the Memory Void and playing with light and shadow in the space are key artistic techniques that are used by the architect to make different environmental experiences. These different experiences first call attention to meanings related to the Jewish story in Berlin. Also, such different environmental experiences can help the visitor to engage with the whole space from its beginning to its end which are needed in such a dead-end space because creating a sequence of different spatial conditions within the space most likely will urge the visitor to move and engage with the next part.

The Memory Void can be classified into five different spatial conditions based on the geometric proportions of five different parts as the relationship between the horizontal and the vertical dimensions of each part are different (see Figure 7-12). These differences between the horizontal and the vertical dimensions in the five parts will affect the scale of the human in each part, which in turn will affect the feeling that visitors will obtain in each part because there is a strong relationship between the scale of the human in the space and the feeling that they get.

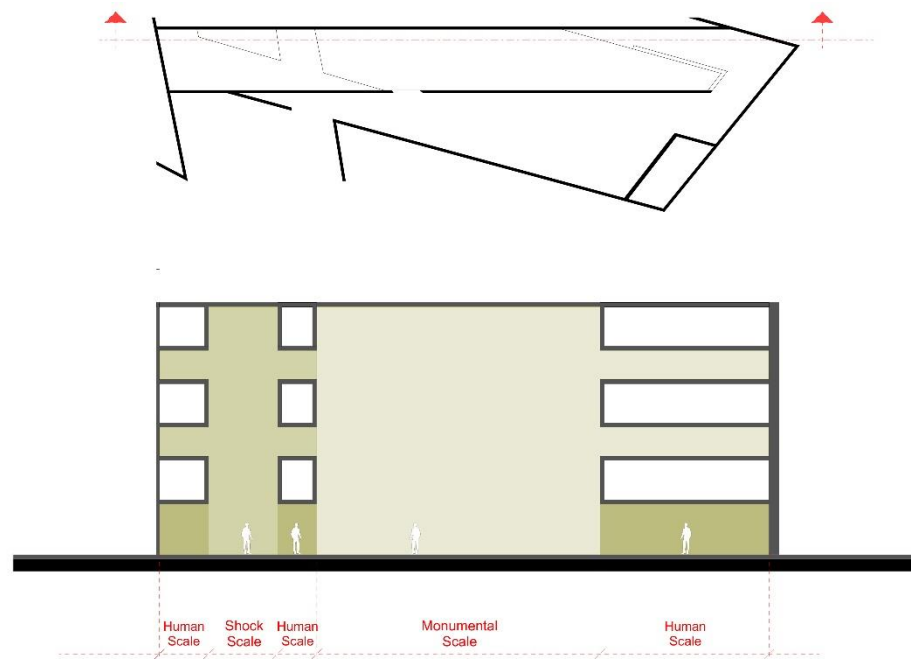


Figure 7-12 Plan and section through the Memory Void shows the five different spatial conditions based on the geometric proportions. Source: the author.

Parts one, three and five are classified under the human scale since the spatial elements have been scaled to human physical capabilities; for example, the height of the ceiling is appropriate to the human size. It is essential to state that applying the human scale is one of the key aspects that makes the space comfortable for the visitor.

The second part of the Memory Void is classified under the monumental scale. In such a scale the visitor can feel reverential respect mixed with wonder, because of the impressive space which makes the visitor feel they are small. The main aspect of this part in the Memory Void is to create memorial experience to remind the people of the significant effect of the Holocaust as an event in Jewish life and how it created a huge absence of Jewish culture in Berlin. In part four it seems that the architect strives to create the same experience of part two but using a different scale known as shock scale. Although the scale of the small void is far smaller than the biggest void, it is clear that the small void has jolted the visitor based on their behaviours in exploring the space. Most of the visitors who reached the small void have tilted their head back looking at the ceiling of the space, and this can be seen as a clear indicator that the space has shocked the visitors.

It seems that the different spatial conditions inside the Memory Void are one of the main reasons that the visitors explore most of them, especially when we know that each part will create different feelings and meanings. Based on the observation of the thirty visitors in the Memory Void, four out of thirty (13.33%) moved between all five different parts. Also, the same number of visitors moved between the four different parts of the space whereas just one visitor moved between the first three. Seven out of the thirty (23.33%) moved between the first two. The total number of visitors who decided to explore more than one spatial condition inside the Memory Void is sixteen out of the thirty, which is slightly more than half of the observed visitors. This is a clear indicator that creating different spatial conditions within the space can encourage the visitor to move between them.

Without doubt, playing with light and shadow can arouse different feelings and at the same time, it can encourage the visitors to move from part to part in order to explore the quality of the light in different spaces. In the Memory Void, the shadow area under the single height space at the end of the Memory Void Exhibition encourages the visitor to walk towards it so they reach the end of the space. The main thing that encourages the visitor to

walk until they reach this area is the different spatial conditions between the shadow area at the end and light area in the middle. This enhances the visitor's desire to explore this different space. It is essential to note that, the different spatial conditions between these two areas happen at day and night - during the day, as a result of sunlight that enters the middle area from the skylight and at night as a result of hard lighting in the ceiling of the huge void's space. Therefore, it can be said that, the existing shadows during the day help in encouraging most of the visitors to move in the space and contemplate its meanings.

So, you go to the next corner and then the Memorial Void is the same thing. Of course, you see what is there before getting inside the place but again you want to discover what you're going to feel once you step on these steel things. What you're going to feel. And you go to the bottom of the place and you want to see the light, what light is showing. It's this encouragement of discovering what is there. PF-23 semi-structured-interview, 2017

I could see a dark spot at the end. So, I just thought, "What if I go there and close my eyes and just sit there for a while?" And just, not see, but just to hear and listen the different sounds that were created by people walking. And actually, when I thought about it, and I tried doing that, I could actually feel something more. Which I cannot -- I don't have words for it, but it was actually the pain and torture, what people used to feel that time. PM-11 semi-structured-interview, 2017

7.3.1.3 Performing in the Garden of Exile

As has been mentioned before, the Garden of Exile is located at the basement level, specifically at the end of the Axis of Exile. Before the visitors enter the garden they can see it through a large window that is next to its main door. Through this window the visitors can discover some of the physical elements of the space, a text board describing the idea of the space, and the current weather of the outdoor space, e.g. is it sunny or raining. The simple way to describe the garden is that it has a square form, it has a double thirteen-degree slope, and it contains a 'forest of concrete columns' (seven by seven pillars) located in its centre, and all these columns in the forest are perpendicular with its slanting floor (Figure 7-13).

The average time that the thirty observed visitors spent rambling in the Garden of Exile is 02:31 min. This time is enough for a visitor to explore the whole garden as well to spend some time for the purpose of reflection.

The spatial behaviours of these thirty visitors inside the Garden of Exile were systematic at the beginning of their journey and became chaotic at the end as a result of walking in a space like the maze (forest of concrete columns). The findings of the visitors' performance

in the Garden of Exile will be classified into two different groups. The first group will show how the physical fabric of the garden has played a key in creating a specific type of movement, and the result will be presented in the shape of four trends: Explorative milieu; orientation point; merging and uniting the visitors' behaviours; The disappearance of structured movement patterns. The second group of findings will show the visitors' bodily response to the symbolic meanings that exist in the garden; the results of this group will be presented in the shape of two trends: The speech act in the Garden of Exile; and revolving around the idea of hide and escape.

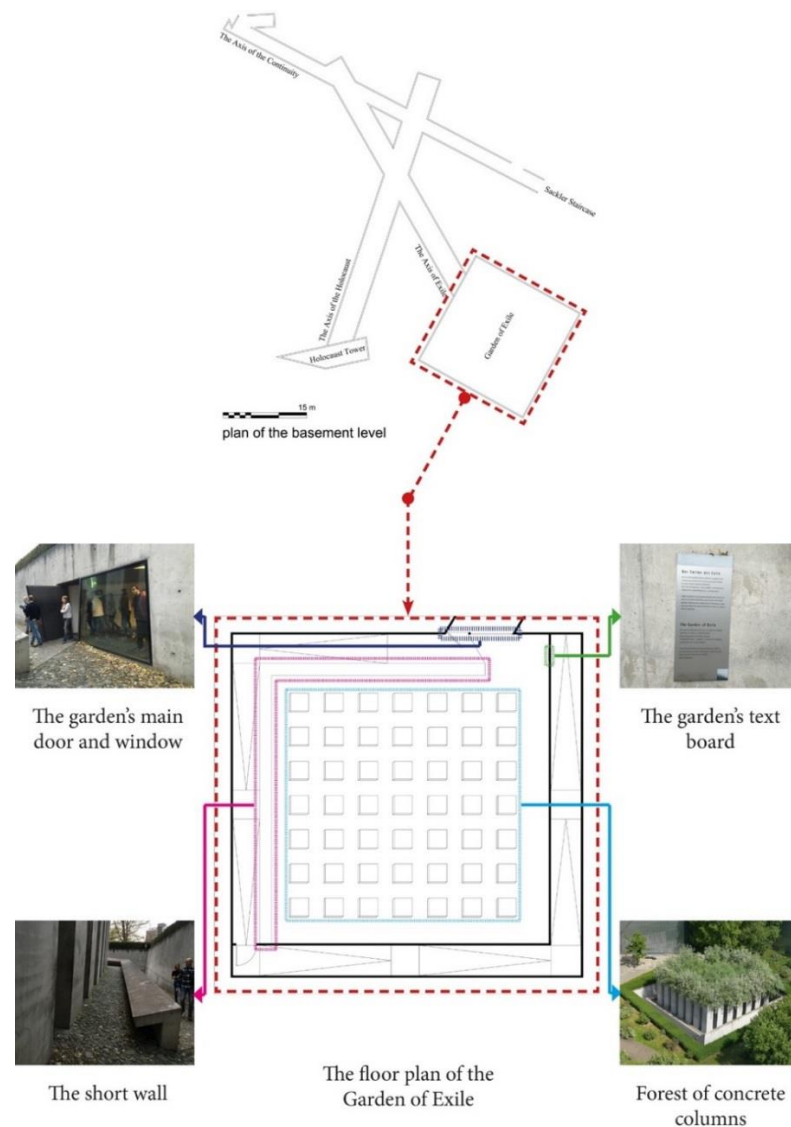


Figure 7-13 The Garden of Exile. Source: the author

Explorative milieu

The area in front of the Garden of Exile's main door generates an 'explorative milieu' for the visitor to stop and think about what they can do inside the garden (see the hatched area in Figure 7-14). The main reason that seems to lead the visitors to stop at the 'explorative milieu' area is to think about two aspects: first, what they can do inside the 'forest of concrete columns', which is dominant in the garden; and second, where this place leads to, is it a gate to a subsequent space? Or is it a dead-end space? It is impossible for the visitors to see the end of the garden from the 'explorative milieu' area as a result of the massive structure of concrete columns that block their views from seeing the end of the Garden of Exile. The need to know where the garden can lead to stems from the lack of any sign in the museum indicating that the garden is a dead-end space. Therefore, most of the visitors spent some time in the 'explorative milieu' area before they started their movements inside the garden exploring its different physical elements in order to define their next destination.

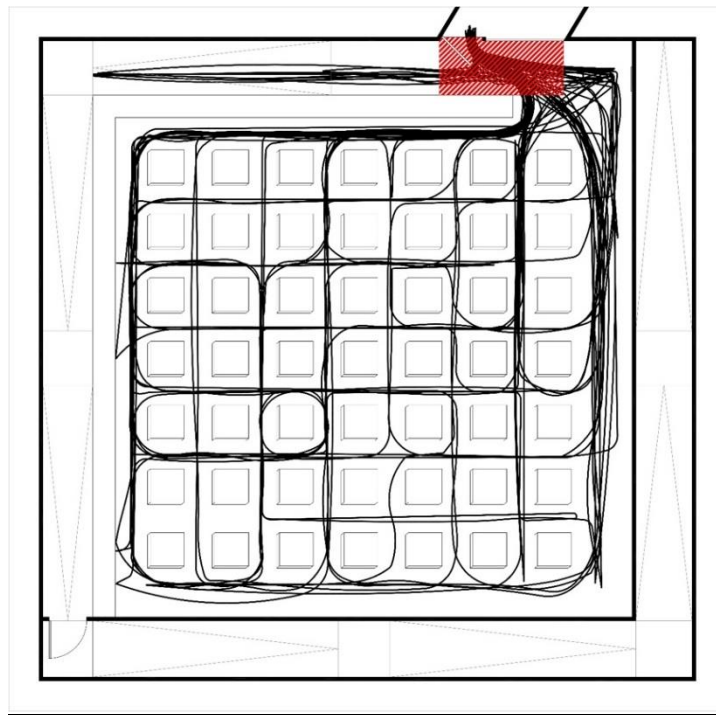


Figure 7-14 The hatched area shows the location of the explorative milieu. Source: the author.

Orientation point

When the visitor paths are analysed in (Figure 7-15 and Figure 7-16), specifically after the visitors spent some time in the ‘explorative milieu’ area, two strong repeated behavioural patterns are detectable. The visitors’ movement starting from the ‘explorative milieu’ area are spilt into two groups towards different parts inside the garden, and as shown in Figure 7-17. The first group (sixteen out of thirty – 53.33%) go straight to explore the ‘forest of concrete columns’. It is most likely that those visitors moved directly toward the ‘forest of concrete columns’ because they were astonished about its shape and they wanted to have an intuitive sense of understanding of the meanings of the garden, without the need to obtain any information about the space. The other group (fourteen out of thirty – 46.66%) turn left towards the text board that explains the idea of the garden. It seems that two main reasons led the visitors to decide to read the text board before they started their journey inside the ‘forest of concrete columns’. The first reason was that they wanted to know some clues about the idea behind the garden which in turn could help them in exploring the garden. The second reason is that the short wall from the main door might direct the movement of the visitors to place them in front of the text, and this in turn encourages the visitor to read the text board. It is important to note that one of the noticeable behaviours of the visitor who decided to start their journey inside the Garden of Exile by reading the text board is that while they are reading the text, they turn their faces toward the ‘forest of concrete columns’ repeatedly. It seems that they are trying to connect between what they read and the shape of what they are reading about in reality, specifically the columns and the trees on top of the columns, which have been mentioned on the text board.

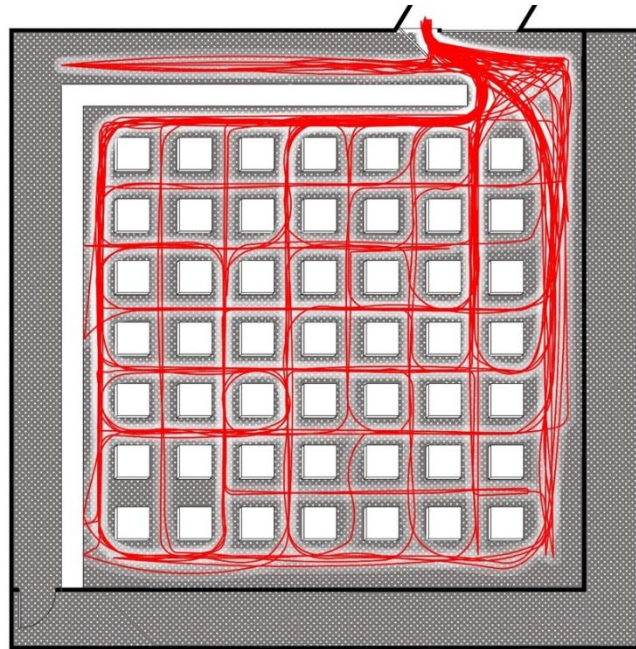


Figure 7-15 Visitor paths of 30 observed visitors inside the Garden of Exile. Source: the author.

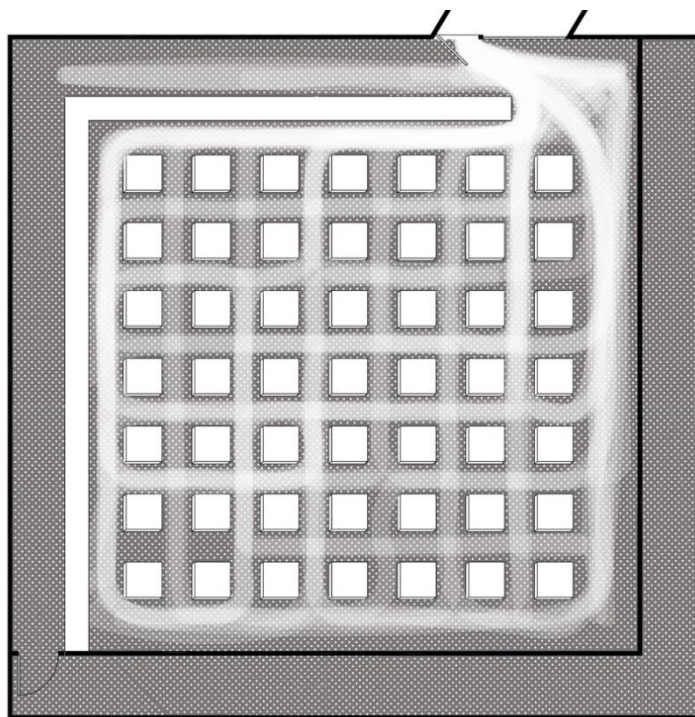


Figure 7-16 Visitor paths of 30 observed visitors inside the Garden of Exile. Source: the author.

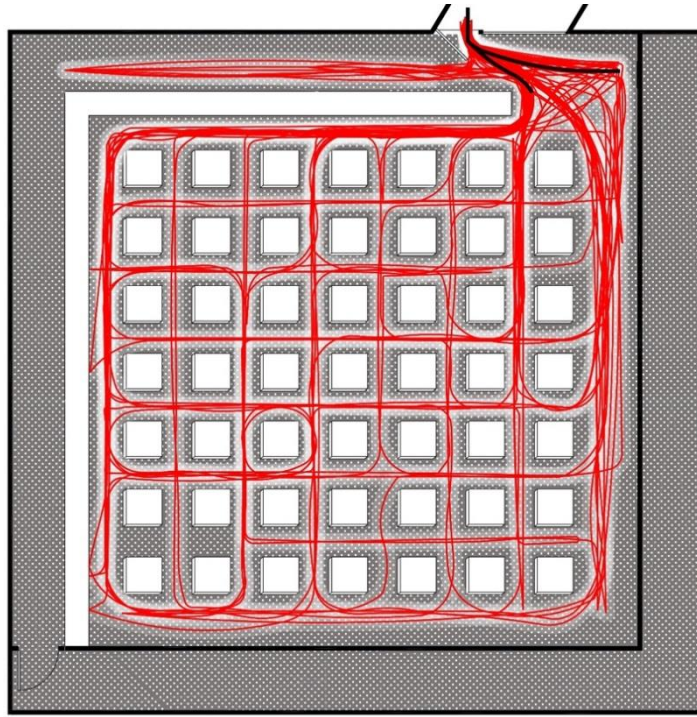


Figure 7-17 The visitors' movements starting from the 'explorative milieu' area are spilt into two groups towards different parts inside the garden. Source: the author.

Merging and uniting the visitors' behaviours into two movement patterns

The third notable behavioural pattern inside the Garden of Exile is related to how the visitors approach the 'forest of concrete columns'. Half of the visitors who decided to go straight to explore the 'forest of concrete columns' started their journey toward the 'forest of concrete columns' by walking on the path that is parallel to the wall that contains the text board and outside the 'forest of concrete columns'. The other half of visitors, who decided to start the journey by reading the text board, walked toward the same path after they finished reading the text (see Figure 7-18). One of the main reasons that seems to encourage the vast majority of the visitors to walk on this path is its width; this path is the widest path around the 'forest of concrete columns'. Therefore, most of the visitors decided to walk on this path because it is easier to walk on this path than the other smaller paths, especially when it is known that the floor is slanting, so the visitors need more space to adjust their movements. The other clear behavioural pattern to approach the 'forest of concrete columns' is starting the journey inside the forest between the first two rows of

columns which is located in front of the large window. Eight visitors (26.66%) started the journey inside the ‘forest of concrete columns’ from this path; three of them are from the group who went straight to explore the forest, and five from the other group who turned left towards the text board (see Figure 7-19). The other visitors (seven out thirty) did not create any clear movement pattern on their way towards the ‘forest of concrete columns’. Based on these two clear behavioural patterns to approach the ‘forest of concrete columns’, it can be claimed that the short wall which is located in front of the Garden’s main door intercepts the vast majority of the visitors entering the ‘forest of concrete columns’ from other paths rather than the two described paths. Therefore, it can be said that the physical fabric of the Garden of Exile has affected the visitor movements.

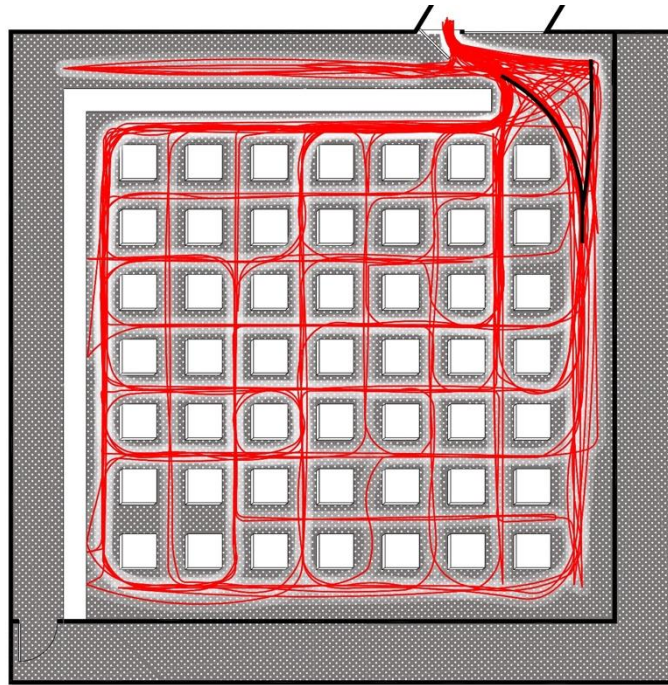


Figure 7-18 15 visitors out of 30 started their journey toward the ‘forest of concrete columns’ by walking on the path that is parallel to the wall that contains the text board and outside the ‘forest of concrete columns’. Source: the author.

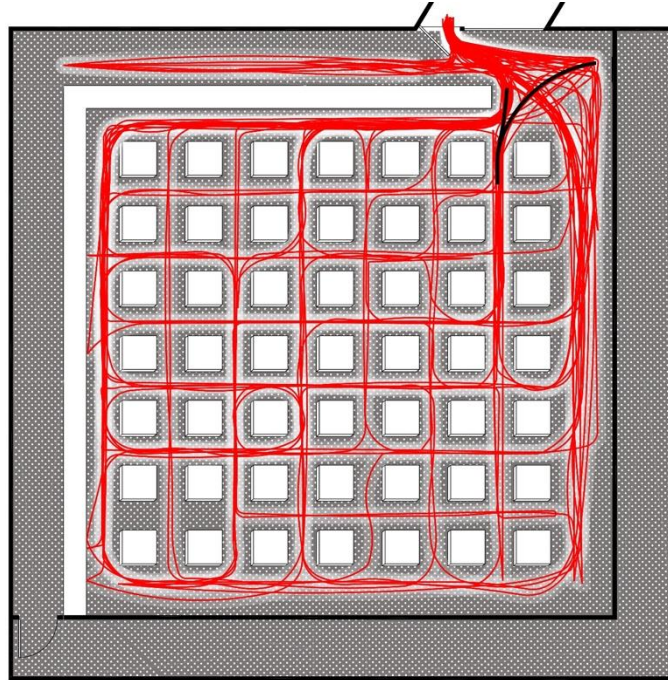


Figure 7-19 8 visitors out of 30 started the journey inside the forest between the first two rows of columns which is located in front of the large window. Source: the author.

The disappearance of structured movement patterns

In Figure 7-15, it is clear that there is no dynamic and organised behavioural pattern evolving as museumgoers walk around or inside the ‘forest of concrete columns’. Therefore, the movement of the visitor in the ‘forest of concrete columns’ can be described as exceedingly chaotic, because each visitor took a specific path to explore the ‘forest of concrete columns’ as a result of the numerous paths that the visitor can take to explore the massive structure of concrete columns. However, the behaviour patterns of exploring the ‘forest of concrete columns’ can be classified into five groups, as shown in Figure 7-20 :

- (1) a group decided to just walk around some the forest’s edges, and they did not enter the massive concrete structure (three out of thirty – 10%);
- (2) a group entered and exited the forest from just one side of the forest’s edges (one out of thirty – 3.33%);
- (3) a group entered and exited the forest from two perpendicular sides of the forest’s edges (eight out of thirty – 26.67%);
- (4) a group entered and exited the forest from two parallel sides of the forest’s edges (four out of thirty – 13.33%);
- (5) a group entered and exited the forest from more than two sides of the forest’s edges (thirteen out of thirty – 43.33%).

In terms of group one, it seems that the curiosity of understanding what they can do inside the ‘forest of concrete columns’ is the main motivator that led them to walk around the space, however, they did not take the chance to pass through the columns to feel what the architect wanted the visitor to feel, namely slightly nauseous, as has been mentioned on the text board, and which is a key part of experiencing the space. Regarding groups two and three, although the visitors in these two groups passed through the concrete columns which in turn might help to obtain the feeling the architect wants the visitors to feel, exploring the forest through entering and exiting it from just one side or two perpendicular sides of the forest’s edges cannot help the visitors understand the whole physical boundaries of the Garden of Exile. In contrast, the visitors in groups four and five through their movement could understand the whole physical boundaries of the Garden of Exile.

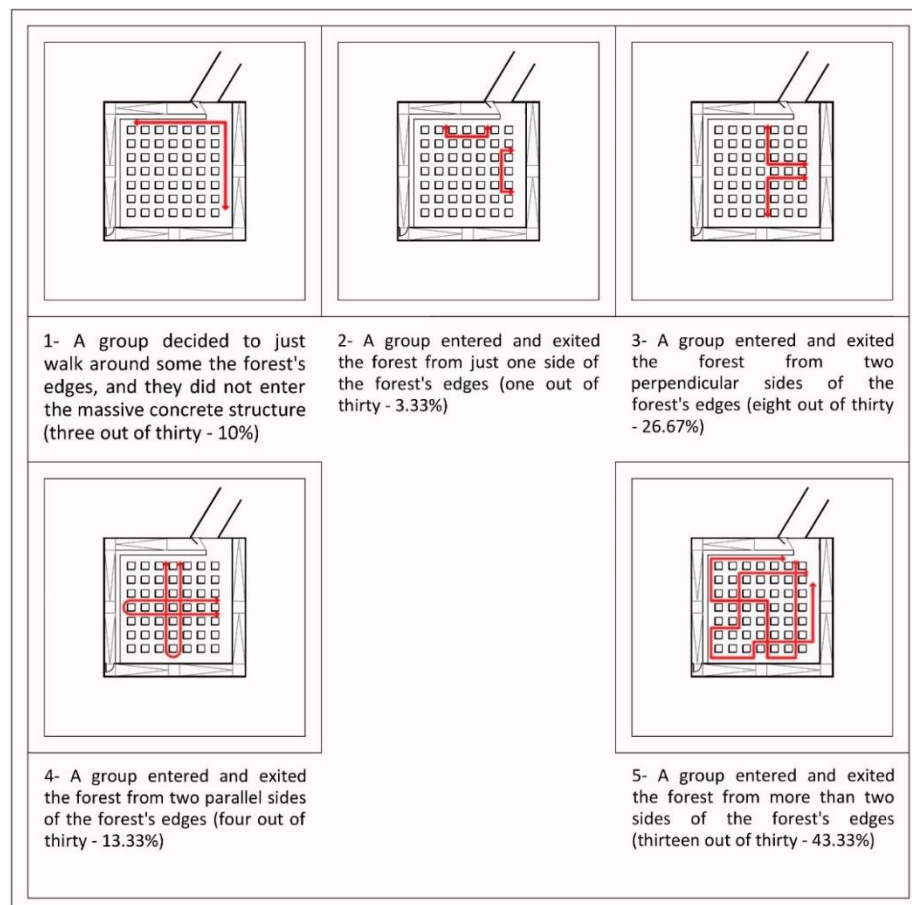


Figure 7-20 The five classifications of the behaviour patterns of exploring the ‘forest of concrete columns’. Source: the author.

The five different behavioural patterns indicate that the affordance of the garden's spatial layout, specifically the spatial layout of the 'forest of concrete columns', strongly affects the movement patterns of the visitors inside and around the 'forest of concrete columns'. Although there are many studies showing that what is visible and accessible in the museum will most likely encourage the visitors to engage, the movement patterns of the visitors in the Garden of Exile show the opposite. The garden has been designed in such a way so as to be like a maze of a massive structure of concrete columns, which most likely makes the visitor have a strong desire to know what is inside the 'forest of concrete columns', and what this place leads to. Yet, there is no specific path the visitor can follow to engage and understand the space and at the same time its massive concrete structure prevents the visitors from visualising the whole space; the vast majority of the visitors explore the garden in a way to have an intuitive sense of understanding of the main ideas of the space. In Figure 7-21, it is obvious that the visitor has passed by all the paths inside the 'forest of concrete columns' except for two paths, as has been shown in the same figure.

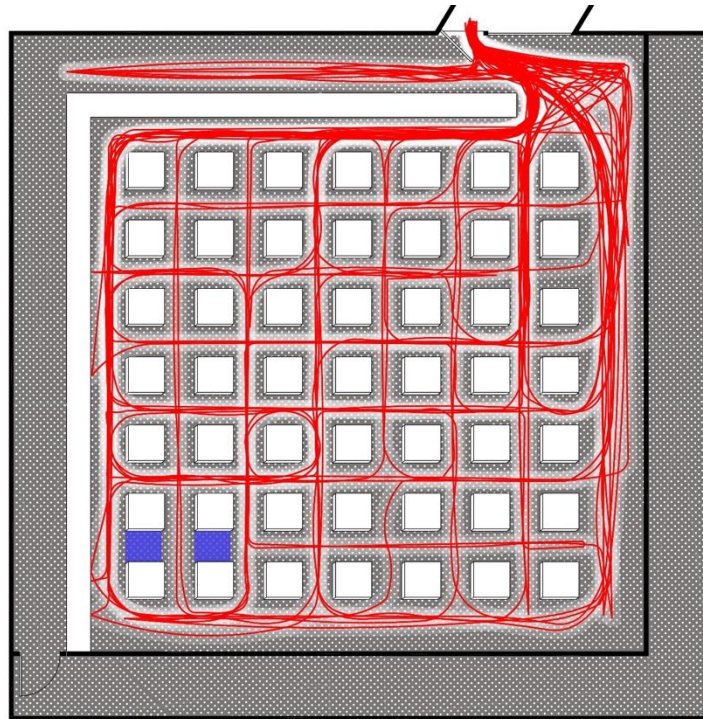


Figure 7-21 The visitors passed by all the paths inside the 'forest of concrete columns' except for the two highlighted paths. Source: the author.

The speech acts in the Garden of Exile

There are three spatial gestures that seem to attract the visitors' attention while they are walking inside the 'forest of concrete columns': (1) the nature of the relationship between the columns and the floor and how these columns stand vertical on an inclined floor; (2) the trees on top of the columns; (3) the shadows of the trees and columns which are cast on the inclined floor. In the Garden of Exile, the nature of the spatial relationship between the three components (slanting floor, columns and the trees on top of columns) plays a key role in creating the first part of the speech act occurring between the space and the visitors. These communicative gestures will (first) attract the visitors' attention so they will move towards them, and (second) they will move there in slightly different directions (vertically and horizontally) in order to understand the whole picture. The second part of the speech act that occurs between the visitor and the space is the attitude of the visitor's body inside the garden. As has been stated before, the floor's closest corner to the door was tilted, which led to the creation of a double thirteen-degree slope. This double degree slope on the garden's floor makes the visitors' movement inside the garden difficult and somehow dizzy. One of the respondents explained the effect of the slanting floor on his experience walking between the columns in the Garden of Exile. He stated:

The garden is the psychological feeling so that you really -- what architects can create that feeling and you really get a little bit dizzy walking around. Maybe at first it's just a little bit astonishing and it's interesting but then you really start thinking about -- When you hang around may be a little bit this feeling and if something doesn't really work well so you get this kind of feeling as well and you feel down. You can feel connected maybe. PM-03 semi-structured-interview, 2017

Another respondent stated the difficulty of walking on the 'forest of concrete columns'. She said:

And it was really difficult to walk because of the landscape. Clearly, I can say that the architect wanted to give that impression. PF-23 semi-structured-interview, 2017

With reference to Merleau-Ponty, these two quotations stress the essential nature of the act of movement as an instrument to reach the substance of the architecture as a large object.

Revolving around the idea of hide and escape

The dimensions of the footprint of these columns in the ‘forest of concrete columns’ are 1.5×1.3 metres squared, and their longest sides are orthogonal with the wall that contains the garden’s main door. Although people who are on the street level will expect that they are crooked and their heights are dissimilar because their end levels are varied, all the columns are not twisted out and all of them are seven metres tall; and the reason for this is that they all stand orthogonal on the double ten degrees slanted ground. The columns are at one metre distance from each other, which, in turn, allows just one person to pass between them. Coupled with this feature, the dimensions of the columns are wider than the human body making it possible for the visitor to hide themselves from others and become invisible. Based on the notion of affordance in Gibson’s philosophy, it can be said that the spatial layout of the columns have triggered the visitor to hide themselves from their companions. These behavioural responses to the physical quality of the Garden of Exile shows that the garden becomes a performative space for the visitor by inviting them to perform informal acts that revolve around the idea of hide and escape, which somehow evoked the story of Jews who fled from Nazis. One of the respondents explained how the properties of the pillars in the Garden of Exile make it a playful area.

[T]he Garden of Exile could be seen as quite a dynamic structure, right? It's a series of vertical elements and it could be playful. PF-23 semi-structured-interview, 2017

However, the same respondent did not like the behaviour of some of the young visitors who were playing in the Garden of Exile. He stated that despite the dynamism of the architectural features in the garden, the visitors should respect the story behind it and they should be quiet. He said:

The other thing I didn't like especially about this place [she means the Garden of Exile] was the-- Well I'm not saying people should behave in a specific way when they go to these places but there were a couple of young people just playing around-- Yes, just really playful and naughty around and that kind of bothered me because I said, "This is-- I'm trying to get connected with the place," and suddenly there is just this noise and kids playing around, but that was just my perception I don't want to be mean. And the last one was-- I don't know exactly where it is-- Here. Is this place. PF-23 semi-structured-interview, 2017

This respondent was annoyed about the behaviour of some of the visitors who were playing in the Garden of Exile; she also assumed that they might get the wrong message about how to deal with such a space. However, Both Birkert’s (Head of Visitor Research and

Evaluation) and Rinke's (Head of Visitor Service) agreed that there was nothing to prevent visitors from enjoying their time in the museum and doing what they wanted. Birkert said:

It's a place where people should meet, talk, we don't-- what we also kind of like find always difficult also in the- in the beginning um, that people don't make uh, cathedral of that museum or of the building that we have to be quiet and silent and so we always wanted from the very beginning to kind of like, we work- we worked against that because we don't to have people say, "Oh you-you have to be quiet or you will have to be respectful," in a sense of you don't have to don't, can or you can't laugh in a Jewish museum or you don't-- can't have fun in a Jewish museum. We always say, "We-- you can have fun and you should have fun in the museum."

7.3.2 Disrupting the Performing

The JMB is full of repeated moments that somehow interrupt the visitor movement and/ or their perception of the space. It seems that these repeated and disruptive moments that spread in many parts inside the museum are accrued as a result of applying the idea of interruption (making the familiar strange). This idea of making the familiar strange is one of the primary principles in epic theatre, and it seems that has been applied in some parts of the museum for two main reasons. The first reason is to create both a moment and a space for reflection for the visitor. In other words, it is to shift the experience from the unconscious to the conscious which, in turn, is more likely to make them aware of themselves and their experience. Secondly, it is claimed that these repeated and disruptive moments evoke in general many historical tragedies that interrupted the Jewish presence of many countries and cities around the world and specifically the effect of the Holocaust as a very sad event interrupting the Jewish presence in Berlin.

In two various architectural moments through the visitor's journey inside the museum, the visitor movement is somehow interrupted by using two different techniques in each moment. In the first moment, the visitor's movement will be interrupted through intended architectural failure in the act of opening the door of the Garden of Exile and the Holocaust Tower. The second disruption will be a result of the appearance of linear light coming from intersecting corridors.

7.3.2.1 Doors as Disruptive Instruments

Ten images have been extracted from a video that was recorded in the Garden of Exile to show how the door of the Garden of Exile can interrupt the visitors' movements (see Figure 7-24). This excerpt involves a young couple, referred to as D1 for the female and D2 for

the male. The detailed examination of this excerpt is based on both the notion of body schema in Merleau-Ponty's philosophy and the notion of affordance in Gibson's philosophy as an approach to describe the architectural experience that is built in the interaction between the concepts of embodiment (body) and affordance (architecture) (see Figure 7-22). Using these two concepts can help spatial designers in general and architects specifically to avoid any architectural failures in their design, because these concepts can play an important role in anticipating the behaviour of the users and how they might adapt to its physical fabric and interpret its signs. However, and more importantly in this case, it is claimed that Libeskind in his design of the main door of the Garden of Exile intended to create an architectural failure in the way of opening the door for those who are leaving the garden. The main aim of disrupting this engagement with the door is to make the visitors consciously experience the space through their body schema, which in such a situation will switch the conscious attention. One example of when we have to switch attention is when driving a car on a narrow one-way street with parked cars on both sides. Architecturally, Carlo Scarpa, an Italian architect, has successfully created many buildings with elements that will make the users activate their attentional switch, for example the stairs in both Brion Cemetery (San Vito d'Altivole, Italy) and Castelvecchio Museum (Verona, Italy) (see Figure 7-23). The users of these two sets of stairs will need to decide to use either their right or left foot on each step. In terms of using the door of the Garden of Exile to leave the garden, the activation of the attentional switch, as a result of not being able to open it smoothly, might create both a moment and a space for reflection to think about their situation and its relationship to the evoked story.

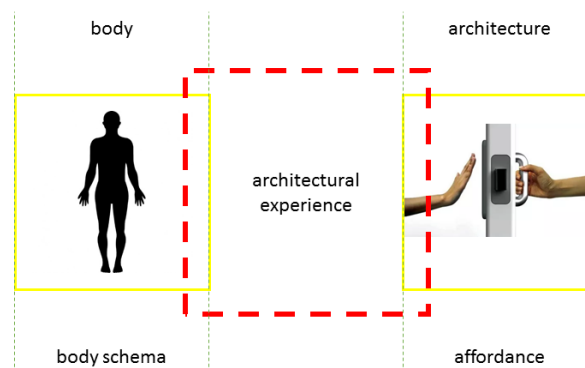


Figure 7-22 The architectural experience that is built in the interaction between the concepts of embodiment (body) and affordance (architecture). Source: the author.



Figure 7-23 Stairs in both Brion Cemetery, San Vito d'Altivole, Italy, (left) and Castelvecchio Museum, Verona, Italy, (right). Source <https://www.archdaily.com>.

Before analysing the excerpt, the Garden of Exile's main door will be described. It is important to mention that some of the door's features have been explained before, but have not been discussed in depth. Therefore, the characteristics that make the door disrupt the visitors' movements will be explained. The door is located at the end of the Axis of Exile on the right hand side. This door opens only in one direction, outwards towards the garden; in other words, it opens inwards for the people who are entering the garden and opens outwards for those who are leaving the garden. Thus, those visitors who want to enter the garden need to push the door while the people who want to leave the garden need to pull the door. The door, unlike most other doors, does not have a rectangular shape; instead, it has a trapezoid shape, which places it in harmony with most of the shapes of other architectural elements in the building such as the windows. It is a single door made of galvanized steel. It is very large in size when compared with normal doors that are used for seminar rooms and other rooms. The door does not have on either side any handles that the visitor can use to open the door and particularly for those leaving the garden they really need advice to pull the door. In addition, the door is flat on both sides and it has a rectangular hole starting nearly from its middle to nearly its end, which is parallel to the door's left edge. The door consists of three layers of galvanized steel (one is in the centre and the other two are at its side), and the rectangular holes are only cut into the galvanized steel layers at the door's sides but not into the central layer. These rectangular holes can be described as flush pull handles; however, these flush pull handles are strange in shape and

not like typical ones. For the visitor who wants to pull the garden's door to leave the space, they must put their hand inside the rectangular hole in order to pull the door, otherwise it is almost impossible to open the door. Based on the notion of affordance in Gibson's theory, it can be stated that the properties of the door, especially because the door is flat and its rectangular hole does not send a clear message that it can be used as a handle device, most likely will lead the visitor to push the door instead of pull it, and this is considered to be an intentional architectural failure to disrupt the visitors' movements in their journey inside the museum.

The observation of the couple started when they were on their way to leave the Garden of Exile. D1 (who put the headphones around her neck) was leading D2 (who wore headphones), as shown in image A in Figure 7-24. Before D1 approached the main door, she started moving her right hand toward the door without looking for the door's properties and without also thinking about the appropriate way to deal with it; all of this happened unconsciously, because she knew there was a door and she needed to move her hand to perform the action of opening it (Image B in Figure 7-24). This behaviour is part of the notion of body schema and how the people respond to different situations, which can be found in Merleau-Ponty's philosophy. As the door does not have a handle and at the same time its rectangular hole does not send a clear message to the visitors that it can be used as a device to pull the door, D1 decided to push the door instead of pulling it, though she did also look at the door before pushing it (see image C in Figure 7-24). This means that D1 glimpsed the door before making a decision to push it, believing that the door opened this way based on the properties of the door which is a flat door with a rectangular hole that does not send any signal that it can be used to pull the door. After she pushed the door, she realised that door did not move inwards. D1 then stopped for a moment to think about her situation and the reasons for not being able to open the door, and meanwhile she was touching the door without applying any force either inwards or outwards (see image D in Figure 7-24). D1 noticed that the door moved outwards here as a result of her forces of pushing the door, and finally she realised the door moved in one direction which was outwards, away from her. Then, and based on her scanning of the door, D1 discovered that she could put her hand inside the rectangular hole to pull the door (see Image E in Figure 7-24).

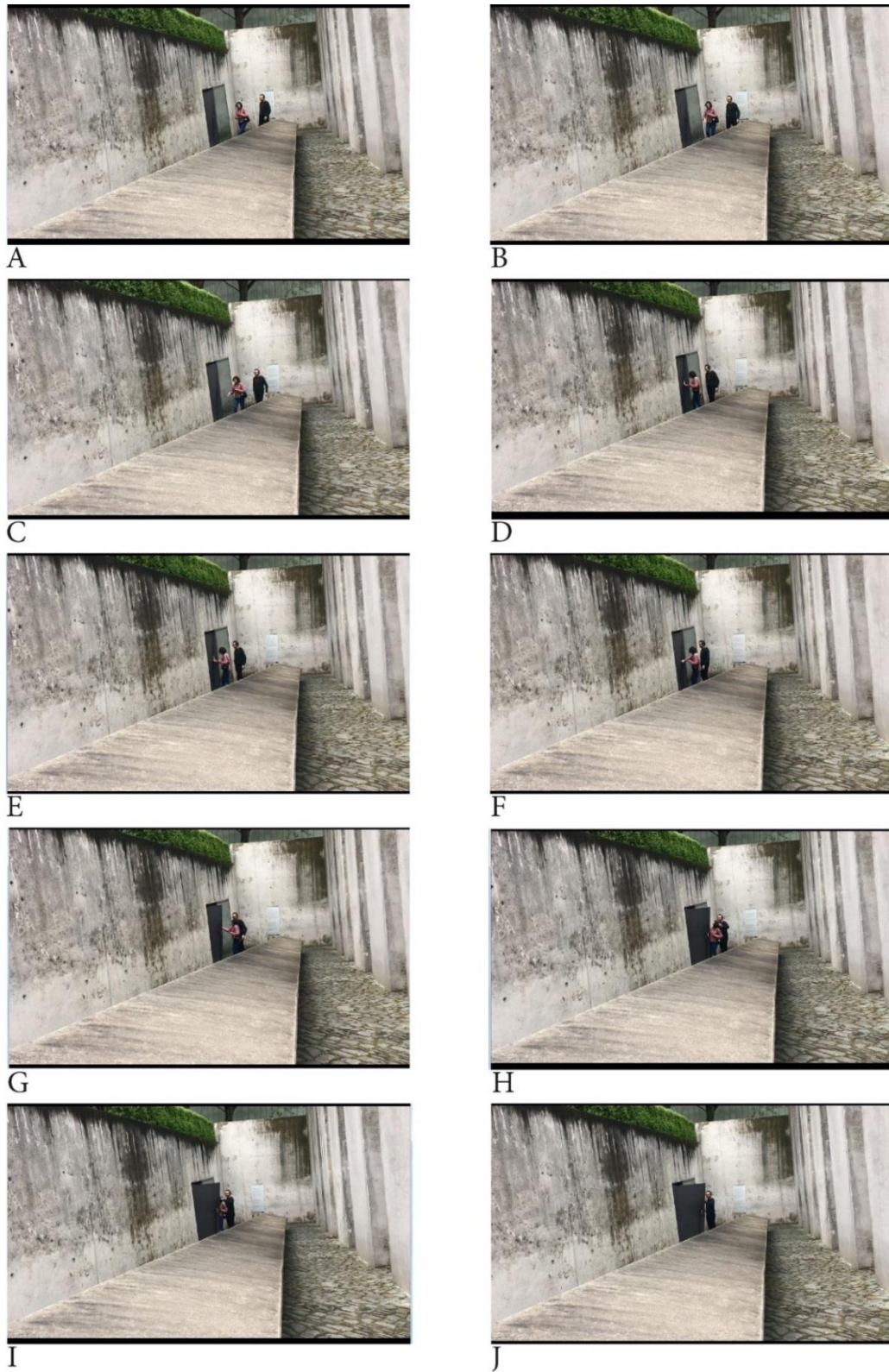


Figure 7-24 Ten images extracted from a video that was recorded in the Garden of Exile to show how the door of the garden can interrupt the visitors' movements. Source: the author.

As everything for D1 did not go as it would normally when opening such a door, as a fast way to solve the issue, she moved her right hand to grab the kind of hidden flush pull handle to open the door (see image F in Figure 7-24). It is clear that using the right hand to pull is more difficult than using the left hand because it requires extra effort. As shown in image G in Figure 7-24, D1 did not grab the flush pull handle in the appropriate way, which, in turn, led her to pull the door halfway and then she moved her hand to pull the door inwards from the other side of the door (interior side). What happened is a clear indicator that the door is designed in such a way that is contrary to user expectations in the way a door is opened.

After D1 succeeded in opening the door, she turned her face towards D2 and started laughing and then talking to him (see image H in Figure 7-24); it can be guessed that she talked briefly about how tricky it was to open the door. The last two images show that the size of the door makes it difficult to be open, and this led D2 to help D1 in opening it (see Images I and J in Figure 7-24).

Other evidence to support the argument that the design of the door has almost failed in instructing the visitors how to open it is two pictures of the door (indoor and outdoor) showing that some parts of it have been corroded as a result of the users. This corrosion is an indicator of how the visitors use the door and throughout the building such elements of wear and tear and corrosion are indicators of how the users are using it. The dark part of the door (on the middle right and almost taking the shape of a triangle) is an indicator that many visitors pushed the flat part of the door as shown in Figure 7-25. In addition, when we compare the picture of the indoor side with the outdoor side (see Figure 7-26), it can be seen that the flat part that is around the top left hand corner of the flush pull handle of the indoor side has been slightly corroded, whereas the flat part that is around the top right hand corner of the flush pull handle of the outdoor side has been significantly corroded. This is evidence that the Garden of Exile's main door gives a clear message for the visitors who enter the garden to push the door, but on the other side, the door fails to communicate the way of opening.



Figure 7-25 The outdoor side of the Garden of Exile's main door. Source: the author.



Figure 7-26 The indoor side of the Garden of Exile's main door. Source: the author.

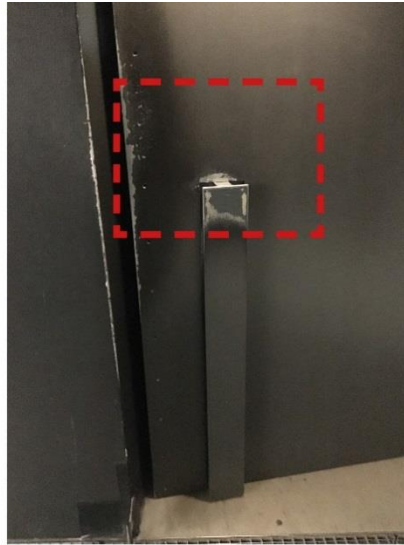
Like the main door of the Garden of Exile, the design of the main door of the Holocaust Tower plays a key role in disrupting the movement of many of the visitors. These two doors have almost the same characteristics, particularly in terms of their shape and material make-up; however, they are different in two aspects regarding the way of opening them and the direction of the opening for each one.

The door of the Holocaust Tower does not have a flush pull handle like the door of the garden, instead it has a unique handle. The shape of this handle is unlike normal handles that are used in many buildings; rather, it can be said that the door is custom-built in order to make it strange in terms of the way of using it. This handle can be described as a T-

shape upright pillar welded to the door, starting from the middle of the door and ending at its bottom edge (see Figure 7-27).

As far as the door's opening direction is concerned, the door of the Holocaust Tower is similar to the door of the garden in terms of being opened in one direction, and yet, they are different in terms of the direction. The door of the Holocaust Tower opens outwards from the tower, whereas the door of the garden opens inwards to the garden. In other words, the door of the Holocaust Tower opens outwards for the people who are entering the tower and opens inwards for those who are leaving the tower; therefore, the visitors who want to enter the tower need to pull the door while the people who want to leave the tower need to push the door. Based on the notion of affordance, it can be stated that the door's handle for those who enter the tower has a function and they need it to open the door, whilst for those who are leaving the tower the handle provides clues to them that the door should be pulled; however, they cannot pull the handle to open the door because the door opens inwards. Therefore, it can be said that the handle is used to interrupt the visitors' movements.

Tracing the effect of using the door by the visitors supports the idea that the door of the Holocaust Tower has been designed in such a way so as to interrupt the visitor, like the door of the garden. When the effect of the visitors on the door from both sides (inward and outward) is analysed through a comparison of the effects of the visitor on the door for both sides, it would seem that the vast majority of the visitors entering the tower have to pull the door because the corrosion is just on the handle (see Figure 7-27). However, on the inward side of the door, it can be seen that there are signs of corrosion on both the handle and the flat part of the door. Although both sides have the same design, the signs of corrosion are different; this can be seen as a clear indicator that many visitors who left the tower have tried to first pull the handle but they could not open it, so their movements have been interrupted. Based on the researcher's observations, there were many visitors who tried to pull the door more than once, believing that there was something making the door stick and preventing it from opening inwards, because they unconsciously believed that the door would open inwards because of the door's handle. However, after many attempts, they discovered that the door would not open inwards and only in the other direction.



This image shows the effect of using the outward side of the Holocaust Tower's door by the visitors



This image shows the effect of using the inward side of the Holocaust Tower's door by the visitors

Figure 7-27 The effects of using both the outward and inward sides of the Holocaust Tower's door by the visitors. Source: the author.

7.3.2.2 The Linear Lighting as a Diversionary Instrument

As has been stated before, the ceilings on the three axes have a block colour, and they have to be cut by a thick diagonal line that starts from nearly one-third of the width at the beginning to the opposite one-third at the end of each axes. This cut shows other high levels in the ceiling which have a white colour and through these cuts indirect light comes into the space; therefore, in each corridor, there is an indirect linear light that starts from the beginning to the end of each path (see Figure 7-28). These linear lights somehow seem to direct the movement of the visitor towards the end of each corridor. One of the respondents explained that the light in the three corridors plays a key role in directing the visitor's movement in the museum. He said:

[The] building has a certain kind of sequence. Although...it is not strictly, you follow the same. But it wants you to go into a certain kind of sequence... the architect has tried not forcefully but subconsciously. You have certain kind of axes, which also runs on the ceiling. You have the lights. Maybe you have the floating pattern, which has some parts or something. PM-11 semi-structured-interview, 2017

However, when visitors reach any of the three intersection points between the three corridors in the basement level, the linear light of the other corridor (intersection corridor) extends across in a clearer way the linear light of the main corridor where the visitors are walking. This, in turn, will lead to making the intersecting linear light cut the continuity of the linear light of the main corridor. One respondent explained that although the light played a role in showing the direction, its angles diverted her attention. She stated:

The first one that really captured my attention was the lighting, the interior light especially at the beginning when you start walking and you got-- It seems like a really legible path, corridor that takes you around. But actually, the lighting schemes and they're really sharp angles in the walls and it totally diverts your attention. PF-23 semi-structured-interview, 2017

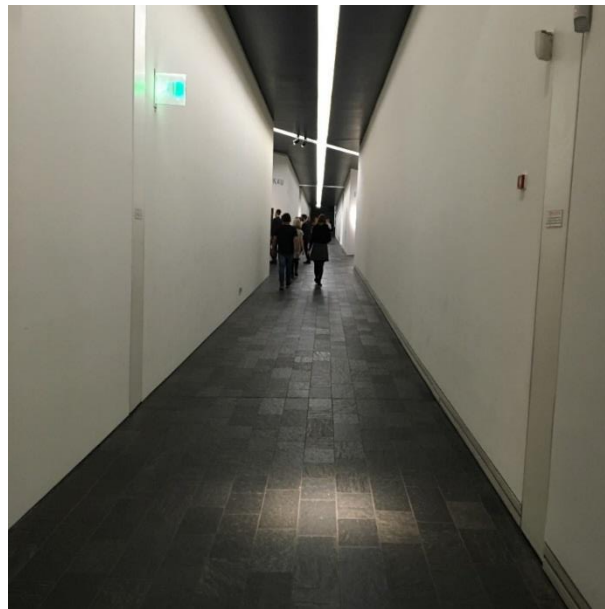


Figure 7-28 The Axis of Continuity and its black and white ceiling; also, it shows the indirect light that comes from the top level and the interaction with other lights of the two axes. Source: the author.

The light of each axis of the three axes spreading throughout the whole basement level seems to distract the visitors as a result of the appearances of huge parts of the light from the other two axes. These huge parts of light that appear in each intersection can compete with the main light in the axis by attracting the visitors' attention because of two aspects,

namely their oblique shapes which cross the extension of the main light, and the light of the other two axes appearing gradually as the visitor moves toward the intersections.

In terms of the design, there are three features that play a pivotal role in making the light of the other two axes appear significantly to compete with the light in the main axes: (1) the angle of the intersections between the two corridors; (2) the way in which the light is laid out in the ceilings; and (3) the width of both intersection corridors. To explain the effects of these two spatial features, a geometrical demonstration comparison will be made between the two corridors intersecting with each other at five different angles (90, 60, 45, 30, 15 degrees), in four different adjustments, aiming to show how these four factors (the angles of the intersection and the layout of the light and changing the width in either corridor) can increase and decrease the light appearance of the other path in the intersection (see Figure 7-29). It is important to state that this geometrical demonstration comparison is inspired from phenomenology which focuses on studying how phenomena appear.

The geometrical demonstration comparison consists of four steps. The first step is aimed at showing how the angle of intersection of any two corridors can increase the possibility of seeing the linear light of the other corridor for a person who stands in a fixed position in one of the two corridors. The second step is aimed at showing how changing the layout of linear light from straight lines in the middle (like the shape of the light in the first part) to a diagonal path increases the possibility of seeing the light of the other path, specifically when the outcomes of the second group are compared with the outcomes of the second group. It is important to note that the width of both intersection corridors in part one and two are equal. Then, in step three and four, the effect of increasing the width of the intersection corridor in part three will be examined and its outcomes will be compared with the outcome of increasing the width of the main corridor in part four.

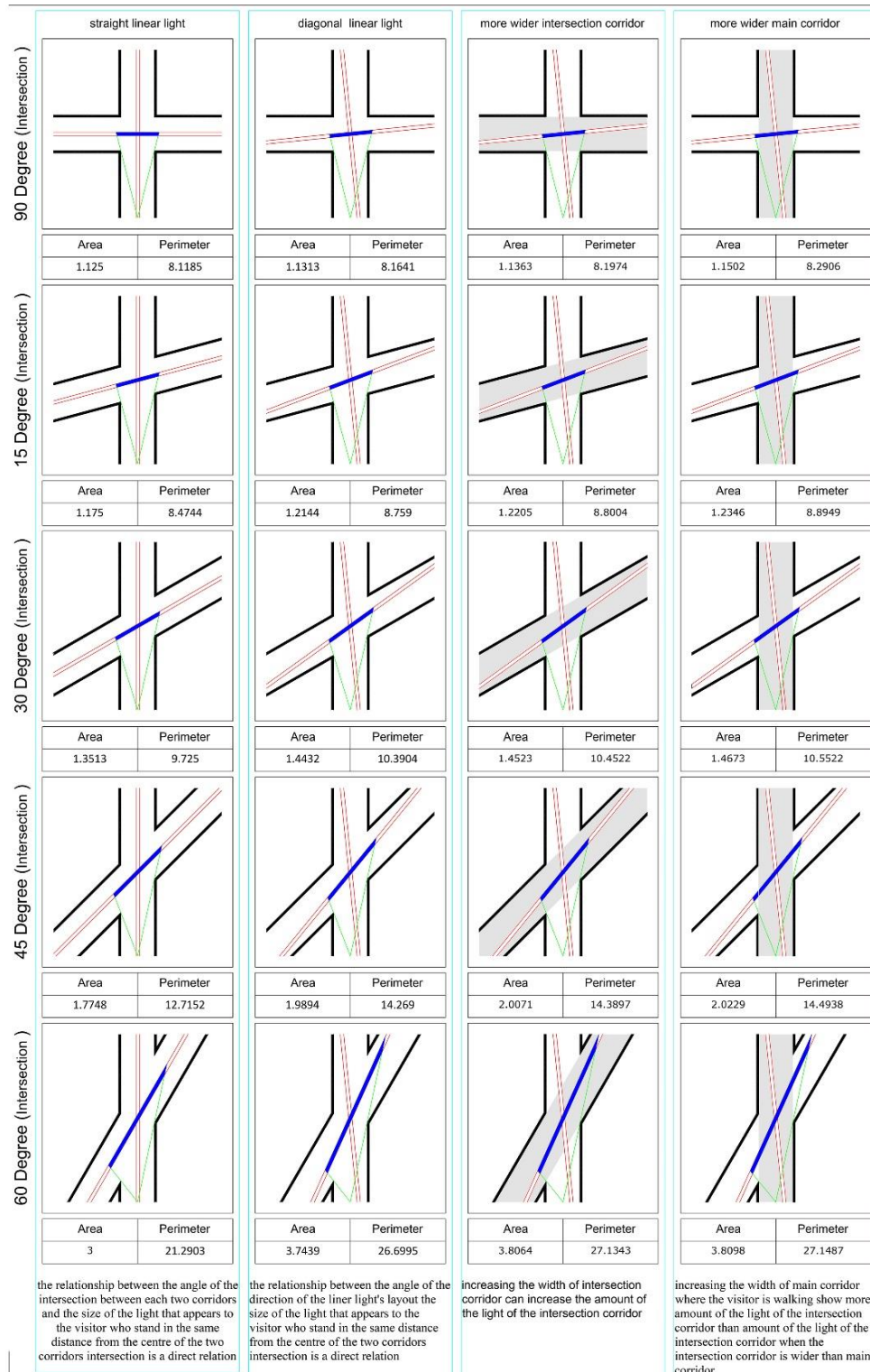


Figure 7-29 A geometrical demonstration comparison between the two corridors intersecting with each other at five different angles (90, 60, 45, 30, 15 degrees), in four different adjustments, aiming to show how these four factors (the angles of the intersection and the layout of the light and changing the width in either corridor) can increase and decrease the light appearance of the other path in the intersection.

Source: the author.

Figure 7-29 shows the geometrical demonstration comparison of the four groups, each group in a separate column containing five ceiling plans with each one of them showing the intersection of two corridors at one of five different angles (90° , 15° , 30° , 45° , 60°). In group one and two from the left, the width of intersection corridors in the five ceiling plans is three metres, whereas the width of intersection corridors in group three and four is different, and one of the two intersection corridors is just five centimetres wider than the other. In group three from the left the cross intersection is five centimetres wider, and in the last group the main corridor is five centimetres wider. It is important to note that the width of either intersection corridor in part three and four has been increased just five centimetres in order to first measure the effect of increasing either intersection corridor and second, increase the value to more than five centimetres needed for more space in the diagram, so this number has been adhered to. The last point that needs to be mentioned in the geometrical demonstration comparison is that all the corridors have a 30-centimetres-width linear light extending all over both corridors from their beginning to their end in a straight direction. In the first part the light is in the middle, whereas the direction of the light's layout in part two, three and four is diagonal, extending all over both corridors from their beginning to their end in a straight direction.

In group one, when the two corridors are perpendicular to each other, the size of the lit area that appears to visitors standing 7.5 metres away from the intersection's centre is 1.125 square metres, and the perimeter of this area is 8.1285 metres (Figure 7-29). When the first main parameter (which is the angle of the intersection) is changed to four different angles by fixing the other parameters (the distance between the visitor and the intersection's centre and the layout of the light), and second, the two values of each diagram are compared with the others, it can be stated that the greater the angle of the intersection between the two corridors, the more parts of the light the visitor can see. Therefore, the relationship between the angle of the intersection between each of the two corridors and the size of the light that appears to the visitor who stands at the same distance from the centre of the two corridors' intersection is a direct relation. This means that when the angle of the intersection of the two corridors is increased, the amount from the other corridor increases, and vice versa.

The amount of light that can be seen from the corridor when a person stands in one of the corridors, 7.5 metres away from the intersection's centre, includes all five different intersection angles in group two compared to their comparable amounts in the first part. It can be stated that, the greater the angle of the linear light's layout, the more parts of light the visitor can see. Therefore, the relationship between the angle of the direction of the linear light's layout and the amount of light that appears to the visitor who stands at the same distance from the centre of the two corridors intersection is a direct relation. This means that when the angle of the direction of the linear light's layout is increased, the amount of the light area of the other corridor becomes larger, and vice versa.

In the third and fourth parts, when the effect of increasing the width of the intersection corridor (part three) and the effect of increasing the width of the main corridor (part four) have been measured, then the comparable elements of both parts can be compared. From this comparison, it can be stated that increasing the width of the main corridor where the visitor is walking shows larger amounts of light of the intersection corridor than the amounts of light of the intersection corridor when the intersection corridor is wider than the main corridor.

When the main findings of geometrical demonstration comparison are used as a tool to measure which intersection of the three in the basement level might divert the visitors more significantly, it can be stated that the intersection between the Axis of Contently and the Axis of Exile is the most diversionary one (Figure 7-30). Although the width of both corridors in this intersection is smaller than the width of both corridors in the intersection between the Axis of the Holocaust and the Axis of Exile, the intersection between the Axis of Contently and the Axis of Exile is more angled than the other intersection, and this is the main detail that makes it the more diversionary one. The intersection between the Axis of the Holocaust and the Axis of Contently is the smallest one of the three intersections in terms of diverting the visitors' attention, and although the width of this corridor is more than the other one, the Axis of the Holocaust is about nine degrees angled over the Axis of Contently.

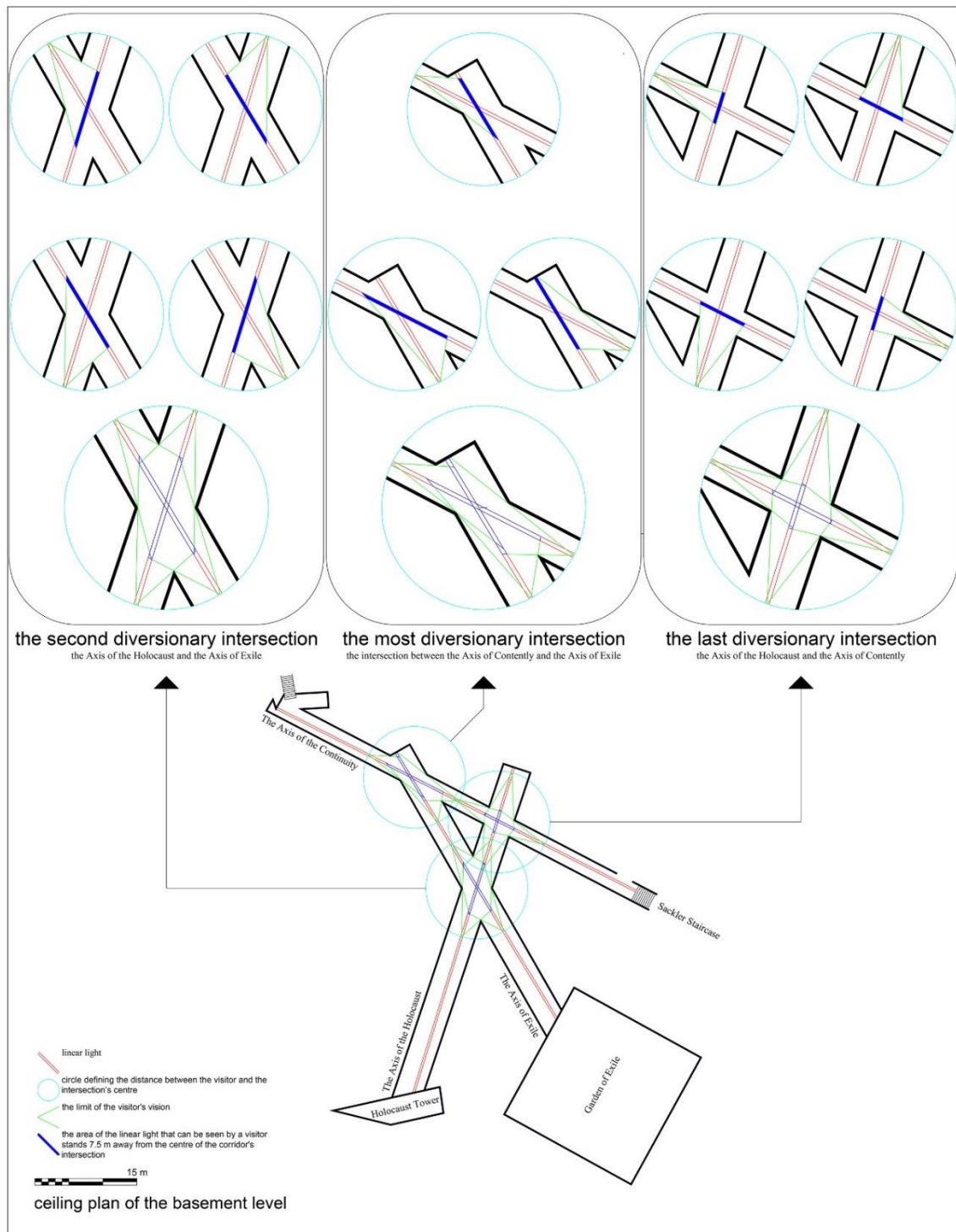


Figure 7-30 The ceiling plan of the basement level showing the measurement of the light appearance of the other path in each intersection between the three axes and at the basement level. Source: the author.

7.3.3 Performing in the Labyrinth

A large number of the interviewees and the visitors who wrote a review about the museum in Google Review stated that the museum and its routes are confusing at both the basement level (containing the three axes) and the permanent exhibition (levels one and two of zigzag form). It seems that the visitors have frequently faced many confusing moments where they need to understand which path they should follow in order to complete their journey inside the museum. These repeated confusing moments play a key role in making their journey inside the museum like rambling through a labyrinth or maze, as has been confirmed by many of the respondents and the reviewers of the museum on Google Review. Below are two comments, the first one from one of the interviewees and the second one from one reviewer of the museum in Google Review, stating that the museum architecture is full of confusing moments.

It was a little confusing sometimes trying to figure out which way to go. PM-26 semi-structured-interview, 2017

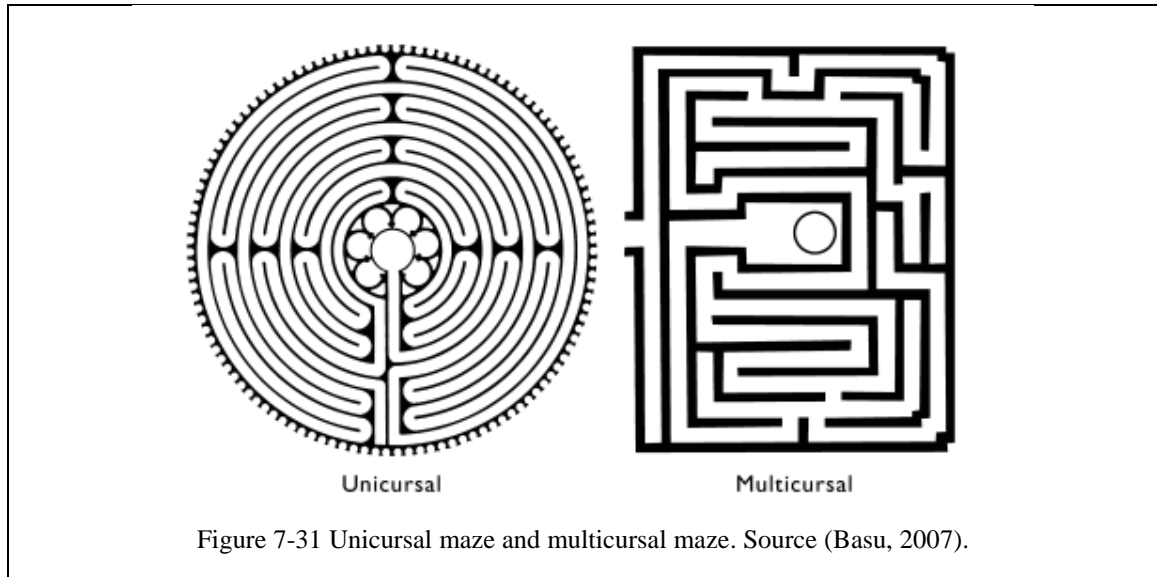
The architect wanted to make a complete maze of a building with bits going off in every direction to confuse visitors! GR-924 wanted to make a complete maze (5*)

The main question remains whether the architect of the museum wants the visitor to explore the space in this confusing way like a labyrinth, or not. Libeskind does not mention in his written texts and recorded lectures that he applied the idea of a labyrinth in order to confuse the visitor. However, he said that, “[w]hatever an architect says about his work may only seem to be a redundant commentary in what is obviously built” (cited in Jones, 2011, p. 37). It seems that interrupting the visitors’ movements through applying the idea of a labyrinth is one of the ideas that has been applied for different reasons, but the architect did not mention it directly because it cannot be easily explained. Libeskind explained before the museum was built that, the design of the museum had been described by many scholars as a zigzag; however, he stated that the form was not what the visitor experienced. Instead, the visitor, through their intellectual and physical response to the museum architecture, can understand the interruption of Jewish history in Berlin. It can be claimed that the building’s form (such as the zigzag) for the architect is an abstract way to tell the story, whereas exploring the museum through the performance is the concrete way to communicate its meanings. Libeskind said:

When this building seemed simply a theory, people described it as a zigzag or a blitz, surely an image only seen by an angle. Today, as you walk through the building, the walls, exhibition spaces, and the building organization generates an understanding of the scale of disrupted tradition - and the trace of the unborn. (Libeskind et al., 2001, p. 25-26)

As has been stated above, exploring both the basement level and permanent exhibition has been described as maze-like; however, the experience of the labyrinth in the permanent exhibition (starting at level two and ending at level one) is completely different from the labyrinth at the basement level in terms of the spatial factors that affect the visitors' performances in both places. The design factors that form the experience of dislocation in both the permanent exhibition and the basement level will be discussed separately.

The permanent exhibition contains the two main types of labyrinth, which all the visitors will face during their journey. One of them dominates the whole journey, whereas the other one will be faced by the visitors repeatedly during their journey. These two types of labyrinth are the *unicursal maze*, which dominates the whole experience, and the *multicursal maze*, which is spread throughout the exhibition in different locations (see Figure 7-31).



Before we define the location of each type of the two mazes in the permanent exhibition, the main differences and similarities between them will be described. The unicursal maze does not have any dead-end space, and the walker in such a maze will not face any point where they need to choose between more than one path. The primary feature of the

unicursal maze is a single path that may form into a curling, bent, or distorted path, and it leads to a specific end. On the contrary, the prominent attribute of the multicursal maze is that the walker in such a maze will face many positions where they need to choose a path from multiple paths; this type is also full of dead-end spaces. This feature usually puts the walker in a state of uncertainty as a result of suspension of their movement and the ambiguity of reaching the maze's end. As central aspects of both mazes, it can be seen that the concept of the path is the underlying basis of both types of maze because the journey from the beginning until the end goes through a path or paths. Reaching the least imagined end of both mazes is not an easy task because the movement in both mazes is full of twists, which may also contain some moments that confuse and delay movement; therefore, meandering in both mazes takes a lot of time and effort to access their postulated destinations.

In the permanent exhibition, the location of both labyrinths is associated with the main concept of the new extension building 'Between the Lines', because the concept is based on the interaction of two lines and each line of these two plays a key role in forming one type of the two labyrinths. Libeskind has named the museum 'Between the Lines' because the project for him is "about two lines of thinking, organization and relationship. One is a straight line, but broken into many fragments, the other is a tortuous line, but continuing indefinitely" (1991, p. 86). The first line is full of turns and twists constituting a zigzag shape, which form a single path that go from the beginning of the building to its end. This path makes the visitor walk in a wide path that looks like a unicursal maze (see Figure 7-32). However, an imaginary straight line has cut the whole zigzag shape to form a set of six voids that are surrounded by concrete walls penetrating the building vertically. The six voids have cut the continuity of movement in the zigzag path by forming what looks like a multicursal maze, because in each interaction point between the two lines the visitor will be in a position where they need to choose a path from two paths (see Figure 7-33).

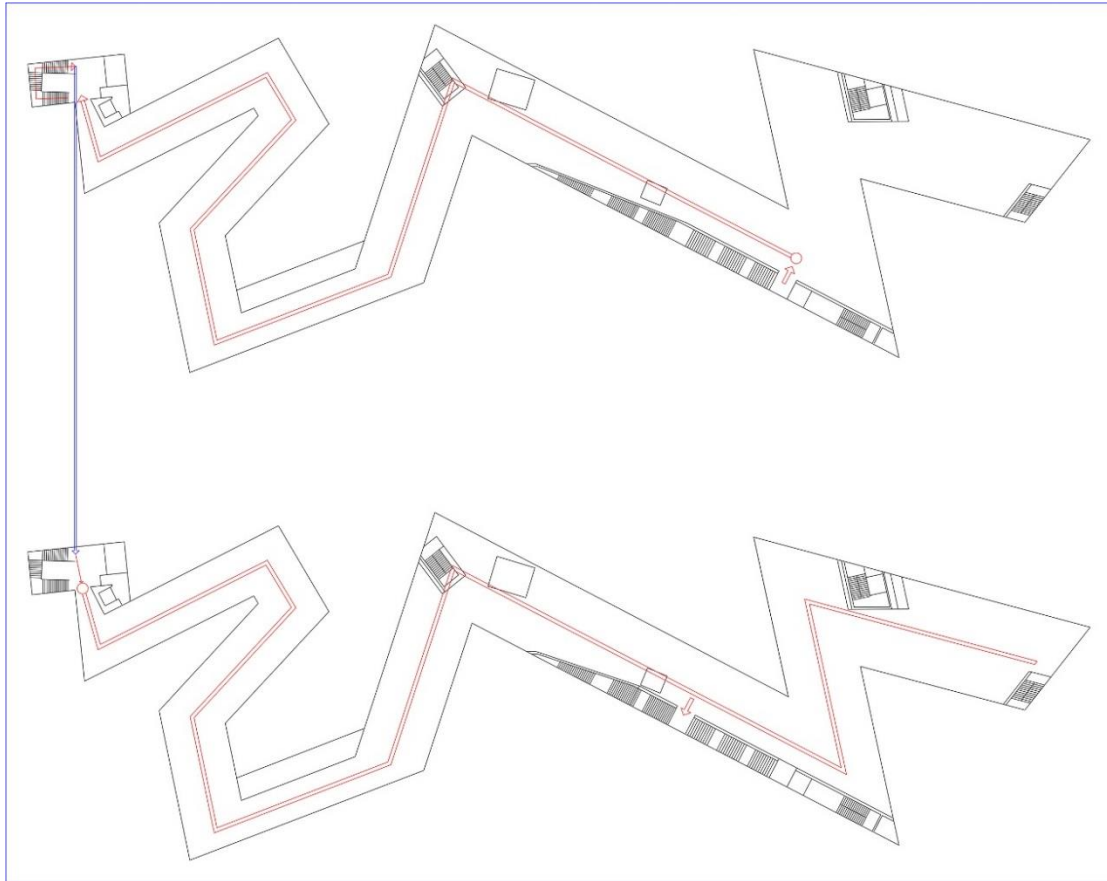


Figure 7-32 The permanent exhibition and the unicursal maze. Source: the author.

At each interaction point between the zigzag line and the straight imaginary line there is a void penetrating the entire building. These voids, in turn, have divided the zigzag building into many fragments; however, as a way to create a physical connection between these fragments, there are a number of concrete bridges that transfer from side to side. The ceiling height of these bridges is less than the height of the ceiling in the zigzag path. These differences in the ceiling height between the zigzag path and the bridges that travel over the voids can manipulate the feelings of the visitors, since the higher ceiling can make the visitor feel comfortable whereas the low ceiling height in the bridges can make the visitor feel claustrophobic. The voids are black and their roofs contain a series of skylights to light up the voids, whereas the zigzag form has a white wall from inside and the natural light illuminates the space through oblique slashes of windows. Libeskind has described the areas that are located at the interaction point between the two lines:

The central structure in the building is the void, a disconnected straight line, cutting through the building. This void – different acoustically, materially, architecturally from the white walls of the exhibition spaces and illuminated by skylights – refers to that which can never be exhibited in this museum, no matter how many objects are brought to it and stories told in it. The bridges provide the physical connection from one side of the museum galleries to the other'. (Libeskind et al., 2001, p. 27)

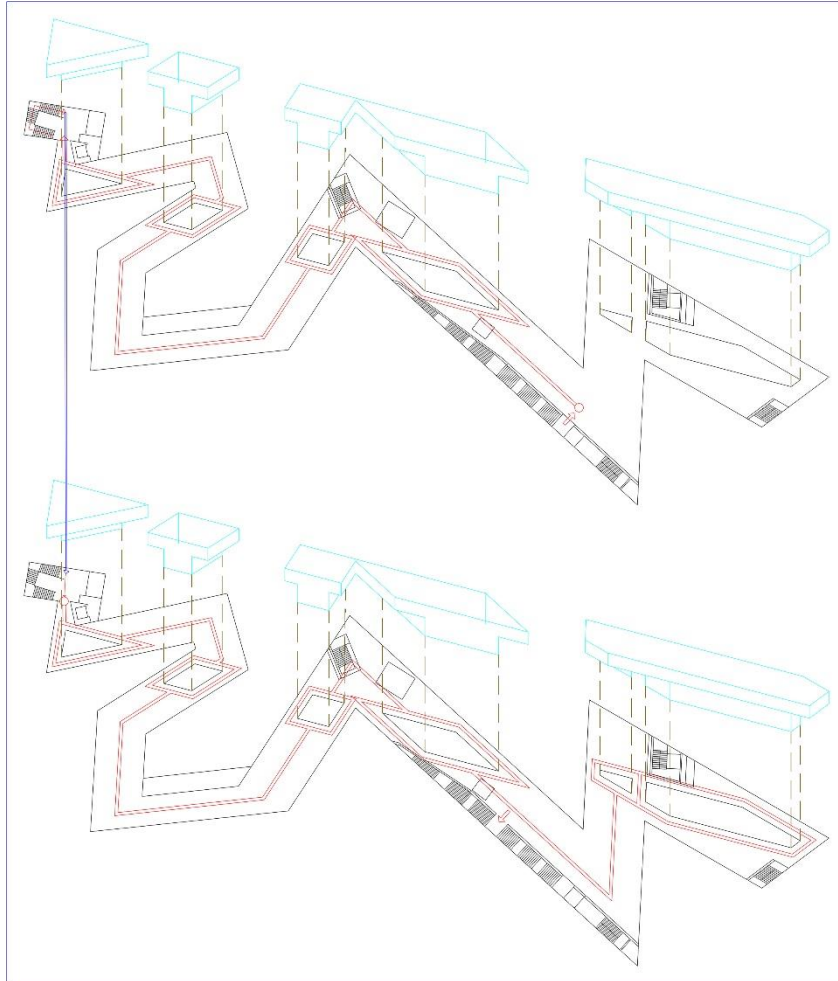


Figure 7-33 The permanent exhibition and multicursal maze. Source: the author.

In the *Labyrinthine Aesthetic in Contemporary Museum Design* (2007), Paul Basu examined “the application of the labyrinthine aesthetic as an architectural and narratological experiment in contemporary exhibition and museum design” (p. 48). He used some of Libeskind’s museums as exemplars to claim that “the labyrinth has become a *mise en abyme* in museum design: a pattern within a pattern, a self-reflecting mirror of the museum text within the museum text itself” (p. 48). In his article, there are three aspects related to the application of the labyrinthine concept in the permanent exhibition of the JMB that have not been addressed. The three aspects are: (1) the direction of the visitors’

movement in the zigzag building and its role in making the experience more complex; (2) the end of the labyrinth in the permanent exhibition which makes the maze-like experience more vague; (3) the effect of the galleries as an extra layer in making the experience more confusing.

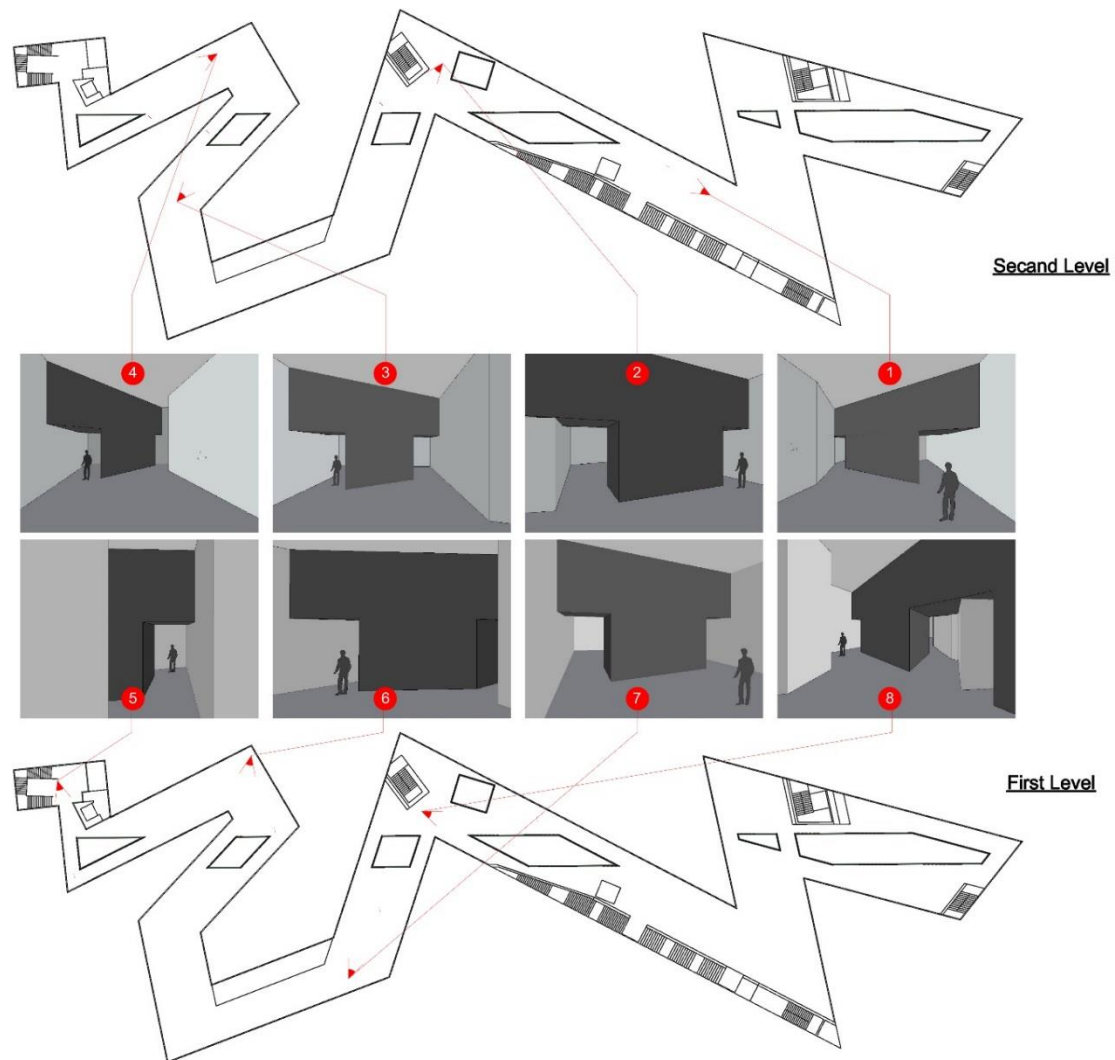


Figure 7-34 Although the architectural layout of both level two and level one is almost similar in every detail, the effect of each one of them is different in the visitors' perception because of the direction of the visitors. In level two where the visitor starts the journey in the permanent exhibition the visitor moves right to left; whereas at level one where they end their journey in the permanent exhibition they move from left to right. This way of directing the visitor makes the perception of the space on both levels different, especially when they reach each interaction point between the two lines where the voids are located; because perceiving these voids from moving from right to left (in level two) is completely different from perceiving it when they move from left to right (in level one).

Although the architectural layout of both level two and level one is almost similar in every detail, the effect of each one of them is different in the visitors' perception because of the direction of the visitors. In level two where the visitor starts the journey in the permanent exhibition the visitor moves right to left; whereas at level one where they end their journey in the permanent exhibition they move from left to right. This way of directing the visitor makes the perception of the space on both levels different, especially when they reach each interaction point between the two lines where the voids are located; because perceiving these voids from moving from right to left (in level two) is completely different from perceiving it when they move from left to right (in level one), see Figure 7-34. Therefore, it is difficult for the visitor to adapt to these changes naturally, which, in turn, leads the visitors to feel that they are in a maze-like space.

Then the space, just keeps on coming back on yourself. You're not quite sure if you've been here before. You're not sure if you're on the level up or the level down. I think that's unsettling. You're not really sure where you are. PM-12 semi-structured-interview, 2017

From the plan, I thought it's way more one-dimensional, the zigzag way and you get to notice that more clear. But entering there were those several points when I was feeling like this building is confusing. PM-03 semi-structured-interview, 2017

One of the main reasons that makes the journey of exploring the permanent exhibition maze-like is finding the way out because this is one of the difficult tasks for the visitor, which, in turn, for some visitors becomes like solving a maze in the building. The permanent exhibition exit gate is not located at the far end of the permanent exhibition, but instead it is located at a point close to the last third part of the exhibition; so, the visitors usually pass by the exit gate to continue finishing the remaining part of the permanent exhibition. However, once they finish their journey exploring the permanent exhibition, they most likely will be in a position where it is difficult for them to find the exit gate because it is somehow hidden behind some of the galleries' walls. In terms of the last aspect, the galleries in the permanent exhibition are considered as extra layers of routes that make the experience more confused and more maze-like.

Each void of the six voids that penetrate the building vertically has dual meanings. The first meaning “refers to that which can never be exhibited in this museum, no matter how many objects are brought to it and stories told in it” (Libeskind et al., 2001, p. 27). The

decision to have nothing in these voids represents the absence of Jewish life. The only way for the visitors to explore the voids and to try to understand their meanings in the permanent exhibition is through windows in the bridges that cross over the voids. This one seems to infrequently happen based on the observation, and it has only been mentioned by just one of the respondents. Therefore, it can be said that the effect of the voids for the visitor who walks in the permanent exhibition to show what “can never be exhibited” rarely seems to happen. These voids, however, have played a pivotal role in showing “the scale of disrupted tradition” of Jews in the city of Berlin because these voids interrupt the movements of the visitors (Libeskind et al., 2001, p. 26). It seems that the architect strives to transform the interruption of Jewish history in Berlin into a spatial and body experience through creating multiple confusing points that can help the visitor to feel the amount of disruption of the Jewish history in the city of Berlin. Showing the scale of disruption of Jewish tradition in the city is the second meaning that the voids present; nevertheless, this meaning seems more concrete than the first one. In one of his texts, Libeskind calls attention to the time dimension, which can be seen as the natural relationship between the spectators and the physical fabric, and how each one of them affects the other. The voids and their surrounding walls that penetrate the whole permanent exhibition for the visitor who walks in the permanent exhibition most likely cannot show what “can never be exhibited in this museum” (Libeskind et al., 2001, p. 27). However, breaking the continuity of the visitors’ movement in the permanent exhibition resulting from these voids and their surrounding walls is one of the concrete experiences to show “the scale of disrupted tradition” because it is “inscribed in time” in the natural relationship between the spectators and the physical fabric. Libeskind says:

From the competition proposal, which were lines on paper, to the building, I sought to incorporate the Jewish experience, this experience is not just a residue of a vanished culture, but a living and vital dimension of Jewish and German history. And this experience is no longer an abstract one, having been incorporated in the space of architecture; something that cannot be described in words or texts, but now belongs to the city and to the museum. The construction of the Jewish Museum has reached completion. Whatever an architect says about his work may only seem to be a redundant commentary in what is obviously built. Yet when it comes to this Jewish Museum, there are dimensions that are not purely in space, dimensions inscribed in time, which the lineaments of the buildings and its construction present. (Libeskind et al., 2001, p. 24)

As far as performing in the labyrinth in the basement level is concerned, based on multiple principles in many studies, for example (Bitgood, 2006, Yalowitz and Bronnenkant, 2009),

it can be stated that there are many spatial and behavioural factors that can repeatedly disrupt the visitors' movement in the basement level. Facing these many confusing moments again and again in turn leads some visitors to describe the movement in the basement level as maze-like (Figure 7-35). These spatial and behavioural factors most likely will prevent the visitor from exploring each axis out of the three axes on the basement level as one component without any interruption that might lead the visitor to change their direction to explore another axis. To explain the effect of these factors, the discussion will be outlined as an 'assumed' journey in the basement level.

The visitor starts their journey inside the museum in the 'Corridor of Continuity', which is the longest corridor on this level. After walking a distance of around 15 metres, the visitor will reach the first intersection. At this intersection, the visitor needs to choose between walking straight or turning right. What is important to state here is that going straight means that they will continue to explore the axis without any interruption; however, there are three factors that somehow stop the continuous exploration of the 'Corridor of Continuity' and most likely will provoke the visitor to turn right to start a new journey in the 'Corridor of Exile'. The first factor is that "visitors tend to turn in the direction of the closest visible exhibition" (Bitgood, 1992); and this is what happens in the first intersection where the first display in the museum is in the Corridor of Exile, so this display becomes an attractive presentation to disrupt the visitor movement in the Corridor of Continuity and change it to the Corridor of Exile. The second factor that encourages the visitor to walk in the Corridor of Exile is that it is wider than the Corridor of Continuity, which can make the visitor feel that the Corridor of Exile is more important than the Corridor of Continuity. The third factor is that visitors usually prefer to walk on the right of the corridors, and because of this they seem to prefer turning right because it reduces the number of steps that they need to take (Bitgood, 2006). It is important to state that although there are some arguments about the effectiveness of the third factor, it will be considered as a secondary factor that can affect the behaviour of the visitor, because some of those who claimed to be ineffective examined its effectiveness within galleries rather than intersections between two corridors.

Once the visitor walks in the Corridor of Exile, they will reach another intersection between it and the Corridor of the Holocaust. The same three factors that somehow stop the

continuous exploration of the Corridor of Continuity and seem provoke the visitor to turn right will somehow stop the continuous exploring of the Corridor of Exile and most likely will provoke the visitor to turn right. Also, the visitor may turn left, because the first two factors are applicable to this movement. However, the point that needs to be stressed is that the act of experiencing the Corridor of Exile most likely will be interrupted by the Corridor of the Holocaust.

If it is assumed that the visitor has turned right, the visitor will experience the following. The Corridor of the Holocaust ends with the Holocaust Tower, which is a dead-end space, so once the visitor experiences it they will go all the way back through the same corridor until they reach the same intersection. In this intersection, some visitors might treat the other two fragments of the Corridor of the Holocaust as one component, so this most likely will lead the visitor to explore the rest of the corridor, because it has more cabinets to display historical materials. Also, some visitors might treat the other two fragments of the Corridor of the Holocaust as unrelated parts; this, in turn, could make the visitor prefer to explore the Corridor of Exile, because first it presents more information than the amount of information presented in the middle fragment of the Corridor of the Holocaust; and second the corridor ends with a huge window that opens to the outside, where the visitor will prefer to walk to the end to see the unique experience in the basement level. Then, once the visitor explores the Garden of Exile, which is a dead-end space, they will walk the same way back until they reach the same intersection again. The three factors mentioned will provoke the visitor to turn right to experience the rest of the Corridor of the Holocaust and then move to the permanent exhibition.

Based on the above discussion, the main issue that can be underlined is that there are plenty of spatial distractions that make the visitor puzzled in choosing the right path to explore the basement level. Therefore, it can be said that the main reason that leads many visitors to describe the experience of the basement level as maze-like is because they have experienced the three axes in interrupted form, as a result of the effect of these spatial and behavioural aspects.

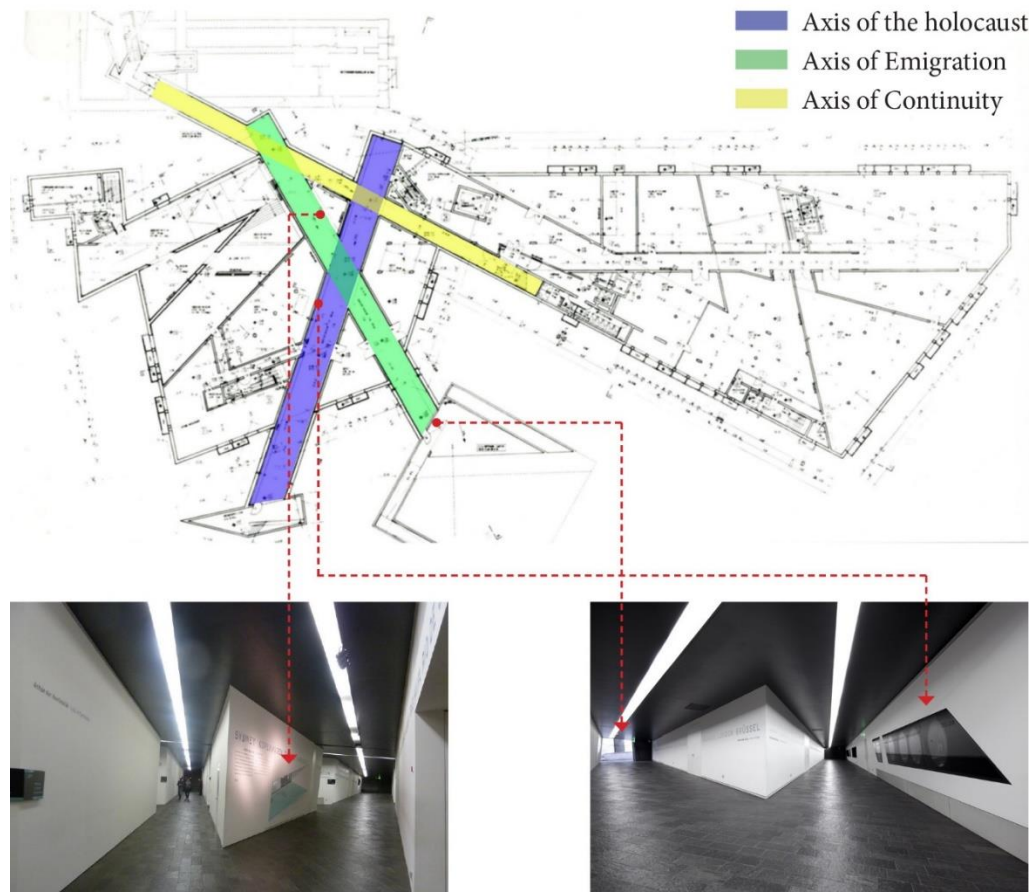


Figure 7-35 A diagram shows the main points in performing in the labyrinth. Source: the author.

As can be seen in discussing the idea of the labyrinth in both areas of the basement level and the permanent exhibition, applying a labyrinthine aesthetic cannot be achieved through thinking about the space as a two-dimensional space or just paths because both the spatial conditions of the space and the way of placing the visitor in front of the exhibition play a key role in making the experience of the museum maze-like.

To conclude this part, although there are some visitors who feel that the experience of the basement level is confusing, others feel that this way of presenting Jewish history is part of their complicated history and part of their experience in the past. Understating of such meanings is compatible with the hermeneutic spiral in Ricoeur's philosophy, which stresses the need to use both epistemological and ontological aspects in the act of interpreting the space to explore different meanings of the space. As evidence, one of the visitors stated that:

Once you're inside, the layout of the first floor is deliberately confusing. This is an artistic decision - one which I'm sure you can decipher. The pathways weave all over the place and there appears to be no specific direction to take. I really liked this aspect, as it definitely added to the feel they were going for. The story of the people affected by the holocaust is shown here and it is extremely touching. GR-1065 comments-in-Google-Review (4*)

7.4 Conclusion

To summarise, this chapter begins by introducing epic theatre as a specific theoretical framework to explore the phenomenon of performance. Adopting some of the theatrical notions from any type of theatre, such as epic theatre, in designing the architecture of historical museums in order to encourage the visitor to explore the museum through their movement is “a nontrivial task”, as stated by Yellis (2010), because it requires a full understanding of the nature of the visitors’ performance in the museum and how it can help them to generate different layers of meanings through the interaction with the museum’s physical fabric and the architecture as a medium. The notion of the movement and affordance are two key aspects that need to be considered in applying the theatrical techniques and notions in designing the exhibition because it does help to understand the nature of visitors’ performance in museums and their attitudes; in addition, it helps to realise some of the architectural factors that can affect the movements of the visitors in the museum in terms of their visibilities and to define their interactions with the physical environment.

Overall, this chapter has analysed the effect of the tangible and intangible properties of some parts and moments in the museum in the visitors’ informal performances. Also, this chapter has examined the different interpretations of these informal performances. However, both the analysis of the effect of the space on the visitors’ performances and the different interpretations of their performance will be discussed in more detail in the overall discussion chapter.

The following chapter will provide an overall discussion of the two categories of experience that have been identified in the Jewish Museum (textual and embodied experiences). In addition, the last part of the chapter will compare the transmission of knowledge of the two identified experiences in the JMB based on Whitehouse’s theory.

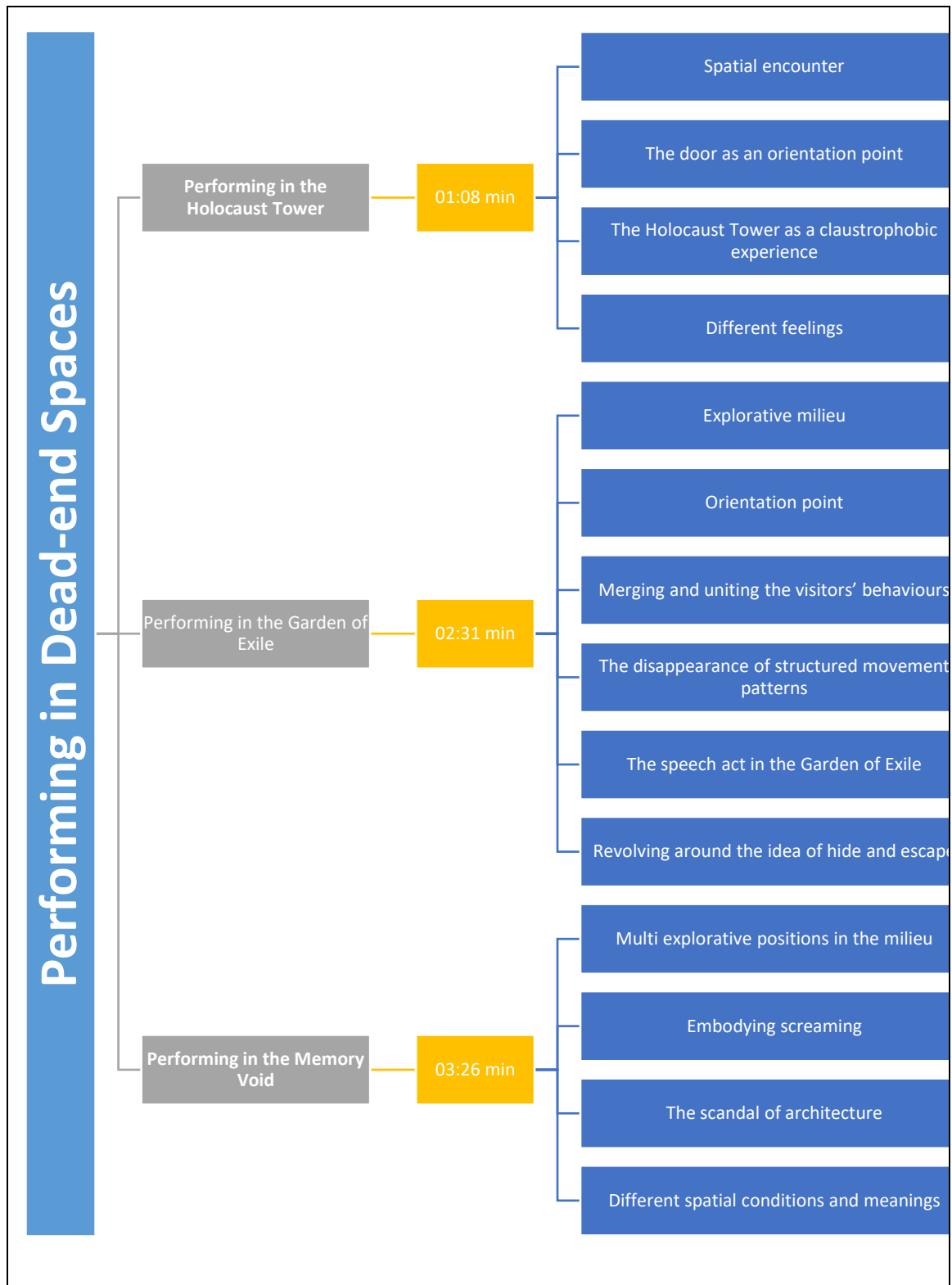


Figure 7-36 Overall diagram explaining the performing in dead-end spaces. Source: the author.

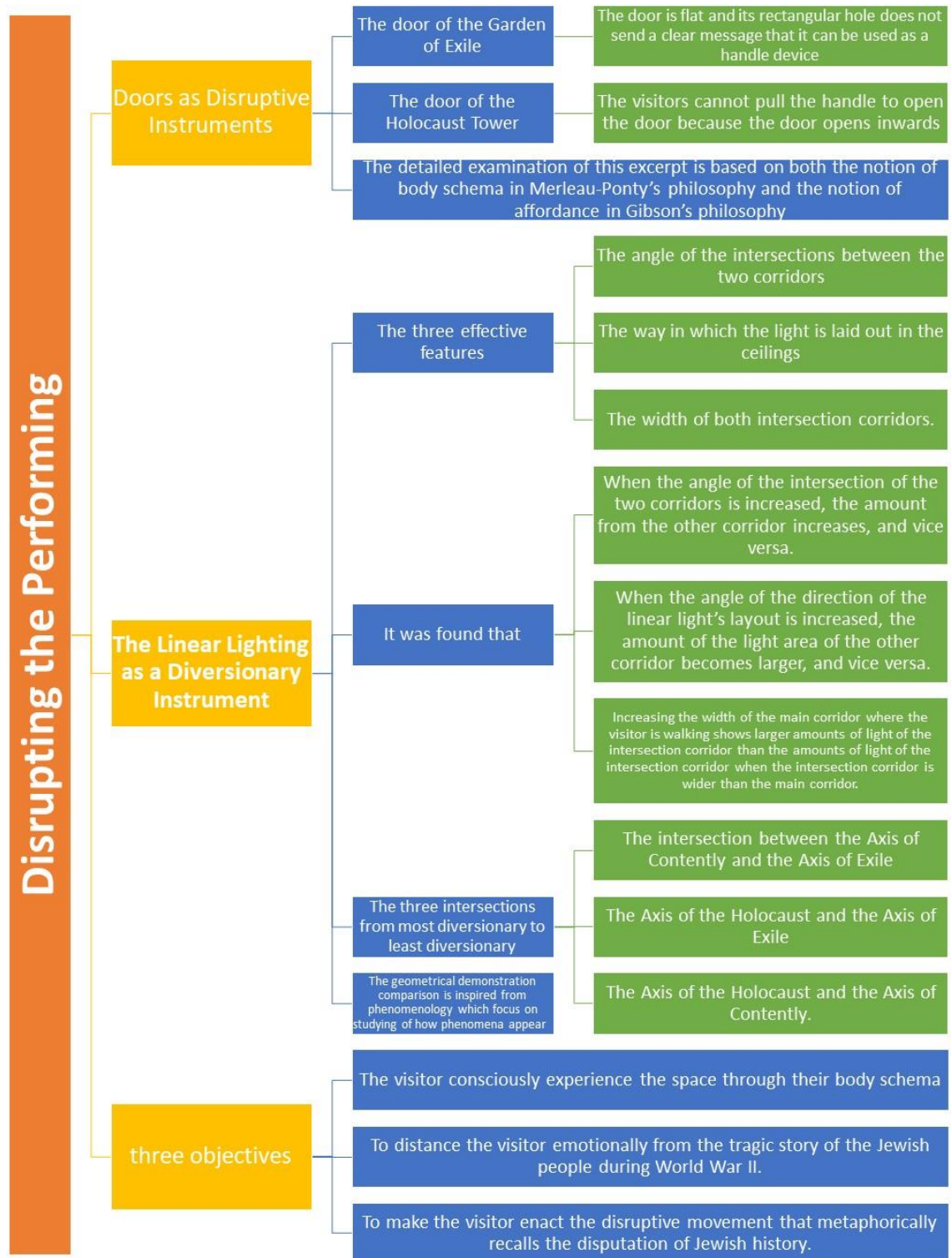


Figure 7-37 Overall diagram explaining the disrupting the performing. Source: the author.

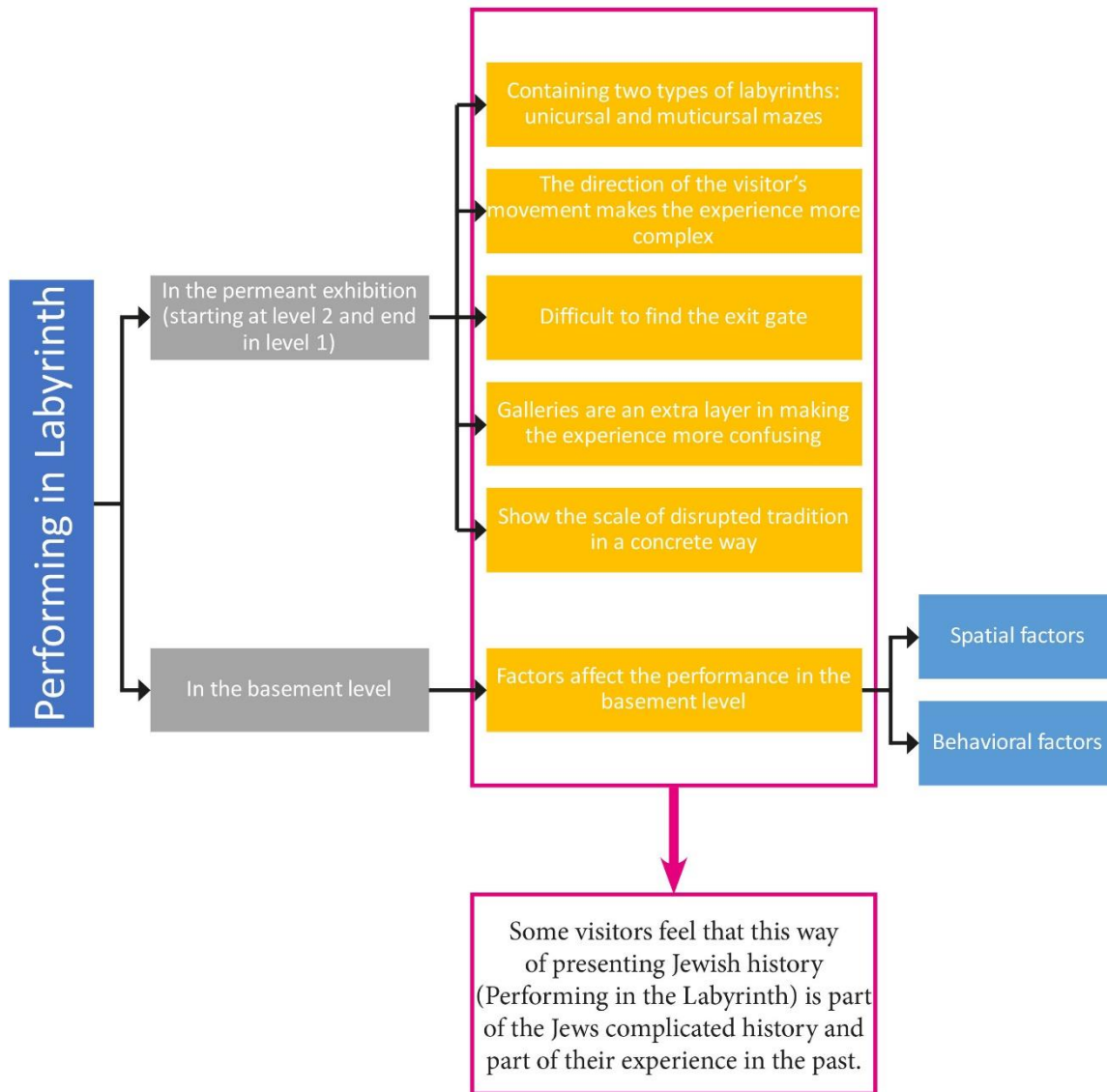


Figure 7-38 Figure 7 37 Overall diagram explaining performing in labyrinth. Source: the author.

8 Chapter Eight - Overall Discussion

8.1 Introduction

The main aim of the overall discussion chapter is to address the research questions by discussing and comparing the two identified experiences in the JMB, namely cognitive and embodied experiences which can both show the effect of Jewish history and culture as an inspiration to conceptualise the architecture of the JMB. This chapter consists of three sections. The first section will discuss the mode of textual interpretation in the Jewish Museum Berlin. In this section two main issues will be examined. The first issue is the impact of spreading curatorial commentaries in exhibitions whilst the second one is the phenomenon of text-architecturization. It will be followed by a discussion of the mode of body-based interpretation in the Jewish Museum Berlin. This section will discuss three different performative ideas in the JMB. The last section will compare the two identified experiences in the JMB based on Whitehouse's theory of Transmission of religious knowledge.

8.2 The Mode of Textual Interpretation in the JMB

8.2.1 Introduction

Many studies have shown that there is a strong relationship between the written word and the design of spaces in many museums around the world (the number of these studies has been mentioned in chapter three). The reason behind this mutual relationship is related directly to the storytelling potentialities of using the mode of textual interpretation in creating a learning environment. However, although use of this mode has a long history, it still has some limitations. Some of the limitations of using the written word in the museum as a medium to communicate meanings with visitors has been discussed also in chapter three. However, the impact of spreading curatorial commentaries in the JMB will be discussed in section 8.2.2 in order to show in the practical world the limitation of using this medium. Also, the examination of this issue will indicate other problematic aspects related

to text-based communication in the museum. These aspects affect the way of exploring the museum and how the visitors respond to its contents.

Moreover, although the use of the mode of textual interpretation in the museum is less creative, Libeskind has transposed some narrative techniques in a creative way into the architecture of the JMB to create meaningful spaces. It is claimed that he used some approaches of interpreting religious texts as a tool of inspiration to design the museum architecture, because Jewish sacred texts have dominated Jewish lives. Historically, the lives of Jewish people were fundamentally changed. They moved from centring their lives around a mobile Tabernacle as nomads to living around a stationary temple as a civilised society; after that, they moved to making canonical writing their focal point, since it is the object that presents the voice of God. Therefore, sacred texts and anything related to them are a key aspect of Jewish life. In addition, since Jewish people see themselves as the people of the book, most of the architecture of their museums has been affected by the way of interpreting the religious book. In the architecture of the JMB, as a case study, it is claimed that the architect has used the religious text interpretation in the kabbalah tradition as a literary device in the design of the spatial environment to mitigate the limitations of using the written word and to create more meaningful spaces. This literary device has been named the phenomenon of text-architecturization, and it refers to the transposition of the four layers of interpreting religious text in the making of a meaningful spatial environment in the JMB. This phenomenon has been discussed as a journey inside the museum in chapter five, and its different layers of interpreting its meaning will be discussed in section 8.2.3.

8.2.2 The Impact of Spreading Curatorial Commentaries in Exhibitions

The effects on the visitors' experience of the space of spreading out curatorial commentaries as tools to enhance the intellectual experience including both text panels and recorded spoken commentaries in the museum are complicated in regards to two aspects. First, the spread of these commentaries in the museum generally and the JMB as a specific case study for this research has many limitations in terms of how the visitors communicate their meanings with them. One of these limitations is related directly to the nature of its contents, namely 'texts'. As has been discussed in chapter three, text is an abstract idea (Ricoeur, 1981), and it has no materiality (Hooper-Greenhill, 2000). In order to

demonstrate the limitations of the text in giving physical referents and effective experiences, the interpretive text that describes the Holocaust Tower and is located at the end of the Holocaust corridor has been examined in chapter seven; and it has been found that, although some of the physical qualities of the Holocaust Tower are explained in this text, all the ideas presented in the text do not make sense of the reality of the spatial context of the Holocaust Tower and how it can affect the visitors' experience of the space. There are two reasons behind this. The first reason is that the meaning of the text is embedded in its basic components which are the words themselves, and in order to make sense of the basic components of texts, cognitive processes are required based on the use of the existing knowledge of the receivers. The second reason is that encountering the text is not like encountering an object since it depends less on embodied responses. Although the basic components of the text have a material form (it is written on the wall), the physical characteristics of the text have a minor role in the meaning of the text. As an example to show the role of the physical characteristics of the text in the meaning of the text, the two colours of the five visual texts that explain the architectural spaces in the basement level will be examined. These visual texts have been written in two languages: German and English, and they have been printed in two colours, black and grey. German texts are written in black, which can be seen as a metaphorical representation of the dark history of the Nazis. The English texts have a grey colour representing the semi-neutral attitude that was taken internationally during the Second World War towards the people who were killed in the Holocaust.

Another issue related to the limitations of the text is not being able to help the visitor to see the object from various perspectives to discover their multiple meanings. This can be seen clearly in the interpretive texts that describe the historical material of the 19 showcases in the Axis of the Holocaust, as has been discussed in chapter six. The common aspect about all these 19 showcases is that each one of them tries to show the connection between the historical objects displayed in each showcase and the story of the murdered Jews in the Holocaust. This often leads the visitor to see these historical objects from one single point of view related to the story of the people who were killed during the Holocaust, although each one of these objects can be seen from multiple perspectives, particularly in terms of

the political and social situation, daily life and many other issues that are related to the lives of Jews in Germany.

Second, and more fundamentally, the spread of the curatorial commentary in the museum may affect the behaviour of the visitors, because it can establish highly routinised movements that urge the visitors to move from a curatorial commentary to another one without being aware of the spatial environment. Although in museums full of curatorial commentaries the act of reading or listening to these commentaries in itself is a bodily movement in a special environment, the visitors usually focus on the commentary, and once they finish reading or listening, they locate the next commentary and move to it and so on. Therefore, the spread of the curatorial commentary in museums usually leads the visitor to move inside the museum mostly in the form of *automated habit* by seeming not to care about exploring the phenomenological nature of the space and moving like a robot between these commentaries. One of the respondents described the benefit of both not using the audio guide and not exploring all the material including interpretive texts during her exploration of the JMB. She said:

One of the things I really love about going through this experience was, despite the fact I wanted to pay for the audio and I couldn't at the end, I was really, really well thankful at the end that I didn't buy it, because then the interpretation of the place was open to me, what I was feeling, whereas, I saw people just with the audios, walking like robots and stopping at each stuff and then I was like - I went with my boyfriend and I was telling him, "I'm so happy we didn't get the audio," because that I felt that the architect, what he wanted to do with the place itself was just to let people experience the space as they wanted to experience it. PF-23 semi-structured-interview, 2017

In the JMB, the spread of curatorial commentaries, especially text panels, plays a key role in producing two different paradigms of communicating meanings with the visitor: the traditional 'text-on-the-wall' exhibition (also known as object-focused exhibition) and the phenomenological subject-focused one. Nevertheless, the visitor will experience each category of these two in a separate part of the new extension building. The phenomenological approach is located in the basement level, whereas the traditional approach is located in the permanent exhibition which is a journey that starts on the second floor and ends on the first floor. The distinction between these two experiences seems to be clear for many of the respondents, as one of them stated that:

For me the grounds was much -- at least in me it's like provokes much deeper emotions....and provoke me to the useful thoughts and upper like just telling a story. It was more for mind and the underground for heart. PF-34 semi-structured-interview, 2017

This quotation shows two aspects: (1) the location of the two categories of experience in the JMB, and (2) the effectiveness of each experience on the visitor. The reason for the distinction between these two experiences will be discussed first, whereas the effectiveness of each one will be discussed later. In terms of the classification of the two categories of experience, the phrase ‘for mind’ in the above quotation is a metaphorical expression referring to the ‘intellectual experience’ in the permanent exhibition whereas the phrase ‘for heart’ in the same context is another metaphorical expression referring to the ‘emotional experience’ at the basement level. Based on these two classifications, the question then arises as to what the reasons are that lead many of the visitors to arrange each of these two parts into different categories. It can be claimed that one of the main reasons the visitors classify the experience of the permanent exhibition as an intellectual experience and the experience of the basement level as an emotional experience is the amount of interpretive text in each part. Although both parts contain multiple texts and labels, the increased number of texts in the permanent exhibition compared to the number of texts at the basement level is a key reason for the experience of this part being described as an intellectual experience.

As discussed in chapter six, the three axes that spread throughout the whole basement level, namely the Axis of Continuity, Exile and the Holocaust, and the spaces at the end of each axes, namely the main staircase, the Garden of the Holocaust and the Holocaust Tower, all do not contain many texts or the other elements that enhance the intellectual experience. The Axis of Continuity, where the visitor starts their journey inside the museum, is an empty space and does not have any elements enhancing the intellectual experience. In contrast, both the Axis of Exile and the Axis of the Holocaust do have elements enhancing the intellectual experience such as a text board or historical objects, but they are different in terms of the number of these elements. The Axis of Exile contains fewer elements than the Axis of the Holocaust, it just has three interpretive texts about the museum architecture and two cabinets that have some historical objects and labels describing these historical objects. In contrast, the Axis of the Holocaust has nineteen showcases, and each one of

them presents one or more historical objects and a label describing some details about these objects. Also, the axis contains two interpretive texts about the museum architecture. In terms of the end spaces of each axis, all of them are considered to be empty spaces since they do not have any elements enhancing the intellectual experience except the Garden of Exile which has one text board; however, this text board does not dominate the visitor experience of the space, as has been discussed in chapter seven. Overall, the basement level does not contain many curatorial commentaries.

On the other side, the permanent exhibition has been divided into thirteen exhibitions based on chronological order. The collection of these thirteen exhibitions consists of different types of materials including labels, paintings, books, documents, craft objects, everyday objects and objects used for religious rituals and ceremonies. With regard to the curatorial commentary in the permanent exhibition, each exhibition of these thirteen contains a large number of elements that enhance the intellectual experience, particularly the panels of text. More importantly, some of these exhibitions have more elements enhancing the intellectual experience than what can be found on the whole basement level. Although these elements show a great deal of information about Jewish history, it seems that some of the visitors did not like the large amount of facts presented. One of the respondents stated:

I don't like these [means the galleries in the permanent exhibition], I prefer the first floors. I understand that the intention is to give information about the history of Jewish and Europe. The manner of living, trading, and a normal life, but, for me, it is too much information. PM-27 semi-structured-interview, 2017

Another respondent stated the difficulty of exploring all the information displayed in the permanent exhibition including the interpretive text. In a comparison between the permanent exhibition and the basement level, she stated the following about the permanent exhibition:

It's way more-- lots of information and it's quite, at the end hard to follow because it's really lots of things. PF-29 semi-structured-interview, 2017

These quotations show that the interpretive texts that spread all over the permanent exhibition play an important role in giving the visitor historical information about the Jewish community. It seems, however, that many visitors do not enjoy the spreading out of these texts and the huge amount of facts that they present. Therefore, the question then

arises as to what is more important in historical museums generally and the JMB specifically, quantity or quality? Although interpretive text provides a great deal of information to the visitor, it is clear that these texts rarely can give the visitor the sensual dimension of these historical facts. This claim has been supported by the idea made by Hooper- Greenhill, as she stated that “[t]extual meaning remains for the most part within the realm of ideas, of discourse. It does not relate to the body or the senses” (2000, p. 114-115).

It is essential to state that the sensual dimension of these historical facts is one of the main aspects that many of the visitors look for. As an example to support this claim, one of the respondents has explained that one of the main motivations for visiting the JMB was to show her boyfriend how the experience of the basement level arouses strong feelings about the story. She stated that she visited the museum:

Because, I've already been there and I wanted my boyfriend to see the place, and because I think it's very-- the first part [she means the basement level] it's very touching and very understanding about what happened during the National Socialist Museum. And so, I wanted him to visit the museum. PF-20 semi-structured-interview, 2017

Therefore, it can be claimed that the spread of texts can preclude the visitor from creating an emotional connection with the story presented in the museum because they affect the experience of the spatial context by blocking the visitor from feeling the history through their senses. This claim is supported by the argument in (Dudley, 2010b) and (Hale, 2012), who both stress that the spread of texts can limit the emotional connection between the visitor and the museum.

8.2.3 The Phenomenon of Text-architecturization

It is claimed that Libeskind has used the Kabbalistic interpretive method (PaRDes) as a literary device in the design of the spatial environment. This approach has been named the text-architecturization, and it refers to the transposition of the four layers of interpreting religious text in the making of a meaningful spatial environment in the JMB. With a strong connection to the four levels of interpreting religion in (PaRDes), a theoretical framework consisting of four levels of interpretation will be used to interpret the phenomenon of text-architecturization in the JMB.

8.2.3.1 The First Level of Interpretation

The level of *Pshat* is the first level of the four exegetical methods of interpreting religious texts. It is used to find the plain meanings of Jewish scriptures by understanding the text in its natural sense based on the customary meanings of its components. Finding these simple meanings of scripture is essential as a first step of interpreting religious texts, because it helps the interpreter reach an accurate understanding of the text in an objective way without involving any personal feelings. In the phenomenon of text-architecturization, the use of this level as a method to read the museum as a sort of text enables the discovery of the literal interpretation of the museum architecture including all its contents. It is important to state that at this simple level of interpreting the museum architecture we are not discussing the simplest approach of experiencing the museum, which is exploring the phenomenological nature of the space through the human senses. Instead, this level of interpreting the museum reveals the simplest meaning of the museum architecture that can be read as a text mainly through the sense of sight. This level of interpreting the architecture of the JMB reveals three types of meaning: (1) literal architectural symbol; (2) spatial thematic organisation of the spaces; and (3) the explicit meanings of abstract knowledge.

1. Literal architectural symbol: The literal architectural symbol is the most specific meaning of a spatial shape that is formed by either a single architectural element or a combination of many elements. In other words, the literal architectural symbol is the customary meaning of any spatial shape. To explore these literal architectural symbols in the JMB, the theories that analyse the ‘sign system’ in semiotic studies were used as a theoretical framework (see chapters three and four); and it has been found that there are two literal architectural symbols in the museum. These two symbols are Christian cross windows and the shape of a broken Star of David in the main façade (see Table 8.1).

Table 8.1 Examples of literal architectural symbol in the JMB

| Examples of literal architectural symbol | |
|--|--|
| 1 | Christian cross windows: in chapter six, the problematic issue of using many windows that have a cross shape was discussed, because these windows have been seen as a Christian symbol by many Jewish visitors. The spread of such a literal symbol for these visitors was unacceptable in a building supposedly dedicated to Judaism. However, what is important about these windows on this first level of interpreting the museum architecture as a religious text is |

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| | that the basic meaning of these windows for some of the visitors is ‘a representation of the instrument of the crucifixion of Jesus’. Although it has been claimed that there is a deeper meaning for the spread of these Christian cross windows in the museum’s façade, which is to encourage the visitors to be open in their interpretation of the space, as has been mentioned in chapter six, the deeper meaning cannot be discovered in this first level of interpreting. Instead, such meaning can be explored in the third level of interpretation. |
| 2 | The shape of a broken Star of David in the main façade: in chapter six, it has been shown that the windows in the two walls have formed the shape of a broken Star of David, which can be seen as an icon to associate the building with Jewish culture. |

2. Spatial thematic organisation of the spaces: it can be claimed that the organisation of the whole journey inside the JMB into thematic spatial environments is one of the plain meanings that has been created by Libeskind to arrange the journey inside the museum into different zones. This, in turn, will help to establish an intellectual engagement with the evocative history and/ or communicate a specific message of each thematic zone. Although the architectural language of the whole new extension building places its elements in harmony with each other, each part of the building either from outside or inside has unique architectural features that make it distinct from other parts. These unique features, in turn, make it possible for the visitors to divide the museum into thematic zones; and at the same time the division of the journey into different spatial zones will help the visitor to deal with the different elements inside each thematic zone as one group striving to tell a specific story and/ or communicate a specific message. (Kirshenblatt-Gimblett, 2012, Psarra, 2005, Crang, 1999, Crang, 2003, Witcomb, 1994) have stated that the organisation of objects in museums and the spatial environment play a key role in communicating a specific message. To describe the different thematic zones inside the museum, the architectural characteristics that play key roles in dividing the whole journey into different thematic parts will be explained (see Table 8.2).

Table 8.2 Examples of spatial thematic organisation of the spaces in the JMB

| Spatial thematic organisation of the spaces | |
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| 1 | Starting from outside the museum, where the visitor began their journey as has been explained in chapter six, the zigzag building is in contrast to the |

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| | <p>historical building in terms of the form and the materials in order to portray a specific meaning. The historical building is symmetrical, while the modern building does not have any element that gives a sense of symmetry in its outward appearance. Therefore, from the outside, if we exclude any hermeneutic dimension that can discover deeper meanings and we have just focused on the outside appearance of both buildings, it can be said that the historical building shows a sign of stability whereas the new building shows the sign of instability. Both meanings are considered to be a plain meaning related to the thematic approach of dealing with the façades of both buildings. From outside it is possible for the visitor to distinguish the individual floors of the historical building due to the orderly arrangement of windows on the façade while, in contrast, it is impossible for the visitor to distinguish the individual floors of the new extension, because of the different shapes of diagonal slash windows that are spread along its façade. Also, these diagonal slash windows show no reference to human use. This feature, therefore, leads some of the respondents to see the building as a sculpture, as has been discussed in chapter six. Moreover, the zigzag building does not have a gate, whereas the historical building does have a gate. Thus, the process of finding the door of the museum is a puzzling process for many, especially when we know that the image of the modern building is the image used for the marketing of the museum in the booklets that provides information for tourists and visitors to the city of Berlin (as has been discussed in chapter six). Therefore, thematically, the new extension building can be described as a building without a gate with unique characteristics of the new extension. In terms of the materials, the baroque building is made of stones and clay tiles, whereas the new extension is made of concrete and covered by zinc. All these architectural features show that each form of the two buildings does have a thematic narrative that makes each one different from the other in order to deliver multiple meanings.</p> |
| 2 | <p>The stairs that lead to the three underground passageways: this space has a harmonious relationship with the other architectural elements in the new extension building, specifically in terms of the layout and the material, as has been explained in chapter six. However, compared to other spaces inside the new extension building, there are some features that make this space more unique than other spaces. Although the stairs are placed at the bottom of the right trapezoid prism, similar to the form of the Holocaust Tower, unlike the Holocaust Tower the space does not have any opening that allows light to enter the space. With a comparison between these stairs and the main staircase, this stairway has a zigzag shape whereas the main staircase is straight. Unlike the main staircase, all the material that is used in this staircase has a dark colour, whereas the material in the main stairway has a light colour. Another difference from the main staircase is that the barriers are rather strange as one of the staircase's barriers is made of a concrete black wall, while its opposite is steel fence panels. The height of these two barriers is not equal, as the concrete black wall is higher and nearly double the height of the steel one. Additionally, the strange thing about these two steel and</p> |

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| | concrete barriers is that they take turns at the edges; this means that when the left side is made of concrete the opposite side is made of steel and vice versa. Also, one of the anomalous situations in creating a state of instability for the visitor is that the wall handrail-stair is not orthogonal with the axis of the stairs movement. All these features together create a thematic narrative to this staircase by making its spatial environment distinctive from the other spaces inside the building. |
| 3 | The three underground passageways: although the three axes that spread throughout the whole basement level have many similar architectural features, as has been described in chapter six, each one of these three axes has some features that make each one distinct from others. The Axis of Continuity is an empty space, which means it does not present any historical objects or interpretive texts. Another difference is that the Axis of Continuity is both the longest and the narrowest one out of the three axes. Moreover, while the floor tiles in the Axis of Continuity are parallel with its borders, it is not parallel with the other two corridors. In terms of the Axis of the Holocaust, it is the widest one out of the three. Another feature that is distinctive about this axis compared to the other two is that its eight windows, which have unequal trapezoid shapes and contain the 19 showcases, are in a straight line that go somehow in the middle of one of its longitudinal walls. While the Axis of Exile has just two cabinets to present historical materials, these two cabinets are large in size when they compare to the 19 showcase ones. Although these two cabinets have a trapezoid shape like the nine windows in the Axis of the Holocaust, each group has a different orientation. Finally, while the trapezoid windows in the Axis of the Holocaust go in a straight line along its wall, the trapezoid opening of the Axis of Exile has a diagonal direction. |
| 4 | There are two main spatial characteristics that make the Garden of Exile thematically different from other spaces in the JMB. The first one is that the Garden of Exile is the only space in the museum that its borders place at right angles to form a square. Second, the experience of the Garden of Exile is the only outdoor experience in the museum, and this feature in turn makes the garden distinctive from other spaces which are indoor experiences. It is important to state that some of the respondents believe that the Garden of Exile is thematically distinctive from other spaces, especially in terms of the outdoor and the indoor experience. |
| 5 | The layout of the Holocaust Tower and its materiality are the main two aspects that distinguish the garden from other spaces in the museum. In terms of the layout, the tower has a disturbingly irregular shape, its footprint is a scalene trapezoid so the length of all its sides are not equal and just two sides are parallel to each other. It is 24 metres high. The Holocaust Tower's walls are made of bare concrete and it has a black ceiling. |

3. The explicit meanings of abstract knowledge: this level of interpretation can be used to interpret the explicit meaning of any text in the museum that is used to name galleries, interpret architectural spaces, interpret historical materials, and enhance the intellectual experience of architectural space or historical materials. It is essential to note that any text that does not have explicit meanings and just contains implicit meaning cannot be interpreted through this method, for example, Libeskind has named the Holocaust Tower ‘voided void’ (Libeskind, 1999a, p. 30), and such a name does not have an explicit meaning and it can just be read metaphorically; therefore, such text cannot be interpreted through the first level of interpretation. The three types of the abstract knowledge in the JMB are: (1) texts showing the name of different galleries and spaces; (2) interpretive texts of the architectural spaces, large installations and objects; and (3) texts enhancing the intellectual experience.

- Texts showing the name of different galleries and spaces: in the JMB, all the exhibitions in the permanent exhibition as well as most of the architectural spaces have been named. Almost all these names do not have implicit meanings except for some of them such as Memory Void; therefore, it is easy for the visitor to understand the meaning of these names. In addition, these names can become a mental framework to understand the meaning of some of the exhibition’s components.
- Interpretive text of the architectural spaces, large installations and objects. The JMB is full of interpretive texts that explain the idea of some of the spaces and the large installations. Two examples of these types of texts are: the interpretive text explaining the main idea of the museum architecture in the basement level, and the text board describing the three black glass installations (*Gallery of the Missing - 2001*) in the permanent exhibition.
- Texts enhancing the intellectual experience: the use of texts in museums is not only limited to name or interpreting spaces and objects but also it can be used to enhance the intellectual experience of the exhibition. The obvious example of this type of text can be found in both the Axis of the Holocaust and the Axis of Exile. On one of the longitudinal walls of the Axis of the Holocaust, the names of 14 concentration camps have been written. In a similar way, the name of fifteen cities that many Jews emigrated to when fleeing from the Nazis has been written on the longitudinal walls of the Axis of Exile. In both locations,

it is clear that these texts have been presented in order to help the visitor to engage intellectually with the evocative history in each axis.

8.2.3.2 The Second Level of Interpretation:

The level of *Remez* is the second level of the four exegetical methods. It is used to reveal the meaning behind the literal meaning through using some hints in the text. In the phenomenon of text-architecturization, this level is related to the act of reading any element of Porter's four structures of any museum metaphorically or through numerological methods based on the use of some obvious hints. These four structures of any museum are: (1) abstract knowledge; (2) the concrete manifestation of building, (3) the concrete manifestation of exhibition, (4) the concrete manifestation of collection (Porter, 1995). In this level of interpretation there are two types of reading: metaphorical reading and numerological reading.

A. Metaphorical reading of the museum's space: there are many metaphorical meanings embodying the different parts of the JMB's four structures of any museum. However, in this metaphorical reading of the museum's space, these four structures will be classified into two groups: (1) the written world which will include all the abstract knowledge; and (2) the physical fabric which will include the other three structures because all of them have physical qualities as common aspects between them. It is essential to state that Tilley (1999) believes that understanding the metaphorical meanings of objects cannot be achieved through the mental process alone; instead it involves several expository tools to incorporate objects, actions and events in the process of understanding the metaphorical meanings.

A. Metaphorical reading of the written word: it is related to the act of reading the implicit meanings of abstract knowledge. As has been stated above, there are some texts in the museum that contain implicit meanings. Most of these meanings can only be read metaphorically. The obvious example of these texts in the JMB are: (1) the name of the new project 'between the lines'; (2) the adopted slogan by the museum 'not what you're expecting'; and (3) the name of the Holocaust Tower 'voided void' (see Table 8.3).

Table 8.3 Examples of metaphorical reading of the written word in the JMB

| | Metaphorical reading of the written word |
|---|---|
| 1 | <p>‘Between the lines’: in chapter five, it has been shown that the reason behind naming the project ‘between the lines’ by the architect is related to both the interaction between two lines of thinking on the microscopic scale and the interaction between lines of thinking on the macroscopic scales. However, it can be claimed that the meaning of naming the project ‘between the lines’ is not limited to the interaction between multiple lines; instead it seems that this name has a metaphorical meaning, especially when we know that this name has been mentioned in the interpretive text that describes the main concept of the new extension building as has been explained in chapter five. The metaphorical meaning of this name is to encourage the visitors to find the implicit meanings that are not directly expressed in the museum architecture. In other words, to read the museum architecture as texts that contain multiple layers of meanings which have either alluded to, conceptual or secret dimensions.</p> |
| 2 | <p>‘Not what you’re expecting’: It can be claimed that the main slogan ‘not what you’re expecting’ which has been adopted by the museum particularly in the last ten years was inspired by Libeskind’s genre in designing the museum for two reasons. First, it can be claimed that the curator and the exhibition designer discovered the best way to deal with the huge spaces in the permanent exhibition between the voids was to create some large installations, because it can help to make some parts of the permanent exhibition stand out. These installations are mostly out of the chronological order of the story presented in the permanent exhibition, such as the pomegranate tree installation at the beginning of the journey in the permanent exhibition. In other words, all the galleries in the permanent exhibition have been designed in chronological order; however, a number of huge installations have been placed between them for two reasons: to distort the order and to complete the museum architecture. It is important to state that creating a story within Libeskind’s story that is inherent in the building’s physical fabric and spaces is either difficult or they have not been thought about clearly by the exhibition designers. Therefore, this slogan can help the visitor to not be surprised when they see an installation that is not in line with the chronological order of the story. The second reason is connected to the museum architecture. The architecture of JMB somehow is ambiguous because of the hermeneutic meanings that are inherent in its physical makeup and cannot be easily discovered. Therefore, this slogan can help the visitor to not be strict in their interpretation.</p> |
| 3 | <p>‘Voided void’: in chapter six, it has been stated that Libeskind has named the Holocaust Tower ‘Voided Void’ because for him this space alludes to the end of the old history of the city of Berlin, which started before 1933 with the beginning of anti-Semitic campaigns back in history in different parts of the world. However, the Germans’ campaign against Jews was the most significant event of their lives throughout all of history.</p> |

B. Metaphorical reading of the physical fabric: some of the physical elements in the JMB can be read metaphorically (see Table 8.4).

Table 8.4 Examples of metaphorical reading of the physical fabric of the architecture of JMB.

| Metaphorical reading of the physical fabric | |
|---|--|
| 1 | The window in the Holocaust Tower as a sign of hope: the slit window in the Holocaust Tower has been placed far away from the visitor, and at an angle; therefore, it is difficult for the visitors to see anything outside through the window. This window just allows a little daylight to creep into the room, so it has been read metaphorically as a sign of hope by some of the respondents. |
| 2 | The willow oak trees in the Garden of Exile as a symbol of hope: a single willow oak tree was planted on the top of each of the 49 columns in the Garden of Exile. Although these plants are on top of the seven metre high columns and it is impossible for the visitor to reach and touch these trees, they can just see it from a distance, and some of the respondents have described them as a sign of 'hope', 'new hope' and 'safe'. Some of them justified this description by stating that because plants are both natural elements and they are green in colour, they are a symbol of hope. |
| 3 | Recalling the unknown history: the zigzag stairs can be read metaphorically as an entrance to the unknown history or the dark history of German Jews in Berlin, because it has a dark colour material and it does not have an opening that allows the daylight to go inside that part. |
| 4 | Recalling the unknown future: the main staircase can be read metaphorically as the unknown future of Jews, because it is located in quadruple height space, and does have openings that allow the daylight to penetrate into the building and second its walls are white. Moreover, there is a white wall stopping the continuity of the main staircase. This architectural feature also confirms the idea of reading this staircase as the unknown future of the Jews. |

2. Numerological reading of the museum: reading the museum architecture through numerological methods (see Table 8.5).

Table 8.5 Examples of numerological reading of the architecture of JMB.

| Example of numerological reading | |
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| 1 | Seven by seven pillars in the Garden of Exile: the forest of concrete columns is seven by seven pillars nearly located in the middle of the garden. The total number of the columns in the garden (49 columns) can be read in a numerological way from two points of view. First, 48 columns out of the 49 |

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| | stand for the year of the establishment of Israel, which was 1948, and the one in the centre represents the city of Berlin. The 48 pillars contain sand from Berlin, while the centre one is filled with sand from Jerusalem. This feature has supported the claim of this numerological reading. The second perspective is related to the use of number seven in designing the garden, which creates a connection to Jewish traditions. Number seven in the Jewish numerology tradition is considered to be sacred because it represents many things such as creation and blessing. Also, it is the symbol of status of the Sabbath, the most important day in the week in Jewish culture. |
| 2 | 18 risers in the first part of the main staircase: the first part of the main staircase contains 18 risers, because this number is considered to be spiritual in Judaism. This number comes from the numerical value of Chai, a Hebrew word (חַי), which means life or living. This word contains two letters: Yud (י) and Chet (ח). In gematria (a mystical tradition that assigns a numerical value to a Hebrew name, word or phrase based on its letters) the letter Yud (י) has a value of 10 and Chet (ח) has a value of 8; so the total value of combining the two letters is 18. As the meaning of the word Chai (חַי) has a spiritual dimension in the Jewish tradition, the numerical value of the world (18) and its multiples (36, 72,...) are considered to be spiritual. This alone is not the reason for selecting the number of 18 risers. The real reason is that the staircase is located at the end of the Axis of Continuity which represents the future life of Jewish in Germany. |
| 3 | Six voids: The building in its microscopic scale is formed through the interaction between two lines of thinking. According to Libeskind, the interaction between two lines of thinking in the microscopic scale aims to stress the interaction between German culture and Jewish tradition in Berlin. The first line is straight, but it has been split into small parts; this straight line represents the Jewish history in Berlin whereas the second line is tortuous, but it continues infinitely, representing Berlin's history. When the straight line cuts through the zigzagging plan, it creates six voids. These six voids can be seen as a recalling of the six million Jews who were killed in the Holocaust. |
| 4 | 60 straight lines cutting the floors of the zigzag building: as has been discussed in chapter five, Libeskind explained that the bodily form of Bengamin's book of Einbahnstraße was formed as a continuous series of 60 sections along the way of the zigzag outline of the new extension; each one of these 60 sections along the building symbolises one of Bengamin's 'stations of the star' in his book Einbahnstraße (Libeskind et al., 2001). These 60 sections along the zigzag outline are 60 straight lines cutting the floors of zigzag except for the interaction space between the two lines of thinking in the main concept. |

8.2.3.3 The Third Level of Interpretation:

The level of *Drush* is the third level of the four exegetical methods: it is used to portray the allegorical meaning of the texts. This is related to the architectural experience that can be read allegorically. Allegorical experience is related to any man-made object that the relationship between its signifier and signified cannot achieve intuitively. Adequate knowledge, therefore, is required in order to recode the meanings.

The experience of the three axes in the basement level is the most obvious example of spatial experience that can be read allegorically in regards to two main differences between them: their layouts and the direction of their materials. These two differences play a key role in narrating the different stories of each axis (see Table 8.6).

Table 8.6 Examples of allegorical reading of the architecture of JMB.

| Allegorical reading | |
|---------------------|--|
| 1 | The first difference is linked to the dimensions of those corridors and the nature of the relationship between the length and width. Despite the fact that the Axis of Continuity is the longest of these three corridors, it is also the narrowest of them. In second place in terms of the length is the Axis of the Holocaust, though this axis is the widest one. While the Axis of Exile occupies the last rank in terms of length, it is wider than the Axis of Continuity. The dimensions of these axes are not the result of coincidence, but rather it seems that they were indented in order to create a different scenario for each axis. The length and width of the Axis of Continuity plays a key role in narrating the Jewish history, since the corridor is the longest one in the basement, see its end from a position at its beginning is difficult compare to the other two; especially when we know first it is the narrowest corridor so it limits the angle of view of human vision, and second the corridor has a gentle slope upwards so the length of its end becomes smaller. Therefore, the layout of the Axis of Continuity enhances the idea that the future of the Jews is unclear. In comparison with the length of the Axis of Continuity, the width of the Axis of the Holocaust, as the widest one out of the three axes, seems to recall the great impact of the Holocaust on Jewish life. |
| 2 | The relationship between the floor tiles and the main borders of the axes is considered to be the second main difference between these three corridors. While the floor tiles in the Axis of Continuity are parallel with its walls, it is not parallel with the other two corridors (the Axis of the Holocaust and Axis of Exile). It seems that the architect intended to make the floor tiles in the Axis of Continuity parallel to its borders to present the stability in the Jewish future whereas the floor tiles are not parallel in both the Axis of the Holocaust and Axis of Exile to represent the instability of Jewish life in |

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| | Germany during the Second World War. These two paths are against humanity which no one would like to experience, since one of them led to the inevitable death while another led to exiling Berliners from their city. |
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8.2.3.4 The Fourth Level of Interpretation

The level of *Sod* is the fourth level of the four exegetical methods: it is aimed at revealing the secret meaning of the text. To achieve the secret meaning of the architecture of JMB, the interpreter needs to start from the first level and move forward to the higher. However, some of the meanings extracted are difficult to be proven and denied. Therefore, finding the secret meaning of the architecture is not an easy task.

8.3 The Mode of Body-based Interpretation in the JMB

8.3.1 Introduction

Historically, the influence of both semiotic and phenomenological interpretations as instruments to create meaningful spaces in architecture generally and museum architecture specifically began almost around the same time during the 1960s. However, the transposition of semiotic interpretation ideas into the creation of museum architecture has been far more widespread than the transposition of phenomenological interpretation ideas. It appears that there are two main reasons for this. First, applying phenomenological interpretation ideas in museum architecture seems to be restricted in terms of presenting the social and political dimensions for the audience, whereas the mode of semiotic interpretation is far more successful in presenting these dimensions. Second, designers of museum architecture, including in their exhibitions, prefer to treat the visitor as a passive audience so they can impose specific meanings on them. During the last twenty years a large amount of research within museum studies has shown that the mode of phenomenological interpretation can handle some of the limitations of the mode of textual interpretation, especially in relation to two aspects. First, the visitor can gain knowledge in museums generally through the interaction between their bodies and the objects, so it is ideal for the exhibition designers to think about the importance of the bodily dimension in their design as an instrument to obtain knowledge about the world. It is essential to state that the interaction between the visitor's body and objects take place in the world between

them, and the museum architecture is a key part of this world in between. This connected aspect stresses the need to consider the phenomenological aspects as tools to understand the nature of the interaction between the visitor and the objects (see Dudley (2010b) and Macdonald and Basu (2007), Dudley (2010a)). Second, multisensory engagement with the overall spatial environment can play a key role in connecting the visitor emotionally with the evoked story (see Macleod et al. (2012) and Macleod et al. (2018)).

In terms of the relationship between the body-based interpretation and the transmission of knowledge in Judaism, although religious texts have dominated Jewish life (as has been discussed in section 8.2.1), textual-based is not the only mode of adoption of religious beliefs in Judaism. Indeed, historically, ‘experienced-based’ has been one of the main aspects associated with spirituality in the Jewish tradition. For 40 years of the Israelites wandering in the wilderness is an example of embodied experiences that somehow aimed to make the new generation trust more in the power of God. After, they refuse the words of God through the prophet Moses to open the Promised Land. So, this experience of wandering in the wilderness for 40 years has made them stronger and confident in God's ability to triumph. Moreover, there are many embodied rituals in Jewish tradition, such as mikvah (a pool of water – usually from natural sources – which is used for the aim of ritual immersion in the Jewish tradition to achieve ritual purity). Also, there are some new studies in Judaism that strive to stress the importance of the body in defining Jewish identity, for example *People of the body: Jews and Judaism from an embodied perspective* (Eilberg-Schwartz, 2012).

8.3.2 The Phenomenon of Performance

Some parts of the JMB have been designed in a way to provide a performative space for the visitor through heightening the embodied experiences of the visitor as a response to the three-dimensional environment of the performative space that contains various spatial gestures. These spatial gestures of the performative spaces include a set of tangible and intangible properties that most likely will affect the bodily responses of the visitor somehow to communicate metaphorical meanings. Therefore, the relationship between the visitor's movement and the space's gestures can be seen as a sort of engagement in a dialogical performance. This dialogical performance somehow will invite the visitor to

engage with the space through their sense and emotions in order to have a sense of something. It is important to state that the phenomenon of performance in some parts of the JMB does not mean that the visitor engages in prescribed activities; instead, in this phenomenon, the visitor is invited to perform informal acts that happen consciously and unconsciously as a response to the overall spatial environment that contains an almost equal amount of familiarity and novelty. This balance will greatly contribute to enhancing the emotional and sensory impact on the visitor, and will also relieve the boredom that may result from the experience of a familiar spatial environment. Since the phenomenon of performance occurs in some parts of the JMB, this phenomenon is examined as one mode amongst three different concepts:

1. Performing in dead-end spaces (8.3.2.1). In this concept three characteristics describing the nature of these informal acts in these three dead-end spaces will be discussed: (1) occurring in the world between spectators and the overall spatial environment of the performative space; (2) depending on the way of perceiving the performative space; (3) generating unbounded meanings.
2. Disruptive performance (8.3.2.2)
3. Performing in the Labyrinth (8.3.2.3)

8.3.2.1 Performing in Dead-end Spaces

As has been discussed in chapter seven, the JMB is full of dead-end spaces. Without doubt, for designers, generally speaking, dealing with a dead-end space as spatial storytelling in museums has many challenges in terms of defining the methods that can encourage the visitor to walk in this space in order to communicate different meanings; especially when it is known that dead-end spaces do not lead to other spaces or galleries, so walking along these spaces can be seen as extra effort for some visitors. However, Libeskind, in creative ways, has paid attention to the physical quality of each area of the three main dead-end spaces in the museum in order to encourage the visitor to explore the museum through their movement so as to communicate with the dead-end space.

In terms of performing in dead-end spaces, it seems that the three main dead-end spaces in the JMB have been treated as forms of a performative space through adopting some theatrical metaphors and the visitors have been invited to perform informal acts through their walking, actions and reactions of the body as a response to the physical qualities of these spaces. These different informal acts by the visitors will generate multisensory reactions, and this, in turn, will produce multiple layers of meanings. These meanings will be linked to the meaning obtained through the act of looking, because as stated by Leahy (2012, p. 75), “museum looking cannot be extricated from museum walking”. The connection between the *vision* and the *sensation of walking* can be seen in Merleau-Ponty’s philosophy, specifically in his definition of the human body as an “animal of perceptions and movement” (Merleau-Ponty, 1964, p. 167). Based on Merleau-Ponty’s description, it can be said that the questions that people ask about the phenomenon around them are their visions and the actions they take and forming in their movements are the answers to their questions.

In chapter seven, multiple findings of the behaviour of 30 different visitors in the three main dead-end spaces (the Holocaust Tower, the Memory Void and the Garden of Exile) have been discussed. Here, three characteristics describing the nature of these informal acts in these three dead-end spaces will be discussed in more detail. These three characteristics are: (1) occurring in the world between spectators and the overall spatial environment of the performative space; (2) depending on the way of perceiving the performative space; (3) generating unbounded meanings.

8.3.2.1.1 Occurring in the World between Spectators and the Overall Spatial

Environment of the Performative Space

As has been discussed in chapter three, objects in museums do not have meanings in themselves and at the same time, the visitor is not alone in assigning meaning to these objects (Dudley, 2010a, Gell, 1998). Instead, the meaning of an object emerges from the interaction between the visitor’s body and the object. However, in the three dead-end spaces the visitor does not interact with objects because they are empty spaces, which means that they do not contain any objects. In contrast, the visitors in these three spaces

interact mainly with the overall spatial environment in order to communicate their different meanings.

In each of the three dead-end spaces, there are multiple spatial features that play a key role in creating different physical interactions between perceiving subjects and the space. Below, the most notable spatial features that create physical interaction in each of the three spaces will be discussed.

In the Memory Void, the visitor has the chance to embody the experience of either silent or clamorous screaming based on their decisions to either walk on top of the 10,000 steel faces frozen in horror that spread over the Memory void or not to walk on them. Based on analysing the thirty visitors, it is clear the visitors interact with the space differently, and this in turn can produce different meanings as is shown in the participants' comments about the Memory Void which has been discussed in chapter seven.

In the Garden of Exile, as has been discussed in chapter seven, the floor's closest corner to the door was tilted, which led to the creation of a double thirteen-degree slope. This double degree slope on the garden's floor makes the visitors' movements inside the garden difficult and somehow dizzy, as has been stated by some of the respondents.

The interaction between the visitor and the Holocaust Tower as a form of scenography is different from the above two performative spaces, because mostly it is based on ambient conditions. Some of these ambient conditions are intended to make the visitors feel uncomfortable, as has been explained by some of the respondents in chapter seven, as both the darkness of the space and the cold temperatures are examples of ambient conditions that made some of the respondents feel unhappy about staying too long in the space.

Based on the above examples it is clear that tangible and intangible properties of the three dead-end spaces play a role in creating physical interactions with the visitor. These different physical interactions, in turn, affect the visitors' performance in these spaces, and the meaning they obtain through their interaction with these spaces. Not only for this reason, but also because the experience in museums generally is related directly to the visitor's body and their corporeal responses to its contents as has been stated by Libeskind.

8.3.2.1.2 Depending on the Way of Perceiving the Performative Space

As has been discussed in chapter seven, the structure of the movement inside museums is the main motivator that influences the perception of museums' exhibitions and their physical qualities because it plays a key role in defining both the way of presenting objects and placing the visitor in front of the exhibition. Kirshenblatt-Gimblett (1999) stated that “[e]xhibition is how museums stage knowledge. They do this by the way they arrange objects ... in space and by how they install the visitor.” Therefore, the way of installing the visitor in front of the space can affect their behaviours in these spaces, because the way of directing the visitors' movement is crucial in controlling the viewing of the spaces.

In the three dead-end spaces, the physical qualities of these spaces play a pivotal role in defining the movement of the visitor inside the space. This in turn leads to defining the way of perceiving these spaces by the visitor and performing their informal reactions in the space. To show how the way of perceiving the three dead-end spaces can affect the informal performances of the visitor, some of the tangible and intangible properties of each space of the three dead-end spaces that affect the way of perceiving these spaces will now be discussed.

Starting with the Memory Void, although the space has no door, as has been discussed in chapter seven, the short wall which is a boundary to part of the space becomes the main architectural element that defines the entrance to the exhibition. More importantly, this short wall defines the direction of visitors' movements towards the space, because the diagonal form of the wall makes the width of the space's entrance less towards the wall than in front of the wall that has a window, and as a result, the visitor enters the Memory Void from the right hand corner of the space. This way of forcing the visitor to enter the space from the right corner of the space seems to be intended by the architect to give the visitor space to explore and mediate the wall that has a window and two protrusions in the concrete in regular shapes in different directions; and this most likely will encourage the visitor to interact with it more than the opposite wall, as has been noticed in the analysis of the 30 visitors in the Memory Void.

With regards to the Garden of Exile, the short wall which is located in front of the Garden's main door intercepts the vast majority of the visitors entering the ‘forest of concrete

columns' from different paths; instead it seems to lead the visitor to enter the 'forest of concrete columns' from two specific paths, as has been described in chapter seven. Also, this wall has forced the visitor to explore the garden from the lowest level, and this can make the act of perceiving the 'forest of concrete columns' more ambiguous; this most likely will increase the curiosity of the visitor to discover the 'forest of concrete columns'.

Finally, the way of installing the visitors in the Holocaust Tower places the visitor in a direct spatial encounter between the space and them; the reason for this direct encounter is that once the visitor opens the door they will be in the middle of the space surrounded by most of the features of the space and mass involving all the features of physical quality. It is important to state that this direct spatial encounter affects the performance of the visitor in the Holocaust Tower as has been noticed in the analysis of the visitors' behaviour in this space.

Overall, it can be claimed that the informal performance in the dead-end spaces depends on the way of perceiving these spaces. In addition, it is clear that the tangible and intangible properties of each space of the three dead-end spaces can affect the way visitors perceive these spaces.

8.3.2.1.3 Generating Unbounded Meanings:

Although each space of the three main dead-end spaces in JMB is intended to revolve around specific thoughts and concepts, it can be claimed that the meanings of experiencing these spaces for the visitor is various. These meanings are sometimes compatible with the intended meanings of the designer and sometimes they are completely different from the intended meanings. The reason behind that is that the visitor interacts with the tangible and intangible properties of each space of the three dead-end spaces differently. This somehow leads to the visitor producing various meanings for each of the three dead-end spaces. To show how the different way of interacting with the tangible and intangible properties of each of the three dead-end spaces generates unbounded meanings, the most noticeable features of each space that the different interactions with them have produced will be discussed.

In the Garden of Exile, the visitors interact with the ‘forest of concrete columns’ differently; and this somehow affects the meanings that emerge from these different interactions. Just three types of these interaction will be explained to indicate the different meanings that emerge from each interaction. First, some visitors see their walking between the columns in the garden as similar to the experience of some Jews who fled from the Nazi regime. For example, two of the respondents stated these similar meanings:

It captured very clearly the feeling of not being at home or not being very comfortable. PM-24 semi-structured-interview, 2017

Some parts that you can feel like the Garden of Exile, that you can feel like you're one of the Jews at that time. PF-01 semi-structured-interview, 2017

Second, some of the visitors see the ‘forest of concrete columns’ like a maze whereas the third group see this ‘forest of concrete columns’ as an appropriate place to play hide and seek (most of these visitors are young people).

In terms of the Holocaust Tower, some groups think the experience of the Holocaust Tower recalls the experience of some Jewish people during the Holocaust. However, some of the visitors see the Holocaust Tower as a natural light installation, as has been stated by Rinke (the Head of Visitor Service). This might be because of the amount of natural light that enters the tower which continuously changes based on the outside environment. This change in the amount of light that enters the space can create a surprise experience, since the environment in the tower sometimes changes suddenly from semi-light to dark or vice versa. Therefore, thinking about the Holocaust Tower as a natural light installation has some justifications, and these justifications are related directly to the different ways of interacting with the changes in the amount of light that enters the tower and how the visitor responds to these changes. Based on the observations of the visitors in the Holocaust Tower, sometimes when the amount of light changes significantly, some of the visitors produce a sound that expresses astonishment, such as WOW.

In the Memory Void, playing with light and shadow can arouse different feelings in the visitor; for example, some of the respondents believe that the lighted area in the Memory Void gave a feeling of safety, whereas the dark area gave them a feeling of discomfort.

However, other respondents think the interplay with the light and shadow makes them feel the torment against the Jews.

Therefore, it can be said the meaning of the embodied experiences of the three main dead-end spaces is internally generated by the visitor. In this way, there are various meanings for each of the three dead-end spaces; some of these meanings are compatible with the intended meanings of the designer, whereas others are completely different from the intended meanings.

8.3.2.2 Disrupting the Performing

As has been discussed in chapter seven, the movements and the perceptions of some visitors in the museum were disrupted by two prominent spatial moments by using different techniques in each one. In the first disruptive moment, the visitors' movement seems to be interrupted through intended architectural failure on the visitor's act of opening the door of both the Garden of Exile and the Holocaust Tower. This intended architectural failure in both doors has been examined through a combination of conceptual and empirical research, as has been explained in chapter seven and it seems that this architectural failure has three objectives. First, it can make the visitor consciously experience the space through their body schema, because the human body in such a situation will switch from unconscious attention to conscious. The second objective is to distance the visitor emotionally from the tragic story of the Jewish people during World War II. The third objective is to make the visitor enact the disruptive movement that metaphorically recalls the disputation of Jewish history. However, this performance most likely will not make the visitor connect with the story of the Jews who were killed during World War II; instead the visitor most likely will be, through their senses and emotions, engaged with their own experience of the difficulty of opening both doors and how that disrupts their movement. Such performance might help the visitor to think about their contemporary problems, as has been stated by one of the participants:

The problem is presented to you as an observer, you understand the problem, your experiences is-- The experience in the place is based on your own emotions so you make your own connections to something that-- If you would have been them what would you have felt? That's what you take away from the place. It's a conscious assessment. You assess your conscious. What would I feel if I were persecuted? I would have been chased-- And immediately make my own comparisons. I make my

own story and not only about myself but about other more contemporary problems or situations. It was inevitable to think about other places. PM-07 semi-structured-interview, 2017

However, the second disruptive moment is about the distraction of the visitors' movement in the three main corridors at the basement level as a result of the appearance of linear light at intersections in the corridors. This distraction has been stated by some of the respondents (noted in chapter seven) as a method to examine the spatial features that increase the appearance of linear light of the intersections of the corridors and heighten the distraction. A geometrical demonstration comparison was made to examine the effect of four factors, and it was found that:

- When the angle of the intersection of the two corridors is increased, the amount from the other corridor increases, and vice versa.
- When the angle of the direction of the linear light's layout is increased, the amount of the light area of the other corridor becomes larger, and vice versa.
- Increasing the width of the main corridor where the visitor is walking shows larger amounts of light of the intersection corridor than the amounts of light of the intersection corridor when the intersection corridor is wider than the main corridor.

These findings were used as a method to arrange the three intersections from most diversionary to least diversionary, and they were arranged as follows: (1) the intersection between the Axis of Contently and the Axis of Exile; (2) the Axis of the Holocaust and the Axis of Exile; and (3) the Axis of the Holocaust and the Axis of Contently. The objectives of this disruption can be somehow similar to the objectives of the intended architectural failure in the visitor's act of opening the door of both the Garden of Exile and the Holocaust Tower.

8.3.2.3 Performing in the Labyrinth

Many visitors stated that the museum is full of confusing moments at both the basement level and the permanent exhibition. These repeated confusing moments in both parts of the building lead somehow to make the journey inside the museum like moving through a labyrinth. Although Libeskind has not mentioned the idea of labyrinth as a method to confuse the visitors' movements in the museum, it seems that the idea of labyrinth has been applied in the museum in order to interrupt the visitors' movements. The aim of this is to make the visitor experience "the scale of disrupted tradition" (Libeskind et al., 2001). In other words, the architect strives to transform the interruption of Jewish history in Berlin

into a spatial and body experience through creating multiple confusing points that can help the visitor to feel the amount of disruption of the Jewish history in the city of Berlin.

Although the experience of both the permanent exhibition and the basement level have been described as maze-like, the experience of either one is completely different from the other one because of some spatial factors that affect the visitors' performances in both places. The idea of labyrinth in these two parts will be reviewed sequentially.

As has been explained in chapter seven, the permanent exhibition has two types of labyrinth: the unicursal maze and the multicursal maze. The former one is dominant in the whole experience of the permanent exhibition whereas the latter is placed repeatedly in different locations along the permanent exhibition. More importantly, the location of each type is directly connected to one of the two lines of Libeskind's main concept of the building 'between the lines'. The first line in the main concept is a zigzag shape, which forms a single path that goes from the beginning of the building to its end. This path makes the visitor walk in a wide path that looks like a unicursal maze. However, the second line is the imaginary straight line that intersects with the zigzag line at six points. At each intersection point a void is formed. Each void is surrounded by concrete walls penetrating the zigzag building vertically. As a result, the six voids have cut the continuity of movement in the zigzag path by forming what looks like a multicursal maze because in each interaction point between the two lines the visitor will be in a position where they need to choose a path from two paths.

In addition to the complexity of merging these two types of labyrinth in the permanent exhibition, there are three spatial aspects that make the movement in the permanent exhibition more complex. First, the direction of the visitors' movements on each of the two levels of the permanent exhibition plays a key role in making the realisation of the space very difficult for the visitors. Although both levels have the same layout, perceiving the space at each level is completely different from the other because the direction of the visitors' movement at each level is different from the other. In level two the visitors move from right to left whereas the visitor moves from left to right at level one; therefore, the way of perceiving the permanent exhibition's space in each level is distinct from each other, specifically in the six intersection points between the two lines of the main concept

where the six voids are formed. This in turn makes the movement along the permanent exhibition lack logic. One of the respondents has explained why he felt that the permanent exhibition is confused by stating that:

It's just the layout of the museum is not always logical. PM-28 semi-structured-interview, 2017

The second spatial aspect is the location of the permanent exhibition's exit door. In an unfamiliar way, the exit door is not located at the end of the permanent exhibition; instead, it is hidden behind some of the exhibition's walls. Therefore, finding the way out from the permanent exhibition is not an easy task, and at the same time this affirms the idea of walking in a space that is like a maze. The last aspect is that the multiple galleries in the permanent exhibition and their own routes are extra layers making the experience more confused and more maze-like.

It is essential to state that spreading the six voids, which penetrate the zigzag building vertically, along the permanent exhibition on both levels seem to have two meanings. The first one is related directly to the main concept of the building 'between the lines', because the six voids were formed as a result of the six intersection points between the zigzag line and the straight line, and these voids are empty spaces in order to metaphorically represent the absence of Jewish life. From the permanent exhibition, the visitors can only explore these empty spaces through small windows located on the bridges that cross over these voids. However, based on the observation it was noted that a few visitors explored these voids through the windows. For that reason, it can be stated that the effect of the voids for the visitors who walk in the permanent exhibition to show the absence of Jewish life in Berlin rarely seems to happen. The second meaning is related to showing "the scale of disrupted tradition" of Jews in the city of Berlin because these voids interrupt the movements of the visitors. It can be seen that Libeskind has transformed the interruption of Jewish history in Berlin into a spatial and body experience through creating multiple confusing points that can help the visitor to feel the amount of disruption of the Jewish history in the city of Berlin. However, it can be said that the second meaning is more concrete than the first one, because it embodies the experience more than the first one.

On the other hand, performing in the labyrinth at the basement level is not the same as performing in the labyrinth in the permanent exhibition in terms of various spatial and behavioural aspects. As has been discussed in chapter seven, there are many spatial disruptive moments at the basement level that make the visitor puzzled in choosing the way of exploring the basement level specifically at the three axes and their dead-end spaces. These spatial disruptive moments seem to play a key role in experiencing the three axes in interrupted forms because of the influence of multiple spatial and behavioural aspects.

Based on the above discussion, it is clear that applying the labyrinthine aesthetic in a novel way is not an easy task for designers. Therefore, in order to apply the labyrinthine aesthetic to museum architecture, the designer needs to limit any way of thinking about the space as a two-dimensional layout; instead they need to think about the spatial conditions of the space, the way of installing the visitor and how the visitor normally behaves because these three aspects can affect the performance of the visitor in the space.

8.4 Transmission of Knowledge in Museums

As has been discussed in chapter three, in Whitehouse's theory there are two categories of transmission of religious knowledge: semantical-based and experienced-based. These two forms of adoption of religious beliefs are somehow compatible with the two experiences that have been identified in the JMB: textual-based and bodily-based. Therefore, the nature of each form of transmission of religious knowledge can be used to interpret the compatible experience in the JMB.

Based on Whitehouse's two categories of transmission of religious knowledge, there are two contrasting features between the doctrinal (semantical-based) and imagistic (experienced-based) modes of religiosity. The first feature is *psychological features* which deal with the way of handling the religious activities. It is concerned with five variables: (1) transmissive frequency, (2) level of arousal, (3) principal memory system, (4) meaning, and (5) techniques of revelation. The second feature is *sociopolitical features* which deal with both the organisation of the society and the political power in populations and groups. The sociopolitical features are concerned with seven variables: (1) social cohesion, (2) leadership, (3) spread, (4) scale, (5) degree of uniformity and (6) structure.

These two classifications of contrasting the two modes of adoption of religious beliefs in Whitehouse's theory will be used as a guide to contrast the two identified experiences (intellectual versus emotional), (cognitive versus embodied) or (text-based versus body-based). It is essential to state that the cognitive experience is located mainly in the permanent exhibition which as has been stated before a journey starting on the second floor and ending on the first floor whereas the embodied experience is mainly located in the basement level plus the Memory Void which is located on the ground floor.

8.4.1 The Psychological Features

1 Transmissive frequency: in the JMB, the transmissive frequency of the cognitive experience in the permanent exhibition is high. This means that the way of displaying the panels of text and objects is somehow similar to the way of displaying the panels of text and objects in other museums. Therefore, this way of displacing interpretive texts and artefacts in the JMB usually looks familiar for many visitors. This in turn will most likely make many visitors feel bored of experiencing such a familiar approach of present artefacts and interpretive texts. However, there are two aspects about the cognitive experience in the permanent exhibition that need to be mentioned. First, this familiar mode of presenting the history provides many facts about Jewish history, as has been stated by some visitors. Second, although some visitors felt bored in this part of the museum, there are some interactive objects and large installations that have attracted some of the visitors' attention, as has also been stated by some of the respondents.

On the contrary, in the JMB, the transmissive frequency of the embodied experience in the basement level and the Memory Void is low. This means that the embodied experiences of these parts of the building is unique, and it can rarely be found in the other museums. Therefore, the visitor usually is unfamiliar with these embodied experiences and how to deal with them. This in turn led some visitors to describe these parts of the building as surprising/ exiting/ strange experiences. The level of familiarity of each mode of the two identified experiences in the JMB can play a key role in affecting the experience of the visitor. As evidence to support this claim, one of the respondents described the effect of these two types of experience (cognitive and embodied) by stating that:

Those four spaces [she means the Holocaust Tower, the Garden of Exile, the Memory Void and the light in the three corridors] I'm mentioning were the ones that were more distinctive for me because I felt different. The exhibition areas they were really nice but it's more of the same, it's something that you know you're going to find and it wasn't-- I've been in many many museums, because I really love going to art galleries and museums, and it's not like the exhibition areas where for me like precisely something that I'd say, "Wow." No, it was more of these spaces that without having something to exhibit they gave me all the information that I needed. PF-23 semi-structured-interview, 2017

2 Level of arousal: the level of arousal of the mode of text-based interpretation in the JMB is low. The reason behind this decrease in the level of arousal of the mode of text-based interpretation is related directly to the various genres that are used in creating the story of the museum. These various genres are mostly inspired from the literary techniques. One of the main issues of the transposition of some of these literary techniques into the creation of museum architecture is that some of the meanings cannot be easily extracted by the visitor. These hidden meanings will put a limit on the feelings that the visitor might get from the museum's story. This is what happens in the JMB as Libeskind strived to cast the mode of text-based interpretation in a highly convincing mode through to the transposition of the four layers of interpreting religious text in the making of a meaningful spatial environment in the JMB. In this transposition, all of the metaphorical, numerological and allegorical readings of the museum's space are considered to be techniques to trigger the personal experience of the visitor. In addition, the written word is used as a mechanism for triggering the personal experience. For example, naming the project 'Between the Lines' can be seen as either a method to encourage the visitor to think about the main concept of the building and the interaction between the two lines and/ or as a technique to encourage the visitor to find the implicit meanings that are not directly expressed in the museum architecture. However, although this technique has been considered as a poignant narrative by a few visitors, most of the meanings of this cognitive mode cannot be easily understood, and the repeating of its contents can make the visitor experience them unconsciously. Therefore, most of the visitors have restricted feelings about the story that is told through this genre, as has been mentioned by the respondents and the reviewers of the building in Google Review. On the other hand, the level of arousal of the mode of body-based interpretation in the JMB is high. The reason behind this increase is that the embodied experiences of some parts of the museum can create intense emotions in the visitor, as has

been discussed in chapter seven, because of the multisensory engagement with the overall spatial environment.

3 Principle memory system: in the JMB, the experience of the visitor of each mode of the two modes of interpretation produces different memories. In terms of the mode of body-based interpretation, the infrequent repetition of highly arousing performative activities can help the visitor in memorising these exceptional performances in their long-lasting episodic memory. These seldom performed and extremely arousing performances remain in the autobiographical memories because they are “a combination of episodic distinctiveness and emotionality”. In psychology, this memory is also known as a flashbulb, since these memories are kept for a whole lifetime. As evidence to support this point, more than 60% of the respondents selected one of the dead-end spaces as the most memorable space in the whole museum. On the other hand, the mode of text-based interpretation depends mainly on spreading out curatorial commentaries as tools to enhance the intellectual experience including both text panels and recorded spoken commentaries. One of the main issues of the medium of written-storytelling and verbal-storytelling is that they need to be repeated many times in order to be memorised by visitors in their semantic memories, and this rarely can happen from just one visit. Instead, these curatorial commentaries might be memories in the short-term memory. Therefore, most of the knowledge that the visitor obtains from experiencing the mode of text-based interpretation cannot stay for a long time in the visitor’s memory.

4 Meaning: in the JMB, the designers of the mode of text-based interpretation preferred to treat the visitor as a passive audience so they can impose specific meanings on them. Therefore, the knowledge that visitors acquired from the museum is usually the same knowledge that the storyteller of the museum wanted them to learn. This aspect has been discussed in section 8.2.1 as one of the limitations of the cognitive experience. On the other hand, in the mode of body-based interpretation, the knowledge is internally generated because the meanings of these exceptional embodied experiences are based on the ability to trigger spontaneous exegetical reflection (SER). This simply means that the participants of infrequent repetition of highly arousing performative activities deal with these performances with complete awareness as a result of the sensory stimulation. This most

likely will lead the visitor to reflect extensively on these performances which in turn develop in detail knowledge that is organised in the semantic memory.

5 Techniques of revelation: in the JMB, each of the two modes of interpretation (cognitive and embodied) has different techniques of revelation. In the embodied experience, the infrequent repetition of highly arousing performative activities can trigger off numerous inferences. This most likely will lead to producing a feeling of multivocality and multivalence of performative imagery. Therefore, it can be said that the visitors experience the space through unmediated inspiration whereas both the spread of curatorial commentaries and the transposition of narrative techniques into the making of a meaningful spatial environment become a mediator to contemplate the meaning of the museum.

8.4.2 The Sociopolitical Features

1 Social cohesion: the knowledge that the visitor obtained through exploring the mode of body-based interpretation in the basement level and the Memory Void cannot be easily transferred verbally. This might make it very difficult for the visitor to share this knowledge with other people. Therefore, the embodied experiences can serve to bound together small groups of people who visit the museum and perform these embodied experiences. On the other hand, the knowledge that the visitor obtained through exploring the mode of text-based interpretation in the permanent exhibition is verbally transferable. Therefore, it is possible for the visitor to share this common knowledge with others. Overall, it can be said that the mode of text-based interpretation can be diffused between a large group of people whereas the mode of body-based interpretation can create more intense emotions between people who participate in these embodied experiences. One of the respondents indicated how the embodied experiences can create intense emotion.

This time it was to share this experience with my friend because I loved it the first time so I wanted going to come back. PF-29 semi-structured-interview, 2017

2 Leadership: as has been discussed in chapter six, some of the ideas about both the museum architecture and the exhibitions have been expressed in words; as a consequence, the orators (architect and the exhibition designers) come above the visitor by establishing dynamic leadership. There are two reasons behind this dynamic leadership. First, the content of these orators seems more compelling than the visitor's own inspirational

concepts because as has been discussed in section 8.2.2, their texts most likely will impose specific meanings. The second reason is that both the way of presenting this mode and the common procedure of exploring this mode are limited in terms of the number of challenges that can affect the experiences of the visitor, which in turn will affect the way of perceiving the meanings of this mode. However, the leadership has a passive role in the mode of body-based interpretation, for two main reasons. First, there is no restricted role in exploring these embodied experiences, so the visitors can experience them differently as has been stated in chapter seven. Second, the meanings of the embodied experiences are internally generated by the visitor.

3 Spread: the knowledge that the visitor generates from exploring the mode of text-based interpretation in the JMB can be spread rapidly between people because it is possible for the visitor to spread this knowledge verbally whereas the knowledge that emerges from the embodied experience in the JMB cannot be spread rapidly between people. Although the visitor can recall many details of these embodied experiences, it is difficult for the visitor to talk about these details verbally. However, the possible ways of spreading this knowledge are either by asking people to visit the museum and perform these embodied experiences, or moving the museum around the world.

4 Scale: based on the discussion above, it can be stated that the knowledge that the visitor obtains from exploring the cognitive experiences in the JMB can be transferred to large-scale networks whereas the knowledge that the visitor obtains from exploring the embodied experiences in the JMB cannot be easily transferred to large-scale networks.

5 Degree of uniformity: in the JMB, the degree of uniformity of the embodied experiences in the basement level and Memory Void is high, because there is nothing identifying the sort of uniformity of meaning that depicts the embodied experiences. Although these performative activities intend to revolve around specific thoughts and concepts, they do not contain any features that can create a sort of uniform meaning like the cognitive experiences, as has been discussed in chapter seven. However, if there is something the visitors agree about, it most likely will be related to the physical qualities of the performative spaces. In contrast, the degree of uniformity of the cognitive experience in the permanent exhibition is high because it is most likely the visitors resemble the sort of uniformity of meaning that characterises the cognitive experience. The use of the

medium of written-storytelling and verbal-storytelling plays a key role in creating this sort of uniformity of meaning.

6 Structure: the way of exploring the permanent exhibition is highly centralised because the visitor needs to pass through a specific path (starting from level two and ending at level one) in order to finish their journey. The reason behind controlling the visitors' movement in the permanent exhibition is to limit any inventive way of exploring the exhibitions, which in turn can affect the received knowledge. Therefore, the permanent exhibition is full of signs that direct the visitors' movements. Also, there are many of the museum staff whose main role is to control the visitors' movements and behaviours. In contrast, the way of exploring the basement level and the Memory Void is not restricted because the visitor does not need to follow a specific guide to explore these parts. Therefore, the visitor is free to select a way to explore these parts, especially the three main dead-end spaces. Based on observing some of the group tours in the museum, it is clear that the visitor guide avoids controlling how the visitors should explore the dead-end spaces. They did this by giving the visitors a brief about these dead-end spaces before the visitors enter these spaces and once they finish their explanation, they allow the visitors to enter and explore these dead-end spaces while they are waiting for them outside these spaces.

Based on the above comparison between the two identified modes of interpretation (text-based and body-based) in the JMB, it is apparent that the mode of body-based interpretation has more psychological impact on the visitor than the impact of the mode of text-based interpretation. In contrast, the mode of text-based interpretation has more sociopolitical impact on the visitor than the impact of the mode of body-based interpretation.

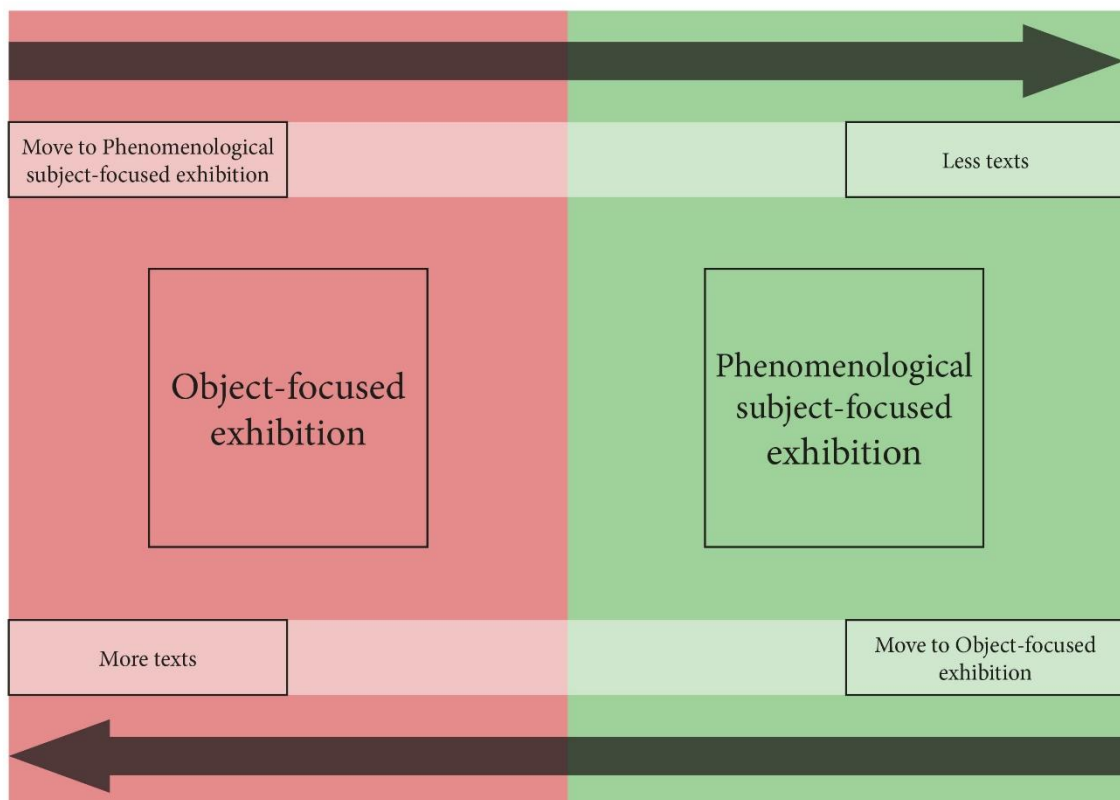
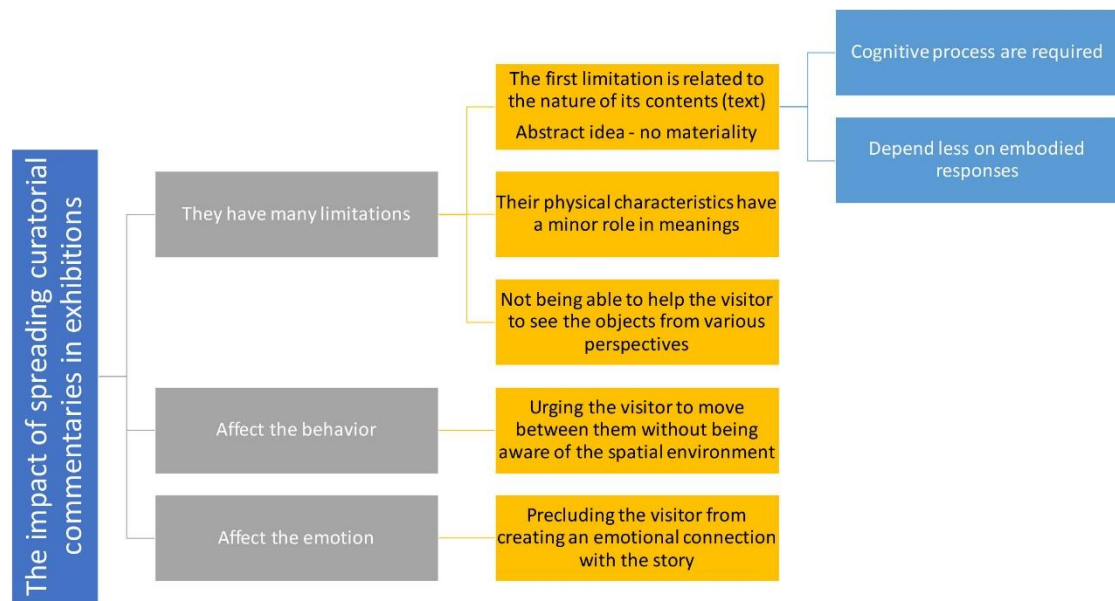


Figure 8-1 Overall diagram explaining the impact of spreading curatorial commentaries in exhibitions.
Source: the author.

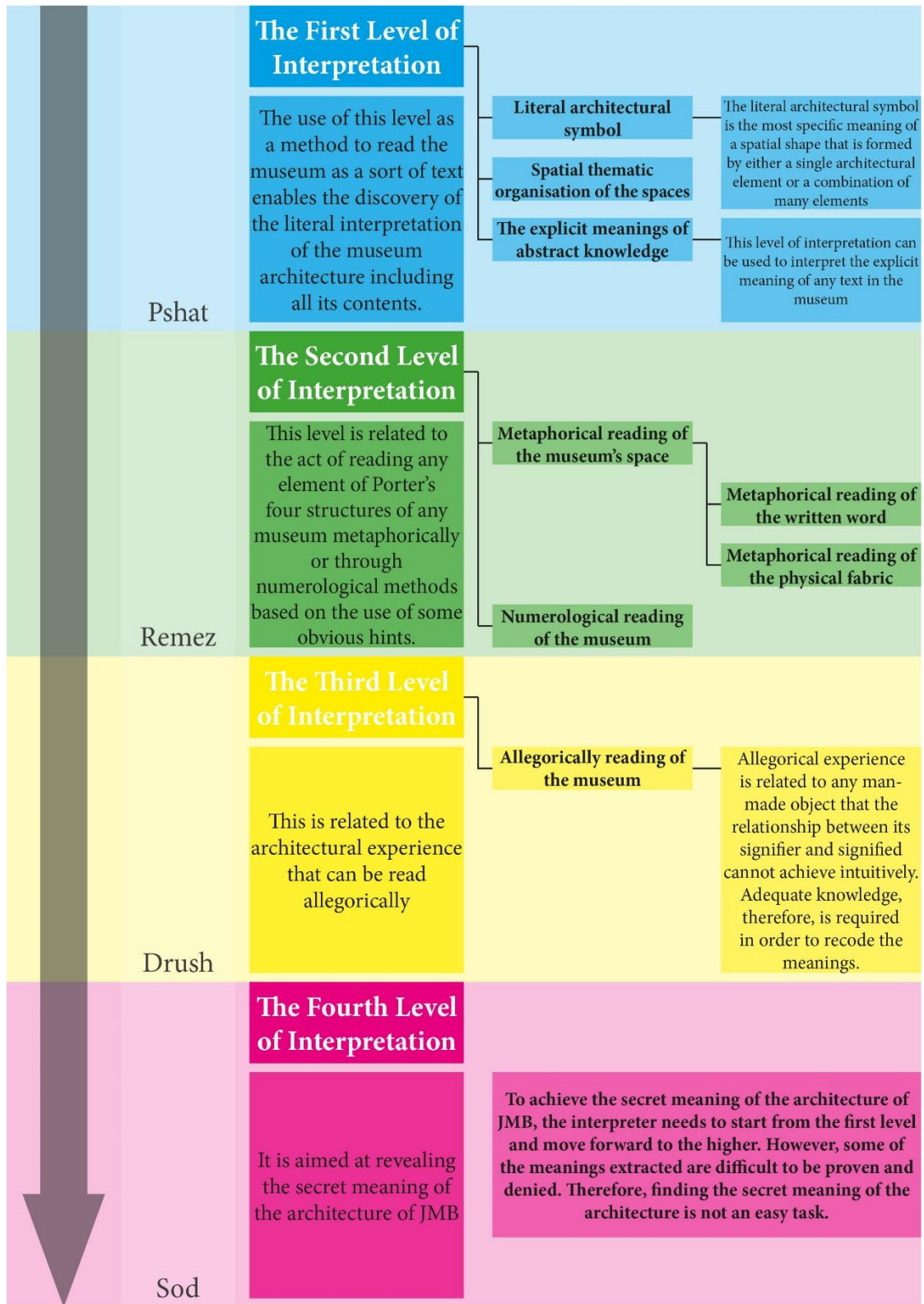


Figure 8-2 Overall diagram explaining the phenomenon of text-architecturization. Source: the author.

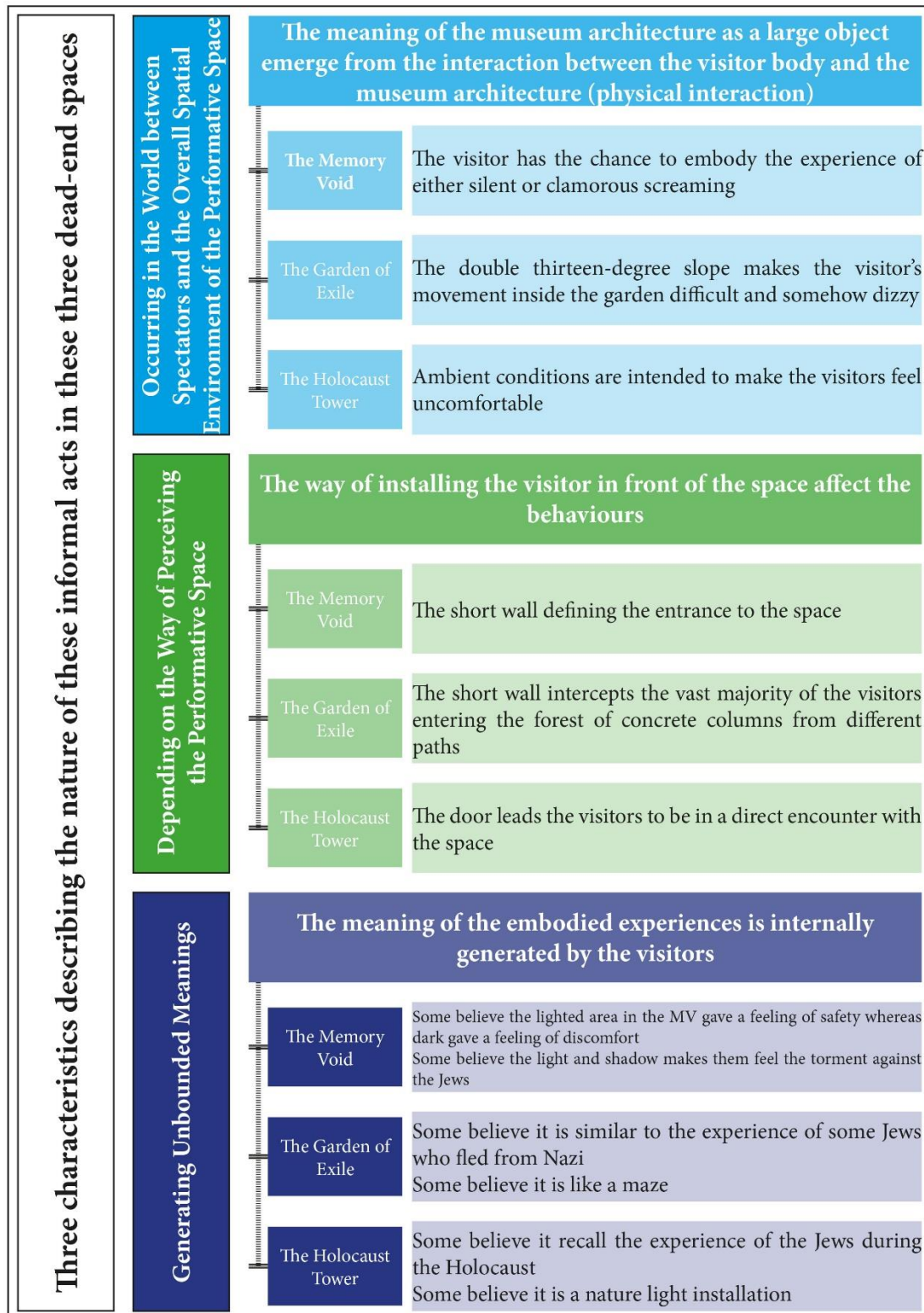
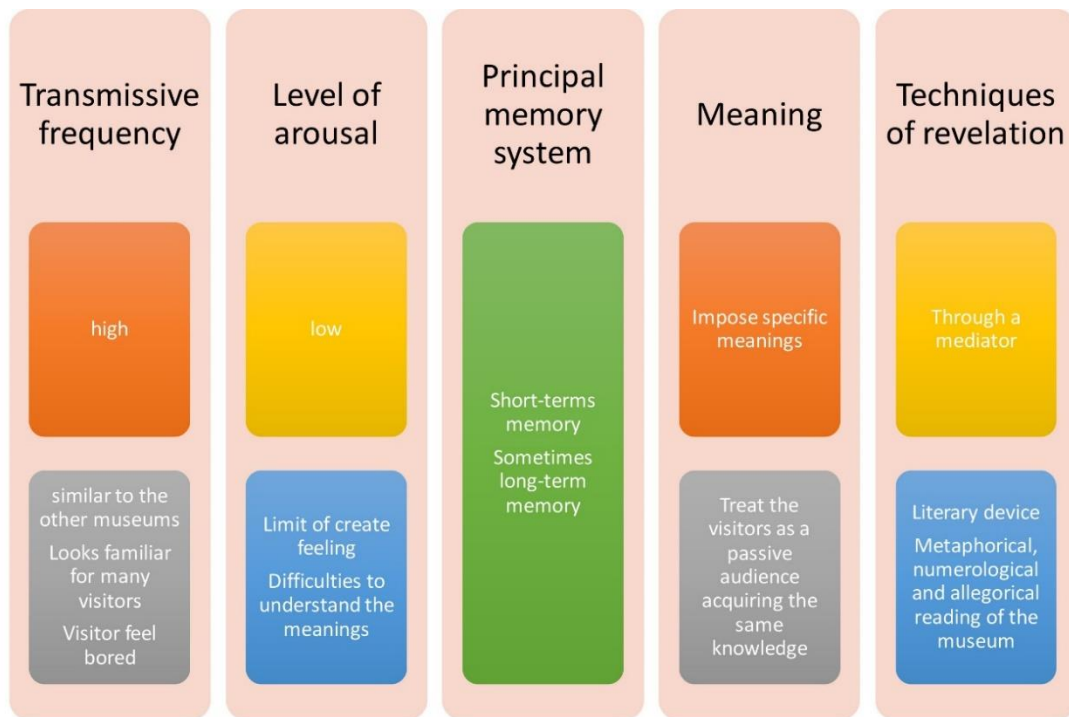
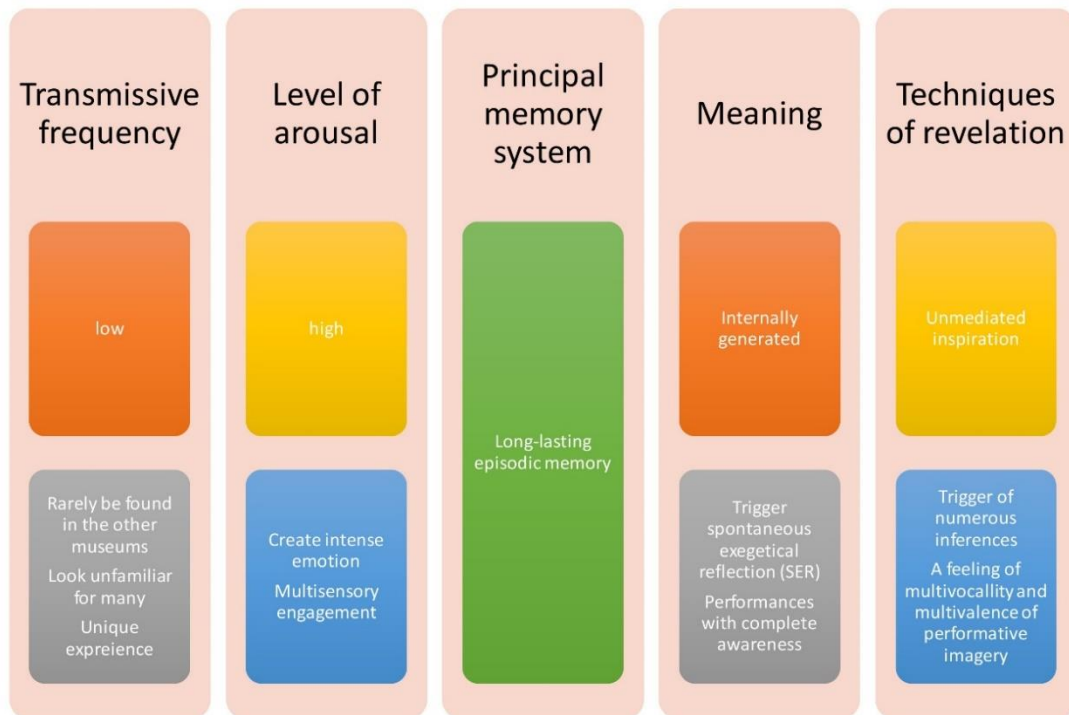


Figure 8-3 Overall diagram explaining the three characteristics of the nature of the informal acts in the three dead-end spaces. Source: the author.

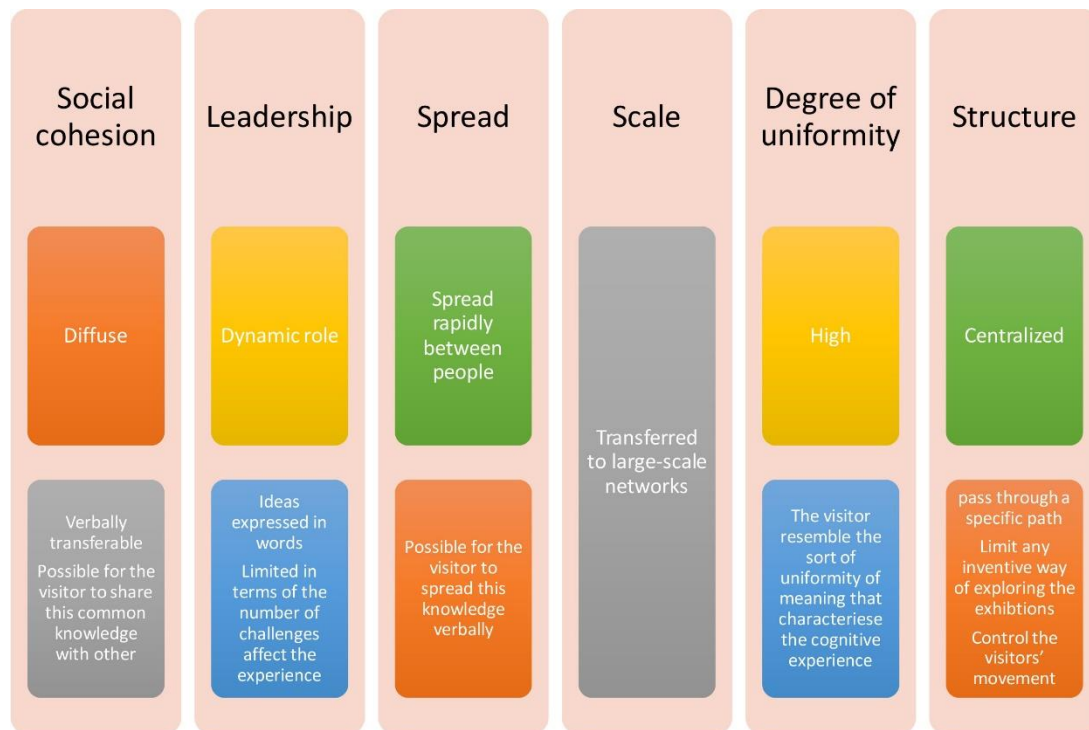


The impact of psychological features on the visitor in the permeant exhibition

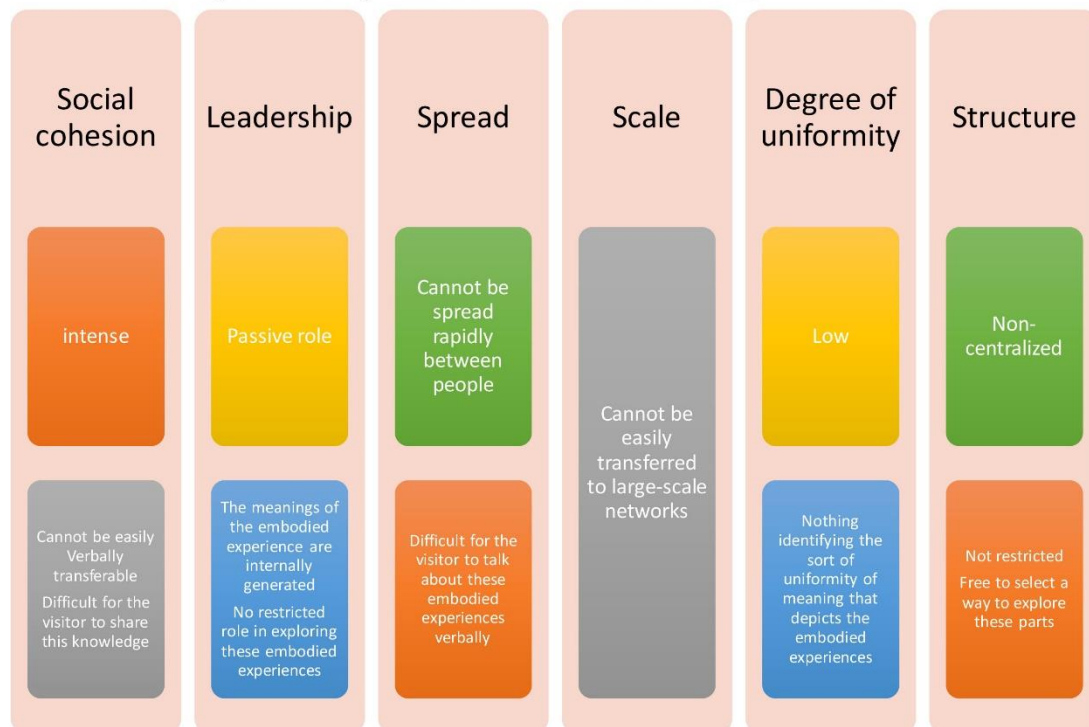


The impact of psychological features on the visitor in the basement level plus the Memory Void

Figure 8-4 Comparison shows the impact of psychological features on the visitors in two different locations (the permeant exhibition and the basement level plus the Memory Void). Source: the author.



The impact of socio-political features on the visitor in the permeant exhibition



The impact of socio-political features on the visitor in the basement level plus the Memory Void

Figure 8-5 Comparison shows the impact of socio-political features on the visitors in two different locations (the permeant exhibition and the basement level plus the Memory Void). Source: the author.

9 Chapter Nine – Conclusion

9.1 Overall Ideas of the Study

The overall idea of this study is to explore the effect of Jewish history and culture as an inspiration to conceptualise the architecture of Jewish museums in order to connect the visitors intellectually and/ or emotionally with spatially enhanced and evocative spaces. As the research endeavoured to understand how Jewish culture and history became an inspiration to conceptualise the Jewish museums, the case study method can be the best approach to answer such a question about nature, as stated by (Berg and Lune, 2004, Yin, 2009). Since there are now more than two hundred Jewish museums around the world, a rational model has been applied to select the most appropriate case study for detailed consideration. Using this model resulted in identifying the JMB as the focus of this research.

As discussed in the methodology chapter, the research has adopted five qualitative methods for data gathering in order to address the research questions. These qualitative research methods are: interviews, observation, spatial analysis, collating responses from the museum's visitors from different platforms and literature review. The main reason for using these multiple methods to collect data is to understand the studied phenomena and to increase the validity of the research. In terms of the data analysis, the data analysis procedures used in this research were based on the four general strategies to analysing data when conducting a case study. The use of these four general strategies plays a key role in developing two significant principles, which, in turn, help with addressing the research questions.

First, it establishes the theoretical propositions to examine the effect of Jewish history and culture as an inspiration to conceptualise the architecture of JMB in order to connect the visitors intellectually and/ or emotionally with spatially enhanced and

evocative spaces, specifically the two identified experiences. The theoretical propositions for analysing these two types of experience has been arranged in a hierarchical structure. This hierarchical structure consists of two main layers: general theoretical framework and specific framework. The former one is based on Whitehouse's cognitive theory of religious transmission. The key part of this theory is that there are two categories of transmitting religious knowledge: the doctrinal mode (semantical-based) and the imagistic mode (experienced-based). These two forms of adoption of religious beliefs are somehow compliant with the two experiences that have been identified in the JMB: cognitive and embodied experiences. Therefore, the nature of each form of transmission of religious knowledge has been used to interpret its compatible experience in the JMB. However, since the cognitive theory of religious transmission discusses the transmission of religious knowledge in religions generally, the second layer in the hierarchical structure of the theoretical framework is related to Jewish culture and history specifically. This specific layer consists of two specific theoretical frameworks that have a link to the Jewish culture; and at the same time, each one of them has a direct link to one of the two modes of transmitting religious knowledge in Whitehouse's theory. Each one of these two specific theoretical frameworks is used to examine one of the two categories of experience in the case study (text-based and body-based communication). The Kabbalah's interpretation method has been applied to analyse the text-based communication in the museum architecture, whereas epic theatre has been used to examine the body-based communication.

Second, the data analysis procedures developed the compositional structure of the thesis aiming to organise the case study. This structure strives to investigate the effect of Jewish history and culture as an inspiration to conceptualise the architecture of the JMB in order to create meaningful places for visitors, specifically in terms of examining the two identified experiences (text-based and body-based communication). The compositional structure of the thesis consists of six interrelated chapters (starting from chapter three until chapter eight). It begins by explaining Whitehouse's cognitive theory of religious transmission and its two divergent modes of transmission of religious knowledge in chapter three. In part of the chapter three theoretical paradigms to explore

the museum architecture as a medium of spatial narrative have been discussed. The main aim of discussing the three paradigms (structuralism, hermeneutics and phenomenology) is to create a bridge for understanding how the two modes of transmission of religious knowledge can be applied to interpret the two identified experiences in the JMB.

Chapter four has discussed the advantages and disadvantages of using two frameworks in transmission of knowledge within the museum studies, namely semiotics and phenomenology. Each one of these two frameworks is somehow compatible with one of the two ways of transmitting religious knowledge in Whitehouse's cognitive theory of religious transmission. Therefore, defining these two methods of analysing museums creates the base for the understanding of the two identified experiences in the JMB, cognitive and embodied experiences.

Chapter five has provided background information about the case study context covering many historical aspects regarding the Jewish museum as an institution in Berlin and the architecture of its new extension building. It discusses also the controversial debates about the replacement for the old Jewish Museum in the Western Sector of Berlin and the importance of selecting an appropriate location for the new museum. The Jewish community in Berlin refused many sites for the Jewish Museum and insisted that the Jewish Museum be affiliated to the Berlin Museum for a variety of reasons, the most important of which is that the history of the Jews is an inseparable part of the history of Berlin; therefore, they believed that the Jewish Museum should be an integral part of Berlin Museum. The importance of interweaving the history of Jews with the history of Berlin did not end in selecting the site of the Jewish museum; instead it became the key idea for Libeskind to design the new building for the Jewish museum. The main concept of the project, between the lines, is based on creating interaction between the two histories. Libeskind did that by creating an intersection between two lines of thinking; the first line is straight and presents the Jewish history in Berlin, whereas the second line zigzags and presents Berlin's history. It is essential to state that the six voids were formed as a result of the six intersection points between

the zigzag line and the straight line, and these voids are empty spaces in order to metaphorically represent the absence of Jewish life. Moreover, the architectural layout of the JMB was centred around a fourfold structure. These four are: the idea of the ‘irrational and invisible matrix’; Schoenberg’s opera *Moses and Aron*; Memorial Book; and Benjamin’s book of *Einbahnstraße*. The common aspect between these four structures is that they have a direct connection to either the position of Jewish people in Germany or to their culture. All these four structures also stress the idea that the history is the base of the museum’s narrative.

Chapter six discussed the use of staging of the museum architecture as a mode of textual interpretation in the JMB. This mode of interpretation is the first category of the experiences that have been identified in the museum, and it has been connected to Jewish history and culture. This mode has been named as the phenomenon of text-architecturization. In this phenomenon, the PaRDes and its four levels of interpretation have been used as a specific theoretical framework of interpreting the architecture of JMB as a sort of religious text. The idea of text-based interpretation of the architecture of JMB has been discussed as a journey, starting outside the building and ending in the upper level of the museum. The architectural elements of this journey have been analysed in order to show the different meanings that they convey. Also, the different interpretations of these meanings by the visitor have been examined. The mode of textual interpretation in the Jewish Museum Berlin has been investigated in more detail in the overall discussion chapter with regards to two main issues.

The first issue is the impact of spreading curatorial commentaries in exhibitions. The effects on the visitors’ experience of the space of spreading out curatorial commentaries in the JMB are complex in regards to three aspects. The first aspect is that these curatorial commentaries have many limitations in terms of how the visitors communicate their meanings with them. One of these limitations is related directly to the nature of its contents, namely ‘texts’. As has been discussed in chapter three, text is an abstract idea (Ricoeur, 1981), and it has no materiality (Hooper-Greenhill, 2000). Therefore, text is limited in giving physical referents that can affect the visitor

experience. There are two reasons behind this. The first reason is that the meaning of the text is embedded in its basic components which are the words themselves, and in order to make sense of the basic components of texts, cognitive processes are required based on the use of the existing knowledge of the receivers. The second reason is that encountering the text is not like encountering an object since it depends less on embodied responses. The other limitations of the text is not being able to help the visitor to see the object from various perspectives to discover their multiple meanings. The second aspect is that the spread of the curatorial commentary can affect the behaviour of the visitors, because it can establish highly routinised movements that urge the visitors to move from a curatorial commentary to another one without being aware of the spatial environment. Third, although interpretive text provides a great deal of information to the visitor, it is clear that these texts rarely give the visitor the sensual dimension of these historical facts, and they can rarely connect them emotionally.

The second issue related to the mode of textual interpretation in the Jewish Museum Berlin is the phenomenon of text-architecturization. It is claimed that Libeskind has used the religious text interpretation in the kabbalah tradition as a literary device in the design of the spatial environment to mitigate the limitations of using the written word and to create more meaningful spaces. This approach has been named the phenomenon of text-architecturization, and it refers to the transposition of the four layers of interpreting religious text in the making of a meaningful spatial environment in the JMB. In the phenomenon of text-architecturization the architecture of the JMB can be read in four different layers. The first layer reveals three types of meaning: (1) literal architectural symbol; (2) spatial thematic organisation of the spaces; and (3) the explicit meanings of abstract knowledge. The second level reads the architecture of the museum metaphorically or through numerological methods based on the use of some obvious hints. The third level is related to the architectural experience that can be read allegorically. The fourth level aims to achieve the secret meaning of the architecture of JMB, which cannot be easily discovered.

Chapter seven discusses the use of staging of the architecture of JMB as a mode of body-based communication. This mode of communication is the second category of the experiences that have been identified in the museum, and it has been linked to Jewish history and culture. This mode has been named as the phenomenon of performance. The epic theatre as a theatrical metaphor of treating the museum architecture as a form of scenography is the main theoretical framework of interpreting the architecture of JMB as a bodily experience. In the phenomenon of performance, it is claimed that some parts of the JMB have been designed in a way to provide a performative space for the visitor through heightening the embodied experiences of the visitor as a response to the three-dimensional environment of the performative space that contains various spatial gestures. These spatial gestures of the performative spaces include a set of tangible and intangible properties that most likely will affect the bodily responses of the visitor somehow to communicate metaphorical meanings. Therefore, the relationship between the visitor's movement and the space's gestures can be seen as a sort of engagement in a dialogical performance. This dialogical performance somehow will invite the visitor to engage with the space through their sense and emotions in order to have a sense of something. It is important to state that the phenomenon of performance in some parts of the JMB does not mean that the visitor engages in prescribed activities; instead, in this phenomenon, the visitor is invited to perform informal acts that happen consciously and unconsciously as a response to the overall spatial environment that contains an almost equal amount of familiarity and novelty. This balance will greatly contribute to enhancing the emotional and sensory impact on the visitor, and will also relieve the boredom that may result from the experience of a familiar spatial environment. The idea of body-based communication with some of the architectural spaces and elements in JMB has been examined as nodes of three different ideas: (1) performing in dead-end spaces; (2) disrupting the performing; and (3) performing in the labyrinth.

In terms of performing in dead-end spaces, it seems that the three main dead-end spaces in the JMB have been treated as forms of a performative space through adopting some theatrical metaphors; and the visitors have been invited to perform informal acts through their walking, actions and reactions of the body as a response to the physical

qualities of these spaces. These different informal acts by the visitors will generate multisensory reactions, and this, in turn, will produce multiple layers of meanings. It seems that the three main dead-end spaces in the JMB have been treated as forms of a performative space through adopting some theatrical metaphors and the visitors have been invited to perform informal acts through their walking, actions and reactions of the body as a response to the physical qualities of these spaces. These different informal acts by the visitors will generate multisensory reactions, and this, in turn, will produce multiple layers of meanings. Based on the behaviour of 30 different visitors in the three main dead-end spaces, there are three characteristics describing the nature of these informal acts in these three dead-end spaces that will be discussed in more detail. These three characteristics are: (1) the visitor's performance occurs in the world between them and the overall spatial environment of the performative space; (2) the visitor's performance depends on the way of perceiving the performative space; (3) the visitor's performance generates unbounded meanings.

Regarding disrupting the performing, it can be seen that the movements and the perceptions of some visitors in the museum were disrupted by two prominent spatial moments by using different techniques in each one. In the first disruptive moment, the visitors' movement seems to be interrupted through intended architectural failure on the visitor's act of opening the door of both the Garden of Exile and the Holocaust Tower. The second disruptive moment is about the distraction of the visitors' movement in the three main corridors at the basement level as a result of the appearance of linear light at intersections in the corridors. It seems that there are two reasons behind these disruptions. First, it can make the visitor consciously experience the space through their body schema, because the human body in such a situation will switch from unconscious attention to conscious. The second objective is to make the visitor enact the disruptive movement that metaphorically recalls the disputation of Jewish history.

As far as performing in the labyrinth is concerned, the museum is full of confusing moments in both the basement level and the permanent exhibition. These repeated

confusing moments in both parts of the building lead somehow to making the journey inside the museum like moving through a labyrinth. Although Libeskind has not mentioned the idea of labyrinth as a method to confuse the visitors' movements in the museum, it seems that the idea of labyrinth has been applied in the museum in order to interrupt the visitors' movements. The aim of this is to make the visitor experience "the scale of disrupted tradition" (Libeskind et al., 2001). In other words, the architect strives to transform the interruption of Jewish history in Berlin into a spatial and body experience through creating multiple confusing points that can help the visitor to feel the amount of disruption of the Jewish history in the city of Berlin.

Overall, in order to examine the effect each type of these two experiences (cognitive and embodied experiences) have on the visitor, Whitehouse's two categories of transmission of religious knowledge have been used as a theoretical framework. In this theory, there are two contrasting features between the doctrinal (semantical-based) and imagistic (experienced-based) modes of religiosity. The first feature is psychological features which deal with the way of handling the religious activities. The second feature is socio-political features which deal with both the organisation of the society and the political power in populations and groups. These two classifications of contrasting the two modes of adoption of religious beliefs in Whitehouse's theory have been used as a guide to contrast the two identified experiences. It is important to state that the cognitive experience is located mainly in the permanent exhibition which, as has been stated before, is a journey starting on the second floor and ending on the first floor whereas the embodied experience is mainly located in the basement level plus the Memory Void which is located on the ground floor. Based on the comparison between the two identified modes of interpretation in the JMB (see Table 9.1), it is apparent that the mode of body-based interpretation has more psychological impact on the visitor than the impact of the mode of text-based interpretation. In contrast, the mode of text-based interpretation has more socio-political impact on the visitor than the impact of the mode of body-based interpretation. However, the combination of these two modes in one museum can help to create a spatial environment that each mode of the two most likely will overcome the limitation of the other mode. This combination seems to work well

in the basement level, whereas it does not work appropriately in the permanent exhibition.

Table 9.1 Comparison between the two identified modes of interpretation in the JMB in two different parts of the building

| <i>psychological features</i> | | |
|---------------------------------|--|---|
| variables | cognitive experience | embodied experience |
| | the permanent exhibition | mainly located in the basement level plus the Memory Void |
| transmissive frequency | high | low |
| | similar to the other museums looks familiar for many visitors visitors feel bored | rarely be found in the other museums look unfamiliar for many unique experience |
| level of arousal | low | high |
| | limit of create feeling difficulties to understand the meanings | create intense emotions multisensory engagement |
| principal memory system | short-term memory | long-lasting episodic memory |
| meaning | impose specific meanings | internally generated |
| | treat the visitor as a passive audience acquiring the same knowledge | trigger spontaneous exegetical reflection (SER) performances with complete awareness |
| techniques of revelation | through a mediator | unmediated inspiration |
| | literary device metaphorical, numerological and allegorical readings of the museum | trigger off numerous inferences a feeling of multivocality and multivalence of performative imagery |
| <i>socio-political features</i> | | |
| social cohesion | diffuse | intense |
| | verbally transferable is possible for the visitor to share this common knowledge with others | cannot be easily transferred verbally difficult for the visitor to share this knowledge |
| leadership | dynamic role | passive role |
| | ideas expressed in words limited in terms of the number of challenges affect the experiences of the visitor | the meanings of the embodied experiences are internally generated no restricted role in exploring these embodied experiences |
| spread | spread rapidly between people | cannot be spread rapidly between people. |
| | possible for the visitor to spread this knowledge verbally | difficult for the visitor to talk about these embodied experiences verbally |
| scale | transferred to large-scale networks | cannot be easily transferred to large-scale networks |
| degree of uniformity | high | low |
| | the visitors resemble the sort of uniformity of meaning that characterises the cognitive experience | nothing identifying the sort of uniformity of meaning that depicts the embodied experiences |
| structure | centralised | non-centralised |
| | pass through a specific path limit any inventive way of exploring the exhibitions control the visitors' movements and behaviours | not restricted free to select a way to explore these parts |

9.2 Contributions of the Research

Several original contributions to knowledge within the museum and architectural studies have been developed within the thesis:

1. Investigation of the relationships between Jewish culture and history and the design of museum architecture of the selected case study (JMB).
2. In terms of the museum architecture and exhibition design implications - multiple guidelines and strategies were recommended in order to enhance the experience of the museum. One of the most recommended strategies in designing the museum architecture and the exhibitions is the importance of combining the two types of experience (textual and embodied) in order to create a spatial environment where each mode will most likely overcome the limitation of the other mode; and at the same time, to achieve an intellectual and emotional experience, this most likely will make the experience have a strong impact on the visitor.
3. Research methodology – connecting areas of anthropology, structuralism, hermeneutics, phenomenology, psychology, performance studies and museum architecture.
4. Arranging the conceptual framework in a hierarchical structure by combining and linking multiple philosophical positions can develop an appropriate theoretical proposition to analyse and interpret data in the case study method.
5. Investigating the use of staging of the museum architecture as a mode of text-based interpretation in the JMB using the PaRDes as a specific theoretical framework.
6. Investigating the use of staging of the architecture of JMB as a mode of body-based communication using some of the epic theatre's principles as a specific theoretical framework.
7. The use of the two classifications of contrasting the two modes of adoption of religious beliefs in Whitehouse's theory (*psychological* and *sociopolitical*

features) as a guide to comparing and contrasting the two identified experiences in the JMB (*cognitive and embodied experiences*).

8. Explanation of the effect of spreading curatorial commentaries on the visitors' experience of the JMB.
9. Explanation of the effect of some precise details of designing the exhibition in the JMB on the visitors' experience.
10. This research is a combination of conceptual and empirical research to understand the nature of interpreting museum architecture.
11. One of the major contributions of this study is to confirm the importance of not assuming that 'the architecture is the museum' because this assumption most likely will lead to thinking about the architecture as 'the largest artefact' of the museum. This manner of thinking about the museum architecture will lead to creating a building that does not have a symbiotic relationship with its contents and context. This, in turn, most likely will affect the main aims of the museum generally, which is about sharing experiences. More importantly, creating a museum that can share emotional and intellectual experiences with its visitors probably can be achieved through thinking about the museum architecture as a creative social process involving many professionals and users. It is important to state that the JMB is not a perfect example of a collaborative work between different professionals. However, the architecture of the JMB somehow is not an iconic building, and some parts of the building create unique experiences resulting in a symbiotic relationship between the emotional and intellectual experiences. These parts of the building can be used as a model to create a new museum but in a more creative and collaborative way involving many professionals and users.

9.3 Suggestions and Areas for Future Research

Several areas for further investigation have emerged from this study, including:

1. The study is based on one single case study, which is the JMB. This museum is one out of sixty nine Jewish historical museums around the world, of which nearly twenty museums among these sixty nine Jewish historical museums are suitable to be used as a case study to answer the research main questions, as has been shown in the methodology chapter. Since it was difficult to have a detailed consideration if more than one case study is used in this research, it is recommended that further research might be conducted in different case studies (one out of the twenty) in order to obtain more robust findings and comparisons, such as comparing how the Jewish culture and history affect the design of many case studies.
2. The two identified experiences in the JMB (*cognitive and embodied experiences*) can be explored in more detail in order to examine the effect of different layers of meaning on the visitors. This can be achieved through direct questions about these meanings using different sources of gathering data such as questionnaires and interviews.
3. Since the JMB is going to open a new permanent exhibition (*opening expected spring 2020*), the visitors' comments about the museum in Google Review and similar applications can be used to examine the effect of the new permanent exhibition on the visitors' impressions of the museum; specifically in terms of comparing two main issues. First, comparing the visitors' impressions of the museum generally before the new permanent exhibition is opened and after. Second, comparing the visitors' impressions of the museum architecture specifically before the new permanent exhibition is opened and after. These two comparisons might help to understand the nature of the relationship between the museum architecture and designing the exhibitors.
4. Application of the cognitive theory of religious transmission: this theory can be used to investigate issues in museum architecture generally and the engagement of the sacred in museum architecture specifically.

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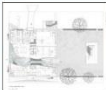



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Appendix 1 - The List of Ninety Six Jewish Historical Museums


| Museum of the History of Polish Jews | Exhibition | | Type of Building | | CATEGORY |
|---|---|-----------|--|--------|--|
| | Permanent | Temporary | Historical | Modern | Jewish Museum - Gen1 |
| | ● | ● | ○ | ● | 43 000 sq ft |
| | Modern | | International competition | | 28 m E |
| Country |  | |  | |  |
| Poland | | | | | |
| City | | | | | |
| Warszawa | | | | | |
| Architect |  | | | | |
| Lahdelma & Mahlamaki, Kurylowicz & Associates | | | | | |
| History | | | | | |
| April 2013 | | | | | |





| Museo Historico comunak y de la colonizacion Judia | Exhibition | | Type of Building | | CATEGORY |
|--|--|-----------|------------------|--------|----------------------|
| | Permanent | Temporary | Historical | Modern | Historic Site Museum |
| | ● | ● | ● | ○ | |
| | This museum shows information about the apogee of the first Jewish colony in Argentine, a Jewish history | | | | |
| Country | | | | | |
| Argentina | | | | | |
| City |  | | | | |
| Buenos Aires |  | | | | |
| Architect | unknown | | | | |
| History | 1989 | | | | |


| Jewish Museum of Australia | Exhibition | | Type of Building | | CATEGORY |
|----------------------------|---|-----------|------------------------|--------|----------------------|
| | Permanent | Temporary | Historical | Modern | Jewish Museum - Gen1 |
| | ● | ● | ● | ○ | |
| | Australian Jewish History + Timeline of Jewish History | | it has a modern facade | | |
| Country |  | | | | |
| Australia | | | | | |
| City | | | | | |
| Victoria | | | | | |
| Architect | | | | | |
| unknown | | | | | |
| History | 20 August 1995 | | | | |


| Austrian Jewish Museum | Exhibition | | Type of Building | | CATEGORY |
|------------------------|---|-----------|------------------|--------|--------------------------------|
| | Permanent | Temporary | Historical | Modern | Historic Site Museum |
| | ● | ○ | ● | ○ | 1,000 sqm of exhibition space. |
| | Modern | | | | |
| Country |  | | | | |
| Austria |  | | | | |
| City | Eisenstadt | | | | |
| Architect | Country | | | | |
| History | 1972 | | | | |


Appendix 1 - The List of Ninety Six Jewish Historical Museums


| Judisches Museum Hohenems | Exhibition | | Type of Building | | CATEGORY |
|---------------------------------|---|-----------|---|--------|-------------------------|
| | Permanent | Temporary | Historical | Modern | Jewish Museum - Gen1 |
| | ● | ● | ● | ○ | |
| | It has a children' exhibition | | located at the centre of the former Jewish Quarter | | |
| Country |  | | | | |
| Austria | | | | | |
| City | | | | | |
| Hohenems | | | | | |
| Architect | | | | | |
| Country | | | | | |
| History | | | | | |
| April 1991 | | | | | |

| Jewish museum Vienna | Exhibition | | Type of Building | | CATEGORY |
|----------------------------|---|-----------|--|--------|-----------------------|
| | Permanent | Temporary | Historical | Modern | History Museum |
| | ● | ● | ● | ● | 450 sqm the extension |
| | seeks to raise awareness of Jewish history, religion, and culture | | redevelopment/extension of a historical building | | |
| Country |  | | | | |
| Austria | | | | | |
| City | | | | | |
| Vienna | | | | | |
| Architect | | | | | |
| Jabornegg and Palfy |  | | | | |
| History |  | | | | |
| 1995-2000 |  | | | | |








| Jewish Museum of Belgium | Exhibition | | Type of Building | | CATEGORY |
|--------------------------|--|-----------|------------------|--------|----------------------|
| | Permanent | Temporary | Historical | Modern | Jewish Museum - Gen1 |
| | ● | ● | ● | ○ | |
| | focusing on the history of the Jews in Belgium | | | | |
| Country |  | | | | |
| Belgium | | | | | |
| City | | | | | |
| Brussels | | | | | |
| Architect | | | | | |
| unknown | | | | | |
| History | | | | | |
| unknown | | | | | |


| Museu Judaico de Sao Paulo | Exhibition | | Type of Building | | CATEGORY |
|--|--|-----------|---|--------|--------------------------------|
| | Permanent | Temporary | Historical | Modern | Synagogue Museum or Gallery |
| | ● | ● | ○ | ● | 3.622,00m² |
| | modify an old synagogue into a museum | | (Extension) in a private competition | | |
| Country |  | | | | |
| Brazil | | | | | |
| City | | | | | |
| Sao Paulo | | | | | |
| Botti and Rubin | | | | | |
| Country | | | | | |
| History | | | | | |
| Both of Temple built in 1929 They work as the extension | | | | | |


| Saint John Jewish Museum | Exhibition | | Type of Building | | CATEGORY |
|--------------------------------|---|-----------|------------------|--------|-------------------------|
| | Permanent | Temporary | Historical | Modern | Jewish Museum - Gen1 |
| | ● | ● | ● | ○ | |
| | collect, preserve and display the history of the Jewish community of Saint John | | | | |
| Country |  | | | | |
| Canada | | | | | |
| City | | | | | |
| New Brunswick | | | | | |
| Architect | | | | | |
| unknown | | | | | |
| History | | | | | |
| July 1986 | | | | | |




| | | | | | |
|--|---|-----------|------------------|--------|----------------------|
| Jewish Heritage Centre of Western Canada | Exhibition | | Type of Building | | CATEGORY |
| | Permanent | Temporary | Historical | Modern | Jewish Museum - Gen1 |
| | ● | ● | ○ | ● | |
| | displays the Jewish history of settlement in Western Canada. | | | | |
| Country |  | | | | |
| Canada | | | | | |
| City | | | | | |
| Winnipeg | | | | | |
| Architect | | | | | |
| unknown | | | | | |
| History | | | | | |
| 1998 | | | | | |

Appendix 1 - The List of Ninety Six Jewish Historical Museums




| Jewish Museum in Prague | Exhibition | | Type of Building | | CATEGORY |
|-------------------------|---|-----------|------------------|--------|----------------------|
| | Permanent | Temporary | Historical | Modern | Historic Site Museum |
| | ● | ○ | ● | ○ | |
| | More than one building | | | | |
| Country |  | | | | |
| Czech Rep. |  | | | | |
| City |  | | | | |
| Prague |  | | | | |
| Architect |  | | | | |
| unknown |  | | | | |
| History |  | | | | |
| October 1, 1994 | | | | | |





| Danish Jewish Museum - Dansk Jødisk Museum | Exhibition | | Type of Building | | CATEGORY |
|--|---|-----------|---|--------|-----------------------|
| | Permanent | Temporary | Historical | Modern | Jewish Museum - Gen'l |
| | ● | ● | ● | ● | |
| | Modern | | Historical building outside Modern design inside | | 4,800 sq.ft |
| Country |  | | | | |
| Denmark | | | | | |
| City | | | | | |
| Copenhagen | | | | | |
| Architect | | | | | |
| Daniel Libeskind | | | | | |
| History | | | | | |
| June 8, 2004 | | | | | |

| Musée Juéo- Alsacien de Bouxwiller | Exhibition | | Type of Building | | CATEGORY |
|--|--|-----------|--|--------|--------------------------|
| | Permanent | Temporary | Historical | Modern | Jewish Museum - Gen'l |
| | ● | ● | ● | ○ | |
| | Shows history of Judaism in Alsace | | Housed in a synagogue saved from demolition | | |
| Country |  | | | | |
| France | | | | | |
| City | | | | | |
| Bouxwiller | | | | | |
| Architect | | | | | |
| unknown | | | | | |
| History | | | | | |
| 1983 | | | | | |





| Museum of Jewish Art and History Musée d'Art et d'Histoire du Judaïsme | Exhibition | | Type of Building | | CATEGORY |
|---|---|-----------|------------------|--------|-----------------------|
| | Permanent | Temporary | Historical | Modern | Jewish Museum - Gen'l |
| | ● | ● | ● | ○ | |
| | design competition (interior reorganization) in June 1993 | | | | |
| Country |  | | | | |
| France |  | | | | |
| City |  | | | | |
| Paris | | | | | |
| Architect | | | | | |
| Catherine Bizouard and François Pin | | | | | |
| History | | | | | |
| 1986 | | | | | |



| The Shoah Memorial | Exhibition | | Type of Building | | CATEGORY |
|--------------------|--|-----------|------------------|--------|------------------|
| | Permanent | Temporary | Historical | Modern | Holocaust Center |
| | ● | ● | ○ | ● | |
| | story of French Jews during the Second World War | | | | |
| Country | | | | | |
| France | | | | | |
| City | | | | | |
| Paris | | | | | |
| Architect | | | | | |
| unknown | | | | | |
| History | | | | | |
| January 2005 | | | | | |

| | | |
|---|---|---|
|  |  |  |
|---|---|---|


| The Shoah Memorial in Drancy | Exhibition | | Type of Building | | CATEGORY |
|------------------------------------|---|-----------------------|---|----------------------------------|------------------|
| | Permanent | Temporary | Historical | Modern | Holocaust Center |
| | <input checked="" type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input checked="" type="radio"/> | 2500 m2 |
| | present the history of the Drancy camp | | offering the visitor a panoramic view onto the Cité de la Muette | | €15 millions |
| Country |  | | | | |
| France |  | | | | |
| City |  | | | | |
| Paris |  | | | | |
| Architect | | | | | |
| Roger Diener | | | | | |
| History | | | | | |
| September 2012 | | | | | |



Appendix 1 - The List of Ninety Six Jewish Historical Museums


| Jewish Culture Museum Jüdisches Kulturmuseum | Exhibition | | Type of Building | | CATEGORY |
|--|---|-----------|------------------|--------|---|
| | Permanent | Temporary | Historical | Modern | |
| | ● | ● | ● | ○ | Jewish Museum - Gen'l |
| | History of the Jews in Augsburg and Swabia from the Middle Ages to today | | | | a side wing of the magnificent synagogue in Augsburg and is one of the oldest Jewish museums in Germany |
| Country |  | | | |  |
| Germany |  | | | |  |
| City | | | | | |
| Augsburg | | | | | |
| Architect | | | | | |
| Lömpel and Landauer | | | | | |
| History | | | | | |
| 1985 | | | | | |

| Neue Synagoge Berlin - Centrum Judaicum | Exhibition | | Type of Building | | CATEGORY |
|--|---|-----------|------------------|--------|---|
| | Permanent | Temporary | Historical | Modern | |
| | ● | ○ | ● | ○ | Synagogue Museum or Gallery |
| Country |  | | | |  |
| Germany | | | | | |
| City | | | | | |
| Berlin | | | | | |
| Architect | | | | | |
| Eduard Knoblauch (1801-1865) built 1866 | | | | | |
| History | | | | | |
| 1995 as a museum | | | | | |

| Creglingen Jewish Museum | Exhibition | | Type of Building | | CATEGORY |
|--------------------------------|--|-----------|------------------|--------|---|
| | Permanent | Temporary | Historical | Modern | |
| | ● | ○ | ● | ○ | Historic Site Museum |
| | This museum commemorates the lives and contributions of the Jews who lived in this town. | | | | Three floors |
| Country |  | | | |  |
| Germany |  | | | |  |
| City |  | | | | |
| Creglingen | | | | | |
| Architect | | | | | |
| Country | | | | | |
| History | | | | | |
| , November 8, 2004 | | | | | |









| Jewish Museum of Westphalia- Jüdisches Museum Westfalen | Exhibition | | Type of Building | | CATEGORY |
|---|--|-----------|------------------|--------|-----------------------|
| | Permanent | Temporary | Historical | Modern | |
| | ● | ● | ● | ● | Jewish Museum - Gen'l |
| | In experience Jewish history and culture in a regional context as well as to inform on Jewish life in Germany in the past and present. | | | | Extension in 2001 |
| Country |  | | | | |
| Germany | | | | | |
| City | | | | | |
| Dorsten | | | | | |
| Architect | | | | | |
| Dorsten Kurscheid | | | | | |
| History | | | | | |
| 1992 | | | | | |

| Jüdisches Museum Emmendingen | Exhibition | | Type of Building | | CATEGORY |
|------------------------------------|---|-----------|------------------|--------|---|
| | Permanent | Temporary | Historical | Modern | |
| | ● | ○ | ● | ○ | Historic Site Museum |
| | the history of the Emmendingen Jewish Community • Jewish ritual customs and everyday life | | | | There is a Minse |
| Country |  | | | |  |
| Germany | | | | | |
| City | | | | | |
| Emmendingen | | | | | |
| Architect | | | | | |
| Country | | | | | |
| History | | | | | |
| 1997 | | | | | |

| Jewish Museum Frankfurt - Jüdische Museum | Exhibition | | Type of Building | | CATEGORY |
|--|---|-----------|------------------|--------|-----------------------|
| | Permanent | Temporary | Historical | Modern | |
| | ● | ● | ● | ○ | Jewish Museum - Gen'l |
| | This museum is dedicated to the history of Frankfurt's Jewish community | | | | |
| Country |  | | | | |
| Germany | | | | | |
| City | | | | | |
| Frankfurt | | | | | |
| Architect | | | | | |
| Ante Josip von Kostelac | | | | | |
| History | | | | | |
| 1988 as a museum | | | | | |

Appendix 1 - The List of Ninety Six Jewish Historical Museums

| Museum Judengasse | Exhibition | | Type of Building | | CATEGORY |
|----------------------|---|-----------|------------------|--------|---------------------------|
| | Permanent | Temporary | Historical | Modern | History Museum |
| | ● | ● | ○ | ● | 500 sq. m exhibition area |
| | Five house foundations, two involve ritual bath, two wells and a canal, partially dating back to the 12th century | | | | two levels (museum) |
| Country | | | | | |
| Germany | | | | | |
| City | | | | | |
| Frankfurt | | | | | |
| Architect | | | | | |
| Ernst Gisel | | | | | |
| History | | | | | |
| 1992 | | | | | |

| Jewish Museum of Franconia | Exhibition | | Type of Building | | CATEGORY |
|----------------------------------|---|-----------|---|--------|-------------------------|
| | Permanent | Temporary | Historical | Modern | Jewish Museum - Gen1 |
| | ● | ● | ● | ● | |
| | Journey through Judaism and everyday objects Jewish history from the Middle Ages to today | | Competition for the extension of the existing Jewish museum in Furth | | |
| Country |  | | | | |
| Germany |  | | | | |
| City |  | | | | |
| Furth |  | | | | |
| Architect |  | | | | |
| Axel Körner |  | | | | |
| History |  | | | | |
| unknown |  | | | | |

| Jewish Museum in Jebenhausen | Exhibition | | Type of Building | | CATEGORY |
|------------------------------------|--|-----------|------------------|--------|-----------------------|
| | Permanent | Temporary | Historical | Modern | Historic Site Museum |
| | ● | ○ | ● | ○ | |
| | Jews in Jebenhausen, Jewish life, Jews in Glosingen, Sonnenberg, Litz, Pöhl, and Unter-National-Siedlung | | | | 1992 open as a museum |
| Country | | | | | |
| Germany | | | | | |
| City | | | | | |
| Goppingen | | | | | |
| Architect | | | | | |
| unknown | | | | | |
| History | | | | | |
| 1506 | | | | | |

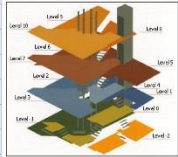
| Jewish Museum Munich - Jüdisches Museum München | Exhibition | | Type of Building | | CATEGORY |
|---|------------|-----------|------------------|--------|----------------------|
| | Permanent | Temporary | Historical | Modern | Jewish Museum - Gen1 |
| | ● | ● | ○ | ● | 11,890 sqm |
| | | | | | competition |
| Country | | | | | |
| Germany | | | | | |
| City | | | | | |
| Munich | | | | | |
| Architect | | | | | |
| Renia Wundel-Hoefler and Wolfgang Lorch | | | | | |
| History | | | | | |
| 2007 | | | | | |

| Jüdische Museum Rendsburg | Exhibition | | Type of Building | | CATEGORY |
|---------------------------------|------------------------------|-----------|------------------|--------|----------------------|
| | Permanent | Temporary | Historical | Modern | Jewish Museum - Gen1 |
| | ● | ○ | ● | ○ | |
| | Jewish religion and identity | | | | |
| Country | | | | | |
| Germany | | | | | |
| City | | | | | |
| Rendsburg | | | | | |
| Architect | | | | | |
| unknown | | | | | |
| History | | | | | |
| 1988 | | | | | |

| Jewish Museum Berlin - Jüdisches Museum | Exhibition | | Type of Building | | CATEGORY |
|---|------------|-----------|------------------|--------|----------------------|
| | Permanent | Temporary | Historical | Modern | Jewish Museum - Gen1 |
| | ● | ● | ○ | ● | |
| | | | | | competition |
| Country | | | | | |
| Germany | | | | | |
| City | | | | | |
| Berlin | | | | | |
| Architect | | | | | |
| Daniel Libeskind | | | | | |
| History | | | | | |
| 1999 | | | | | |

Appendix 1 - The List of Ninety Six Jewish Historical Museums

| Jewish Museum of Greece | Exhibition | | Type of Building | | CATEGORY |
|-------------------------|------------|-----------|------------------|--------|-----------------------|
| | Permanent | Temporary | Historical | Modern | Jewish Museum - Gen'l |
| | ● | ● | ● | ○ | |
| Jewish Museum of Greece | | | | | |
| Country | | | | | |
| Greece | | | | | |
| City | | | | | |
| Athens | | | | | |
| Architect | | | | | |
| unknown | | | | | |
| History | | | | | |
| 1998 | | | | | |



| Jewish Museum of Thessaloniki | Exhibition | | Type of Building | | CATEGORY |
|-------------------------------------|------------|-----------|------------------|--------|-----------------------|
| | Permanent | Temporary | Historical | Modern | Jewish Museum - Gen'l |
| | ● | ● | ○ | ● | |
| Jewish Museum of Thessaloniki | | | | | |
| Country | | | | | |
| Greece | | | | | |
| City | | | | | |
| Athens | | | | | |
| Architect | | | | | |
| Italian architect Vitaliano Poselli | | | | | |
| History | | | | | |
| 1904 | | | | | |



| Hungarian Jewish Museum and Archives | Exhibition | | Type of Building | | CATEGORY |
|--------------------------------------|------------|-----------|------------------|--------|-----------------------|
| | Permanent | Temporary | Historical | Modern | Jewish Museum - Gen'l |
| | ● | ● | ● | ○ | |
| Hungarian Jewish Museum and Archives | | | | | |
| Country | | | | | |
| Hungary | | | | | |
| City | | | | | |
| Budapest | | | | | |
| Architect | | | | | |
| László Vágó and Ferenc Faragó | | | | | |
| History | | | | | |
| 1932 | | | | | |



| Irish-Jewish Museum | Exhibition | | Type of Building | | CATEGORY |
|---|------------|-----------|------------------|--------|-----------------------|
| | Permanent | Temporary | Historical | Modern | Jewish Museum - Gen'l |
| | ● | ● | ● | ● | |
| Irish-Jewish Museum | | | | | |
| Country | | | | | |
| Ireland | | | | | |
| City | | | | | |
| Dublin | | | | | |
| Architect | | | | | |
| Country | | | | | |
| History | | | | | |
| The house built in the 1870s, in 1988, opened as a museum | | | | | |





| OREGON JEWISH MUSEUM | Exhibition | | Type of Building | | Category |
|----------------------|------------|-----------|------------------|--------|-----------------------|
| | Permanent | Temporary | Historical | Modern | Jewish Museum - Gen'l |
| | ● | ● | ○ | ● | |
| OREGON JEWISH MUSEUM | | | | | |
| Country | | | | | |
| USA | | | | | |
| City | | | | | |
| Portland, OR | | | | | |
| Architect | | | | | |
| unknown | | | | | |
| History | | | | | |
| 1989 | | | | | |





| NATIONAL MUSEUM OF AMERICAN JEWISH MILITARY HISTORY | Exhibition | | Type of Building | | Category |
|---|------------|-----------|------------------|--------|----------------|
| | Permanent | Temporary | Historical | Modern | History Museum |
| | ● | ● | ● | ○ | |
| NATIONAL MUSEUM OF AMERICAN JEWISH MILITARY HISTORY | | | | | |
| Country | | | | | |
| USA | | | | | |
| City | | | | | |
| Washington, DC | | | | | |
| Architect | | | | | |
| unknown | | | | | |
| History | | | | | |
| 1958 | | | | | |






Appendix 1 - The List of Ninety Six Jewish Historical Museums


| | Exhibition | | Type of Building | | CATEGORY |
|---|---|-----------|------------------|--------|-----------------------|
| | Permanent | Temporary | Historical | Modern | |
| Jewish Museum of Bologna - Museo Ebraico di Bologna | ● | ● | ● | ○ | Jewish Museum - Gen'l |
| | the museum was developed primarily for non-Jewish visitors | | | | |
| Country | | | | | |
| Italy | | | | | |
| City | | | | | |
| Bologna | | | | | |
| Architect |  | | | | |
| unknown |  | | | | |
| History | | | | | |
| 1999 | | | | | |

| | Exhibition | | Type of Building | | CATEGORY |
|--|---|-----------|------------------|--------|-----------------------------|
| | Permanent | Temporary | Historical | Modern | |
| Jewish Museum of Florence - Museo Ebraico di Firenze | ● | ○ | ● | ○ | Synagogue Museum or Gallery |
| Country | | | | | |
| Italy | | | | | |
| City | | | | | |
| Florence | | | | | |
| Architect | | | | | |
| unknown | | | | | |
| History | | | | | |
| 1882 the building |  | | | | |

| | Exhibition | | Type of Building | | CATEGORY |
|---|--|-----------|------------------|--------|-----------------------|
| | Permanent | Temporary | Historical | Modern | |
| Jewish Museum of Rome - Museo Ebraico di Roma | ● | ● | ● | ○ | Jewish Museum - Gen'l |
| | discover the traditions, religion and history of the Roman Jewry | | | | |
| Country | | | | | |
| Italy | | | | | |
| City | | | | | |
| Rome | | | | | |
| Architect | | | | | |
| unknown |  | | | | |
| History | | | | | |
| 1960 | | | | | |


| | Exhibition | | Type of Building | | CATEGORY |
|-------------------------|--|-----------|------------------|--------|-----------------------|
| | Permanent | Temporary | Historical | Modern | |
| Jewish Museum of Venice | ● | ○ | ● | ○ | Jewish Museum - Gen'l |
| Country | | | | | |
| Italy | | | | | |
| City | | | | | |
| Venice | | | | | |
| Architect | | | | | |
| unknown |  | | | | |
| History | | | | | |
| 1953 | | | | | |

| | Exhibition | | Type of Building | | CATEGORY |
|-------------------------|---|-----------|------------------|--------|----------------------|
| | Permanent | Temporary | Historical | Modern | |
| "Jews in Latvia" Museum | ● | ● | ● | ○ | Historic Site Museum |
| | Latvian Jewish history and culture | | | | |
| Country | | | | | |
| Latvia | | | | | |
| City | | | | | |
| Riga | | | | | |
| Architect |  | | | | |
| unknown |  | | | | |
| History | | | | | |
| 1989 | | | | | |


| | Exhibition | | Type of Building | | CATEGORY |
|--------------------------------|---|-----------|------------------|--------|-----------------------|
| | Permanent | Temporary | Historical | Modern | |
| Vilna Gaon Jewish State Museum | ● | ● | ● | ○ | Jewish Museum - Gen'l |
| | the historical and cultural heritage of Lithuanian Jewry | | | | |
| Country | | | | | |
| Lithuania | | | | | |
| City | | | | | |
| Vilnius | | | | | |
| Architect | | | | | |
| unknown |  | | | | |
| History | | | | | |
| 1989 | | | | | |

Appendix 1 - The List of Ninety Six Jewish Historical Museums


| Museo Historico Judio Y del Holocausto | Exhibition | | Type of Building | | CATEGORY |
|---|------------|-----------|------------------|--------|-----------------------|
| | Permanent | Temporary | Historical | Modern | |
| | ● | ● | ● | ○ | Jewish Museum - Gen'l |
| Country | | | | | |
| Lithuania | | | | | |
| City | | | | | |
| Vilnius | | | | | |
| Architect | | | | | |
| Country | | | | | |
| History | | | | | |
| 1970 | | | | | |




| Jewish Historical Museum | Exhibition | | Type of Building | | CATEGORY |
|---|------------|-----------|------------------------|--------|--------------------------|
| | Permanent | Temporary | Historical | Modern | Jewish Museum - Gen'l |
| | ● | ● | ● | ○ | |
| Jewish history, culture and religion, in the Netherlands and worldwide | | | More than one building | | |
| Country | | | | | |
| Netherlands | | | | | |
| City | | | | | |
| Amsterdam | | | | | |
| Architect | | | | | |
| unknown | | | | | |
| History | | | | | |
| 1987 | | | | | |




| Oslo Jewish Museum - Jodisk Museum | Exhibition | | Type of Building | | CATEGORY |
|---|------------|-----------|------------------|--------|-----------------------|
| | Permanent | Temporary | Historical | Modern | |
| | ● | ● | ● | ○ | Jewish Museum - Gen'l |
| Country | | | | | |
| Norway | | | | | |
| City | | | | | |
| Oslo | | | | | |
| Architect | | | | | |
| unknown | | | | | |
| History | | | | | |
| 2005 | | | | | |





| Galicia Jewish Museum | Exhibition | | Type of Building | | CATEGORY |
|-----------------------|-----------------------|----------------------------------|----------------------------------|-----------------------|-----------------------|
| | Permanent | Temporary | Historical | Modern | Jewish Museum - Gen'l |
| | <input type="radio"/> | <input checked="" type="radio"/> | <input checked="" type="radio"/> | <input type="radio"/> | |
| change | | | | | |
| Country | | | | | |
| Poland | | | | | |
| City | | | | | |
| Krakow | | | | | |
| Architect | | | | | |
| unknown | | | | | |
| History | | | | | |
| 2004 | | | | | |







| Old Synagogue - Stara Synagoga | Exhibition | | Type of Building | | CATEGORY |
|--|------------|-----------|------------------|--------|----------------------|
| | Permanent | Temporary | Historical | Modern | |
| | ● | ● | ● | ○ | Historic Site Museum |
| Country | | | | | |
| Poland | | | | | |
| City | | | | | |
| Krakow | | | | | |
| Architect | | | | | |
| Country | | | | | |
| History | | | | | |
| 1807 the Synagogue was built 1998 As a museum | | | | | |

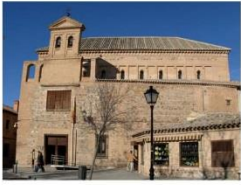




| South African Jewish Museum | Exhibition | | Type of Building | | CATEGORY |
|-----------------------------------|------------|-----------|------------------|------------------|-------------------------|
| | Permanent | Temporary | Historical | Modern | Historic Site Museum |
| | ● | ● | ● | ● | |
| | | | | Modern extension | |
| Country | | | | | |
| South Africa | | | | | |
| City | | | | | |
| Cape Town | | | | | |
| Architect | | | | | |
| Michael Hackner | | | | | |
| History | | | | | |
| 2000 | | | | | |








Appendix 1 - The List of Ninety Six Jewish Historical Museums


| | Exhibition | | Type of Building | | CATEGORY |
|---------------|---|-----------|------------------|--------|----------------------|
| | Permanent | Temporary | Historical | Modern | |
| Museo Sefardi | ● | ● | ● | ○ | Jewish Museum - Gen1 |
| Country |  | | | | |
| Spain | | | | | |
| City | | | | | |
| Toledo | | | | | |
| Architect | | | | | |
| unknown | | | | | |
| History | | | | | |
| 1971 | | | | | |

| | Exhibition | | Type of Building | | CATEGORY |
|--|---|-----------|------------------|--------|----------------------|
| | Permanent | Temporary | Historical | Modern | |
| Jewish Museum in Stockholm Judiska Museet i Stockholm | ● | ● | ● | ○ | Jewish Museum - Gen1 |
| the history of the Swedish Jews | | | | | |
| Country |  | | | | |
| Sweden | | | | | |
| City | | | | | |
| Stockholm | | | | | |
| Architect | | | | | |
| unknown | | | | | |
| History | | | | | |
| 1987 | | | | | |





| | Exhibition | | Type of Building | | CATEGORY |
|---|---|-----------|------------------|--------|----------------|
| | Permanent | Temporary | Historical | Modern | |
| Jewish Museum of Turkey | ● | ● | ● | ○ | History Museum |
| Inform the society of the traditions and history of Turkish Jewry | | | | | |
| Country |  | | | | |
| Turkey | | | | | |
| City | | | | | |
| Istanbul | | | | | |
| Architect | | | | | |
| unknown | | | | | |
| History | | | | | |
| 1971 the synagogue was built 2008 the museum was opened | | | | | |



| | Exhibition | | Type of Building | | CATEGORY |
|---|---|-----------|------------------|--------|----------------------|
| | Permanent | Temporary | Historical | Modern | |
| Jewish Museum London | ● | ● | ● | ○ | Jewish Museum - Gen1 |
| The history of Jewish settlement in Britain | | | | | £10 million |
| Country |  | | | | |
| UK | | | | | |
| City | | | | | |
| London | | | | | |
| Architect | | | | | |
| unknown | | | | | |
| History | | | | | |
| 1994 | | | | | |

| | Exhibition | | Type of Building | | CATEGORY |
|---|---|-----------|------------------|--------|----------------------|
| | Permanent | Temporary | Historical | Modern | |
| Manchester Jewish Museum | ● | ● | ● | ○ | Jewish Museum - Gen1 |
| story of the history of Jewish settlement in Manchester | | | | | |
| Country |  | | | | |
| UK | | | | | |
| City | | | | | |
| Manchester | | | | | |
| Architect | | | | | |
| unknown | | | | | |
| History | | | | | |
| 1914 the synagogue was built 1986 was opened as a museum | | | | | |

| | Exhibition | | Type of Building | | CATEGORY |
|------------------------------|---|-----------|------------------|--------|------------------|
| | Permanent | Temporary | Historical | Modern | |
| Beth Shalom Holocaust Centre | ● | ● | ○ | ● | Holocaust Center |
| Holocaust museum | | | | | |
| Country |  | | | | |
| UK | | | | | |
| City | | | | | |
| Nottinghamshire | | | | | |
| Architect | | | | | |
| unknown | | | | | |
| History | | | | | |
| 1995 | | | | | |

Appendix 1 - The List of Ninety Six Jewish Historical Museums

| | Exhibition | | Type of Building | | CATEGORY |
|-------------------|---|-----------|---|--------|------------------|
| | Permanent | Temporary | Historical | Modern | |
| Yad Vashem | ● | ● | ○ | ● | Holocaust Center |
| | Holocaust museum | | | | |
| Country |  | |  | | |
| Israel | | | | | |
| City | | | | | |
| Jerusalem | | | | | |
| Architect |  | |  | | |
| Moshe Safdie | | | | | |
| History | | | | | |
| 2005 | | | | | |

| | Exhibition | | Type of Building | | CATEGORY |
|-------------------------------|---|-----------|---|--------|------------------|
| | Permanent | Temporary | Historical | Modern | |
| Ghetto Fighters' House | ● | ● | ○ | ● | Holocaust Center |
| | Holocaust and Jewish Resistance Heritage Museum | | | | |
| Country | | | | | |
| Israel | | | | | |
| City |  | |  | | |
| Coastal Highway | | | | | |
| Architect | | | | | |
| unknown | | | | | |
| History | | | | | |
| 1949 | | | | | |

| | Exhibition | | Type of Building | | CATEGORY |
|------------------------------|--------------------------|-----------|------------------|--------|-----------------------|
| | Permanent | Temporary | Historical | Modern | |
| Israel Museum | ● | ● | ○ | ● | Jewish Museum - Gen't |
| | Israel's national museum | | competition | | |
| Country | | | | | |
| Israel | | | | | |
| City | | | | | |
| Jerusalem | | | | | |
| Architect | | | | | |
| Alfred Mansfeld and Dora Gad | | | | | |
| History | | | | | |
| 1965 | | | | | |

| | Exhibition | | Type of Building | | CATEGORY |
|---------------------------------|--|-----------|------------------|--------|-------------------|
| | Permanent | Temporary | Historical | Modern | |
| ZIMMER CHILDREN'S MUSEUM | ● | ○ | ○ | ● | Children's Museum |
| | teaches people about global citizenship, community responsibility, and cultural awareness. | | | | |
| Country | | | | | |
| USA | | | | | |
| City | | | | | |
| Los Angeles, CA | | | | | |
| Architect | | | | | |
| unknown | | | | | |
| History | | | | | |
| unknown | | | | | |

| | Exhibition | | Type of Building | | CATEGORY |
|----------------------------------|---|-----------|------------------|--------|-----------------------|
| | Permanent | Temporary | Historical | Modern | |
| YESHIVA UNIVERSITY MUSEUM | ● | ● | ● | ○ | Jewish Museum - Gen't |
| | provide a window into Jewish culture around the world | | | | |
| Country | | | | | |
| USA | | | | | |
| City | | | | | |
| New York, NY | | | | | |
| Architect | | | | | |
| unknown | | | | | |
| History | | | | | |
| 1973 | | | | | |

| | Exhibition | | Type of Building | | CATEGORY |
|--|--|-----------|---------------------------|--------|--|
| | Permanent | Temporary | Historical | Modern | |
| VILNA SHUL BOSTON'S CENTER FOR JEWISH CULTURE | ● | ○ | ● | ○ | Historic Site Museum |
| | exhibit on the history of the synagogue and of the Boston Jewish community | | international competition | | Three million dollars were spent on the architectural restoration. |
| Country | | | | | |
| USA | | | | | |
| City | | | | | |
| Boston, MA | | | | | |
| Architect | | | | | |
| Max Kalman | | | | | |
| History | | | | | |
| 1919 | | | | | |

Appendix 1 - The List of Ninety Six Jewish Historical Museums

| UNITED STATES HOLOCAUST MEMORIAL MUSEUM | Exhibition | | Type of Building | | CATEGORY |
|---|---|-----------|------------------|--------|--------------------|
| | Permanent | Temporary | Historical | Modern | History Museum |
| | ● | ● | ○ | ● | 36,000 square feet |
| | teaches millions of people each year about the dangers of unchecked hatred and the need to armers appreciate. | | | | \$200 million |
| Country | | | | | |
| USA | | | | | |
| City | | | | | |
| Washington, DC | | | | | |
| Architect | | | | | |
| James Ingo Freed | | | | | |
| History | | | | | |
| 1993 | | | | | |

| TOURO SYNAGOGUE FOUNDATION | Exhibition | | Type of Building | | CATEGORY |
|----------------------------|---|-----------|------------------|--------|----------------------|
| | Permanent | Temporary | Historical | Modern | Historic Site Museum |
| | ● | ● | ● | ○ | |
| | and teaching religious diversity, colonial Jewish history and the history of Touro Synagogue. | | | | |
| Country | | | | | |
| USA | | | | | |
| City | | | | | |
| Newport, RI | | | | | |
| Architect | | | | | |
| unknown | | | | | |
| History | | | | | |
| 1946 | | | | | |




| TEMPLE MUSEUM OF RELIGIOUS ART, THE TEMPLE-TIFERETH ISRAEL | Exhibition | | Type of Building | | CATEGORY |
|--|--|-----------|------------------|--------|-----------------------------|
| | Permanent | Temporary | Historical | Modern | Synagogue Museum or Gallery |
| | ● | ● | ● | ● | |
| | opportunity to become more acquainted with Jewish customs and rituals. | | | | \$64 million |
| Country | | | | | |
| USA | | | | | |
| City | | | | | |
| Beachwood, OH | | | | | |
| Architect | | | | | |
| Charles Greco | | | | | |
| History | | | | | |
| 1950 | | | | | |


| TEMPLE JUDEA MUSEUM - KENESETH ISRAEL | Exhibition | | Type of Building | | CATEGORY |
|---------------------------------------|-------------------------|-----------|------------------|--------|-----------------------------|
| | Permanent | Temporary | Historical | Modern | Synagogue Museum or Gallery |
| | ● | ● | ● | ○ | |
| | presentation of Judaica | | | | |
| Country | | | | | |
| USA | | | | | |
| City | | | | | |
| Elkins Park, PA | | | | | |
| Architect | | | | | |
| unknown | | | | | |
| History | | | | | |
| 1847 | | | | | |

| TEMPLE BETH SHOLOM (FL) JUDAICA MUSEUM | Exhibition | | Type of Building | | CATEGORY |
|--|--|-----------|------------------|--------|-----------------------------|
| | Permanent | Temporary | Historical | Modern | Synagogue Museum or Gallery |
| | ● | ● | ● | ○ | |
| | serves as an educational resource about Jewish arts, culture and lifestyle | | | | |
| Country | | | | | |
| USA | | | | | |
| City | | | | | |
| Sarasota, FL | | | | | |
| Architect | | | | | |
| unknown | | | | | |
| History | | | | | |
| 1932 | | | | | |



| SPERTUS INSTITUTE OF JEWISH LEARNING AND LEADERSHIP | Exhibition | | Type of Building | | CATEGORY |
|---|--|-----------|------------------|--------|-----------------------|
| | Permanent | Temporary | Historical | Modern | Jewish Museum - Gen'l |
| | ● | ● | ○ | ● | 43 000 sq ft |
| | preserves, and displays materials from the Jewish experience | | | | 28 m E |
| Country | | | | | |
| USA | | | | | |
| City | | | | | |
| Chicago, IL | | | | | |
| Architect | | | | | |
| Chicago's Krueck + Sexton | | | | | |
| History | | | | | |
| SPERTUS INSTITUTE OF JEWISH LEARNING AND LEADERSHIP | | | | | |



Appendix 1 - The List of Ninety Six Jewish Historical Museums



| SKIRBALL CULTURAL CENTER | Exhibition | | Type of Building | | CATEGORY |
|--------------------------------|---|-----------|------------------|--------|-----------------------|
| | Permanent | Temporary | Historical | Modern | |
| | ● | ● | ○ | ● | Jewish Museum - Gen'l |
| | Jewish Life From Antiquity to America, traces the history, experiences and values of Jews over 4,000 years | | | | unknown |
| Country |    | | | | |
| USA | | | | | |
| City | | | | | |
| Los Angeles, CA | | | | | |
| Architect | | | | | |
| Moshe Safdie | | | | | |
| History | | | | | |
| 1996 | | | | | |




| PLOTKIN JUDAICA MUSEUM - TEMPLE BETH ISRAEL | Exhibition | | Type of Building | | CATEGORY |
|---|---|-----------|------------------|--------|-----------------------------|
| | Permanent | Temporary | Historical | Modern | |
| | ● | ○ | ● | ○ | Synagogue Museum or Gallery |
| | a basic principle of Judaism, as manifested in Torah, Shabbat, and Holiday observances, and life cycle events | | | | |
| Country |  | | | | |
| USA | | | | | |
| City | | | | | |
| Scottsdale, AZ | | | | | |
| Architect | | | | | |
| unknown | | | | | |
| History | | | | | |
| 1967 | | | | | |

| | | | | | |
|--|--------------------------------------|-----------|---------------------------|--------|--------------------------------|
| PHILADELPHIA MUSEUM OF JEWISH ART - CONGREGATIO N RODEPH SHALOM | Exhibition | | Type of Building | | Category |
| | Permanent | Temporary | Historical | Modern | Synagogue Museum or Gallery |
| | ○ | ● | ○ | ● | |
| | three changing exhibits each year | | international competition | | |
| | | | | | |
| Country | | | | | |
| USA | | | | | |
| City | | | | | |
| Philadelphia, PA | | | | | |
| Architect | | | | | |
| unknown | | | | | |
| History | | | | | |
| 1928 the building 1975 the museum | | | | | |

| | |
|---|---|
|  |  |
|---|---|

| OREGON JEWISH MUSEUM | Exhibition | | Type of Building | | Category |
|----------------------------|---|-----------|------------------|--------|-----------------------|
| | Permanent | Temporary | Historical | Modern | |
| | ● | ● | ○ | ● | Jewish Museum - Gen'l |
| | preserve the rich cultural heritage of one of Oregon's earliest immigrant groups | | | | |
| Country |   | | | | |
| USA | | | | | |
| City | | | | | |
| Portland, OR | | | | | |
| Architect | | | | | |
| unknown | | | | | |
| History | | | | | |
| 1989 | | | | | |

| NATIONAL MUSEUM OF AMERICAN JEWISH MILITARY HISTORY | Exhibition | | Type of Building | | Category |
|--|---|-----------|------------------|--------|----------------|
| | Permanent | Temporary | Historical | Modern | |
| | ● | ● | ● | ○ | History Museum |
| | document and preserve "the contributions of Jewish Americans to the peace and freedom of the United States" | | | | |
| Country |   | | | | |
| USA | | | | | |
| City | | | | | |
| Washington, DC | | | | | |
| Architect | | | | | |
| unknown | | | | | |
| History | | | | | |
| 1958 | | | | | |

| NATIONAL MUSEUM OF AMERICAN JEWISH HISTORY | Exhibition | | Type of Building | | Category |
|--|---|-----------|------------------|--------|----------------|
| | Permanent | Temporary | Historical | Modern | |
| | ● | ● | ○ | ● | History Museum |
| | preserve, explore and celebrate the history of Jews in America | | | | 100,000 sqf |
| Country |    | | | | |
| USA | | | | | |
| City | | | | | |
| Philadelphia, PA | | | | | |
| Architect | | | | | |
| Ennead Architects | | | | | |
| History | | | | | |
| 2010 | | | | | |

Appendix 1 - The List of Ninety Six Jewish Historical Museums

| MUSEUM OF TOLERANCE - SIMON WIESENTHAL CENTER | Exhibition | | Type of Building | | Category |
|---|--|-----------|------------------|--------|------------------|
| | Permanent | Temporary | Historical | Modern | Holocaust Center |
| | ● | ● | ○ | ● | |
| | focuses on the dynamics of anti-semitism, racism and prejudice through unique interactive exhibits | | | | |
| Country | | | | | |
| USA | | | | | |
| City | | | | | |
| Los Angeles, CA | | | | | |
| Architect | | | | | |
| unknown | | | | | |
| History | | | | | |
| 1993 | | | | | |



| MUSEUM OF JEWISH HERITAGE - A LIVING MEMORIAL TO THE HOLOCAUST | Exhibition | | Type of Building | | Category |
|--|--|-----------|------------------|--------|----------------|
| | Permanent | Temporary | Historical | Modern | History Museum |
| | ● | ● | ○ | ● | |
| | a living memorial to those who perished during the Holocaust | | | | |
| | \$21.5 | | | | |
| Country | | | | | |
| USA | | | | | |
| City | | | | | |
| New York, NY | | | | | |
| Architect | | | | | |
| Kevin Roche | | | | | |
| History | | | | | |
| 1997 | | | | | |



| MUSEUM AT ELDRIDGE STREET | Exhibition | | Type of Building | | Category |
|----------------------------------|--|-----------|------------------|--------|----------------------|
| | Permanent | Temporary | Historical | Modern | Historic Site Museum |
| | ● | ○ | ● | ○ | |
| | presents the culture, history and traditions of Jewish immigrants to the Lower East Side | | | | |
| Country | | | | | |
| USA | | | | | |
| City | | | | | |
| New York, NY | | | | | |
| Architect | | | | | |
| Peter and Francis William Herter | | | | | |
| History | | | | | |
| 1887 | | | | | |



| MIZEL MUSEUM | Exhibition | | Type of Building | | Category |
|--------------|--|-----------|------------------|--------|-----------------------|
| | Permanent | Temporary | Historical | Modern | Jewish Museum - Gen'l |
| | ● | ● | ○ | ● | |
| | catalyst for intercultural learning and dialogue in the school community | | | | |
| Country | | | | | |
| USA | | | | | |
| City | | | | | |
| Denver, CO | | | | | |
| Architect | | | | | |
| unknown | | | | | |
| History | | | | | |
| 2011 | | | | | |




| SHALOM STREET | Exhibition | | Type of Building | | CATEGORY |
|---------------------|--|-----------|------------------|--------|-------------------|
| | Permanent | Temporary | Historical | Modern | Children's Museum |
| | ● | ● | ○ | ● | |
| | to engage in and enjoy the rich fabric of Jewish culture | | | | |
| Country | | | | | |
| USA | | | | | |
| City | | | | | |
| West Bloomfield, MI | | | | | |
| Architect | | | | | |
| unknown | | | | | |
| History | | | | | |
| unknown | | | | | |





| MILLER MUSEUM OF JEWISH ART, SHERWIN | Exhibition | | Type of Building | | Category |
|--------------------------------------|---|-----------|------------------|--------|-----------------------|
| | Permanent | Temporary | Historical | Modern | Jewish Museum - Gen'l |
| | ● | ● | ○ | ● | |
| | It serves as the headquarters of the Jewish Historical Society of Oklahoma and Oklahoma Jewish Archives | | | | |
| Country | | | | | |
| USA | | | | | |
| City | | | | | |
| Tulsa, OK | | | | | |
| Architect | | | | | |
| unknown | | | | | |
| History | | | | | |
| Found 1966 New 2004 | | | | | |





Appendix 1 - The List of Ninety Six Jewish Historical Museums


| MALTZ MUSEUM OF JEWISH HERITAGE | Exhibition | | Type of Building | | Category |
|--|---|-----------|------------------|--------|-----------------------|
| | Permanent | Temporary | Historical | Modern | Jewish Museum - Gen'l |
| | ● | ● | ○ | ● | 24,000-square-feet |
| | by sharing Jewish heritage through the lens of the American experience | | | | |
| Country |  | | | | |
| USA | | | | | |
| City | | | | | |
| Beachwood, OH | | | | | |
| Architect | | | | | |
| Westlake Reed Leskosky | | | | | |
| History | | | | | |
| 2005 | | | | | |

| MAINE JEWISH MUSEUM | Exhibition | | Type of Building | | Category |
|---------------------------|--|-----------|------------------|--------|----------------------|
| | Permanent | Temporary | Historical | Modern | Historic Site Museum |
| | ● | ○ | ● | ○ | |
| | present and interpret the history of the Maine's resident but persecuted Jewish population through multi-faceted exhibitions | | | | |
| Country |  | | | | |
| USA | | | | | |
| City | | | | | |
| Portland, ME | | | | | |
| Architect | | | | | |
| unknown | | | | | |
| History | | | | | |
| 1921 | | | | | |

| MAGNES COLLECTION OF JEWISH ART AND LIFE | Exhibition | | Type of Building | | Category |
|---|--|-----------|------------------|--------|-----------------------|
| | Permanent | Temporary | Historical | Modern | Jewish Museum - Gen'l |
| | ● | ● | ● | ○ | |
| | a museum of art and history focused on the Jewish experience | | | | |
| Country |  | | | | |
| USA | | | | | |
| City | | | | | |
| Berkeley, CA | | | | | |
| Architect | | | | | |
| unknown | | | | | |
| History | | | | | |
| Found 1961 New building 1997 | | | | | |

| LOS ANGELES MUSEUM OF THE HOLOCAUST | Exhibition | | Type of Building | | Category |
|--|---|-----------|------------------|--------|------------------|
| | Permanent | Temporary | Historical | Modern | Holocaust Center |
| | ● | ● | ○ | ● | 27,000 sqm |
| | remembrance and preservation of the history, stories, actions, and tragic events of the Holocaust during World War II | | | | |
| Country |  | | | | |
| USA | | | | | |
| City | | | | | |
| Los Angeles, CA | | | | | |
| Architect | | | | | |
| Belzberg Architects | | | | | |
| History | | | | | |
| 2010 | | | | | |

| KEHILA KEDOSHA JANINA SYNAGOGUE AND MUSEUM | Exhibition | | Type of Building | | Category |
|--|---|-----------|------------------|--------|----------------------|
| | Permanent | Temporary | Historical | Modern | Historic Site Museum |
| | ● | ○ | ● | ○ | |
| | describe the story of the Romaniote Jews | | | | |
| Country |  | | | | |
| USA | | | | | |
| City | | | | | |
| New York, NY | | | | | |
| Architect | | | | | |
| unknown | | | | | |
| History | | | | | |
| 1927 | | | | | |

| JEWISH MUSEUM OF MARYLAND | Exhibition | | Type of Building | | Category |
|--------------------------------------|--|-----------|------------------|--------|-----------------------|
| | Permanent | Temporary | Historical | Modern | Jewish Museum - Gen'l |
| | ● | ● | ● | ○ | |
| | integrates the Jewish experience in America, with special attention to regional Jewish history, culture and community in the state of Maryland | | | | |
| Country |  | | | | |
| USA | | | | | |
| City | | | | | |
| Baltimore, MD | | | | | |
| Architect | | | | | |
| unknown | | | | | |
| History | | | | | |
| 1845 the building 1960 the museum | | | | | |

Appendix 1 - The List of Ninety Six Jewish Historical Museums

| | Exhibition | | Type of Building | | Category |
|--------------------------------------|--|-----------|------------------|--------|-----------------------|
| | Permanent | Temporary | Historical | Modern | |
| JEWISH MUSEUM OF FLORIDA-FIU | ● | ● | ● | ○ | Jewish Museum - Gen'l |
| | collects, preserves and interprets the historical evidence of the Jewish experience from when Jews were first allowed to settle in 1763 up to the present. | | | | |
| Country | | | | | |
| USA | | | | | |
| City | | | | | |
| Miami Beach, FL | | | | | |
| Architect | | | | | |
| unknown | | | | | |
| History | | | | | |
| 1936 the building 2007 the museum | | | | | |



| | Exhibition | | Type of Building | | Category |
|--------------------------------|---|-----------|------------------|--------|----------------|
| | Permanent | Temporary | Historical | Modern | |
| JEWISH MUSEUM MILWAUKEE | ● | ● | ○ | ● | History Museum |
| | presents the history of the Jewish people in southeastern Wisconsin | | | | |
| Country | | | | | |
| USA | | | | | |
| City | | | | | |
| Milwaukee, WI | | | | | |
| Architect | | | | | |
| Edward Durell Stone | | | | | |
| History | | | | | |
| 1973 | | | | | |



| | Exhibition | | Type of Building | | Category |
|---------------------------------------|---|-----------|------------------|--------|----------------------|
| | Permanent | Temporary | Historical | Modern | |
| JEWISH HISTORY MUSEUM - TUCSON | ● | ● | ● | ○ | Historic Site Museum |
| | collects, preserves, exhibits and teaches about the history of the Jewish experience in the Southwest | | | | |
| Country | | | | | |
| USA | | | | | |
| City | | | | | |
| Tucson, AZ | | | | | |
| Architect | | | | | |
| unknown | | | | | |
| History | | | | | |
| 1910 the building 2005 The museum | | | | | |



| | Exhibition | | Type of Building | | Category |
|---|---|-----------|------------------|--------|----------------|
| | Permanent | Temporary | Historical | Modern | |
| JEWISH HISTORICAL SOCIETY OF GREATER WASHINGTON LILLIAN & ALBERT SMALL JEWISH MUSEUM | ● | ● | ● | ○ | History Museum |
| | explores the unique Jewish heritage of Washington as a hometown and as the nation's capital | | | | |
| Country | | | | | |
| USA | | | | | |
| City | | | | | |
| Washington, DC | | | | | |
| Architect | | | | | |
| unknown | | | | | |
| History | | | | | |
| 1876 the building 1975 the museum | | | | | |



| | Exhibition | | Type of Building | | Category |
|---------------------------------|--|-----------|------------------|--------|-------------------|
| | Permanent | Temporary | Historical | Modern | |
| JEWISH CHILDREN'S MUSEUM | ● | ● | ○ | ● | Children's Museum |
| | experience Jewish history, values and traditions in a manner that inspires an increased interest in Jewish culture | | | | |
| Country | | | | | |
| USA | | | | | |
| City | | | | | |
| Brooklyn, NY | | | | | |
| Architect | | | | | |
| Gwathmey Siegel | | | | | |
| History | | | | | |
| 2004 | | | | | |



| | Exhibition | | Type of Building | | Category |
|---|---|-----------|------------------|--------|------------------|
| | Permanent | Temporary | Historical | Modern | |
| ILLINOIS HOLOCAUST MUSEUM AND EDUCATION CENTER | ● | ● | ○ | ● | Holocaust Center |
| | preserving the memories of those lost in the Holocaust. | | | | |
| Country | | | | | |
| USA | | | | | |
| City | | | | | |
| Skokie, IL | | | | | |
| Architect | | | | | |
| Stanley Tigerman | | | | | |
| History | | | | | |
| 2009 | | | | | |



Appendix 1 - The List of Ninety Six Jewish Historical Museums

| | Exhibition | | Type of Building | | Category |
|--------------------------------------|--|-----------|------------------|--------|-----------------------|
| | Permanent | Temporary | Historical | Modern | |
| JEWISH MUSEUM OF FLORIDA-FIU | ● | ● | ● | ○ | Jewish Museum - Gen'l |
| | collects, preserves and interprets the historical evidence of the Jewish experience from when Jews were first allowed to settle in 1763 up to the present. | | | | |
| Country | | | | | |
| USA | | | | | |
| City | | | | | |
| Miami Beach, FL | | | | | |
| Architect | | | | | |
| unknown | | | | | |
| History | | | | | |
| 1936 the building 2007 the museum | | | | | |



| | Exhibition | | Type of Building | | Category |
|--------------------------------|---|-----------|------------------|--------|----------------|
| | Permanent | Temporary | Historical | Modern | |
| JEWISH MUSEUM MILWAUKEE | ● | ● | ○ | ● | History Museum |
| | presents the history of the Jewish people in southeastern Wisconsin | | | | |
| Country | | | | | |
| USA | | | | | |
| City | | | | | |
| Milwaukee, WI | | | | | |
| Architect | | | | | |
| Edward Durell Stone | | | | | |
| History | | | | | |
| 1973 | | | | | |



| | Exhibition | | Type of Building | | Category |
|---------------------------------------|---|-----------|------------------|--------|----------------------|
| | Permanent | Temporary | Historical | Modern | |
| JEWISH HISTORY MUSEUM - TUCSON | ● | ● | ● | ○ | Historic Site Museum |
| | collects, preserves, exhibits and teaches about the history of the Jewish experience in the Southwest | | | | |
| Country | | | | | |
| USA | | | | | |
| City | | | | | |
| Tucson, AZ | | | | | |
| Architect | | | | | |
| unknown | | | | | |
| History | | | | | |
| 1910 the building 2005 The museum | | | | | |



| | Exhibition | | Type of Building | | Category |
|---|---|-----------|------------------|--------|----------------|
| | Permanent | Temporary | Historical | Modern | |
| JEWISH HISTORICAL SOCIETY OF GREATER WASHINGTON LILLIAN & ALBERT SMALL JEWISH MUSEUM | ● | ● | ● | ○ | History Museum |
| | explores the unique Jewish heritage of Washington as a hometown and as the nation's capital | | | | |
| Country | | | | | |
| USA | | | | | |
| City | | | | | |
| Washington, DC | | | | | |
| Architect | | | | | |
| unknown | | | | | |
| History | | | | | |
| 1876 the building 1975 the museum | | | | | |




| | Exhibition | | Type of Building | | Category |
|---------------------------------|--|-----------|------------------|--------|-------------------|
| | Permanent | Temporary | Historical | Modern | |
| JEWISH CHILDREN'S MUSEUM | ● | ● | ○ | ● | Children's Museum |
| | experience Jewish history, values and traditions in a manner that inspires an increased interest in Jewish culture | | | | |
| Country | | | | | |
| USA | | | | | |
| City | | | | | |
| Brooklyn, NY | | | | | |
| Architect | | | | | |
| Gwathmey Siegel | | | | | |
| History | | | | | |
| 2004 | | | | | |




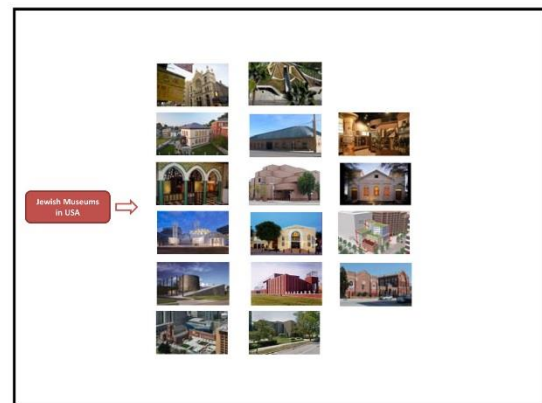
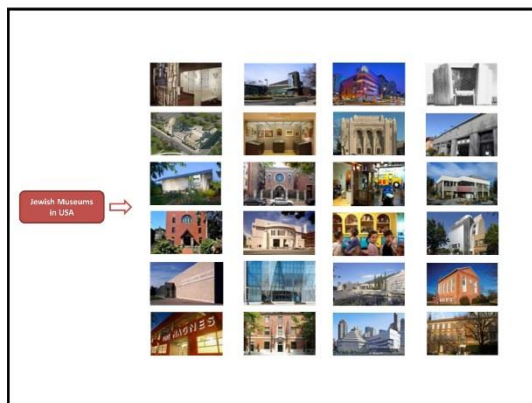
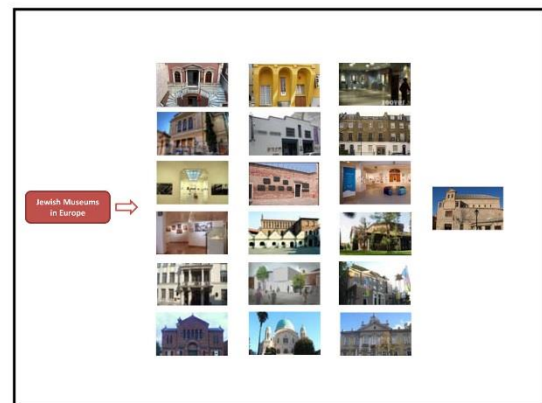
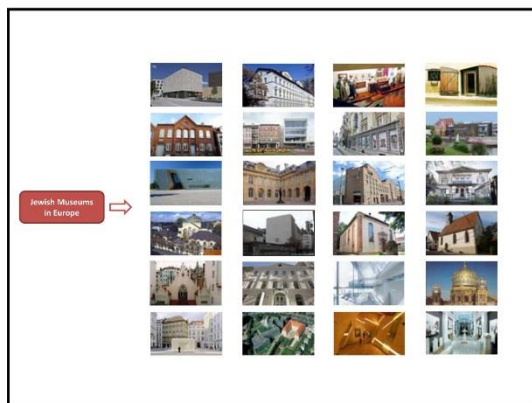
| | Exhibition | | Type of Building | | Category |
|---|---|-----------|------------------|--------|------------------|
| | Permanent | Temporary | Historical | Modern | |
| ILLINOIS HOLOCAUST MUSEUM AND EDUCATION CENTER | ● | ● | ○ | ● | Holocaust Center |
| | preserving the memories of those lost in the Holocaust. | | | | |
| Country | | | | | |
| USA | | | | | |
| City | | | | | |
| Skokie, IL | | | | | |
| Architect | | | | | |
| Stanley Tigerman | | | | | |
| History | | | | | |
| 2009 | | | | | |



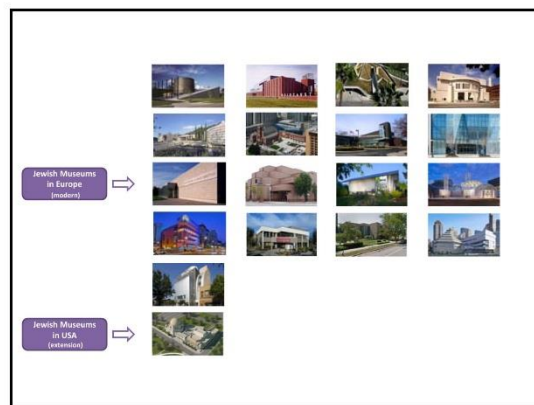
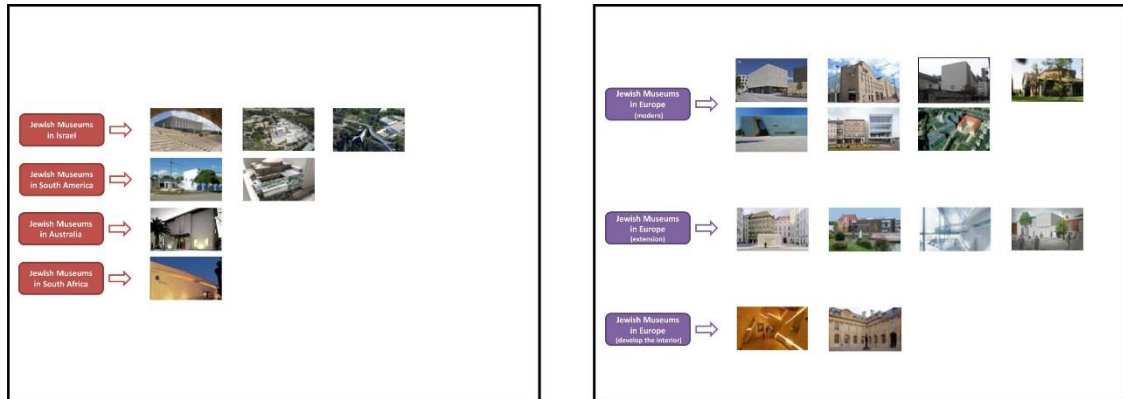
Appendix 1 - The List of Ninety Six Jewish Historical Museums

| | | | | | |
|--|---|-----------|------------------|--------|-------------------------|
| AZEEZ MUSEUM OF WOODBINE HERITAGE, SAM | Exhibition | | Type of Building | | Category |
| | Permanent | Temporary | Historical | Modern | Historic Site Museum |
| | ● | ● | ● | ○ | |
| | remember and record the history and heritage of Jews in Woodbine, NJ | | | | |
| Country |  | | | | |
| USA | | | | | |
| City | | | | | |
| Pleasantville, NJ | | | | | |
| Architect | | | | | |
| unknown | | | | | |
| History | | | | | |
| 1896 | | | | | |

| | | | | | |
|----------------------------|--|-----------|------------------|--------|----------------|
| ALASKA JEWISH MUSEUM | Exhibition | | Type of Building | | Category |
| | Permanent | Temporary | Historical | Modern | History Museum |
| | ● | ● | ○ | ● | |
| | overlooked role that Jewish pioneers played in the purchase and development of the state of Alaska | | | | |
| Country |  | | | | |
| USA | | | | | |
| City | | | | | |
| Anchorage, AK | | | | | |
| Architect | | | | | |
| unknown | | | | | |
| History | | | | | |
| 2007 | | | | | |



Appendix 1 - The List of Ninety Six Jewish Historical Museums



Appendix 2 - A Comparison between Six Jewish Museums

United States Holocaust Memorial Museum

Architect: James Ingo Freed
James Ingo Freed is a partner of I. M. Pei and Partners, Architects, New York City
Open: 1993

- ❖ The museum is the United States's national institution for the documentation, study, and interpretation of Holocaust history and serves as the national memorial to the victims of the Holocaust.
- ❖ The museum's primary mission is to advance and disseminate knowledge about the Holocaust, to preserve the memory of those who suffered, and to encourage visitors to reflect upon the moral and spiritual questions raised by the events of the Holocaust as well as their own responsibilities as citizens of a democracy.
- ❖ The architecture was intentionally designed to give visitors a sense of life under the Nazis. The stark brick and limestone exterior is supposed to remind people of a German factory. Inside, James Freed's design seems flawed: Rooms do not always have right angles, the windows are different sizes, the floor is fractured, and the interior brick walls are uneven in shape and colour, as were the bricks used in the crematoria. Freed intentionally wanted to convey the sense of a world gone awry.
- ❖ metaphoric play: the architect use three tools to draw people attention to make interpretation inside the museum, these tools are 1) incomplete 2) irresolution 3) imbalance



Images of Concentration Camps Taken By US Army



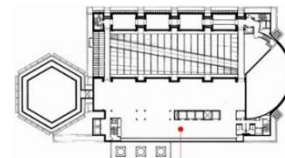
Model of Auschwitz Crematorium



Hall of Remembrance



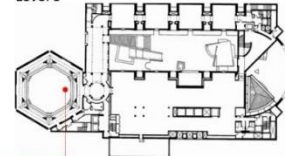
Hall of Witness



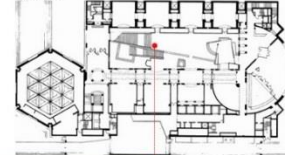
Level 4



Level 3



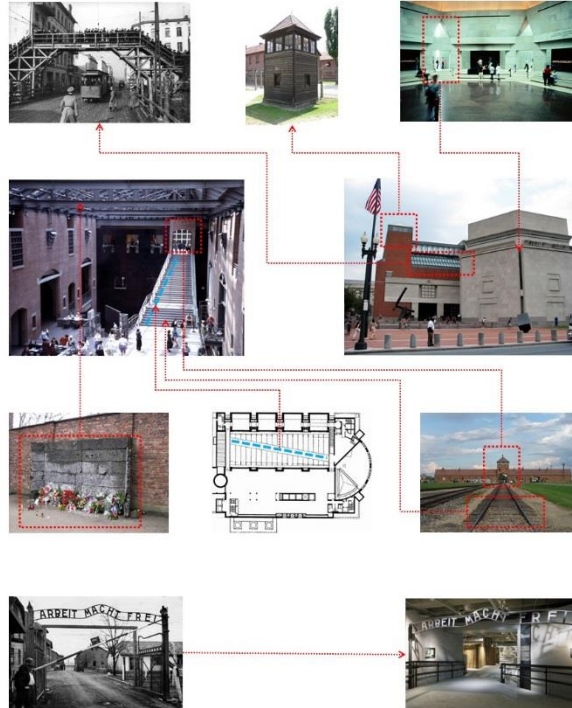
Level 2



Level 1

United States Holocaust Memorial Museum

- ❖ Visitors go into the building through one of two entrances. Forgey describes the experience: "The entry sequences themselves are disorienting. Directions are not clearly labelled. The visitor must choose-- go left, to right, go down, go up, go forward"
- ❖ The main exhibition is not recommended for children under 11 years of age. However, a special exhibit, called Daniel's story, which based on a book of fiction, is design as young as 6 to the basic fact of the holocaust.
- ❖ A glass enclosed walkway which look somewhat like the open wooden walkways which were put over some of the streets of the Warsaw and Lodz ghettos in Poland so the non-Jews could pass through the ghetto on the streetcar, or walk on the street below without having to come in contact with the Jews.
- ❖ The architect recall the black wall in a direct way he use the black colour in a thick steel in the skylight to show the visitors the size of the steel prevent a large amount of the sunlight from entering the hall.
- ❖ There are two sculptures outside the building.
- ❖ The abstract black figures symbolize the destruction of European Jewry and the regeneration of the Jews. The first section is a house which has been tipped over and is now balanced precariously on the tip of one end of the peak roof, symbolizing the loss of Jewish home when the Nazis destroyed the shtetls, as the Jewish village in Poland were called.



United States Holocaust Memorial Museum

Hall of Remembrance:

- ❖ 6,000 square-foot Hall of Remembrance is on the second floor of the US Holocaust Memorial Museum in Washington, DC at the end of the tour of the permanent exhibit.
- ❖ The room has 6 sides which represent the 6 million Jews who were murdered in the Holocaust, and the 6-pointed Star of David, which is the Jewish emblem. The Hall is three stories high and there is a 6-sided skylight at the top.
- ❖ There are no real windows in the room but shafts of light are provided by narrow glass-covered slits at the four exterior corners of the building.
- ❖ The 6 walls of the Hall of Remembrance have black marble panels, engraved with the names of the major concentration camps in Poland and Germany. The 6 death camps, where the Jews were gassed, are on a separate panel.
- ❖ This shows a closeup of the black marble block, evocative of a coffin, which contains dirt from 38 of the concentration camps in Europe. The dirt was brought to America in urns, like those used by the Nazis for the ashes of the victims who were cremated, and in a touching ceremony, the dirt was deposited inside the block by Jewish survivors of the Holocaust. Dirt from a cemetery in Europe where American soldiers are buried was also included, in honour of the American liberators of the Dachau and Buchenwald concentration camps.
- ❖ Freed felt that providing visitors with a view of these American icons would allow a misplaced sense of hope and context.



Daniel's Story



Nazi Assault—1933 to 1939



Victims' Shoes



Main Entrance



The Tower of Faces

Jewish Museum Berlin

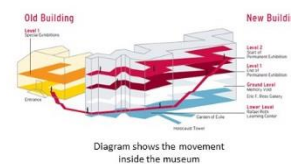
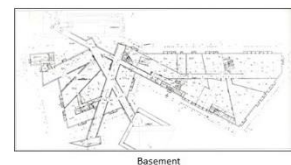
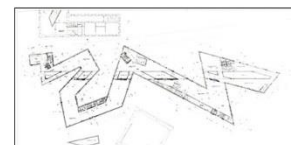
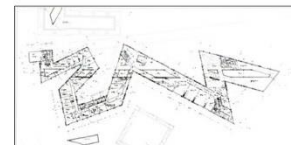
Architect: Daniel Libeskind
Open: 2001

- ❖ The Jewish Museum Berlin exhibits the social, political and cultural history of the Jews in German from the 4th century to present.
- ❖ The design is based on three conception that formed the museum's foundation: first, the impossibility of understanding the history of Berlin without understanding the enormous intellectual, economic and cultural contribution made by the Jewish citizens of Berlin, second the necessity to integrate physically and spiritually the meaning of the holocaust into the consciousness and memory of the city of Berlin. Third, that only through the acknowledgement and incorporation of this erasure and void of Jewish life in Berlin, can the history of Berlin and Europe have a human future.
- ❖ The holocaust void cuts through the zigzagging plan of the new building and create a space that embodies absence. It is a straight line whose impenetrability becomes the central focus around which exhibitions are organized. In order to move from one side of the museum to other, visitors must cross one of the 60 bridges that onto void.



Jewish Museum Berlin

- ❖ In 2004, the Jewish Museum Berlin commissioned SDI to design a multifunction space that would provide additional room for the museum's restaurant and extend the lobby to provide event space for lectures, concerts, and dinners. The glass courtyard which was completed in 2007 create an adaptable space which can be used throughout the year while preserving the open courtyard qualities of the baroque building.
- ❖ There is no formal exterior entrance to the building. In order to enter the new museum extension one must enter from the original Baroque museum in an underground corridor.
- ❖ One of the most emotional and powerful spaces in the building id a 66ft tall void that runs through the entire building. The concrete wall add a cold, overwhelming atmosphere to the space where the only light emanates from a small slit at the top of the space. The ground is covered in 10,000 coarse iron faces. A symbol of those lost during the Holocaust.
- ❖ **Underground Axes**
There are three underground axes. The first and longest one, called the "Axis of Continuity," is the main corridor which connects the old building to the new one and to the main staircase. It is meant to symbolize the continuation of Berlin's Jewish life
- ❖ There are 2 crossroads that lead off the main one. Their floor is somewhat more steeply inclined, while the ceiling remains constant, so that they decrease in height towards the end. These paths, to the exile garden and into the holocaust tower, lead beyond the contours of the new building and rely on their own intrinsic geometry. All three of the underground axes intersect, symbolizing the connection between the three realities of Jewish life in Germany.



Jewish Museum Berlin

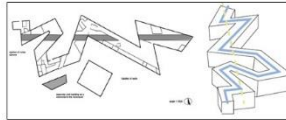
❖ The "Axis of Emigration" and the Garden of Exile:

This axis leads outside to daylight and the Garden of Exile. A heavy door must be opened before the crucial step into the garden can be taken. This is the only path leading to the outside world from below ground – evoking the idea of exile as the only way to freedom. In the garden, 49 concrete pillars rise out of a square plot. The whole garden is on a 12° gradient and disorients visitors, giving them a sense of the total instability and lack of orientation experienced by those driven out of Germany. The columns which are perpendicular to the sloping paving do induce a feeling of dizziness, and make the surrounding buildings appear to totter. It's a 7x7 columns square, 7 being a very significant number in Jewish religion. 8 of these columns are filled with the earth of Berlin and stand for 1948 – the formation of the state of Israel. The one central column contains the earth of Jerusalem and stands for Berlin itself. Willow oak grows on top of the pillars symbolizing hope, a modern inversion of the ancient motif of Eden. There are rose arbours around the garden – the thorny rose, a symbol of life, can both injure and reconcile. Roses were the only plants permitted in the ancient city of Jerusalem.

❖ The "Axis of the Holocaust" and the Holocaust Tower:

The "Axis of the Holocaust" is a dead end. It becomes ever narrower and darker and ends at the Holocaust Tower. The Holocaust Tower is the only void outside the Museum building.

❖ The bare concrete tower is empty, 24 meters high, and neither heated nor insulated. It is lit by a single narrow slit high above the ground. If light represents hope, then it is distant and unreachable. Noises from the outside world are clearly audible but the normality they effuse is unreachable.



The voids



The voids



The holocaust tower



Diagram shows the concept



Diagram shows the concept



The courtyard in the historic building

Holocaust Museum Houston

Architect: Lahdelma & Mahlamaki, Kurylowicz & Associates: Ralph Appelbaum
Open: 2013

❖ Holocaust Museum Houston was created to recall the Holocaust, the murder of 6 million European Jews and millions of others, and the attempt to destroy a great civilization. It was also designed to teach people of all ages, backgrounds and interests that we can resist the worst in humankind. For these purposes, a dedicated site was commissioned and built to gather, teach, collect and preserve the history of the Holocaust.

❖ At the front of the entrance stand six steel columns that recall the 6 million murdered Jews. A series of steel trestles evokes the railroad tracks on which thousands were carried to their deaths. Austere finishes-dark steel plates and beams combine with gray concrete to remind visitors of the faceless architecture of the death camps and the industrialization of mass murder.

❖ The Permanent Exhibition interprets chronologically the history of the Holocaust. The gallery ceiling starts high above the exhibition, then descends, just as the spectre of death closed in on victims of the Holocaust as time passed. At the conclusion of the exhibition, visitors arrive at a circular theatre that lies directly under the towering cylinder.



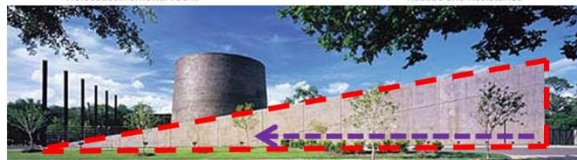
The six columns that recall the 6 million Jews



The entrance



Holocaust memorial room



Elevation with a diagram showing the concept



Life Before the Holocaust



The Camps



Rescue and Resistance

Museum of the History of Polish Jews

Architect: Lahdelma & Mahlamaki, Kurylowicz & Associates
Open: 2013

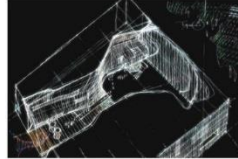
- ❖ The design was an international architectural competition between 11 studios, and the selection of the participant of this competition was based on experiences of interests. The name of the proposal was 'sea of Reeds'.
- ❖ The museum is function as a multifunctional centre for the research and exhibition of Jewish heritage, education and culture. The main permanent exhibition takes place under the main hall in a large exhibition space of 5000m². Special built-in milieus will present the different aspects of the history of the Polish Jews.
- ❖ The main task of the exhibition is to present different phases and forms of Jewish culture starting from medieval times to present day – the holocaust is only one of the main themes of the exhibition.



View shows the museum



View shows the museum



The concept



The Miracle of the Red Sea Crossing



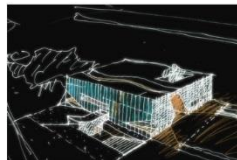
The lobby



The lobby

Museum of the History of Polish Jews

- ❖ The site of the new museum is located in the Willy Brandt Park, one kilometre from the old city centre of Warsaw, which was rebuilt after the war. The history of the park is tragic as it was part of the Jewish ghetto during the war. Adjacent to the new museum is the memorial of the uprising in the Jewish ghetto.
- ❖ The memorial has been an important element in the architecture of the museum. The proportions of the plaza in front of the memorial and the museum have been carefully considered. The shape of the museum building is rectangular. The facades are covered with glass and copper panels.
- ❖ The name of the building symbolically refers to the architecture of the main hall. The inspiration for the space has been the legends of the Old Testament, although at the same time forms of the hall refer to the universal and abstract phenomena of nature.
- ❖ The main hall is the most important element in the architecture of the building; a pure and silent space introducing the museum to the visitors.



View shows the museum



View shows the museum



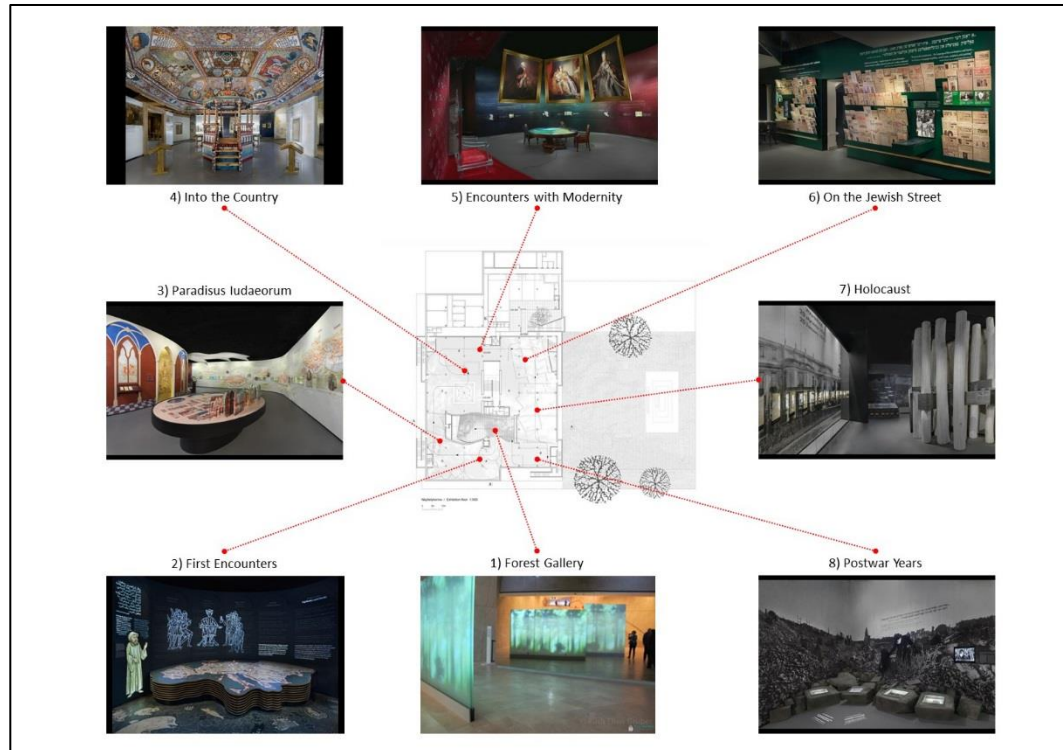
View shows the museum



View shows the museum



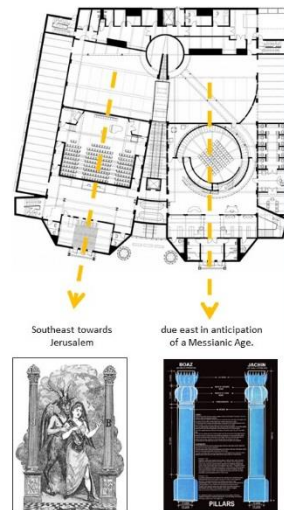
View shows the memorial and the museum



Illinois Holocaust Museum

Architect: Stanley Tigerman
Open: 2009

- ❖ The architectural features of the Illinois Holocaust Museum & Education Center affirm its place as both monumental and memorial. Designed by renowned architect Stanley Tigerman, the 65,000-square-foot space incorporates historical and emotional symbolism as a response to the apocalyptic inhumanity of the Holocaust.
- ❖ A theme throughout the building is the journey from darkness to light, explicit in the exterior's starkly divided dark and light wings, and carried out as the visitor travels through the interior.
- ❖ The dark wing faces southeast towards Jerusalem, while the light wing faces due east in anticipation of a Messianic Age.
- ❖ Museum visitors enter on the facility's dark side, where dark walls and sharp angles represent the descent into darkness and the horrors of the Holocaust.



Illinois Holocaust Museum

- ❖ Dark and light sides are connected by a “hinge” that symbolizes the rupture in humanity that occurred during the Holocaust and houses the facility’s anchor artefact, an early 20th century German rail car of the type used to transport Jews to concentration camps.
- ❖ The light side of the Museum uses soft rounded edges and natural light to emphasize exhibits that represent the rescue and renewal of survivors of the Holocaust. The upper level of the building’s light side houses the Legacy of Absence Gallery, the Room of Remembrance and the Hall of Reflection.
- ❖ The two columns at the entrance of the Museum are titled “Jachin” and “Boaz” and are designed to the exact dimensions of the columns of Solomon’s Temple as described in I Kings.
- ❖ Materials and joinery were left exposed in their natural, undecorated state to represent transparency, a response to the deception employed by those responsible for the Holocaust. Crowning the Museum’s exterior are six points of light, representing the six million Jews who perished.



Theatre



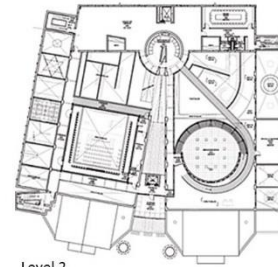
Six spotlight recalling six million Jews



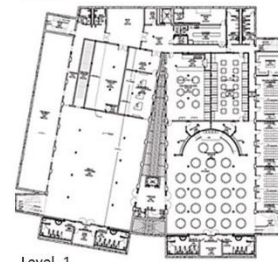
Bridge



German train that used in the holocaust



Level 2



Level -1

Illinois Holocaust Museum

- ❖ Hall of Reflection: the Pritzker Hall of Reflection provides a forum for peaceful discussion and contemplation as it symbolizes hope. The thoughtful design features 18 windows, each containing a memorial candle the represent life as they illuminate this inspiration space. Each glass block used in these windows represent one half of cubit, an ancient Biblical measurement used to build the sacred temple in Jerusalem.
- ❖ Room of Remembrance: The Room of Remembrance was created as a hallowed place where we remember those who were lost. This powerful space pays homage to the six million Jews and millions of others murdered during the Holocaust. Representative names of victims line the walls in a moving tribute.



contemplative spaces within the Museum provide visitors with a place to reflect and to process the images, messages and stories from the era of the Holocaust and today



Exhibition present artefact from the holocaust



Café



Room of Remembrance

Jewish museum Vienna

Architect: Jabornegg and Palffy
Artist: Rachel Whiteread
Open: 2000

- ❖ Rachel Whiteread's design for the Holocaust memorial has no obvious points of reference to the remains of a medieval synagogue discovered underneath Judenplatz. It is therefore complemented by two other architectural features – the square itself and the Judenplatz Museum in the Mizrahi House, which hosts an exhibition on the life of Vienna's Jewish community during the Middle Ages. The square and the adjoining streets now form a self-contained pedestrian area dominated by the Holocaust memorial and the statue of Lessing. It seemed an obvious choice to use the old granite paving stones typical for the city centre for the paving; stones of different size accentuate the transitions from streets to square and the street gutters. The lighting system installed on the roofs of the surrounding buildings allows an even illumination of the urban space.
- ❖ Access to the archaeological excavations is via the new exhibition rooms on the ground floor and lower floor in the Mizrahi House.



Street leads to the museum and the memorial



Nameless Library



Model showing the concept of the design



The lobby

Jewish museum Vienna

- ❖ The layout of the archaeological site required an underground passage emerging right in the centre of the excavations, giving visitors an immediate overview of the site. The excavated remains of the outer walls of the synagogue destroyed in 1421 determine the position and size of the display room. Set in front of the walls of the room, galvanized sheet brass cladding precisely marks the outer extent of the excavations. It conceals the utility lines and, since it does not reflect the room's artificial lighting, provides a discreet background for the material diversity of the archaeological finds.
- ❖ The memorial is a steel and concrete construction with a base measuring 10 x 7 meters and a height of 3.8 meters. The outside surfaces of the volume are cast library shelves turned inside out. The spines of the books are facing inwards and are not visible, therefore the titles of the volumes are unknown and the content of the books remains unrevealed. The shelves of the memorial appear to hold endless copies of the same edition, which stand for the vast number of the victims, as well as the concept of Jews as "People of the Book." The double doors are cast with the panels inside out, and have no doorknobs or handles. They suggest the possibility of coming and going, but do not open.



Section on the model showing the concept



Nameless Library and the museum



The foundation of the historic synagogue



Section on the model showing the concept



Corridor leads to the foundation

Holocaust Museum Houston

Architect: Lahdelma & Mahlamaki, Kurylowicz & Associates: Ralph Appelbaum
Open: 2013

- ❖ Holocaust Museum Houston was created to recall the Holocaust, the murder of 6 million European Jews and millions of others, and the attempt to destroy a great civilization. It was also designed to teach people of all ages, backgrounds and interests that we can resist the worst in humankind. For these purposes, a dedicated site was commissioned and built to gather, teach, collect and preserve the history of the Holocaust.
- ❖ At the front of the entrance stand six steel columns that recall the 6 million murdered Jews. A series of steel trestles evokes the railroad tracks on which thousands were carried to their deaths. Austere finishes-dark steel plates and beams combine with gray concrete to remind visitors of the faceless architecture of the death camps and the industrialization of mass murder.
- ❖ The Permanent Exhibition interprets chronologically the history of the Holocaust. The gallery ceiling starts high above the exhibition, then descends, just as the spectre of death closed in on victims of the Holocaust as time passed. At the conclusion of the exhibition, visitors arrive at a circular theatre that lies directly under the towering cylinder.



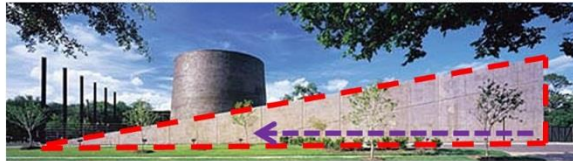
The six columns that recall the 6 million Jews



The entrance



Holocaust memorial room



Elevation with a diagram showing the concept



Life Before the Holocaust



The Camps



Rescue and Resistance

Compare and contrast between six Jewish museums

| Museums | Architecture Style | Circulation | Entrance | Contemplation spaces |
|---|--------------------|--|---|---|
| United States Holocaust Memorial Museum | • Post-modernism | • Specific circulation pattern • From forth floor to the second | • Two main entrance lead to the same space • Have functional and meaningful purposes | • One space • Hall of Witness • Last space |
| Jewish Museum Berlin | • Deconstructivism | • Specific and unspecific circulation pattern • From level three to level two | • No entrance • Visitor enter from the next historic museum • Has a meaningful purpose. | • There are many spaces in this museum that provoke contemplation (holocaust tower and voids) |
| Holocaust Museum Houston | • Modernism | • There is a specific circulation pattern • One level | One entrance | • One space which is the last space |
| Museum of the History of Polish Jews | • Modernism | • Specific circulation pattern • In the basement level • Just in one level | • One entrance. • The architect want all the visitors enter from it for meaningful purpose | • The lobby |
| Illinois Holocaust Museum | • Post-modernism | • There is no specific circulation pattern • Three levels | • One entrance and one exit • The architect did it in purpose | • three spaces • one outdoor • Two indoor |
| Jewish museum Vienna | • Post-modernism | • There is no specific circulation pattern • Two levels | • One entrance | • Two spaces (one of them is outdoor- Nameless Library) |

Compare and contrast between six Jewish museums

| Museums | Surroundings | landscape | religion | Daylight & sound |
|---|---|--|--|---|
| United States Holocaust Memorial Museum | <ul style="list-style-type: none"> Pure façade Close any view to the outside for two reasons (misunderstanding-evocation the holocaust) | <ul style="list-style-type: none"> There are two sculpture outside the building There are some speeches and poems engraved in the exterior walls | | <ul style="list-style-type: none"> The designer allow to the sunlight to enter the Hall of Remembrance since it's a contemplation space and in the Hall of Witness |
| Jewish Museum Berlin | <ul style="list-style-type: none"> The city of Berlin and its history effect in the design of zigzag shape A historic tree change the direction of the building | <ul style="list-style-type: none"> The building itself can be considered as a landscape elements | <ul style="list-style-type: none"> The architect made the building abstract for religious reason. | <ul style="list-style-type: none"> The architect manipulates daylight everywhere The sound used in the Holocaust tower to evoke the Holocaust |
| Holocaust Museum Houston | <ul style="list-style-type: none"> The architect used strange forms for the building to make the building noticeable. | <ul style="list-style-type: none"> The architect presents some objects outside the building | | <ul style="list-style-type: none"> There are some windowless spaces for a meaningful reasons |
| Museum of the History of Polish Jews | <ul style="list-style-type: none"> The architect respect the existed monument, and its dimensions. | <ul style="list-style-type: none"> The building is part of a public space area | <ul style="list-style-type: none"> the concept of the design the building was inspired by a famous story to Jewish main prophet | <ul style="list-style-type: none"> The architect manipulates daylight in the lobby to stress the main concept |
| Illinois Holocaust Museum | | <ul style="list-style-type: none"> There are two columns outside the building which have a religious root | <ul style="list-style-type: none"> The directions of black and white wedge has a religious roots The two abstract columns has religious meanings | <ul style="list-style-type: none"> The daylight enter the building in the white section |
| Jewish museum Vienna | <ul style="list-style-type: none"> The Nameless Library is on the top of the foundation of a historic Synagogue | <ul style="list-style-type: none"> The memorial (Nameless library) outside the building | <ul style="list-style-type: none"> The arrangement of the artefacts in the museums based on religious classification | |


Compare and contrast between six Jewish museums

| Museums | Experience | literal | Direct symbolic | Indirect symbolic |
|---|---|--|--|---|
| United States Holocaust Memorial Museum | <ul style="list-style-type: none"> The architect wants the visitors feel uncomfortable because he believes that will make them interpret the building. | <ul style="list-style-type: none"> The architect used the same arch that in the entry to Birkenau and he also designed the same gate to Auschwitz | <ul style="list-style-type: none"> hexagonal shaped of Hall of Remembrance to recall six million people inspired by a historic synagogue in Poland | <ul style="list-style-type: none"> the use of V shaped wedges in the HOW, he used to effect the visitors that the wall need this support because of the pressure |
| Jewish Museum Berlin | <ul style="list-style-type: none"> There are three level of experience (experience-metaphor- allegory) | <ul style="list-style-type: none"> Start of David | <ul style="list-style-type: none"> Six voids The garden of exile and its 49 columns The tower of the holocaust | <ul style="list-style-type: none"> Entering the building from the historic building by a long stair lead to the basement of the new museum |
| Holocaust Museum Houston | <ul style="list-style-type: none"> The change of levels inside the museum is related to Jews situation for the time that the exhibition presents | <ul style="list-style-type: none"> He used the same material that used in the holocaust such as brick and steel | <ul style="list-style-type: none"> The use of six columns in the front door | <ul style="list-style-type: none"> Windowless spaces Change the ceiling levels inside the exhibitions |
| Museum of the History of Polish Jews | <ul style="list-style-type: none"> The exhibition focus on the design to create the meanings not the artefacts | <ul style="list-style-type: none"> Rebuilt the same interior space of a historical synagogue | <ul style="list-style-type: none"> The inspiration of the story Jewish main prophet in design the lobby | <ul style="list-style-type: none"> The lobby splits the building to two section s and this present of the effect of holocaust in their history |
| Illinois Holocaust Museum | <ul style="list-style-type: none"> The whole journey was inspired by the story of the holocaust | <ul style="list-style-type: none"> The two columns in the entrance that was inspired from the two columns in Solomon temple | <ul style="list-style-type: none"> The six spot light in the front of the reception that recall six million Jews killing in the holocaust | <ul style="list-style-type: none"> The colours of the two sections (white and black) before and after the holocaust The form of the building |
| Jewish museum Vienna | <ul style="list-style-type: none"> The experience is outside and inside the building | | <ul style="list-style-type: none"> The use of book in the design Nameless Library is to mention that the Jews is the people of holy book | <ul style="list-style-type: none"> The direct cannot be opened which present that its difficult to know about the people who killed in the holocaust |

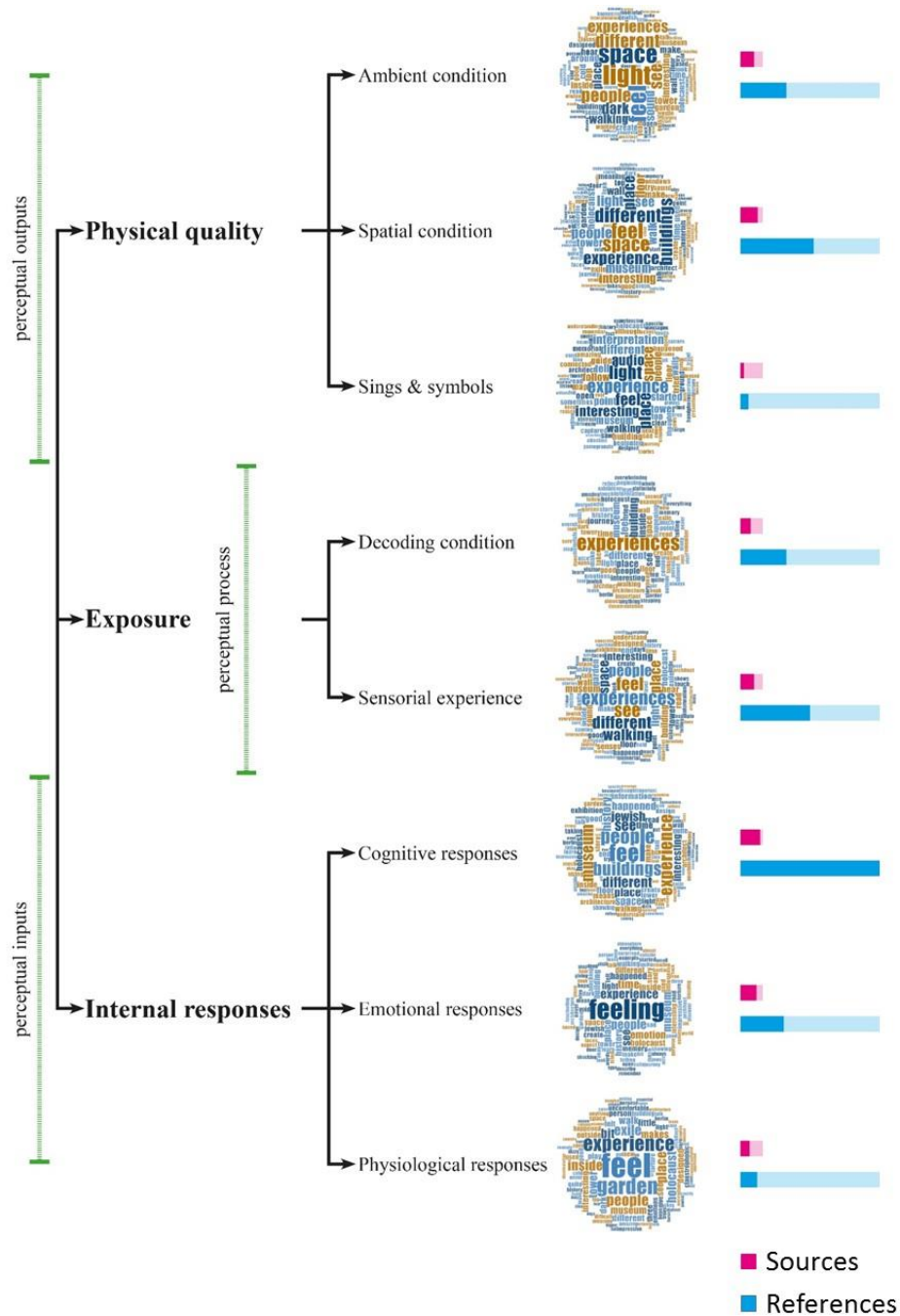
Appendix 3 - Ethics Committee Reviewer Decision

| Ethics Committee Reviewer Decision | |
|--|---------------------------------------|
| <p>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.</p> | |
| Applicant full name | Faisal Sultan Alosaimi (resubmission) |
| Reviewed by: Genovefa Kefalidou | |
| Name | |
| Signature (paper based only) | |
| Date | 19/10/2016 |
| <p> <input checked="" type="checkbox"/> Approval awarded - no changes required <input type="checkbox"/> Approval awarded - subject to required changes (see comments below) <input type="checkbox"/> Approval pending - further information & resubmission required (see comments) <input type="checkbox"/> Approval declined – reasons given below </p> | |
| <p>Comments:</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p> | |
| <p>Please note:</p> <ol style="list-style-type: none"> 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. | |
| <p>Any problems which arise during the course of the investigation must be reported to the Faculty Research Ethics Committee</p> | |

Appendix 4 - Research Participant Consent Form

| | | |
|---|---|----------------------------|
| <p>Research Participant Consent Form</p> <p>Title of the Study: Jewish Culture and History as an Inspiration to Design Jewish Museums: A Case Study of Jewish Museum Berlin</p> <p>Name of the Researcher: Faisal Alosaimi</p> <p>Please tick the boxes as appropriate</p> <ol style="list-style-type: none"> 1. I confirm that I have read and understand the information sheet for the above study. I have had the opportunity to consider the information, ask questions and have had these answered satisfactorily. <input style="float: right;" type="checkbox"/> 2. I understand that my participation is voluntary and that I am free to withdraw AND have my data deleted on request at any time, without giving any reason. <input style="float: right;" type="checkbox"/> 3. I could take a break at any time during the interview. <input style="float: right;" type="checkbox"/> 4. I understand that I have the right not to answer particular questions if I consider them to be sensitive or commercial proprietary. <input style="float: right;" type="checkbox"/> 5. I give my consent for the interview to be audio-recorded as described in the information sheet <input style="float: right;" type="checkbox"/> 6. I give my consent for my data to be used as it has been explained in the information sheet. <input style="float: right;" type="checkbox"/> 7. I understand that the research findings, including the comments / data I provide in the interview, may be published as a PhD thesis, academic conference papers, journal articles and other academic publication / dissemination channels. <input style="float: right;" type="checkbox"/> 8. I understand if the academic findings are to be published in other places, for example media articles, no specific references to individual interviewees will be made. <input style="float: right;" type="checkbox"/> 9. I understand that all participants who can take part in this study must be over 18 years <input style="float: right;" type="checkbox"/> 10. I agree to take part in the above study. <input style="float: right;" type="checkbox"/> |  <p>The University of Nottingham</p> | |
| <p>_____ Name of the Participant</p> | <p>_____ Date</p> | <p>_____ Signature</p> |
| <p>_____ Researcher</p> | <p>_____ Date</p> | <p>_____ Signature</p> |

Appendix 5 - Interview Analysis



The main themes of the research findings

| |
|--|
| The main themes and codes of the research findings |
|--|

1. Physical quality:**1.1.Ambient condition**

- 1.1.1. Atmosphere
- 1.1.2. Colour
- 1.1.3. Light
- 1.1.4. Odor
- 1.1.5. Sound
- 1.1.6. Temperatures

1.2.Spatial condition

- 1.2.1. Materiality
- 1.2.2. 3-D dimensions
- 1.2.3. Architectural elements
 - 1.2.3.1. Ceiling
 - 1.2.3.2. Columns
 - 1.2.3.3. Doors
 - 1.2.3.4. Entrance
 - 1.2.3.5. Floor
 - 1.2.3.6. Lamp
 - 1.2.3.7. Railing
 - 1.2.3.8. Skylight
 - 1.2.3.9. Stair
 - 1.2.3.10. Tree
 - 1.2.3.11. Walls
 - 1.2.3.12. Windows
- 1.2.4. Interior objects

1.3.Sings & symbols

- 1.3.1. Communicate idea
- 1.3.2. Help the visitor find their way

2. Exposure:**2.1.Decoding condition**

- 2.1.1. Experience
- 2.1.2. Journey
- 2.1.3. Time

2.2.Sensorial experience

- 2.2.1. Auditory
- 2.2.2. Body movement
- 2.2.3. Gustative
- 2.2.4. Multisensory
- 2.2.5. Olfactory
- 2.2.6. Tactile
- 2.2.7. Visual

3. Internal responses:**3.1.Cognitive responses**

- 3.1.1. Belief
 - 3.1.1.1. About the design

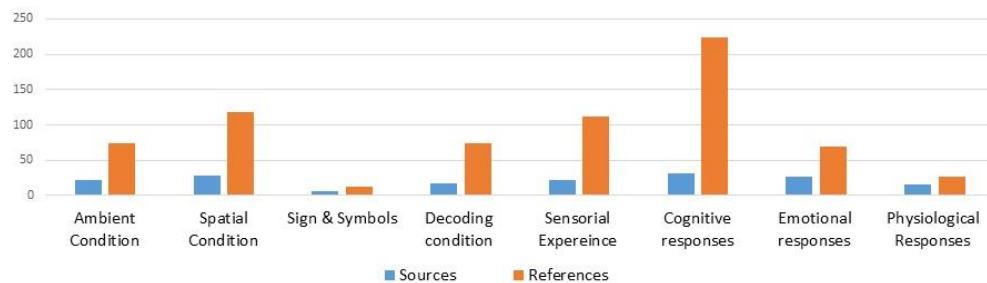
- 3.1.1.1.1. Confuse
- 3.1.1.1.2. Contemplation
- 3.1.1.1.3. Different approach
- 3.1.1.1.4. Maze
- 3.1.1.1.5. Memory
- 3.1.1.1.6. Missing
- 3.1.1.1.7. Surprising
- 3.1.1.1.8. Theme
- 3.1.1.2. About the museum
 - 3.1.1.2.1. Compare to other
 - 3.1.1.2.2. Curious
 - 3.1.1.2.3. Informative
 - 3.1.1.2.4. Not a holocaust
 - 3.1.1.2.5. Positive attitudes
 - 3.1.1.2.6. Reflection
- 3.1.1.3. About the other visitor
 - 3.1.1.3.1. Suitability for children
 - 3.1.1.3.2. Walking like robots
- 3.1.2. Categorization
- 3.1.3. Symbolic meaning
 - 3.1.3.1. Abstract
 - 3.1.3.2. Aim
 - 3.1.3.3. Concept
 - 3.1.3.4. Evocative
 - 3.1.3.5. Manipulate
 - 3.1.3.6. Meanings and messages
 - 3.1.3.7. Narrative
 - 3.1.3.8. symbol

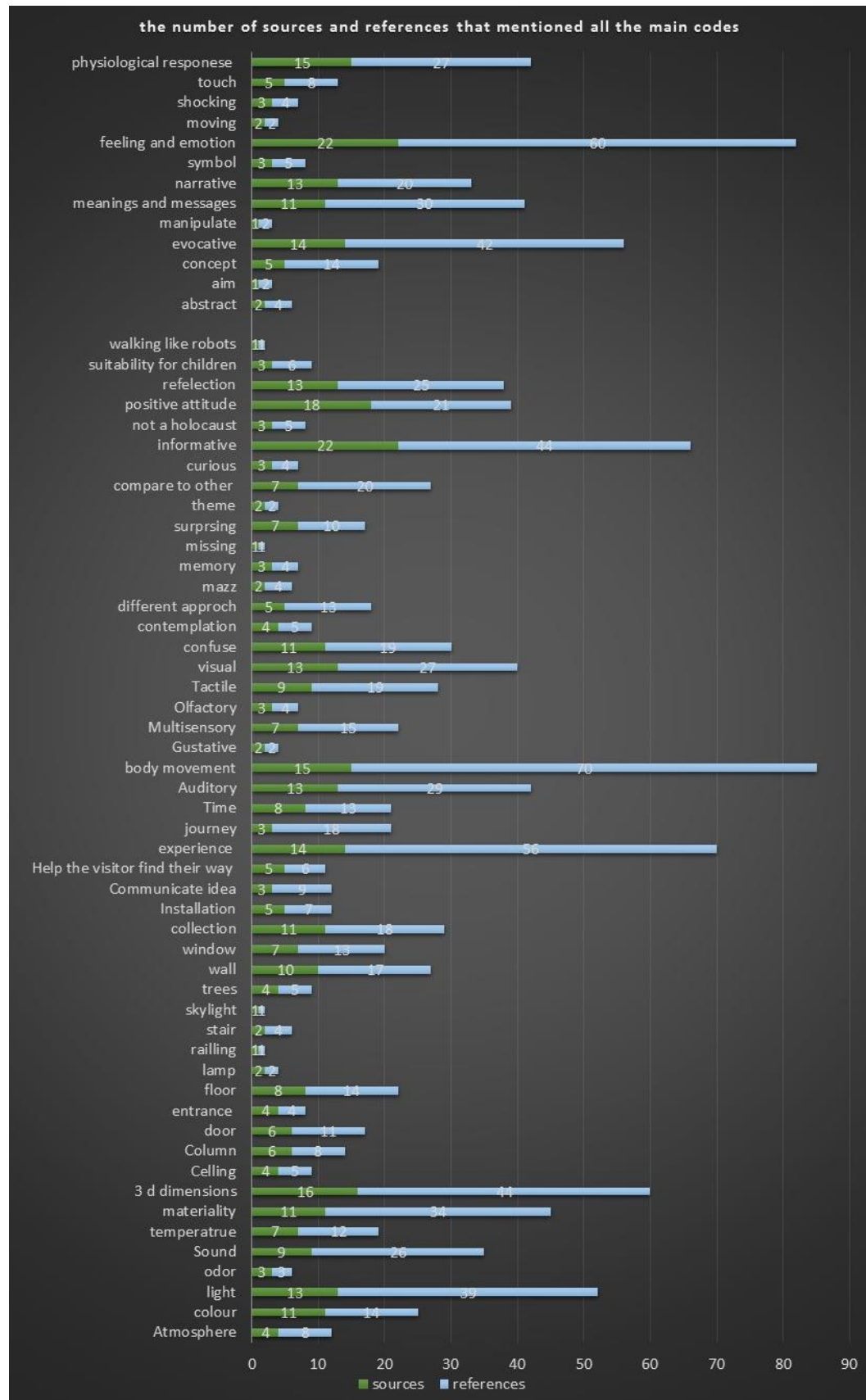
3.2. Emotional responses

- 3.2.1. Feeling and emotion
 - 3.2.1.1. Moving
 - 3.2.1.2. Shocking
 - 3.2.1.3. touching

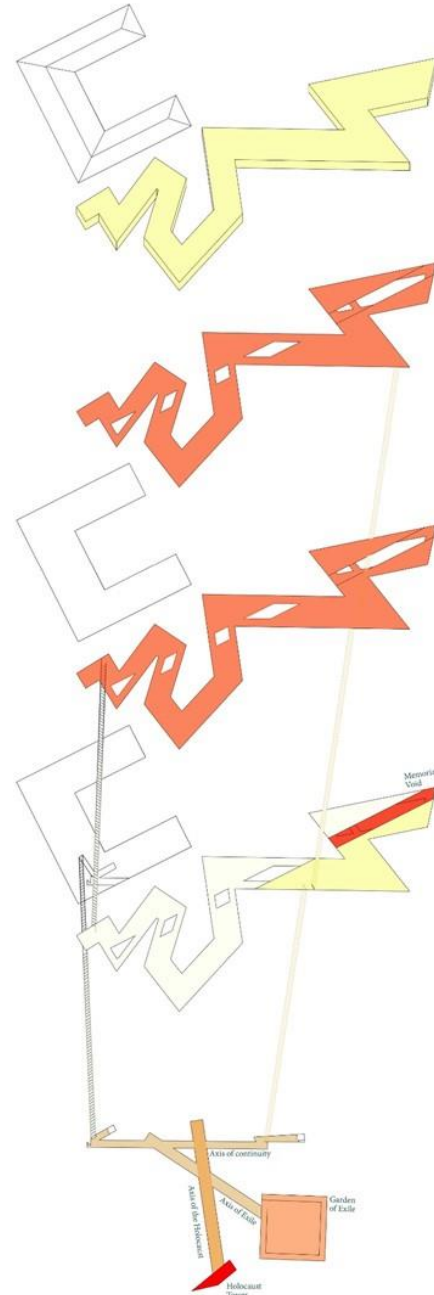
3.3. Physiological responses

the number of sources and references that talked about the main themes





| | | | |
|----------------------|--------------------|-------------------------|--|
| Architecture | Physical quality | Ambient Condition | |
| | | Spatial Condition | |
| | | Sings & symbols | |
| | Exposure | Decoding condition | |
| | | Sensorial experience | |
| | | Cognitive responses | |
| | Internal responses | Emotional responses | |
| | | Physiological responses | |
| | | | |
| Holocaust Tower | Physical quality | Ambient Condition | |
| | | Spatial Condition | |
| | | Sings & symbols | |
| | Exposure | Decoding condition | |
| | | Sensorial experience | |
| | | Cognitive responses | |
| | Internal responses | Emotional responses | |
| | | Physiological responses | |
| | | | |
| Memorial Void | Physical quality | Ambient Condition | |
| | | Spatial Condition | |
| | | Sings & symbols | |
| | Exposure | Decoding condition | |
| | | Sensorial experience | |
| | | Cognitive responses | |
| | Internal responses | Emotional responses | |
| | | Physiological responses | |
| | | | |
| Permanent Exhibition | Physical quality | Ambient Condition | |
| | | Spatial Condition | |
| | | Sings & symbols | |
| | Exposure | Decoding condition | |
| | | Sensorial experience | |
| | | Cognitive responses | |
| | Internal responses | Emotional responses | |
| | | Physiological responses | |
| | | | |
| Garden of Exile | Physical quality | Ambient Condition | |
| | | Spatial Condition | |
| | | Sings & symbols | |
| | Exposure | Decoding condition | |
| | | Sensorial experience | |
| | | Cognitive responses | |
| | Internal responses | Emotional responses | |
| | | Physiological responses | |
| | | | |
| Axis of Holocaust | Physical quality | Ambient Condition | |
| | | Spatial Condition | |
| | | Sings & symbols | |
| | Exposure | Decoding condition | |
| | | Sensorial experience | |
| | | Cognitive responses | |
| | Internal responses | Emotional responses | |
| | | Physiological responses | |
| | | | |
| Three Corridors | Physical quality | Ambient Condition | |
| | | Spatial Condition | |
| | | Sings & symbols | |
| | Exposure | Decoding condition | |
| | | Sensorial experience | |
| | | Cognitive responses | |
| | Internal responses | Emotional responses | |
| | | Physiological responses | |
| | | | |
| Staircase | Physical quality | Ambient Condition | |
| | | Spatial Condition | |
| | | Sings & symbols | |
| | Exposure | Decoding condition | |
| | | Sensorial experience | |
| | | Cognitive responses | |
| | Internal responses | Emotional responses | |
| | | Physiological responses | |
| | | | |



The relationship between the main themes and the main spaces

| 1. Physical quality | | | | | |
|------------------------|---------------------|--|--|--|-----------|
| 1.1. Ambient condition | 1.1.1. Atmosphere | | | It's interesting how he is not just trying to create a museum which is just talking about the documentation, but he is trying to get the user the experience, how the history was or what actually the data, the museum contains. He wants a person to feel all of that through articulating different kinds of spaces, maybe through materials or proportions or the atmosphere. | Number 11 |
| | 1.1.2. Colour | | | It's strange, because, from outside, it seems to be dark from the outside view. Because it's a grey, and the wall is grey, and it's really negative from outside, but from inside it was very interesting. | Number 16 |
| | 1.1.3. Light | | | The first one that really captured my attention was the lighting, the interior light especially at the beginning when you start walking and you got-- It seems like a really legible path, corridor that takes you around. But actually the lighting schemes and they're really sharp angles in the walls and it totally diverts your attention and that really, | Number 23 |
| | 1.1.4. Odor | | | Like in the Garden of Exile. Maybe you can get little bit of smell of flowers | Number 11 |
| | 1.1.5. Sound | | | I did notice when I was standing there, when the door closes, it makes a loud slamming sound and I'm sure that was intentional. Yes, that did give me the meaning of being again trapped in this space when you can't escape, like a prison. Yes. | Number 2 |
| | 1.1.6. Temperatures | | | It's cold and you don't feel you belong there. | Number 1 |
| 1.2. Spatial condition | 1.2.1. Materiality | | | Like in the tower, in particular, these are concrete, makes it quite cold space and then the high space there encourages the sounds as it echoes around you're very conscious of the sound. In fact, in the exhibition where there are all those, all the faces, the metal faces, people are walking over without realizing the sound aren't quite so much and it's very evocative of the way that Jewish people were downtrodden, I guess. That's what I got from it anyway. So I think it's really, really effectively done. | Number 8 |

| 1.2.Spatial condition | | | | | |
|-------------------------------|-----------------------|--|--|--|-----------|
| 1.2.3. Architectural elements | 1.2.2. 3-D dimensions | | | When you enter that Holocaust Tower, when you open the door, it's like heavy. You have to push it. And when you are inside, you are into a space. It's almost like the old churches or synagogue which has a high roof. You feel like something is floating over you because of the mass. It's, it's too high | Number 11 |
| | 1.2.3.1. Ceiling | | | A building has a certain kind of sequence..... Although it has, uh-- It is not strictly, you follow the same. But it-it wants you to go into a certain kind of sequence. So, even uh, the architect has tried-- Not forcefully but subconsciously, you have certain kind of Xs, which also runs on the ceiling. You have the lights. Maybe you have the floating pattern, which has some parts or something. So up to-- And some point you also have the arrows marks. So sometimes you just try to follow, and I think it's very smoothly structured | Number 11 |
| | 1.2.3.2. Columns | | | Then if you go to the Exile Garden, as well it's just like, you suddenly open the door and you're bumping to these concrete big squares and with the trees at the top and it's totally different experience for me, and this one as well. | Number 23 |
| | 1.2.3.3. Doors | | | Then when you enter that Holocaust Tower, when you open the door, it's like heavy. You have to push it. And when you are inside, you are into a space. It's almost like the old churches or synagogue which has a high roof. | Number 11 |
| | 1.2.3.4. Entrance | | | When I arrived, the first thought I have was, "Where is the museum?" Then I asked it to people, "Please, what is that?" They say, "This is the museum." "This is the museum too," I said, "the old building." He didn't speak English, but he tried to explain me that, "Don't worry, go to the entrance and then you will see the difference and what does it mean." Then I understood it was just the way to go to the magic place. | Number 4 |

| 1.2.Spatial condition | | | |
|-------------------------------|--|--|-----------|
| 1.2.3. Architectural elements | | | |
| 1.2.3.10. Tree | | <p>I think those were some of the most-- they affected me the most personally just because I feel like I'm getting those-- Through art, I'm getting the experiences that Jewish people have historically had, like the Holocaust Tower where you're just stuck in this large prison or as I said, on the wall before that, for the Garden of Exile where you've been exiled and now you're safe but you have this sense of distortion..... You're in these concrete things but the trees that you starting to get through the top, just the greenery, and there wasn't much now but you can see it's poking through.</p> | Number 24 |
| 1.2.3.9. Stair | | <p>There are some spaces that they have anything at all or for example, this stairs like you go up and they finishing nothing</p> | Number 36 |
| 1.2.3.8. Skylight | | <p>The most interesting part for her was the Memorial void ... different feeling ... because of the different high ... it was dark in some part because the light from one skylight the roof... she feel fear but not from something instead fear that make her wonder</p> | Number 2 |
| 1.2.3.7. Railing | | <p>Touched concrete, cold concrete, edges of cold concrete and metal bars that connect space is like going up and down and railings. I would say that's the other element that you touch. Railings and edges of walls</p> | Number 7 |
| 1.2.3.6. Lamp | | <p>The ceiling, the walls, the floor are part-- Very active part of this narrative of an experience that you expect the user to feel. So when you get to a point that there is this green room with the square lamps, again, it needs to be related on its own but as part of a journey and there you have a lot of interesting connections, of course. They are all aimed to force or to invite people to use things, to sit down sometimes, to contemplate, to move on, to work fast, to work slow, to-- Yes.</p> | Number 7 |
| 1.2.3.5. Floor | | <p>When you walk through that garden because the pillars are juxtaposed, they're all in a really strange angle and the floor is also running like a mini hill. The person wrote on it like this "when you walk through these pillars, you get this feeling of sickness, dizziness and this is the history that Berlin has been left in after the Holocaust." This is a really good experience that you get that it's distinct from the rest of the museum as well. More interactive than the Holocaust Tower yet I would really classify it foolproof three or four distinct zones within this museum.</p> | Number 33 |

| 1.2.Spatial condition | | | |
|-----------------------|-------------------------|-------------------------------|---|
| 1.3. Sings & symbols | 1.3.1. Communicate idea | 1.2.3. Architectural elements | |
| | | 1.2.3.11. Walls | I think it was the Holocaust. The one at the end of that one, where it's just the big space with the little window in the corner. |
| | | 1.2.3.12. Windows | I think it was the Holocaust. The one at the end of that one, where it's just the big space with the little window in the corner. |
| | | 1.2.4. Interior objects | |
| | | 1.2.4.1. Collections | Well, it's way more-- lots of information and it's quite, at the end hard to follow because it's really lots of things. What we did is, there were some catching objects that interest us but I really loved this part with interactive things like when this corner where they are explaining some words where we could sit and everything. It was a break where you can just listen a bit or watch it and it was way easier than to always read everything because some part of are really there-- that's upstairs at the end it's quite hard to follow. |
| | | 1.2.4.2. Installation | One thing I found interesting was the part where you have the blank wall, which is black and you wear a headphone. And when you go near that wall, you get different kind of sounds. You cannot see anything, but you have to move your head and you need to find a spot, and when you match the frequency you hear different kind of sounds. And yeah, also that, where they have the tree, where you write something. And uh, yeah this is something which I remember for now. |
| | | | One of the things I really love about going through this experience was, despite the fact I wanted to pay for the audio and I couldn't at the end, I was really really well thankful at the end because I didn't buy it, because then the interpretation of the place was open to me, what I was feeling, whereas, I saw people just with the audios, walking like robots and stopping in each stuff and then I was like-- I went with my boyfriend and I was telling him, "I'm so happy we didn't get the audio," because that I felt that the architect, what he wanted to do with the place itself was just to let people experience the space as they wanted to experience it . For me it was so clear that you went inside the tower and it was cold, the concrete walls, it immediately resembles what happened in that time and the light at the top was really really amusing, I really really enjoy it. That one was really nice place that I got captured in my head. |

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| 1.3. Sings & symbols | 1.3.2. Help the visitor find their way | | | | | |
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| <p>in the main exhibit it feels like a maze because you have to you actually have to follow the dots. I think if you didn't follow the dots I thought I get lost.</p> | | | | | | Number 12 |
| 2. Exposure | | | | | | |
| 2.1. Decoding condition | 2.1.1. Experience | | | | | |
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| | | | | | | |
| 2.1.2. Journey | | | | | | |
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| 2.1.3. Time | | | | | | |
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|----------------------------------|----------------------|--|---|-----------|
| 2.2. Sensorial experience | 2.2.1. Auditory | | I did notice when I was standing there, when the door closes, it makes a loud slamming sound and I'm sure that was intentional. Yes, that did give me the meaning of being again trapped in this space when you can't escape, like a prison. Yes. | Number 21 |
| | 2.2.2. Body movement | | The memorial void. Oh my god these--I even post a photo of these places specifically was really really shocking for me. When I started walking on the steel, the rounded steel. I was really interested when we were walking around and I could hear noises, like rings, like ringing, ringing, all the time but I didn't click on what it was, when we arrived, because the corridor takes you and I realized the noise was people stepping on this steel little rings or circles I said, "okay. Let's go there," but as soon as I step on it I totally forgot that this was in the map. When Stephanie and I realized they were faces, it was really really shocking experience for me-- Yes, I walked all around I took photos and I could see that people was really on because it's like another time,. And these places where you look upwards and you can see the lighting, is really really good. You could capture the feeling of what he meant to say like stepping on those thousand people that died there was really | number 23 |
| | 2.2.3. Gustative | | The sense of taste, of course, you're not licking the walls or stuff but it's the hearing is very important. There is a lot of resonance. I would say tact, hearing, vision are the most important ones. | Number 7 |
| | 2.2.4. Multisensory | | I have just to go inside and there will be experience, so, everything comes to you and this is the important thing for me. You don't need the -- this -- you don't need to study, you don't need to read a book, but you have to go inside and live the experience. | Number 13 |
| | 2.2.5. Olfactory | | Smell is less. It's the least-- The sense of taste is the least there but even when you go out in The Garden of Exile, there is a chance of breathing fresh air outside. Then because the sense of-- The tactile sense is very, very good. The sense of taste, of course, you're not licking the walls or stuff but it's the hearing is very important. There is a lot of resonance. I would say tact, hearing, vision are the most important ones. | Number 7 |

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|---------------------------|----------------|--|---|-----------|
| 2.2. Sensorial experience | 2.2.6. Tactile | | <p>Yes. So the feeling like when you got the Holocaust Tower. So you, you, you know that it's axis. It's axis and it's a gradual slope when you go. Then when you enter that Holocaust Tower, when you open the door, it's like heavy. You have to push it. And when you are inside, you are into a space. It's almost like the old churches or synagogue which has a high roof.</p> <p>You feel like something is floating over you because of the mass. It's, it's too high and, and you just hear the muffled sound of the city like children playing nearby, or maybe a vehicle passing by. But, and, and how the light is, you, you have a small slit window at the top. So I think it talks about a hope for the people who were being tortured or, I don't know much about the history of the, the people of Jews but I think it was more about like a hope. You have little hope, a slit of light. You are still in a situation but maybe someday you'll get out of it. So I can actually understand how people were maybe feeling that time and architect has tried to convey that feeling by creating that space.</p> | Number 11 |
| | 2.2.7. Visual | | <p>It is I think it is simple to understand, I really think. You just have to stop and read those things.</p> | Number 14 |

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|--------------------------|---------------|---------------------------|--------------------------|---|-----------|
| 3. Internal responses | | | | | |
| 3.1. Cognitive responses | 3.1.1. Belief | 3.1.1.1. About the design | 3.1.1.1.1. Confuse | <p>I find a bit confusing. It reminds of us of a museum in Denmark, where we're from,</p> | Number 17 |
| | | | 3.1.1.1.2. Contemplation | <p>I think it's good because this gives you the idea to inspire yourself and give your own opinion about the building, what you think about it and I think that's a good way to give the people the possibility to think by themselves.</p> | Number 10 |

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|--------------------------------------|---|--|--|-----------|
| 3.1. Cognitive responses | | | | |
| | 3.1.1. Belief | | | |
| | 3.1.1.1. About the design | | | |
| 3.1.1.1.8. Theme | Avant-garde | | | Number 6 |
| 3.1.1.1.7. Surprising | When I entered the building I was astonished about this empty and the colored floor down there. So you enter, you go downstairs and you enter the floor or a hallway which is empty on both sides and bits. It has this diagonal cuts. | | | Number 3 |
| 3.1.1.1.6. Missing | The memorial void. Many people miss it because sometimes the ground floor-- No, sometimes this floor is closed. It's closed so you don't see the memory void. This time, I was lucky to be able to go there and I knew it was about there but there was no guidance. | | | Number 7 |
| 3.1.1.1.5. Maze | Well, in the main exhibit it feels like a maze because you have to you actually have to follow the dots. I think if you didn't follow the dots I thought I get lost. | | | Number 12 |
| 3.1.1.1.4. Memory | and go closer and, and when you go close to the object you-you indulge more rather than when I see it from far. When I go close and if I struggle a little bit, the memory is much more strong. | | | Number 11 |
| 3.1.1.1.3. Different approach | the architect like he want to do something. He would might have had like, he can create a new building which would work very good as a functional building, but rather he chose a different step like how if I, how if he can create uh, experience rather than just putting the stuff in a particular manner or locating in a different areas, but rather creating the same experience though the building. So, I think this was a new attempt and I haven't seen many buildings like this before. | | | Number 11 |

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|---------------------------------|------------------------------------|--|-----------|
| 3.1. Cognitive responses | | | |
| | 3.1.1. Belief | | |
| | 3.1.1.2. About the museum | | |
| | 3.1.1.2.3. Informative | <p>The exhibition show, showing the whole history from the beginning of Jewish to how people and the Germans see the Jewish, how this progressed, what's the development of the perspective towards the Jewish.</p> | Number 1 |
| | 3.1.1.2.4. Not a holocaust | <p>I'm a bit disappointed in not seeing or hearing more about Holocaust. I thought there was a lot more about that.</p> | Number 17 |
| | 3.1.1.2.2. Curious | <p>I think it's extremely deep and hard. It takes more time and because I think a short visit is not enough. I mean, I would like to stay more. I have time actually but I think it's too heavy and too tired so don't understand very well. So I preferred to stop where I just was impressed or just something keep me and my imagination, my curiosity was kept and I stopped and try to keep more than I can. But if I wanted to visit all the places, all the stops, I think what was remaining was just confusion. So I think you should spend more time in this. But very impressive, very touched.</p> | Number 4 |
| | 3.1.1.2.1. Compare to other | <p>the book is quite abstract. It tells you information but only in one way. You have read it and digest the information. Whereas in museum, you go there. You really experience things. There's illustrations. There's private tours really. It's set up in a way in which you can really experience things there. You can really feel what was going on rather than something that's just been read in the book. It's more interactive. The history was set up so that you can get it from a chronological order about what happened at the beginning and during the war, why this happened before and at the end, what happened after. It walks around just Berlin. It's all they set up in a room. That's where it ends. There is this really nice pieces of art and exhibition inside as well that you just don't get from a book, really. You can't really experience some things just by picking up a book, read from page to page. You would never get the same experience when you actually visit that place.</p> | Number 33 |

| 3.1. Cognitive responses | | | | |
|--------------------------|----------------------------------|--|-------------------------------|-----------|
| 3.1.2. Categorization | 3.1.1. Belief | | | |
| | 3.1.1.3. About the other visitor | 3.1.1.2. About the museum | 3.1.1.2.5. Positive attitudes | |
| | | 3.1.1.2.6. Reflection | | |
| | | 3.1.1.3.1. Suitability for children | | |
| | 3.1.1.3.2. Walking like robots | I saw people just with the audios, walking like robots and stopping in each stuff and then I was like-- I went with my boyfriend and I was telling him, "I'm so happy we didn't get the audio," because that I felt that the architect, what he wanted to do with the place itself was just to let people experience the space as they wanted to experience it . For me it was so clear that you went inside the tower and it was cold, the concrete walls, it immediately resembles what happened in that time and the light at the top was really really amusing, I really really enjoy it. That one was really nice place that I got captured in my head. | | Number 23 |
| | | It is suggestive and I think for people of all ages because also children, they can live, they can feel a lot of emotion so. | | Number 13 |
| | | Yes, I'm a bit embarrassed to say so, because it's not a thing to-- The Holocaust is not a thing to keep on going through. Yet I think we have to always. I said to my husband twice instead of Jews they could have been Muslims today, so I think it's important to keep on remembering and taking care of that horrible thing. | | Number 17 |
| | | I think the experience is wonderful, but at the end, it becomes too much where the documentation part comes. I think it's also very important for them to exhibit everything, but, uh, at the end, maybe for a person like me who doesn't like to see so many things or take so much information, it becomes a little tiresome to finish all the journey. | | Number 11 |
| | | For me the grounds was much -- at least in me it's like provokes much deeper emotions....and provoke me to the useful thoughts and upper like just telling a story. It was more for mind and the underground for heart. | | Number 34 |

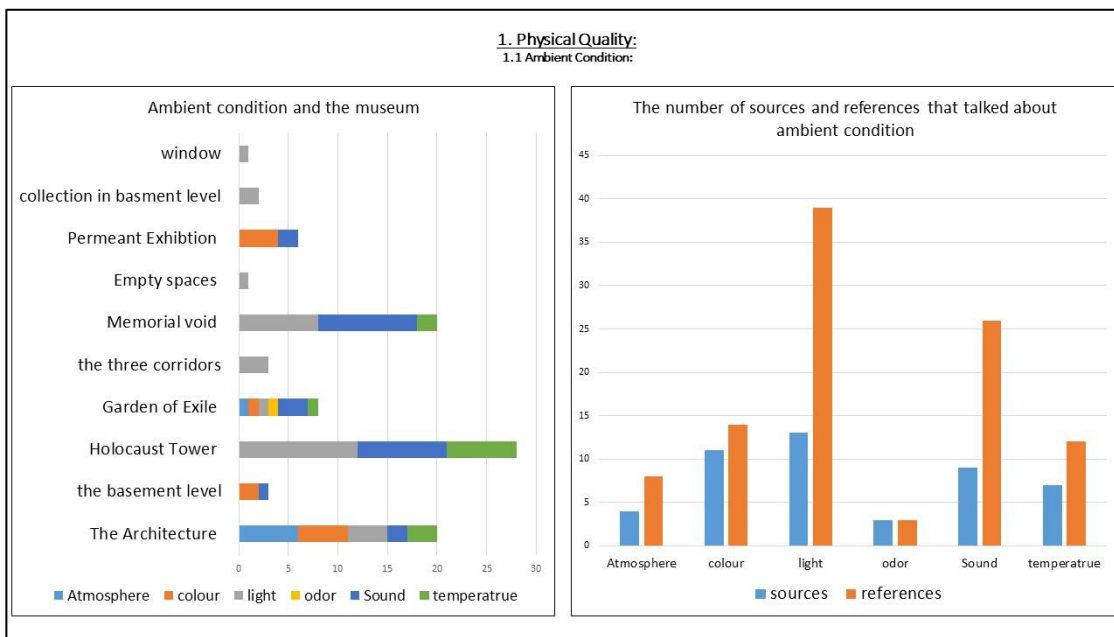
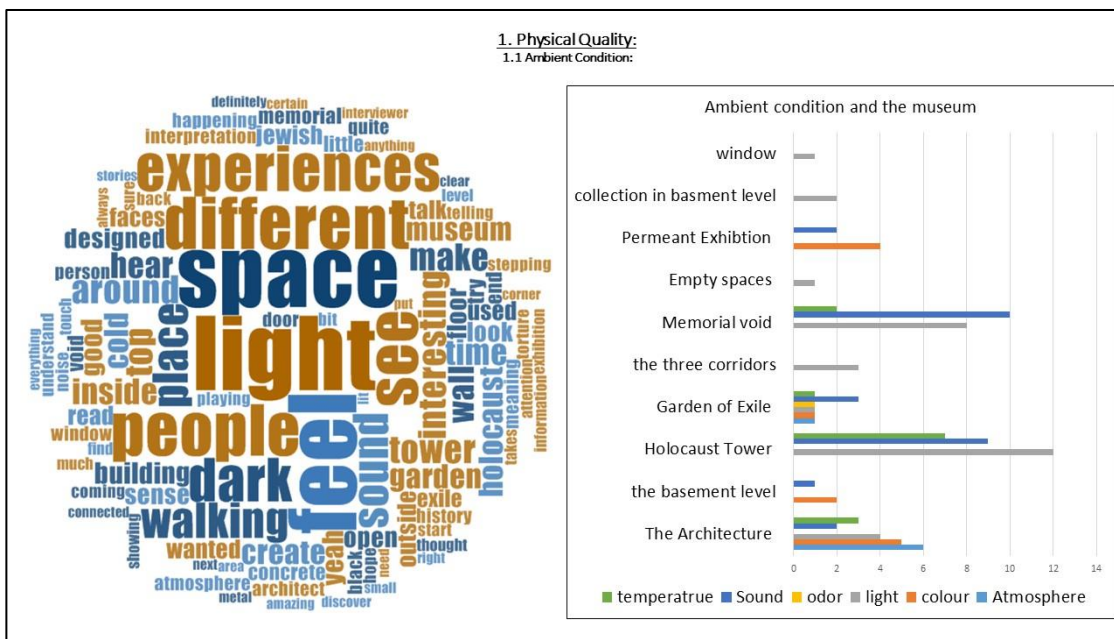
| 3.1. Cognitive responses | | | | |
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| 3.1.3. Symbolic meaning | | | | |
| 3.1.3.1. Abstract | | I think it's because-- All my senses were put in there so it was the noise, when I was stepping into it, the noise of the steel and the light-- The way the light was impacting the space. The shape of the space as well so it takes you into that area as well and more importantly when I saw their faces, the shape of the faces, they make me feel like I totally understood why is this here, what's the meaning of the light at the top is trying to say-- Is trying to deliver a message as well you're stepping on all of these souls that pass away due to the conflict before. So it makes you feel really-- It made me feel really connected. That was-- And it was really beautiful because I've been in many museums that involve this subject Holocaust and I also went to many other in Berlin and I'll say this was an amazing way of expressing or putting into hope into a space for people just to understand what happened. This was a really abstract way but clear message for me, it's really good. | | Number 23 |
| 3.1.3.2. Aim | | The first one, yes, you can see when I mentioned the corridors and the lighting was basically done to direct visitors, for me, right? That was the main purpose. Even the colors chosen, that the walls were white but the floors were dark and then the lighting scheme was really really straight and showing the corridors, the direction people wanted to go. | | Number 23 |
| 3.1.3.3. Concept | | I read something on the internet and how you see in the plan, the building is, it has taken some inspiration from the star. The star which Jewish uh, uses as the symbol, I think uh, it represents a lot of thing. But these exact lines, so the architect, I think he has tried to break down that star and that edges he has created in the plan, maybe visitor might not understand that but as a design, as an architect, he has tried to do something with the symbolism and maybe to represent something. He has tried to relate something in his plan, maybe. | | Number 11 |
| 3.1.3.4. Evocative | | I think it was what he wanted--tell our history. You feel a little pressed and the things you really feel that the-- maybe not the experience that the Jewish had but a little what it was mentally. | | Number 14 |
| 3.1.3.5. Manipulate | | I think the most important is the fact that the building have [sic] very universal dialogue. It's an example of the architecture that is an example of untraditional architecture. It's an example of the manipulation of forms, and spaces, and materials to create an emotion, so this emotion is temporary. | | Number 8 |

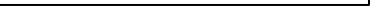
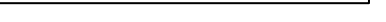
| 3.2. Emotional responses | | 3.1. Cognitive responses | | |
|----------------------------|----------|---|--|---|
| 3.2.1. Feeling and emotion | | 3.1.3.8. Symbol | 3.1.3.7. Narrative | 3.1.3.6. Meanings and messages |
| 3.2.1.1. Moving | Feeling | <p>Visitor number 5 stated that “the museum is really moving”</p> | <p>I am impressed with some windows like when you look outside, you can only see the walls and really slight of light. So, it'll give you a feeling about how the Jewish feel once they were in the Auschwitz.</p> | <p>I think they are a symbol about what Jewish suffered during the Nazi</p> |
| Number 5 | Number 1 | Number 20 | Number 34 | Number 8 |

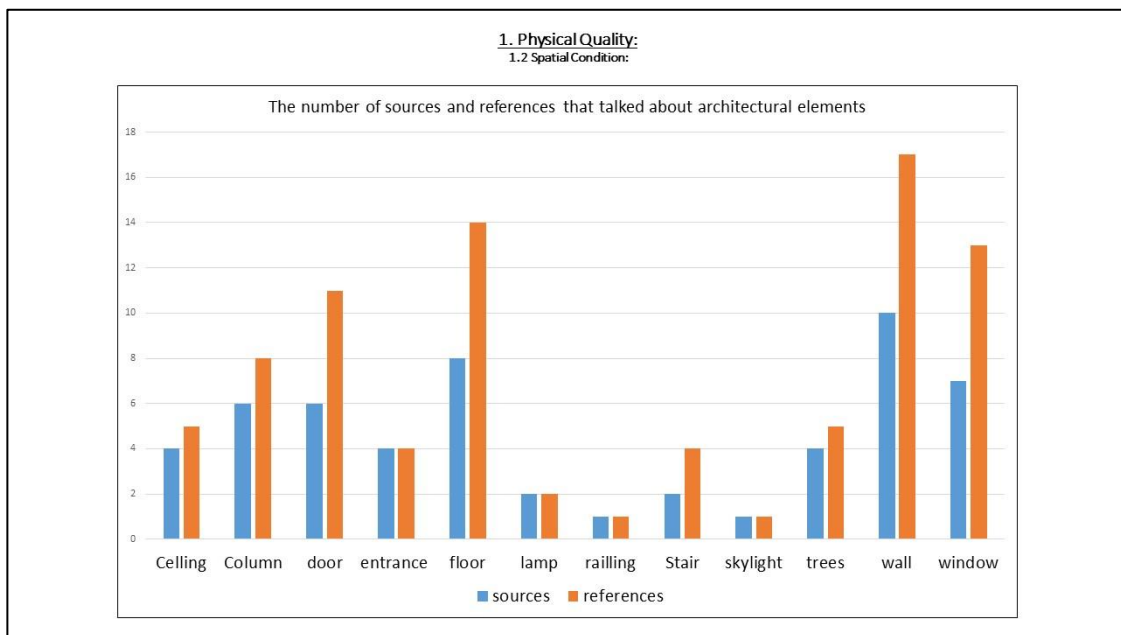
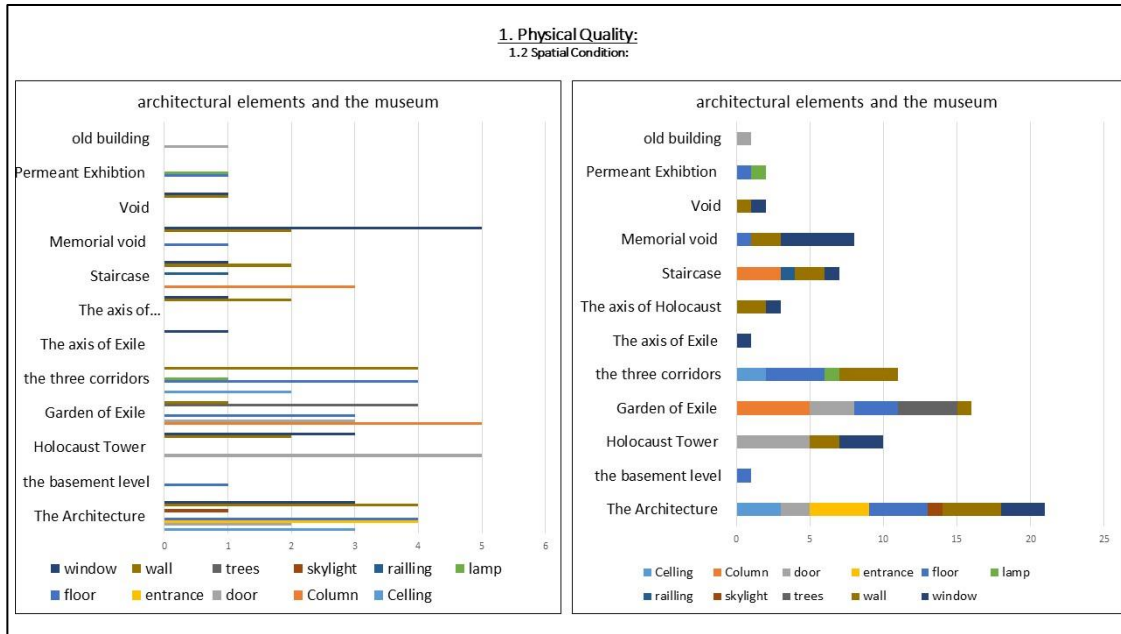
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|------------------------------|--------------------------|----------------------------|-------------------|---|-----------|
| 3.3. Physiological responses | 3.2. Emotional responses | 3.2.1. Feeling and emotion | 3.2.1.2. Shocking | The memorial void. Oh my god these--I even post a photo of these places specifically was really really shocking for me. When I started walking on the steel, the rounded steel. I was really interested when we were walking around and I could hear noises, like rings, like ringing, ringing, all the time but I didn't click on what it was, when we arrived, because the corridor takes you and I realized the noise was people stepping on this steel little rings or circles I said, "okay. Let's go there," but as soon as I step on it I totally forgot that this was in the map. When Stephanie and I realized they were faces, it was really really shocking experience for me-- Yes, I walked all around I took photos and I could see that people was really on because it's like another time,. And these places where you look upwards and you can see the lighting, is really really really good. You could capture the feeling of what he meant to say like stepping on those thousand people that died there was really— | Number 23 |
| | | | 3.2.1.3. Touching | The whole experience? I think it's extremely deep and hard. It takes more time and because I think a short visit is not enough. I mean, I would like to stay more. I have time actually but I think it's too heavy and too tired so don't understand very well. So I preferred to stop where I just was impressed or just something keep me and my imagination, my curiosity was kept and I stopped and try to keep more than I can. But if I wanted to visit all the places, all the stops, I think what was remaining was just confusion. So I think you should spend more time in this. But very impressive, very touched. | Number 4 |
| | | | | | |
| | | | | The garden is the psychological feeling so that you really -- what architects can create that feeling and you really get a little bit dizzy walking around. Maybe at first it's just a little bit astonishing and it's interesting but then you really start thinking about -- When you hang around may be a little bit this feeling and if something doesn't really work well so you get this kind of feeling as well and you feel down. You can feel connected maybe. | Number 3 |
| | | | | It's an uncomfortable experience the museum, but I think it's intentional. It's actually quite-- I found it claustrophobic but on purpose. I thought it was clever in the way that it made you quite anxious actually about, where do I go, what do I do? | Number 12 |

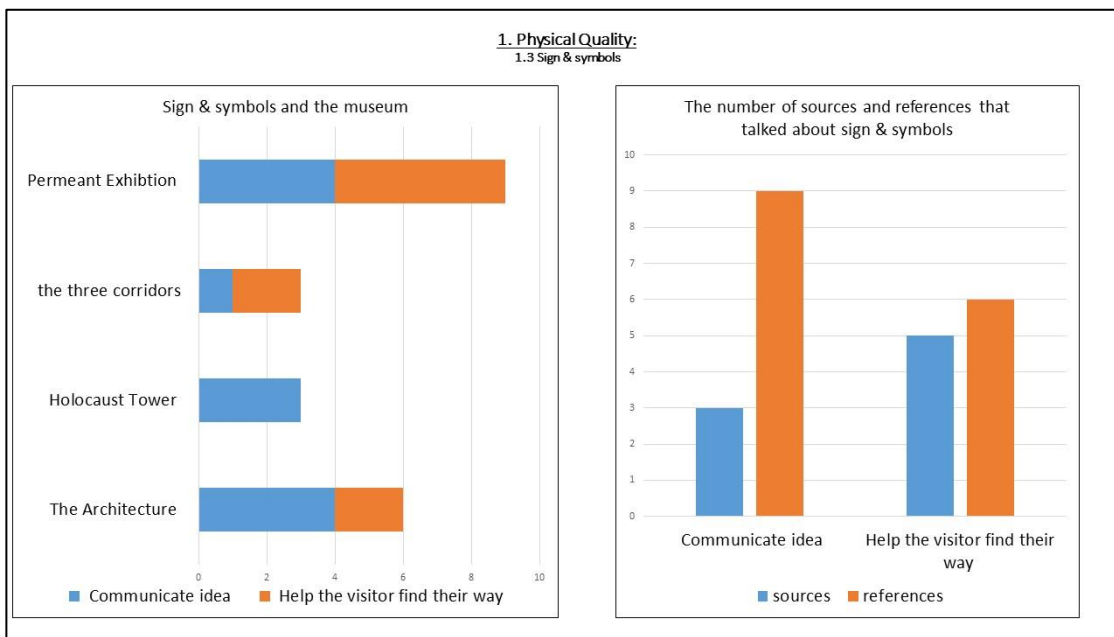
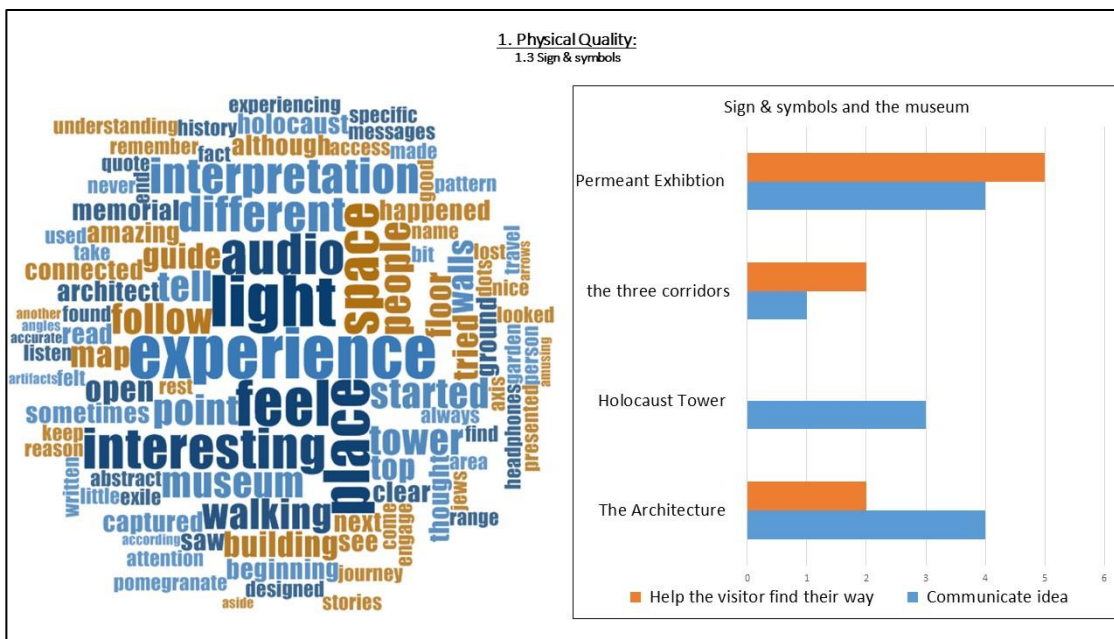
| Interviewee | Gender | | Age range | | | | | Jewish | Non-Jewish | First visit | |
|-------------|--------|--------|-----------|-------|-------|-------|----|--------|------------|-------------|----|
| | Male | Female | 18-29 | 30-39 | 40-49 | 50-59 | 60 | | | yes | No |
| 1 | | 1 | 1 | | | | | | 1 | 1 | |
| 2 | | 1 | 1 | | | | | | 1 | | 1 |
| 3 | 1 | | 1 | | | | | | 1 | | 1 |
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| 5 | 1 | | | | | 1 | | | 1 | | 1 |
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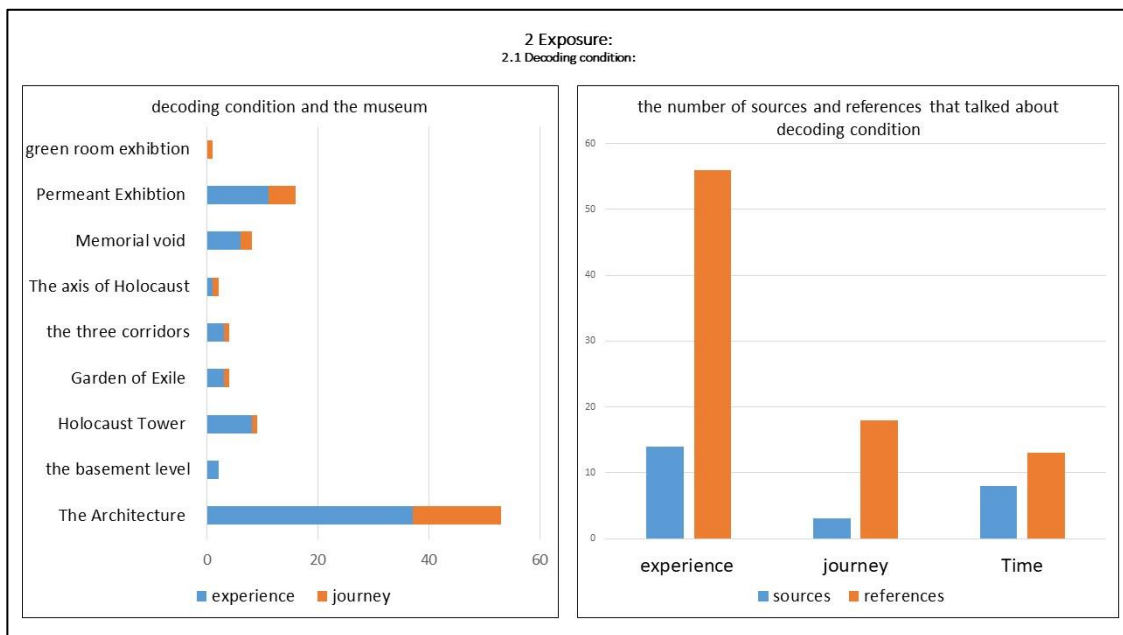
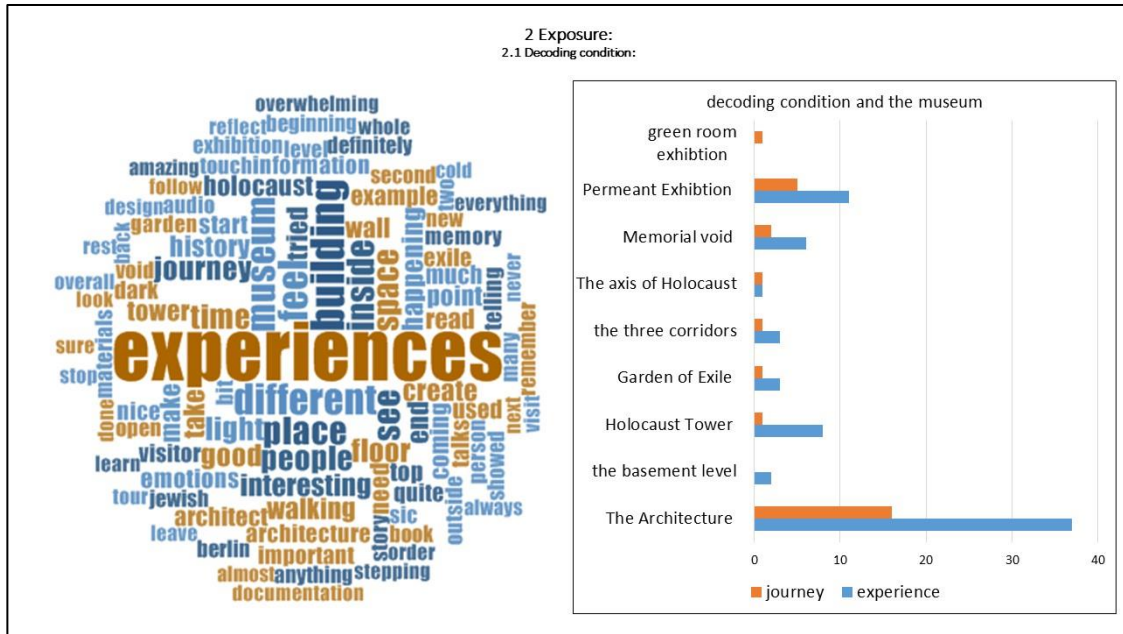
| Interviewee | Three words to describe the museum and your experience Age range | | |
|-------------|---|-----------------------|--------------------------------------|
| | 1 | 2 | 3 |
| 1 | interactive design | detailed history | feeling of Jewish |
| 2 | Material | Creativity | Making visitors thinking |
| 3 | Zigzag | exploration | equality and stability |
| 4 | shocking | touching | essential |
| 5 | Flowing | Important | Educating |
| 6 | beautiful | cold | Avant-garde |
| 7 | Emotions | materials | Multisensory |
| 8 | Informative | detailed | Interesting. |
| 9 | Material | Senses | feelings |
| 10 | interesting | innovative | inspiring |
| 11 | experience | creative approach | Material |
| 12 | claustrophobic | Emotional | Disruptive |
| 13 | empathy | imposing | suggestive |
| 14 | Eclectic | interesting | Pretty |
| 15 | Moving | Informative | Complicated |
| 16 | Impressive | Emotion | Complete |
| 17 | Amazing | surprising | dig in |
| 18 | Strong | Emotional | interesting |
| 19 | Interesting | Story of Jews | Empathetic |
| 20 | Touching | A lot of information. | Makes you think about what happened. |
| 21 | Large | Heavy | Impressive |
| 22 | impressive | information | experience |
| 23 | inspiring | Amusing | wonder |
| 24 | comfortable | informative | important |
| 25 | beautiful | history | architecture |
| 26 | Sparse | Theme | grey |
| 27 | Emotion | architecture | small objects |
| 28 | interesting | whole picture | confusion |
| 29 | Impact | Light and darkness | communicates |
| 30 | Maze | Dispersed | shock |
| 31 | Disorienting | Dark | Hard |
| 32 | Impressive | Informative | Interactive |
| 33 | experience | emotional | information |
| 34 | thought-provoking | deep | Gravity |
| 35 | Magnificent | sad | interesting |
| 36 | interesting | great | confusing |

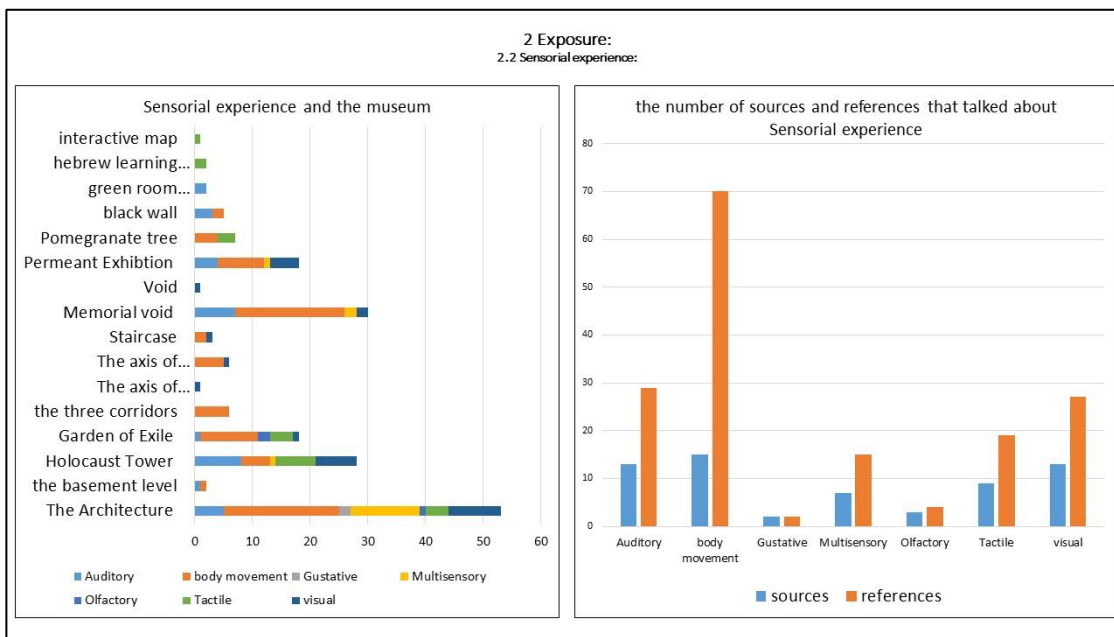
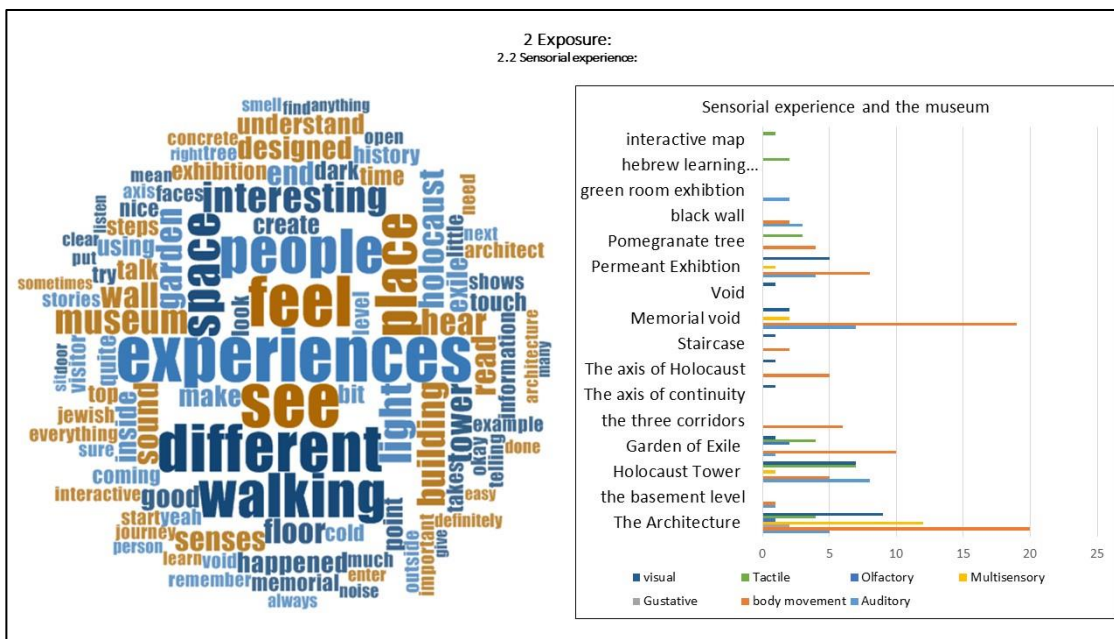


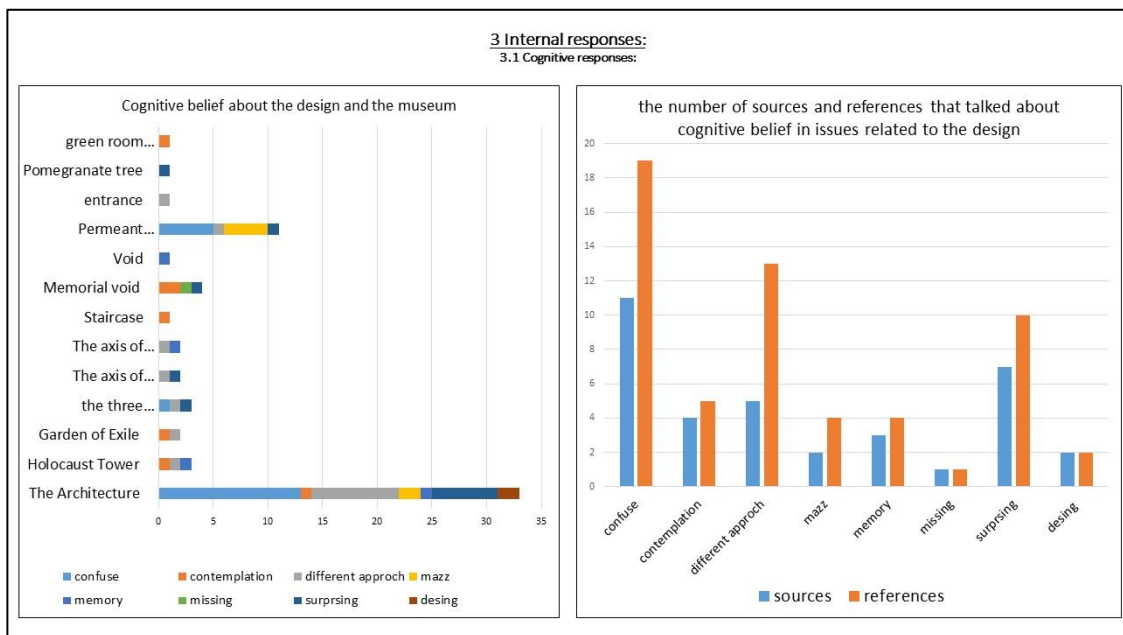
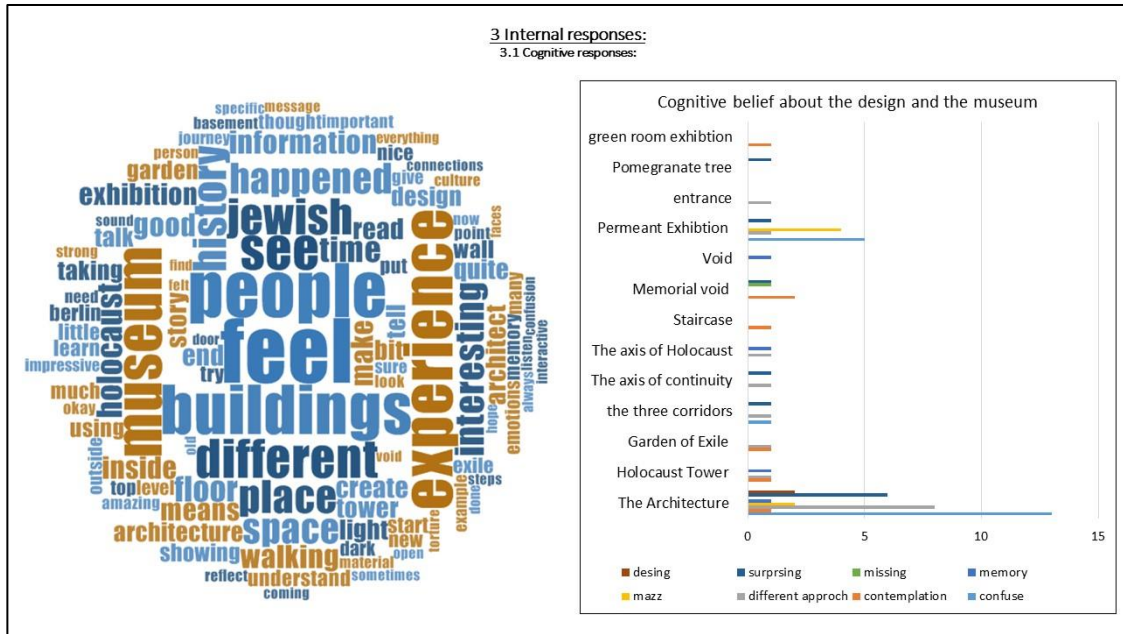


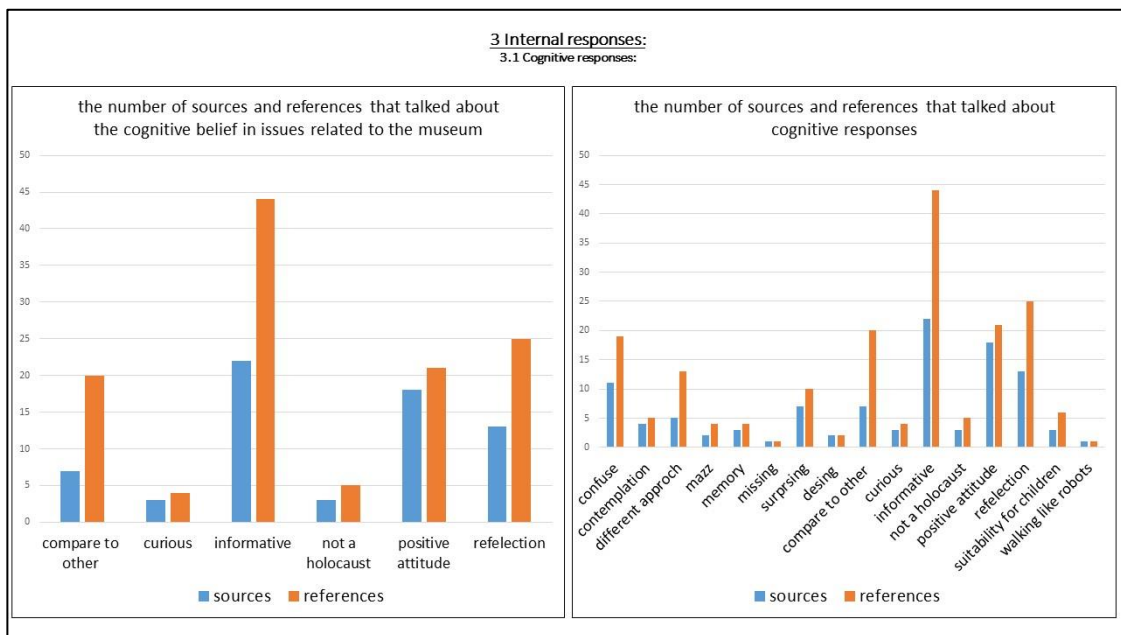
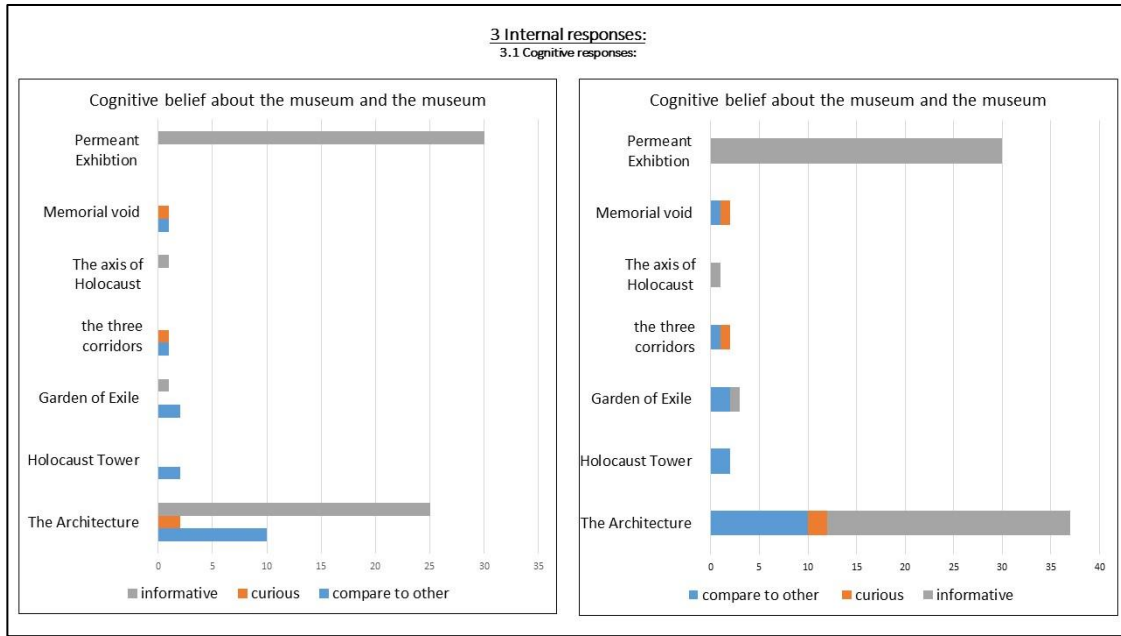


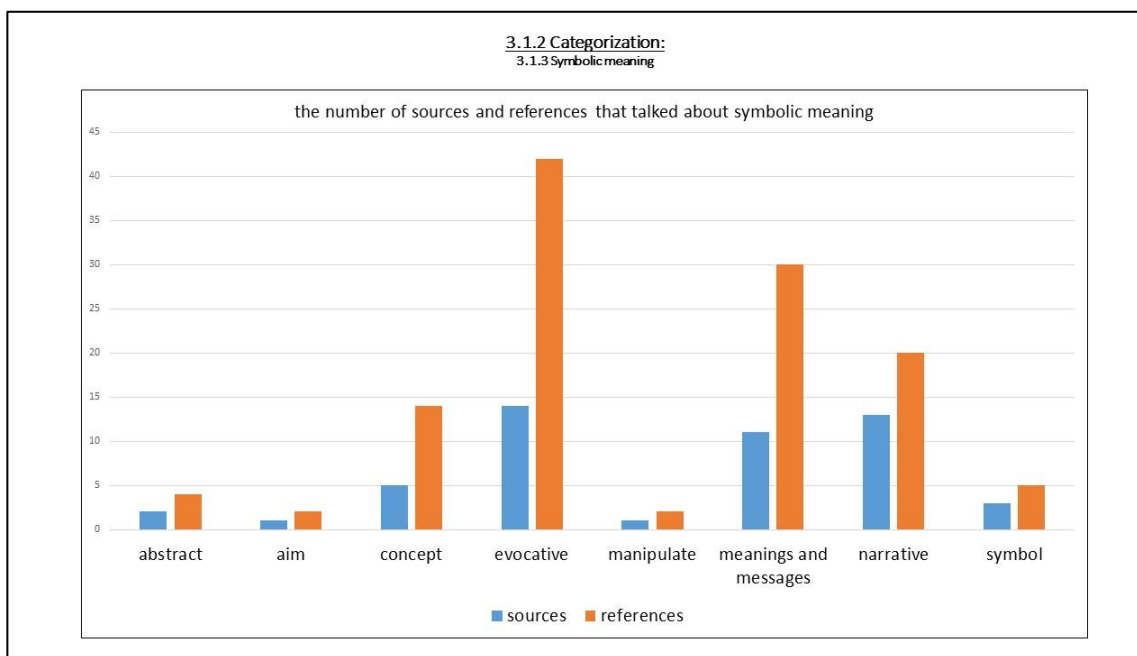
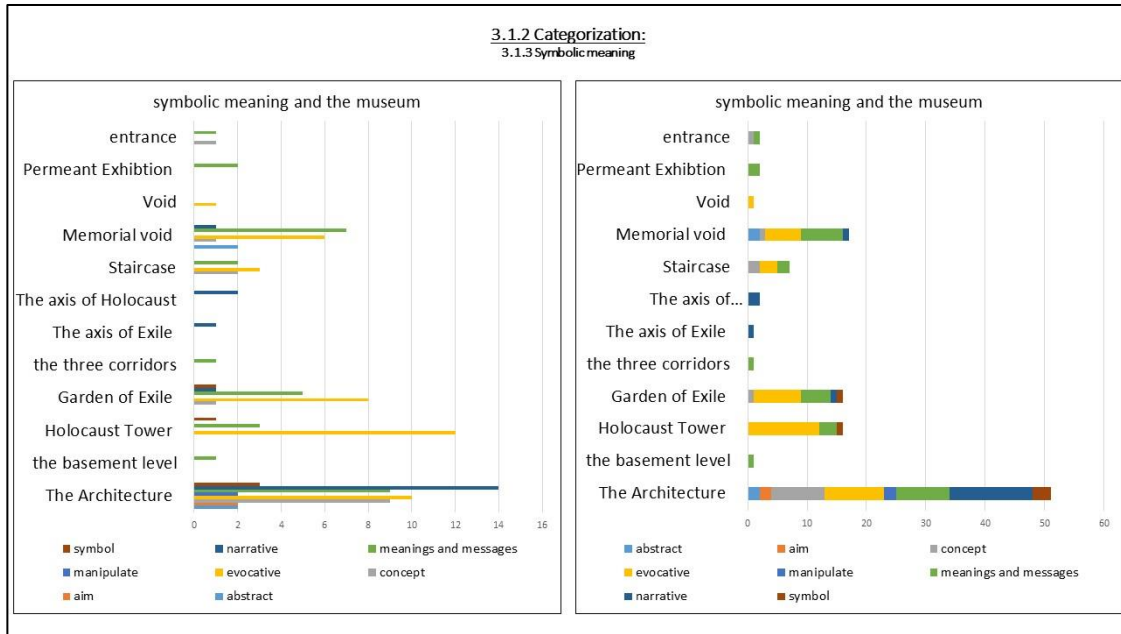




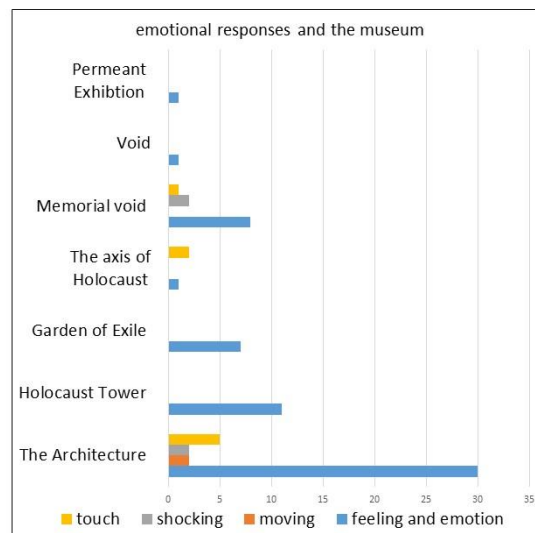




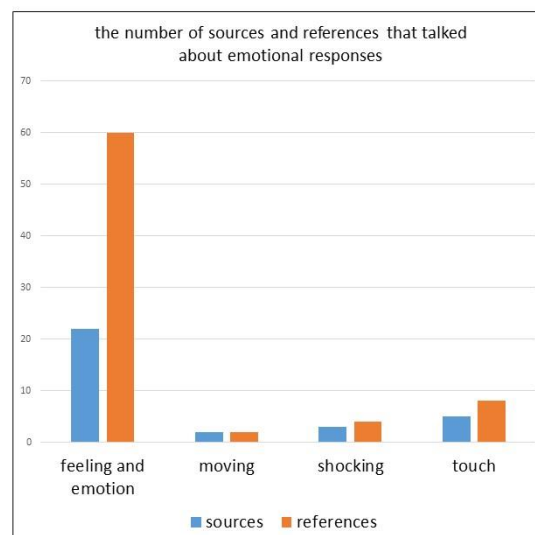
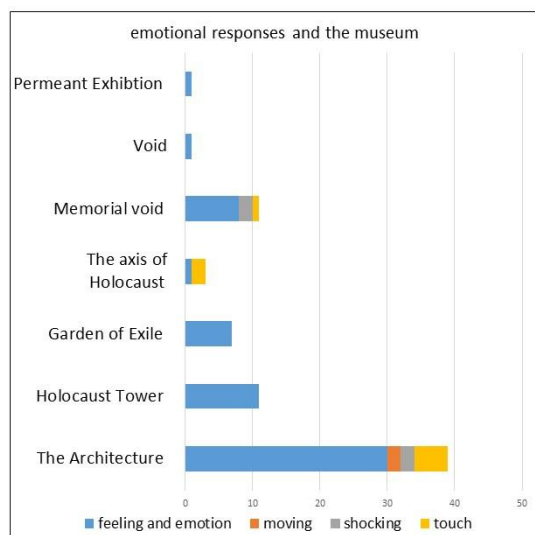


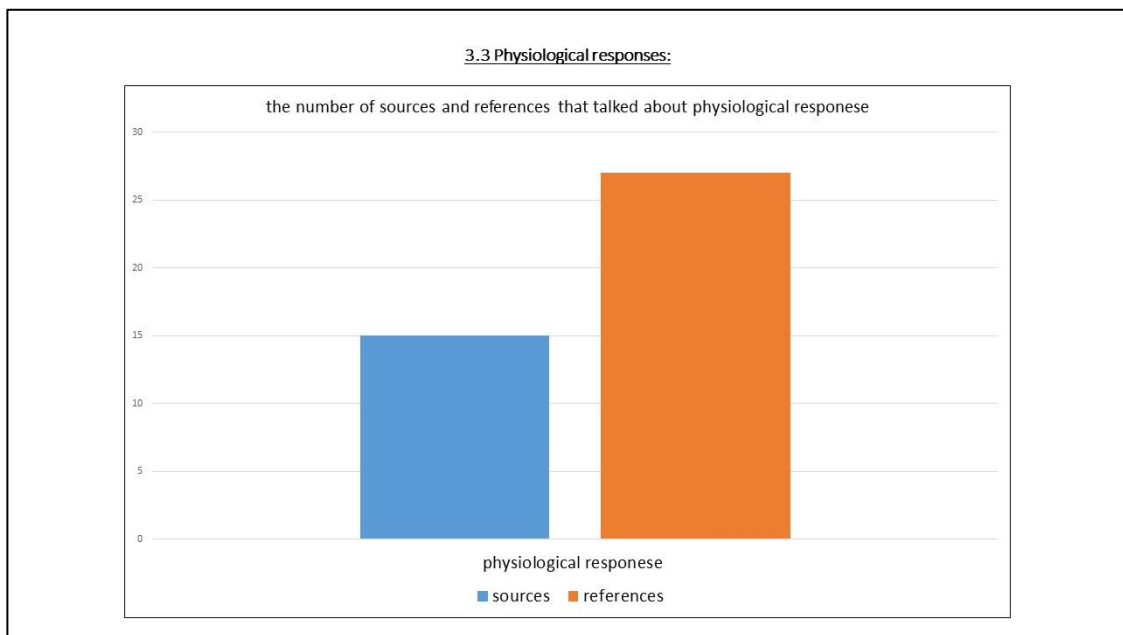
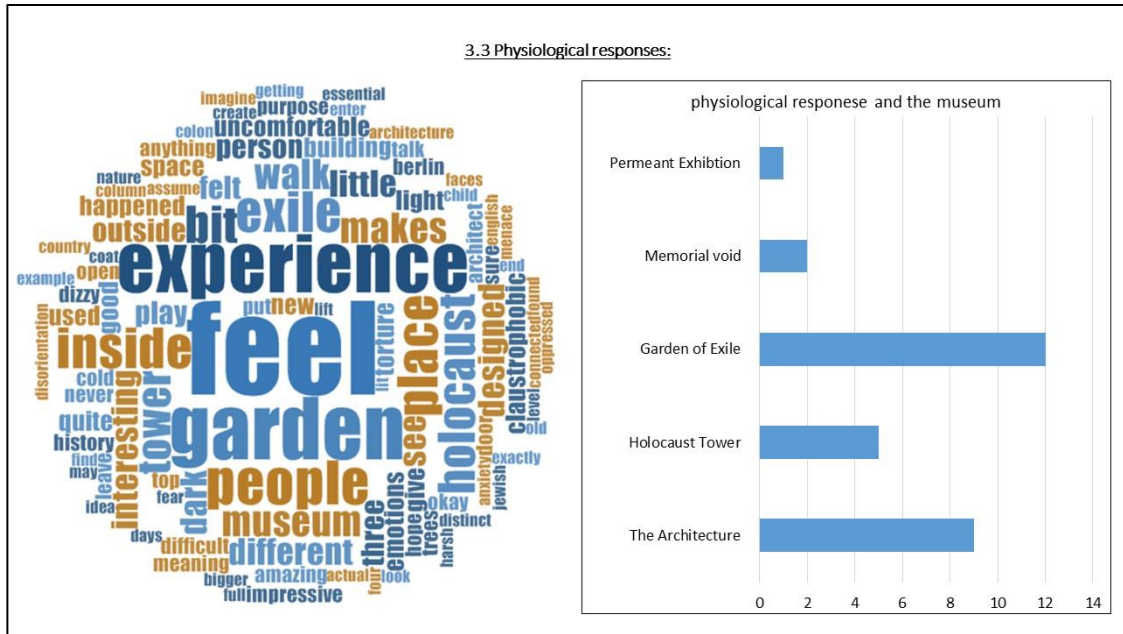


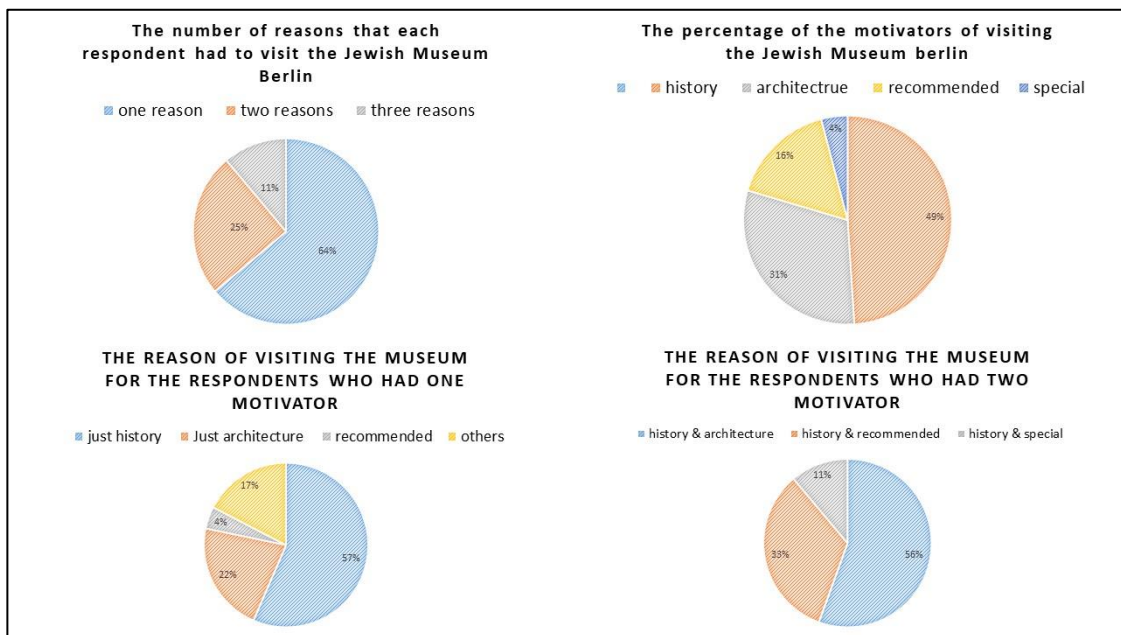
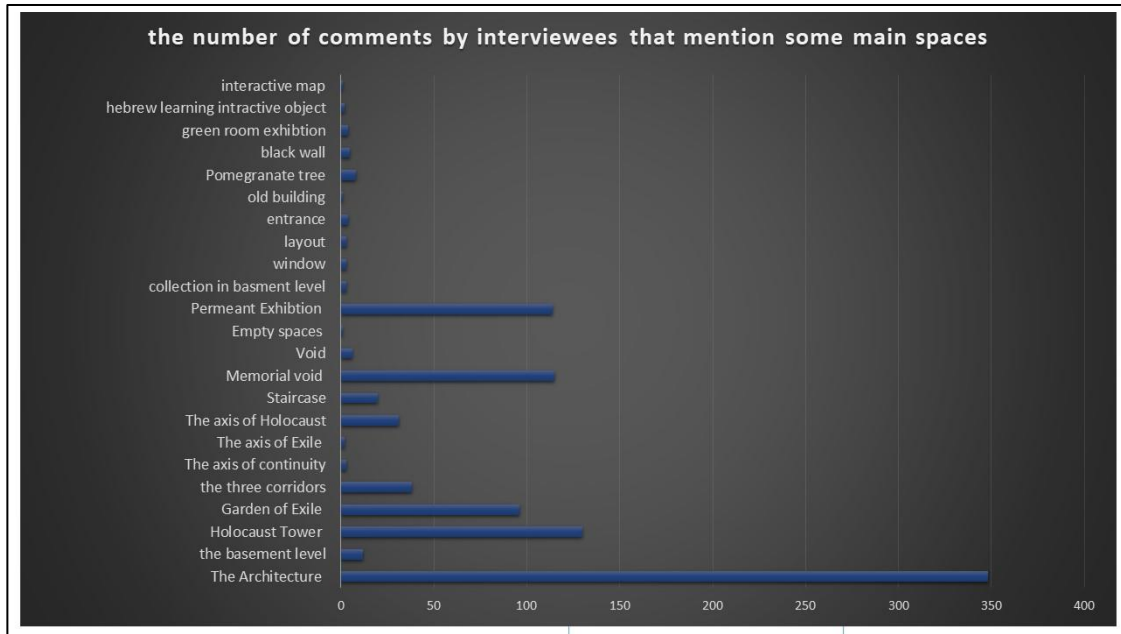
3.2 Emotional responses:

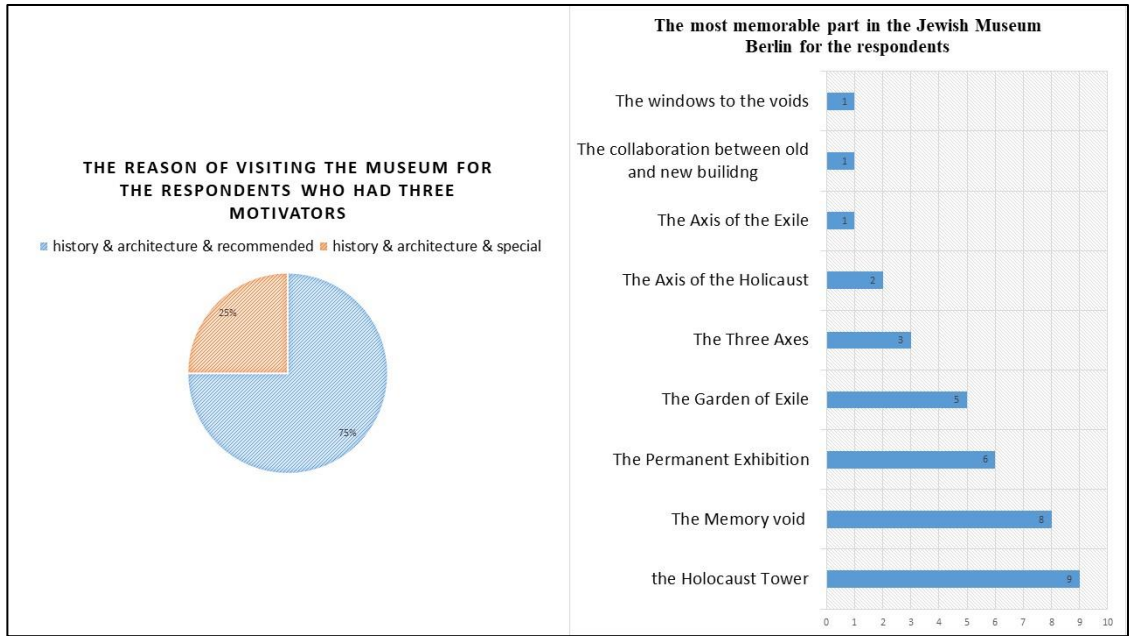


3.2 Emotional responses:






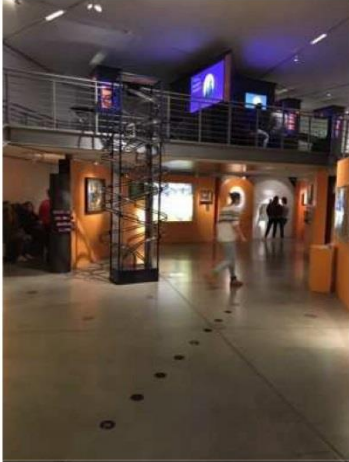













Appendix 6 - Permanent Exhibition in the JMB




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|  | <p>The first thing the visitor meets once they enter the permanent exhibition is a pomegranate tree. This large piece of artwork attracts people to interact with it through writing wishes on small pieces of paper shaped like pomegranates and after this the visitors can hang their wishes on the tree using a beautiful star. The pomegranate is a biblical fruit. In addition, it symbolises Israel's abundance, as in Jewish beliefs "the fruit contains as many as the Torah does commandments and prohibitions". Statistics show that one out of four of the visitors interacted with the tree and decorated it using the pomegranate-shaped pieces of paper. As a way to show the relationship between Christians and Jews in the area, when the Christians had dominance of the area, they isolated Jews to live in specific streets, so the designer decided to hang big signs on the ceiling of the street where Jews were isolated. This exhibition also included the oldest document that shows the first Jewish community that lived in Berlin, which was established in the times of the Roman emperor, Constantine from 321 A.D.</p> |
|  | <p>World of the Ashkenazim (950-1500):</p> <p>The name of the Jewish settlements in Germany and northern France come from a word from the Bible, which is Ashkenaz. The largest Jewish communities in Medieval ages lived in the cities of Speyer, Mainz and Worms. In Jewish-German history, the first Jewish synagogue was built in Worms around 1034. This exhibition has many documents that present the history of Jewish people in the Medieval ages, and these include "a 13th-century Hebrew manuscript and a 14th-century prayer book from Mainz."</p> <p>History shows that Jews and Christians had lived in peace without any conflicts after Christ's death, however, everything changed after the start of the Crusades in 1096. As a result of the first Crusades, a large number of Jews were killed and many of their possessions were looted.</p> <p>At the Fourth Council of the Lateran in Rome the Jews suffered a great deal. One of the restrictions placed upon them was that they were prevented from trading. In 1215, the leaders of the churches set up some</p> |

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| | <p>rules to make the Jews more recognisable from the others. They asked them to wear yellow marks on their clothes or pointed hats.</p> |
|  | <p>The Lives of Women (1646-1724)</p> <p>This section traces the history of a famous Jewish businesswoman, Glikl bas Judah Leib, and her life between 1691 and 1719 in Hamburg. Glikl describes Jewish communal life in her diaries, which offers the reader a nice description about German Jewish objects, customs and clothing. Inside this exhibition, nine documentary movies are used to depict the Jewish life at that time.</p> |
|  | <p>City, country, court (1500-1800)</p> <p>As a result of all the persecution suffered by the Jews they moved out from many cities except Frankfurt-am-Main, Friedberg, Worms and Prague. During that period Jews lived in rural areas of western and southern Germany.</p> <p>After this period, Jewish people could live in peace in many small cities, because of the new rule that was issued by their noble lords who provided “protection letters” for those who paid money to them. Despite having those protection letters, the situation generally was not stable for Jews owing to “political despotism and hostile Christian neighbours”.</p> <p>The “protection letters” helped some Jews to develop their businesses, especially between the cities and the countryside. In spite of the developments in the trade for some of them, a large number of them still suffered from issues such as poverty. Some of the rich Jews helped the poor people by providing money for them. In the period of Absolutism, Jewish people’s experiences in dealing with issues related to money was needed by noblemen. As a result, Jewish people were afforded many more privileges, since they “helped secure the enormous sums of money needed for the military and princely self-representation” (Beeck, 2011, p. 67)</p> |

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|  | <p>Moses Mendelssohn and the Enlightenment (1750-1800).</p> <p>The primary part of the exhibition traced the history of one of the most significant German Jewish philosophers, Moses Mendelssohn. Mendelssohn played a key role in the rise of tolerance between Jews and Christians by publishing and translating books. Through his books, he tried to show the common aspects between the two religions, Christianity and Judaism. Mendelssohn was the first to establish a modern Jewish public school for boys. This school did not limit its subject to just teaching religious aspects and Hebrew, but also taught the students some secular subjects. Owing to the publication of an essay (Evidence in the Metaphysical Sciences), Mendelssohn won the Royal Prussian Academy of Sciences in 1763.</p> |
|  | <p>Tradition and change</p> <p>This exhibition in general presents the development of some Jewish cultural performances and some of the objects that were used in these performances. The exhibition has many modern Shabbat candles and Besamim tins. There are also many Kippots, which were brought from Israel and the USA.</p> <p>The exhibition consists of both historical and contemporary Jewish objects that are set up close to each other. In the Jewish wedding section of this exhibition, the visitor can see both a seventeenth century wedding belt and eighteenth century wedding stone under a modern Chuppaa wedding canopy, which was made in 2001.</p> <p>There are many things that the visitors can learn about Jewish customs in this exhibition such as the circumcision of male babies and the celebration of religious maturity for both boys and girls (part of this the bar and bat Mitzvah).</p> |
|  | <p>Family Life (1850-1933)</p> <p>This exhibition represented the dramatic change in Jewish family life in the 19th century, especially the Jewish middle class, because of capitalism. The increase of Jewish people who graduated from higher secondary schools and university was one of the main factors that played an important role in changing family life and their prestige.</p> <p>During the 19th century, the religion became more and more less controlled by Jewish people, because of the increase of the number of Jews following Secularization. At the same time, Jews started mixing with Christians. One</p> |

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| | <p>of the main points of evidence of this change is the use of Christmas trees for both groups.</p> <p>This exhibition traces the history of two main Jewish figures. The first figure is Amalie Beer (1766-1854).</p> |
|  | <p>Germans as well as Jews (1800-1914)</p> <p>This exhibition is located on the second floor and on the first one the visitors meet in their journey inside the museum when they move from the third floor to the second. This part of the permanent exhibition shows the Jews' effort to gain emancipation. It is important to note that during this time Jewish people had many questions and they looked for their answers, which were related to living freely in Germany without any harassment or limits on the practice of their religion. In 1871, the German Empire declared answers for the questions that were asked by Jews, such as "[c]an Jews be German?" (Beeck, 2011, p. 73) The answer was that Jews could practise normal lives without any restrictions. Despite establishing such laws, the reality was different for German Jews. Germans attacked German Jews not because of their religion, but because they believed that they were superior to them. The famous German figures' opinions about this issue was divided into two groups (supporters and oppositionists). A large number of famous figures supported the idea of segregation, such as Richard Wagner, Immanuel Kant, Theodor Fontane and Wilhelm Busch. On the other side, there were some scholars who criticised this idea, such as Rudolf Virchow, Theodor Mommsen and Johann Droysen.</p> <p>It is important to state that, at that time, some Jews became Christian in order to allow them to work in some jobs, because they prevented people practising these jobs as a result of their religion.</p> |
|  | <p>Modern Judaism (1800-1933)</p> <p>This exhibition represents modern trends of Judaism and the role of some academics in establishing the various trends of modern Judaism, especially since the interpretation of Judaism became open to all and not only limited to Rabbis. In the 1830s, new trends of Judaism emerged as a result of Jewish scholars' efforts to reform religious services.</p> <p>Abraham Geiger (1810-1874) was a Talmud scholar who made some changes in order to make Judaism a living religion. He published a prayer book, which became the underlying foundation for liberal prayer books.</p> |

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| | <p>Samson Raphael Hirsch (1808-1888) was a Talmud scholar who played an important role in reforming Orthodox Judaism in order to make it consistent with the surrounding culture.</p> <p>It is important to note that one of the main pieces of evidence that shows the modernisation of Judaism is Regina Jonas (1902-1944) who was “the world’s first female rabbi in 1935” (Beeck, 2011, p. 78).</p> |
|  | <p>Berlin, Berlin (1890-1933)</p> <p>This exhibition depicts the life of German Jews in Berlin and the value that they add to the city in terms of the trade, science and media. At the end of the 19th century, a large number of Jewish people lived in Berlin. From 1910 to 1930 the number of all German Jews who lived in Berlin dramatically changed from one out of four of all German Jews to a third of them (approximately 172000) living in the city.</p> <p>German Jews developed the trade and the manufacturing in Berlin, especially in the fashion sector. The idea of establishing modern department stores, such as Tietz, Wertheim and KaDewe, were made by Jewish businessmen.</p> <p>In terms of the media, German Jews played a pivotal role in developing the publication of newspapers; the most famous German Jews who developed the publication of newspapers were Leopold Ullstein (1826-1899) and Rudolf Mosse (1843-1920). In the theatre industry, German Jews developed the environment of the theatre, especially Max Reinhardt (1873-1943) who “changed the landscape of theatre with his production” (Beeck, 2011, p. 79).</p> <p>German Jews’ achievements during this time cannot be ignored, since many Jewish scholars won the Noble Prize, such as Paul Ehrlich (1854-1915) and Albert Einstein (1879-1955).</p> |
|  | <p>East and West (1900-1933)</p> <p>The name of the exhibition comes from a Zionist newspaper called ‘East and West.’ This exhibition represents the Jewish people’s attempt to achieve their future vision mainly living in their independent homeland, which will make them live free without any restrictions by others, especially because the number of anti-Semitic people dramatically increased in Berlin.</p> |

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|  | <p>Endangered Equality (1914-1933)</p> <p>This exhibition displays some of the objects (such as medals) and pictures that show German Jews' role in fighting for their country in the First World War. They had considered this a main part of their responsibility like other Germans and the patriotic enthusiasm was the primary motivator for them to serve as soldiers in the German National Army. Based on German-Jewish soldiers in the First World War, German Jews believed they must have equal lives like other groups because what they did is "the ultimate sign of final and irreversible equality".</p> |
|  | <p>National Socialism (1933-1945)</p> <p>This exhibition presents the beginning of the most tragic chapter of Jewish history in Germany and how they as a community responded to Nazi persecution which started in 1933. As a response to repression, multiple organisations were set up in order to provide a range of essential needs for Jews who faced difficulties. Examples of these organisations are The Reich Representation of German Jews and the Cultural Federation of German Jews. Also, this exhibition depicted the sequence of the most significant and dramatic events that affected German Jews from the beginning of Nazi rule to the end of World War II. The Nuremberg Laws were considered to be race laws, since they classified Jewish Germans as second-class citizens leaving them without citizenship rights. The Night of Broken Glass on 9 November 1938 was also one of the dramatic events that affected Jewish lives in Germany, because it led to the destruction of 76 synagogues and 7500 stores belonging to Jews. Recalling the order to wear the 'Jewish Star' on 19 September 1941 was an event that illustrates the extent of the persecution experienced by the Jews. The last section in this exhibition presents some facts about the deportation of Jews to concentration camps and the mass murder of around six million Jews during the Holocaust.</p> |
|  | <p>Present (1945-today)</p> <p>This part presents mainly some facts about the Jewish community in Germany after World War II until these present days. This exhibition also displays some documents related to this period such as the Auschwitz Trial.</p> |

Appendix 7 - Compatible and Incompatible Relationships between Cognitive and Embodied Experience in JMB

Compatible and incompatible relationships between cognitive and embodied experience in JMB:

As has been discussed in chapter three, the use of each mode of two main modes of interpretation (text-based and body-based) in museums has some limitations. However, the combination of these two modes in one museum can help to create a spatial environment that each mode of the two most likely will overcome the limitation of the other mode. In the JMB, the combination of these two modes work in an appropriate way in the basement level because the cognitive experience in this part of the building somehow reinforces the embodied experiences and vice versa. In contrast, the cognitive experience in the permanent exhibition somehow has a less direct relationship with the embodied experience, and sometimes these two types of experience contradict each other. To explore how each mode of the two main modes of experience (cognitive and embodied) affects the other in these two different parts of the new extension building, the nature of the relationship between these two modes in each part will be discussed separately. The main aim of this discussion is to understand to what extent these two types of experience are compatible with each other in these two different parts of the building. In the basement level, the relationship between these two modes of experience has almost been built in a sequential thematic way by making the visitor start the experience in the cognitive part and then move to the embodied part. It is important to state that these two parts nearly revolve around specific thoughts and concepts, but each part communicates the story differently; in the cognitive part the story is told through curatorial commentaries, and the textual space in the architecture of the museums, which has been discussed in chapter eight. In this experience the cognitive process is needed to extract the meaning of the curatorial commentaries and the textual space whereas the physical interaction with the overall special environment is the main producer of the meanings of the embodied experiences, as has been discussed in chapter eight. Therefore, moving in such a sequence between these two experiences most likely will make each experience reinforce the other specifically in the Axis of the Holocaust and the Axis of Exile whilst the relationship between the two experiences in the Axis of Continuity is somehow weak particularly when it is compared to the relationship

in the other two axes. To show the nature of sequential thematic relationships between the two modes in the basement level each one of the three axes will be discussed.

As has been discussed in chapter six and seven, the Axis of the Holocaust is a long corridor leading to the Holocaust Tower. This corridor contains nineteen showcases displaying historical materials related to the Jewish history during the Holocaust. It also has multiple curatorial commentaries that interpret these historical materials and the meaning of the architectural space. Moreover, this corridor has many literary symbols that have metaphorical and allegorical meanings, which are connected to the transposition of the four layers of interpreting religious text in the making of a meaningful spatial environment in the museum (see chapter eight). All of the historical materials in the nineteen showcases, the different curatorial commentaries and literary symbols form the cognitive experience in the Axis of the Holocaust. These aspects play a key role in communicating the story of the Holocaust in an intellectual manner. After exploring this corridor or at least part of it, the visitor can enter the Holocaust Tower where the embodied experience can occur. Although, as has been discussed in chapter seven, some of the visitors have interpreted the tower differently, many visitors see some connection between the embodied experience of this space and the story of the Jewish people during the Holocaust. Overall, it is clear that the cognitive experience in the corridor of the Holocaust reinforces the embodied experience in the Holocaust Tower and vice versa. One of the respondents has mentioned how these two types of experience are related:

I think for me, there are two different parts. First, you get the feelings from the space, which architect has tried to done, and second is more about the documentation. And also, they are trying to represent the documentation in a different way. So, architect is trying to create the feelings by spaces and when you go to the documentation part, they are trying to explain. PM-11 semi-structured-interview, 2017

In the Axis of Exile, the link between the two types of experiences (cognitive and embodied) is nearly similar to the link between the types of experiences in the Axis of the Holocaust. The only key difference between these two axes is that the number of historical material and curatorial commentaries explaining these materials and the space in the Axis of Exile is somewhat less than the number of historical material and curatorial commentaries in the Axis of the Holocaust. This to some extent has weakened the link between the two types of experiences in the Axis of Exile, when it is compared to the link between the two types of experiences in the Axis of the Holocaust. The effect of this relationship between these two types of experience in each axis is obvious in the respondents' responses confirming that the Axis of the Holocaust has more impact on them than the Axis of Exile.

However, the Axis of Continuity does not combine both types of experiences. Although exploring museums generally is considered to be an embodied act, the Axis of Continuity does not have any experience that can be classified as an embodied experience that can create a highly arousing physical interaction between perceiving subject and the space. So, it can be said that the Axis of Continuity does not have any obvious embodied experience. In terms of the cognitive experience in this axis, the corridor has just one text presenting the name of the text. Also, its name has been just mentioned on the text board and the main diagram that explains the concept of the building without referring to the meaning beyond this axis. In addition, the corridor does not display any historical material. The disappearance of somehow equal amounts of both types of experience, therefore, awakens the effect of the Axis of Continuity particularly when it is compared to the other two axes.

In the permanent exhibition, on the other hand, the relationship between the cognitive experience and the embodied experience is nearly incompatible with each other except in some parts. It is clear that the design of many galleries in the permanent exhibition blocks the embodied interaction between the visitor and the architecture of the museum through different methods. For example, two large mezzanine floors (an intermediate floor in a building) have been built in two different areas inside the permanent exhibition. The structure of these two mezzanine floors is made of steel which is in strong contrast to the concrete white wall of the interior space. In addition, these two large mezzanines have many cabinets to display historical material. Therefore, these two large mezzanine floors and their contents have distorted the experience of the spatial environment. Also, some of the galleries block the visitor from exploring the architecture of the museum through the use of huge walls. As a result, the team who are responsible for the task of creating a new permanent exhibition in the Jewish Museum Berlin stated one of their aims:

Daniel Libeskind's architecture is one real visitor magnet. The new permanent exhibition will make it more visible – for example, we will enable visitors to experience “Libeskind moments,” such as arresting window views, or the voids and void bridges.

It is important to state that the components of the permanent exhibition is not always in contradiction to the architectural space. Two examples will be described to show that. First, Arnold Dreyblatt, an American visual artist and composer, created an installation in 2008 to be a main part of the last section in the permanent exhibition. Dreyblatt named his piece of art *Unsaid*. This permanent installation is located at the intersection edge between the German-Jewish history before the Second World War and after. This installation displays an electronic

The glass wall has been lined up perfectly with two intersection architectural lines that are carved on the floor. The artist did this on purpose to place his installation in harmony with the architectural environment. Although this installation presents many curatorial commentaries, the shifting between transparent surfaces to opaque surfaces plays a key role in not blocking the experience of the architecture of the museum. This shows how the relationship between the cognitive experience and the embodied experience is compatible in some parts of the permanent exhibition.

In the second example, and as a way to enhance the idea of void and loss which takes the form of six voids interrupting the visitor movement in the permanent exhibition across the straight axis, Via Lewandowsky, a German artist, has designed *Gallery of the Missing* (2001), to be part of experiencing the void of Jewish history in Berlin. This gallery is not one room to display a set of artefacts about specific story; rather, it is a gallery consisting of three large black glass sculptures located in three different spots within the permanent exhibition space. Two of them are located on level two and the last one is located on level one. Each one of these three installation is in close proximity to one of the six voids.



Figure 2 Gallery of the Missing by Via Lewandowsky

The three black glass installations are sound sculptures, and they mimic the same primary story that Libeskind wanted to tell through his building, which is the emptiness of German-Jewish culture in Germany. While the six voids refer to German-Jewish culture in general, these three sculptures are more specific since they strive to remind the visitor about objects that have been destroyed. The visitor cannot see anything on these three installations; instead they can just see the reflection of their image and the environment.

The audio installations contain 120 soundtracks, and each one of these tracks describes one of the Jewish destroyed objects, such as Otto Freundlich's the New Man, Hygieia and Encyclopaedia Judaica. To listen to these different soundtracks, the visitor needs to first use one of the infrared wireless headphones that were placed on top of a place table next to the sculpture, and second they need to move around the black glass installation until they can hear one of the 120 soundtracks.

Also, one thing I found interesting was the part where you have the blank wall, which is black and you wear a headphone. And when you go near that wall, you get different kind of sounds. You cannot see anything, but you have to move your head and you need to find a spot, and when you match the frequency you hear different kind of sounds. PM-11 semi-structured-interview, 2017