Adaptive Re-Use Approaches on Converted Museums in The Walled City of North Nicosia

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ABSTRACT

Buildings can live much older than human beings thus, the adaptation of existing buildings into new uses have been widely spread around the world. However, architectural heritage buildings have many significant values such as the picturesque, architectural and cultural values. In addition to, financial and social values which constitutes an important resource for whole humanity. Although these heritage buildings could be used for different functions other than the original use that they were specially designed for, the reconciliation of conservation needs with the contemporary development should be well balanced. The process of conservation through adaptive re-use, then can offer a new life for the existing buildings, while at the same time proving the continuity of their significant values.

This thesis aims to contribute to the adaptation of heritage buildings, especially the domestic ones into museums, by considering both the internationally accepted documents of architectural conservation and also contemporary museology principles and necessities in museum design .The argument of this thesis is evaluated and adopted through four case studies from the Walled City of North Nicosia , which constitutes all the converted museum from domestic uses; namely the Dervish Pasha Mansion , the Eaved House , the Lusignan House and Dr. Fazil Küçük Museum. The main research question here is how to adapt existing buildings, originally built for domestic purposes, into a museum successfully, for this purpose. Qualitative research methods are employed through on-site investigations and document surveys of explicit case studies, and through literature reviews on the main research topics ; conservation through adaptive re-use and museum design.

The findings of this research proves formulating a special set of guidelines reconciling both the internationally accepted principles of adaptive reuse and principles on the contemporary requirement of museums design, which can be applied for the evaluation of any such case for the success of the adaptation process, and can be used by all parties involving this process, such as the responsible architects and authorities.

Keywords: Adaptive re-use, historic domestic buildings, museum design principles, values of conservation, North Nicosia.

ÖZ

Yapılar insanlardan daha uzun ömre sahip olduklarından dolayı yeniden kullanımları tüm dünyada yaygın hale gelmiştir. Ancak tarihi binaların yadsınamayacak derecede önemli görsel, mimari ve kültürel değerleri vardır. Tüm bu değerlere finansal ve sosyal değerler de eklenince tüm insanlık için çok önemli bir kaynak oluşturmaktadırlar. Her ne kadar da bu tip binalar, zaman içerisinde orijinal işlevleri dışında başka fonksiyonlar için de kullanılabilseler de, tüm bu değerlerin korunması ile çağdaş ihtiyaçlar doğrultusunda oluşan gelişmelerin dengelenmesi gereklidir. Yenileme yolu ile mimari koruma süreci ancak bu şekilde mevcut binalara yeni bir hayat verebilmekte ve ayni zamanda sahip oldukları değerlerin geleceğe taşınmasına araç olabilmektedir.

Bu tezin amacı mevcut kültürel miras yapılarının, özellikle konutsa yapıların, hem uluslararası kabul gören mimari koruma ile ilgili belgeler, hem de çağdaş müzecilik anlayışları göz önünde bulundurularak müze fonksiyonuna dönüştürülmesine katkıda bulunmaktır.

Bu bağlamda, bu araştırma için Kuzey Lefkoşa Kaleiçi'nde yer alan, tarihi konut yapısı olup sonradan müzeye dönüştürülen tüm yapılar çalışma alanı olarak seçilmiştir; bunlar Derviş Paşa Konağı, Saçaklı Ev, Lüzinyan Evi ve Dr. Fazıl Küçük Müzesi yapılarından oluşmaktadır. Buradaki esas araştırma konusu 'Mevcut konutsal yapıların nasıl başarılı bir şekilde müze fonksiyonuna dönüştürülebileceğinin. İrdelenmesidir.

Buna bağlı olarak, araştırmanın metodolojisi nitel araştırma metotlarından oluşmaktadır; yerinde gözlem ve alan çalışmaları ile ilgili belgelerin incelenmesi, ve

ana araştırma konuları olan yenileme yolu ile mimari koruma ve çağdaş müze tasarımları konularında yapılan literatür taramalarından oluşur.

Bu tezin bulguları, uluslararası kabul gören, yenileme yolu ile mimari koruma prensiplerinin; çağdaş müze tasarımları gereklilikleri ile bir araya geldiği bir formülün mümkün olduğunu göstermiş ve bu formülün bu konu ile ilgili farklı alan çalışmalarını değerlendirmekte kullanılabileceğini kanıtlamıştır. Bu formül konu ile ilgili tüm paydaşların kullanımı için ortaya konulmuştur.

Anahtar Kelimeler: yenileme yolu ile mimari koruma, tarihi konutsal yapılar, müzeler,, koruma ile ilgili değerler, Kuzey Lefkoşa.

I dedicated this thesis work to my parents Mr. Ali Gafar Mohamed, Mrs. Intisar Ali Salih, siblings Mohamed and Ithar and those who support me.

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Chapter 1

INTRODUCTION

The concept of heritage belongs to something that was inherited from earlier generations. Heritage concept includes many categories such as the tangible and intangible heritage. Each of these categories adopts different types of heritage. The main focus of this thesis is on the cultural heritage which includes architectural heritage, specifically historic buildings that are re-used as museums. Architectural heritage are types of buildings which make the intellect of stroll and creates the desire to inquire further regarding to the people and culture that produced such buildings (Langston. et. al, 2008).

Existing historical buildings are important resources and are types of structures that are explicitly created for a specific function with special architectural style according to definite period of time. Through time, several types of these heritage buildings become partly destroyed while some others are used with a different function from the original ones (Widell, 1996).

Nevertheless especially during the last two centuries the conservation of cultural heritage buildings has grown in broadness of meaning. At the present, the cultural significance expressed by cultural heritage possessions is gaining more importance than

the properties themselves (Jokilehto, 2008). Cultural heritage buildings can maintain their significance when their values are protected (Feilden, 1982). The values which attached in cultural heritage are known in order to evaluate significance, arrange resources, and inform conservation decision-making. It is documented that values may contest and change through the time, and these historical heritages may have different meanings (De la Torre, 2013).

The significant values can be categorized in three groups; Aesthetic values which focus on the physical appearance of the heritage building, the second category is symbolic values which focus on the survival side of the built environment and the last category adopt the utilization values which focus on the utilization of structures and areas in order to slow deterioration process (Basarir, 2009).

One way to protect the values of heritage buildings and to help them survive is to conserve them through adaptive reuse. Accordingly adaptive reuse has become a one of the most used and well documented methods in many different countries. Increasing the buildings life through adaptive re-use can decrease the material, transport and energy consumption and pollution and therefore makes an important contribution to the sustainability issues. The present convergence among researchers achieved that it is also economic to change old buildings functions to new uses rather than to demolish and reconstruct them (Cooper, 2001).

As mentioned above, the main focus of this research is the adaptive re-use of heritage buildings as museums: the research aims to reconcile the conservation for historic

buildings with the contemporary requirements of the museum function .Gathering and preserving valuable objects have a long history, which came from the ancient nations around the world when they try to kept their valuable in temples, graveyards and castles. Even after centuries, the tradition of gathering objects and preserve them is still alive (Alexander, 1979). Museums are providers as an environment for reviewing and understanding the historical significant artistic works. There are two main types museum buildings, the ones that are originally designed as museum buildings, or the ones are converted from other uses into museums. Here the research focuses on the heritage buildings that are originally designed for function other than museums. The adaptive re-use of the buildings into this new function within the limits of heritage conservation will be analyzed and evaluated.

There are also different types of museums that are classified by their themes character such as; history museums, archeological museums, science museums, natural history museums, military museums, art museums, ethnographical museums, industrial museums, general museums, geology museums and war museums. This research focuses on the historical houses (domestic use) which are converted into museums; mainly ethnographical museums of small scale.

This research focuses on the Walled City of North Nicosia, which is internationally known as an historical city; all of the museums that are converted from domestic uses will be analyzed and evaluated within the limits of this research. Therefore according to the internationally accepted principles of conservation, all of the domestic buildings that are converted into museums within the Walled City of North Nicosia will be analyzed

and evaluated in order to formulate a special set of guidelines only for adaptive re-use of historic domestic buildings into museum. According to on-site investigations in parallel to the data from the Department of Antiquities and Museums, there are four domestic buildings that are reused as museums within the northern half of the Walled City of Nicosia; the Dervish Pasha Mansion, the Lusignan House, the Eaved House and the Dr.Fazil Küçük museum. The period of time which each case was constructed would be mentioned to clarify the definite architecture style in each period. On the other hand situation of the selected buildings during each period will also be investigated. The conclusions of this thesis aim to extract some commonalities through empirical research and propose future guidelines for the adaptive re-use of existing historical buildings especially related to the domestic buildings, transformed into museums and galleries where the both architectural conservation issue and the contemporary needs of the museum function will be investigated and proposals will be done for each case-study, in addition to general guidelines for the purpose of this research.

Table1.1: List of converted museums buildings within the Walled City of North Nicosia, the case study buildings of this research are highlighted (Department of Antiquities And Museums, 2016)

	Museum name	**Year of opening**	**Type of museum**
1	Mevlevi Tekke Museum	1963	Ethnographic
2	Dervish Pasha Museum	1988	Ethnographic
3	Sultan mahmut	1968	library
4	Dr Fazil Küçük	2016	Ethnographic
5	The lapidary museum	1974	stone work
6	BedestenOrtacagMezarTaslariMuzesi (sculpture works)	1995	Stone work
7	National Struggle Museum	1982	National
8	Buyuk Han	1974	Khan
9	Kumarcilar Hani (Gamblers)	1974	Khan
10	Eaved House	1996	Gallery
11	Lusignan house	1997	Culture center

1.2Problem Statement

The island of Cyprus has a rich historical background, which hosted many different civilizations throughout history. The historic Walled City of North Nicosia also accommodates many of such buildings within a densely built area. It has been observed that all of the current museums within the Walled City of North Nicosia are converted buildings; which emphasizes the need for a special research on this issue. It has been observed that, within the historic Walled City of North Nicosia, throughout the process of conversion of these buildings there were no specific guideline or set of rules and regulations to be followed, and for the related authorities and this situation creates a risk in terms of the loss of cultural heritage values and assets, especially when time limitations of implementation projects are considered.

1.3 Research questions

The research explore a set of questions in order to investigate the guidelines of the main purpose of this research, the questions has been divided into the main and sub research question , which will be answered within the conclusion context, the sub questions were set in order to assist the main research question .

Main research question:

- How could the existing buildings, originally built for domestic purposes, be adapted successfully into a museum?

Sub research question:

- What are the internationally accepted criteria for the evaluation of successful adaptive re-use of existing buildings to the purposes of museum?

- What are the ways in which to conserve the significant values attached to an existing building and at the same time adopt the contemporary expectations of the users?
- How to reflect the adaptive re-use principles on the contemporary needs of museum considering historic domestic buildings?

1.4 Aims and Objectives

The Walled City of Nicosia is a well-defined historical area which contains an important number of heritage buildings with significant values, some of which are converted into museums. This research focuses on the Walled City of North Nicosia and aims to evaluate the converted museum buildings, according to the internationally accepted documents of architectural conservation. The research specially focuses on adaptive reuse principles, reflections on the necessities of contemporary museology. In order to understand and set some future guidelines regarding how to successfully re-use an existing building into museum, and at the same time to preserve and protect the significance of these historic buildings. The research also aims at guiding responsible architects, and the authorities involved in the process, such as the Department of Antiquities and Museums by providing a set of guidelines, when they are faced with converting historic buildings into museums and galleries.

1.5 Research Methodology

The main methodology employed for this research is a qualitative research method, while the data collection will consist of primary and secondary data collection methods. The primary data collection methods includes on site observations of the (case studies) and informal interviews with the authorities (elite interviewing) to collect the

necessary information related to the case studies. In addition, literature reviews on the topics of architectural conservation through adaptive re-use and the contemporary requirements of museology will be explored. The four selected case studies of this research will be analyzed with an assessment on the buildings interiors and exteriors while the data evaluation will be conducted through architectural drawings, photographs and the collected data will be analyzed in tables with proposals followed by recommendations and proposals for the future.

1.6 Limitations of the Research

The theoretical framework of this research is formulated around the interpretation of international adaptive re-use concepts on converted museums. Therefore, the literature reviews are based on two main topics the first part focuses on the internationally accepted data and documents, on architectural conservation focusing on adaptive re-use approach which includes investigation on the views of main international organizations; namely the ICOMOS, ICCROM, and UNESCO as well the Charters; specially the Venice Charter, Burra Charter and Athens Charter. The second part of the literature reviews evaluates the extracted principles of conservation through adaptive reuse on the necessities of contemporary museums. The criteria of analysis here will be based on, the interior space elements and principles; specified as lighting, circulation, color, furniture and accessibility. The research focuses on all of the converted museums within the Walled City North Nicosia, this include four museums which are the Dervish Pasha Mansion, the Lusignan House, the Eaved House and the Dr Fazil Küçük Museum.

1.7 Research structure

The following chart shows the structure of thesis, through clarifying the main subjects of each chapter which are given in order.

INTRODUCTION			
Research problem	Aims and objectives	Methodology	Limitations

THEORETICAL FRAMEWORK OF THE STUDY	
Architectural conservation Adaptive re-use principles International Originations International Charters	Museology principles Examples of converted museums from Turkey

CASE STUDY ANALYSIS AND DATA FINDINGS			
Overview of historical background of Cyprus Overview of Architectural background	Overview of the selectected case studies historical backgrounds	Analyisis pari I; adaptive reuse principles;architectural features and conservation values	Analusis part II; museology principles; interior space lighting, circulation, accessibility, furniture and color

CONCLUSION AND RECOMMENDATIONS	
Set of guidelines in the purpose of converted heritage museum	General recommendations

Chapter 2

THEORETICAL BACKGROUND OF THE STUDY

The theoretical framework of this research has been conducted in two parts. First part, explores the architectural conservation through adaptive re-use, referring to the internationally accepted documents on the subject matter, and the international organizations and charters of conservation. The second part includes; the museology principles based on previous studies. And finally, two examples of converted museums from Turkey, the Sakip Sabanci Museum and the Sadberk Hanim Museum, are explored to identify successful implementations for the purpose of this thesis.

2.1 Architectural Conservation through Adaptive Re-use

Concept of heritage is a complex one, it includes structures, areas and artifacts which have aesthetic, architectural or cultural significance, and also contain natural features within such zones or areas of environmental significance (Pickard, 2001).

Heritage and conservation have become important issues in these discussions on place (Matero, 2008). Places and features of cultural significance enhance people`s life, provided that an intellect of connection to the societies and the build form, and to historical experiences is formulated. Culturally important places are historical records which reflect the diversity of past inhabitants and they are vital tangible features of the

historical identity. Therefore, culturally significant heritage buildings are unique and valuable and must be conserved for the present and the future (ICOMOS, 1999).

Different methods can be used in saving heritage buildings. Every action has its own way and technique, which includes restoration, renovation, rehabilitation, repair and adaptive re-use. All of these activities come within conservation of historic buildings. Since they all represent conservation of historic buildings (Bradshaw, 1995).

Architectural conservation has many internationally accepted strategies which offer both practical guidance and theoretical experience on this issue. The conservation strategies call for worldwide organization efforts backed by international will, for intensive achievement at national and international levels. Development and conservation are evenly vital for the coming generation. Conservation of the inheritance buildings is a complex issue where there are many values and concerns to be taken into consideration throughout the process. As it is mentioned, it aims to sustain the character and identity of any culture. Developed countries have utilized information and communication technologies in the process of preserving their cultural and natural histories, research works have been done by many countries in digitizing and archiving their cultural artifacts (Zainal, et al, 2011).

Conservation is employed in order to depict even the varnished and sometimes the non-surviving layers of an historic cultural property. This is done according to a documentary research and physical evidence so as to achieve an actual survival as an example of conserving with minimum alteration to the original fabric (Koenig, 1999).

This requires expertise and funding, as well as public involvement. It is usually preceded by a very intense investigation in order to specify the features of the cultural property which it can be very essential in situations which need arises for the cultural property to be altered during conservation. Adequate measures will be adopted so as to preserve the remaining historic features of the cultural property. Architectural monument restoration is usually a complete process. It entails a true understanding of the present and an ability to envision the future (De la Torre.et. al 2013).

Cultural heritage buildings are the inheritance of physical elements which are patrimonial or go on with time, preserved in the present and granted for the sole benefits of generations will be delivered (Ahmed, 2006). This contains buildings, landscapes, monuments, art works and artifacts and many other scales. Organizations like UNESCO, ICOMOS ICCROM are some of the most well-known organizations that work for natural and cultural heritage in different countries around the world. Cultural heritage might also be known as a collection of resources patrimonial from the ancient whom people recognize as indication, and terms of their continually developing values, way of thinking, recognition and background. It contains all sides of the environment resulting from the connection between people and places throughout time. (Faro, 2006).

2.1.1 Adaptive re-use as a strategy towards conservation of heritage buildings

Adaptive re-use is a form of heritage conservation. It includes converting a building to carry out a change of use that can employ new design (Latham, 2000).The change of function may require entire renovation of the building where the original design can be a totally different function than the proposed one (Patterson et al 2013).

Adaptive re-use may involve restoration works, partially or throughout the building. When adaptive re-use is applied to historical buildings this does not only target to keep the significant values of heritage buildings but also to conserve the endeavor of the original builders and to add a new layer of contemporary times (Love. et. al , 2009). The main concern here is to conserve the significance, therefore the values of conservation such as architectural, cultural, historical, social and economic values (Latham, 2000).

Yet adaptive re-use process requires a considerable budget (Cooper, 2001). Adaptive re-use of existing buildings in order to continue using becomes a significant task in the present architectural practice. Life is continuously changing and buildings consequently last much longer than the current lifestyles, which are on a persistent transformation. Adaptive re-use is defined as one of the most common approaches to conserve heritage buildings internationally (Ashurst, 2007). Adaptive re-use of historic buildings offers new life for those buildings instead of being abandoned to decay and to be in a state of despair with their original usage and may even be protected from being destroyed (Casal, 2007). Adaptive re-use is an occasion to alter the original function which attached to existing heritage buildings to offer them with totally new and contemporary life.

2.1.2 Adaptive Re-Use for the Future Improvement of Historic Buildings

Some of the most successful methods of planning for sustainable conservation of heritage are renovation, restoration and rehabilitation projects and to eventually adaptive re-use **of** the existing buildings. Adaptive re-use is not entirely for historic buildings, but also for all sorts of buildings within the historic area that can be

transformed according to current and future needs. Historic areas may become viable and attractive places through adaptive re-use of old buildings. Therefore, re-use is usually employed when the heritage buildings, which are significant for their values, can become a part of a sustainable environment. In fact, most developing countries have practiced these principles during the last fifty years for cultural reasons, it is now become widely accepted that cultural heritage could also be considered for its economic benefits. Asset in historic places is now strongly related to the new uses to be specified to a sequence of buildings with a view to get financial gains. At the same time preserve, defend and sustainably conserve not only the buildings, but the whole urban fabric in most cases (Dawson .et. al, 2012).

2.1. 3 Historical Buildings and Contemporary Conservation Processes

Heritage buildings are keep changing through time. According to the contemporary needs, these buildings should be reused in a proper way to protect their values and originality. Nevertheless, new design should be added to the already existing significance of heritage buildings. Any new buildings in historic environment or new structure and addition to heritage buildings should sustain and protect the existing according to many internationally accepted documents of conservation, specially accordingly to the Venice Charter (1964) future additions should be of quality that represent a valuable connection with the heritage buildings. However, the extension and alternations should be related to the proportion and scale of the buildings. Furthermore, the interrelationships that are essential elements of building understanding should not be compromised. An initial deliberation must be the impact of the originality of the complete and proposed sitting of the heritage building, followed by the technical

deliberation of a new building being located in close proximity to old construction (Orbasli, 2007).

In order to fully understand all the approaches of adaptive re-use; first, it is helpful to explore some essential details and facts about historical buildings as it is seen in the contemporary context. It is well worth to know that Historical buildings have authentic properties and therefore they must be managed through special principles. Typically, one of the main causes cited as a reason for why a building must be demolished, is functional obsolescence, and this usually takes place under the following four conditions:

a. When the use for which a building was built no longer exists,

b. When the use for a building still exists, but no longer in that form,

c. When the systems (electrical, plumbing, heating, etc.) do not meet contemporary codes and principles.

d. When the space arrangement in a historical building does not fit to present market needs (Pugliese, 2002).

2.1.4 The International Measures of Historic Building Conservation International Organizations which Contribute to Heritage Buildıng Conservation:

The process which is employed to extend the survives of these historical structures is mostly fulfilled with the use of certain interferences, within the context of architectural protection. Definite organizations exist which are responsible for the mission of protecting heritages. They are very important acquired artifacts and old characters which are significant and should be preserved for the forthcoming generations. These organizations include “International Center for the Study of Preservation and

Restoration of Cultural Property" (ICCROM), the "United Nations Educational, Scientific and Cultural Organization" (UNESCO) and the "International Council on Monuments and Sites" (ICOMOS). These organizations aim for conserving historically significant structures found around the world. In the following section it is aimed to shed some light on the views of these internationally accepted organizations, and their published documents on conservation through adaptive re-use.

2.1.4 1 International Organization: Council of Monuments and Sites (ICOMOS)

The ICOMOS which refers to the International Council on Monuments and Sites is a private Organization who's aimed to conserve the monuments and sites internationally. The organization was established in 1965 following the 1964 Venice Charter which took place in Warsaw. According to ICOMOS, some declarations which are related to conservation of heritage buildings are as follows:

Conservation

Article 4: "It is important during the conservation process of historical monuments, that they are remained in a stable origin.

Article 5: The conservation of the heritage building should have limitations works in the layout and decoration the level of changes.

Article 6: The historical traditional context of exists building must be protected. New construction and development are not permitted.

Article 7: The possibility of moving any part of the heritage building is not allowed, only when there are necessities for protection and importance of the international interest."(UNESCO, 1965).

Article 8: “Decoration, painting and sculpture, within the heritage building should not be removed without warranting their sufficient protection.

Restoration

Article 9: The restoration process should be followed by the studies of specialist of the monuments.

Article 10: Monument rehabilitation could be successful by employing a contemporary technique with the sole aim of protection and construction.

Article 12: The missing parts of the historical building should be restored harmoniously with the parts which already exist. The historical evidence should not be affected during the restoration process.

Article 13: The additions to the historic building should not change the existing context of the buildings and the relationship with its surrounding environment.”(UNESCO, 1965).

Momentous sites

Article 14: “The historic places were these heritages are found must under special care so as to defend their truthfulness and guarantee that they are cleared and displayed in an appropriate approach. The effort of protecting and maintaining have been done on such buildings must always be in consideration of the laid down principles.”

2.1.4.2 United Nations Educational Scientific and Culture Organization (UNESCO)

Declarations concerning conservation of heritage buildings were stated at the meeting which is concerning the protection of the world natural heritage and culture, in Paris

17October to 21 November 1972.Thought-out as "cultural heritage" Some of the declarations which are related to heritage building conservation are as follows:

“Article 5: So as to make sure that adequate steps are employed in order to protect, conserve and preserve the natural heritage and historic cultural found within its region, every one of the parties which has to do with the convention will endeavor to”:

“Adopt a general guiding policy which is aimed at giving the cultural heritage a use in the environment where it is situated and to integrate protection of the heritage into comprehensive planning programs;

To set up within its territories where these services are not present there should be distinct programs for maintaining and preserving of the natural heritage and historic cultural. This will be done with the help of a qualified staff with adequate knowledge to discharge the function properly.

To develop scientifically, technical studies and research works have been done solely aiming at helping the state counter the intimidation to its natural cultural and monuments.

In the direction of making the required administrative, legal, financial and the measures are necessary for the rehabilitation, conservation and identification of this natural heritage.

On the way to assist the creation or improvement of national or regional core with the sole purpose of training personnel’s in the field of conservation and preservation of the cultural and natural heritage and to encourage scientific research in this field.” (UNESCO, 1965).

2.1.4.3 The International Centre for the Study of Preservation and Restoration of Cultural Property (ICCROM)

International Centre for the study of preservation and restoration of cultural property 1972, it is an international organization which aims to preserve cultural heritage properties all over the world. It is found in 128 different cities around the World. These societies represent the associates of the organization. ICCROM is the only organization which is responsible for enhancing the procedures of protecting various types of heritage both the transportable and non-transportable heritage. They also offered awareness on the significant of protecting the cultural heritages (Pevsner, 1972).

- "Circulate and collect the needed information's which have to do with technical and ethical matters, as relating to the preservation and restoration of historic cultural properties.
- Coordinate and institute research work in this territory by the process of assignment of activities to bodies, experts in the field, publications and specialist exchange.
- Come up with suggestions on questions which have to do with the restoration of historic cultural property.
- Promote and develop training programs which have to do with preservation and restoration of historic properties, by so doing raise the standard of preservation work.
- Encourage initiatives which lead to a better understanding of restoration and preservation."

I. Heritage adaptation

"Adaptive re-use is a section of architectural discipline protection which recognizes a specific deed come up to heritage buildings. Adaptive re-use known as a procedure which offers a new life to heritage buildings, those are in poor rundown condition.

Restoration is defined as the procedure of precisely depicting as referred by the secretary of interiors. Accurately, it focuses on the features of the heritage property as it seems in the heritage building by eliminating these features or reconstruction these features and characteristics of a property as it seemed in the heritage property from the past. The process of resorting historic buildings is also defined as the progression of conserving momentous and makes them to belong to their original conditions."(BASF, 2003).

Cultural Heritage Building

A set of buildings which belongs to ancient time when people recognize, separately as indicator of their evolving values, facts, beliefs and traditions. (Faro, 2006).

2.1.5 Charters for the Conservation of Historic Buildings

2.1.5.1 Athens Charter (1931)

For the restoration on historic monuments, at the first International Congress of Architects and Technicians of Historic Monuments, Athens (1931), the following resolutions considering monuments were made:

- "International organizations for adaptation on operational and advisory levels are to be established.

- Proposed restoration projects are to be subjected to knowledge criticism to prevent mistakes which will cause loss of character and historical values to the structures.
- Historical sites are to be given strict custodial protection.
- Attention should be given to the protection of areas surrounding historic sites.
- Modern techniques and materials may be used in restoration work".

2.1.5.2 Burra Charter (1999)

The following articles as recommended for heritage conservation by the Burra Charter, 1979:

Conservation and Management

Article 2 "Places of cultural significance should be conserved.

The aim of conservation is to retain the cultural significance of a place.

Conservation is an integral part of good management of places of cultural significance. Places of cultural significance should be safeguarded and not put at risk or left in a vulnerable state."(Burra Charter, 1999, p3).

Values

Article 5: "Conservation of a place should identify and take into consideration all aspects of cultural and natural significance without unwarranted emphasis on any one value at the expense of others."(Burra Charter, 1999, p4).

Contents

Article 10: “Contents, fixtures and objects which contribute to the cultural significance of a place should be retained at that place. Their removal is unacceptable unless it is: the sole means of ensuring their security and preservation; on a temporary basis for treatment or exhibition; for cultural reasons; for health and safety; or to protect the place. Such contents, fixtures and objects should be returned where circumstances permit and it is culturally appropriate.”(Burra Charter, 1999, p5).

Conservation process

Article 14: “Conservation may, according to circumstance, include the processes of: retention or reintroduction of a use; retention of associations and meanings; maintenance, preservation, restoration, reconstruction, adaptation and interpretation; and will commonly include a combination of more than one of these.”(Burra Charter, 1999, p6).

Preservation

Article 17: “Preservation is appropriate where the existing fabric or its condition constitutes evidence of cultural significance, or where insufficient evidence is available to allow other conservation processes to be carried out.

Adaptation

Article 21: Adaptation is acceptable only where the adaptation has minimal impact on the cultural significance of the place.

Adaptation should involve minimal change to significant fabric, achieved only after considering alternatives."(Burra Charter, 1999, p7).

Burra Charter Process

Article 26: "Work on a place should be preceded by studies to understand the place or should include analysis of physical, documentary, oral, and other evidence, drawing on appropriate knowledge, skills and disciplines.

Managing change

Article 27: The influence of future new changes on the cultural significance must be examined with reference to the statement of importance and the policy for managing the place. It may be essential to adjust the proposed alterations following analysis to better keep cultural significance.

- Existing values, use, associations and meanings should be adequately recorded before any changes are made to the place.""(Burra Charter,1999,p8)

2.1.5.3 The Venice Charter (1964)

The Second assembly of Architects and Specialists of momentous Buildings detained in Venice in 1964 where resolutions was adopted. The first resolution is identified as the International Restoration Charter or the Venice Charter.

Article 1:"The concept of a historic monument embraces not only the single architectural work but also the urban or rural setting in which is found the evidence of a particular civilization, a significant development or a historic event. This applies not only to great works of art but also to more modest works of the past which have acquired cultural significance with the passing of time.

Article 2: The conservation and restoration of monuments must have recourse to all the sciences and techniques which can contribute to the study and safeguarding of the architectural heritage."(Venice Charter, 1964, p1).

Aim

Article 3: "The intention in conserving and restoring monuments is to safeguard them no less as works of art than as historical evidence.

Conservation

Article 4: It is essential to the conservation of monuments that they be maintained on a permanent basis.

Article 5: The conservation of monuments is always facilitated by making use of them for some socially useful purpose. Such usage is therefore desirable but it must not change the lay-out or decoration of the building. It is within these limits only that modifications demanded by a change of function should be envisaged and may be permitted.

Article 6: The conservation of a monument implies preserving a setting which is not out of scale. Wherever the traditional setting exists, it must be kept. No new construction, demolition or modification which would alter the relations of mass and color must be allowed.

Article 7: A monument is inseparable from the history to which it bears witness and from the setting in which it occurs. The moving of all or part of a monument cannot be

allowed except where the safeguarding of that monument demands it or where it is justified by national or international interest of paramount importance.

Article 8: Items of sculpture, painting or decoration which form an integral part of a monument may only be removed from it if this is the sole means of ensuring their preservation.

Restoration

Article 9: The process of restoration is a highly specialized operation. Its aim is to preserve and reveal the aesthetic and historic value of the monument and is based on respect for original material and authentic documents. It must stop at the point where conjecture begins, and in this case moreover any extra work which is indispensable must be distinct from the architectural composition and must bear a contemporary stamp. The restoration in any case must be preceded and followed by an archaeological and historical study of the monument.

Article 10: Where traditional techniques prove inadequate, the consolidation of a monument can be achieved by the use of any modern technique for conservation and construction, the efficacy of which has been shown by scientific data and proved by experience."(Venice Charter, 1964, p2).

Article 11: "The valid contributions of all periods to the building of a monument must be respected, since unity of style is not the aim of a restoration. When a building includes the superimposed work of different periods, the revealing of the underlying state can only be justified in exceptional circumstances and when what is removed is of little interest and the material which is brought to light is of great historical, archaeological or aesthetic value, and its state of preservation good enough to justify the

action. Evaluation of the importance of the elements involved and the decision as to what may be destroyed cannot rest solely on the individual in charge of the work.

Article 12: Replacements of missing parts must integrate harmoniously with the whole, but at the same time must be distinguishable from the original so that restoration does not falsify the artistic or historic evidence.

Article 13: Additions cannot be allowed except in so far as they do not detract from the interesting parts of the building, its traditional setting, the balance of its composition and its relation with its surroundings.

Historic Sites

Article 14: The sites of monuments must be the object of special care in order to safeguard their integrity and ensure that they are cleared and presented in a seemly manner. The work of conservation and restoration carried out in such places should be inspired by the principles set forth in the foregoing articles."(Venice Charter, 1964, p3).

Publication

Article 16:"In all works of preservation, restoration or excavation, there should always be precise documentation in the form of analytical and critical reports, illustrated with drawings and photographs. Every stage of the work of clearing, consolidation, rearrangement and integration, as well as technical and formal features identified during the course of the work, should be included. This record should be placed in the archives of a public institution and made available to research workers. It is recommended that the report should be published. " (Venice Charter, 1964, p4).

2.1.6 Chapter Conclusion

The Conservation and adaptive re-use of heritage and sites was introduced in Venice Charter, as" Imbued with a message from the past, the historic monuments of generations of people remain to the present day as living witnesses of their age-old traditions"(Venice Charter,1964). People are becoming more and more conscious of the unity of human values and regard ancient monuments as a common heritage. The common responsibility to safeguard them for future generations is recognized. It is our duty to hand them on in the full richness of their authenticity. The concept of heritage has been developed from the care and protection of the ruins, into something much more complex, which includes future, and contemporary necessities as well as preserving the past .Especially the adaptive re-use of historic buildings is an approach for sustainable conservation of an existing building stock and it extends lives of historical prototypes. Adaptive Re-use is applied to development projects in many ways, adding contemporary layers on-to the historic setting (Mücahit, et al, 2012). In this research, in order to achieve a successful adaptive re-use of historic buildings, according to the internationally accepted documents of conservation, criteria for analyzing the case studies have been extracted from the documents such as the Burra Charter (1999) , the Venice Charter (1964) and the Athens Charter(1931) and also from the international organizations for heritage conservation, such as the UNSECO, ICCROM and ICOMOS .

According to the part of surviving of the theoretical frame work, the following table has been formulate to analysis the case studies , which considers the conservation values and categorized them under three main values: the aesthetic values including artistic

values , stylistic value and the picturesque value ,category focuses on the physical appearance of the building which adopts all the building elements , the interior part , which involves ceiling ornamentation, column ornamentation, stair case, furniture the originals and the additions, interior arcades and the floor. The exterior part includes, the Cumba, windows type and proportions, roofs, walls, exterior arches and exterior doors ornamentations. Therefore, the second category of the values is symbolic values which includes; age and authenticity value, documentation value, historical value of this category focuses on the survival part or the built environment. The last category focuses on the building utilized structure which is the utilization values. This category adopts the functional value, the economic value, the political value, the educational value and the recreational value, the table also includes the building plan and elevation to be more understandable.

Table 2:1. Analysis criteria for the conservation values (by Author based on Basarir, 2009, p 40) this table will be used to analyze each case study's values to be conserved throughout the process.

<table>
<tr><th colspan="2">AESTHETIC VALUES</th><th>SYMBOLIC VALUES</th><th>UTILIZATION VALUES</th></tr>
<tr><td colspan="2">Physical appearance might help to accelerate the demand to preserve the Environment. Aesthetic Values involve Artistic, Picturesque value and stylistic values.</td><td rowspan="5">Survival of the built environment is one of the reasons for its Conservation.
Age / authenticity value
Documentation value:
Historical value
Exceptionally value</td><td rowspan="5">Occupied and utilized structures and areas encounter Slower decay.
Functional value
Economic value
Political value.
Educational value :
Recreational value</td></tr>
<tr><td colspan="2">BUILDING ELEMENTS</td></tr>
<tr><td colspan="2">Exteriors</td></tr>
<tr><td>Cumba</td><td></td></tr>
<tr><td>Windows Types/Proportions</td><td></td></tr>
<tr><td>Roof</td><td></td><td rowspan="2">Building elevation</td><td rowspan="2">Building plan</td></tr>
<tr><td>Arches/Interior –Exterior</td><td></td></tr>
<tr><td>Doors / Door Ornamentation</td><td></td><td rowspan="8"></td><td rowspan="8"></td></tr>
<tr><td>Walls</td><td></td></tr>
<tr><td colspan="2">Interiors</td></tr>
<tr><td>Ceiling Ornamentation</td><td></td></tr>
<tr><td>Column Ornamentation</td><td></td></tr>
<tr><td>Staircase</td><td></td></tr>
<tr><td>Furniture /original And additions</td><td></td></tr>
<tr><td>Floor</td><td></td></tr>
</table>

2.2 Contemporary Museology Principles

This part of the theoretical frame work concerns the contemporary needs of the museum design and as it was mentioned before, it is based on a literature review of some significant preceding studies on the same subject. The section clarifies the contemporary principles of museum design which will be reflected through the conservation criteria to analyze the case studies in the following chapter.

Museums missions care about the artistic works that have historical values, and make them available for public through permanent or temporary exhibitions. However, museums could also bring earlier times to present, and make past alive once more, as a performance of the history through several periods. Museums sometimes can also help people touch and sense the past or understand the feelings of artists during the time of generating the art works (Dillenburg, 2011).

The idea of museums was established and came from the old nations which significantly changed people`s vision and attitude. Meanwhile the idea of museum could be exploited as an artwork itself since the 20thcentury; renewing and transforming historical buildings into new functions supported opening of new museums (Desvallees, 2010).

Meanwhile museums in the present time are known as the houses of great world exhibitions, as displaying items became public, groups need a place to keep them safe since also a huge budget has been spent into organizing the world exhibitions, extrusion the items after finishing the exhibition at that time was not logical or

economical. Therefore museum buildings are designed and constructed in order to protect the exhibition objects. There are millions of people all over the world who visits museums annually. This rising tendencies is the cause of the growing number of exhibitions (Burcaw, 1975).

Therefore recently museums can also be defined as tourist attractions, food courts, gathering places, stores and contemporary art houses as well social clubs; their meaning changes according to circumstances (Panero, 2012).

Therefore historic houses can be transformed into an incomparable and exclusive sort of museum in that it is used to preserve the existing building and also, exhibit or reconstruct objects; therefore the historic house museum is different from the other sort of museums. Meanwhile there is another feature of the historic house museum; it is the power of history which considered the impossibility of manipulating with the objects that can made to express different stories other museums (Pinna, 2001).

2.2.1 Museology principles and criteria

The following part concerning the museology principles and criteria, which based on the previous study of Hayatdawood in 2014 epically lighting, circulation, color and furniture.

a) Lighting

A museum is a place to explore and discover the past, present and the future. Moreover according to (Lowe, 2009) museums are places where lighting design is critical to the overall experience. Lighting is important for human communication in a space, characteristically man-made environment have two types of lighting; the natural and the

artificial. The lighting design for a museum is an essential part of generating an atmosphere prime for exploring and preserving artifacts (Hunt, 2009).

Museum design includes daylight because humans are related to nature, however, the natural light can be used to create a major effect to dramatize and brighten the design of any building (De Chiara et.el,2007). Daylight always changes and often is used in the interactive spaces. Meanwhile the amount of natural light in the interior of a museum must be considered to understand how daylight impacts the space (Hunt, 2009).

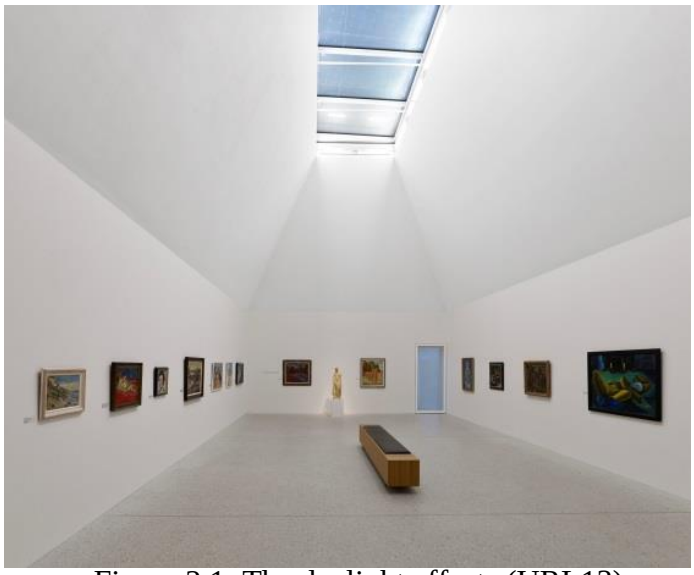


Figure 2.1: The daylight effects (URL13)

The second part of lighting represents the artificial lighting. Several types of artificial light are used in interior applications to deliver light for decoration visibility. However, the most commonly used artificial lights in museums are LED lights, halogen lamps, and metal discharged halogen, organic LED, fiber optic, HID, PARS and compact Fluorescents. The purpose and location of the light is based on the type of the light

source, however, human eye has the capability to be receptive to light, nevertheless, and the amount of light is a vital issue in lighting of a museum or gallery (Hunt, 2009).

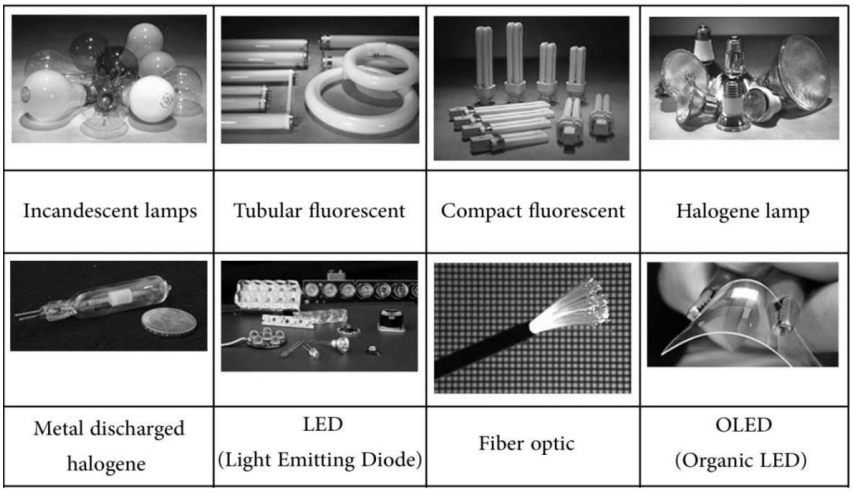
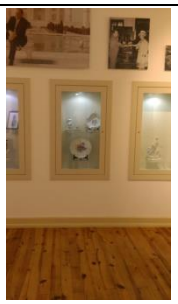


Figure 2.2: Different lighting instruments (Madran, 2012).

Table 2.2: descriptive visuals of some artificial lights effects within museums space

 lamp effect in museum (Author 2016)	 organic LED effect in museum (Author 2016)
 compact Fluorescents effect in museum(Author 2016)	 PARS light effect in museum(Author,2016)

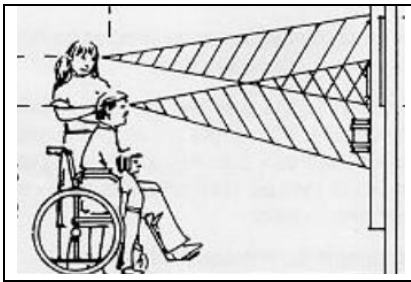
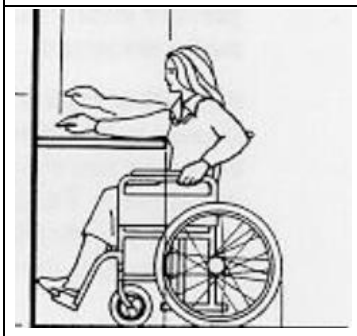
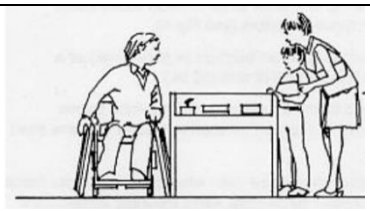
b) Accessibility

According to Smithsonian Guidelines for Accessible Exhibition design, the accessible design of exhibitions must be part of new philosophy of exhibition expansion, because people with special needs (disabilities) are part of museums varied audience. However Smithsonian Guidelines for Accessible is an existing documents , which explore the method for design tools for the accessibility in museums this tools includes .

- "The content of Exhibition must be accessible at several intelligent levels as well present over more than one sensory channel. On the other hand it must contain the experiences of disables people within their content and presentation.
- Exhibition items such as graphics and artifacts must be visually accessible , the important items and the exhibition main theme must be also accessible to people with disabilities by tangible examination such as models and touching artifacts or a full audio description , as well the exhibition items must not be located in such that they can create a danger for visitors .
- The design of label texts, all significant information in the exhibition label text must be accessible for those who have difficulty in English reading. on the other hand the label design must present main exhibition readably for all kind of visitors as well the label information must be accessible within the galleries in different formats such as Braille and audio for people who cannot read .

- Circulation Route: the circulation within the exhibition must be clearly defined and lighted as well easy to follow.
- Furniture: must be offer viewing access to people who are seated or short as well those who are standing. It also must not make a safety hazard for visitors, therefore seating must be offered in each exhibition in the corridors as well and adjacent gallery spatial.
- The language which used to describe people with disabilities must be appropriate (Majewski, 1996).

Table 2.3: Smithsonian Guidelines for Accessible Exhibition design for people with disabilities (Majewski, 1996).

 Example of the average viewing sightlines	 Example of providing alternative access using photographs of the objects
 Example of the maximum forward reach over obstruction	 Wall hung objects with edges in the bottom to alert people with blind disabilities
 Example of the bulging object warning	 Example of table case height for wheelchairs users as well normal visitors

a) Color

The colors refers to the human sensation the designers should use a variety of colors to give a kind of hierarchy, in addition, to lead the human brain , and adapt with the environment , in the museums and galleries colors should be used to support the meaning of the exhibition, to give the visitors some clues about the space . In addition colors of the surfaces such as walls and floors as well the display [units should have a contrast with the exhibition content .Meanwhile the dominant colors which are used in galleries and museums in the 20th century are white and light gray , in the past dark and strong colors was used commonly (Barnett, 2010).

Selecting the exhibition colors depend on the artists` preference. However, there is not a standard regulation for painting a museum or exhibition walls. As an example some galleries are used dark colors in background for the historical art works. The characteristics of colors may change when it comes under different lighting conditions. The museum and exhibition wall colors have a great effect on perceiving the space. When color strength gets higher the environment becomes more understandable, while dark color in the walls create a formal and serious environment. In addition colors also used to distinct two halls from each other, also draw attention of exact subject (Hayatdawood, 2014).

Figure 2.3: white color in Sakip Sabanci museum walls as background (Author, 2016)

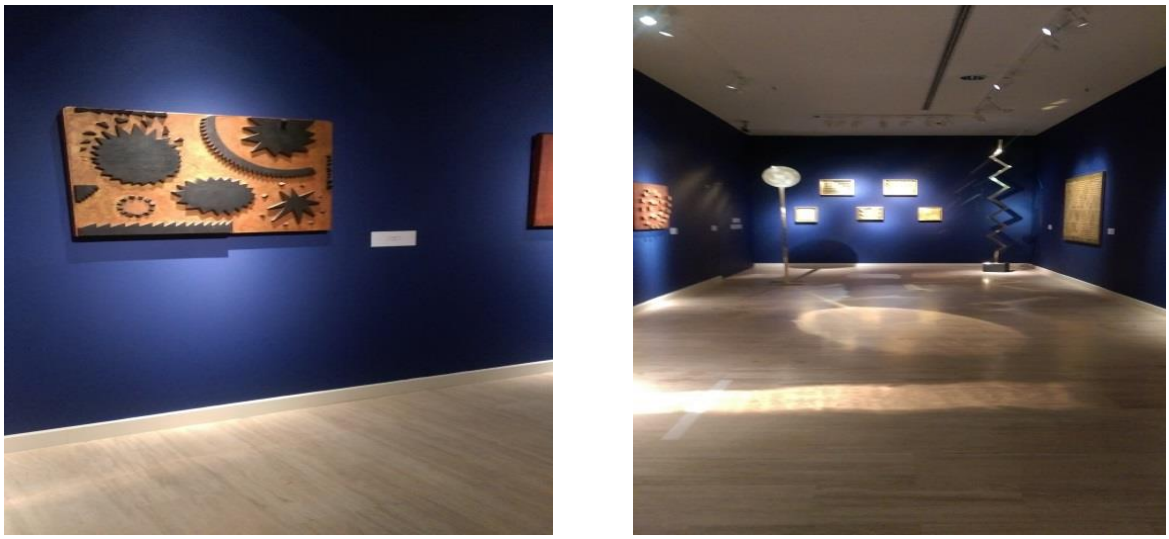


Figure 2.4: dark color on the background create a strong contrast with the display object in Sakip Sabanci museum (Author, 2016)

Figure 2.5: dark color in the background to display historical artworks in Sadberk Hanim museum (URL 12)

D) Exhibition furniture /movable and immovable

The display units are considered as type of the movable furniture which designed to exhibit the objects , they mostly made of glass , these units should be designed with a security consideration and they should be lockable , there are many types of displaying units which includes, self-standing displaying units , wall and corner units and display platforms (Madran, 2012) .The immovable or the original furniture which are considered as fixed furniture within the historical museum, should be conserve as they are .

Figure 2.6:Self-standing displaying units (Author, 2016) .

Figure 2.7: display platforms units (Author, 2016)

Figure 2.8:Self-standing displaying units (Author, 2016)

Figure 2.9: Glass displaying units (Author, 2016)

a) Circulation

Museum circulation is an important part of museums design, the boards and guiding sign for the museum circulation should be located in a place where it can easy to see them, they shouldn't be covered by anything, the museum circulation must be planned to guide the visitors to find their route from the entrance to the exit as well inside the museum from one space to the other (Museum planning, 2013).

Museum planners and layout set some laws for museum circulation, the first design follow the idea of form follows function, which mean that visitors should follow an exact accessible track through their visit from the entrance until their visit end ,this kind of circulation meanly used in ethnographical museums, this approach create an organized circulation (Kaynar,2005).

Another type of circulation which based on partitions to create a feeling of separation (Figure 3.29).In addition ,another type of circulation which based on a changeable circulation route which means visitors can choose their own path , this type gives a variety of experiences to visitors (Madran,2012).

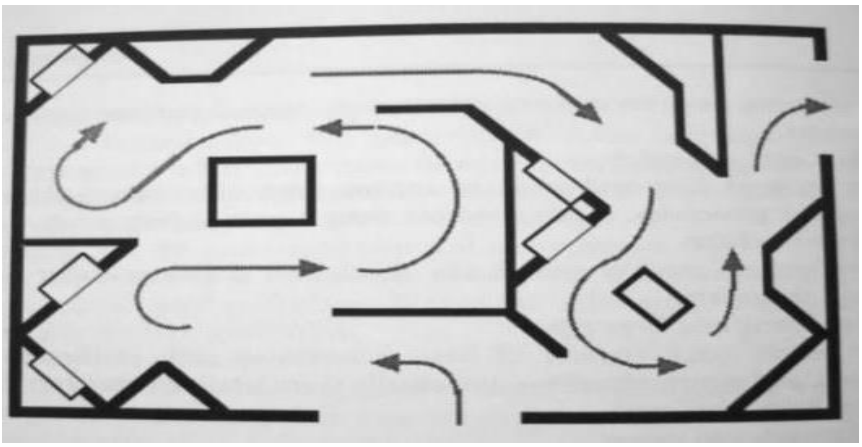


Figure 2.10: changeable circulation (Madran, 2012).

Figure 2.11: circulation which based on partitions (URL13).

2.2.2 Examples from Turkey

2.2.2.1 Sakip Sabanci Museum

The museum is located in Istanbul in one of the oldest settlements of Bosphorius. The mansion was belong to the Industrialist Haci Omer Sabanci, and was designed by the Italian architect Edoardo De Nari in 1925. The mansion was also named as "the mansion with a horse" because of the horse statue which is installed in the garden, it is one of four sculptures taken from Sultanahmet Square, the statue is the 1984 sculpture of Louis Doumas which bought in the same year. However after death of Haci Omer

Sabanci, in 1966 the mansion was used enduringly by Sakip Sabanci as a home until 1974. In 1988 the mansion with all its collections and furniture, was given to the Sabanci University by the Sabanci family and converted into a museum. With the extension of a contemporary gallery, the exhibition areas were opened for visitors in 2002, as well with a more additions in the layout in 2005 (Erturk, 2004).

Sakip Sabanci Museum represents the art of the book and calligraphy collection was documented in agreement with contemporary exhibition approach for the 10th anniversary of the museum, thus allowing the visitors to experience from new technologies to view examples of traditional arts (URL2).

Figure 2.12: The main entrance in the main façade of the building as well the horse sculpture in the middle of the garden (Author, 2016)

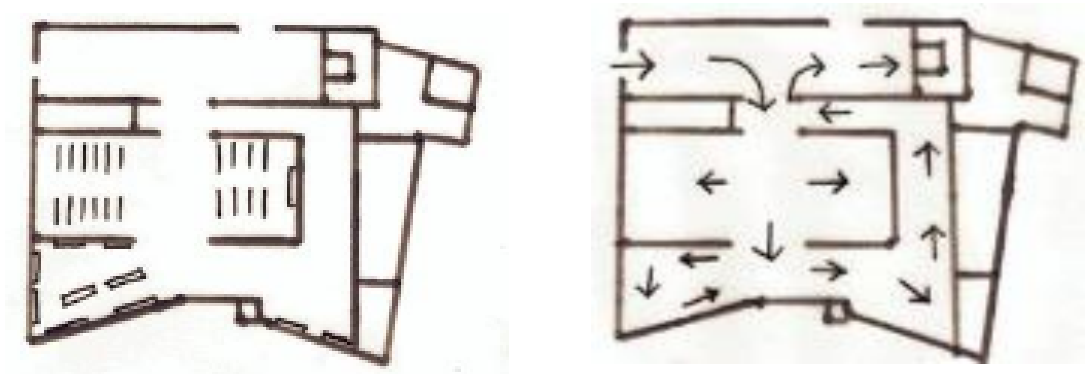


Figure 2.13: Amended plan drawing of Sakip Sabanci Museum ground floor, showing the circulation (Author, 2016).

Figure 2.14: Shows the lighting type of the museum exhibition (Author, 2016)

Figure 2.15: Shows a collection of painting which includes the late Ottoman and early republic eras and sculptures, especially attention is given to collection contrast between walls and displaying objects (URL7)

According to museums standards and principles design and conservation principles flowing points have been observed that:

The museum lighting: the main lighting elements here is the ceiling PARS as it shows in the (Figure 2.14), which distinguishable as new technique, in addition, also using compact Fluorescents in the other objects display, and it is also observed that there is also art work which lighted through the daylight it observed that some of the elements are not distinguishable from the originals.

The museum colors: the main color which used is white , which is not the original color of the building , the color has been used to make a contrast with the displaying objects as it shows in (Figure 2.15), in addition these colors change according to the displaying object and this give the visitors some codes and signals about the place such as the painting exhibition in the basement floor, however the use of color has been used as a new technique during the adaptive reuse process to meet the contemporary needs of museum designs .

The museum accessibility: the additions in terms of accessibility here concerning the elevators and ramps for disabled, which are not distinguishable from the original structure of the building, which also mean it is not easy to remove them.

The museum circulation: the vertical circulation of the building based on the staircase, which concerning as the original element of circulation, in addition the also the elevators and ramps are additions, and as it was mentioned in the accessibility they are not distinguishable from the original structure.

The museum furniture: the building adopt just movable furniture which are the different types of display units, there are no original or fixed furniture to be conserved.

2.2.2.2 Sadberk Hanim Museum

The building adopts two separate buildings of 19th century wooden villa , the original building of the mansion consists of three floors , the building was purchased by the Koç family in 1950 and used by them as a summer house, in 1978 they take a decision to convert the building into museum . The conversion process take place between 1978 -1980 then opened for public in 1988 with the Sadberk Koç collections on display. The ground floor of the mansion occupies 400 m2 the occupies 280 m2 from the total which consist of gift shop and small rooms in addition the main lobby entrance which decorated by the ancient Roman ornaments , the entrance let to the archeological section in the left side on the right side the Ottoman museum (Canan,2005) .

Figure 2.16: Sadberk Hanim Museum main elevation (URL, 12)

The exhibition section consist of three floors which used to display different types of the ancient objects such as Roman antiques , objects of Anatolian civilization , Bronze

age ,Iron age ,Byzantine art and Hellenistic age. The following are observed acceding to conservation principles on museum contemporary needs:

The museum lighting :elements which are used in this section are in line with modern museum standards design, halogen lamps in the display units and incandescent lamp is used in the callings, which are considered as additions, it observed that this elements are distinguishable as a modern technique .In addition there is also daylight which is coming from the third floor.

The museum color: The exhibition section walls and floors are covered by black color, which is not the original color and also it's not distinguishable from the original color which used to create a strong contrast with the displayed objects.

The museum circulation: the museum circulation based on its original circulation elements, stair case, there are no additions.

The museum accessibility: there are no additions in terms of building accessibility which is not accessible for disabled because of the vertical elements.

The museum furniture: the originals here represent on the historical objects which are conserved as they are, in addition the display units here conceded as the additions or the movable furniture, which are distinguishable as modern technique**.**

Figure 2.17: the contrast between the black color in walls and the displaying objects (URL 12)

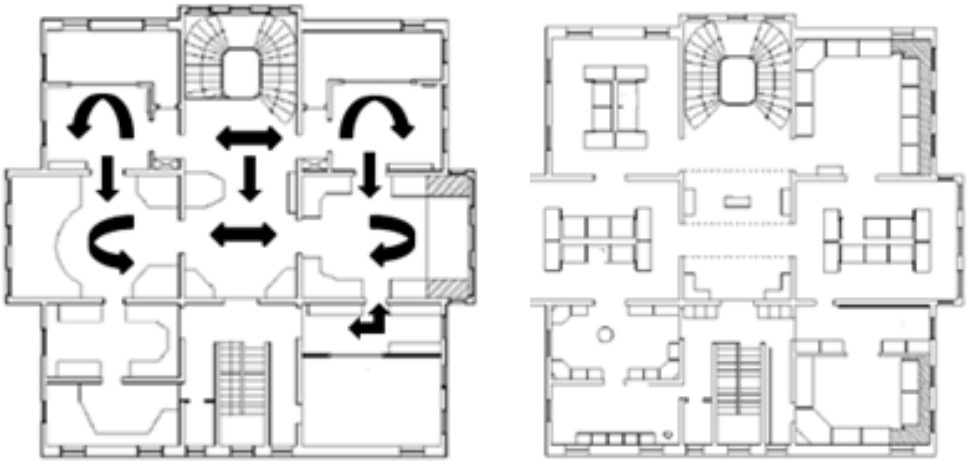


Figure 2.18: First and second plans of Sadberk Hanim Museum with display units and circulation (Canan, 2005).

The Ottoman section which represent as the second floor of the museum, can be considered as a type of ethnographical museum which displays the Ottoman period life style which includes clothes, antiques, jewels and some furniture .

This section's circulation is based on the original building's circulation elements which is wooden staircase. During the conversion process they remove the doors to make it appropriate and visible for visitors from exhibition to other , in addition the display units, which are considered as additions or movable and they are distinguishable from the originals , in some exhibition rooms the units are distributed at the center of the room which facilitate the circulation for visitors (Figure 2.18) , in the other rooms the display units distributed within the rooms walls which also easy to follow (Figure 2.18), however the building also adopts original furniture which cindered as fixed they conserved as they are . In terms of the lighting types the main light elements is the building original lighting elements which used before the conversion, in addition, they used halogen lamps in the display units, which is distinguishable from the originals. There is no additions interim of accessibility which not accessible for the people with disabilities, as the vertical circulation is just based on the wooden staircase. The building is based on its original colors.

Figure 2.19: The Ottoman day life style and their furniture (URL12).

Figure 2.20: The glass display unit and the contrast between the objects and background (URL12)

Figure 2.21: The Original furniture of Sadberk Hanim, showing the Exhibit rooms and objects are not open for circulation of visitors (URL12)

2.2.3 Chapter conclusion

As a conclusion in this chapter there are some extracted criteria; circulation, lighting, color, furniture the original ones and additions and the accessibility. All these criteria will be used to check the missing requirement of the selected case studies, in addition, concerning in the requirements of historic houses that are converted into museums are

explored in this chapter as examples. The analysis will be conducted through extracted conservation criteria of the part one of this chapter, to achieve the aim of this thesis which how successfully reuses historic houses as museum. All these criteria will be used to analyze the case studies which have been chosen from the Walled City Nicosia Northern Cyprus; Dervish Pasha Mansion, the Lusignan house, Eaved House and Dr. Fazil Küçük Museum in the following.

The following table has been extracted from the museology principles and adaptive reuse principles, therefore the table formulated to reflect the adaptive reuse principles on the contemporary museology.

Table 2.4: Museology extracted principals reflected by conservation criteria

Conservation principles		Museums standards				
		Circulation	Lighting	Color	Furniture	Accessibility
Venice Charter (1964)	New additions should be distinguishable	The new elements of vertical circulation and rams should be distinguishable from the original building.	The lighting elements must be distinguishable from the original materials in the celling or walls.	The additional colors in the buildings should be distinguishable.	The newly added furniture such as display units should be distinguishable from the original furniture of the building.	All the additions for accessibility should be distinguishable such as disable toilets and ramps.
	New additions should be reversible	Returning the building to its original circulation should be possible.	The elements should be easy to remove without damage the celling or wall.	The materials of panting shouldn't be fixed and easy to remove	The materials which used for furniture must be made from similar materials of the historical furniture.	Any removable objects or elements to create an accessible way for visitors such as doors must be easy to remove at any time
Burra Charter (1999)	Authentic fixtures, objects and Contents which are contribute to the heritage cultural significance of a place should be retained	The historical object, which is display in display units, must not interrupt the building circulation.	The original elements of historical lighting must be conserved and retained at its same place because of its cultural significance value.	Additional color should not create a huge change on the building original color	The cultural significance furniture should be conserved and protected at its place	The original Contents, fixtures and objects must have an accessible explanation about its condition such as label text
	Adaptation should involve minimal change to the original building	The additional elements of circulation should have a minimal change, in addition doesn't interrupt the original building features.	The lighting elements which are additional should involve minimal change the original ceiling and walls of the building.	Additional color should not create a huge change on the building original color	Any change in the original furniture should meet the new function needs, must have minimal change.	Additional elements for accessibility must include minimal change to the heritage building
Athens Charter (1931)	Contemporary techniques and materials can be used in conservation	The possibility of additional modern techniques to meet the new functional standards.	Lighting elements which should use contemporary techniques.	The contemporary painting materials and techniques are possible it is easy to remove, and also have minimal impact on the building.	Display units which used to display the historical objects should incorporate contemporary techniques	The label text which designed to explain the historical objects , in addition the visual show which also explain the building history should include contemporary additions technique

Chapter 3

CASE STUDY ANALYSIS

3.1 Brief historical background of Cyprus

Cyprus is known as the third largest island in the sea of the Mediterranean; the history of the island dates back to 4,000 years. The first era was called the ancient period (Mallinson, 2011).

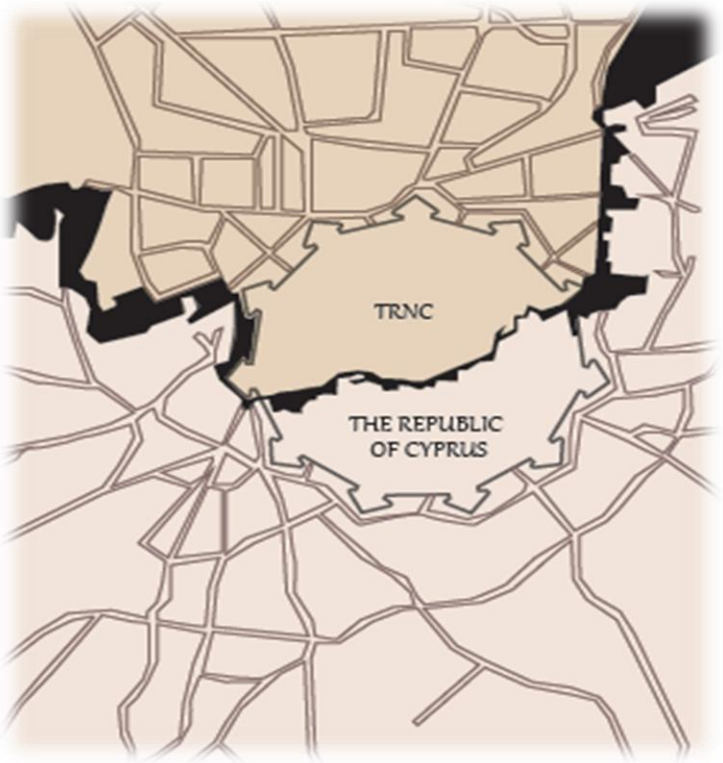


Figure 3.1: The map of the Walled City of Nicosia the Northern and Southern Part as well as Buffer Zone controlled by the United Nation. (Author, 2016)

Neolithic period (8200 – 3900 B.C): there were a number of settlements which were built of stone. These ancient settlements date back to 5800 B.C with the first civilization of the island dating back to the 9th millennium.

Chalcolithic period (3900 -2500 B.C): Cyprus became the leading viable center and exporter of the bronze and copper industry. This period was followed by the Bronze period 2500-1050 B.C (Coufoudakis, 2011).

Byzantine period(330-1191 A.D): Cyprus shared the Greek and Christian cultures, churches and monasteries were the most significant structures, some of them still survive to the present with most of them still remaining in their original decoration .

Lusignan period (1192-1489): Cyprus was known for its architectural innovations during the Lusignan era. Therefore Cloisters and Churches were built on the island, Gothic architecture in Cyprus was French influenced and was constructed accordingly to Lusignan Kings and Queens's taste, furthermore the political and economic motives made Gothic architecture effective in Cyprus and three main Gothic styled schools served as the main influence. (Guven, 1999).

Venetian period (1489-1571): majority of the city walls of Famagusta and Nicosia as they appear at the present, were built during this period.

Ottoman period (1571-1878): built a row of fortress and immunizations which was established at the southern part of the island such as Limassol, Larnaca and Paphos. At that time Nicosia emerged as vital commercial center of the Eastern Mediterranean between Caramania and Egypt. Ottomans brought their life style as

they did in other providence; the main structures in Nicosia displayed a religious character, which were converted from the gothic churches. However during the early Ottoman period most of the cathedrals and churches were converted into mosques, in addition to establishment of commercial sites such as Buyuk Han, stores and the shopping streets were also developed. Therefore the adaptive re-use approach was followed widely in the history of Cyprus especially in the Ottoman period (Burkan, 1962).

The British Colonial period (1878-1960): came into the island with their unique architectural style and features and they also adopted the existing buildings. The period style appeared especially in the Government buildings, offices, and houses most of these structures are still in use at the present time. The British colonial era, in Cyprus can be divided into two:

First architecture period (1878 -1930): defined as the most productive period in terms of construction, which carried specific political and architectural solutions for the island. All materials were used for structure taken from Cypriot environment, such as the yellow stone (Ozay, 2005).

Second architecture period (1930 -1960):.British introduced a new ideology, ignoring the Islamic life style as a tradition from the precedent period especially regarding the building materials. Concrete and the reinforced concrete system were applied in the construction, the use of the new material sand means of construction were advanced which is different from the old materials such as marbles, yellow limestone and wood, these supported the possibilities of increasing the number of floors (Ozay, 2005).

The modern period after 1960 following the British colonial period the Republic of Cyprus was established in 1960.After that in 1963, the conflict between the Turkish and Greek ethnic communities was intensified, and in1974, the Cyprus was divided where the northern part was predominately controlled by the Turkish Cypriots and the southern part is controlled by the Greek Cypriot community. Following 1970s, the flat roofs which were dominant to the inclined ones. Meanwhile in 1980s the structures started to be more modern to meet the daily needs (Ozderen, 2001).

The architectural development take place in Cyprus , meanwhile during 1960-1970 the traditional techniques and materials lose their popularity because of the reinforced concrete and tow story buildings were built. After 1970 there are new type of units were constructed by private people and also the use of the flat styled roofs. In 1980, the architectural projects were initiated by the local authorities with the purpose of meeting the period needs (Ozderen, 2001).

In 1999 different kinds of buildings such as tow story and apartments, the building structures started to change and constructed with more care about the quality and materials , building start be more modern and more than two story such as used large glass dimension in the openings. (Ozay, 2005).

Figure 3.2: Lusignan period example St. Nicholas Cathedral in Famagusta (Author, 2016)

Figure 3.3: The Eaved House from the medieval age and Ottoman Period (Author, 2015)

Figure 3.4: The Lusignan House, represent both period Ottoman and Lusignan architecture (Author, 2015)

Table 3.1: Summary of the islands different periods over time

Ancient time	
Neolithic period	8200-3900 B.C
Chalcolithic period	3900-2500 B.C
Bronze period	2500-1050 B.C
Competing Influences	1050-333 B.C
Medieval	
Byzantine Era	330-1191 A.D
Lusignan period	1192-1489
Modern	
Venetian Rule	1489-1571
Ottoman Rule	1571-1878
British Rule	1878-1960
Independence: The Republic of Cyprus	1960-1963
International Negotiations	1968-1974
The De-facto Division	1974
The Turkish Federated State	1975-1983
Turkish Republic of Northern Cyprus (TRNC)	1983

3.1.1 Conservation of Built heritage in North Cyprus

The contemporary concept of heritage protection has been carried out internationally by the organizations such as the UNESO, ICCROM and ICOMOS; these organizations set the standard of conservation for the international heritage. On the other hand, each country has its own set of guidelines for heritage protection. Northern Cyprus has rich heritage which is protected by a set of laws by the

Department of Antiquities and Museums which was first established during the British colonial period in 1935 (Kolo, 2015). The department is responsible for the heritage protection, conservation, and excavations. The following necessities are made by the Department of Antiquities and Museums to preserve the heritage in Northern Cyprus.

- "All churches, ancient ruins, castles and abbeys are governed and cared for as all ancient sites and museums.
- The illegal digging or salvaging of the nation's heritage by any person or persons, whether on land or around the seas surroundings these costs, is viewed with extreme seriousness by the authorities (Dep .A.M., 2014).

3.2 Case Study Area: The Walled City Of Nicosia Northern Cyprus

Nicosia has a long, varied and sometimes disputed history which appears in its architectural context, most obviously in its historic Walled City, as the center. It veteran centuries of different rules such as; Ptolemaic, Roman, Byzantine, Crusader/Lusignan, Venetian, Ottoman and British occupations, earlier before it become the capital of an independent Cyprus in 1960. However in 1974 the struggle between Turkish Cypriot and Greek Cypriots lead to the separation of the island being separated into two sections. Meanwhile each section controlled by different political entity. The Southern part, which occupied predominantly by the Greek Cypriots , continued to be the capital of the Republic of Cyprus; while the Northern part, became the capital of the Turkish Republic of Northern Cyprus (TRNC) in 1983 , which is currently only recognized by the Turkish Republic internationally (Al-Asad, 2007) .

The Northern part of the capital (lefkosa) was also divided into two main parts, the walled city and the newly developed areas. The walled city has a firmly join urban fabric. The majority of the buildings are built of plastered sun-dried brick and yellowish stone. They range in size according to the building function. However, heights are limited to two stories in general. Spiritual and other community buildings are the largest and most dominant. There is a variety of building styles, which are reflecting the different periods of the Walled City history: Gothic Lusignan, Byzantine, British and Ottoman, in addition to the neo-classical to the modernist (Al-Asad, 2007).

However, majority of buildings for the arts are located in the Walled City of Nicosia (North) has been converted from their original function according to the contemporary needs. On the other hand according to The Department of Antiquities and Museums of TRNC all of the museums located within the walled city are converted buildings, some of them converted from a domestic use into a museums or gallery by the Department of Antiquities and Museums. This research focuses on these types of buildings within the walled city, with the aim of formulation of a set of guidelines specifically studied for this purpose.

According to the contemporary needs of The Department of Antiquities and Museums of TRNC all of the museums located within the walled city are converted buildings, some of them converted from a domestic use into a museums or gallery by the Department of Antiquities and Museums. This research focuses on these types of buildings within the walled city, with the aim of formulation of a set of guidelines specifically studied for this purpose.

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The following map shows the location of the converted museums within the Northern part of the Walled City of Nicosia and focuses on the three buildings which are converted from a domestic use into a museums or gallery.

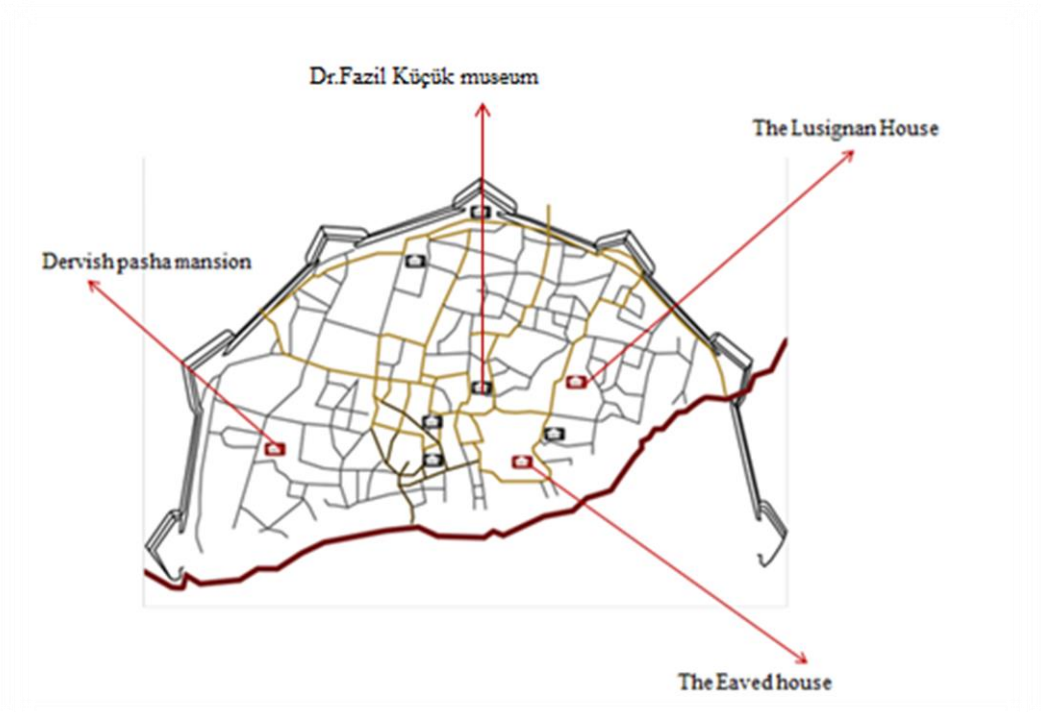


Figure 3.5: The map the Walled City of Cyprus the Northern Cyprus and the converted museums within the walled city

3.2.1 Historical Background of the Case Studies

The analysis which were adopted for this research would be done with each case study building, (Dervish Pasha Mansion, The Eaved House, Lusignan House and Dr.Fazil Küçük Mansion) are as follows

- Part one the conservation process concerning the conservation values and the building architectural elements according to (Table 2.1) which extracted from the previous chapter part one.

- Analysis Part two would be done according to the conservation criteria on the museology contemporary needs principles, which would be done according to (Table 2.2), which has been extracted from part two theoretical framework.

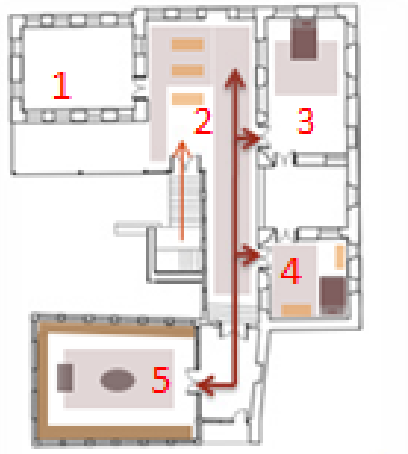
3.2.1.1 Case study (1) Dervish Pasha Mansion

Dervish Pasha is one of the well-known historic mansions in the Walled City of Nicosia. The building goes back to Ahmed Dervish Pasha (1841-1910), who was one of the leading Turkish Cypriot figures. The mansion is an example of Ottoman architecture. The building was constructed in 1869, and goes back to the Ottoman regulations in Cyprus .It is situated within the Walled City of Nicosia; Arabahmet area. In 1900 the building was in a poor condition and taken over by the state between the period 1978 and 1988 which was re-used as an ethnographic museum. The mansion consists of two stories; the ground floor was built by the stone, while the second floor was built by the mud brick. The ground floor rooms are opened onto the colonnaded veranda, surrounding the inner garden. The ground floor consist of many rooms displaying Cypriot everyday life style , the main hall display some antiques and furniture which belongs to the Ottoman period as well (Olagoke, 2014).

Figure 3.6: The main façade of Dervish Pasha Mansion (Author, 2015).

Building plan
1Reception lobby
2 Courtyard
3Waiting room
4 Antiquities room
5 Kitchen

Figure 3.7: Ground floor plan of Dervish Pasha Mansion. (Author, 2015, based on Department of Antiquities and Museums original drawings)



Building plan
1 Display units room
2 Displayed lobby
3Bridal room
4 Antiquities room
5 Meeting room

Figure 3.8: First floor plan of Dervish Pasha Mansion. (Author, 2015, based on Department of Antiquities and Museums original drawings)

For a long time after construction, the building was miss- used and without repair until in 1978 when the Department of Antiquities and Museums started the adaptation process. The whole process lasted for ten years, as it was completed in 1988, when converted to an ethnographic museum showcasing the life-style of Dervish Pasha himself (Olagoke, 2014).at the present mom the building is under conservation, and closed for unless expected to be open .

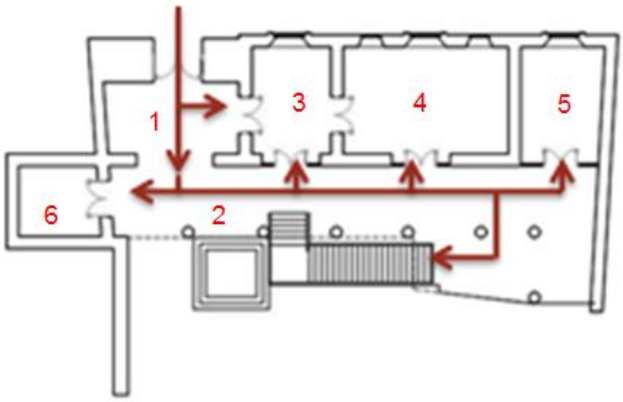
Table 3.2: Dervish Pasha Mansion condition before and after the conversion through displaying some pictures from the Department Of Antiques And Museum Archive

Architectural features of the building before and after the conservation process	
 The main exterior entrance before the conservation (Department Of Antiquities And Museums Archive, 1978)	 The main entrance after the process of conservation (URL 3)
 The interior view shows the condition of the wooden doors before conservation (Department Of Antiquities And Museums Archive, 1978)	 The interior after the conservation process (URL,2)
 The interior view shows the wooden ceiling and windows condition before conservation (Department Of Antiquities And Museums Archive, 1978)	The interior view shows the wooden windows after the conservation process (URL,2) 
 The exterior condition of the building before the process of conservation (Department Of Antiquities And Museums Archive,1978)	 The exterior condition of the building and its surroundings(URL,2)
 The vertical circulation condition (Department Of Antiquities And Museums Archive,1978)	 The interior courtyard with the vertical circulation after the process of conservation (URL,2)

3.2.1.2 Case Study (2) the Lusignan House

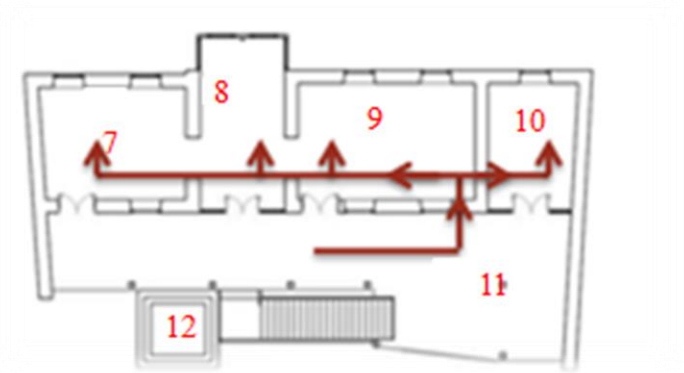
Historical background: The building dates back to the 15th century, and is also situated in the Walled City of Nicosia ,Northern Cyprus .The building was built as a residential building for the Latin nobles , for a Russian family during the Lusignan period of Cyprus (Pulhan, et al ,2006) . The building was in a decrepit state until the Ottoman period (Salvator, 1983). The house used by Turkish family Kalorio Al Efendi in 1958 then the building had been used as residence and weaving work shop by a Russian family . After that the mansion has been bequeathed by the Cyprus government, and emptied in 1980, and then the building was partitioned and used by the refugees. Finally the building has been controlled by the Department of Antiquities and Museums and converted into a museum and opened for the public in 1997. The mansion furnished with original furniture of the Ottoman and Lusignan period (Dep .A.M., 1997).

Figure 3.9: The main façade of the Lusignan (Author, 2016).



Building plan
1-Entrance
2- Veranda
3- Information rom
4-Weaving room
5-buffet
6 Cloak room

Figure 3.10: Ground floor plan of the Lusignan House (Author, 2015, based on Department of Antiquities s and Museums original drawings)



Building plan
7-Meeting room
8-Rest room
9-Cofee room
10-Secretary room
11- Veranda
12- Pool

Figure 3.11: First floor plan of the Lusignan House (Author, 2015, based on Department of Antiquities and Museums original drawings) the building is not accessible at the present time.

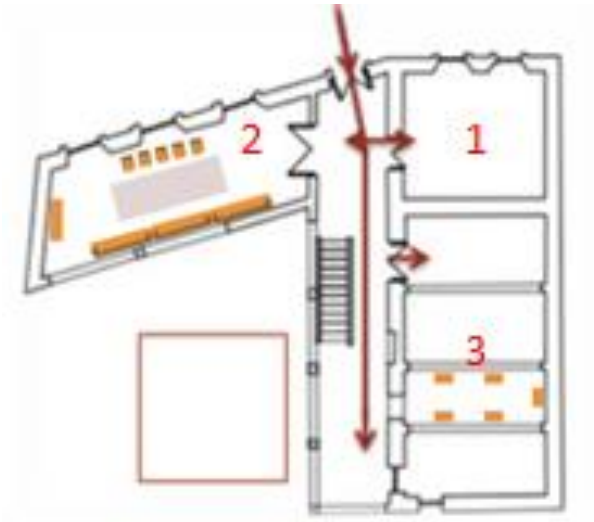
Table 3.3: The Lusignan House Architectural Features condition before and after

Architectural features of the building before and after the conservation process	
 the main façade of Lusignan house before conservation the (Department of Antiques and Museums Archive,1980)	 The main façade of Lusignan house after conservation (by author, 2016)
 the main wooden entrance before the conservation process (Department of Antiquities and Museums Archive, 1980)	 The main wooden entrance after the conservation process (URL,5)
 the corridor of the ground floor condition during the process of conservation (Department of Antiquities and Museums Archive,1980)	 the corridor of the ground floor condition after the process of conservation (Department of Antiquities and Museums Archive,1997)
 the Lusignan pool condition during the conservation work (Department of Antiquities and Museums Archive,1980)	 the Lusignan pool condition after the conservation work (Department of Antiquities and Museums Archive,1997)
 the stone vertical circulation before the conversion (Department Of Antiquities And Museums Archive,1980)	 the stone vertical circulation after the process conversion finish (Department of Antiquities and Museums Archive,1997)

3.2.1.3 Case Study (3) the Eaved House

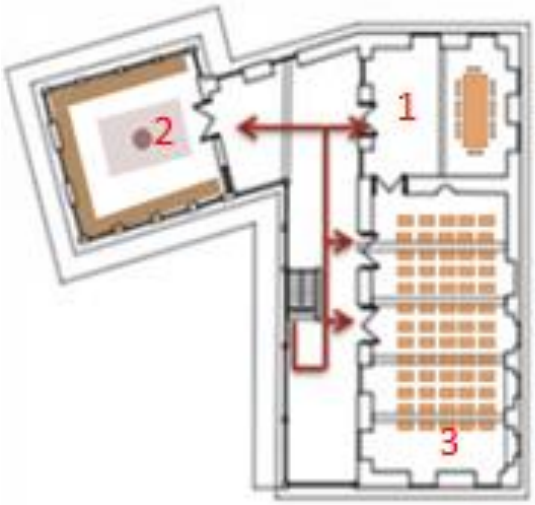
The building is located in the Kutuphane Street of Selimiye district, within the Walled City of Nicosia Northern Cyprus. It has been named as the Eaved House after the extensive eaves which supported by tending columns of the main reception of the building .According to Department of Antiquities and Museums the exact day of construction is not known, on the other hand according to the found evidence in the front façade of the building shows that the building belongs to the middle ages (URL10). The house has been repaired during the Ottoman period through using the Ottoman architectural features in addition to some middle age remnants. Finally in 1994 the building was adapted as a gallery of culture and art, by the Department of Antiquities and Museums and opened for the public in 1996 (Dep .A.M., 1996).

Figure 3.12: The main façade of the Eaved House and its surroundings (Author, 2015).



Building plan
1 Reception room
2Exhibition room
3Conference hall

Figure 3.13: Ground floor plan of the Eaved House (Author, 2015based on Department of Antiquities and Museums original drawings)



Building plan
1Meeting room
2 Wafting room
3 Exhibition room

Figure 3.14: First floor plan of the Eaved House (Author, 2015, based on Department of Antiquities and Museums original drawings).

Table 3.4: The Eaved House condition before and after the conversion.

Architectural features of the building before and after the conservation process	
 The building exterior façade before the conservation work (Department of Antiquities and Museums Archive,1932)	 The building exterior façade after the conservation work (by author , 2015)
 The arches of the main courtyard condition before the conservation. (Department of Antiquities and Museums Archive,1932)	 The arches of the main courtyard after the conservation. (URL,4)
 The ceiling before the conservation work (Department of Antiquities and Museums Archive,1932)	 The ceiling situation after the conservation work (by author, 2015)
 The openings of the building before c the conservation process (Department Of Antiquities And Museums Archive,1932)	 The opening of the building after conservation process (Department Of Antiquities And Museums Archive, 1996)
 The main gallery before the work of conversion (Department Of Antiquities And Museums Archive,1932)	 The main gallery after the work of conversion (Department Of Antiquities And Museums Archive, 1996)

3.2.1.4 Case Study (4) Dr. Fazil Küçük Museum

The building belongs to Dr.Fazil Küçük who was born in 1906 in Ortakoy Nicosia, and died in 1984. He was one of the famous political figures for Turkish Cypriot, he was the head of a general committee which created to deal with the crisis and also he was the first vice president of the Republic of Cyprus (1960-1963), in addition, he was also the head of the provisional Cyprus Turkish Administration which was established on1967 .The building is located within the walled city of Nicosia northern part, it was constructed in 1942. During 1946-1960 the Küçük family was lived in the mansion, the mansion converted into museum in 2014 and finished in 2016 .The decision of the conversion taken by the Küçük family to keep the building historical value. The funding of the conservation process from the Turkish embassy (Siber, 2016).

The museum can be considered as a kind of ethnographical museum, which displays Dr Fazil Küçük's life style; the conservation process was done by the Department of Antiquities and Museum. The building consists of two floors, the ground floor consists of a reception room , Dr. Fail's office, his medical clinic, and a small trace which adopt the statue of Dr.Fazil , the first floor consist of two displaying rooms, display hall, dining room, kitchen and Dr Fazil's bed room. The mansion adopts one main addition, which was implemented in 1959, the balcony in the main façade (Siber, 2016).

Figure 3.15: the main façade of Dr. Fazil Küçük museum (Author, 2016)

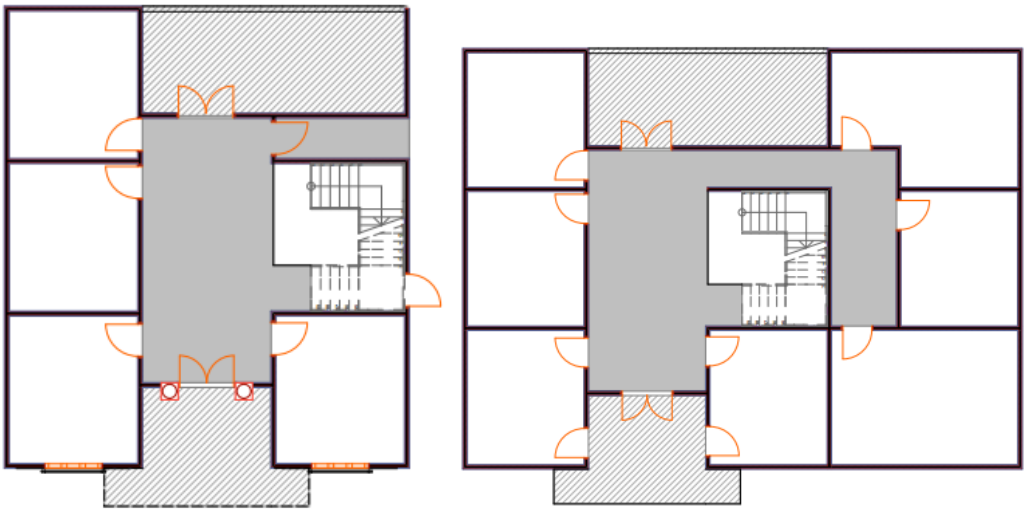


Figure 3.16: Amended plans of Dr.Fazil Küçük ground and first floor (Author, 2016)

3.2.2 Analysis of the Conservation Processes

This section focuses on the process of conservation through adaptive re-use, the analysis criteria has been extracted from the internationally accepted documents of conservation, the International Charters for conservation of historic buildings; namely the Burra Charter , the Athens Charter and the Venice Charter . Moreover the criteria which has been extracted in the second chapter will be included here; the focus will be on the conservations values and architectural features of the heritage buildings, which are the exterior includes; Cumba, window type and proportion, roofs, arches, doors ornamentations and walls, the interiors includes; Ceiling ornamentation, column ornamentation, staircase, furniture originals and additions and floor all this come under asthmatic values.

Table 3.5: Dervish Pasha Mansion analysis of Conservation Processes

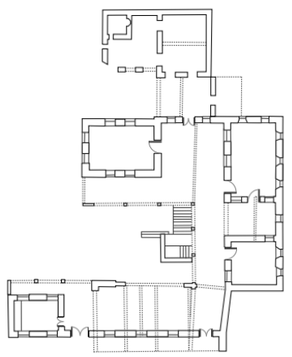
<table>
<tr><td colspan="2" rowspan="3">DERVISH PASHA MANSION</td><td>Location : Walled City North Nicosia</td><td>Date of construction: 1869</td></tr>
<tr><td>Architectural Period : Ottoman</td><td>Date of conversion : 1988</td></tr>
<tr><td>Original function : Mansion</td><td></td></tr>
<tr><td colspan="2">AESTHETIC VALUES</td><td>SYMBOLIC VALUES</td><td>UTILIZATION VALUES</td></tr>
<tr><td colspan="2">Artistic value: the building has many architectural features that are original and belong to the Ottoman , which are present the values</td><td rowspan="10">Age / authenticity value: many architectural features are either original or re-produced with original materials.
Documentation value: the building is an important document of Ottoman architecture in Cyprus.
Memorial value: Ahmed Dervish Pasha a journalist and his life time values will be remembered.
Historical value: The mansion has many historical values which attached to it. being one of the most important buildings of the Ottoman rule , as well as being stand and served as museum 1988 within the historical walled city
Exceptionally value: the building is an exceptional building in its environment because its showcase a unique example from the Ottoman period.</td><td rowspan="10">Functional value: the building was built as a mansion and now it is converted into an ethnographical museum.
Economic value : the building is in use for touristic purposes and therefore it creates an income and economic value for TRNC
Political value: The building was one of the most significant buildings which belong to Ahmed Dervish Pasha 1843-1910, who was one of the Turkish Cypriot leading member moreover the museum displayed the life style of the Ottoman during their rules in Cyprus, some of the displaying rooms shows the style of the meeting rooms of the leading figures which present the political values of the building.
Educational value: the building, especially being an ethnographical museum, has an important educational value.
Recreational value: this value represents the new function as museum.</td></tr>
<tr><td colspan="2">stylistic value: represent in Ottoman traditional architectural style</td></tr>
<tr><td colspan="2">Picturesque value: the final appearance of the buildings after the adaptive re-uses process.</td></tr>
<tr><td colspan="2">BUILDING ELEMENTS</td></tr>
<tr><td colspan="2">Exteriors</td></tr>
<tr><td>Cumba</td><td>The exterior façade shows the original style of the Ottoman residential building before and after the adaptive re-use process.</td></tr>
<tr><td>Windows Types/Proportions</td><td>Traditional wooden Ottoman widows from the exterior with same proportions , in addition , the interior windows are different , were made from steel frame and glass and are almost with the same proportions</td></tr>
<tr><td>Roof</td><td>Ottoman traditional roof (hip roof)</td></tr>
<tr><td>Arches/Interior – Exterior</td><td>The building adopt Equilateral interior arches which is artistic evidence from the Ottoman</td></tr>
<tr><td>Doors / Door Ornamentation</td><td>Main material was wood before and after conservation , even the ornamentation above the wooden door</td></tr>
<tr><td>Walls</td><td>The main material which used in the original construction was mud bricks which also used during the adaptive reuse process.</td><td rowspan="5">  </td><td rowspan="5">  </td></tr>
<tr><td colspan="2">Interiors</td></tr>
<tr><td>Ceiling Ornamentation</td><td>The original materials; wood before and after adaptive re-use , there isn’t any type of ornamentations within the ceiling</td></tr>
<tr><td>Column Ornamentation</td><td>The building dons not contain any type of Column Ornamentation</td></tr>
<tr><td>Staircase</td><td>The original was wooden staircase made as well as the repair one with same colors</td></tr>
<tr><td>Furniture /original And additions</td><td>The interior elements such as the furniture was made according to the original ones which are immovable ones , except the movable furniture ,which are the displaying stand made from the steel and glass</td></tr>
<tr><td>Floor</td><td>Traditional stone before and after adaptive reuse</td></tr>
</table>

Table 3.6: The Lusignan House analysis of Conservation Processes

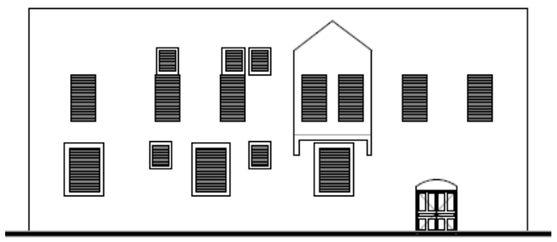
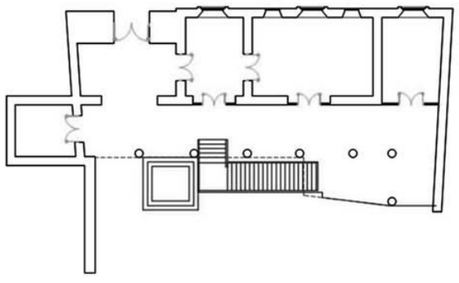
<table>
<tr><td colspan="2" rowspan="3">LUSIGNAN HOUSE</td><td>Location : Walled City North Nicosia</td><td>Date of construction : 15th century</td></tr>
<tr><td>Architectural Period: Ottoman and Lusignan</td><td>Date of conversion :1997</td></tr>
<tr><td>Original function : Mansion</td><td></td></tr>
<tr><td colspan="2">AESTHETIC VALUES</td><td>SYMBOLIC VALUES</td><td>UTILIZATION VALUES</td></tr>
<tr><td colspan="2">• Artistic values : the building adopt an original art work which belong to the Lusignan period survived and conserved until the present such as the jumba which represent the artistic value of the building .
• Artistic value: represent in Ottoman and Lusignan architectural
• Picturesque values: the final appearance of the buildings after the conservation process shows and represents the picturesque values of the building.</td><td>• Age / authenticity value: the building belongs to the 15th century and survives until present with important and original features.
• Documentation value: the building is an important document of Ottoman and Lusignan period architecture.
• Memorial value: the memorial values of the building came from the history of Ottoman and Lusignan periods in Cyprus. the building remind the house style of both periods of time with fulfill representation of the periods architectural
• Historical value: the mansion has many historical values which attached to it. Being as residence building and weaving work and stand served as museum in1997 within the historical walled city.
• Exceptionally value: the building as an exceptional building which dated back to Lusignan but also incorporates Ottoman architectural features.</td><td>• Functional value: the building built as mansion and now converted into museum.
• Economic value : the building hosts many different kinds of art events throughout the year , and has an important resource value for touristic purpose , in addition , many different kinds of cultural events take place in this building throughout the year .
• Political value: The building was never used by a political figure as well for political issue in the past, while the government of Northern Cyprus (TRNC) lately use it as refugees house before converted into museum
• Educational value: the building didn’t serve as an educating function through the time.
• Recreational value: this value represent in the new function of the building from domestic use into museum.</td></tr>
<tr><td colspan="2">BUILDING ELEMENTS</td><td rowspan="11">  </td><td rowspan="11">  </td></tr>
<tr><td colspan="2">Exteriors</td></tr>
<tr><td>Cumba</td><td>The exterior façade shows the original style of the Ottoman with Cumba and Lusignan style with the stone walls</td></tr>
<tr><td>Windows Types/Proportions</td><td>Wooden windows from the exterior also and interior , the material of conservation similar to the original</td></tr>
<tr><td>Roof</td><td>Flat roof before and after conservation process</td></tr>
<tr><td>Arches/Interior – Exterior</td><td>The building adopt interior arches from the Lusignan period which also represent Gothic architecture</td></tr>
<tr><td>Doors / Door Ornamentation</td><td>The original material was wood with Lusignan ornamentation and it’s conserved as its.</td></tr>
<tr><td>Walls</td><td>The evidence in the walls shows the original wood decoration of Lusignan period, during the conservation work use almost the same colors and materials to show the materials authenticity.</td></tr>
<tr><td colspan="2">Interiors</td></tr>
<tr><td>Ceiling Ornamentation</td><td>The ceiling in the past was decorated by the Lusignan style as well during the conservation the decoration had been taken in the consideration and return them to their original colors</td></tr>
<tr><td>Column Ornamentation</td><td>There are no ornamentations within the building columns</td></tr>
<tr><td>Staircase</td><td>The original was stone with wooden shelter the conservation materials which used are almost the same.</td></tr>
<tr><td>Furniture /original And additions</td><td>The originals from both periods are conserved as they are</td></tr>
<tr><td>Floor</td><td>Traditional Cypriot stone</td></tr>
</table>

Table 3.7: The Eaved House analysis of Conservation Processes

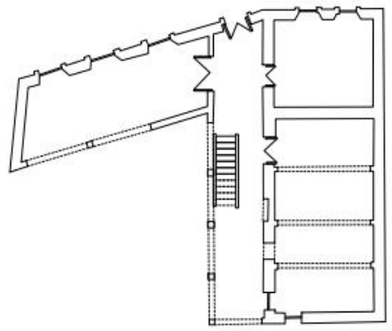
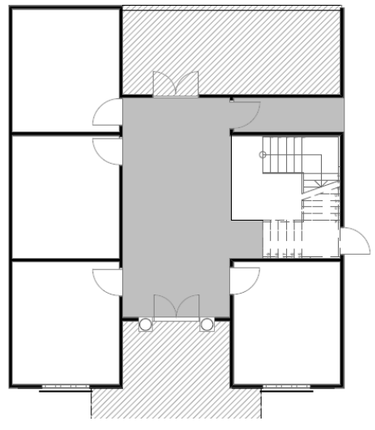
<table>
<tr><td colspan="2" rowspan="3">EAVED HOUSE</td><td>Location : Walled City North Nicosia</td><td>Date of construction :middle age</td></tr>
<tr><td>Architectural Period: Middle age and Ottoman</td><td>Date of conversion :1994</td></tr>
<tr><td>Original function : Mansion</td><td></td></tr>
<tr><td colspan="2">AESTHETIC VALUES</td><td>SYMBOLIC VALUES</td><td>UTILIZATION VALUES</td></tr>
<tr><td colspan="2">• Artistic values: the building showcase artistic features of Cypriot domestic architecture, in addition the survived Jumba in the main elevation represent the artistic value of the .
• Stylistic value : middle age Ottoman architectural
• Picturesque values: the final appearance of the buildings after the adaptive re-use process shows and represents the picturesque values of the building.</td><td rowspan="2">• Age / authenticity value : since the building has survived until present with its some original features such as the gothic arches this represent the age and authenticity value of the building
• Documentation value: the building is a living document of important period of middle age and Ottoman architectural.
• Memorial value: many memories of Cypriots were hosted in this building.
• Historical value : since the building is situated within the historical Walled City Of Nicosia Northern Cyprus and represent the Ottoman style of residential architecture , as well the evidence which found during the conservation indicate that the mansion belong to the middle age
• Exceptionally value : it is a unique example of Cypriot architectural features survived up until the present.</td><td rowspan="2">• Functional value: the building transformed into a public use from domestic use, which shows its adaptability to new needs of the inhabitants.
• Economic value: the building is booked most of the time of the year, and creates an economic value by attracting many people to the Walled City.
• Political value: The building is one of the few buildings that used as gallery, hosts many political events as well.
• Educational value: the building educates about Cypriot architectural features of Ottoman period.
• Recreational value: represent in the new function as gallery.</td></tr>
<tr><td colspan="2">BUILDING ELEMENTS
Exteriors
Cumba — The exterior façade shows the unique style of Ottoman architecture which adopts Cumba.
Windows Types/Proportions — Wooden windows with similar Proportions in the interior also the exterior
Roof — The building roof goes through eaves which were applied as architectural orders , on the other hand it’s still keep its geometrical simplicity
Arches/Interior – Exterior — Gothic arches just from the interiors conserved as they are
Doors / Door Ornamentation — Wooden before and after conservation
Walls — The original material was mud brick and same materials were used during the conservation
Interiors
Ceiling Ornamentation — Wooden Ceiling, does not adopt any kind of Ornamentation before and conservation process
Column Ornamentation — There are no Column Ornamentation
Staircase — The vertical element was originally wooden made the repair one as well is wooden with the same chartists
Furniture /original And additions — The building adopt Cypriot traditional furniture which considered as additions
Floor — Traditional Cypriot stone</td></tr>
<tr><td colspan="2">  </td><td>  </td></tr>
</table>

Table 3.8: Dr.Fazil Küçük analysis of Conservation Processes

<table>
<tr><td colspan="2" rowspan="3">Dr.Fazil Küçük</td><td>Location : Walled City North Nicosia</td><td>Date of construction :1942</td></tr>
<tr><td>Architectural Period: Modern</td><td>Date of conversion :2016</td></tr>
<tr><td>Original function : Mansion</td><td></td></tr>
<tr><td colspan="2">AESTHETIC VALUES</td><td>SYMBOLIC VALUES</td><td>UTILIZATION VALUES</td></tr>
<tr><td colspan="2">• Artistic values: the building showcases artistic features of Cypriot architecture.
• stylistic value : Cypriot architectural within historical walled city
• Picturesque values: the values represent in the final appearance of the buildings after the adaptive re-use process.</td><td rowspan="11">• Age / authenticity value: all the architectural features of the building are original with original materials.
• Documentation value: the building is an important document of Cypriot modern architecture, within the Walled City of North Nicosia.
• Memorial value: Dr.Fazil Küçük is popular political figure and his life time values will be remembered, also all his popular events.
• Historical value: The building has many historical values which attached to it. being a house of the Vice president , also being stand and served as museum 2016 within the historical walled city
• Exceptionally value: the building is an exceptional building in its environment because its showcase a unique example of Cypriot architecture.</td><td rowspan="11">• Functional value: the building was built as a mansion and transformed into ethnographical museum this represent the functional value.
• Economic value: since the building is used for a touristic proposes this represent the economic value of the building.
• Political value: The building was one of the most significant buildings which belong to Dr.Fazil Küçük , who was a popular political figure also he was the first vice president TRNC , the building at the moment present his daily life.
• Educational value: since the building, is especially converted into ethnographical museum, has an important educational value for the new generations.
• Recreational value: this value represents the new function as an ethnographical museum.</td></tr>
<tr><td colspan="2">BUILDING ELEMENTS</td></tr>
<tr><td colspan="2">Exteriors</td></tr>
<tr><td>Cumba</td><td>The building adopt a wooden balcony type instead of the Cumba</td></tr>
<tr><td>Windows Types/Proportions</td><td>The exterior windows are wooden with the same proportions</td></tr>
<tr><td>Roof</td><td>The building considered as modern structure which adopt a flat roof type</td></tr>
<tr><td>Arches/Interior – Exterior</td><td>There is no any type of arches in the exterior</td></tr>
<tr><td>Doors / Door Ornamentation</td><td>The original was wooden an it conserve as it is with all it ornamentations</td></tr>
<tr><td>Walls</td><td>The original was yellow stone and it conserved as it is</td></tr>
<tr><td colspan="2">Interiors</td></tr>
<tr><td>Ceiling Ornamentation</td><td>The building ceiling does not include any type of ornamentation</td></tr>
<tr><td>Column Ornamentation</td><td>There are no interior columns are appears</td></tr>
<tr><td>Staircase</td><td>The original was wooden one it conserved as its with almost the same color</td></tr>
<tr><td>Furniture /original And additions</td><td>The building adopts both type of furniture; the originals are conserved as they are; while the additions which are the display units are made from the same materials which are in harmony with the originals.</td></tr>
<tr><td>Floor</td><td>The building adopt traditional Cypriot stones in the ground floor and wooden in the first</td></tr>
<tr><td colspan="2">  </td><td>  </td></tr>
</table>

3.2.3 Conservation Principles on the Museology Principles Analysis

This section focuses on the new function given to the buildings after the conservation processes , therefore the museum functions , and adaptation of domestic buildings into this specific public function, has been discussed for the four case studies ;Dervish Pasha Mansion , the Lusignan House ,the Eaved House and the Dr.Fazil Küçük Mansion . The main aim of this analysis is to evaluate how successful is the adaptation of the old structure into museum. The analysis in this part would be done according to formulate table which has been extracted from the second part of the theoretical frame work of the study , however the criteria from the international charters such as the Burra Charter , the Athens Charter and the Venice Charter, which has been reflected on the museology contemporary needs principles , which are ; circulation , lighting, color ,furniture concerning the original furniture and the additions and finally the accessibility.

Table 3.9: The Dervish Pasha Mansion analysis

DERVISH PASHA MANSION		**Location :** Walled City North Nicosia			**Date of construction:** 1869	
		Architectural Period: Ottoman			**Date of conversion :** 1988	
		Original function : Mansion				
Conservation principles		**Museums standards**				
		Circulation	**Lighting**	**Color**	**Furniture: originals / additions**	**Accessibility**
Venice Charter (1964)	**New additions should be distinguishable**	The building based on its original vertical circulation elements which is the wooden staircase , there is no additional elements	The original type of lighting is daylight , the additional elements, which were add are distinguishable	The original color of the building is white before and after the conservation process , which is not distinguishable in terms of color material	There are two type of furniture in this case, firstly the original furniture which is are conserve as they are. Secondly, the movable ones which are represent in the display units, and they are distinguishable in terms of its materials.	there is no additions in terms of accessibility such as , elevators and ramps in term of circulation , in additions the labels which add to explain the building context are distinguishable , from the original .
	New additions should be reversible	There is no fixed additional elements in terms of circulation to interrupt the building reversibility	It observed that the lighting the additional elements are almost fixed which can interrupt the building reversibility.	The conservation color is white color, which also was the original, and it is easy to reverse.	The additions in terms of the furniture represent in the display units , which are easy to remove and reverse the building to its original condition	There are no fixed additions, such as disables toilets to interrupt the building reversibility.
Burra Charter (1999)	**Authentic fixtures, objects and Contents which are contribute to the heritage cultural significance of a place should be retained**	The wooden starecase which is authintic content , its coserved accoeding to its orginal place and materials	The original lighting elements are conserved and retained to its place.	The original color has retained after the conservation process	The original furniture of the building, which can be considered as a part of the cultural significance must be are conserved.	There are no originals except the wooden staircase or additions to be conserve.
	Adaptation should involve minimal change to the original building	The building adapt as an ethnographical museum and show the building original function with its original circulation	It observed that additional elements of lighting, after the adaptation include a minimal change.	The conservation color is almost the original one, which does not include any change to building originality.	The original are conserved as they are, in addition the additional after the adaptation process create a minimal change to the building.	There are no additions
Athens Charter (1931)	**Modern techniques and materials can be used in conservation work**	There are no modern techniques employed in terms of circulation during and after the conservation.	The modern techniques in terms of lighting elements does not meet the standards	There are no new techniques and materials.	The new additions are display units are not harmony with the originals	There are no additions

Table 3.10: The Lusignan House analysis

LUSIGNAN HOUSE		**Location :** Walled City North Nicosia			**Date of construction : 15th century**	
		Architectural Period: Ottoman and Lusignan			**Date of conversion :1997**	
		Original function : Mansion				
Conservation principles		**Museums standards**				
Venice Charter (1964)	**New additions should be distinguishable**	**Circulation**	**Lighting**	**Color**	**Furniture: originals / additions**	**Accessibility**
		The building based on its original vertical circulation elements which is the stone staircase , there is no additional elements	The building original lighting elements is daylight , the additions are distinguishable	The original color of the building is white in some aspects while some adopt the stone color before and after the conservation process	The building adopts original furniture from both periods Ottoman and Lusignan, which are conserved as they are.	there is no additions in terms of accessibility such as , elevators and ramps in term of circulation
	New additions should be reversible	There is no fixed additional elements in terms of circulation to interrupt the building reversibility	In terms of the lighting additions in some aspects they fixed such as the exterior ones which can interrupt the building reversibility	The used color before and after the conservation process similar to original.	There are no additions or movable furniture.	There are no fixed additions, such as disables toilets to interrupt the building reversibility.
Burra Charter (1999)	**Authentic fixtures, objects and Contents which are contribute to the heritage cultural significance of a place should be retained**	The stone starecase which is orginal content from the Lusignan period , its coserved accoeding to its orginal place also in terms of its materials	There are no original lighting elements all are additions.	The original color of the stones and the interior walls has retained after the conservation process	All the original furniture which are belong to Ottoman and Lusignan are conserved and retained to its place	There are no originals except the stone staircase or additions to be conserve.
	Adaptation should involve minimal change to the original building	The building adapt as cultural center , without a change on its design and construction	It observed that additional elements of lighting, after the adaptation includes an average change.	The conservation color is almost similar to the original one, which does not contain any change to building originality.	The original are conserved as they are, in addition the additional after the adaptation process create a minimal change to the building.	There are no additions
Athens Charter (1931)	**Modern techniques and materials can be used in conservation work**	There are no modern techniques employed in terms of circulation during and after the conservation.	The modern techniques in terms of lighting elements does not meet the standards	There are no new techniques and materials.	There are no new additions	There are no additions

Table 3.11: The Eaved House analysis

EAVED HOUSE		**Location :** Walled City North Nicosia			**Date of construction :**Middle Age	
		Architectural Period: Middle age and Ottoman			**Date of conversion :**1994	
		Original function : Mansion				
Conservation principles		**Museums standards**				
		Circulation	**Lighting**	**Color**	**Furniture**	**Accessibility**
Venice Charter (1964)	**New additions should be distinguishable**	The main vertical circulation element is wooden staircase after and before conservation process, there are no additions.	The original lighting type is daylight , the additional elements, which were add are distinguishable	The original color of the building is white before and after the conservation process, which is not distinguishable from the original.	There are two type of the building adopt one type of furniture, which are additions and not originals, represent in the Cypriot traditional sitting elements.	There are no additions in terms of accessibility such as, elevators and ramps in term of circulation.
	New additions should be reversible	There is no immovable additional elements in terms of circulation to interject the possibility of building reversible	It observed that the lighting the additional elements are not fixed which can easy to remove.	The conservation color and original are almost similar which is easy to revers it.	The additions in terms of the furniture represent in the sitting elements within the building spaces , which are easy to remove.	There are no fixed additions, such as disables toilets to interrupt the building reversibility.
Burra Charter (1999)	**Authentic fixtures, objects and Contents which are contribute to the heritage cultural significance of a place should be retained**	The authintic wooden staircase has been coserved accoeding to its orginal place and materials.	The original lighting source is natural , are came from the wooden windows , which are conserved as they are , and retained back to their place	The conservation process retained similar color to the original one.	There is no original furniture.	There are no originals except the wooden staircase or additions to be conserve.
	Adaptation should involve minimal change to the original building	The building adapt as gallery without any change in building design also construction.	It observed that additional elements of lighting, after the adaptation include a minimal change because of their size and techniques.	The new color after conservation involves a minimal change.	There is no original furniture.	There are no additions
Athens Charter (1931)	**Modern techniques and materials can be used in conservation work**	There are no modern techniques employed in terms of circulation during and after the conservation.	Modern type of lighting elements has been added is PARS within the gallery's ceiling.	There are no new techniques and materials.	The new additions are traditional Cypriot furniture which is not modern.	There are no additions

Table 3.12:Dr.Fazil Küçük Mansion analysis

Dr.Fazil Küçük		**Location :** Walled City North Nicosia			**Date of construction :**1942	
		Architectural Period: Modern			**Date of conversion :** 2016	
		Original function : Mansion				
Conservation principles		**Museums standards**				
Venice Charter (1964)	**New additions should be distinguishable**	**Circulation**	**Lighting**	**Color**	**Furniture**	**Accessibility**
		The vertical wooden staircase is the only circulation, which is original . there are no additions	The building considered as modern building which adopt many types of lighting elements such as halogen lamps , in addition the new type which added after conservation process are distinguishable from the originals.	The building original color is white; the conservation color was also white, with some other dark colors within the film room background, which are distinguishable.	The building adopt both the original and the addition furniture , the original are conserve as they are , while the additions are made in harmony with the original at the same time they are distinguishable .	The building does not include any addition to be distinguishable in terms of the accessibility such as elevators and ramps.
	New additions should be reversible	There is no fixed additions to interrupt the building reversibility	The additions are not fixed which easy to remove.	The additional color is easy to remove.	The additions in terms of the furniture represent in the display unite within the building spaces , which are easy to remove them and does not affect the building reversibility.	In terms of accessibility here there are no fixed additions to interrupt the building reversibility.
Burra Charter (1999)	**Authentic fixtures, objects and Contents which are contribute to the heritage cultural significance of a place should be retained**	The orginal staircase has been conserved and retained on its orginal place.	All the original lighting elements have been conserved as they are.	The conservation process retained similar color to the original ones.	The original furniture are conserved and retained to its pace.	The originals such as the wooden staircase is conserved and retained to its place
	Adaptation should involve minimal change to the original building	The building adapt as ethnographical museum to display Dr.Fazil Küçük life style , which adopt a minimal change in term of the building circulation	The lighting additions after the conservation do not create a huge change on the building originality.	The color which used for conservation added a minimal change to the original building because its similar to the original ones	The furniture after adaptation involve a minimal change to the building and this change represent in the additions which are not fixed	There are no additions after the adaptation process in terms of the building structure that can involve a huge change in the building.
Athens Charter (1931)	**Modern techniques and materials can be used in conservation work**	There are no modern techniques used in terms of circulation.	Modern type of lighting elements has been added which is PARS.	The new techniques represent in the used of dark color within the background.	The new additions represent in the display units, which are in harmony with the originals	The addition technique in this term represents in the visual of documentary film and the label text signs.

3.7 Chapter Conclusion

Conservation through Adaptive Re-use Process Analysis

All of the case studies mentioned in this piece of study have carried out similar architectural features which belong to the Ottoman architectural style in Cyprus, except the Dr.Fazil Küçük mansion which considered as modern architecture. Furthermore, all case studies have gone through a conservation process by the Department of Antiquities and Museums, and reused as museums and opened to the public. The buildings have gone through similar physical obsolescence before action taken by the department. The Department of Antiquities and Museums, has decided the current function of these heritage buildings, according to the buildings condition before the conservation process and also according to the building original style and to the needs and necessities of the inhabitants.

The process of adaptive reuse of the case studies seems to be accordance with the international standards according to the analyses findings, especially in terms of the physical conservation works. In addition it is observed that the conservation values has been also evaluated after the conservation works of the interior context and exterior context in terms of the materials, considering the aesthetic values, symphonic values and utilization values. In addition, the functional adaption as museum is not properly implemented function considering the contemporary museology.

In these case study buildings, conservation through adaptive reuse has increased the financial value of the buildings since the buildings are in use for touristic proposes, and also it has been observed that, when a suitable function selected for the

historical heritage building, it helps long-term, sustainable conservation of these buildings, while at the same time raising attraction (economic benefits) for the historic buildings.

Analysis of conservation criteria on museology Principles

The new functional decision as museum which applied for the historic houses within the Walled City of North Nicosia has been taken by the Department of Antiquities and Museums. However, the process of the new function is implemented according to the laws and regulations of Turkish Republic of Northern Cyprus (TRNC), as this part of Cyprus is exempted from the international laws and regulations. Therefore, according to the extracted criteria which have been used to analyze the case study buildings, which are, circulation, lighting, accessibility, color, furniture, there are different missing requirements in the case study buildings as museums to meet the contemporary needs of museum design.

Therefore, according to analysis part two findings, some of the additions such as the furniture in the case of Dervish Pasha Mansion in the display units do not meet the criteria of the conservation. They are not in harmony with the original ones, and also some of the lighting elements are not distinguishable from the original, however, in the case of Lusignan House the additions, lighting elements are fixed and not easy to be removed and it may affect the building reversibility. In terms of Dr.Fazil Küçük Mansion and Eaved House, they share the other missing elements of accessibility requirements.

Chapter 4

CONCLUSION AND FUTURE RECOMMENDATIONS

The main research problem of this thesis has been based on an observation. All of the museums within the Walled City of North Nicosia are converted buildings which are not originally designed as museums. At the same time many of these converted museums consist of buildings which have historical significance as architectural heritage buildings, however, there is not many scientific research on how to successfully re-use these historic buildings in accordance with contemporary needs of museum design.

Meanwhile architectural heritage buildings reflect many values that need to be conserved for the future. These historical buildings have to be preserved through considering different kinds of heritage values. These values have been categorized under the aesthetic values, symbolic values and utilization values which have been extracted within the second chapter of this thesis (Table: 2.1, p30). During any conservation process, including adaptive re-use, some of these values may get damaged. However, it is impossible to bring back lost values of heritage buildings for many times. All these can be happened due to lack of expertise, lack of funding and/or other related problems during the process.

Historical houses, which are converted into museums, especially into ethnographical museums, have been the main consideration of this study. The

current study adopts two types of analysis, which has been done in order to examine this process within the historic Walled city of North Nicosia.

The first part of the literature review focuses on the conservation through adaptive re-use, which has been done according to the internationally accepted documents of conservation, and includes the conservation values and the buildings architectural features. The second part focuses on the contemporary design necessities of museum, which has been reflected by the contemporary museum standard.

Therefore, the main objective of this thesis is to find out how to successfully re-use buildings which are originally designed for domestic use, into museums, and at the same time to safeguard many inherent heritage values, considering the selected case studies which are located at the Walled city of North Nicosia, the Dervish Pasha Mansion, the Lusignan House, the Eaved House and Dr.Fazil Küçük Mansion. However, according to the analysis, the following recommended guidelines of each principle should be applied.

Lighting elements: lighting is a significant factor of museum design considering heritage buildings. All types of lighting elements which mentioned within the theoretical frame work part two (chapter 2) are possible to be applied for all of the case study buildings as stated by Athens Charter) article 10), however, it should be easy to remove them and when it is removed, should not leave any mark behind as it is mentioned in Venice Charter criteria of reversibility (article 5).

Circulation: circulation is extracted as another vital factor in museum designs. Considering the case studies in this study, additional elements of circulation such as

ramps and elevators are necessary, however, they should be distinguishable from the original building. At the same time they also must be easy to remove and reverse as it is mentioned in the Venice Charter (article 5) and in the Burra Charter extracted criteria article 15.

Color: This is another important factor considering museum designs. The use of new color technique is possible in the extracted criteria from Burra Charter (article 22). However, it should not distort or obscure the heritage values of the historic building.

Furniture: furniture design is another inseparable part of museum design. The original furniture of the buildings, which can be considered as a part of the cultural heritage should be conserved considering the new additions. Fixed or immovable furniture, especially the display units should be distinguishable from the original, at the same time in the harmony with the rest of the space in the Venice Charter (especially article 12).Incorporation of new technologies considering display units is also advisable within these limits.

Accessibility: Contemporary museums must incorporate designs that are accessible for all. This includes disabled requirements such as disabled toilets circulation elements and the label texts which are some of the most significant issues here. Moreover, the color text of the label should be in contrast with the background. In addition, the new technique of the contemporary technology in the museum display design can be applied as it was mentioned in the Venice charter (especially article 10).

Recommendation for the further studies

The criteria and extracted tables for the assessment of the case-studies of the present study have been based on the converted museums located at the Northern part of the Walled City of Nicosia. Same approach can be applied for the converted museums located at the South of the Walled City in order to understand the similarities and differences considering implemented projects. The measure of alterations to historic buildings located within the limits of the well-defined historic city should be considered and documented. In addition, in the long run, it is important to formulate strategies to keep these museums up-to-date while at the same time supporting their continuity for the future generations, through preserving their significant values, with a successful conservation, which should be done according to the recommendation for each principle.

REFERENCES

Ashworth, G.J, 1998, Marketing the historic city for tourism , in Goodall .

Ashworth, G. J. (2013). From history to heritage–from heritage to identity. *Building a new heritage: Tourism, culture and identity in the new Europe*, 13-30.

Alexander, E. P. (1979). *Museums in motion: An introduction to the history and functions of museums* (2nd ed.). Nashville: Altamira press.

Ahmed, Y. (2006). *The Scope And Definitions of Heritage: from Tangible to Intangible*. International Journal of Heritage Studies. vol 12, N0 3.

Ashurst, J. (2007). *Conservation of ruins*. Routledge.

Austin, R. L., Woodcock, D. G., Steward, W. C., & Forrester, R. A. (1988).*Adaptive reuse: Issues and case studies in building preservation*. Van Nostrand Reinhold.

Basarir, H. (2009). *Urban Conservation in the Walled City of Famagusta/Gazimagusa* (Doctoral dissertation, The University of Manchester).

Barnett, K. (2010, November 15). *How Light Affects Paint Colors*. Retrieved from http://thedecorologist.com/how-light-affects-paint-colors

Bradshaw, D. (1995). Underlying Principles of Restoration. Department of Environmental and Evolutionary Biology. University of Liverpool. Liverpool L69 3BX – UK

Burcaw, G. E. (1975). *Introduction to museum work*. Nashville: American Association for State and Local History.

Besim, D. Y., Kiessel, M., &Kiessel, A. T. (2010). Postmodernist Hotel-Casino Complexes in Northern Cyprus. *Middle East Technical University, Journal of the Faculty of Architecture*, *27*(1), 103-123.

Bullen, P., & Love, P. (2006). *Adaptive Reuse of Historic Heritage buildings*. Department of Construction management school of Built Environment Curtin University, Perth Australia.

Bullen, P., Love, P.(2011), 'Factors influencing the adaptive re-use of buildings', *Journal of Engineering, Design and Technology* Vol. 9 No. 1, pp. 32–46.

Bond, C. (2011). *Adaptive Reuse: Explaining Collaborations within a Complex Process* (Doctoral dissertation, Department of Planning, Public Policy & Management, University of Oregon).

Cornelia Dumake and MichailGineovsky, July 3013. "*The social and Economic Value of cultural Heritage*": EENC paper.

Canan, A. (2005). Visitor Behavior In Museum Environments: An Analysis Of Visitor Circulation Patterns In Sadberk Hanim Museum.

Charter, B. (1979). see Marquis-Kyle.

Casal, S. M. (2003). The adaptive re-use of buildings: Remembrance or oblivion?.

http://www.icomos.org/victoriafalls2003/papers/B1-2%20-%20Casal%20%2B%20photos.pdf(Accessed on: 1.6.2015).

Charter, A. (1931, October). The Athens Charter for the restoration of historic monuments. In *Ist International Congress of Architects and Technicians of Historic Monuments, Athens, October*.

Coufoudakis, V. (2011). The Republic of Cyprus at Fifty: Challenges and Prospects. *Mediterranean Quarterly*, *22*(2), 20-30.

Cooper, I. (2001), "*Post-occupancy evaluation-where are you?*", *Building Research & Information*, Vol. 29 No. 2, pp. 158-63.

Department of Antiques and Museums ,2014 Northern Cyprus.

Department of Antiques and Museums Archive ,Northern Cyprus .

Dillenburg, E. (2011). What, if Anything, Is a Museum? *Exhibitionist,* 8. Retrieved from http://name-aam.org/exhibitionist.

Desvallees, A., Mairesse, F., ICOM International Councils of Museums, &Musee? Royal de Mariemont (2010). *Key Concepts of Museology*. Paris, France: Armand Colin.

De la Torre, M., & Throsby, D. (2002). *Assessing the values of cultural heritage: Research report*. Getty conservation institute.

Darvill,T. (1995), "*Value Systems in Archaeology*", in M. Cooper, A. Firth, J. Carman and D. Wheatley (eds) *Managing Archaeology*, pp. 40–5. London: Routledge.

Douglas, J. (2006). Building adaptation (2nd ed.). united state :Publisher: Boston, MA: Butterworth-Heinemann., pp 651.

Dawson, J., & Lord, D. (Eds.). (2012). *Shopping Centre Development (RLE Retailing and Distribution)*. Routledge.

Erturk, N. (2004). Earthquake preparedness and cultural heritage losses: the case study of Istanbul museums. In *Proceedings from the International Symposium of Cultural Heritage Disaster Preparedness and Response* (pp. 243-48).

Feilden, B. (1982). *Conservation of Historic Buildings*, publisher architecture press an imprintof Elsevier ,Oxford .

Faro ,(2006), "*Framework convention on the value of Cultural Heritage for society of Council of Europe's*". United Kingdom:Taylor&Francis Group, 31 (4) pp:336 -384.

Hayatdawood, N. (2014). *Evaluation of the Contemporary Art Museums with Emphasis on Interior Design Features* (Master dissertation, Eastern Mediterranean University (EMU)-DoğuAkdenizÜniversitesi (DAÜ)).

Hoff, M. (1994). Preserving our past, building our future.

ICOMOS, A. (1999). The Burra Charter. *The Australia ICOMOS Charter for Places of Cultural Significance. Australia*.

International Union for Conservation of Nature and Natural Resources1196 Gland, Switzerland , 1980.

Jokilehto, J. I. (1986). *A history of architectural conservation*. The contribution of English, French German and Italian thought towards an international approach to the conservation of cultural property.

Jokilehto, J. (2008). Heritage Theory: On definitions of Cultural Heritage.

Kolo, D. N. (2015). *Adaptive Re-Use Potentials of Post Office Buildings as Examples of British Colonial Heritage in Nigeria and North Cyprus* (Doctoral dissertation, Eastern Mediterranean University (EMU)-DoğuAkdenizÜniversitesi (DAÜ)).

Koenig, R. J. P. (1999). An Assessment of Some Practical Issues Related to Selective Chemical Paint Removal in Architectural Conservation.

Karr, W. (2004). Adaptive Reuse, Preserve our Past, Building our Future. Australian Institute of Architects.

Kaynar, I. (2005), Visibility, movement paths and preferences in open plan museums: An observational and descriptive study of the Ann Arbor Hands-on Museum.

Langston, C., Wong, F., Hui, E and Shen L.Y. (2008) Strategic Assessment of Building Adaptive Reuse Opportunities in Hong Kong, Building and Environment, vol.43, no.10, pp.1709-1718.

Latham, D. (2000). *Creative Re-use of Buildings: Principles and practice*. Donhead Publishing Company.

Mohammad al-Asad ,2007rehabilitation of the walled city Nicosia ,Cyprus.

Matero, F. (2008). Heritage, conservation and archaeology: An introduction .*Archaeological Institute of America, June, 18*.

Madran, B. (2012). *Lecture: Course02-1*[PowerPoint slides]. Retrieved from http://moodle.madran.net/course/view.php?id=5

Mallinson, B. (2005). *Cyprus: A modern history*. IB Tauris.

Majewski, J. (1996). Smithsonian guidelines for accessible exhibition design.*Washington, DC: Smithsonian Institution Press. Retrieved November*, *5*, 2001.

Mann, LH,(1997), Asian-Art-Museum's adaptive reuse plan stirs controversy + Preservationists want depression-era murals in San-Francisco's former main library to stay ,New York: MCGRAW HILL INC.185(9) pp33.

OluseyiAkinola, Olagoke, November 2011 ,A Review of Adaptive Re-use of Historic Buildings: Relevant Lessons from the Dervish Pasha Mansion, Nicosia in Sustaining Conservation Practice in Osun State, Nigeria, Department of Architecture, Cyprus International University *International Journal of Scientific & Engineering Research*, Volume 5, Issue 11, November-2014 1169 ISSN 2229-5518.

Orbasli, A. Y. L. I. N. (2007). The 'Islamic'city and tourism: managing conservation and tourism in traditional neighbourhoods. *Tourism in the Middle East: Continuity, change and transformation*, 161-187.

Ozay, N. (2005). Modernity and Architecture of a Developing Country; North Cyprus. Ph.d thesis, Faculty of Architecture, Eastern Mediterranean University Famagusta North Cyprus (via Mersin 10 Turkey).

Özderen, Ö. (2001). *Transformation and Change in Social Housing in North Cyprus*. Eastern Mediterranean University.

Pugliese, J. (2002). Migrant Heritage in an Indigenous Context: for a decolonising migrant historiography. *Journal of Intercultural Studies*, *23*(1), 5-18.

Panero, J. (2012). What's a museum?. *The New Criterion*, 4. Retrieved from http://www.newcriterion.com/articles.cfm/Future-tense--VII--What-s-a-museum--7298.

Pinna, G. (2001). Introduction to historic house museums. *Museum International*, *53*(2), 4-9.

Pulhan, H., &Numan, I. (2006). The traditional urban house in Cyprus as material expression of cultural transformation. *Journal of Design History*,*19*(2), 105-119.

Patterson, E. I., Swarbrick, C. M., Roman, N., Forwood, J. K., &Raidal, S. R. (2013). Differential expression of two isolates of beak and feather disease virus capsid protein in Escherichia coli. *Journal of virological methods*,*189*(1), 118-124.

Pickard, R. (2001). *Policy and law in heritage conservation* (Vol. 1). Taylor & Francis.

Pevsner, N. (1972). An outline of European architecture.

Rypkema, Donovan. 1 April 2011Adaptive Reuse: Preservation through Innovation. University of Kentucky, Lexington, KY.. Keynote Address.

Shen, Li-yin; Langston and Craig,(febreuary, 2010). Adaptive reuse potential .England :Emerald Group Publishing Limited,pp:1-16 .

Salvator, L. (1983). *Levkosia, the capital of Cyprus*. Trigraph.

Schaar, Kenneth W., Michael Given, and George Theocharous. *Under the Clock: Colonial Architecture and History in Cyprus, 1878-1960*. Bank of Cyprus, 1995.

United Nations educational, scientific and cultural organization (unsco), (17October to 21 November 1972), Meeting concerning the protection of the world cultural and natural heritage, in Paris.

Venice Charter, (1964). International Charter for the Conservation and Restoration of Monuments and sites.

http://www.icomos.org/charters/venice_e.pdf (Accessed on: 8.6.2015).

http://australia.icomos.org/publications/charters/ (Accessed on: 8.6.2015).

Varnava, A. (2012). *British imperialism in Cyprus, 1878-1915: the inconsequential possession*. Manchester University Press.

W,Meredith,(2014), "The Burra Charter :The Australia ICOMOS Charter for the Conservation of Places of cultural significance",USA: Association for the Technology international pour la Preservation et ses techniques 45(2/2) pp.9

Widell, C. (1996). Cultural Hurdles for Adaptive Reuse of Historic Buildings in Japan.

Yilmaz, M. E. (2011). Capturing the complexity of the Cyprus conflict.*Turkish journal of politics*, *1*(1).

Zainal A. Hasibuan, Yugo K.Isal, Baginda Anggun N.C., *Mubarik Ahmad, and Nungki SelviandroInternational Journal of Machine Learning and Computing*, Vol. 1, No. 5, December 2011

URL1:http://www.planetware.com/tourist-attractions-/nicosia-cy-nic-nic.htm(Accessed on: 26.5.2015).

URL.2:http://www.northcyprus.co.uk/dervish-pasha-mansion /(Accessed on: 26.5.2015).

URL3: http://www.whatsonnorthcyprus.com/interest/nicosia/north_nicosia/dervish_pasha.htm (Accessed on: 12.1.2016).

URL4: http://www.northcyprus.co.uk/the-eaved-house/(Accessed on: 16.1.2016).

URL5:http://www.whatson-northcyprus.com/interest/nicosia/north_nicosia/lusignan.htm/ (Accessed on: 16.1.2016).

URL6 https://en.wikipedia.org/wiki/Cultural_heritage (Accessed on: 16.1.2016).

URL7http://www.sakipsabancimuzesi.org/en/node/540#overlay-context=tr/sayfa/muze-tarihi (Accessed on: 1.3.2016).

URL8http://insidebitcoins.com/news/bitcoin-around-the-world- Cyprus /29026URL9http://www.morrisjumel.org/(Accessed on: 3.3.2016).

URL 9 http://www.archiexpo.com/cat/architectural-lighting/ceiling-track-lights-AF-747.html(Accessed on: 22.4.2016).

URL10http://www.whatson-northcyprus.com/interest/nicosia/north_nicosia/eaved_house.htm(Accessed on: 13.3.2016).

URL11http://www.cyprusbybus.com/Mosque_of_Hala_Sultan_Tekke_112.aspx(Accessed on: 22.4.2016).

URL12 http://www.stilonerileri.com/moda/vehbi-koc-vakfi-sadberk-hanim-muzesi-pabuc-sergisi/(Accessed on: 8.4.2016).

URL13 http://www.mba-worldwide.com/kupferstichkabinett-dresden-en.html(Accessed on: 4.5.2016).

URL14 http://www.showfront.com.au/display-cabinets/museum-display-cabinets-1(Accessed on: 18.5.2016).