

A Contemporary Design In Historical City Textures: “Crystal Houses In Amsterdam”

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Abstract

In the historical city textures that exhibit the history and cultural richness of the cities, the reconstruction activities that are generally carried out in harmony with the texture can also be done not only with the traditional approaches but also with a different approach; in other words, with contemporary designs. An important application that sets an example for contemporary interventions in historical texture in terms of material and form and texture is the building named Crystal Houses in Amsterdam, Netherlands. In this study, with the example of Crystal Houses, the harmony of the renovations carried out with contemporary design in historical urban textures according to the historical texture and ICOMOS charters, and UNESCO recommendations are examined. For this purpose, firstly, the concept of historical city texture, its importance, and traditional and contemporary approaches applied in new designs in historical textures are explained. Firstly, to conduct this study, the importance of the historical city textures and traditional and contemporary preservation approaches are explained briefly. Afterward, Crystal Houses was examined in detail, and the integration of the applications made with contemporary materials, form, texture, and color with the historical texture was revealed. The evaluations indicated that the building is renovated in a compatible manner to the international charters and recommendations. With this application, it has been observed that contemporary designs that are contrary to the traditional concept in historical textures can be compatible and respectful to historical heritage while creating unique structures.

Keywords: Crystal Houses, Historical City Textures, ICOMOS, UNESCO, Contemporary Façade.

Tarihi Kent Dokusunda Çağdaş Bir Tasarım: “Amsterdam’da Crystal Houses”

Öz

Kentlerin tarihlerini ve kültürel zenginliklerini sergileyen tarihi kent dokularında, genellikle dokuya uyumlu gerçekleştirilen imar faaliyetleri, geleneksel yöntemlerin yanı sıra farklı bir yaklaşımla çağdaş tasarımlarla da yapılabilmektedir. Tarihi dokudaki çağdaş tasarımlara, gerek malzeme gerekse biçim ve doku olarak örnek teşkil eden önemli bir uygulama da Hollanda’nın Amsterdam kentinde yer alan Crystal Houses isimli yapıdır. Çalışmada, Crystal Houses örneği ile tarihi kent dokularında çağdaş tasarımla gerçekleştirilen yenilemelerin, tarihi dokuya ve ICOMOS tüzükleri ile UNESCO önerilerine göre uyumu irdelenmiştir. Bu amaçla, öncelikle tarihi kent dokusu kavramı, önemi, ve tarihi dokulardaki yeni tasarımlarda uygulanan geleneksel ve çağdaş yaklaşımlar açıklanmıştır. Sonrasında ise Crystal Houses detaylı olarak incelenerek, çağdaş malzeme, biçim, doku ve renkle yapılan uygulamaların tarihi doku ile bütünleşmesi ortaya çıkarılmıştır. Yapılan değerlendirmeler, binanın uluslararası tüzüklere ve önerilere uyumlu bir şekilde yenilendiğini göstermiştir. Bu uygulama ile de tarihi dokulardaki geleneksel kavrama zıt fakat uyumlu çağdaş tasarımların, tarihi mirasla uyumlu ve saygılı olabileceği, aynı zamanda benzersiz yapılar oluşturabileceği görülmüştür.

Anahtar Kelimeler: Crystal Houses, Tarihi Kent Dokuları, ICOMOS, UNESCO, Çağdaş Cephe.

1. Introduction

Historical textures in the cities are historical buildings and monuments from the past to the present and are the legacies of the city's history's cultures. The historical textures that generally constitute the cities' centres exhibit the cities' formation and development since their establishment and reflect their history. Structures and textures shaped by environmental formations in the historical cities have witnessed many events and have maintained these essential functions until today. Besides, historical cities and monuments are the cultural heritages and symbolize our history. The preservation of them is essential for protecting cultural heritage since the time is brutal against the architecture. Therefore, architects and archaeologists should be aware and conscious of the importance of protection as part of their professional ethics. The ideas of restoration and renovation date back to ancient times (Ahunbay, 1999). The sustainability of the historical environment is essential since they are essential for society to express their aesthetic judgment. In the past, religious buildings or important structures were considered worth preserving. However, by the time the attractive building or monument itself and the other buildings surrounding the main one were also preserved to protect the historical city texture comprehensively. Besides, the ideas of restoration and preservation were evolved, and developments in technology. Many international charters were also accepted throughout the years. Besides, various approaches and ideas revolved around the

restoration, such as traditional and contemporary methods. The preservation of the historic environment does not have to be a complete reproduction of the older structure. It can be done differently using newer materials and contemporary approaches without competing for the original structure and its surroundings. However, there is no one correct approach, and some support one, and some support another.

Therefore, this research is important by evaluating the contemporary interventions using a case study building under the light of international conservation charters and recommendations and building's coherence to the surrounding. The case study is selected as Crystal Houses in Amsterdam because, in the literature, there are some researches about this building, but all of them are concerned about the issues of design and production of the innovative glass façade (F. Oikonomopoulou, Bristogianni, Veer, & Nijse, 2016, 2018; F. Oikonomopoulou, Veer, Nijse, & Baardolf, 2015; Faidra Oikonomopoulou, 2019). However, there is a gap in the literature on the studies that analyze this building within the context of historical city textures and its compatibility with the international charters and recommendations. Therefore, this research also supports the idea of using contemporary intervention approaches to make renovations that are remarkable, harmonious with the historic environment, and well-matched with the international charters and recommendations.

This study aims to analyze the contemporary interventions to building and examine the compatibility of the intervention aim, construction methods, and the material usage to the International Council on Monuments and Sites (ICOMOS) charters and United Nations Educational, Scientific and Cultural Organization (UNESCO) recommendations.

This study's evaluation is limited only to analyzing the selected building in detail and the surrounding area in general with selected ICOMOS charters and UNESCO recommendations. By using contemporary intervention methods, it is possible to design and renovate the buildings that are still part of the historic textures and has notable appearances at the same time. For this study, Washington Charter and Valetta Principles are the selected ICOMOS charters, and "Recommendation Concerning the Safeguarding and Contemporary Role of Historic Areas" is the used UNESCO recommendation since they are considered as the most suitable ones for the preservation of the buildings in the historical cities with the contemporary intervention methods.

As the research method of this study, qualitative methods are used. The second chapter of this study shows the importance of historical city textures, traditional and contemporary intervention approaches to protect the historical cities are explained. In the third chapter, the Crystal Houses' intervention methods and their harmony with the selected ICOMOS charters and UNESCO recommendations are analyzed by examining the charters, using the architectural firms' discourses Crystal houses and other academic papers about the construction process of the building used as analysis source. Finally, the fourth chapter summarises the discussions and conclusions.

2. Historical City Textures

The historical texture of a city is the name given to particular order in the historical layers, historical, social, and cultural accumulation of that city in life, settlement order, positioning, and physical structuring of the city. The historical city textures are important, and they are not just heritages from the past but also relics that need to be passed through to the next generations. They are an essential part of society's cultural heritage, creating the historical city textures composed of two main sections. The first section is a movable heritage (such as heritage, such as paintings, sculptures, books, furniture, jewellery). The other one is the immovable heritage that consists of buildings, lands, gardens, and archaeological sites (Ahunbay, 1999). In addition, intangible factors such as memories, traditions, and symbolical meaning are inseparable parts of the tangible elements. Therefore, according to this information, one definition of historical city textures can be done as the spatial buildings that show the development of a society and its cultural identity and the living proof of the past that shaped those (ICOMOS, 2011). Historical or traditional areas are components of people's daily lives. Historical textures in the cities connect the people with the city and memories and remain to the present. That connection motivates the people and creates a strong link with the city. Having a strong connection with the city helps and raises awareness of the people to improve the city and the environment (Razavizadeh, Majedi, & Habib, 2015). Therefore, protection and unification of them with modern society are the base for town-planning and land expansion.

In 1883, the Boito declared five contemporary restoration principles and extended it to the international level with other architects' help. Some charters were accepted and published globally to have more reliable methods and foundations for historical protection and restoration (Ahunbay, 1999). Athens Charter for the Restoration of Historic Monuments (1931), Carta del Reastauro (1932), The Venice Charter (1964), and The Declaration of Amsterdam (1975), and Washington Charter (1987) were some of the internationally accepted charters.' UNESCO's "Recommendation Concerning the Safeguarding and Contemporary Role of Historic Areas" is declared to protect and preserve the historical city textures. Those declarations and charters aim to provide guides for preservation and restoration. Besides, they can be considered sources to raise awareness of the people and create international responsibility to conserve and restore the historical city textures.

Therefore, the protection of the historical city textures is a must. The conservation and the restoration of those areas and buildings should be done according to some criteria. The interventions based on the scientific confirmations suggest less intervention to the building, structure, monument, etc. Consolidation of foundation and structural systems, integration and completion, restoration, reconstruction, cleaning, and moving are intervention ways. However, the mentioned interventions can be done in two ways: traditional approaches and contemporary approaches.

2.1. Traditional Approaches

The traditional approach has been the widely used method in developing historical urban textures since the past. Traditional approaches are the more common ones, and the aim is not to pop out new materials and construction technology. In the new development activities in the texture, it is necessary for the architectural characteristics such as material, facade, covering system, height, and street silhouette to be similar to the old texture and to protect the integrity and preservation of the historical texture. However, it is still crucial to create a result where the new extensions and reinforcements are not alien to the original structure yet easy to recognize (Ömercioğlu, 2010). In the traditional restoration approach, the aim is not to create the new structures that are the complete replica of the old ones and looking old but using similar materials and construction techniques to create compatible and similar looks where the restoration is still be identified. For instance, the new brick extension of the Hawkins\Brown's office in London to a Victorian building is a triumphant work of the traditional scientific restoration approach (Figure 1).



Figure 1. Hawkins/Brown's office extension (Crocker, n.d.).

2.2. Contemporary Approaches

The contemporary approach emphasizes structural interventions by using modern technology and materials. The use of steel and glass is highly prevalent in this approach. Therefore, the interventions can be distinguished from the original while preventing the subject from reflecting a false history and showing the period's construction principles when the extensions are done. However, the relationship between the original structure and extension or new part is highly crucial since the contemporary materials and methods should be respectful to the original. On the other hand, the mentioned "respect" to the original building should be avoided to be perceived as imitation (Ömercioğlu, 2010).

In many projects, contemporary approaches are used for restorations and interventions. One of the well-known examples is the glass pyramid in the Louvre Museum's court (Figure 2).



Figure 2. The glass pyramid in the Louvre Museum (barnyz, 2016).

New structures and extensions to the old ones can use more contemporary construction materials, and even production procedures can be different. However, respecting the old buildings is historical textures. Both old and new structures can be in harmony. Glass and steel are the commonly used contemporary construction materials by having a lighter and more transparent appearance to show respect to the original environment.

In this study, Crystal Houses in Amsterdam will be evaluated in detail as an example by having contemporary restoration approaches in the light of international charters and recommendations mentioned above.

3. Crystal Houses in Amsterdam

The buildings, squares, monuments, and so on in the historical city create a coherent texture with a robust spatial organization. Therefore, both tangible and intangible heritage around the historic city should be carefully protected and restored where needed since the historic city textures are the primary connection between the users and the city. As the Netherlands' capital, Amsterdam settled as a small fishing town around the 12th century. The old part of Amsterdam known as the old centre, and it is one of the most visited areas. The remaining traditional architectural buildings, shops, and many well-known places are located in the old centre (Anonymous, 2020). The old wooden buildings were replaced with brick buildings around the 16th century, and many buildings were constructed under the Renaissance style. The buildings are detectable with their stepped gable façades (Anonymous, 2020). Amsterdam's street patterns have not changed over the years, and historical city texture is still visible in the old town.

The chosen building, Crystal Houses, is located in Pieter Cornelisz Hooftstraat Street, in the old town and Amsterdam's shopping streets, and it is shown with the blue square between the DIOR and Anne Fontaine stores (Figure 3). Many flagship stores of the luxury famous brands are located in the same street. Therefore, there is also a competence for the looks of the building façades and, at the same time, the need for respect to the city's history. The buildings around the chosen building are also historical buildings, and whole façades look similar to each other under the Renaissance style (Figure 4). Hence, there is a need to make a difference from the neighbouring buildings, but also it still has to be in coherence with the historic city texture.

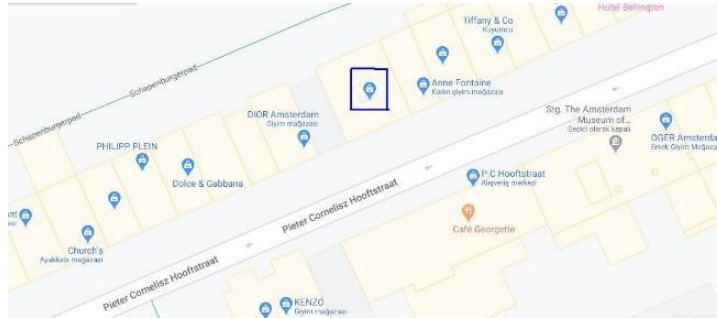


Figure 3. Location of Crystal Houses (Google, n.d.).



Figure 4. Crystal Houses and adjacent buildings and glass façade (Daria & Stijn, 2016).

On this point, the Crystal Houses' renovation is highly successful since the façade is easy to recognize from the surrounding but still has harmony with the street view. The MVRDV Architecture did the renovation project in 2016 by using powerful novel and contemporary renovation approaches. The building is 840m² in total, where the 620m² is for the retail, and the 220m² is housing units on the upper floors. The client intends to combine traditional Dutch heritage architecture and international architecture. The architectural company's client and works' aim is compatible with Washington Charter's bullet five by sharing the same aim as "the conservation plan should aim at ensuring a harmonious relationship between the historic urban areas and the town as a whole" (ICOMOS, 1987). Besides, the same aim is indicated in general principles of UNESCO's recommendation by saying that "every historic area and its surroundings should be considered in their totality as a coherent whole" (UNESCO World Heritage Centre, 1976). Therefore, to represent the original building using novel approaches, the architecture company found a solution using glass on the façade. Almost entirely, the glass façade mimics the original texture, eventually turning into terracotta bricks on the upper floors (Daria & Stijn, 2016). The diagram below shows material flow on the façade from the original façade to the glass to the terracotta brick gradient façade, step by step, where the front part of the glass bricks covered by ceramic to create the gradient effect before using the terracotta bricks completely (Figure 5).

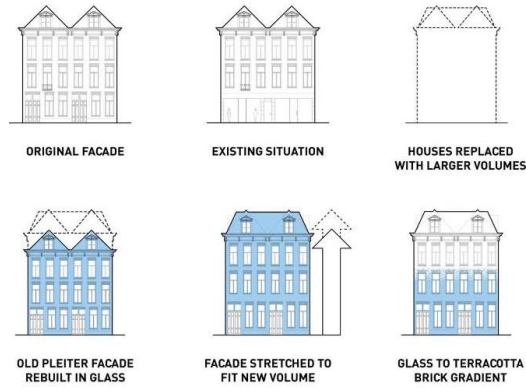
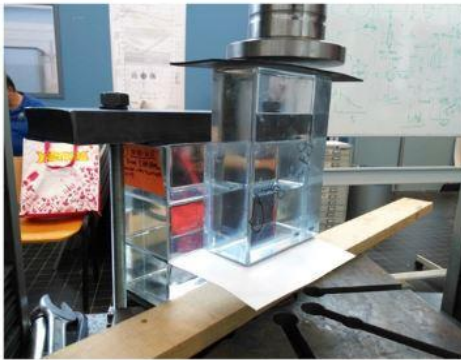


Figure 5. Façade diagram (from mvrDV webpage, 2016).

One of the most challenging parts of the project was reported as the glass bricks' design since the desire for pure transparency; the architects did not allow the use of metal supporting structure. Thus, extensive researches and testing were done before production and construction. Glass bricks were tested for shearing and four-point bending before usage (Figure 6) (Oikonomopoulou, Bristogianni, Veer, & Nijse, 2016).



(a) Experimental set-up of the shear test (Oikonomopoulou et al., 2016)



(b) Experimental set-up of the 4-point bending tests (Oikonomopoulou, Veer, Nijse, & Baardolf, 2015)

Figure 6. Experimental set-up examples.

After the testing and production, the glass bricks are lined up using a transparent mortar produced for this project, similar to traditional bricklaying works (Figure 7).

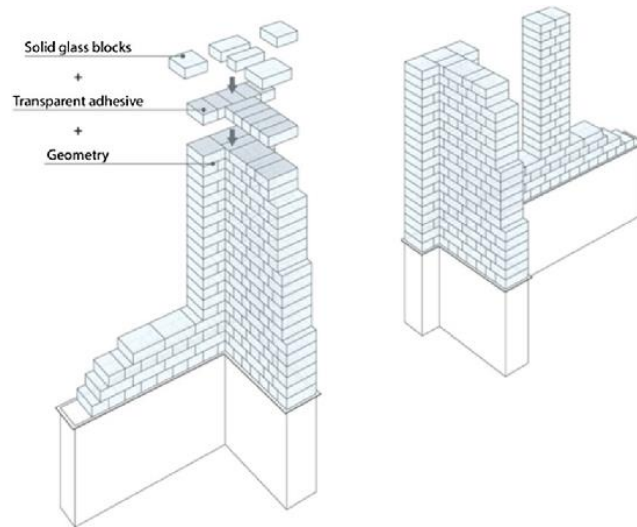


Figure 7. Glass Brick Lay Work (Oikonomopoulou, Bristogianni, Veer, & Nijse, 2018).

This combined method using of using an innovative material with the traditional way somehow supports ICOMOS Valetta Principals' suggestion; "new architecture must be consistent with the spatial organization of the historic area and respectful of its traditional morphology while at the same time being a valid expression of the architectural trends of its time and place" (ICOMOS, 2011, p.6). Besides, the construction method also supports the Washington Charter's principles and objectives bullet number two; "the formal appearance, interior, and exterior, of buildings as defined by scale, size, style, construction, materials, colour and decoration" should be preserved as the spiritual element to show the historic character of the area (ICOMOS, 1987, p.9).

In addition, in terms of usage in general, as a building in the shopping district of Amsterdam, the use of the building as a store also backs Washington Charter's bullet number eight; "new functions and activities should be compatible with the character of the historic town or urban area" (ICOMOS, 1987, p.10)

Overall, whole interpretations to the Crystal Houses starting from aim to material development and construction are a complete work of partnership of client, architectural company. The appearance and the use of the building are a work of design and construction to make a remarkable building with coherence with the built environment and support the international charters' suggestions.

4. Discussion and Conclusion

Historical city textures from the past to the present day carry traces from different civilizations and symbolize societies' past while shedding light on the future. The protection and preservation of these textures are possible with traditional and contemporary interventions. Even though those approaches adopt different methods, they serve a common aim: protecting historic city textures. However, the city textures' protection can be done in various ways, such as traditional approaches and contemporary approaches. Traditional intervention methods are important to show the original structures like the way it was before.

On the other hand, the cities are changing over the years, and construction technology is developing. Therefore, contemporary approaches may provide designers and architects more innovative ways to protect the historical city textures without losing the historic structures' essence and value. Contemporary intervention approaches also makes possible the combination of traditional construction works with the new materials and methods. The case study, Crystal Houses, is renovated exactly for those aims; hence the design, material selection, and construction work during the building's renovation showed that it is sometimes better to leave the traditional approaches and use more contemporary approaches since the city is always developing and changing. Therefore as the study aims, the case study analysis indicated that the innovative use of glass on the façade and the building's similar traditional brickwork proved that the new preservation approaches could also support and be coherent with the selected international ICOMOS charters and UNESCO recommendations. Hence, this building's renovation style shows that the innovations and approaches can create a flagship store that respects the surrounding structures. It might be useful to emphasize the new and different to make both stays humble and glorious construction simultaneously. To conclude, historic areas and buildings should be conserved and be coherent with the city's social and economic developments. Thus, as the intervention method, contemporary approaches might be a feasible tactic for protecting the historic city and keeping up with the living city.

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