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Revista de Cercetare si Interventie sociala

ISSN: 1583-3410 (print), ISSN: 1584-5397 (electronic)

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Revista de cercetare și intervenție socială, 2018, vol. 62, pp. 331-351

The online version of this article can be found at:
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Published by:
Expert Projects Publishing House

expert projects
publishing

On behalf of:
„Alexandru Ioan Cuza" University,
Department of Sociology and Social Work
and
HoltIS Association

REVISTA DE CERCETARE SI INTERVENTIE SOCIALA
is indexed by Clarivate Analytics (Web of Science) -
Social Sciences Citation Index
(Sociology and Social Work Domains)

Sustainability of Exhibition Halls while adapting to Design Concept and Technology in Museums: St. Barnabas Icon and Archaeological Museum Examples

Serkad Hasan ISIKOREN[1], Erdal AYGENC[2]

Abstract

Cyprus has been governed by many different cultures through history because of its_geopolitical location on Eastern Mediterranean. Richness of the cultural heritage that was left out of those cultures on the island is an attraction point. Every year it attracts many foreigners and students as an education and tourism oriented island. Today museums are the best places to visit in order to explore both for touristic and educational purposes. They serve to the economy of the countries as well as educational purposes for both locals and foreigners. Global understanding of contemporary museum design is a total complex to serve multi-purpose such as research, educational programs, permanent and temporary exhibitions, seminars and lectures. Hence, from the first step of designing a museum to the end, it should be well thought and carefully designed as it is important to be sustainable. The aim of this paper is to cover historical data of museology and contemporary principles of museum design while keeping its sustainability. The results will be studied in bi-communal Cyprus by comparing applications in museums from Southern and Northern parts of the island.

Keywords: museum, design, Cyprus, exhibits, exhibition, information, lighting, history.

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Introduction

Cyprus was controlled and reigned by many different cultures throughout history. Akrotiri inhabitants were the first settlers of the Island. They hunted insular pigmy elephants and hippos. Neolithic cultures such as Khirokitia, left their marks to literature of archaeology. Salamis was built by ancient Greeks, important apostles of Christianity walked on island in Roman times, Richard the Lionhearted invaded Cyprus in 1191, Guy the Lusignan and Lusignan family ruled over Cyprus during middle ages and they built fantastic gothic heritages such as St Nicholas and St. Sophia (Bekker-Nielsen, 2004). Caterina Cornaro from Venice left some Renaissance taste (Wright, 1992). Ottomans took the control of the Island in 1571 until they rented the island to the United Kingdom in 19th century (Kaymak & Faustmann, 2009). British rule on the island led the inhabitants of the Cyprus to the will of independence and in 1960 The Republic of Cyprus was established with an agreement until the ethnic crisis between 1963 and 1974. The political crisis since 1974 has created a lot of difference for both sides of the island. South Cyprus is a member of European Union while North Cyprus is under isolations because of continuous negotiations that have not ended with a possible solution. The Island itself is an open-air museum with its rich history (Ker-Lindsay & Webb, 2004). Although it is an advantage of having such historical heritage and background, level of contemporary museum design is not enough in comparison with the rest of Europe. The purpose of the research is to explore the problems of museums in North Cyprus in comparison with the south and recommend solutions. It also aimed to present some new trends to museum visits, which can be used for educational purposes. A further step is to make museums to be able to compete with the world museums to win an award according the standards by ensuring to sustain the atmosphere of the museum. Therefore, this research contributes to enrich the literature by using examples of museums in the country, which was never researched in a comparative manner for both sides. Thus, chosen methodology will be a comparative analysis of museums of European award winning examples with the museums of southern and Northern Cyprus. The data is going to be collected from observations of selected museums. The problem is the general issue in North Cyprus; however, this article is restricted with St. Barnabas Icon and Archaeology Museum as an example from North and Leventis Municipal museum of Nicosia from South as a comparison to meet the aim of this research.

History of museology

The concept of the museum, with its history dating back to Ancient Greek and to Romans, has changed day by day from its first used and perceived meaning. Ancient Greek museums, known as the temples of ‘muses’; the centre of inspiration, deep thought and philosophy, are accepted as the core of the philosophy and deep

thoughts (ICOM, 2018). Although the etymological roots of the 'museum' term date back to ancient Greek culture, the practical examples of collecting and exhibiting are much older. In BC 2000 in Larsa, in Mesopotamia, the duplication of the old inscriptions and the use of these copies for educational purposes constitute the first example of the development of the museum idea (ICOM, 2018). Museum concept began with the collection of artefacts of varying value for educational purposes or collection purposes before the Renaissance,

Thanks to newly discovered trade routes and cultures after the Renaissance, collections became one of the major curiosities of aristocratic families and newly enriched merchants. Scientific studies that began with the Renaissance and peaked in the 18th and 19th centuries have led to the creation of many new fields of science. The development of scientific methods of geology has provided extensive opportunities for shedding light on archaeology and human history. Museology came out exactly in this century with the collections given to universities and gave birth to enormous museums with large collections such as the British Museum and the Louvre museum (Hetherington, 2006). A more systematic way of collecting and exhibiting of works, was required after the birth of the museums so as an example, "Belzoni", whose duty was to bring from Egypt, was replaced by scholars such as Schlieman who adopted archaeological discipline (Boylan, 2004). In Turkey, Osman Hamdi Bey who studied in France engaged in studying and archaeological excavations and his ideas led the Istanbul Archaeology Museum to exhibit the history of the prosperity of the Ottoman Empire in line with European museology (Herscher, 1995).

After the 20th century, museology has an organizational structure that is organized by institutions around the world, with clear boundaries and definitions. The International Council of Museums (ICOM) is the best example of this. After the two great wars, ICOM, which is also an international council managing the definition of museology and content, was established in 1946 for the development of museology and have done a lot of activities in lots of countries including Turkey. ICOM first described the museum in 1946 and then changed it three times in 1951, 1961 and 1974 respectively (ICOM, 2018). The last definition of museum concept by the ICOM is as follows: "The museum is a non- profit, permanent, non-profit institution in the service of society and its development, open to public, which acquires, conserves, researches, communicates and exhibits the tangible and intangible heritage of humanity and its environment for the purposes of education, study and enjoyment" (ICOM, 2018).

From 1946 onwards, the definition has been revised four times and the contents of it have been improved as well as the museum classifications have been developed in terms of diversification and separation of the contents. In this sense, ICOM classified museums under nine main headings (ICOM, 2018): (1) Art History Museums; (2) Modern Art Museums; (3) Archaeology and History Museums; (4) Ethnography and Folklore Museums; (5) Natural History Museums; (6) Regional Museums; (7) Science Museums; (8) Speciality Museums; (9) University Museums.

In addition to the above-mentioned nine categories, which ICOM Turkey also uses the website and presents 37 different museums over the Internet to its visitors "Virtual Museum" can be included in the list (Charitos *et al.*, 2001).

Today's museum design approach

In today's world, museology has evolved into places that exhibits artistic and historical works, as well as into educational and research-oriented complexes and also they are not only the institutions contributing to the tourism richness and economies of the countries but are also the structures that affect the reputations and images of societies (Fillis, Lehman, & Miles, 2017). Consequently, not only the collection and exhibition of the artefacts, but also the proper design of them in which they are exhibited have become important. Nazan Kirci highlighted the importance of museums as: "The museums do not only exhibit culture and arts as cultural constructs and transfer them safely to future generations, but also prove educational services. Social, cultural and economic factors are important in their design. They need to be designed as a remarkable architectural product and therefore positively contribute to the image of cities and countries today. A good museum design will be a symbol of the country's culture and art" (Kirci, 2010).

As can be understood; a museum that is competent in its functional structure, architecture and information design will be both a focus of interest and encourage new generations to elaborate art and culture (Price & Price, 1995). This will contribute to tourism and economic system on the one hand, and to the educational process on the other. For this, interdisciplinary collaboration of architects, interior designers, graphic designers, art historians and archaeologists in the architectural, interior and information design of the structures will be effective. For that reason, the right steps must be taken in the initial phase of planning the architectural formation, in other words, during the design process, the formal analysis of the building and combining it with the syntactic examination should be the main steps. In the second step, the syntactic analysis of the space should be evaluated by a graphical analysis (*Image 1*).

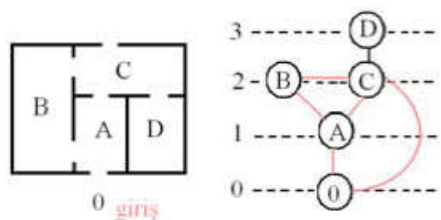

Image 1. Regulated transition graph-activity graph[2]

"It is thought that these two analyses can be taken together for the museum buildings, since both functional requirements and formal features are quite important to evaluate the function and form analysis together in the field of architecture. It is thought that through the numerical values reached by the application of the drawn graphs and method shows whether there is a tendency to relate to the values of the connectedness of the spaces, the spaces which allow or not the passage through, the depth value of the building system, the ease of access and the integration of the system can be understood (Soganci, 2017). One system can connect the location in it with another. Finally, these characteristics of the visibility of graph features may be related to spatial perception manifestations such as direction, movement, and space use" (Zongker, 2018). On the other hand, all routing elements in the museums must also be designed to suit the needs of the space. These elements are not only easy to understand, but also promote the usability of the physical space, as well as support the aesthetic of the space, and reduce the complexity of the information (Cressey, 2016). "The key to information design is to make the complex data clear and instantly accessible to the viewer. To achieve this, designers traditionally organize data groups into well-designed schemas, graphs, or diagrams" (Twemlow, 2008) .

When the general profile of visitors is examined, it can be seen that there are differences in their museum visiting behaviours. Kandemir and Ucar note that the attitudes and behaviours of the first time visitors are different from the continual visitors. According to this finding, it is observed that experienced visitors visiting the museum show more focused and more careful examination of works, while the first time visitors focus more to find directions and to understand the concept of the place (Kandemir & Ucar, 2015). In this context, it is observed how important the direction of the above-mentioned orientations and spatial transitions are in order to facilitate the movement of the visitors. The museum venue should be carefully designed with all perception trends in mind (Nekuza, 2016).

Not only the information design and orientation sheets, but also the active direction trends in the museum have a decisive feature in the designated design stages (Yoon & Oh, 2018). For this, Nihat Karataş's installation (*Image* 2), which measures human brain waves and visitor intensity within the scope of "Project01" student festival organized by Bilgi University, can be given as an example. It is not wrong to recognize the easiness that is useful to draw maps of museum visit areas by copying the visitor's movements onto graphic descriptions and to make the necessary designs over these data and to anticipate the possibility of making museum spaces functions and usage areas more useful with this computer-aided installation (Erdik, Erturk, & Durukal, 2008). Tzortzi underlines the importance of visitor movement and experience on perception as below: "It is shown that the ways these museums structure movement paths are critical to how exhibits are perceived by visitors through spatial and visual relations and affect the experience of the museum as a public space by shaping visitors' physical co-presence and

visual co-awareness. These differences relate closely to current debates on museum and exhibition design" (Tzortzi, 2014).

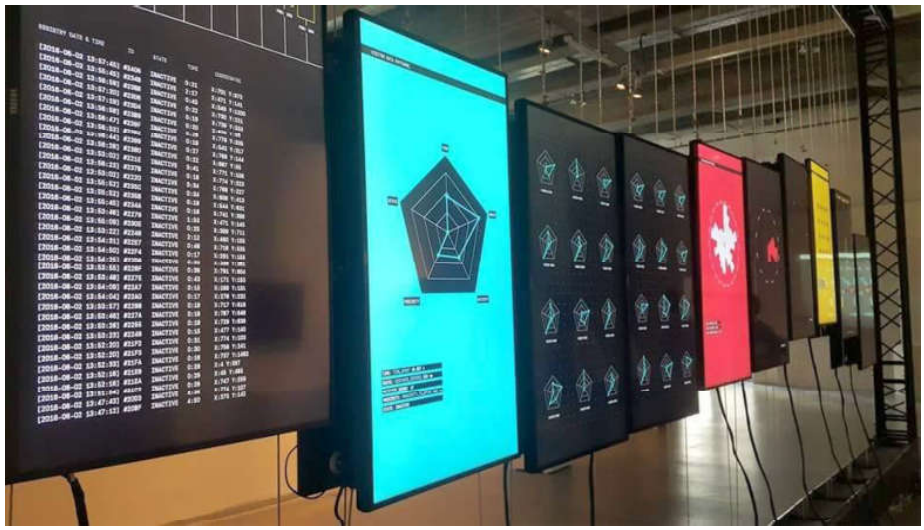

Image 2. Bilgi University, Nihat Karataş, computer aided Installation

The information design panels and directors presented to the visitors in the museums are the most important helpers which organize their views in the chronological order, provide the historical indexes in the exhibitions, and contribute to the perception of the great picture. It is understood that the existing exhibition systems have certain principles when looking at the big collections in museums such as the British Museum and the Louvre Museum (Narumi *et al.*, 2013). These principles begin with the excavation area, the exhibits are brought together to its visitors in appropriate exhibition spaces, and the information panels designed in line with the visual perception rules provide support for a satisfactory museum impression (Ferdyn-Grygierek, 2016). Museum exhibit contents can be generally classified into three categories as "chronological", "cultural" or "technological" (Suh, 2013). When exhibitions are chronologically designed, visitors can deduce the technological, geographical and cultural content of the time zone by using the information panels (Cheatham, Cheatham, & Owens, 1987). This situation is also observed in the cultural and technological order. The structure of human perception and psychology is extremely important, within the three headings mentioned above. Contrary to the inductive approach of classical psychology, Gestald argues that psychology is "deduction is more meaningful than the parts that make up the whole" (Danyun & Jiun, 2016). This theory emerged by Wertheimer; the perceptibility of objects reveals the integrity of what is perceived not by the parts that form it but by the principles of "closeness" (shape-ground relation),

"similarity", "continuity" and "completion" (Goulding, 1999). The information boards to be considered in the museums should be prepared with the same logic. With such a generalization, the harmony of the basic parts that make up the whole and the big picture, which constitutes the main frame need to be presented with a good expression (Barbieri, Bruno, Mollo, & Muzzupappa, 2017).

Arrangement of the exhibition area and service areas architecturally does not present a situation that would be effective by itself. Museums must be perceived as a time tunnel to the past because their sustainability due to their historical and social importance is necessary. Therefore, the space, which presents a certain type of content, needs to be able to present the time of the content and makes the visitor feel the time and the world exhibited. In this respect, in addition to the arrangement of the exhibition site, the lighting, ergonomics and information graphics must be considered and designed together (Galloway, 2009). In this context, 'the universal design principles' laid down by Kandemir and Ucar, Ron Mace can be used by all and forms the whole. Both researchers list the relevant principles as follows: (1) Egalitarian use; (2) Flexibility in use; (3) Easy and intuitive use; (4) Perceivable information; (5) The margin of error; (6) Low physical strength; (7) Provision of size and space required for approach and use (Kandemir & Ucar, 2015).

These principles provide a common design basis for users of all cultures and groups, based on an egalitarian, low-physical effort, easily perceivable and probable error margin. The information design panels and directors presented to the visitors in the museums are the most important helpers which organize visitors' views in the chronological order, provide the historical indexes in the exhibitions, and contribute to the perception of the great picture. However, the application of all these principles is not enough to enhance the quality of exhibitors and educational activities in the museums. It is of utmost importance that the lighting systems are correctly designed and that the materials to be used in the exhibition spaces are selected correctly. In the development of museum and exhibition design, the use of natural light and the experimental effects of this light on human perception have been investigated (Sacher *et al.,* 2014). These surveys reveal that different age groups can perceive the exhibited works under different light conditions. While natural light is blended with artificial lighting elements, new, economical and various lighting systems brought by modern technology are used to illuminate exhibition spaces (Caraceni, 2014). Investigations of Elizabeth Gay Hunt show that, people under the age of 40 need 5 to 20 foot candles of light in order to perceive the details while those over 40 need at least 10 foot candles (Hunt, 2009). Therefore lightning should be considered for both groups to serve efficiently. Using natural light is not effective by its own for light conditions may change during the daytime. For that reason many old museums blends natural light with artificial lightning in order to create a stable lightning in museums (Carrozzino & Bergamasco, 2010).

From the architectural design to exhibition design process all factors that affect the museum design as a whole was mentioned above. However, technology has

also an important impact on contemporary museum design (Pescarin, 2014). As mentioned above; a contemporary and visual media supported museum design, which is suitable for today's communicative society requires collaboration between the disciplines. Apparently, since virtual environments are being used extensively, the viability of physical spaces is seriously affected: "Nowadays, being under the lights of the developments in media society, when the spatial experiences began to decline, the artwork and the aura of the museum space will become more apparent and anthropologically important. The planning of the museum building is not only about the type, quality and needs of the exhibits, economic and social factors have also an important place in planning. The parts of the planning of a museum are exhibitions, service and auxiliary spaces. Although these sections constitute the planning, they determine the character of the exhibition, the route or circulation route that visitors follow" (Zongker, 2018).

Besides, it has become imperative to present different opportunities of experience to visitors by increasing the physical space features and attractiveness of museums because virtual world is widespread and museums are open to virtual visitors. Here, it is particularly useful to underline the viability of the term "space" because when we look at today's museum, 'research-focused multi-museums' are pushing the boundaries with the possibilities of technology and museums go beyond the concept of time-space. Especially after the 1980s, the use of computer technology and the Internet, which became part of everyday life in the 2000s, greatly influenced exhibition design and museums. The use of new technologies in the exhibitions and museums that provide the foundation for the virtual world has expanded the boundaries and structure of contemporary museums (Niccolucci & Felicetti, 2007). Competition and speed, which are the results of the century, provide easy access to information, so this has made these applications to be implemented faster. For example; "The "Smithsonian Institution" now brings together 19 museums in its facilities around the world on the internet. The aim here is not only to provide access to museum archives, but also to enable research to be done, as well as to provide the possibility of detailed examination and printing of objects with the help of 3D scanners and printers" (Zonker, 2018).

The smartphone application developed in cooperation with the Smithsonian Institute provides accessibility to a variety of documents for researchers and visitors, as well as accessibility to new exhibitions. Thus, in today's global world, the easiness brought by technology is in personal smart devices and attracts attention of researchers. With this application, users can plan their museum visiting time; access its location information and floor plans. In addition to this, they can design and record their favourite event and exhibition visits privately. The application allows the researcher to connect the artistic, scientific and historical data in virtual museums by providing the possibility of scanning through the collected data. In addition to the many accessibility features provided by the application, the use of "Augmented Reality" (AR), or "Increased Reality", provides easy access to the

information through museum archives, collections, research centres and libraries (Beer, 2015).

The use of virtual media and virtual environment applications in museology are becoming widespread, but these applications, which are based on visual perceptions, cannot provide services for all visitors at the same time. These virtual environments and products are not efficient and useful for the visually and hearing impaired. The signs "please do not touch the works" in museums makes it difficult for them to understand and perceive the exhibition (Jones & Christal, 2002). Recently, some museums have removed this sign. It has turned an experiment that allows multiple perceptions with the principle of "please touch the works" so as to experience of visiting with visual perception. As exemplified by Levent and Leone, the British Museum has allowed its visitors to feel selected works by the "Hands on" project. These types of exhibitions, which have become the foreground of the "Haptic" rather than the visual imagery, allow the physically disabled to visit museums (Muller, 2002). Exhibitions addressing different senses are also observed although they are rare. The exhibition, which was organised by the Yorvik Viking Center in York, England, allows disabled visitors to identify smell and sound as a visual image (Levent & Pascual-Leone, 2014).

Another example of touch-sensitive museum exhibitions is the "Do touch" exhibition in Philadelphia, which was opened by the Philadelphia museum and had the facility ' touching the works'. Keles emphasizes that this museum is an important example, and states that the museum can organize exhibitions for children to reach the groups in the city, educate and inform the children and their families with its mobile and portable structure and game-oriented approaches (Keles, 2003).

These practices have many people from all age groups, from different experiences and from different cultures experience these facilities because of the technological easiness of the museums in the field of education globally. When such a widespread and effective use of the virtual world is taken into consideration, museum spaces to be brought into a competitive position should be perceived as a necessity (Zongker, 2018). The concept of contemporary design and corporate identity of museums has been encouraged with some design awards as well to continue their sustainability as historical, scientific, cultural and artistic importance (Baloian *et al.*, 2017).

Since 1977, the Council of Europe and the European Museum Forum have awarded the European Museum of the Year Award for a museum that has been modernized every year and has a contemporary design and appearance. This award plays a big role that encourages the prosecution of the contemporary structure by reorganising the museums. Turkey was awarded twice in 1997 and 2014. One of the award winning museums is Ankara Museum of Anatolian Civilizations (*Image 3*), while the Museum of Innocence (*Image 4*), which won the 2014 awards, is a museum built on a novel written by Orhan Pamuk (Masumiyet Meseum, 2018). When it is looked at EMYA data on its official website, it can be seen that the UK

has won the prize six times, France, Spain and Holland have won four times each, Germany and Switzerland have won three times each so they can be regarded as the most successful countries in European museology (Kirci, 2010). While the two times award winning Turkey shared the rank with other, it is noteworthy to say that South Cyprus won this award in 1991, with "Leventis Municipal Museum of Nicosia" (Yildiz & Dalman, 2018). South Cyprus, which has a smaller scale structure than the other countries on the list, exemplifies museum practices as a role model to North Cyprus to be examined with the prize it received (Argan, 2009).

Image 3. Ankara Museum of Anatolian Civilizations

Contemporary museum design in Cyprus

The island of Cyprus is situated in a place of cultural richness in historical sense due to the civilizations in its history and has great advantages geographically in the east of the Mediterranean because of having a strategic position. When it is looked from the west of the Mediterranean to the east, it is very important for the Mediterranean islands to reach the mainland as a stepping island, especially from the European continent and on its way to Anatolia, starting from the African. Because of this, many Mediterranean islands nowadays provide a major tourist contribution to the limited island economy with its history and culture (Misirlisoy & Gunce, 2016). Land price in the real estate sector, geographical advantages and cultural tourism are more regarded as economical source on the island as there are agricultural land restrictions and high land prices. When the cultural heritage of steppe islands is used correctly and the presentation is done well, serious in-

come is earned from the historical sites and museums. The most profitable sector to the economy of the North Cyprus is education besides tourism and the health tourism, which is getting more and more popular in the recent period. Having a small geography, the North Cyprus's educational level is very high, attracting tens of thousands of students from different countries and cultures to the island every year. These groups of students, who come to the island to study, should also be active in the museums which should become educational centres, so all these can contribute to the development of the island and its economy. This also has a great potential to contribute to the development and expansion of the local culture.

However, North Cyprus cannot exhibit the richness of its culture in its museums. This is not the result of the museums buildings are inherited or because of budget problems, it is because exhibition hall designs (from, content and material) are behind the conditions of today and updates are not done continually. When all of the above principles are compared, there is a serious problem of information design in North Cyprus. This problem has recently been investigated by NC administrators and a workshop has been organized to address the issue professionally. The workshop was organized and supported by the Assembly of Northern Cyprus in 2017 and a number of people form Turkey and North Cyprus participated. Makya 2017, "New Trends Workshop in Museums, Archives and Libraries" was organized in Kyrenia on June 7-8, 2017 and a draft plan was presented by putting the problems into a table. The solution recommendation is related to the institutionalization of these institutions, the planning of the sub-structural and technological problems such as the active involvement of relevant experts in the meetings, preparation and support of necessary laws and incentives (Makya, 2017). Some steps were taken in the framework of the planned program, and the Department of Antiques and the affiliated museums and archives' availability on electronic government system was ensured. However, the problem of museum design of exhibition and information continues. Also, human-focused deficiencies such as not having enough archaeological sites, storage, conservation of works and inventory, inadequacy of museum due to its design and lack of co-operation with related disciplines in universities can be thought as other leading problems.

Due to North Cyprus's relation with Turkey and the European Union, South Cyprus being a EU member, had an effect on the determining criteria to be applied and on setting its own outlines for North Cyprus. When north compared to South, there are good examples like Leventis Municipal Museum of Nicosia. The museum has been awarded as European museum of the year in 1991. Designers used colour codes as an identifying tool for timeline of the museum so each exhibition has a different colour_code in order to follow chronological time zone (*Image 4*). From the orientation room onwards, visitors follow the directory signs and information boards. All displays are highly interactive, informative and perceivable in every aspect. Lighting design and infographics with artefacts are combined to be able

one to understand (*Image 5*). Therefore by using all these with multimedia support creates an educative, informative and fun visit with energy saving effort for visitors. Museum also has a legible and interactively designed web page. This creates corporate identity for museum and serves information to visitors before planning their visits. Moreover ergonomic facilities are well thought and designed. All information panels, directory signs and graphics are on eye level of an average human height. Besides museum has a disabled lift and elevator to serve to disabled or aged visitors.

Municipal Museum of Nicosia, (EMYA awarded museum)

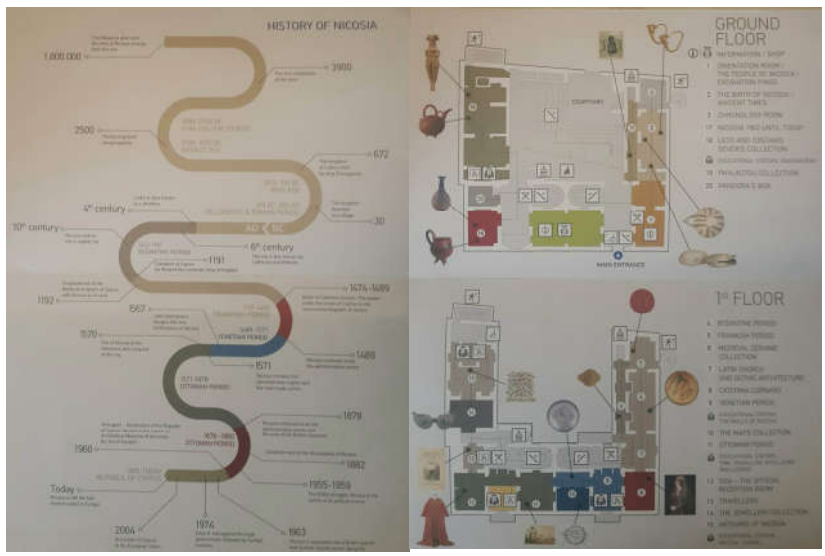

Image 4. Leventis Municipal Museum of Nicosia, Chronological color code, (photo credit: Serkad Hasan Işikören)

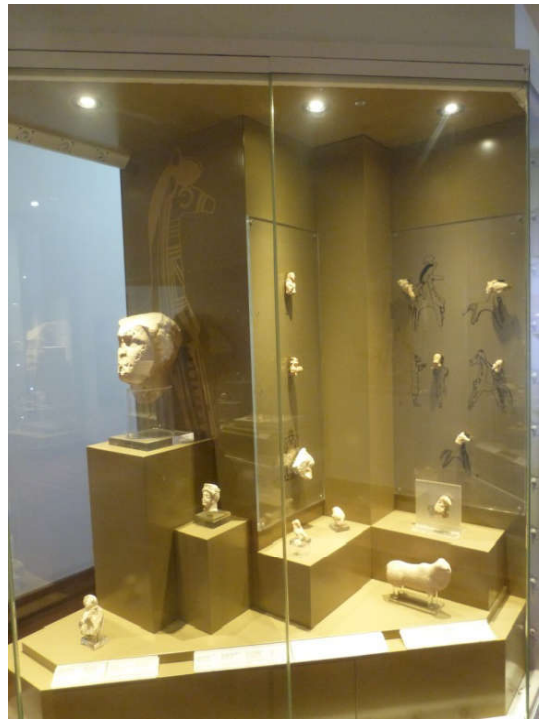

Image 5. Leventis Municipal Museum of Nicosia, Display

When you look at the St. Barnabas Icon and Archaeological Museum example; it is clear that the current situation is far from the given criteria. It is understood that the system is an inductive perception of the works without following the time, culture and technological content and without perceiving the whole. It is not possible to perceive the works in the museum as a holistic chronological sequence. The inability to follow the periodical and technological developments of a historical order and historical works leads to the problems to perceive integrity. The orientation-information items in the museum building are also not good enough and inadequate due to ergonomic and formal structure. Due to this, it is useful to examine the existing information elements from the entrance of the museum in accordance with the principles stated.

The museum sign (*Image 6*) at the entrance of the building blocks the historical texture of the building and shows incompatibility. Also, it has a form and content that is difficult and complex to perceive. The use of a material that does not interfere with the construction of the building and the historic structure, and a solution that will not damage it, will be more appropriate. (Transparent Plexiglas

material, which will not close the stone texture and will not have hierarchical priority in the whole building at first sight, is preferable to protect the texture). A typography that does not contrast with the texture will make it plain and easy to understand, so the image complexity will be prevented. Another problem that exists from the entrance is the direction, circulation and follow-up in the museum. There is no information board and directional element on the outside of the archaeology museum that follows the courtyard and meets the visitors with a "U" shaped architecture (*Image 7*). It is necessary to solve this problem, which creates confusion and it is important to direct, classify and separate the contents by providing perception of the whole. The material used in the information panels can be provided by using Plexiglas in the entire museum. The artefacts in museum rooms are exhibited in a confusing order in terms of the period. However, in order to prevent the confusion, an arrangement can be made in colour codes at the entrance of each room. A similar colour coding is also found at the Bilbao Archaeological Museum, which received the '2009 ANUARIA' award in the field of graphic design and marking. It is observed that the designer distinguishes the periods of exhibitions on different floors of the museum by using colour coding on the surface protrusions used by the architectural forms as their sustainability as historical, scientific, cultural and artistic importance is a must. This is the stratigraphy of the strata that are used for archaeological excavations and which distinguish the periods from each other (*Image 8*) (Arkeologi Museoa, 2009).

Image 6. St Barnabas Icon and Archaeology Museum, Museum Sign

Image 7. St Barnabas Icon and Archaeology Museum

Image 8. Bilbao Archaeological Museum, Colour code

Image 9. Bilbao Archaeological Museum, creating a chronological sense of continuity and perception

The current interior contains time and notice signs that are divided into pieces and located in different places, but they are difficult to track and see. However, the proposed colour coding can facilitate the continuity and follow-up of the exhibition in interior spaces, creating a chronological sense of continuity and perception (*Images 9*). Since there are no direction signs in the museum and in its garden, it is not possible to determine the units (*Image 10*). For this problem, proposals that demonstrate system integration will allow the museum to be perceived, exploited, and navigated correctly so to be aligned with its units. Thus, St. Barnabas museum will have reached a position where it can serve as a real museum, so it will be a model to other museums in NC. This will provide significant contributions to the island's educational, economic, cultural and artistic environment at national and international levels.

Image 10. St Barnabas Icon and Archaeology Museum, non-existing directory signs and "U" shaped courtyard

Findings

Museum Name	Lighting Design	Exhibition Design	Infographics	Ergonomics
St. Barnabas Icon and Archaeology Museum	*Only from Ceiling with florescent light. *It is hard to perceive details on artefacts	*Artefacts were not numbered. It is hard to recognize the material for there is no information about them. *Although displays were aligned chronically, U shaped architecture with many doors makes visitors confused about timeline. There is no sign for direction in museum.	*There are only some labels about historical periods and sections.	*All signs were located randomly. There is no calculation of an average human proportion.

Leventis Municipal Museum of Nicosia	*Interior space is enlightened with low light from ceiling. These lightings are useful to find transitions between galleries. *movable spot lights were used to enlight info boards on the walls *Powerful small lights are used in each display *Each and every artefact on displays highly perceivable.	*From the entrance of museum to the end all displays were designed chronologically. Designers used a different colour code for different periods. Same colour codes were used on displays as well so visitors can fallow the timeline. *All artefacts are numbered with info tags.	*Exhibitions are supported with video graphics and 3D touch screen projections. *There are floor plans and fire exits on walls of every floor. *All displays were designed with informative graphics. *City map on Plexiglas displays all archaeological sites and their locations. *Timeline Graphics on Walls.	*Every sign is on eye level *There is a wheel chair lift and an elevator for disabled visitors.

Conclusion

When two selected museums compared according to their designs, the general outline of both museums are so distinctive. On one hand EMYA winner Leventis museum meets the contemporary design approaches mentioned before. On the other St. Barnabas museum has lots of design problem. South Cyprus, as an EU member and politically recognised country, adopted contemporary design principles and applications in museums. Museums are renewing traditional approaches with contemporary designs. Foundations such as "Leventis Foundation" that was mentioned before plays an important role for funding municipal and governmental projects. The changing faces of museums in a modern way, effects increasing visitor number of museums and educational activities such as seminars, courses school trips organised by each museums. However, archaeology museums in north need to develop a governmental policy to adopt museums to global understanding of contemporary museum design. Developing corporate identity for museums, exhibiting them in web based pages and creating social media

accounts for museums has a critical importance on global marketing for touristic and educational purposes. Museums should be designed carefully -by considering the design concepts that was mentioned before- by professionals from every field (architecture, interior design, graphic design and web design). Universities in North Cyprus, is a good chance for North. There are 16 active universities in such a small country. Recently Dr. Fazil Kucuk museum is a good example for this kind of cooperative renovation. Senior instructor and graphic designer Gokhan Okur, from the faculty of Fine Arts and Design in Near East University, planned all graphics and information boards for the museum (*Image 10*). As it can be seen from the design sketches all displays and infographics were designed according to ergonomic principles by calculating human factor. Even though there are some deficiencies caused by financial limits, it should be a role model for governmental museums. This cooperation of government and universities will also boost educational facilities in Cyprus and economy of the country. Thereafter, museums will catch contemporary understanding of museum design ideals with the rest of the Europe and will continue their historical, scientific, cultural and artistic sustainability.

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