

Article

Evaluating Concept of Intervention on Historical Environment over Nieto & Sobejano Architects' Practices

Pınar Tabak, Ayşe Sirel

Istanbul Aydın University, Architecture and Design Faculty, Istanbul, Turkey

Abstract

Historical structures' functions may not be sufficient in today's conditions. Designers' duty is to support transformations of historical structures that grew multi-layered until today. Purpose of this research is to show that it is possible making contemporary interventions respectful towards original characteristics to prevent them become isolated and to enable sustainable conservation. Interventions show differences due to increasing materials' variety and improved technologies. These type of interventions especially in Europe have widened. It has become a common practice restoring historical structures using contemporary construction techniques. In the context of the research, the integrity of contemporary interventions in historical environment and the success of these over three cases of Nieto Sobejano Architects' Office in Europe are analyzed. Nieto&Sobejano Architects is a Spanish oriented architectural office established by Fuensanto Nieto and Enrique Sobejano. In the context, case studies- Moritzburg Museum, Joanneum Museum and San Telmo Museum are discussed. Contemporary interventions are inspected over the design approach criteria, place of addition, formative design criteria and other parameters. Additions of case studies give positive impact on historical structures, promote them to become attraction points in urban context and save them from being isolated by increasing the interest to the structures they are attached to.

Keywords: Contemporary addition, design criteria, historical structures, intervention, Nieto&Sobejano.

1. Introduction

Cities that have been nourishing by the contributions of cultures living in for centuries; shows the effects of cultural, artistic, political and economic events on built environment. Since the cities are accepted as documents reflecting history, the concept of conserving them was born. The concept of conservation has been more on the agenda recently due to cultural value of the existing structures and it is not economically profitable when they are reconstructed. In the last

decades, more emphasis is given to how an effective and sustainable conservation should be rather than the necessity of conservation. There has been a building stock functionally insufficient or out of use because of rapidly changing life routines, urbanization, wars and revolutions and arising of different technologies. Even though the attitude is different from past to today, these structures are revitalized by giving new functions and become active parts of urban life.

| INTERNATIONAL STUDIES ON CONTEMPORARY INTERVENTION/ ADDITION | |
|--|---|
| Carta Del Restauro (1931) | Article 9. It may be proper to use modern techniques for strengthening bearing system or consolidating the mass of a monument if traditional construction techniques would not succeed the goals. |
| Venice Charter (1964) | 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. |
| ICOMOS 3 rd General Assembly (1972) | Article 2. Contemporary architecture, making deliberate use of present-day techniques and materials, will fit itself into an ancient setting without affecting the structural and aesthetic qualities of the latter only in so far as due allowance is made for the appropriate use of mass, scale, rhythm and appearance. Article 3. The authenticity of historical monuments or groups of buildings must be taken as a basic criterion and there must be avoidance of any imitations which would affect their artistic and historical value. Article 4. The revitalization of monuments and groups of buildings by the finding of new uses for them is legitimate and recommendable provided such uses affect, whether externally or internally, neither their structure nor their character as complete entities. |
| Recommendation Concerning the Safeguarding and Contemporary Role of Historic Areas (1976) | Article 28. Particular care should be devoted to regulations for and control over new buildings so as to ensure that their architecture adapts harmoniously to the spatial organization and setting of the groups of historic buildings. To this end, an analysis of the urban context should precede any new construction not only so as to define the general character of the group of buildings but also to analyse its dominant features, e.g. the harmony of heights, colours, materials and forms, constants in the way the facades and roofs are built, the relationship between the volume of buildings and the spatial volume as well as their proportions and their position. |
| Burra Charter (1999) | Article 15.2. Changes which reduce cultural significance should be reversible, and be reversed when circumstances permit. Article 22.1. New work such as additions to the place may be acceptable where it does not distort or obscure the cultural significance of the place, or detract from its interpretation and appreciation. Article 22.2. New work should be readily identifiable as such. |
| Vienna Memorandum (2003) | Article 21. Taking into account the basic definition, urban planning, contemporary architecture and preservation of the historic urban landscape should avoid all forms of pseudo-historical design, as they constitute a denial of both the historical and the contemporary alike. One historical view should not supplant others, as history must remain readable, while continuity of culture through quality interventions is the ultimate goal. |
| Vienna Memorandum (2005) | Article 18. Decision-making for interventions and contemporary architecture in a historic urban landscape demand careful consideration, a culturally and historic sensitive approach, stakeholder consultations and expert know-how. Such a process allows for adequate and proper action for individual cases, examining the spatial context between old and new, while respecting the authenticity and integrity of historic fabric and building stock. Article 26. As a general principle, proportion and design must fit into the particular type of historic pattern and architecture, while removing the core of building stock worthy of protection ("façadism") does not constitute an appropriate mean of structural intervention. |
| Burra Charter (2013) | Article 15.1. Change may be necessary to retain cultural significance, but is undesirable where it reduces cultural significance. The amount of change to a place and its use should be guided by the cultural significance of the place and its appropriate interpretation Article 21.1. Adaptation is acceptable only where the adaptation has minimal impact on the cultural significance of the place. Article 21.2. Adaptation should involve minimal change to significant fabric, achieved only after considering alternatives. |

Table 1. International frameworks on contemporary addition/ intervention (compilation from URL 1, URL 2)

1.1. Aim of research

The aim of this research is to evaluate architectural form that was created as a result of additions reflecting today's construction techniques and material features in interventions on historical structures carrying the character of the periods they were built. It is targeted to examine the harmony of contemporary addition concept with the historical fabric in the general context of conservation. The success of the unity between the additions and the existing structure they are attached to in their new form of living will be discussed while design criteria of these additions will be revealed.

1.2. Scope of Research

In the scope of this research, design criteria of additions will be inspected. Design approaches, place of additions and formative features will be evaluated. The general definitions of authorized institutions and organizations on conservation in Europe will be examined over the historical environment/ addition issue.

Since contemporary additions in historical environment have been widely used in Europe, the research is focused on case studies from this region. In this sense, a review on the practices of Nieto& Sobejano Architects who are Spanish oriented and have made awards winning works in their field will be done. In choosing this firm for the research, it was important that they succeeded to become well known and be accepted with their works in many European countries, they have experience in historical environment and they work in a manner of evaluating each case in their own historical and urban context separately.

Moritzburg Museum in Germany, Joanneum Museum in Austria and San Telmo Museum in Spain are chosen among interventions of the firm as case studies. Each case has been built with a different attitude considering design approach and place of addition. Original structures' periods and their locations are different from each other. The additions they are attached are contemporary and this is what the cases have in common.

1.3. Methodology of Research

In this research, sample applications that will explain the concept of "addition in the historical environment" in terms of different criteria will be selected and examined.

Literature review on the concept of additions have been done; it has been benefited from the researches in order to define under which kind of criteria these additions are built in terms of design approach, place of addition, formative design criteria. With the theoretical framework literature review provides, the analysis of additional interventions was made. A reading was done over plans, facades and sections after interventions and general characteristics of chosen structures.

2. Concept of new structure/ addition in historical environment

2.1. Charters and conventions on new structure/ addition in conservation concept

The first official statement of addition concept is in Carta Del Restauro in 1931 and then in Venice Charter in 1964. It is obvious that contemporary additions and interventions have been intensely argued in international arena for approximately last 50 years. In order to be understood clearly, related articles/ definitions are presented in Table 1.

Statements concerning contemporary additions on historical structures were included in articles of 3rd General Assembly of ICOMOS in 1972, Recommendation Concerning the Safeguarding and Contemporary Role of Historic Areas in 1976, Burra Charters in 1999 and 2013, Vienna Memorandum in 2003 and 2005.

2.2. Progress of additions in historical environment

Historical environment is a reflection of a collective memory improving progressively and dynamically by the contributions of individuals living in from the day it was created until today. During the arising and progress of conservation progress; the necessity of acceptance for historical environment as a universal value of humankind rather than a belonging to a single country supported that it should be protected. Researches have been developed on how the conservation should be and what kind of design principles should be more appropriate to implement.

Since design concept is a dynamic process, the ecological problems and economic concerns of today effected the interventions to be applied in historical environment. Ecological solutions and sustainability are leading the conservation process nowadays. Besides the classical

terms like restoration and maintenance, terms such as renewal, reintegration, façadism, infill, adaptive reuse, revitalisation, reuse, adaptation are now one step forward. Some examples of these could be seen in Figure 1. Concept of addition is a tool used to create these actions.

According to Townsend who is a researcher defined the main and sub titles of conservation and adaptive reuse, the goals of adaptive reuse in strategic planning are; economy, place, nature, psyche and community who composes the social side of conservation. Figure 2 shows the principles Townsend argues as main and sub titles as a summary.

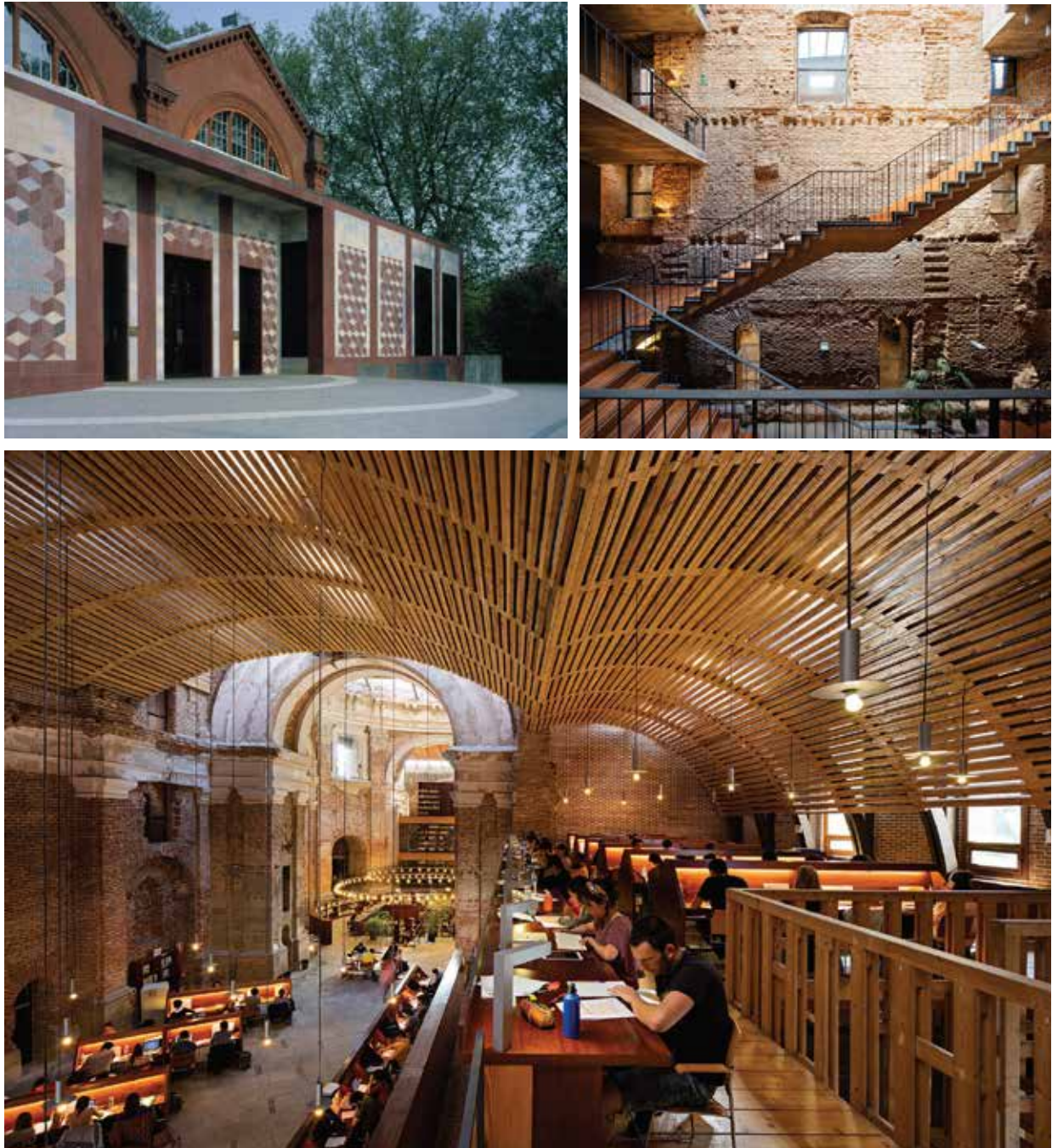


Figure 1. St.John Architects' Museum of Childhood (façadism) and Escuelas Pias Church (adaptive reuse) (Plevoets&Van Cleempoel, 2019)

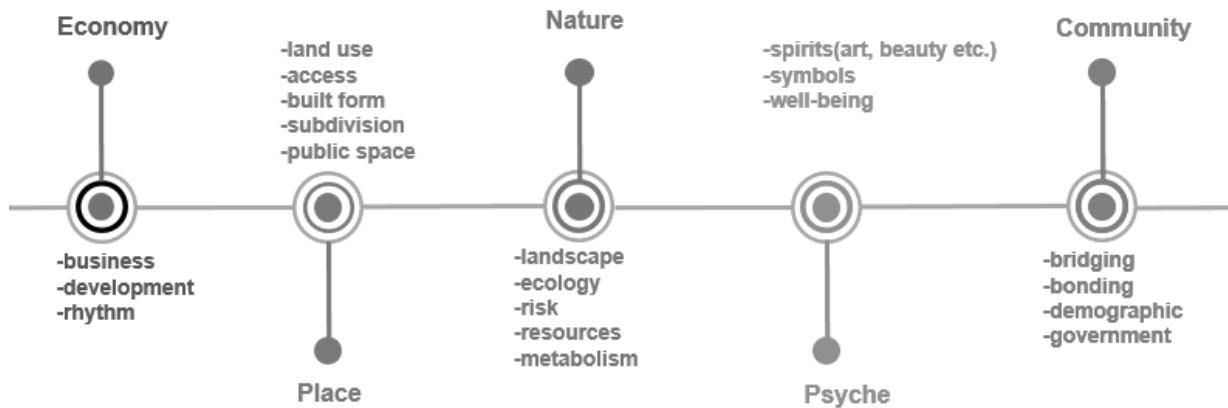


Figure 2. Strategic planning theory of Townsend (Interpreted and summarized by the authors)

Mine Tanaç Zeren (2010) summarized why historical structures may need additions in her book “Tarihi Çevrede Yeni Ek ve Yeni Yapı Olgusu” as follows:

- Need of new spaces that will serve for the secondary functions assigned for the structures during recycling, renewal and refunction processes of historical constructions,
- Need of integration of historical structures’ damaged or demolished parts in terms of aesthetic, functional or structural balance.

Dibner explains the need for additions as demolitions as a result of catastrophic events such as wars, earthquakes, expansions due to functional reasons and insufficiency of functions. Torres draws attention to the fact that sources could be saved and pollution that may arise on producing manufacturing of sources would be restrained, unnecessary production and transportation would be avoided and solid waste and urban sprawl would be prevented only with the reuse of existing structures (Jameel,2011).

Hunt and Boyd (2017) who are authors of “New Design for Old Buildings” explain a new design is difficult to define but easy to recognize. They argue that new interventions on existing structures could be achieved through a comprehensive evaluation of existing structure’s form, function, material, history and progress over time and the assessment of the clues it presents with its volume, proportion, features, importance and context.

3. Design criteria of contemporary additions in historical environment

Different approaches are adopted in new addition-existing structure connection in order to obtain visual integration. The classifications defined by experts working on this field generally overlap on the main points. Design criteria of additions has been addressed in different ways in different countries.

3.1. Criteria for design approach

Researchers and experts working on contemporary addition/ historical structures defined different criteria considering design approach. The scale Erkartal and Ozuer created in 2016 is one of the most concrete classifications on the subject. Dibner (1985) defined the approaches as opposite, replica, creating similar with reference, transition and façadism. Zeren (2010) made a description of a transition from replica of style to opposite considering design approach. Table 2 explains the different criteria of the researchers. The opposite approach or a mixed one between old and new structure’s connection is usually described as a choice that is shaped according to designer’s perspective or wishes (Bruins,2017).

Loew (1998) indicates the relationship between old and new has different approach from unity and opposite to invisibility in his book “Modern Architecture in Historic Cities”.

| Researcher | Design approach criteria |
|-----------------|--|
| Dibner (1985) | opposite, replica, reminiscence, transition and façadism |
| Loew (1998) | unity, opposite, invisibility |
| Zeren (2010) | replica of style, emulation of tradition, respectful and opposite approach |
| Erkartal& Özüer | replica, referential, neutral, abstract reference, opposite |

Table 2. Design approaches in historical structure- addition relationship (Created using Dibner, Loew, Zeren, Özüer&Erkartal's studies)

Even though different researchers introduce different design criteria considering design approaches, resemblance, neutralism obtained by using transparent material and using opposite design criteria on purpose are generally common terms in most of the studies. Figure 3 shows some of the examples of these main criteria.

3.2. Criteria According to the Place of Addition

Another important criteria considering design principles about additions on historical constructions are where these additions are placed. This place may come out naturally due to the needs of restoration or function. In

some cases, designers may wish to embed the addition totally inside the existing structure on purpose or may prefer to hide it under the ground. While the real intervention remains under the ground level, there may only be a resemble over the ground like in the case of Glass Pyramid of Louvre Museum. In Antwerp Port House Case; Zaha Hadid replaced the new intervention over the existing structure avoiding any contact near the facades since the area is in a port region and very valuable. Table 3 shows the examples reflecting these criteria.



Figure 3. Replica, neutral, opposite design approaches. Lyon OperaHouse, Bern History Museum, Ontario Museum. (URL 3, URL 4, URL 5)










| Addition- existing structure relationship | | |
|---|---|---|
| Over existing structure | Attached over existing structure | Between existing structures |
|  <p>ANTWERP PORT HOUSE Belgium</p> |  <p>BRITISH MUSEUM Britain</p> |  <p>JOSLYN ART MUSEUM USA</p> |
| Attached to existing structure | Below ground | Inside of existing structure |
|  <p>NATURAL HISTORY MUSEUM Britain</p> |  <p>LOUVRE MUSEUM France</p> |  <p>HAMBURG CHAMBER OF COMMERCE Germany</p> |
| Beside the existing structure | Engaged with existing structure | Back/front of existing structure |
|  <p>BERLIN JEWISH MUSEUM Germany</p> |  <p>DRESDEN MUSEUM Germany</p> |  <p>CAMBRIDGE POST OFFICE LIBRARY Canada</p> |

Table 3- Old- new connection criteria according to connection place

3.3. General Formative Criteria

Most important physical features which characterize design criteria like opposite and resemblance approaches are generally material, fabric and form. Other important factors influencing the design in terms of harmony with the existing structure are height, proportion, mass, scale, rhythm. Especially repeating the façade components like windows, pillars and etc. effects the form of design with the concern of enabling the harmony with existing fabric. In order to emphasize design approach; criteria such as rhythm, fabric, colour and scale may be chosen in a style of opposite or resembling way comparing to existing structure. According to Loew (1998), the general issues in this concept are roof level, building scale, mass, height, rhythm, material and ornaments. Some examples

reflecting formative criteria are represented in Table 4.

3.4. Other Criteria

The issues that affect design in new additions or structures and that should be paid attention to may be increased. The flexibility of design would let the addition to be removed without any harm on current fabric and structure if any changes occur in the future.

There are many criteria that influence the concept of intervention such as the organization of place of the addition (roof consolidation, circulation area etc.), whether the additions are structural or not and designing the addition considering not only the existing building but also the planning lot and even the region it is located.







| MASS | | RHYTHM | |
|---|---|---|--|
| In harmony | In harmony | In harmony | Lack of harmony |
|  |  |  |  |
| HEARST BUILDING (URL-6) | BENSBERG TOWN HALL (URL-7) | JAMES SIMON GALLERY (URL-8) | AN EXAMPLE IN PARIS (Sağlam,2018) |
| HEIGHT | | | |
| In harmony | In harmony | | |
| MATERIAL | | | |
| In harmony | Lack of Harmony | | |
|  |  | | |
| GRANARY BARKING HOLBURN MUSEUM (Hunt&Boyle,2017) | | | |

Table 4. Addition examples according to formative criteria

Table 4. Addition examples according to formative criteria

4. General Review of Historical Structures' Intervention in Europe

4.1. Improvements Affect Addition Concept in Conservation Process of Europe

Improvement of restoration concept was born with the idea of rehabilitating the damaged monuments after French Revolution. Due to the dominant belief of "style unity" that Viollet le Duc was leading in 19th Century, the monuments' restoration was held ignoring any period additions. 20th century started with a manner called anti-restoration with the names who support this ideal like John Ruskin. The development of contemporary restoration theory with an understanding of conservation based on documents and archival documents and the introduction of the first legal regulations such as Carta Del Restauro set the foundations of theoretical development and international preservation. (Ahunbay, 1996).

Air bombings after II. World War set the most important cities of Europe like London, Berlin, Warsaw, Florence on fire and destroyed them in a large scale. Some of the settlements' physical appearances were rebuilt with restorations and reconstructions after the war ended (Jokilehto, 2002). An international dimension on conservation started to be discussed with the establishment of institutions like ICOMOS and UNESCO. A comprehensive and combined planning approach for conservation became essential because of the difficulty of historical cities' integration to modern society when they are conserved with an attitude of freezing them in time and difficulty of organizing functions that the modern periods require like transportation (Plevoets & Van Cleempoel, 2019).

Site-based conservation and revitalization practices have become widespread in order to make these areas living and active parts of the city starting from 1970s. Social, political and economic reasons have developed this understanding (Arabacıoğlu & Aydemir, 2007). Reuse of these existing structures limits the pollution due to extractions, production and transportation of new materials, collection of solid waste and growth of urban sprawl (Jameel & Saffo, 2011).

4.2. Nieto & Sobejano Architectural Office

The office was set up with the collaboration of Fuensanta Nieto and Enrique Sobejano in 1985 and continues its

work in two bases; one is in Madrid and other one is in Berlin.

The office won National Prize for Conservation and Restoration of Cultural Heritage award in 2007, Aga Khan Award in 2010, Europe Museum of Year in 2012, Alvar Aalto Medal in 2015 and Gold Medal of Merit in the Fine Arts in 2017. It was a turning point on rehabilitation projects that they worked in a hangar turning it to Embarcadero Civic Centre in 2003. It was an example of industrial archaeology in which they inhabited historical structure by using a contrasting architectonic language of elongated steel and glass boxes as a building within the building (Nieto & Sobejano, 2010). They worked mostly in Europe but also in various countries including even Far East and their works were implemented following many competitions they attended. They made reputation with various award winning interventions in historical environment and they work with the principle of creating special solutions for each case and evaluating each case in their own settings. As a result, they don't repeat themselves in each cases.

4.3. Addition Interventions of Nieto & Sobejano Architecture

4.3.1. Moritzburg Museum (Germany)

The intervention was applied on the museum located in German city Halle in 2008. The structure was built during the transition periods of Renaissance and Gothic (end of 15th century) and damaged after 30 years' wars. The structure is originally built as a castle serving as a residence for Renaissance Princes and it was neglected until it was reconstructed in 19th century. Table 5 consists of structure's drawings and photos after intervention.

The most significant factor of renewal is the aluminium roof cover on top. The trapezoidal shape of the roof was inspired by famous Bauhaus artist Lyonel Feininger's painting series depicting city of Halle (created from the top of Moritzburg Museum) between 1929-1931. Windbreaker in front of Gothic entrance located in castle's courtyard, café in the back of reception, cloakroom, shop, toilets, elevator and ticket office are among new additions.

The basic mechanism relies on sensing the interior west wing as a whole for the visitors. This is enabled by a white cubic formed gallery which is attached to the

original bearing walls on a couple of points and is hung by from the steel roof structure. In this way, a connection

between past and today was solved with a design that can be described as a temporary construction.

| | | |
|--|--|---|
| <p>Moritzburg Museum (Germany)</p> |  |  |
| |  |  |
| |  | |

Table 5. Moritzburg Museum's site plan, drawings and photos (Nieto&Sobejano, 2010, URL-9)

4.3.2. Joanneum Museum (Austria)

The intervention located in Graz is based on the design principle of contributing city's horizontal development. Glass cones were located on the courtyard are printed with dots that have different sizes and densities. These series of printed glass cones both filter natural light and also enable solar protection. These cones were located

as a series of circular combination which sets horizontal continuity of new courtyard while hosting main lobby, entrance and shared spaces of museums letting them access with natural light in basement. Table 6 shows the drawings and photos of the structure after intervention. First basement floor consists of ticket office, cloakroom, book store and reading space of Regional Library. Second

| | | |
|------------------------------|--|---|
| Joanneum Museum (Austria) |  |  |
| |  |  |
| |  | |

Table 6. Joanneum Museum's site plan, drawings and photos (Nieto&Sobejano, 2010, URL-10)

basement floor is reserved for library and has enough space for storing 1 million books. Existing structures are composed of three buildings from different periods. Natural History Museum was built in 18th century, Styria Regional Library and New Modern Art Gallery are built in the second half on 19th century. The project was seen as an opportunity in order to achieve urban and architectural recycling rather than creating an iconic intervention according to the office. The designers define the intervention as a “carpet that takes up the whole exterior space between buildings and conceals below ground the spaces that house the required program” (Nieto&Sobejano, 2010).

4.3.3. San Telmo Museum (Spain)

In order to expand the existing structure of San Telmo Museum, designers kept 20th century Beaux-Arts entrance wing, 16th century courtyard and

infrastructure and circulation spaces of medieval church untouched with only improving them. With the help of a retaining wall, the space of the museum is doubled. On top of the hill where museum is located stands Santa Cruz de la Mota castle.

The exterior of additional wall is covered with a combination of perforated aluminium pieces and different sized elliptical holes were applied on this wall. The wall is camouflaged by small plants and succulents inserted in these holes.

Bastion shaped flange juts out to create an enclosure and offers a new access point to climb the hill. New museum entrance and café, auditorium, library and education centre for children are located under the new wing. Offices are designed related with the inner courtyards at the back (Nieto&Sobejano, 2010). Table 7 shows drawings and photos after intervention was applied.


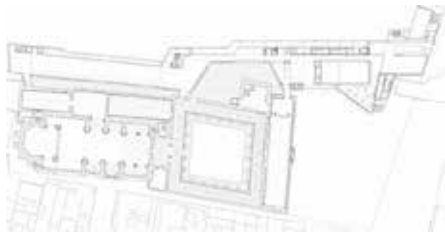
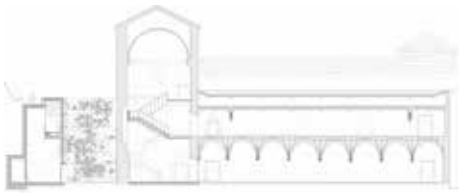



| | | |
|-----------------------------|---|--|
| San Telmo Museum (Spain) |  |  |
| |  |  |
| |  |  |

Table 7. San Telmo Museum's site plan, drawing and photos (Nieto&Sobejano, 2010, Fuchs, 2011)

5. Findings

Moritzburg Museum, Joanneum Museum and San Telmo Museum of Nieto&Sobejano Architects are inspected in this research. The contemporary additions of this office's works are built in different countries and they have different features considering their periods. They were inspected according to the design criteria revealed in the context of literature survey of this research. An analysis was held considering these criteria in Table 8 and Table 9. Table 8 shows the analysis of design approach and place of additions. According to its findings, it is found out that in two of the case studies of the research, opposite design approach was adopted while in one of them neutral design approach was preferred. Table 9 is composed of formative criteria and other criteria that define the relationship of the addition with the existing structure.

After a general examination of the data obtained from the analysis, it is clear that innovative construction techniques and material features were preferred in all the cases and designs that are in harmony with existing structure in terms of mass and scale were implemented. In spite of choosing different colors/fabric comparing to the existing structures, the interventions were obviously built with a concern of environmental issues. A consideration of future design flexibility was taken into account in all interventions and they were built suitably for the future possibility of removal without giving any harm on the existing structure. In this context, keeping in the framework of international charters and standards on contemporary interventions, modern design applications such as solar glass and ecologic wall were used professionally.




| |    | Design approach criteria | | | Place of addition criteria | | | | | | | | |
|---|--|--------------------------|----------|---------|----------------------------|----------------------------------|-----------------------------|---------------------------------|--------------|------------------------------|-------------------------------|---------------------------------|-----------------------------------|
| | | Replica | Opposite | Neutral | Over existing structure | Attached over existing structure | Between existing structures | Attached to existing structures | Below ground | Inside of existing structure | Beside the existing structure | Engaged with existing structure | Front/ back of Existing structure |
| 1 | | • | | • | | | | | | | | | |
| 2 | | | • | | | | | • | | | | | |
| 3 | | • | | | | | • | | | | | | |

Table 8- Design criteria/ place of addition analysis

| CASE STUDIES | Formative criteria | | | | | | | | | | | Other criteria | | | |
|--------------|--------------------|-----------|------------|-------------|------------|-----------------|--------|-------|-------|------------|----------------|---------------------|----------------|-------------|-----------------|
| | Colour | | Material | | Mass | | Height | | | Scale | | Structural criteria | | Flexibility | |
| | Similar | Different | Innovative | Traditional | In harmony | Lack of harmony | Higher | Equal | Lower | Compatible | Not compatible | Structural | Non structural | Demountable | Non demountable |
| 1 | | • | • | | • | | | • | | • | | • | | • | |
| 2 | | • | • | | • | | | | • | • | | | • | • | |
| 3 | | • | • | | • | | | | • | • | | | • | • | |

Table 9- Formative/ other design criteria analysis

6. Conclusions

The adaptation of historical environment to today is only available when the values they carry could be transferred into the future generations in a respectful manner. The restoration approach which adopts adding no additions or interventions have changed in recent decades. As a result, interest in historical structures has increased especially in Europe. Following the special attempts and architectural competitions, designs that will help these structures to become the most prestigious buildings and attraction points of the cities are applied. Even though, different design approaches are adopted in different countries, the starting point of all these is the respect towards the existing structure's original identity and sustainable conservation.

The case studies analyzed in this research have different formative design criteria and approaches but they have one design principle in common. They were all built in a flexible design approach that if any change occurs in the future, the design can be removed without giving any harm on the original structure's setting.

It is easier to obtain this design flexibility thanks to the help of contemporary construction techniques, material options and software technologies. The most important outcome in this research's case studies is that the interventions taking into account of these criteria could let historical structures find themselves active spaces in urban identity and survive their lives effectively.

References

- Ahunbay, Z., (1996), Tarihi Çevre Koruma ve Restorasyon (1. edition) (19). Istanbul, YEM.
- Arabacıoğlu, P. & Aydemir, I. (2007). Tarihi Çevrelerde Yeniden Değerlendirme Kavramı. YTU Architectural Faculty 2, 4, 204-212. <https://megaronjournal.com/tr/jvi.aspx?pdire=megaron&plng=tur&un=MEGARON-36349&look4=>
- Brolin, B.C. (1980). Architecture in context: Fitting new buildings with old. Grants Recognition Program of the NEA.
- Bruins, O. (2017). The beauty of dereliction: Designing with ruins and decay. Delft University of Technology. <https://repository.tudelft.nl/islandora/object/uuid:10a86356-cd1a-4ca8-82d6-bc5005aa67ef/datastream/OBJ/download>
- Dibner, D. R. & Dibner-Dunlap, A., (1985). Building Additions Design, McGraw- Hill.
- Erkartal, P. Ö., Özüer, M. O., (2016). Tarihi Dokuyu Taklit Etme/Yok Sayma, Fill In The Blanks, Fener- Balat Workshop, Istanbul.
- Fuchs, C. (2011). San Telmo-Museum in San Sebastián Details. Published 12.12.2011. <https://www.detail-online.com/article/san-telmo-museum-in-san-sebastian-16392/>

Jameel, A.H.&Saffo, B. (2011). Patterns of Additions to Old Buildings. Researchgate Publications.
https://www.researchgate.net/publication/304783859_Patterns_of_Additions_to_Old_Buildings
Jokilehto, J. (2002). A History of Architectural Conservation. Butterworth-Heinemann Series in Conservation and Museology.
Hunt, R.&Boyd, I., (2017). New Design for Old Buildings. The SPAB approach to contemporary architecture in historic contexts.
Loew, S. (1998). Modern Architecture in Historic Cities. Routledge London and New York.
Nieto & Sobejano Monografias. (2010). Arquitectura Viva SL [Monograph]. Ministerio de Cultura.
Plevoets, B.&Van Cleempoel, K., (2019). Adaptive Reuse of Built Heritage. Concepts and Cases of an Emerging Discipline. Routledge London and New York.
Sağlam, K. (2019). Tarihi çevrede çağdaş eklerin biçimsel ve kavramsal kriterlere bağlı değerlendirilmesi. Msc Thesis. Karadeniz Technical University, Trabzon.
Townsend, L. (2015). Effective Strategic Planning, Planet Training Notes. Planning Institute of Australia.
Zeren, T.M., 2010. Tarihi Çevrede Yeni Ek ve Yeni Yapı Olgusu, Yalın Publishhing.

URL1: <http://www.icomos.org.tr/?Sayfa=Digeruluslararasıbildirgeler&dil=tr>
URL 2: <http://www.alanbaskanligi.gov.tr/ulusal.html>
URL 3: Lyon Opera House
<http://www.jeannouvel.com/en/projects/opera-3/>
URL 4: Gallery: Extension of Historical Museum in Bern
<http://www.adgnews.com/extension-of-historical-museum-in-bern/gallery/2>
URL 5: Royal Ontario Museum
<https://libeskind.com/work/royal-ontario-museum/>
URL 6: Hearst Building
<https://www.fosterandpartners.com/projects/hearst-headquarters/#gallery>
URL 7: Dosya: Rathaus-bensberg-einfahrt.jpg
<https://tr.m.wikipedia.org/wiki/Dosya:Rathaus-bensberg-einfahrt.jpg>
URL 8: James-Simon-Galerie
<https://www.arkitektuel.com/james-simon-galerie/>
URL 9: Moritzburg Museum Extension / Nieto Sobejano Arquitectos
<https://www.archdaily.com/132838/moritzburg-museum-extension-nieto-sobejano-arquitectos>
URL 10: <https://www.nietosobejano.com/project.aspx?i=4&t=JOANNEUMSVIERTEL>

