

**THE REPUBLIC OF TURKEY
BAHCESEHIR UNIVERSITY**

**CONTINUITY AND CHANGE IN ADAPTIVE
REUSE: RECUPERATION OF IZMIR CHAMBER
OF ARCHITECTS' BUILDING**

Master Thesis

DENA HAGHSAY KHASHHE CHI

ISTANBUL, 2016

THE REPUBLIC OF TURKEY

BAHCESEHIR UNIVERSITY

DEPARTMENT OF ARCHITECTURE

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ADVISOR: ASSOC.PROF.DR.EMINE ÖZEN EYÜCE

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**THE REPUBLIC OF TURKEY
BAHCESEHIR UNIVERSITY**

**THE GRADUATE SCHOOL OF NATURAL AND APPLIED SCIENCES
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BUILDING**

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And I want to give my best love and thanks to my dearest father and mother, that I would never make it without their support and unconditional love. There may be distances between us, but they are in my heart and mind in every second of my heartbeat.

Istanbul, 2016

Dena Haghsay Khashhe Chi

ABSTRACT

CONTINUITY AND CHANGE IN ADAPTIVE REUSE: RECUPERATION OF IZMIR CHAMBER OF ARCHITECTS' BUILDING

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The present thesis attempts to investigate and interpret approaches and boundaries of adaptive reuse projects in order to unify the two entities of continuity and change that each has contradictory potentials in being disproportioned in the process of adaptation. Moreover the study aims to discuss the various approaches to similar principles with different rhetorical weights briefly to embody a transparent insight through the interventions in an old building. The study narrows down the focus into the obsolete Industrial Heritage buildings as commonly neglected members of the city context and yet have flexible characteristics to be adapted to function within the contemporary community of structures. Innovation in technology of the building industry and the tendency to create perfect modern designs enables buildings to be used at their highest standards. Therefore the border lines of change's notion in the process of adaptive reuse may fade in some cases. Accordingly it results into compromising balance of the Change's ideal dosage in the adaptation process of old building. As the history has proven, age of the building, continuity, change and newness must be juxtaposed in interventions of the old structure despite the ambivalent natures of each, in order to result in a harmonious and pragmatic opus. Hence the mentioned entities in spatial, structural and material principles in the previous and the new design of the Izmir's Chamber of Architects' building were examined in order to address the spots that continuity and change were either complementary or contradictory.

Key Words: Adaptive Reuse, Continuity, Change, Obsolescence, Identity, Industrial Heritage

ÖZET

YENİDEN İŞLEVLENDİRME'DE SÜREKLİLİK VE DEĞİŞİM: İZMİR MİMARLAR ODASI BİNASININ GERİ KAZANIMI

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Bu tez, uyarlama sürecinde birbiri ile çelişkili gibi görünen ve orantısız olarak ortaya çıkan iki kavramı, süreklilik ve değişimi, bir bütün olarak ele alabilmek üzere, yeniden işlevlendirme projelerinin yaklaşımlarını ve sınırlarını araştırmaya ve yorumlamaya çalışmaktadır. Ayrıca, bu çalışma, eski bir yapıya yapılan müdahaleler üzerinden hareketle, farklı öneme sahip benzer prensiplere farklı yaklaşımları tartışmayı amaçlamaktadır. Çalışma, genellikle, kentsel bağlamda göz ardı edilmelerine karşın, çağdaş toplumsal yapı içinde yeni kullanımlara en iyi uyarlanma esnekliğine sahip, işlevini yitirmiş Endüstri Mirası yapılarına odaklanmaktadır. Yapı endüstrisinde ortaya çıkan teknolojik yenilikler ve mükemmel çağdaş tasarımlar yaratma eğilimleri, yapının yüksek standartlarda kullanımına olanak sağlamaktadır. Bu, bazı durumlarda değişim kavramının sınırlarını belirsizleştirmekte ve hatta, eski yapıdan ödün verecek şekilde, değişimin ideal dengesinin bozulmasına neden olmaktadır. Tarihsel gelişmelerin ortaya koyduğu gibi, uyumlu ve sağlıklı bir sonuç ürün için, eski bir yapıya müdahale sırasında, değişken özelliklerine rağmen, bina yaşı, süreklilik, değişim ve yenilik bir arada ele alınmalıdır. Bu nedenle, bu çalışma, İzmir Mimarlar Odası'nın eski yapıdan dönüştürülen yeni yapısında, mekansal, strüktürel ve malzemeye ilişkin prensipler açısından hem eski yapıyı, hem de yeni tasarımı birlikte ele alarak, süreklilik ve değişimin tamamlayıcı mı yoksa çelişkili mi olduğunu ortaya koyacaktır.

Anahtar Kelimeler: Yeniden İşlevlendirme, Süreklilik, Değişim, Eskime, Kimlik, Endüstri Mirası

TABLE OF CONTENTS

LIST OF TABLES	vii
LIST OF FIGURES	viii
ABBREVIATIONS	ix
1. INTRODUCTION.....	1
1.1 LITERATURE REVIEW.....	4
1.2 SCOPE OF STUDY	7
1.3 METHODOLOGY.....	8
2. OBSOLESCENCE	11
2.1 OLD BUILDINGS.....	11
2.2 DEFINITION OF OBSOLESCENCE	12
2.3 REASONS OF OBSOLESCENCE.....	17
2.4 RESULTS OF OBSOLESCENCE	18
2.4.1 Potentials of obsolete buildings.....	20
2.4.2 Solution for Obsolescence	20
2.5 REASON OF OBSOLESCENCE OF INDUSTRIAL HERITAGE.....	22
2.6 RESULT OF OBSOLESCENCE IN INDUSTRIAL HERITAGE	23
3. ADAPTIVE REUSE	25
3.1 INTERPRETATIONS OF REUSE	25
3.1.1 History of Adaptive Reuse.....	27
3.1.2 Adaptive Reuse of Industrial Heritage.....	28
3.2 EXAMPLES OF ADAPTIVE REUSE OF INDUSTRIAL BUILDINGS.....	29
3.2.1 KODAK House in Dublin.....	29
3.2.2 The Cement Factory, Barcelona	32
3.2.3 Salt Repository (Tuz Ambari), Istanbul	34
3.3 COMPARING SIMILAR DIFINITIONS WITH ADAPTIVE REUSE.....	36
3.3.1 Maintenance versus Continuity in Adaptive Reuse	37
3.3.2 Conservation versus Restoration	38
3.3.3 Adaptation versus Reconstruction	39
3.4 CHANGE BEFORE AND AFTER THE PROCESS OF REUSE.....	41

3.5 CHALLENGES AND BARRIERS OF ADAPTIVE REUSE.....	46
4. IZMIR CHAMBER OF ARCHITECTS	50
4.1 INITIAL INFORMATION	50
4.2 SPATIAL ANALYSES	56
4.2.1 Spatial Characteristics of the Old Entrance Floor.....	56
4.2.2 Spatial Characteristics of the New Entrance Floor	59
4.2.3 Spatial Characteristics of the Old Mezzanine Floor	64
4.2.4 Spatial Characteristics of the New Mezzanine Floor.....	65
4.2.5 Spatial Characteristics of the Old First Floor	68
4.2.6 Spatial Characteristics of the New First Floor	71
4.2.7 Spatial Characteristics of the Old Second Floor	73
4.2.8 Spatial Characteristics of the New Second Floor	75
4.2.9 Collaborative Characteristics of Spatial Continuity and Change	78
4.3 MORPHOLOGICAL ANALYSIS	79
4.4 MATERIAL ANALYSIS	83
4.4.1 Exterior Layer of the Old Building	84
4.4.2 Interior Layer of the Old Building	85
4.4.3 Interior Layer of the New Building	86
4.5 CONTINUITY AND CHANGE.....	88
5. CONCLUSION.....	90
BIBLIOGRAPHY	96
APPENDIX A.1	101

TABLES

Table 2.1 Main types of Obsolescence and Influences	17
Table 2.2: Typological category of Obsolescent buildings.....	21
Table3.1: Scale of Change in the Building	46
Table 5.1: Comparing the Continuity in Mentioned Examples	91
Table 5.2: Comparing the Change in Mentioned Examples	92



FIGURES

Figure 1.1: Ruskin versus Viollet-le-Duc	4
Figure 2.1: Relation Between Performance and Time	15
Figure 2.2: Level of Intervention to the Risk of Obsolescence	16
Figure 3.1: Similar Words with Adaptive Reuse	25
Figure 3.2 Kodak House Exterior View.....	29
Figure 3.3: Old Interior situation of the Kodak House.....	30
Figure 3.4 Kodak House Interior View	32
Figure 3.5: The Old View of the Cement Factory	32
Figure 3.6: The New Exterior View of Cement Factory.....	33
Figure 3.7: Current Images of the Cement Factory.....	34
Figure 3.8: Current Exterior View of Tuzambari.....	35
Figure 3.9: Interior View of the Current Tuzambari	35
Figure 3.10: shearing Levels of Change In a Building	43
Figure 3.11: Various Alterations in Different Periods	48
Figure 4.1: Izmir Chamber of Architects, Entry View.....	50
Figure 4.2: Old Izmir, New Izmir.....	51
Figure 4.3: Izmir, Alsancak Seaport	51
Figure 4.4: location of Chamber of Architects.....	52
Figure 4.5: Old and New Exteriors of Izmir's Chamber of Architects.....	54
Figure 4.6: Entrance Floor, Old Measured Drawing	58
Figure 4.7: Spatial layout of the Old Measured Drawing	59
Figure 4.8: Interior View of the New Entry Floor	60
Figure 4.9: New Measured Drawing of Izmir's Chamber of Architects.....	61
Figure 4.10: Interior View of the New Entry Measured Drawing	62
Figure 4.11: View of the Auditorium.....	62
Figure 4.12: Spatial Layout of the New Entry Floor	63
Figure 4.13: New Movements in the Entry Floor	63
Figure 4.14: Old Measured Drawing of the Mezzanine Floor.....	64
Figure 4.15: Spatial Layout of the Old Mezzanine Floor	65
Figure 4.16: Interior view of the New Mezzanine	66
Figure 4.17: New Measured Drawing of the Mezzanine Floor	67

Figure 4.18: Spatial layout of the New Mezzanine Floor	68
Figure 4.19: Interior View of the Mezzanine Floor	68
Figure 4.20: Old Measured Drawing of the First Floor	69
Figure 4.21: Spatial Layout of the Old First Floor.....	70
Figure 4.22: New Measured Drawing of the First Floor.....	71
Figure 4.23: Interior Panorama View of the First Floor	72
Figure 4.24: Interior View of the New First Floor.....	72
Figure 4.25: Spatial Layout of the New First Floor	73
Figure 4.26: Old Measured Drawing of the Second Floor.....	74
Figure 4.27: Spatial layout of the Old Second Floor	75
Figure 4.28: Interior View of the Loft	75
Figure 4.29: New Plan of the Second Floor.....	76
Figure 4.30: Interior Detailed View of the Loft.....	77
Figure 4.31: Spatial layout of the New Second Floor.....	77
Figure 4.32: Interior and Exterior View of the Windows	79
Figure 4.33: Section of the Izmir Chamber of Architects.....	81
Figure 4.34: Interior View of the Main Concrete Wall.....	81
Figure 4.35: View of Black Steel Beams Use in Unit Framings	82
Figure 4.36: Façade of Izmir’s Chamber of Architects.....	83
Figure 4.37: Old Situation of the Façade of the Warehouse	84
Figure 4.38: Old Warehouse Section	85
Figure 4.39: New Interior Materials of Izmir Chamber of Architects	86
Figure 4.40: Exposed Layer of Old Materials in the New Design.....	87
Figure 4.41: Big Load Bearing and Divider Concrete Wall of the New Design	87

ABBREVIATIONS

ICOMOS	:	International Council on Monuments and Sites
IZTO	:	Izmir Ticaret Odasi
ODPM	:	Office of Deputy Prime Minister
SPAB	:	Society for the Protection of Ancient Buildings.
TEKEL	:	Turkish State Liquor and Tobacco Monopoly
TICCIH	:	The International Committee for Conservation Of Industrial Heritage
URBED	:	Urban Economic Development
WWI	:	First World War
WWII	:	Second World War

1. INTRODUCTION

Wellbeing of the humankind depends directly to the existence of a safe and agreeable environment that preserves the cultural wealth of historical periods, with attachments that are linked directly to such an environment. Old sustainable structures, as members of a social environment started to become organizational territory of cultural heritage in the post-First World War era, which opened a new season in the field of study about preservation consequently. However, the practice was not a young solution; Transition of the function in an existing building was used to be practiced as a prior method through the history and was not an unfamiliar phenomenon.

Buildings which used to have a strong and safe skeleton used to be changed to accommodate new needs for new users with transforming without any contravene. Transformation of monuments which were considered as classic or religious structures, to the buildings with military or industrial usage in the period of the French revolution was a common decision after being appropriated and sold. Never the less, preservation of the heritage's identity was not kept into the consideration and reuse was mostly the result of financial and functional concerns.

As a general definition for clarifying adaptive reuse in the initial steps, it can be identified as: a process, which makes it possible to cope with an obsolete structure in a way that it can stand and function properly, with converting the previous task from how it meant to perform in the first place, while containing a sensible awareness of characteristics, value, and identity of the building as a heritage at the same time. Despite the importance of the reuse in now a day life, the will and the feeling of need to create brand new forms and structures in the modern civilization, has become a massive concern that reuse of existing entities seems an 'off table' option for a vast majority.

While "adaptive reuse" is considered as a historic preservation activity by many historic preservationists and architects, it has not always been the guardian's priority in the moment of 'decision makings' and 'action taking'.

We are living in a century of a great population. Hence facing the lack of enough material and space can be seen in different aspects of our lives. With the mainspring of

the mass production, neglecting the existence of old buildings continues to remain, while those structures stand patiently, trying to endure and survive, finding a way out of the cycle of isolation . Thus, the necessities of study on various elements of the mentioned structures that are known as heritage become more tangible.

An old building that is reused carries complexities but more it can be studied in a more sensible way, if concentrating on specific entities such as 'newness' and 'age', next to each other in a more specific study frame. Newness mostly focuses on the nowadays need for 'change' and on the other hand, age mostly focuses on the 'continuity' of the identity that has been carried from the past, containing different layers of memory from the building as an old city member. As Alice Mah states in her book, memory is the experience of the present time; nostalgia always tells us more about the present than it does about the past. (Mah, Alice. *Industrial ruination, community, and place: landscapes and legacies of urban decline*. Toronto, University of Toronto Press, 2012.p:15). Therefore in order to have a logical perspective about the existence of a structure, the concepts of change, the inherited contents from the past and also transparent notions from 'age' and 'continuity' must be well illustrated.

According to the Merriam-Webster dictionary, the meaning of 'continuity' is defined as:
1- *Something that is the same or similar in two or more things and provides a connection between them.* 2- *The quality of something that does not stop or change as time. And 'change' as: to become different.*

Despite the linguistic contradiction between the words "continuity" and "change", neither of them outstrips one another. Change is a vital need for a society to make its parcels move toward completion with their preserved continuity. Hence the mentioned two words should be considered at the same level of vitality, next to each other like all of the characteristics of the building and in a bigger city scale, because the dynamism of an urban context is not only about what it gets from every individual element but is also about the visible or invisible connection and links it has, with other implications and concepts in its area.

If we take a building as a member of the city into the focus, it consists of interior, exterior, physical, environmental, emotional and cultural function, cooperating with a

systematic harmony, while being in contradiction, in many fundamental aspects of their existence at the same time.

Based on the Alois Riegl's theory, discussed in one of his essays called "Der Moderne Denkmalkultus: Sein Wesen und seine Entstehung", the value of an old structure is divided into different categories and can be studied separately, from different perspectives, while not hurting the other entity's identity. Referring to this statement, continuity and change would have the ability to function parallel in an adaptation reuse process, not with lexical contrast, but with a concurrent practical coordination which can even be the guardian of the original character of the reused old structure at the same time. According to the mentioned ideology, this study will try to compare the changed and continued elements of an adaptively reused structure in addition to discussing the idea of a new design, in order to respond to the question that which one of the two substances of "continuity" and "change" has been adapted to the other in order to support the recuperation? And has it been successful in keeping the mentioned values visible at the same time?

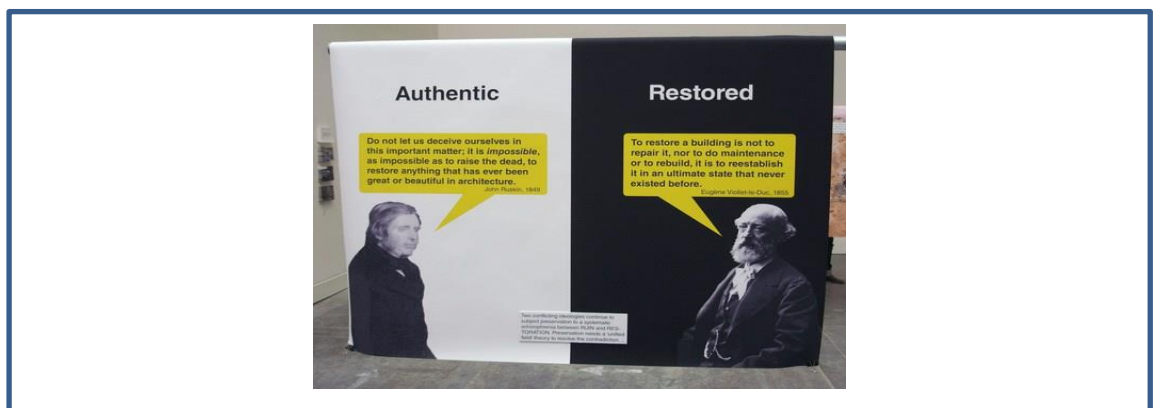
The study will explore and compare the meanings and backgrounds of the definitions in the related frames of the study firstly, defining the principles of adaptive reuse and its different approaches to the aim of recuperation of a building which is obsolete and latterly will zoom on the elements of continuity and change in a case study. There are not many written resources, focusing on adaptive reuse, or analyzing the elements that support the success of an adaptive reuse in a specific layout, or in the spectrum of keeping the identity of the old structure alive, because it is considered a new field of theoretical study and mostly with major similar edges with restoration in many cases. Therefore, the further academic generation needs more awareness and less negligence about the differences and defined principles, even from the initial steps of the process of adaptive reuse as an independent individuality in border lines, and regulations. The need for studying through adaptive reuse becomes a great example of the solution that requires expertise and involvement of various participants of the society, who can guarantee a permanent complex and a collaborative work, from the creative idea and philosophical perspective and project conception, through design phase, the construction process, and all the way through to completion and use.

Reuse always comes as a result of exhaustion of an old structure which usually leads the building to a partial or complete decay which will be followed with demolition, isolation, and obsolescence. There also is a tangible necessity for the further extensive study through the connection between the continuity and change in adaptive reuse. Academic society needs more analysis and debate through the process to help its members to walk through the history of design with trustable knowledge; because what is taking place gradually is the massive load construction of buildings with high-performance features and fastidious detail designs but a notable lack in character awareness and identity recuperation.

1.1 LITERATURE REVIEW

Eugene Emmanuel Viollet-le-Duc (1814-1897 France) as a well-known architect with a notable number of gothic building restorations and renovations in his resume, was the first architect who introduced the historic preservation with the name of adaptive reuse and discussed it extensively. He stated that the restoration of historical buildings, to include the alteration of the structure is the pursuit of creating a 'most-perfect state' that may never exist in time (Whitehead, 1990, p.195). The idea didn't receive assent from Contemporary architects and commentators at the time, such as John Ruskin, as he believed that kind of design is 'a destruction accompanied with false description of the thing destroyed'. Ruskin believed that the value of the structure is a historical record and it belongs not only to the contemporary generation but also to the future generations as well.

Figure1.1: Ruskin versus Viollet-le-Duc



Source: <http://bemyarchitect.tumblr.com>

While these different point of views were the two opposite extremes, for the philosophy of preservation, Ruskin's overall idea's concept is accepted in the modern conservation theory in a smoother manner with the belief that the contemporary constructions and architectural interventions should clearly be outlined to avoid the confusion of the future interpretations of the history of heritage and accordingly, the main action takings about the building would depend on the value, perceived with an honest recognition.

The difference between the two opposite ideas of Ruskin and Viollet-le-Duc was taken into a bigger context of examination and more open minded discussions after the early 20th century. Alois Riegl (1858-1905) dissected the heritages according to their values. He advocated that the focus on the values can be narrowed down into two types of measurements. The first one includes the historical, memorial and maintenance of the building which are all related to the 'age' of the property. He introduced the second group as they contain the functional elements and usage characteristics which are subcategories of 'newness' and functional value of the building. He cites that "the contradiction between newness and the age as values is at the center of the controversy which rages over the treatment of monuments". (The Modern Cult Of Monuments: Its Character and Its Origin, 1982:p.21-51)

Main conflict between the two opposite group of Ruskin and Viollet-De-Luc can be viewed as the difference in 'emphases' according to the Riegl's point of view. The emphasis on the identity which is formed through the history and on the contrary the emphasis on the will for the upgrade, in order to coordinate the newness and acquiring the needs.

The first group sought that the value of the structure is gained gradually through time. This group insists on the necessity of respecting the dilapidation of the structure. They believed that the building's identity and characteristics are not about the recent time but is mostly about the past. While the latter group believes that the ability to function with the up to date activities is more consequential.

During the post-war (WWII) period, architects were aspired to create new buildings which were totally in contrary with the classic and traditional buildings. Nevertheless, a great attraction to the conservation and sometimes preservations of different types of

buildings, from residential buildings to industrial and even religious ones started to form because of the lessons, learned from two World Wars and the negative image that increasing demolitions has created in memory of the cities and their dwellers. This image evolved as in the second half of the 20th century the idea of started to burgeon in the designs of famous architects such as Carlo Scarpa, Herzog, De Meuron and Raphael Moneo on the historical buildings, as a notable turning point of their challenge to make a positive creative infusion on their designs. Since the 1970s, adaptive reuse became a central subject of many seminars and conferences. In May 1972, the Architectural Review published a distinguish topic called 'New Uses for Old Buildings' which had led to the publication of the book with the same title three years later. In 1977 two symposia were organized, one called 'Old and New Architecture Design Relationship' which was held in Washington D.C and the other one called 'Old into New', held in Glasgow; both emphasizing on the importance of stopping obsolescence of the buildings that are losing their value through time and the need to assist them to regain their lost characters. The contents of both symposia lead to publications afterward.

Gradual growth of the adaptive reuse preference confirmed that it can perform as a logical and practical solution over time with the introduction of the modernists that strongly believe in future and the modern techniques that would improve the life's quality. Nowadays, adaptive reuse is used in many developed and developing countries, in various areas and categories of conversion of industrial, residential, monumental, religious buildings into offices, art galleries, residential buildings, restaurants and many other modern functional spaces. There are hundreds of thousands of examples around the world which some have successfully achieved the transition principles that successfully turns the old structures while preserving the identity of these buildings with brilliant designs and solutions which allows the continuity and change be consolidated and perform next to each other. However, there exist many other examples that resulted in deficient adaptations that failed in matching the principles and spotting the historical elements which lets the continuity of a building and the change stand in the same level of acceptance.

1.2 SCOPE OF STUDY

In the current research, effective approaches to engage continuity and change and the path in unifying them as a result in an adaptively reused building which was functionally isolated will be surveyed, with qualitative methodology comparing the pre-reused and reused principles, morphological aspects, elements, materials and spaces of the case study as an example, in order to clarify and illustrate the approaches to evaluating the identity of the building before and after the reuse process.

Sustainability and adaptability are the two main characteristic that an adaptively reused building requires for a harmonious and acceptable result.

Reuse in industrial heritage has chosen to be discussed in this study because of the privilege of sustainable structures with honest interior designs and practical elements of design that are mostly able to be versatile. Moreover high functional potential of industrial structures makes them well suited for adaptive reuse with their open and wide spatial design method. Industrial buildings with their silent and honest decorations can be considered prominent and impressive elements of the urban design, yet the most neglected contents of the city. The process will provide an opportunity to knit the urban environment together with new approaches, while helping with keeping coherency of the sites remained. Accordingly the questions of ‘what has been actually adapted in the process of reuse? Has the idea of a new design been adapted with the obsolete building? Or is it the building, which was adapted with the new idea of the design?’ can be discussed, free from the interference of ornamental, political and religious conflicts.

The case study of this research will put Izmir Chamber of Architects as an internationally admired example in the center of study frame and will zoom on its features and elements in order to address the connection spots of continuity and change and their unity in the attained identity. Meanwhile, the importance of the consolidation of continuity and change, in comparative analysis of the pre and post situation of the building will be divided automatically as a conclusion of the study, and the approaches of the idea of design to recuperate the structure as a venerable old city member will be evaluated.

1.3 METHODOLOGY AND THESIS STATEMENT

This study uses a qualitative methodology, with comparative and interpretive approaches. It will focus on the evolution of the building, which was changed to match the modern era's needs, with a comparative analysis of the old and new features, spaces, and materials in order to find a logical notion about adaptive reuse. Moreover it will focus on the flexibility of both: the 'idea of design' and the 'building' itself as an enclosure. This study does a general analysis of architectural identity and character of an abandoned building through the structural and morphological features of an industrial structure as an example of a heritage after being adaptively reused, based on relevant books, articles seminars and also individual observation. It will be tried to explore the change and movements through the time after getting isolated and also after being reused.

Izmir Chamber of Architects as an example, with modern features and principles will be focused on in order to achieve the relevance of continuity and change and their unity in the attained identity. Moreover, the study will represent the award report of the building that points out the appealing elements and parts of the design from the domestic and international point of views. Narrowing down the research gives the opportunity to survey the elements and needs of a successful adaptive reuse in an Industrial heritage, and study the required features and the "must", "should" and "would" s that keep the change and continuity in balance.

The first chapter of the research is a brief introduction of the study, giving a brighter insight to the importance, motivations and problem statement, stating the theory and questions, of the study. Literature review and methodology will be described afterward, aiming to introduce the steps of the study more clearly in the current chapter.

In the second chapter, architectural character and origin of adaptive reuse, obsolescence, and industrial heritage will be investigated, identifying complexities and relevance between the 'newness' and 'age', with defining and describing the crucial words in adaptive reuse and their positions in this study. Moreover it will describe the history of the industrial heritage; argue the reasons of obsolescence of old industrial buildings and results of being obsolete.

In The third chapter, the case study will be examined (Izmir Chamber of Architects), establishing the failure or success of an adaptive reuse. Meanwhile, the study will identify the changes through the process of the action, comparing the elements which were changes and the ones which remained.

Documents of the old and the new spatial situation, plans, materials, new fused additions to the old building will be presented and analyzed and the pre-reused and post-reused spatial layouts will be defined and analyzed to examine the efficiency. At the same time, the aspects of success in keeping the continuity and change in balance will be spotted and described.

The last chapter of the study includes the conclusion and further recommendations and comments for prospective studies in the field that concludes how change and movement should be cooperated with the continuity to result in a successful design.

Because of changeability in the nature of adaptive reuse, it sometimes leads to complications due to the differences in views and philosophical perspective, motivations, beliefs, traditions and also the benefits and desired results for all the participants and the affected areas that are included. The reactions to adaptive reuse, were at first a great disapproval in the history, reluctant, confronting the idea that sometimes was the result of logical reasons or emotional beliefs which lead to dogmatism and radical point of views.

The process of reuse became more refined gradually. However, it still faces barriers and challenges within different steps of the process, from the initial philosophical concept to the last constructions and representation, reaching the expected comprehensive result standards due to firstly designer's and secondly the society's preferences.

People like old buildings because they are familiar parts of the city. They are the city elements that evoke the feeling of trust to the stability (Bloszies, Charles. *Old Buildings, New Designs: Architectural Transformations*. New York, NY, USA: Princeton Architectural Press, 2011).

As Christina Bond states in her article called: 'explaining collaborations within a complex process', When a building is rehabilitated, or "adaptively reused", there occurs a

clashing of interests, opinions, beliefs, resources, and power between historic preservation professionals, developers, and planners.

This interest may take many challenges to be proven as vulnerable and yet many parts of society may take it as an unnecessary contribution of money and energy.



2. ADAPTIVE REUSE IN OBSOLETE INDUSTRIAL STRUCTURES

The main sites in need of adaptive reuse are the abandoned and obsolete ones, which makes it crucial to have a realistic image of 'Obsolescence' initially. Hence, the first part of this chapter is allocated to introducing the concept of old and 'obsolete' buildings and their characteristics in order to give a clear perspective about the roots of adaptive reuse and the suitable candidates for engaging in this trend. The study will form and evaluate through the continuity of the old buildings and will discuss the principles of change latterly.

2.1 OLD BUILDINGS

The nostalgia of old buildings is understandable, considering that they are remnants of the times when everything used to exist in a simpler manner. With easier compositions, circulations and ornaments that are recognizable to the eyes, they evoke a feeling of trust and being safe in the area where they exist. Besides, that is one of the reasons that an old building does not give the feeling of being threatened. Furthermore there is the poetic idea, claiming that the oldness of buildings adds to the structures attraction such as the picture that Victor Hugo draws about Notre Dame Cathedral that "the time added to the cathedral more than it took away from it" (The Hunchback of Notre-Dame, trans. Walter J.Cobb New York: New American Library, 1965, p 108.Originally Published as the Notre Dame de Paris 1831)

The other reason for the positive feeling, the old buildings evoke is them being familiar landmarks or historic monuments of the city texture. Buildings that had the ability of endurance more than their contemporaries through the critical periods as wars or natural disasters deserve to be trusted and respected elements of the cities over the history in many people's and 'expert's points of views, who at the extreme are called: Traditionalists. The old buildings that still are functioning, have remnants from classical architecture techniques that have been evolved and continued from the Roman and Greek architecture and transformed gradually with the birth of modernism in the twentieth century, containing total new principles and techniques in the art, and architecture.

Despite the dominion of the new generation in design and architecture, with up-to-date technology, many of old buildings are irreplaceable. The desire to save the mentioned buildings by all means from the traditionalist's point of view visualizes a constant fear about the interference of the new ideas and designs with the old structure. This insecurity makes the mentioned group eager to prevent any change to preserve the building and keep them safe from the danger of change even with a minor dosage. The emotional and sometimes irrational idea of conservation prevents further actions to heal the damages that time has caused to such old buildings.

However, in general aesthetic perspective of the modern era, classical and pre-modern structures are mostly considered appealing, yet exposed to the eyesore nature of depreciation. Therefore, there is an overall acceptance that the decay decreases the value of neighborhoods and detracts people. The old and damaged landmarks of the city should be looked at as an elite person, facing unwanted blight and in need of help to heal. Hence, activities such as adaptive reuse are considered suitable healing solutions for this patience of the urban context that can regain the functional power of the building and increase the aesthetical value of its neighborhood, so the city would be proud of the existing landmark with achieving the ability to attract life and movement within it through time.

2.2 DEFINITION OF OBSOLESCENCE

According to the Oxford Dictionary, the word Obsolescence refers to the *condition of no longer being used or useful*, also in biology, it refers to: *Becoming reduced during the course of evolution; vestigial or nearly vestigial. Used of an organ or another part of an organism*. In architectural dictionary obsolescence is referred to the result of the usefulness of a building over time.

Considering time as one of the elements of the building's evolvement, it plays an important role in the process of obsolescence and started being mentioned as the fourth dimension in the building since the first statement of Islin and Lemer, in 1993, in 'Strategies for Minimizing Premature Obsolescence', in building research board that was published in National Academy Press in Washington DC.

Three dimensions Length, depth and breadth are related directly to space and fourth to the time that plays a vital role in the identity of the building. Hence, the obsolescence has a tied boundary with the fourth dimension. Time demonstrates the spaces beneficial aspects, duration and expiry dates and the starting points of decrease and entropy in the building's durability as a functional system which can be ended in usefulness in many cases. Obsolescence is also the epidemic usefulness of a building that appears over time. Moreover, the usefulness of structures reaches to different levels gradually through time. Therefore the vast area related to the entity of time can be recognized accordingly.

The actions taking place by users inside the structure in a specific area play an important role in order to develop the level of uselessness. Hence, obsolescence is not a phenomenon dependent only to the natural pressures and forces, but also a result of human activities and indirect bond between wills and needs to the building's gradual shifts, resulting uselessness.

The relation between Supplies and demands changes over time, according to the Nutt et al and the contingency of obsolescence escalate when the service that the building offers starts to decline (B. Nutt, B. Walker, S. Holliday, D. Sears, Housing Obsolescence, Saxon House, Hants, 1976). This is a fixed frame matter and does not make much difference whether if the relative requirements change through time or the decay happens but the demand remains steady; what matters is that the descending route through obsolescence would wait for the building to gets to its weakest situation to enable it from functioning properly.

Change in the building happens as a result of various influences. They can be categorized into the external and internal alterations as Brand states in 'How Buildings Learn'. The first group is primarily the result of the external effects and factors such as the situation of the economics or the change in the market's demands or the change of the district's context. The decrease in the traditional industries mostly cause the risk of obsolescence in structures with limited and aged working frame such as tobacco warehouses or blacksmith workshops or factories that are used to function as the hand-made industry, and mostly the places, which their structure had been defined for a specific type of job

and have become redundant as the result of inability to provide the contemporary requirements.

The latter group is the internal changes which are directly knitted to the entity of the building itself and is mostly related to users and their functional needs; for example deficiency in the continuity and maintenance will lead the different parts of the structure decrepit. The elements, skeleton or even the fabric which are exposed to the danger of decay may be repaired or altered to provide the expectation and continue to function, though.

Some buildings can carry different uses during their existence. A warehouse may be changed into an office or a flat may turn into a gallery. In this manner, the building has the power to function as a suitable enclosure to hold various actions in it during its lifespan.

In architecture, the word obsolescence is accompanied with number of related words with very similar lexical orders such as maintenance, aging, decay, depreciation and also 'ruin' at the extreme which also leads to abandonment and obsolescence of the building as a result.

When a building gets into the process of aging, it loses the ability to function as it used to, in its early and mid-ages. It is a natural process according to the Second Law of Thermodynamics which has been expressed in various lanes of different fields. According to this law, it mentions that in order to the entropy and disorder to be increased, all of the process's bodies have a trend through losing energy and decay through time.

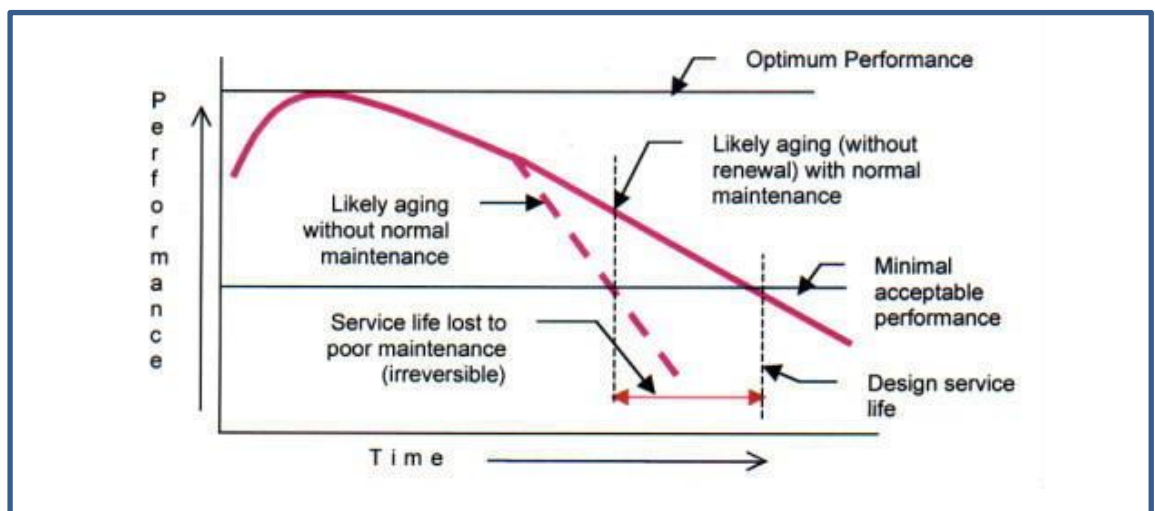
As the building follows the second law of thermodynamics such as many other objects in the world, the irresistible effects of passing time start to appear in different parts of the building as the time passes. Signs such as the electrical system, mechanical system, fire protection, structural system, plumbing system, are the signals of the building inefficiency to function properly. Also, the interior elements and spaces face serious defect that cannot be matched to today's perceptions and demands. Moreover, most of the

buildings from the last decade didn't have the mechanical and electrical system or central heating system and are officially considered as out of order properties.

Among numbers of advantages the firm structures of old buildings contain, such as big and wide windows in order to get the most benefit of the solar system and natural heat and light, with wide interior spaces, they are also the structures with disadvantages such as one layer thin glasses at the same time. Therefore, the absence of insulation makes these buildings wasteful consumers of the energy which is a big downside in the era of the importance of energy saving for Architects. Lack of these vital systems does not let these structures meet the contemporary requirements and expectations.

The only way to make such buildings usable is to equip them with practical and safe systems that can respond to the modern needs accurately. Due to the political issues and financial matters, altering does not become a preferable option for many architects and owners. Hence, the building preferred to be left aside, vacant. Thus, its value starts to descent and the structure becomes a member of a gradual decay and obsolescence gradually. The pace of decay differ and are directly and indirectly related to the nature of the structure, skeleton, used materials, their endurance and also the level of their exposure to the effective causes of decay. As a matter of fact, Disintegration of Identity and character are respectively affected from the mentioned physical decay through time, which leads to obsolescence.

Figure2.1:Relation Between Performance and Time

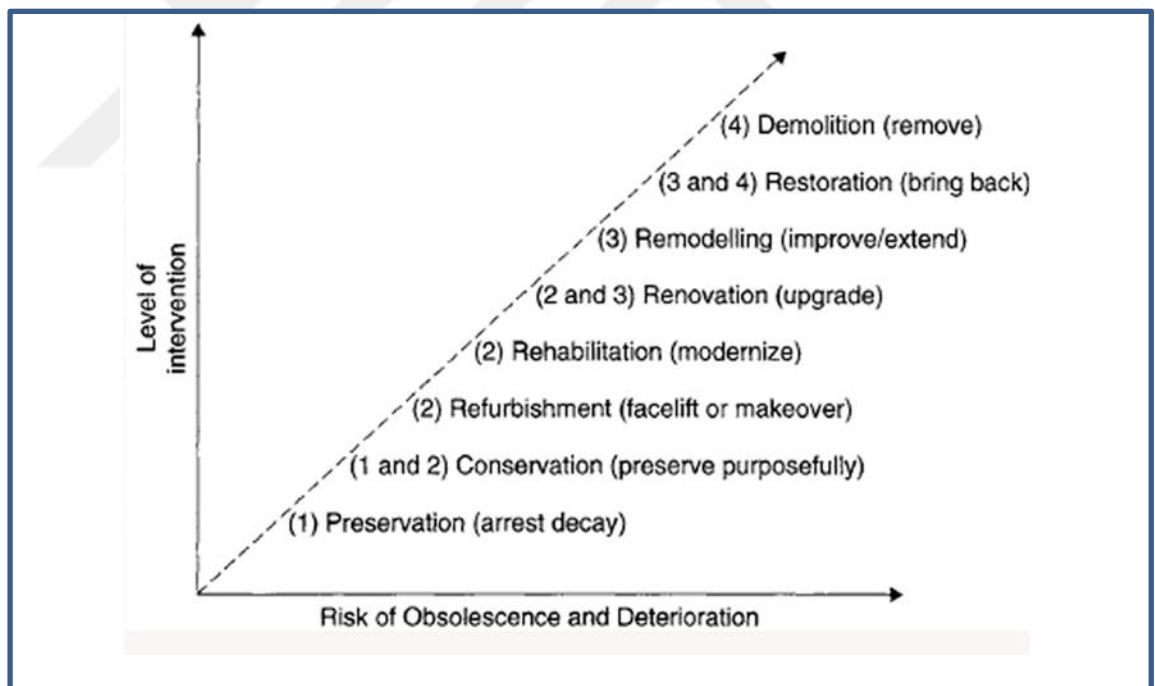


Source: http://nodis3.gsfc.nasa.gov/displayCA.cfm?Internal_ID=N_PR_8831_002D_&page_name=Chp9

As it is shown in the graph (2.1), the performance starts to have a gradual decrease from its optimum performance to different levels. The first is a situation that the structure still has the ability to be renovated totally or partially, but at the next level, the building goes to a descending flow that totally loses the potential to be reused or as mentioned here 'irreversible'. In this level, the building has no way back to be repaired under any circumstances due to its poor maintenance. However, the second group is not in the frame of this study and the focus of this research is on the structures which have been aged and hadn't condemned to the irreversible penalty yet.

Decrepitude and destruction in performance and also the buildings sustainability are some of many causes that trigger the action taking about the adaptation and refurbishment. The diagram (2.1) shows the different types of intervention from the basic preservation actions at one extreme to the complete demolition at the other end.

Figure 2.2: Level of Intervention to the Risk of Obsolescence



Source: Building Adaptation, Second Edition, 2006

The level of intervention increases the incremental risk of obsolescence. As shown in the figure (2.2) Number (1) is referred to the preservation level and the try for the maintenance of the building with actions such as repairs. In this stage the problem can be temporarily solved. Stage (2) is stabilizing the building with, major improvements and

strengthening actions and giving it new usage (3) is consolidating with medium alterations and maintenance actions such as damp proofing or timber treatments. (4) Is reconstructing that needs the building to be demolished and then substantially rebuilt. Adaptive reuse stands in stage (2) and sometimes (3) in the middle of the graph in the range of alteration in the building

Table 2.1 Main types of Obsolescence and Influences

<i>Type of obsolescence</i>	<i>Criteria</i>	<i>Factors</i>
Economic (including Financial and Site)	Cost-effectiveness. Rate of return. Depreciation.	Rental income levels. Capital value versus redevelopment value. Oversupply or drop in demand.
Functional (including Locational)	Fulfilment of purpose. Degree of use. Technological adequacy.	Decreased utility. Inadequacy. Incapacity. Errors and omissions in the building's layout or form. Technical advances.
Physical (including Environmental)	Structural stability. Weather-tightness. Overall performance.	Structural failure. Physical deterioration. Dilapidation. Urban blight.
Social (including Cultural)	Satisfaction of human needs. Cultural requirements.	Demographic trends and shifts. Changes in taste and style. Changes in expectancy levels.
Legal (including Control)	Compliance with statutory requirements.	Changes in legislation or regulations. Changes in planning policies. Existing adverse legislation. Nuisances and hazards – dangerous buildings.
Aesthetic (including Architectural)	Style of architecture is no longer fashionable.	Office building designs of the 1960s.

Source: Building Adaptation Book, Second Edition, 2006

2.3 REASONS OF OBSOLESCENCE

Obsolescence has been categorized into various types according to different approaches, within different books and articles. For an instance in the second edition of the book: 'Building Adaptation' the reasons are categorized as it is shown in the table (2.1), dividing the reasons into six main groups and discussed their influences briefly.

However, the distribution can be studied from various perspectives. Seven main types of obsolescence are noted in this study according to the reasons:

a. Physical obsolescence in which the building faces natural effects of aging and starts to decay gradually.

b. Functional obsolescence where the building does not have the ability to do its duty as a building and is not able to obtain the answers for the needs that are defined for it. The structures which are functionally isolated are also mostly the structures which used to have a full functioning ability in the past. They have a high potential despite them being left from the modern activities. In other words, such buildings become dysfunctional.

c. Economic obsolescence in which the alternations while urbanizing, cause irresistible changes in the value of a specific area of land, which as a result leads to the change of the expenses and social evaluation in that area. This incident causes a notable increase in annual rents and similar costs which don't let the building generate the required result that is expected after the investment. The incapability of handling the new costs are equal to the obsolescence, with higher speed than the other form of obsolescence.

d. Technological obsolescence where the building is not distinguished from the other available alternatives.

e. Social obsolescence in which the building is not accepted from the people and no longer carries the up to date popular characteristic tendency.

f. Legal obsolescence in which the structure cannot support the variety of building regulations. There is also another type of obsolescence that is totally in another category in which the building was left due to the desire of dwellers. So it is by preference.

2.4 RESULTS OF OBSOLESCENCE

There are two main forms of the buildings vacancy: short term vacancy which lasts, up to maximum 5 years. This kind of vacancy can be the result of temporary influences. It might occur due to the delays in finding a new lessee or the delay for finding a suitable owner for a specific building or even the vacancy during the period of repair. A long-term vacancy which mostly is the results of building's isolation and obsolescence is

irreversible with the casual principles. Therefore, decay and depreciation are unavoidable results of the long-term vacancy.

The process of decay and vacancy, work in a cycle and affect each other equally and two sided. The vacancy of the place exposes the building to destructive effects, for instance humidity would wind its way inside the building and as a result, the pace of decay increases and also the occurred depreciation causes less interest and attraction in comparison with the occupied buildings, because of the negative side effects that the neighborhood infuses consequently of the vacancy. For instance, a vacant place is a suitable place for mischief and vandalism in the area with the presence of saboteurs, drug dealers or even criminals. This can jeopardize the social safety seriously, which in the short term period can be recovered, but in the long term period creates a specific routine and a destructive culture in the neighborhood that also makes the investors hesitant to take the risk. As ODPM stated (2003a) in Consultation Paper called Empty Homes, Temporary Management, Lasting Solutions, ‘the longer a property remains empty, the greater likelihood that its physical condition will deteriorate, which makes it more difficult to bring back to occupation at a later date and increasing the likelihood that it will impact on neighboring properties’. However, in the field of adaptive reuse, the majority of the available options and choices are the vacant places which have the highest potential in excess.

As it was mentioned, as a result of the obsolescence the cities confront many social and environmental by-products, for instance, obsolescence makes the area a suitable basement for denigrating the image of the neighborhood. Even when demolition of these sites occurs for the sake of a beneficial construction, the negative social activities move to the other districts of the city, instead of being cured. It would be just removing a very critical question without seeking for the actual answers and solutions. Moreover, abandoned industrial sites can have a depressing effect on the surrounding area and, in the case of being inaccessible for the large sites; they can act as ruptures in the urban context, compromising urban connectivity as well. Hence, Reuse of such sites in a manner that is mindful of the urban textural harmony can also provide an opportunity to knit the urban environment with modern principles while making the heritage of the site legible.

2.4.1 Potentials of obsolete buildings

Exhausted and decaying buildings, which are mostly the ones that at the same time include desirable qualities such as high callings, considerable ability in usage of natural light, wide and operable windows, may not become totally obsolete. Many of the old common structures in the central districts of urban areas contain unique features that cannot be reproduced easily even by the popular modern architecture. These structures can be great campaigners for reuse. There are numbers of small examples of revitalized buildings all around the world that were reused and started to function with fresh purposes.

In the sustainability movement, the word repurposed is used defining the new purpose and usage for an existing organism. There are many examples of warehouse and factories, which have been adapted to the new functions such as offices and art galleries or commercial agencies.

2.4.2 Solutions for Obsolescence

According to the typology mentioned in the book 'Building Adaptation', Written by James Douglas, the categorization of the types of the building can be narrowed down to two groups (pp31-32): non-healable obsolescence and healable obsolescence. Considering the obsolescence as an injury of a building that causes blight, the word heal instead of correction can be a relevant stand-in, in the current research.

None-Healable Obsolescence: These types of abandonment are common in the environmental and economic side effects and buildings in this category are more expected and likely to be demolished, none-healable obsolescence has various sub-categories such as:

- 1. Destitute location:** that the place is not close to the transportation zones or district or has difficult access.
- 2. Deficient site and plan** that the building has an unsuitable site plan or topography
- 3. Deficient structural anatomy** with changing the design principles to the new, such as ceiling heights and immutable elements.

4. Deficient climate conditions for example when the site is exposed to pollution or toxic and dangerous districts severely.

Healable Obsolescence In this group, the damages are reversible and can be repaired by the preservation based solutions such as adaptive reuse, rehabilitation or refurbishment. Reasons for this group’s obsolescence are:

1. Destitute in thermal and fire performance, deficient sound proofs
2. Destitute in spatial and structural potentials and capacities
3. Deficient in construction with the problems like mold
4. Deficient in energy consuming
5. Deficient layouts
6. Deficient in responding efficiently to the up-to-date demands.

Focusing on the latter group which is considered as adaptable constructions, the process of adaptive reuse is the best solution that can heal the building and erase its side effects on the related activities and neighborhood values accordingly.

Table 2.2: Typological category of Obsolescent buildings

CATEGORY	TYPOLGY
Industrial heritage	Factory Warehouse Large industrial site
Religious heritage	Church and Chapel Convent Beguinage Presbytery
(Semi-)public building	City hall Post office Railway station Hotel
Residential building	Castle Country house Farm Town house
Military building	Fortress Barraks
Buildings with initial retail function	Ground floor shopping-upper floors dwelling Passage Department store

2.5 REASONS OF OBSOLESCENCE IN INDUSTRIAL HERITAGE

Instant changes in the working patterns, structural principles and techniques, have been a common phenomenon in the last 20 years for large industrial businesses. This leads to the change and upgrade in the planning and architecture of the building, containing the size, system, elements and even the fabric respectively.

Despite the same working hours in most of the working places and offices around the world, a new working timetable with fewer hours and part-time hours has emerged since the 1970s; this change in the working schedule had a notable effect on the concept of working spaces accordingly. The close knitted associations altered gradually. The significant improvement of computer technology and information had a considerable impact on the need for new definitions and principles for the offices and working spaces. The equipment and machines started to become lighter and smaller, therefore, they required smaller space. The working place's key element for being able to accommodate a contemporary work is the flexibility of the place to be altered with the higher standards and principles at the first place. The ability to provide the modern working conditions leads the offices, factories and working spaces into the rehabilitation, reuse and refurbishment process as an opportunity for providing the new facilities or reuse of the current one. Moreover various periodical needs of the markets play a significant role in their constancy in adaptation and the need for change; for instance the banks or the technology production working spaces or supermarkets need to change in less than four or five years. In other words the working spaces which are dependent on the market and its forces have a faster speed for demand of change comparing to the other types of the properties.

Exact and accurate prediction of the future requirements of an industrial property is a hard estimation, with the constant change taking place in the demand of each period and era. The uncertain part of the future need is not so much form based but is mostly extent based. The industrial structures are more probable in facing the problem of extent difficulty, because of the alteration in the economic situations and the modern generation's continues change in market requirements.

One of the fundamental reasons of the obsolescence of industrial structures is the dramatic growth of the cities after the industrial revolution. The factories that used to be far from the urban centers and were even in the rural districts were abducted to the center of the cities gradually. The upcoming new physical environment presents limits and difficulties to function for the mentioned structures due to their natural contents like dust, noise, etc.

There are few situation survey preplans for the nonresidential structures. It is mainly because of the variety of type, style, and size in different categories of the buildings, from the offices and commercial structures to the industrial and agricultural ones. Hence, it is troublesome to predict and present an amassment market perspective.

With the modern regulations and contemporary urban coordination, concerns about the destructive effects such as noise, smell, dust, pollution and difficulties of the transportation of the goods to warehouses and factories, the industrial activities could not be allowed to continue remaining in the city centers and were moved to industrial zones gradually. Other industries disappeared due to lack of future viability competition from developing countries to increase. Companies move their production to countries with lower production costs.

2.6 RESULT OF OBSOLESCENCE IN INDUSTRIAL HERITAGE

As the vernacular remnants of the industrial ages, industrial buildings are unique in their own ways, yet in perspective of many, not enough for cooperation with conspicuous community and events. However, there are numbers of industrial buildings which were designed by prominent architects such as Albert Kahn in the twentieth century. The new generation of the industrial buildings was transformed from the brick constructed load bearing walls to the steel based ones with more strength in skeleton at the late nineteenth century. The reinforced concrete materials and significant exterior structure started to be used in the early twentieth century in industrial buildings. In the early and mid-twentieth, century, though, the deterioration of the intensive industry caused lots of isolated, obsolete, idled and abandoned industrial sites being left useless in many of the western countries and also some of the eastern countries.

In general, the main neglected point about industrial buildings is that the buildings, which are from the eighteenth and nineteenth centuries, are remnants of unknown and local architecture, serving a “functional purpose” rather than a “theoretical aim”. The factories designed by Frank Lloyd Wright, Walter Gropius, and Albert Kahn would be exceptions for sure, while the nineteenth-century factories, which were mostly designed and built by craftsmen, are mainly the ones that are in serious need of protection and new life. As a result of their lack of recognition and their functional based design, many of industrial buildings were historically and practically ignored and in the most of cases even abandoned and isolated for a long period or even decades. The oversight by the people in preservation community confirms that they have long been, and still are, considered by many to be blight and eyesore elements of the urban context. They are often overlooked due to their destructed surroundings, polluted landscape and, ‘ordinary architecture’. Such a belief ignores the rich architectural detailing, characteristic features, and spectacular public spaces which are created in industrial complexes despite the fact about their age and many negative side effects they carry.

3. ADAPTIVE REUSE

The word adaptation is a Latin root based word, ad (to), aptare (fit). In architecture, there are various definitions for its entity; each carries a specific focus narrowed down from such a vast field of study as adaptation. However, there is a simple and direct definition for adaptation among the broadly covered area of it in architecture, which states that an adaptive reuse process is the process of changing the use in a beneficial way to develop the function of a structure or in a bigger scale a district.

3.1 INTERPRETATIONS OF REUSE

Many similar words exist in the field of study of reuse. Words such as Retail-reuse, Adaptive reuse, Reuse, Renovation, Alteration, Adaptation, Remodeling, Refurbishment, Restoration, Restitution, Regeneration, Revitalization, Retain, Conservation are used in the area of adaptation ubiquitously. Moreover the words such as 'remodeling', 'renewal', 'recycling' are used in some major actions of adaptation and change in the building. However, there are bold and tangible differences technically and linguistically between the words above, which create extensive variety of definitions with fade borderlines which separates their fundamental contents from one another and still being confused and misinterpreted in some cases.

Figure 3.1: Similar Words with Adaptive Reuse



Source: final presentation power point file

There also are some deeper differences between the mentioned word's entity and even within the adaptive reuse itself. Some believe that adaptation is a proactive process that can function with independent potential, while some others believe that it is a reactive procedure that is taken as a solution against the obsolescence, as Gerwin.D (1993) cites in the book, 'Manufacturing flexibility. A Strategic Perspective' (P.395): the environmental uncertainty and prediction of future and the essence of change is unknown and not predictable in the process of design; therefore adaptability of the building should be seen as proactive solution to prevent the damage beforehand.

The word, 'Refurbishment' is an occasional substitute for adaptation. Furbishing means to burnish something, 're' is referred to do something again, refurbish is to develop the function and appearance of something, taking it back to use. In architecture, it refers to the extension of the buildings maintenance with developing the qualities and standards to make it usable with the modern requirements, which is similar to the adaptation. However, there are various details, which differ from one another in each frame details of the process. One which is called 'revamping' refurbishment, mostly entails the focus on the aesthetic performance of the building at the same level with the functional enhancement. It rarely contains creative solutions to function extensions. Generally it can be recognized that refurbishment contains primary and shallow solutions about the obsolete buildings with not enough attention to its further active life.

The other word 'Rehabilitation', derived from the word habitation is framed into a smaller scale and mainly limited to housing. This definition may also contain extensions beyond the frame of the pre-planned core maintenance of a building which is socially desirable and economically viable (Watt, Building Pathology: Principles and Practice Blackwell Science, Oxford 1999).

Another definition can be stated as: the possibilities which the acts like extensional additions, alteration, repair create for a building while keeping the historical characteristic values of a structure. The process accepts the need for alteration or additions to the building to keep it continues and letting it change the uses, while retaining the cultural and historical identification of the building. Unlike the principles of refurbishment, it may encompass some extreme extension or alterations that may

transform the building into a scattered identity. Adaptive reuse can be the most suitable chosen word for the healing procedure of an old structure that describes the complete range of tasks done with the required amount of emphasis on the maintenance, identity alteration and adaptation.

3.1.1 History of Adaptive Reuse:

The contemporary image of adaptive reuse has been burgeoned and developed since the mid-nineteenth century after the Second World War, with the credit of two opposite beliefs of two important architects. Viollet-Le-Duc, who believed that the 'faithful restoration' a high standard reconstruction must be applied, if needed even with the use of the contemporary principles and materials; but faithful to the background of the building as a heritage with the relevant studies through history and the gradual evolution of the building. The idea of new use was the center of his attention and due to the change of requirements through time, 'need' and 'usage' were alterable concepts from his point of view. In the book: *The Foundations of Architecture. Selections from the Dictionnaire raisonné* (New York: George Braziller). [222-223], he stated that:

"... The best of all ways of preserving a building is to find a use for it, and then to satisfy so well the needs dictated by that use that there will never be any further need to make any further changes in the building ... In such circumstances, the best thing to do is to try to put oneself in the place of the original architect and try to imagine what he would do if he returned to earth and was handed the same kind of programs as have been given to us".

His idea was criticized from the opposite movement, with the leadership of John Ruskin and his student: William Morris, they believed that the old building should be known and respected as heritage and must be conserved and not preserved in order to act as a mirror to show the age in a clear manner. This claim evolved into a more vehement level, advocating that the restoration of a building makes it infeasible to regenerate the authenticity of the old original building. Ruskin found the idea of restoration and any alternation to reproduce the character of the building impossible, 'impossible as to raise the dead, to restore anything that has ever been great or beautiful in architecture'. The anti-restoration movement strongly believed that the authorization of the heritage causes

irreversible damages through the act of restoration. Ruskin's idea also emphasized on the integrity of the building; in 1849 in *The Seven Lamps of Architecture*, he cites "it is not a question of whether we should preserve the building of our previous times or not. They are not ours. They belong partly to who built them and partly to all the generations of mankind who are to follow us".

Nevertheless, Ruskin softened his state in the 1870s with accepting the need for intervention but only in the orientation of maintenance and conservation, and only in the cases of massive decay or structural instability. Philosophers in the field of art and architecture reached to a wider range of acceptances in the field of adaptive reuse, after the period of the Second World War due to choosing a strategy to compensate the significant damage to the Europe's historic heritage. However, the emerge of many different theories and methodologies occurred subsequently, even sometimes at the same country or the same city. A theory of ' *Restauro Critico* ' which was the challenge between sthe preservation and conservation, was born and discussed in Italy school of thought, based on the critical approaches to various interpretations from architects and designers on the main buildings original entity. It aimed to draw a clear borderline between the newness and age, in other words, to ratify the recognition of the difference between new and old in order to permit interventions into the old buildings parallel to the contemporary needs and regenerate the potentials.

3.1.2 Adaptive Reuse of Industrial Heritage:

There is a wide range of obsolete industrial heritages with different categories in different countries due to the change of market, sprawl, economic difficulties or changes as mentioned before. The effects of vacancy are not limited to the corrupted and unsuccessful properties or the comedown of value in a structure; can be problematic even in the healthiest districts and neighborhoods. Although the importance of the awareness of the entity of the structure itself and the further decision making about an obsolete building can't be neglected, but also the reasons that lead the property into obsolescence and despair. The rehabilitation of an industrial building can be a solution that also contains adaptive reuse as a strategical solution to prevent or repair the damages of obsolescence. So it needs a feasible framework with preplanned stages.

3.2 EXAMPLES OF ADAPTIVE REUSE OF INDUSTRIAL BUILDINGS

Different styles of adaptive reuse have been done and still are being done in different countries according to different uses, vernacular styles and environmental and climate situations. Despite the similarities between the modern styles, each has got specific principles and symbols, significant in addressing the identity of the building according to its use, its country, city and its past and also its climates. Related to the case study of this study, which is Izmir's chamber of architecture, considering its seaport location, also its nature of being an industrial heritage, it has been tried to represent similar successful examples and take a brief look at their design contexts, principles, and results. Therefore, it is of a certain interest to examine a few of these cases in different countries which have brought relevant innovations in the preservation panorama in the recent times.

3.2.1 KODAK house in Dublin

Figure 3.2 Kodak House Exterior View



Source: <http://archiseek.com/2008/1930-kodak-house-rathmines-dublin/>

This building is an example of Art Deco in Dublin. With its layered façade and vertical lines on its tower, and its minor ornaments and symmetrical structure and multi-pane windows that are located deep between the plain and wide plaster. The zigzag fabric in its texture and wide windows and its plain frames clearly show the background character of the building as a factory.

Challenge in Continuity of the Context

The first construction goes back to the 1930s, designed by Donnelly, Moore and Keating and constructing by McLaughlin and Harvey. With the function of headquarter branch in Ireland for Kodak's Operation and a capacity for laboratories, warehouses and housing the workers.

With downsizing of Kodak activities, it continued working as a private independent photo laboratory until the 1980s, with the same ownership. With the birth of the new generation of photography techniques, the season of chemical processed photos came to an end; therefore alternative usage was needed to be defined to attract investments, to guarantee for the building to sustain economically, functionally and physically to stop the danger of facing obsolescence as a result of a long-term vacancy.

The need for an immediate plan occurred when the building was in the risk of impending to demolition in the Dublin's City Development Plan. Therefore, a complete adaptive reuse was undertaken to convert the structure into an office with the modern principles by Paul Keogh

Figure3.3: Old Interior situation of the Kodak House



Source: Book, Shaping the Future

Challenge of Change, proceeding to Adaptive Reuse

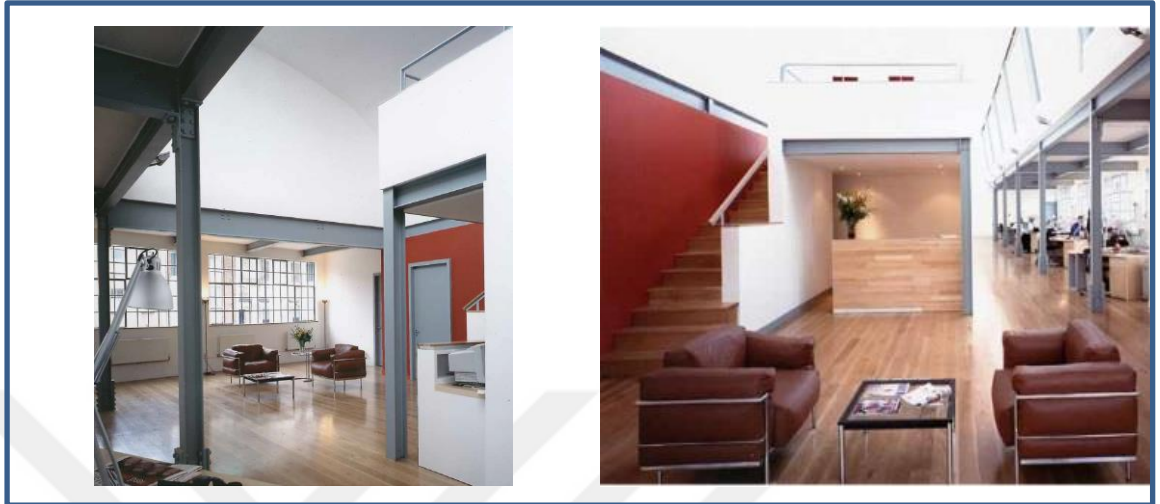
Architects were first limited to remodeling the upper floor. The ground floor remained with the previous function as photograph laboratory until 2002 when the ground floor was also asked to be remodeled. Initial researches about the first floor found them suitable for residential spaces because of its modular and open plan; thus, it was converted into a number of studios and galleries with mezzanine sleeping areas. During the first design stages, the decision of converting the open plan laboratory spaces into the use of headquarter for an advertising agency was taken. This decision guaranteed the future use of the building in a sustainable way while protecting both internal and external character of the building, and cured it with the risk of obsolescence. It was asked to protect the steel structure and windows of the building in order to protect and conserve the industrial identity and also the original quality of its identity and sense of the building. Installation of a new mezzanine that runs through the length of the first floor can be mentioned as one of the most significant parts of the new design. The mezzanine divides the plan of its floor into three different spaces, the conference rooms and the open plan office in the south side, the main open plan office in the north side; the areas between the mezzanines are allocated to the meeting rooms and central space for the library and also connects the office interior spaces and the terrace of the building. The focus of the design was to use the light into the deepest spaces of the building and exploit the sun as the lightening resource in various spaces of the building. Using the limited variety of colors and materials in the new design, gives the old building be represented with its previous character. It creates a new spatial effect in one hand and minimum intervention in the existing building on the other.

Outcome

The principles of the new design prove the ability of a good alternative to an ordinary and common working space thought to transform into a brilliant preferred office adapting to the needs of the contemporary technology and performance. Moreover approaching to new definitions of the space zones, lightning dimensions instead of intervention with materials and the colors and using artificial lights is possible and can

present a successful working environment in no contradiction with the old industrial heritage's spirit.

Figure 3.4 Kodak House Interior View

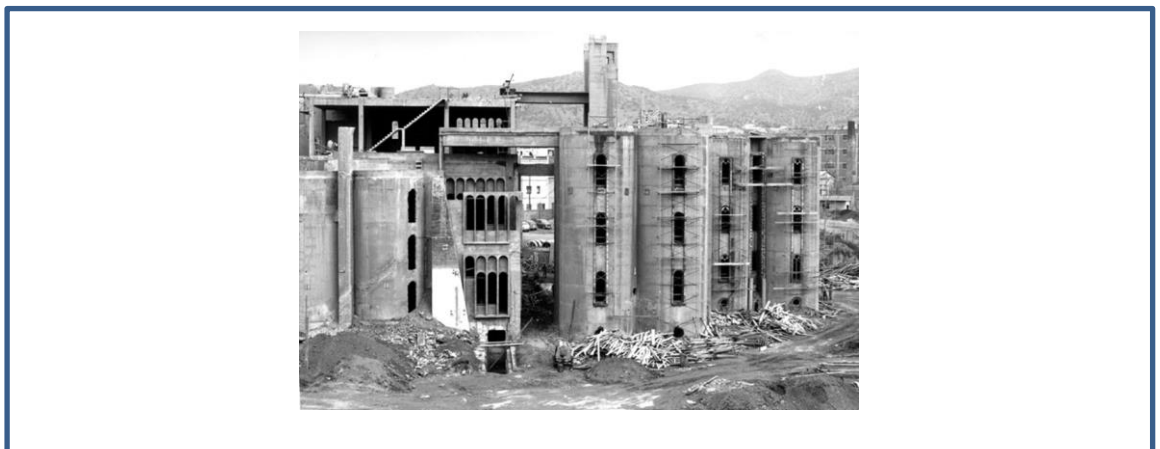


Source: Book, Shaping the Future, Department of Arts, Heritage and Gaeltacht, 2005

3.2.2 The Cement Factory, Barcelona

Richardo Bonfill, a well-known Spanish architect discovered the Cement Factory in 1973, while passing from it with his car as he advocates in a documentary interview. The structure was abandoned cement factory with underground galleries, massive engine rooms and 30 silos. He states that at the moment of seeing that area the idea of working and also living there came to his mind and the adaptive reuse process began after buying the area afterwards and lasted about 2 years to be totally completed.

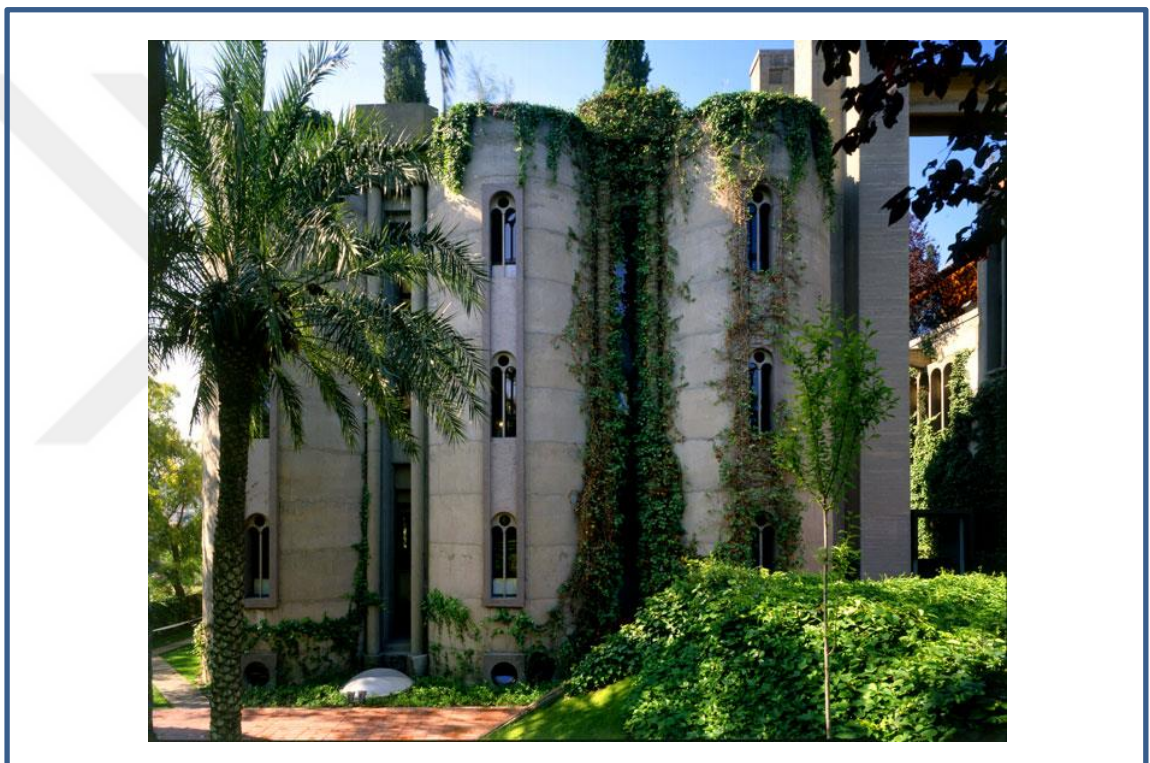
Figure 3.5: The Old View of the Cement Factory



Source: <http://www.fabianvorderegger.com/cement-factory-residence/ricardo-bofill-cement-factory-5/>

He named the program: The Cement Factory which was in the process of adaptive reuse aiming to transform the function to be used as architectural archives, offices, exhibition spaces, model lavatory, gardens, and a residential apartment for him and also numbers of guestrooms. The definition of the spaces took place with demolishing specific structures in a minor scale, cleaning cement, exposing the concealed previous material and structure.in order to bring the atmosphere back to life and create an appealing landscape, variety of plants such as eucalyptus, olives, palm trees and cypress were planted, surrounding the whole area.

Figure 3.6: The New Exterior View of Cement Factory



Source: <http://twistedstifer.com/2011/04/cement-factory-conversion-ricardo-bofill-barcelona/>

The architect visualized the future spatial characteristics and created a suitable layout, related to the various aesthetic tendencies that had evolved since WWI and still remained in the interior and exterior element of the factory. The area had a unique surreal feature to create a mesmerizing atmosphere for a dreamer architect as Bonfill was. With the paradoxical staircases which climbed to nowhere, massive voids and a load of absurd and abstract elements; plenty of huge spaces without function made from sculptural materials provided the vagueness of the atmosphere were qualities that convinced him

the preservation project of this factory have the potential to modify the area with its brutal nature (according to the nature of its material and the previous use) with all of its contrasts and contradictions using a sensitive design in order to represent a sculptural artwork in the shape of architecture. Looking at the structure, cleaning the useless elements and dust from it is more apparent than a building which was preserved.

Figure 3.7: Current Images of the Cement Factory



Source: <http://theresagallery.blogspot.com.tr/2012/11/an-ex-cement-factory-bofill.html>

Outcome

The whole design is like an old sculpture standing in the middle of altered gardens which used to be the yard of the cement factory. Different useless spaces were given use and came into the view as the result of adaptive reuse. Their new identities are the new definitions in the new adaptation program.

3.2.3 Salt Repository (Tuz Ambari), Istanbul

“Tuz Ambari” in Istanbul, an old isolated industrial building which turned into an advertising center and was appreciated with an award is a suitable instance of a transition of function with adaptive reuse. The building is a 3000 square meter space, which is located in the neighborhood of Kasımpaşa, between the Beyoğlu district and the Golden

horn that used to be an industrial neighborhood in the 1930s. This 170-year-old building is believed to be a gunpowder factory firstly and was formerly owned by TEKEL (Turkish state liquor and tobacco monopoly) that was used as a warehouse for alcohol, tobacco, and salt latterly.

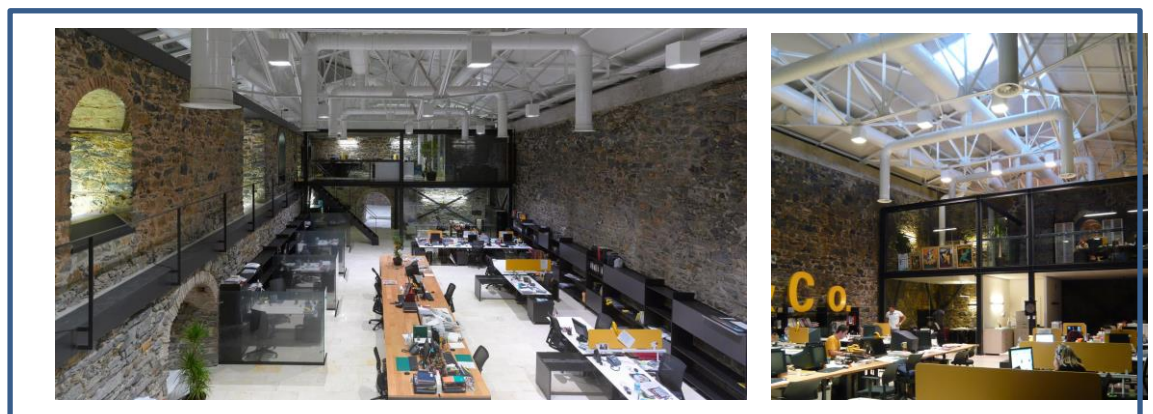
Figure3.8: Current Exterior View of Tuzambari



Source: <http://v3.arkitera.com/p373-ddb-tuz-ambari.html?year=&aID=2580>

The new design transformed the function to a large commercial and advertising office for the Medina Turgal DDB in 2009. The aim of reusing the building was to create a modern office while keeping the character of the old building as it is. The new design won the WAF ‘s first prize in” New and Old” category in 2010 and also the 12th National Architecture Exhibition and Awards, Preservation and Conservation category as well.

Figure3.9: Interior View of the Current Tuzambari



Source: <http://v3.arkitera.com/p373-ddb-tuz-ambari.html>

Challenge of Change, Proceeding to Adaptive Reuse

The building had to be altered in a way that could accommodate 5 interrelated and separate specialized teams with a shared technical service and utility infrastructures. Furthermore, the floor plan had to allow each unit to existing to its own and function as a dependent organ while also easily connecting them to the other team members of the other specialized units. The solution was to construct connected mezzanine floors integrating the different spaces. This was done without crowding new functions in any way to harm the old powerful nature of the existing space as a warehouse with its massive, thick walls and 10-meter high ceiling heights and spans. The different departments, units, and workspace of this advertising office were designed around the gallery. There was the secondary structure of glass and steel which was installed to the historic stone structure. The original stone walls were kept distinct and intact from the new structure to retain and respect the feeling of airy emptiness of the original space. All of the electromechanical installation was designed to go through the new consolidated roof trusses.

Outcome

With respect to the gallery zone, various spaces for areas such as service rooms, departments were zoned. To keep the original structure but also deal with the big empty space, with keeping the same layout, the inner structure with the material of glass and steel was installed without interfering with the original thick stone walls, in a way to let the interior space represent the old buildings identity visually to the audience. The original texture of the fabric which was used in the building was important for the designers to be kept therefore in order to preserve them, all of the stone wall joints were washed and reinforced with the most appropriate solutions for them after a sensitive analyses about their chemical entity while the damaged main materials were restored in a way to match the old ones to their best shape.

3.3 COMPARING SIMILAR DIFINITIONS WITH ADAPTIVE REUSE

In order to get a clear understanding about adaptive reuse, the differences in definitions and approaches should be addressed because of the various principles they contain while

making decisions, related to continuity and change. A clear acknowledgement in dividing each concept helps to estimate the degree of success or failure in adaptive reuse according to the characteristics and the strength and weakness points of the process. Comparing the definitions, principles and errors which detract the building from its original identity as a heritage, aids to minimize the misinterpretations of continuity and change in the process. It also gives a more transparent perspective in order to consolidate them in more practical ways.

3.3.1 Maintenance versus Continuity in Adaptive Reuse

As a building which needs to be continued after the process of adaptive reuse, it may be mistaken with the maintenance of the building. Maintenance comes from the French word: 'Maintenir' that means: to hold. Maintenance in architecture is the process of keeping the structure in the state that can be determined in advance. This mainly includes beneficial repair which is the act of reproducing the original situation, or modifying the incompetent materials, systems or components. Despite the repairs in order to maintain the actions which have been done may not satisfy the users or the owners or the market for its present and future needs. Therefore not all of the repairing action aiming to maintain can be called as adaptive reuse.

There are two main types of maintenance the first one is the one with taking action before change and not as a reaction to change, which can be called as proactive maintenance. The second one is to react to an event instead of take the action before the change to happen or even prevent it, which can be called reactive maintenance. The first type need pre plans, hence requires more initial expenses. On the other hand the latter one causes more expense in a long term service period. The both types cannot stop the process of decay totally which will finally cause the decline in the buildings standards and performance. There is a decay acceptance level in different users in the same building. In other word it is the time that the user or owner can tolerate the depletion and its side effects, due to the expectations and needs. The requirements have an increasing pattern in the modern era. This is tangible mostly in the offices and commercial buildings which are more dependent on the ups and downs of the market. In contrary of the increasing requirements, there is the decline of the standards and performance over time.

Despite the same aim for the entity of continuity in preserving identity and performance of the building, there is a considerable gap between maintenance and adaptation, which is needed to be mentioned to underscore their principles. Adaptation usually contains medium and large substantive changes such as the change in the use of the building and is done intermittently in a long period process, involving modifications, alterations and improvements. This process aims to improve the buildings performance or more deeply the total use, satisfy the new user's requirements or the legal needs, improve the image of the building, expand the buildings potentials, and enhance the buildings value even higher than the previous value.

While maintenance's nature is often limited to small scale works such as fixing partial elements such as the walls, wooden structures or roofs. It is mostly about repairs and sometimes minor improvements. It is done constantly and in short term periods. It aims to keep the physical situation of the building as it is, sustain the value of the building, present a standard acceptable internal atmosphere, to preserve the buildings image, to convey safe investments, satisfy the legal principles. Hence the nature of maintenance is about 'keeping' as its lexical meaning, and continuing with the same levels and standards. The nature of maintenance will at last face the decay and obsolescence at some point, because of the particular tolerance of old buildings against decay without fundamental changes. However, the focus of the adaptation is about 'becoming and improving and moving forward' which are the words that have the change in their nature while continuing. Adaptation can contain maintenance inside it in the process of adaptation reuse, because it includes the both essences in it, but maintenance lacks the quality of required change in it.

3.3.2 Conservation versus Restoration

The first theoretical steps of acceptance started from the point when the ICOMOS Venice Charter officially distinguished the conservation and preservation on one hand, but also accepted their unity in in purpose to shield the heritage for the next generation on the other hand. It emphasizes on the 'original material and authentic documents' and adds that the process of change and renovation must be stopped exactly at the beginning

of conjecture, and in case of necessity for change it must be different from the architectural composition and must endure the label of being contemporary.

A seminar of the gathered group of, Union of International Architects and International Council for Monuments and Sites a decade later pointed out a number of key factors about the existence and acceptance of new architecture from the modern era in an old surroundings, which advocates that the built structures and settlements related to human must all be adaptable to the change circumstances. Moreover as a result of the introduction of contemporary elements to an aged area or structure is a possible and doable option and will cause a desirable development of the functional characteristics and the aesthetic identity of the existing fabric. However, the mentioned concentrations must contain the respect to the heritages historical and vernacular identity, social value, aesthetic features and structural patterns.

The contemporary architecture, standing next to the acceptance of the heritage protection was in need for the development of the best ways to coordinate the harmony between the promoting contemporary architectural creations and the need for the unity of protection and requirements of our age's social, cultural and economic motions. Hence according to the heritage protection guidelines, accepts the difference between a suitable conservation of a building and freezing and isolating it in time. A convenient conservation gives the structure the chance to change while it is continuing in time, adapting to provide the needs and evolve but also reserve the integrity.as a result the principles of continuity and change started to be considered next to each other to meet the mentioned aims.

3.3.3 Adaptation versus Reconstruction

The question of: why adaptive reuse instead of demolishing and reconstructing is a debate since the birth of the idea of adaptive reuse. In the world of development there is a higher incentive for reconstructing instead of adapting because of the low quality of the existing structure. In many developed countries where the value of the site is more than the structure, it has a great tendency to reconstruct to develop the existing value of the site in order to focus on one structure in it and adaptively reuse it. The belief of buildings as elements with expiry dates is derived from the idea of the concept of

beneficial economic life of a building and that it is no more economically profitable after exceeding its useful age.

Since the second half of the 20th century adaptive reuse, as a feasible and viable alternative to reconstruction has gained a notable recognition among the architects and designers. This preference had some obvious reasons, such as the demolition and low quality reconstruction or deficient designs in urban areas of the structures which had the potential to be repaired, especially in the period between 1960s and 1970s went more far than the normal borderlines, and caused serious deflection in the texture of many of the valuable districts and cities. The other reason was the imitation of foreign designs in domestic areas, with neglecting the vernacular effects on the building and the differences in different principles due to various macroclimates, in other words, 'foreign solutions for domestic problems' caused lots of consequences and a considerable discourage against the new reconstructions movement. Preference of adaptive reuse versus reconstruction can be stated as below:

Donations and financial helps: in some historic buildings especially in residential heritage, there are some financial supports for adaptive reuse of the building to preserve the identity of the heritage, which has a crucial importance for some communities.

Duration of the process: redesigning can often be done in a shorter period and with faster pace in comparison with demolition and reconstruction.

Depreciation: to neutralize the process of depreciation, adaptation can be a logical solution to regain the value of the building back because a successful adaptively reused building gains a considerable amount of economical attraction and service life.

Presentation: when up-to-date enhancements such as acoustic, central heating, thermal services and structural modern performance can be presented in an old building which has the energy waste and excessive consumption, with adaptive reuse, it can improve the performance of the building as a more logical preference than demolishing the total.

Usage transition: the previous demand for the buildings use may not remain as a result of a long-term vacancy in a building. With the change of usage parallel to the need the

redundancy of the building can be solved totally and even with the higher performance according to a modern activities, gain a higher degree of popularity.

Authorized inhibitions: for the buildings that are not allowed to be demolished by the owner, because of planning inhibitions, the building is left and decay naturally. As a second alternative the building can be reused adaptively to its previous use or a new use.

Conservation: despite the importance of technical reasons, social and cultural reasons play a vital role in influencing the preference of adaptive reuse over the reconstruction to conserve and save the building architecturally and historically.

Sustainability: reusing the building in an adaptive way hurts the environment less than the reconstruction, and is considered as more environment friendly. The latter one contains demolition before the reconstruction which consumes more energy and causes more waste than adaptation.

On another hand in the modern era's combat with the environmental damages and global warming resulting from the climate change, adaptive reuse resonates with responsible vibration to utilize the mortal resources. Therefore, a building which is considered as a physical heritage and resource, if gets depleted but still sound in different aspects, be treated with a sensitive adaptation planning not only, causes the extension of the buildings life and helps the structure to remain as a heritage, but also it conserves a big amount of the damage it can cause to the environment and avoid the loss of energy. The adaptation of building in this regard, as a way to conserve the energy follows a specific morality to respect the heritage and help to make a sustainable environment. Looking into this belief more closely, gives us the flashback of the coral belief of Ruskin about the responsibility against the future generation. This type of evolution provides the requirement of the contemporary time, free from compromising the capacity of the next generations to meet their requirements as well.

3.4 CHANGE BEFORE AND AFTER THE PROCESS OF REUSE

Change can be studied from two different perspectives. The change in building which leads to the obsolescence of the building with all the reasons and affects that was mentioned in the Obsolescence part of the chapter. This type of change is related to the

process in which the standards start to decrease; as a result, this type of change has a descending algorithm. The second type of change is the one which starts to form during the process of interventions with an algorithm of upturn.

Focus of this study is on the second point of view to illustrate the beneficial approaches of change to adaptive reuse of an industrial building. However, the first form of change, despite its descending essence is the core necessity for the need for the latter kind of change. Within the second perspective, the adaptation of the building contains three principle forms:

1. Changes in function
2. Changes in size (extensions or partial demolitions)
3. Change in performance.

The amount and depth of buildings alterations and also its responds in temporal aspect are directly connected to the demands, so it can be claimed that it is a subcategory of change in 'use'. However, in the long term aspects the sustainability, availability, distribution, and the quality of the building influence the depth and degree of changeability of a building, therefore are based and estimated on the change of 'condition' .

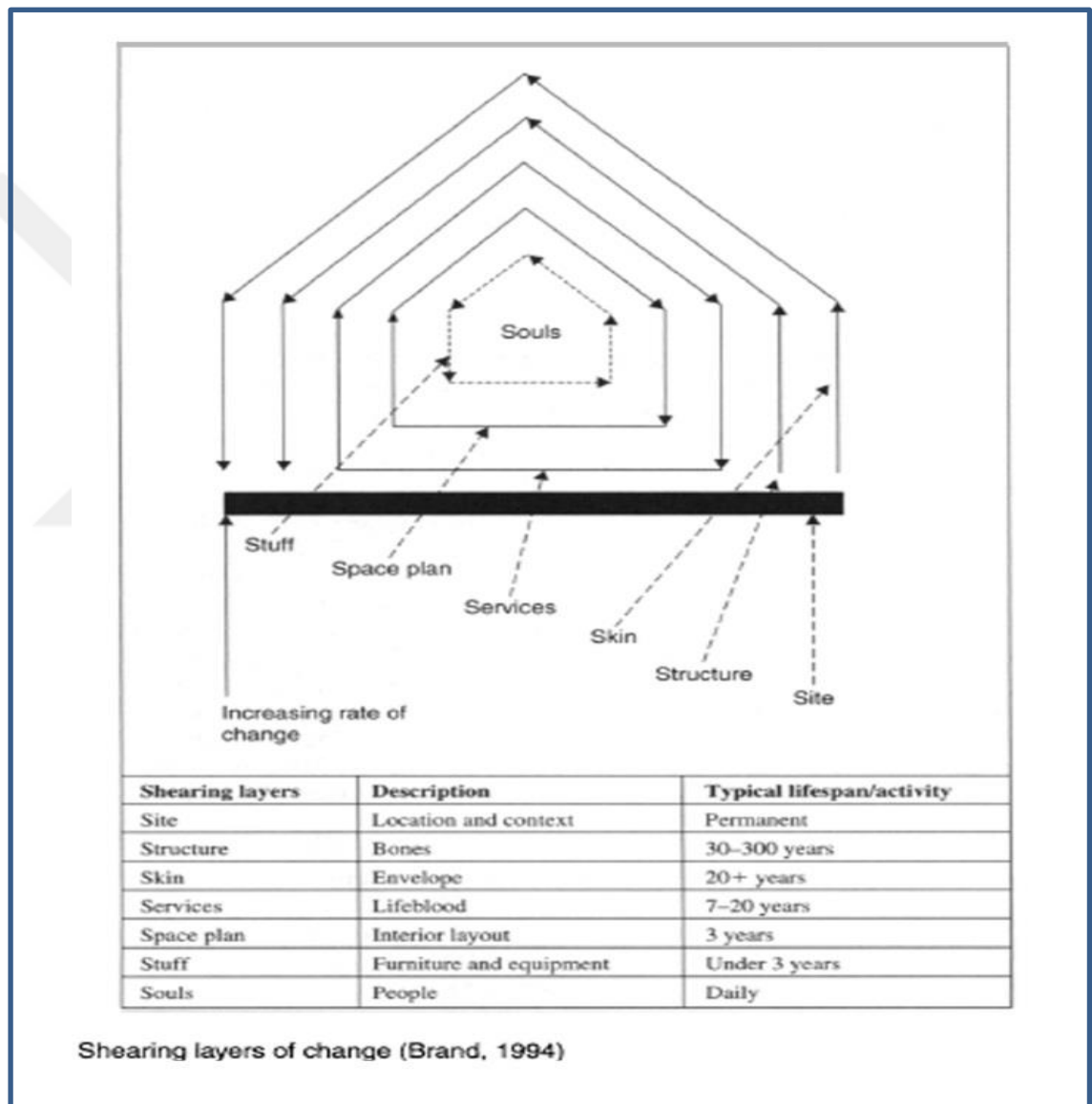
In the manifest of William Morris about the history of the building as a heritage, declines any change to the building in either the ornaments or the material or fabric of the building. In his belief in the case of dereliction and in case of depletion and being derelict, another building must be raised instead of any change or alteration. In spite of this vehement state, the principles of alternation and change are strongly demonstrated in the policy since the Renaissance's response to the mass demolition of the remained ancient buildings.

There is the idea that the building's continuity contains different layers, as Brand (1994)¹ states, there are various levels of the structure, skin, service, space and equipment. As Duffy.F and Henry.A Put it in the book 'Changing City',(1989:62) referring to the

¹ Brand, S. (1994). How buildings learn: What happens after they're built? London: Penguin.

descending endurance, the building has four different layers: the ‘Shell’ which contains the elements with the durability up to 50 years, such as foundation and structure; the ‘Service’ with the lifespan of 10-15 years, such as electrical, mechanical and information system, the ‘Scenery’ with the endurance up to 5-7 years such as the finishes, furniture and partitions and the ‘Sets’ which are referred to the rearrangement of the latter group in according to the areas needs and short term requirements.

Figure 3.10: shearing Levels of Change In a Building



Source: How Buildings Learn, What happens after they're built, Stewart Brand, 1994

As members of the movement called The Open Building, Kendall and Teicher,(2000) divide the 'base building' and the 'interior fit-outs', and believes that the intervention

problems level must be at its minor, while altering or installing, hence enable the building to adapt to the users preference over time.²

The change in adaptive reuse comes within different aspects and is followed with different principles, which is studied in two different points of views here, the first is physical changes in which the change in spatial and functional identity of the building is focused and analyzed as the second one, the theoretical entity and continuity and alteration of the building's principles are studied.

Entity of Change of Building in Adaptive Reuse

The maintenance wouldn't be enough for the user's priorities to get beneficial results of the building. Hence further interventions are needed against the gradual deterioration of the building to provide the requirements in a long-term period. For reaching this aim there are some elements to be supported:

Spatial adjustments in which works such as

- a. Combining two or three spaces together to form a bigger space containing the additional spaces
- b. Expansion of the spaces
- c. Enhancing the orientations and directions
- d. Developing the accommodations such as providing toilets or new bedrooms or other essential accommodations according the need for new spaces for new activities
- e. Modifying the size of units vertically or horizontally to get new forms (e.g. lower the height of the ceilings).
- f. Enhancing for the accesses of disabled and elderly 7)reviving the interior design planning parallel to the need of function
- g. Changing the functional trend of the interior spaces (e.g. the living room to the kitchen) take place in order to change.

² Kendall, S., & Teicher, J. (2000). Residential Open Building. London/New York: E & FN

Structural improving interventions contains: Aesthetic interior and exterior improvements, installing Soundproof thermal systems, fundamental insulation against natural harms such as molds and insects or in extreme storm and flood, cladding the roof with new material in order to increase the weather resistance, repairing in order to preserve the existing material, such as timber against the decay. Heal the defective structural component such as strengthening the foundations, or adding new beams or columns or load-bearing walls.

Code compliance, which is the action that gives the modern standards to a building. Such as the structural strengthening, central heating installment, access for disabled people, sound insulations, and fire protection.

The environmental improvement which is to upgrade the system with the installation of up to date, contemporary service with the contribution of higher sustainability in order to provide the safety and comfort of users containing less environmental harm with a reasonable usage of energy and actions such as interior improvements fixing and painting the façade to improve their appearance external and environmental enhancements as a part of the city regeneration.

The mentioned changes are to be done in a logical scale to interfere with the building in beneficial principles in order to avoid compromising the identity of the building. Hence, there must be a pattern in which the amount of change could be measured within it and the effects of each transformation on the buildings various aspects of identity could be addressed more rationally afterward.

In this order, the change can be categorized into three different scales: small, medium and large. Moreover, each of these three scales can be surveyed within three different parts: firstly the degree of change, to understand the amount of alteration more clearly, secondly various types of change, in order to understand the essence of each change, and latterly, examples of change in the various parts of the building in which more detailed image will be given in order to spot the transformation of each element as shown in the Table (2.6).

Table3.1: Scale of Change in the Building

<i>Scale</i>	<i>Degree of change</i>	<i>Type</i>	<i>Example</i>
Small	Low-key	Minor improvement of surfaces. Upgrading of fittings. Minor extension.	New floor coverings, re-roofing, painting/re-painting or rendering/re-rendering external walls. Replacement of doors, windows, and kitchen/toilet fittings. Porch, conservatory or small rear/side extension, and loft conversion. These may involve some minor structural work, such as forming new openings.
Medium	Substantial	Conversion scheme. Major upgrading of surfaces and elements. Major retrofitting of services. Enlargement of capacity. Structural alterations. Major change of use of an old building.	Change of use from office to flats or vice versa. Overcladding of walls and recovering of roofs with improved thermal qualities, and over-roofing flat roof, recladding of walls. New air-conditioning system, addition of lift/s and service cores. Major lateral or vertical extension. Removal/insertion of walls and floors. Conversion and renovation works to a derelict or wrecked property.
Large	Drastic	Extensive remodelling works. Reconstruction of new building behind existing main external walls. Extensive spatial and structural alterations to enlarge/reduce the building's capacity or change its use.	Restoration of a ruinous multi-storey building. Facade retention scheme. Major extension to as well as internal and external modification of existing building.

Source: Building Adaptation, James Douglas, 2006

3.5 CHALLENGES AND BARRIERS OF ADAPTIVE REUSE

Rectitude

In this general point of view to the entity of the original nature, character, usage and form of the building are concentrated on, at the same time it zooms on the building architecturally and its ability in retaining the standards after the process of adaptive reuse. This context can be studied from four key elements of the integrity or, in other words, honesty.

Architectural rectitude: in which the adaptive reuse of an old building not only protects and preserves the structure and the material and fabric of the building in a responsive mode but also respects the recognition of the oldness of the property and the area around it. Due to the fact that there are some times in which, during the minor changes in the external elements of the building some massive alteration and changes to the internal environment happens that compromise the harmony between the exterior and interior and also the integrity of the building. There also are times in which the interior new design obeys the requirements for a successful adaptation but an unsuccessful exterior alteration or extension can easily destroy the original concept. Therefore architectural rectitude can be one of the most important considerations of the adaptive reuse.

Constructional rectitude: the decline of performance or a specific style of construction that compromise or affect the performance in an adverse manner to scathe the ability of performance is considered as a constructional failure in protecting the integrity. This may happen in providing the fire protection or the weather insulations resulting from a deficient abutment during the constructional process which would let the rain or humidity cause further damages to the main building. It is a necessity for adaptive reuse to successfully incorporate the new energy saving system estimations but at the same time care about the evaluation of the historical particulars in the single and collective manners and details.

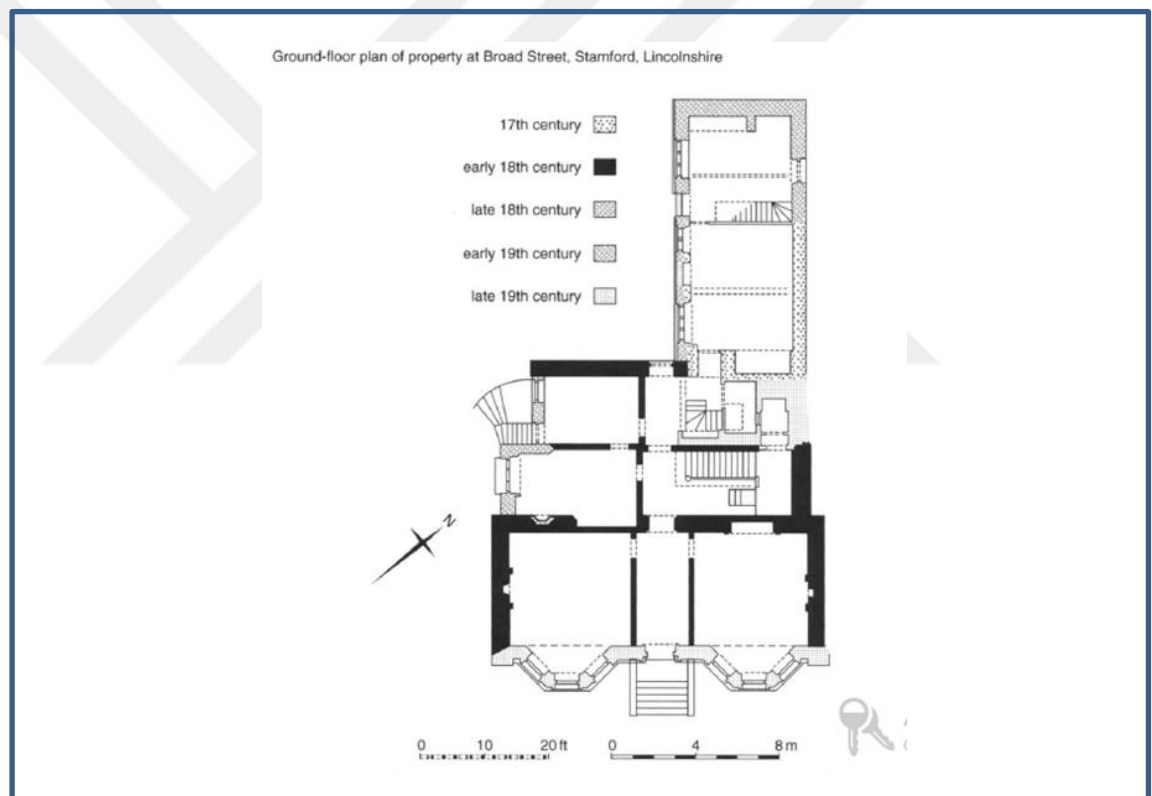
Morphological rectitude: in adaptive reuses that the usage changes, there will be a change in the patterns and the amount of the dead and live loads of the building. in case of ignoring or paying not enough attention and effort to strengthening the structure of this change the structure may face serious and dangerous failures in bearing new loads, for instance the load bearing pattern of a factory from the 1990s and its live and dead loads of workers and machines is not in any level similar to an office or a residential building.

Religious and Cultural rectitude: When the use of a building changes, it must not conflict the previous usage, instead it should work as a complement procedure. transformation of the holy places such as churches and some other historically precious

buildings into offices, restaurants or bars and pubs have been the subject of many opposite debates between architects, designers and critics for a long time.

Progression of the building in time: The unity of change and continuity cannot be addressed and reached without having enough information about both related to the building. Thus, the history of the building, its different modifications from different architectural periods and also different evolvments and alterations in sensitive parts and elements must be detected in order to achieve an adequate amount of knowledge for a proper action. In the example released from ICOMOS in 1991 different alterations in different eras is shown in a 4000 years period in a building in Lincolnshire, England.

Figure 3.11: Various Alterations in Different Periods



Source: Book Building adaptation, Second Edition, 2006

According to the mentioned basis and characteristics in a reuse project, numbers of fundamental approaches can be addressed in order to make the project adaptable, which are the key requirements for any adaptation process. Thus, a complete detailed recordings and pre-studies should be prepared prior to any steps for all of the projects.

Distinctive features of the old building should be recognized, studied and be recorded in order to choose the best intervention related to them. Neglecting the importance of initial information gatherings and detailed studies will lead the project into irretrievable results. Moreover numbers of action takings, in order to create a perfect design, will cause the natural process, digressed from the main category of adaptive reuse and mislead it into other categories such as maintenance, conservation, renovation or many other similar definitions with their specific principles. Therefore, the aims must be carefully reached without compromising the natural way of adaptive reuse occurrence and advantageously integrate a clever approach in order to seize the propitious trace toward solution findings and action takings for the sake of modern architecture and the building's historical entity.

In the next chapter, a detailed analysis through the spatial, structural and material changed and continued components of the adaptively reused Izmir's Chamber of Architects which is the former TEKEL warehouse will be done in order to discern different aspects of the project from adaptive reuse's perspective and illustrate how close it has been, to the mentioned principles. Furthermore, there will be concluded how continuity and change were consolidated in order to help the abandoned warehouse recuperate from its obsolescence while latterly comparing the newness and age concept and the amount of their importance in the perspective of the designers of the project.

4. IZMIR CHAMBER OF ARCHITECTS

Figure 4.1: Izmir Chamber of Architects, Entry View



4.1 INITIAL INFORMATION

Izmir City, Turkey

The city of Izmir with the history of 8500 years is one of the oldest cities in the world and also the third largest city in Turkey. It is located in the shore of the Aegean Sea and because of its unique location is considered as one of the most important trade centers and manufacture cores in Turkey.

The international seaport of Izmir is the most important port in turkey which is sought to be the city with the highest amount of tourism and also foreign investments and international trades in the country. Built on its powerful trading associations in history, Izmir has been known as one of the main commercial centers in the Mediterranean with a vibrant economy patterns that have the ability to carry a wide range of investments and international industrial based businesses.

The advantage of easy access from different parts of the world is not a new positive point for this city, the port in Izmir used to be active and a big center for import and export through history. With numbers of industrial estates, free zones, and universities, it is considered as a lifeline vein for the economy of the country and has the need to provide the city dwellers with acceptable qualities that a big city should.

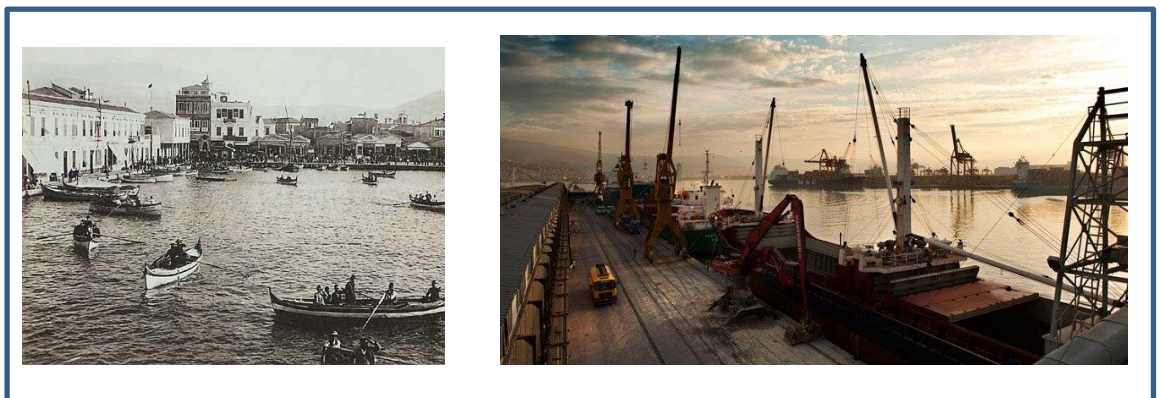
Figure 4.2: Old Izmir, New Izmir



Source: <http://www.uludagsozluk.com/k/eski-izmir/>

With the everyday increase in population, a high-speed improvement in every aspect of life is a must. The mass number of graduate students from universities, the cities of modern life need to expand the job opportunities and also the spaces that can accommodate the needs for the new jobs. Izmir seaport is the biggest seaport in the Aegean Sea according to the acceptance load of ships. Because of the location of Izmir which is between West Europe and North Africa, it has a unique strategic geographic climate which makes it not an agriculturally an especial area but also a significant commercial center in the Aegean Region and also an important district for import and export products and goods in Turkey. As the Turkey's foremost trade center in container handling, it is considered as one of the most significant trade centers between the European Middle East and Asian district with the access to the highways and also railway connection routes, it is a trade gate of Aegean Region and Central Anatolia.

Figure 4.3: Izmir, Alsancak Seaport



Source: <http://www.investinizmir.com/en/html/276/alsancak+seaport>

Pre TEKEL Warehouse and New Chamber of Architecture

Chamber of Architects is located in the Alsancak neighborhood, close to the sea with the same named transportation port. Because of the easy transportation opportunity, there used to be many warehouses and industrial buildings in the area of Alsancak. Therefore, the district has got a central and old industrial texture. The previous building was used as a tobacco and liquor warehouse. The structure is a heritage from the ages of Turkish new republication and its interior went through major alterations due to its maintenance, since that time. However, the exterior hadn't experienced substantial transformation over time.

Figure 4.4: location of Chamber of Architects



Source: Izmir chamber of Architect's Brochure

With the universal change of trade system as it was mentioned in the last chapter and due to the same changes which had led industrial structures to face vacancy and obsolescence afterwards, municipalities faced a continuous increase of industrial sites, which became firstly vacant and latterly derelict. Same patterns started to appear in Turkey as a developing country. Accordingly, its side effects started to unfold in some districts of such big cities as Izmir. These types of sites were usually located in centers and close to major routes and main transportations. The TEKEL warehouse was left vacant for many years and walked down the same steps through a descending trend that vacancy causes to the industrial buildings all around the world.; the process of gradual decay, depreciation and finally a total obsolescence as the result.

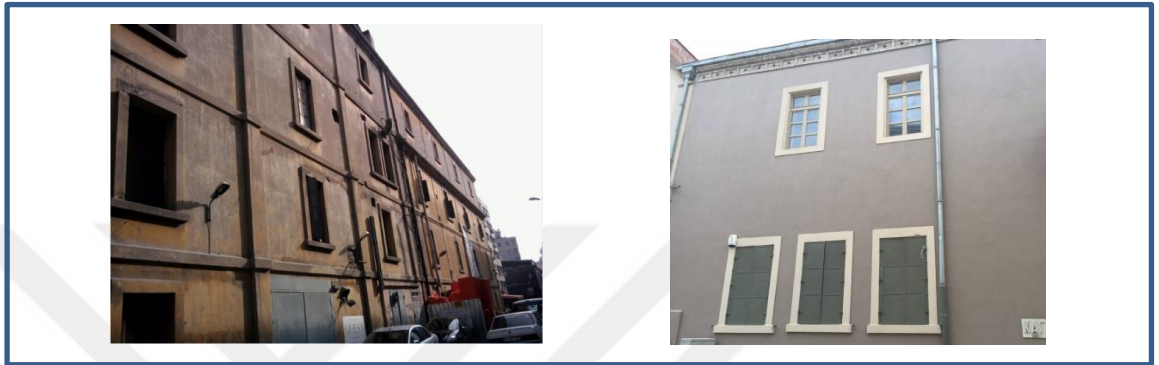
The Building's Location

The building is located in the heart of the city of Izmir, close to one of the main tramways of the city and is also preferable district for the youth and student's daily visits because of numbers of cafes and bars in the streets close to this neighborhood that makes Alsancak district a busy area with a live ambience and potential vibe for movement. However, due to the obsolescence of the old warehouse and the building next to it (which was also abandoned and latterly changed into the chamber of financial accountants), specific side effects start to appear in the years before the process starts. As dwellers state: visual, environmental and also the cultural value of the neighborhood had started to go through a descending path gradually. They believe that the vacancy and obsolescence of these two huge buildings which are right next to each other and occupied almost one block of the street made an obvious negative effect on the movements around it. As people walking around this area, they use to try to avoid passing this specific street and used to choose the other parallel streets automatically; because of the energy of a blighted structure, it evoked insecurity and even danger while passing. After studies about the potentials of the building, it was concluded that the structure does not have enough requirements for functioning as a warehouse again because of the new technical and spatial needs for handling the activities of modern warehouses and the locational change of the warehouses settlements from the city centers to some areas with less social traffic; ergo a new systematic design with sensitive architectural principles for reusing the building was required, containing different definitions of functional alternatives, and a solution for recuperating the isolated structure in the heart of Izmir.

After deliberating different perspectives and requirements, the building was decided to be turned into the Izmir's Chamber of Architects in order to inject a new spirit to the building and most importantly to the neighborhood as well. The architecture group of Ikiartibir (2+1), one of the creative architectural companies of Izmir, with well-known designers and architects such as Ferhat Hacıalibeyoğlu, Deniz Dokgöz and Orhan Ersan took over the project in 2013.

Transforming a decrepit, isolated warehouse into the head branch of architecture center with ability to hold various events and seminars, requires a high amount of sensitivity in addressing the design principles and spatial characteristics and also an acceptable philosophy through interaction of the old identity and details of the building as a heritage with modern expectance.

Figure 4.5: Old and New Exteriors of Izmir’s Chamber of Architects



The project had taken about a year to be completed and to be ready for use. The new design achieved the international award of the European Center in 2015 as a successful adaptive reuse. A brief summary of the building’s procedure and outcome was issued in the report of European center’s website as below:

“The old Tekel, tobacco warehouse registered as a cultural heritage in the Port Region of Izmir, the 3rd largest city of Turkey, is functioning after it was combined with architecture's innovative and creative power and design's infinite wealth. With this application in a way, a successful example of the reintegration of the current stock of structure into the urban life through architecture is manifested. The structure composed of two sections with four and three floors and offered service as a warehouse and a guesthouse for long years has been exposed to interventions and reinforcements in various periods. According to the land surveys, static tests and reports that have been conducted and prepared, the structure could not be used in its current status and the reinforcements, as well as the interventions that would be made according to the new function, were determined. With the participation of a number of architects, intervention and design principles were discussed and assessments have been made based on the three alternative surveys prepared according to these principles, with the approaches suggested by the project board, the concept project and interior designs were prepared. Within the

scope of the current structural features and static requirements, the projects prepared considered protecting the external walls of the structure, withdrawing from the exterior doors establishing a design inside that preserves the venue concept determined at the building survey and forms. The structure was renewed with a mixed system composed of steel and concrete, for all of the structural elements, exposing concrete wall, steel construction, mechanic installation and electrical installation elements was adopted. All of the partition elements that do not have to be closed indoors were applied with aluminum joinery and glass to ensure transparency. (Conference hall walls and ceilings were closed with acoustic panels as per acoustic requirements.) The parts of the ground floor stone walls that were standing and conference hall stone walls were reflected within the indoors area without plaster. The structure, which is aimed to be functioned as a center open to the use of Chamber of Architects Izmir Branch members as well as the residents of the city; includes a conference hall for 324 people at the ground floor, activity auditorium for 200 people, 550 m² exhibition hall including both of these venues foyer, cafeteria and wet areas that are required for these functions were prepared. The library located at the mezzanine floor ensured supporting cultural-public functions; the objective was to create an unlimited area of information for the architectural setting. The first floor, which is designed as the administrative section of the Chamber of Architects Izmir Branch includes the Executive Board, Chairperson's Room, secretariat, accounting, professional auditing, broadcasting and computer training rooms while the administrative service area is supported with wet areas and kitchen. The second floor, which is supported with two elevators, includes workshops, training halls, various meeting venues, the common foyers of these venues and kitchen plans with wet areas that are highly sought as part of the chamber's working program supporting all of these functions and the integrated open terrace (for summer movie theater, cocktails and events). Water tanks, archives etc. technical venues are located at the basement; WC-restroom groups, conference hall, and auditorium were designed for the ground floor taking advantage of the inclination. The structure that was designed with the involvement of several architects was opened for use in January 2014 and offered services to different groups of the society through various activities that include architecture and other branches of art until today. Similar structures located in the region that are the reflection of storage function to the venue around the port, are being demolished so that higher structures can

be constructed. The utilization of this structure by transforming is an indicator that creating another alternative in the region is possible; it has affected the transformation of the current structures located on the same parcel.”(europeanarch.eu)

In this chapter, a comparative analysis of spatial, functional, and material details of the building will be done between the old and the new building, in order to address the approaches to the unification of continuity and change, while preserving the identity of the structure. It will latterly be discussed whether if any of these two essences had been corrupted or damaged through the process of adaptive reuse.

4.2 SPATIAL ANALYSES:

4.2.1 Spatial Characteristics of the Old Entrance Floor

The old building consisted of three main floors and also a mezzanine floor between the entry story and the second floor. As apparent I the old plans, it contained storerooms, a dining hall, rooms for staff, guest rooms, restrooms, and powerhouse rooms with huge boiler container for coal burning containers, which were used as a central heating system of the structure. As shown in plan (3.1), there used to be varieties of small interior spaces in the old building, in other words, the first most obvious point of the spatial characteristics of the building is the diversity it has in interior spaces that represent various definitions and displays the closed working units with solid interior walls.

There is one main storeroom and six other, spread in different corners of the plan in the entry floor, a big diner hall which represents the intensive load of workers and the fact that a structure with number of workers that required a sizable space for eating their meals inside the structure, as an old approach to the employee service which can be seen considerably less, in the contemporary working principles. Therefore, a big space must have been devoted to such a function. The other particular designations of space are the power rooms that occupied three rooms in the entry floor, by cause of the massive machines within the area, which are in charge of obtaining all of the building’s heating requirements. The third conspicuous attribute is the size of halls and orientation stops, which are the result of the noticeable number of closed space layouts that create stop

points for orienting in space and various pauses for choosing the direction. This is one of the typical points in many of the old structures interior layout.

Big areas devoted to staircases also is also the other distinguish spots of the old structure. The absence of elevators could be the main reason. With the improvements in technology the definition of the concept of staircase recognition changed and the staircases switched into elevators as the first preference for ascending and descending between the stories.

Taking the plans into a closer focus, it is evident that the interior spaces have been through various changes according to the needs of their period over time. There has been layout of creating small spaces out of the big ones, dividing one big room into two or three different functional rooms. Especially in the storeroom areas because of their big sized entity.

There are four big rooms which were probably used as offices and working spaces that are not necessarily next to each other. This makes the different accessibility levels and spatial values for each, according to the order of the magnitude of each interior unit. Most of the spatial activities are solid and based on stillness because of the nature of the building as a warehouse. Thus, there is not a rhythmic movement pattern through the dimensions. Only minor movements of the staff can be addressed in orientation point of view.

Figure 4.6: Entrance Floor, Old Measured Drawing



Source: Izmir's Chamber of Architect's Old Document Archive

massive areas, with less separated units, in comparison with the old plans. However, the range of the usage clearly covers more activities within it than the old building. The change in the spatial defining allows the elements to function within a more open space areas while being different from each other, which pushes the limits of architectural design in achieving the new approaches to the interior principles.

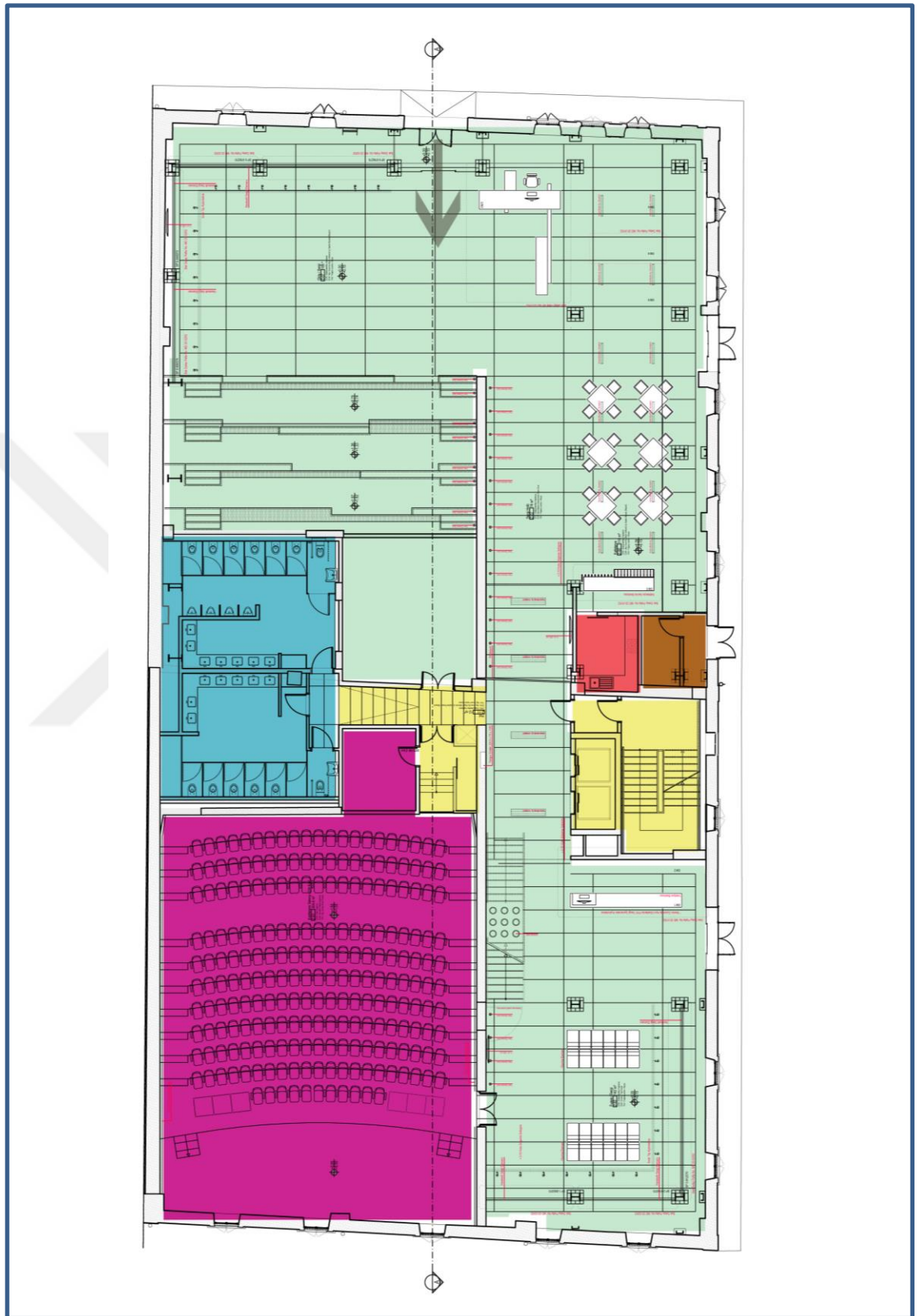
Figure 4.8: Interior View of the New Entry Floor



Source: <http://bi-ozet.com/2015/07/24/international-architecture-awards-2015-odulu-izmir-mimarlik-merkezine-verildi/>

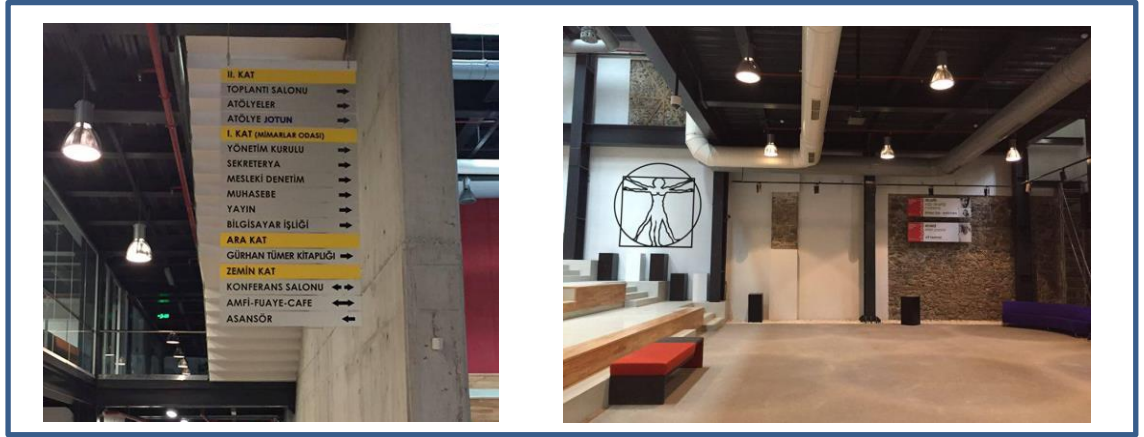
The entry of this story is followed with attached event halls and staircase access to the auditoriums from two angles, one from the first event hall stairs and the other from the staircases next to the gallery located at the back of the building. This type of multi-choice accessibility is one of the brilliant features of modern architecture that gives the visitor the chance to experience different areas without passing them twice.

Figure 4.9 : New Measured Drawing of Izmir's Chamber Of Architects



Source: Izmir's Chamber of Architect's Old Document Archive

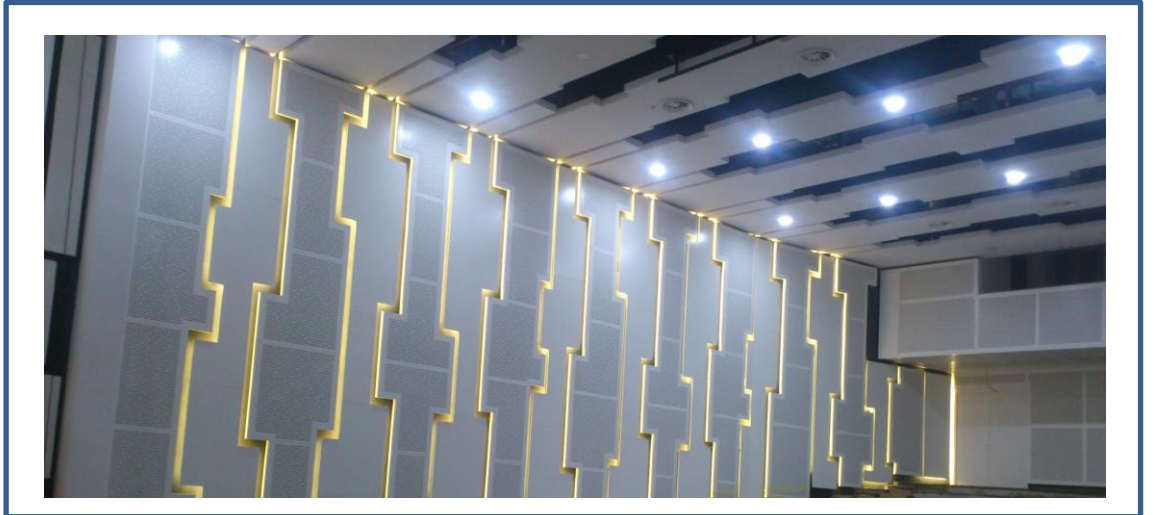
Figure 4.10: Interior View of the New Entry Measured Drawing



Normally, art and architecture events are followed by images and visual presentations; therefore a gallery is a necessary space for any event that contains visual presentation. Thus the event hall leads the visitor to the gallery hall, where the spot lights and adjustable lighting has been implemented. This area also contains movable frames that are attached into a rail for the pictures and artworks to be presented this flexible area can be considered the coral unit of the new entrance floor.

For the events which often contain seminars according to the subject, the need for an auditorium was solved with an independent, detached acoustic space, using the topographical angle of the ground in order to create the suitable atmosphere.

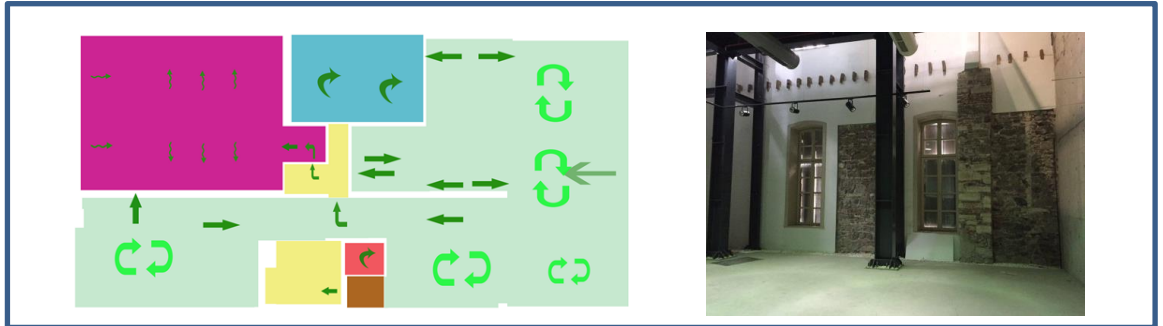
Figure 4.11: View of the Auditorium



The auditorium does not inherit any of the spatial characteristics of the old building and introduces totally different enclosure that is similar to all of the modern definitions for

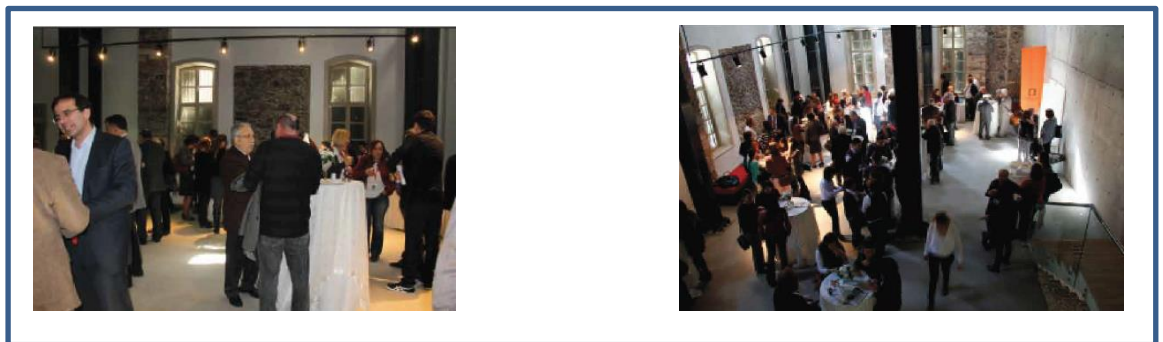
auditorium s. This space represents the less dosage of continuity of the old industrial building and maximum potion of change and alteration.

Figure 4.12: Spatial Layout of the New Entry Floor



As shown in the Measured Drawing (3.4) there is not any detachment between the old layer and the new one, in the entry floor. The old exterior layer of the building remains the same in the new design without any recesses or gaps. The gallery space has an effective spatial characteristic in the entry floor to preserve the previous identity with minimum detachment from the old structure. High ceiling, remained material, reproducing the vast area of a typical warehouse, represents the exact atmosphere of an industrial building while the open gallery space of the design evokes the sense of modernity and the feeling of a smart change in the spatial principles that can handle the integrity. This floor functions as an interactive area for galleries rather than being objectively viewed by the audience.

Figure 4.13: New Movements in the Entry Floor



Source: <http://bi-ozet.com/2015/07/24/international-architecture-awards-2015-odulu-izmir-mimarlik-merkezine-verildi/>

Restrooms are located close to the event halls, and occupy the same areas as the changing rooms of the previous usage of the old building. It can be said from the entry

plans that all of the new activities, events and art shows that accept visitors from outside, are well suited into a single floor as a package without interfering the privacy of the office atmosphere in the first floor as the result of the modern respect to the office staff which should be obtained with full comfort in their working space.

4.2.3 Spatial Characteristics of the Old Mezzanine Floor

Figure 4.14: Old Measured Drawing of the Mezzanine Floor



Source: Izmir Chamber of Architect's Old Document Archive

The crystal clear point of this floor in the old structure is the old approach to the mezzanine definition which is intensely similar to one main floor rather than a contemporary known mezzanine, with minor empty space. It is mostly because of the old function of the building as a warehouse in order to get the most usage of any possible space for storing goods.

The spaces of the mezzanine are consisting of two big store halls with minimum movement and maximum efficiency in storage. The live load of this floor can be considered minimum and in contrary, the dead load maximum. The stillness in this level is also at the top pick among the other floors.

There is a big wall that divides the floor into two detached sections. They have a small access to each other within the mezzanine floor, yet have cut the spatial comprehension.

Figure 4.15: Spatial Layout of the Old Mezzanine Floor

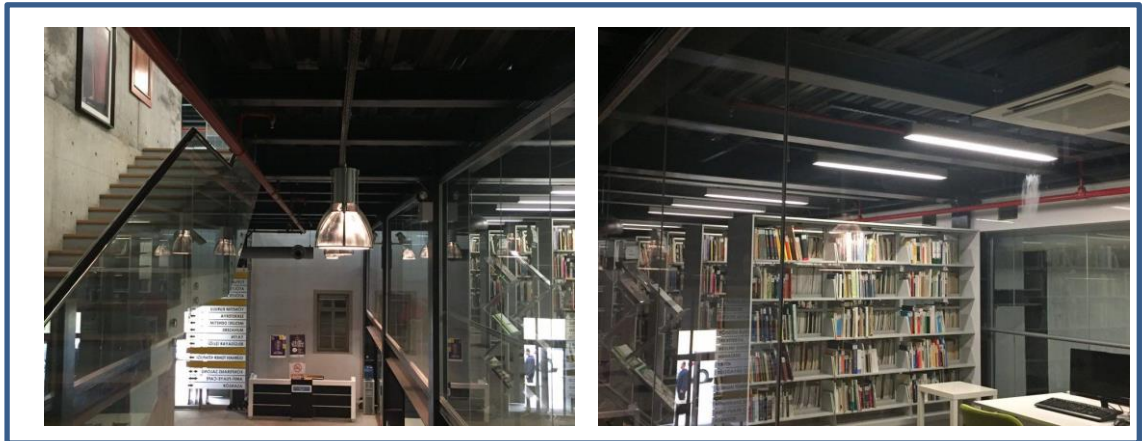


There are 5 rooms in the mezzanine, that may have been used as the offices or coordinating the loads and storerooms. There also is the chance that the spaces defined as rooms could have been used as storerooms or guestroom.

4.2.4 Spatial Characteristics of the New Mezzanine Floor

The new mezzanine have been designed with less occupied spaces and mostly functions as an access to the auditorium, event halls and the first floor where the main offices of the architectural center is located in. Existence of more empty spaces can be noticed in this floor, which makes it a typical modern mezzanine definition in an office design with open staircase and minimal space allocation.

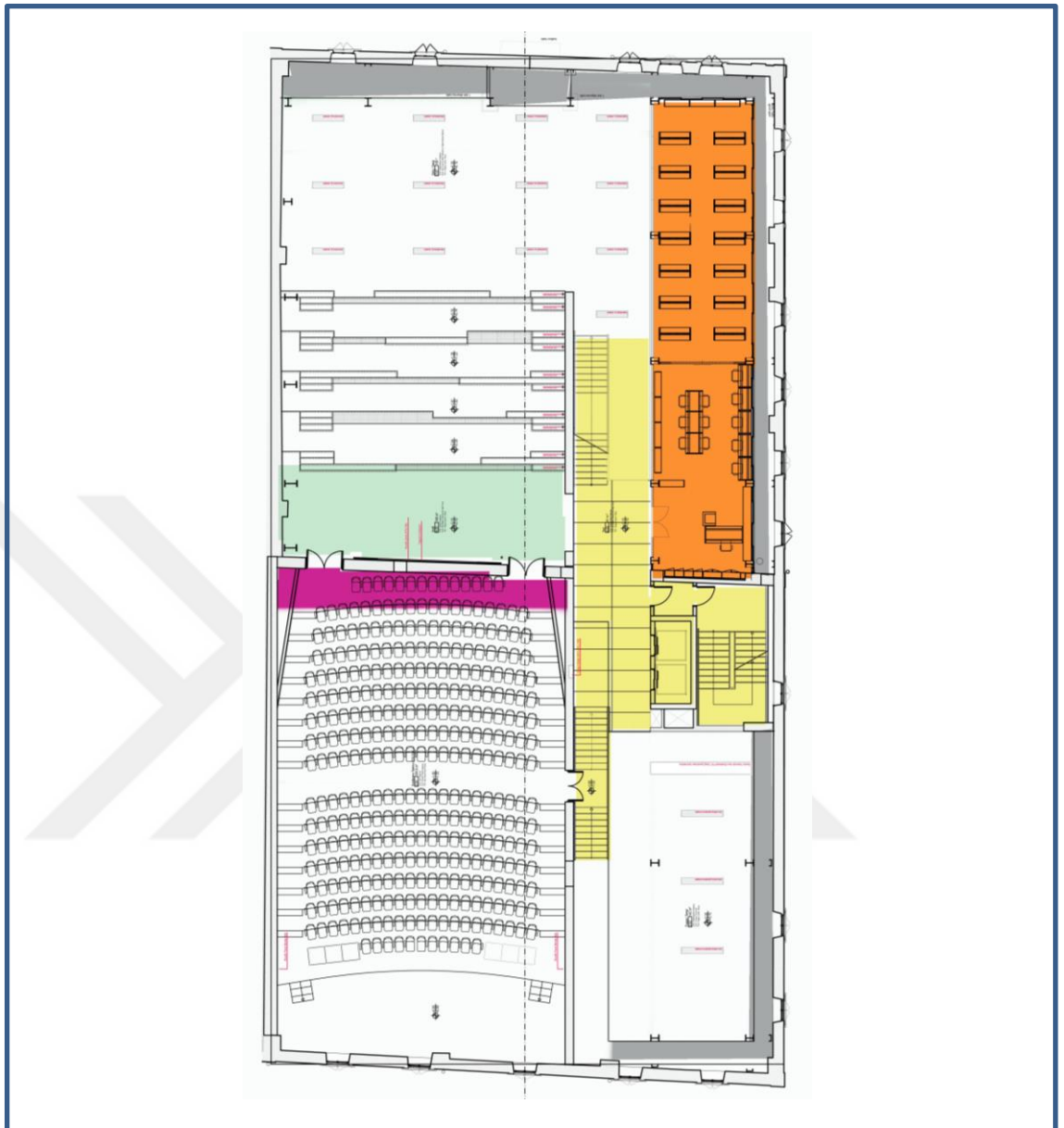
Figure 4.16: Interior view of the New Mezzanine



The coral unit of the mezzanine floor is the library with attached spaces for the library curator, books and studying space. This floor does not contain any restrooms, which also is a sign of the minimum spatial function in this story. However, it has an elevator that makes the access possible for disabled and elderly as a new vital element for the public structures that pay more attention to the minorities of the society more than the past. This advantage assists the mezzanine to hold equal spatial evaluation with other floors.

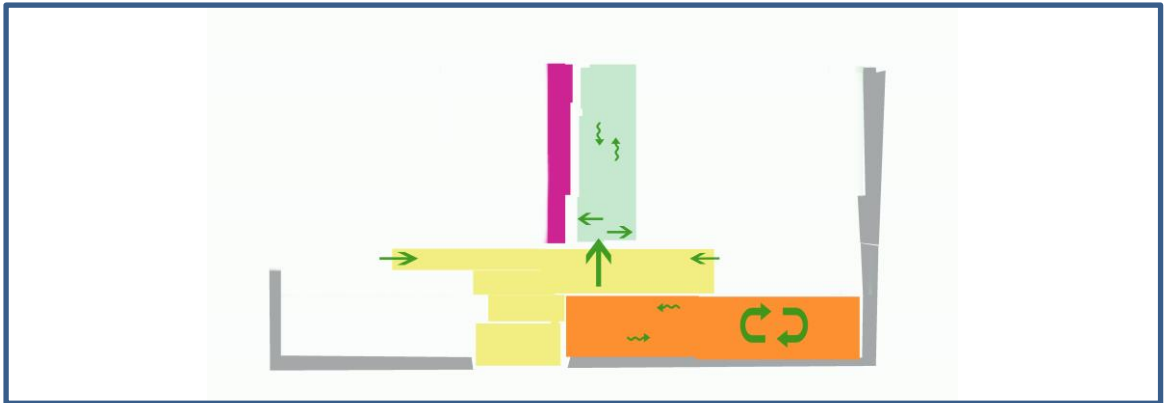
New design updated the definition of the mezzanine with the new principles while tried to keep the nature of the existing floor without erasing it from the building. The modern use of mezzanine floor as versatile and functional spaces helps more lit up an interior vast area such as this place. Moreover creates an inviting social atmosphere by extending the visual reach. This floor can be a proper solution for space and also as an intermediate level creates a positive ambience to the space, with illuminating contemporary functional characteristics with different portion of the same space with a creative spatial approach.

Figure 4.17: New Measured Drawing of the Mezzanine Floor



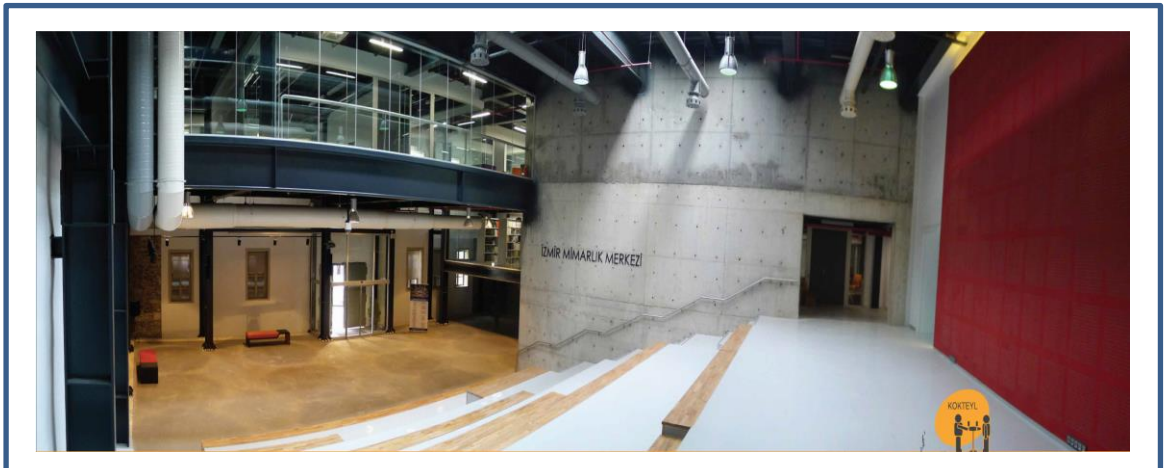
The orientation in the space within the new design of the mezzanine is based on the access, rather than cycling motion around the area. The busiest movement algorithm is concentrated in the library's bookshelf space as shown in the spatial measured drawing in the figure (3.8) as below:

Figure 4.18: Spatial layout of the New Mezzanine Floor



From this floor to upper floors, the detachment between the exterior layer of the old building and the new design starts. As shown with the grey color in the plans, the new designed area is detached from the old layer with an encompassed gap about one meter width. Hence the occupied interior space decreased to a smaller space in the mezzanine, fused to the old building in the first and the second floor. The mezzanine can be considered an access stage that also contains a minor functional units in order to utilize the existing defined space.

Figure 4.19: Interior View of the Mezzanine Floor



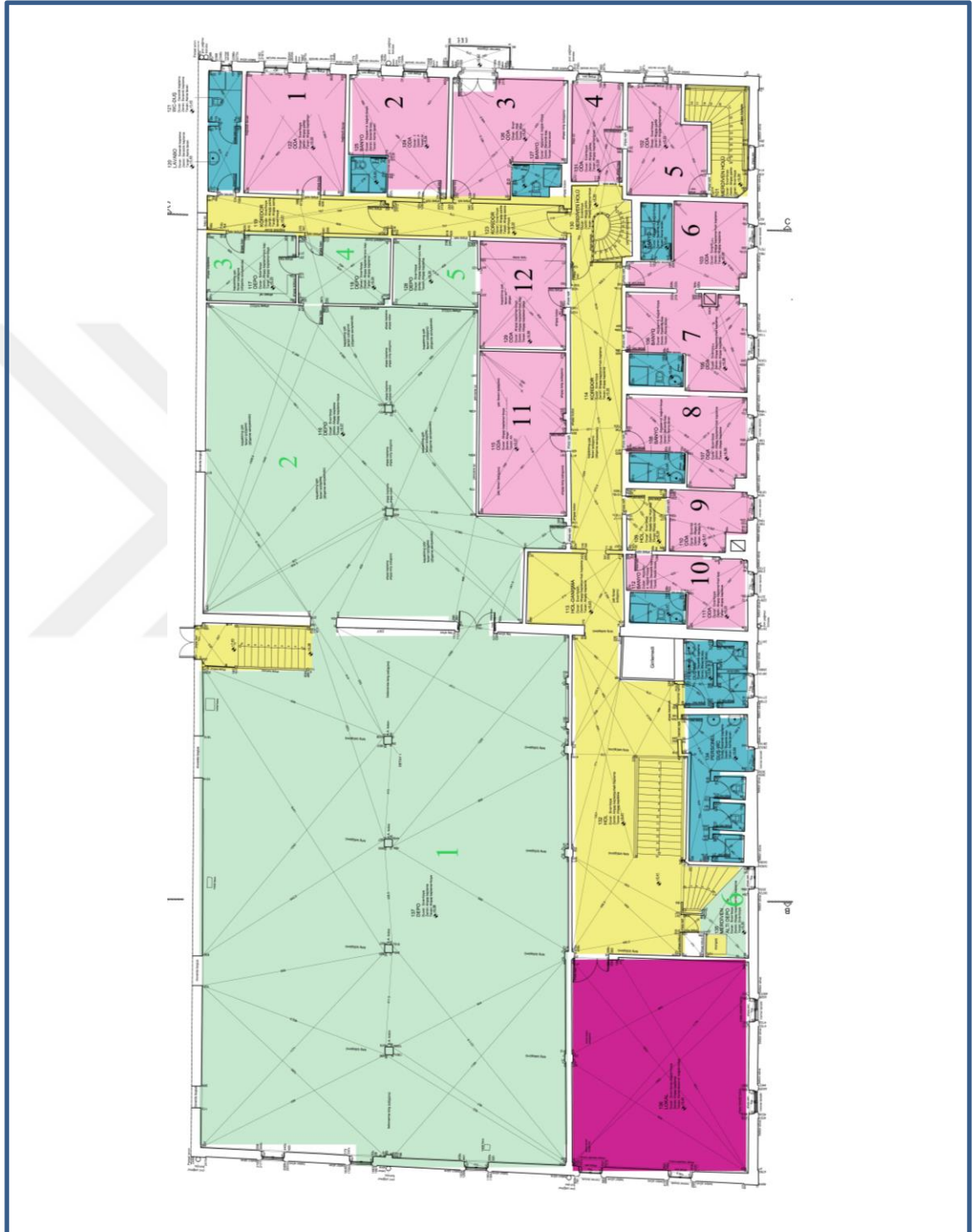
4.2.5 Spatial Characteristics of the Old First Floor

Old Spatial Characteristics:

The first floors plan consist of five storerooms and twelve multiple rooms. Some of the rooms contain restrooms and also bathrooms which could be used as guestrooms or

offices as well. Following a long corridor there is the reception, which in the new design is located in the entry floor.

Figure 4.20: Old Measured Drawing of the First Floor



Source: Izmir Chamber of Architect's Old Document Archive

The most evident characteristics of this floor are two long corridors that are intersected and twelve separate small sectors which are defined as rooms and two big storerooms. Movement of this section is more rapid than the two floors below, because of the variety of rooms it contains and different functions they obtained, which involve human activities and motions. Popularity of close working spaces can be again recognized easily in this zone.

In the movement and function diversity analyses, more movement cycles can be observed around the spaces of this floor within different units and rooms. There is a big area devoted to restrooms which is a sign of more traffic and live load bearings. There is a big hall which is called “Lokal” which may have been an area where the meetings and gatherings were taking place.

There also is a small lifter next to the staircase with the name “Montşarj” in the plan which played the role of the elevator used for transporting the goods to the first floor. According to the size of this lift, it can be possible that the goods were mostly lifted from the staircase. The floors overall spread follows an approximate harmony and the functions defining are related partially. However, the same divider wall is followed to this story and divides the two big storage halls with two attachment points as shown in the measured drawing in the figure (3.10):

Figure 4.21: Spatial Layout of the Old First Floor



4.2.6 Spatial Characteristics of the New First Floor

The first floor contains the main office of the chamber of architects, meeting rooms and workshop rooms as well. The floor is accessible from mezzanine and also with elevators as well.

Figure 4.22: New Measured Drawing of the First Floor

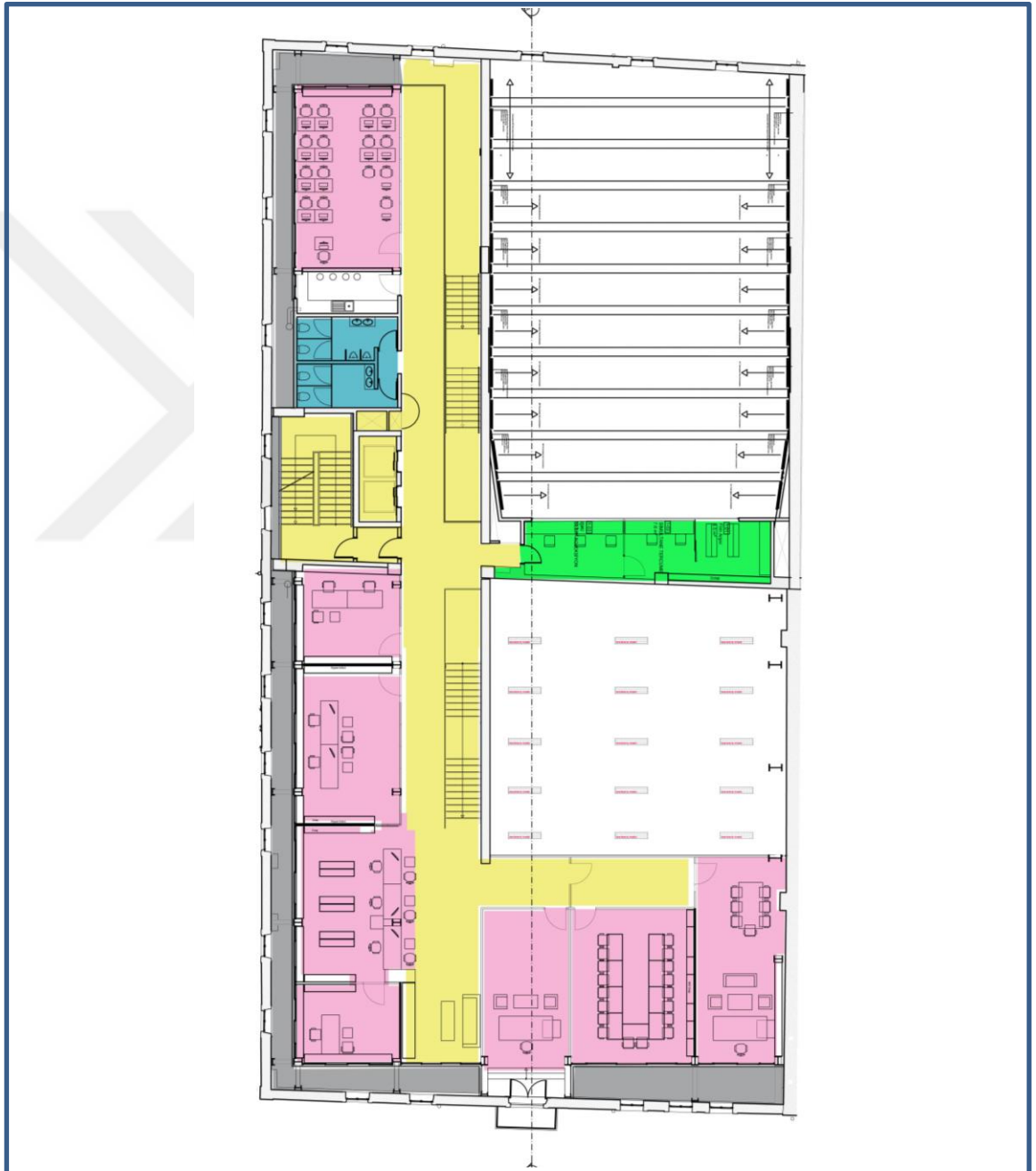


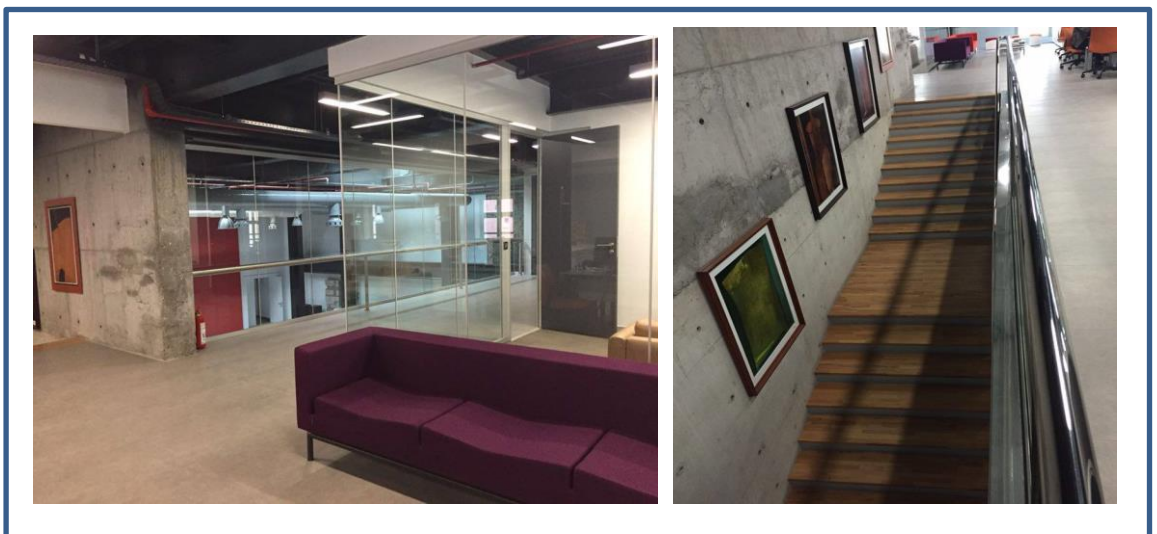
Figure 4.23: Interior Panorama View of the First Floor



The halls in this floor are bigger in comparison with the old interior spaces. The working space is totally open and divided by transparent materials which are a proof of the new working scheme of the contemporary era. The nature of the nowadays office work is also one of the reasons for attached or semi-detached working units.

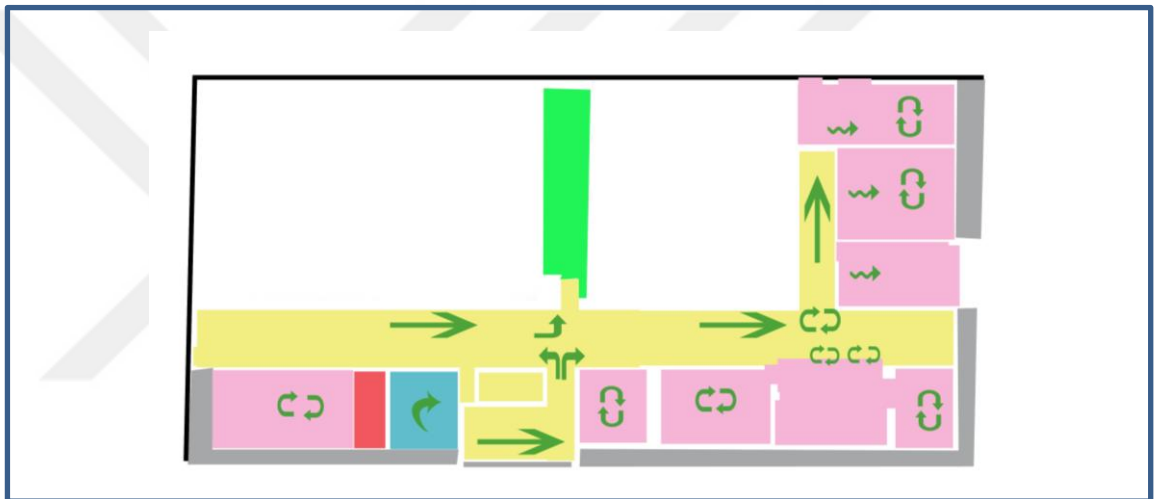
This type of space definition is inherited from sixties and seventies with the birth of democratic transparency, which was firstly used in the exterior designs and open plan design principles and as well, found their way inside the building units gradually. However, in this building, despite the transparent materials used in this area aiming to create a, it cannot be considered a flexible approach to interior spatial layout because of the difficulty it may face for its further probable interior alteration and redefinition.

Figure 4.24: Interior View of the New First Floor



The transparent spaces represent are resulted from the demand for rapid communication which is originated from the characteristics of new approaches to designs for open space offices. The previous working units were mostly demolished and connected to each other in all of the floors. The same gap between the old exterior layer and the new office space can be seen around the floor plan as the mezzanine story with the grey color. New alterations to the office spaces create opportunities to the interpretive aspects of the space. New definitions such as open office space entity draw on the identity of the structure in order to enhance, augment or complement the new functions according to the contemporary demands.

Figure 4.25: Spatial Layout of the New First Floor

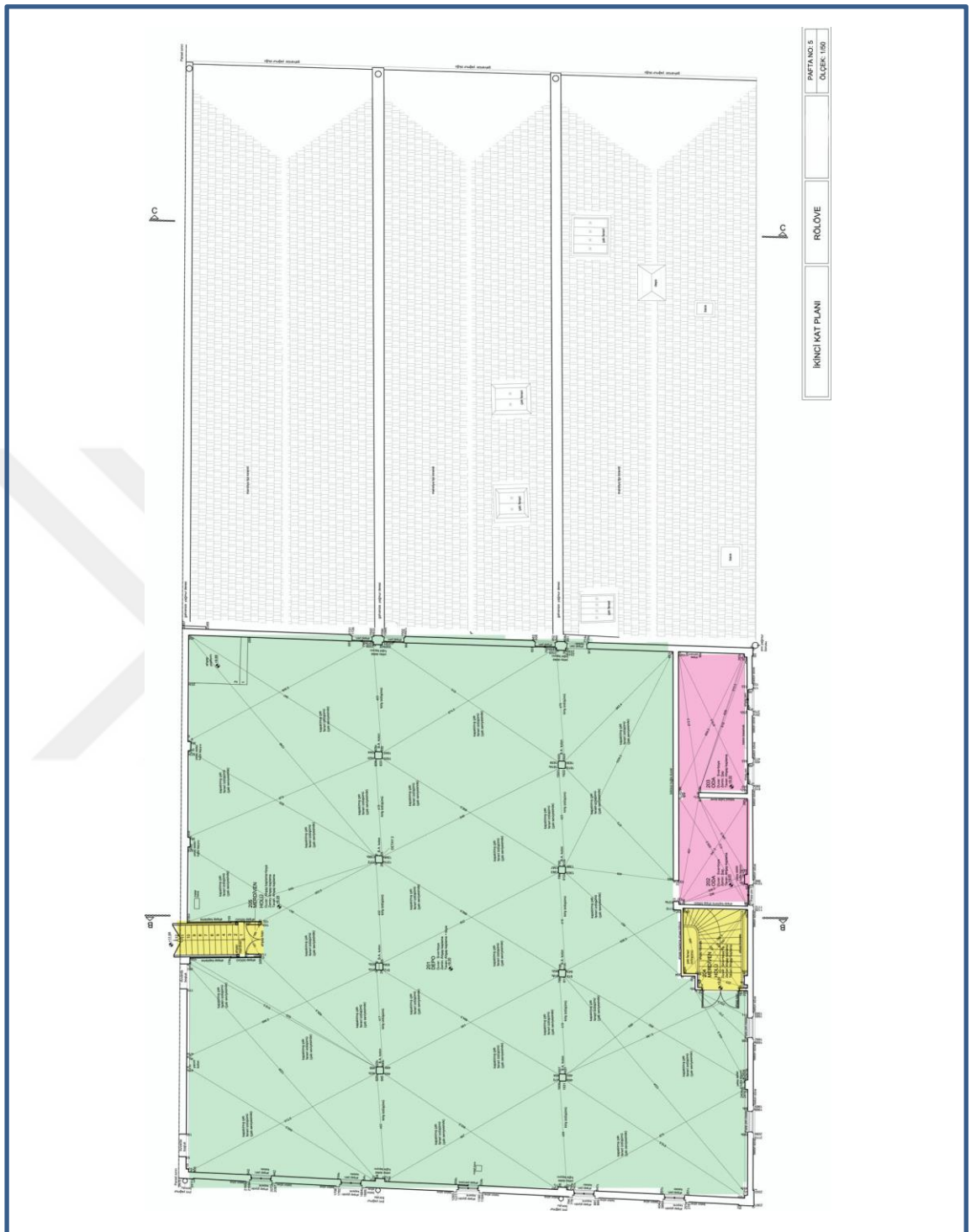


4.2.7 Spatial Characteristics of the Old Second Floor:

The second floor, holding two large storerooms and two small rooms is the extreme indicative of stillness in the old version of the building. Stagnant of the old warehouse reaches to its utmost point. The movement experience in the second floor illustrates active participations with malleable units. A flexible and accommodating interior has been created that can manifest itself in various functional ways.

According to the interior layouts of each floor it is evident that the interior spaces also have been through various alterations over time, because the lines within each floor are not

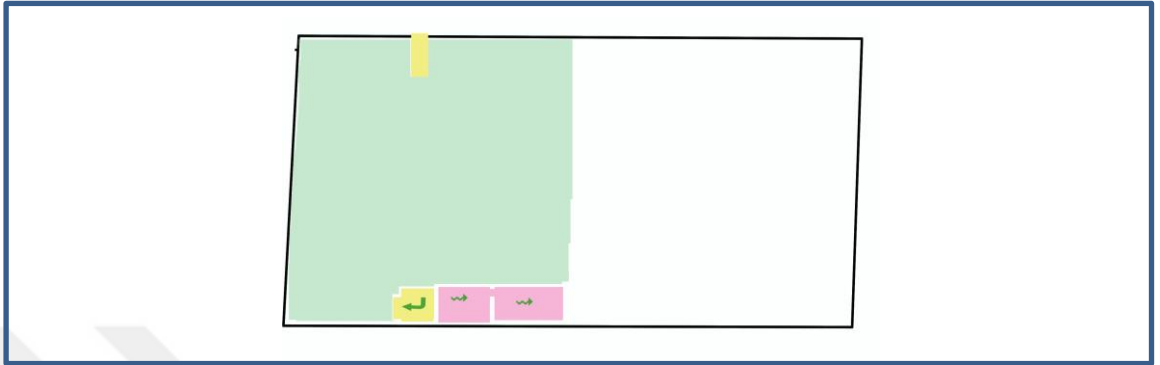
Figure 4.26: Old Measured Drawing of the Second Floor



Source: Izmir Chamber of Architect's Old Document Archive

The plan demonstrates that the activity cycle and repositioning are merely secondary and occasional. Occupied by the timber gable roof, half of the second story of the building's space can be used.

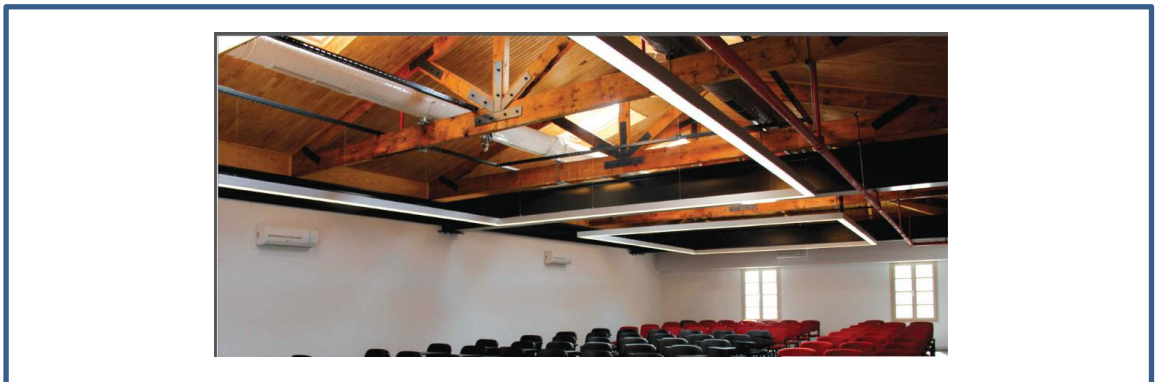
Figure 4.27: Spatial layout of the Old Second Floor



4.2.8 Spatial Characteristics of the New Second Floor

New design principles are mainly based on maximum beneficial usage of the space and minimum spatial waste and redundancy. Second floor of the new design has well achieved this purpose with inserting numbers of areas of activity with making interior enclosures as loft rooms and creating a sizable penthouse balcony which can be considered a proper accomplish frame for the building with its specific function which invites the visitors to experience both internal and external parts. Inserting such an exterior space which can be used by public is one of the characteristics of change and newness in the building and new spatial interpretation. The interval between the old and the new remains in this floor as well shown in grey color as the previous plans.

Figure 4.28: Interior View of the Loft



A modern studio, an office, a meeting room and a big hall before entering the penthouse are the coral units that create a continues openness as the lower floors.

Figure 4.29: New Plan of the Second Floor

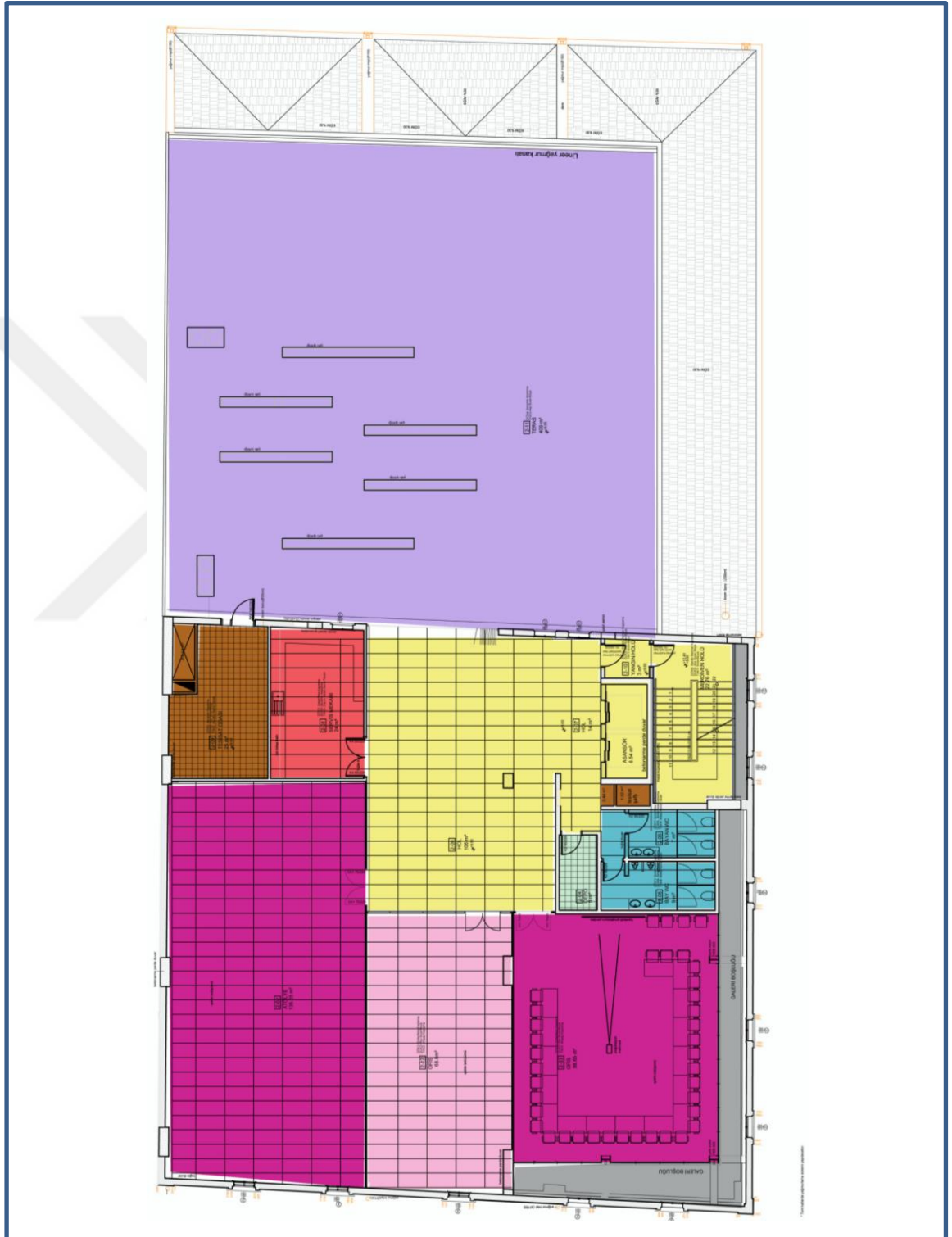
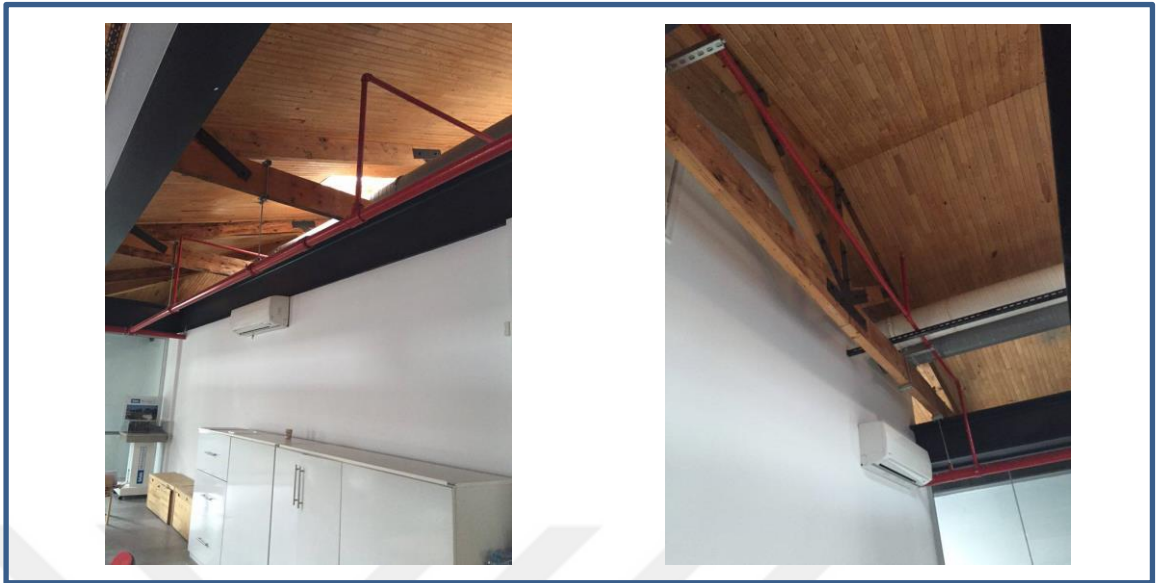
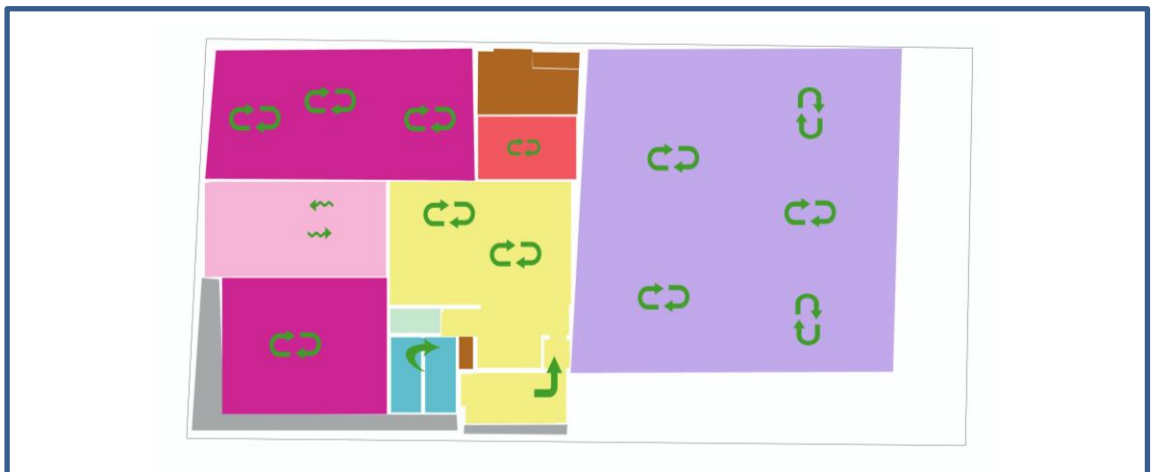


Figure 4.30: Interior Detailed View of the Loft



Reproducing the lines of continuity of the building with changing the spatial elements and a noticeable interior concordance, represent an implicit difference in experiencing the space with an interactive quality in analogy with the previous experience of the same locational space. More active cycling movements and variety of direction finding motions according to the demands for potential activities, grant the sliced and divided spaces to the contemporary function.

Figure 4.31: Spatial layout of the New Second Floor



4.2.9 Collaborative Characteristics of Spatial Continuity and Change

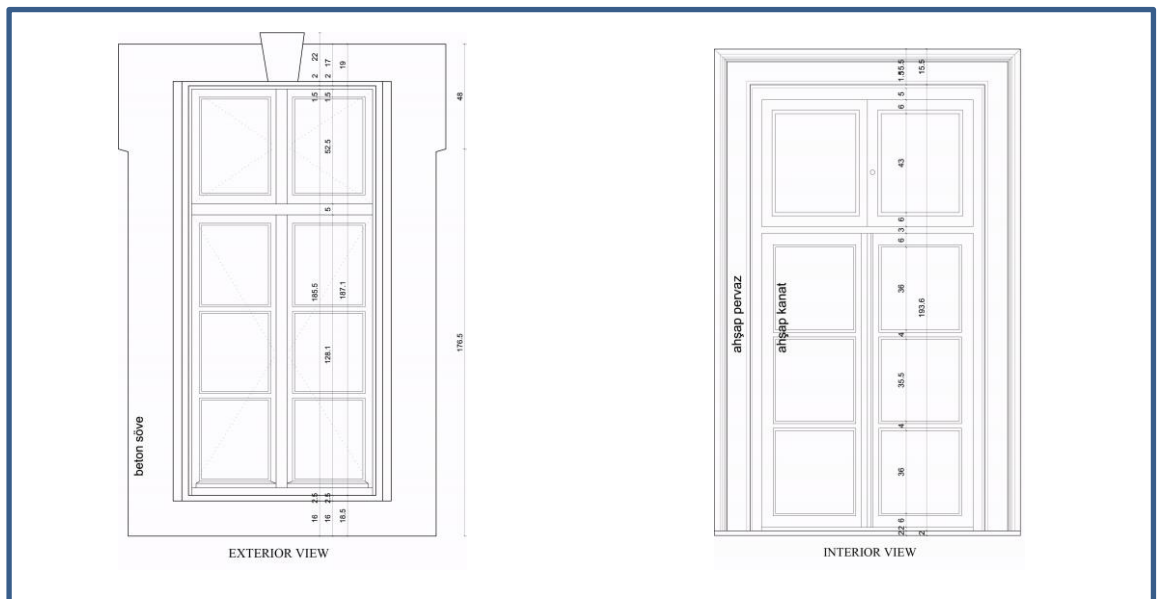
Taking an overall look at the spatial alterations indicates extreme changes in interior spaces and units with new approaches to experiencing the space for both visitors and the staff. The fourth element of space, ‘time’ is tangible in the modern definitions and this structure is not an exception in giving a new meaning and function to a warehouse as an old obsolete building. In this mode of display of the building, there are various options for the visitor, in movement patterns, activity alternatives and disparate understandings of the space, which goes further from being passive phase to the level of interaction. The audience can choose the directions of the motion, whether to move forward or backward can even enter the office area without any barriers. Hence it could be stated that the previous spatial borderlines have faded to appear with a more flexible edges.

This amount of change with demolishing most of the internal walls and create a new designation is not considered an uncommon action in adaptive reuse, in which the new function differs significantly from the previous one. Therefore the demolitions of the interior inextricable spaces in order to achieve the required result are mostly acceptable practice in reuse process that usually does not compromise the identity of the structure. However, if there would be any chance for keeping some of interior spaces and even their contents from the previous building, such as the machines inside it, keeping them as they are will shed light on the integrity to the previous spatial modality. Overdoing the change will cause serious damage to the building .in other words the pause point for demolition should be attentively approached in all of the adaptive reuse designs to support the ideology of continuity of the heritage. Thereby, the mentioned issues cannot be solved by anything less than an entirely sensitive architectural thing not only in industrial buildings but also in all types of adaptive reuse.as Book out and Lloyd W. state in the residential development handbook: “a variety of repairs or alterations to an existing building that allow it to serve contemporary uses while preserving features of the past.” Must be done in the process (Book out, Lloyd W., Jr. Residential Development Handbook, Second Edition. Washington, D.C.: Urban Land Institute, 1990)

4.3 MORPHOLOGICAL ANALYSES

Despite the constructional sustainability of the old industrial buildings, they are considered fragile in the modern principles for sustainability. Incorporating new uses within a historic framework can be complex as Austin and Richard L. advocate in the book (Issues and Case Studies in Building Preservation', p82). The old constructional principles due to the needs of the time, such as low ceiling heights of factories and warehouses which were products of the late nineteenth century's architecture, makes them functionally incapable for new uses of today's life and leads them to obsolescence. Moreover the placement of columns in every three or four meters is problematic for new designs and modern requirements for vast and coherent open spaces. Old heating systems, plumbing and also the wiring systems must be removed and replaced. Foundations must be strengthened and pinned in some cases without hurting the structure, floors which used to be constructed from cement can be persistent against reconfigurations. However, there are elements that are more flexible to change such as the windows, doors and the roof and can continue to live and support the structure's demands with being repaired rather than being removed and replaced and some are tried to be replaced with similar materials and shapes with the previous ones, as in Izmir's Chamber of Architects; Some of the details of the new windows are shown below:

Figure 4.32: Interior and Exterior View of the Windows



Source: Izmir Chamber of Architect's Old Document Archive

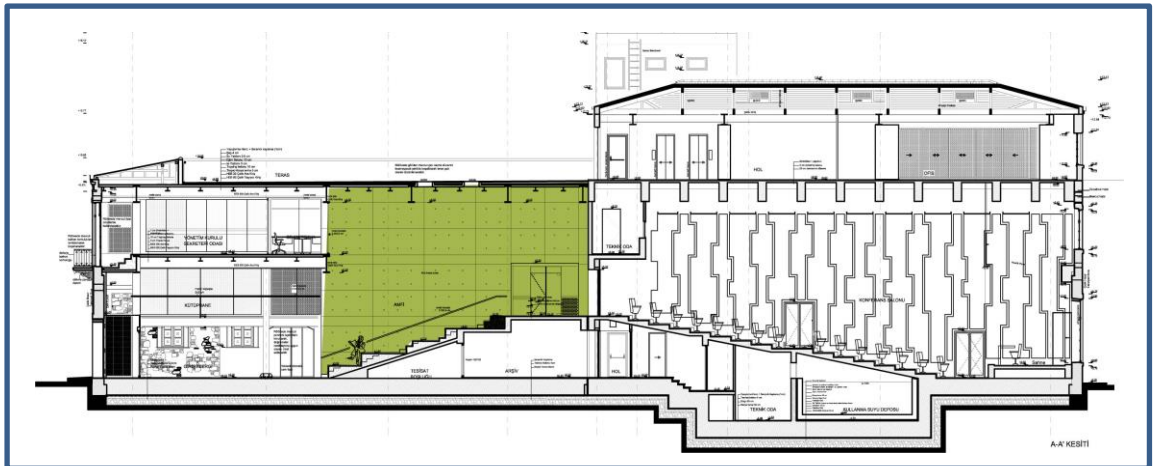
The exteriors and additions to the exteriors can be challenging in cases that have various structural problems. Despite all of the challenges and difficulties that an old heritage may have, many of factories, mills and warehouses have adaptive structures and can continue to serve within the new definitions with their rapid spans, structural significant details, large opening and windows and numbers of other unique masonry features. There are rare situations in which adaptive reuse is avoided as a solution about the industrial building. Alternately, there are many creative design opportunities to obtain principles such as unity, movement, balance, proportion, proper structural and spatial arrangements.

Focusing on the interior morphology of the structure, by the cause of the sizable machines and heavy industrial equipment, each story designed with the capacity to bear loads up to even one hundred kilograms per square meter as Austin states (Issues and Case Studies in Building Preservation, p111). Emily Paulus pointed out in her paper called “The Role of Historic Preservation in the Redevelopment of the Urban Brownfields”, which was presented in the National Brownfield Conference in 2002 that many of walls and floor surfaces are already exposed, which can save costs if that is part of the design aesthetic.³The old warehouse had the similar characteristics as an industrial heritage, as mentioned above. However, the exterior façade was tried to remain, with the same window frames steel shutters and entrance door, façade color and material used in the reuse process.

The columns were replaced by a load bearer huge thick concrete wall that also is functioning as a divider between the two main spaces that separate the corridor space and the auditorium and have been raised with the height of the building to the top of the first floor as shown in the section below:

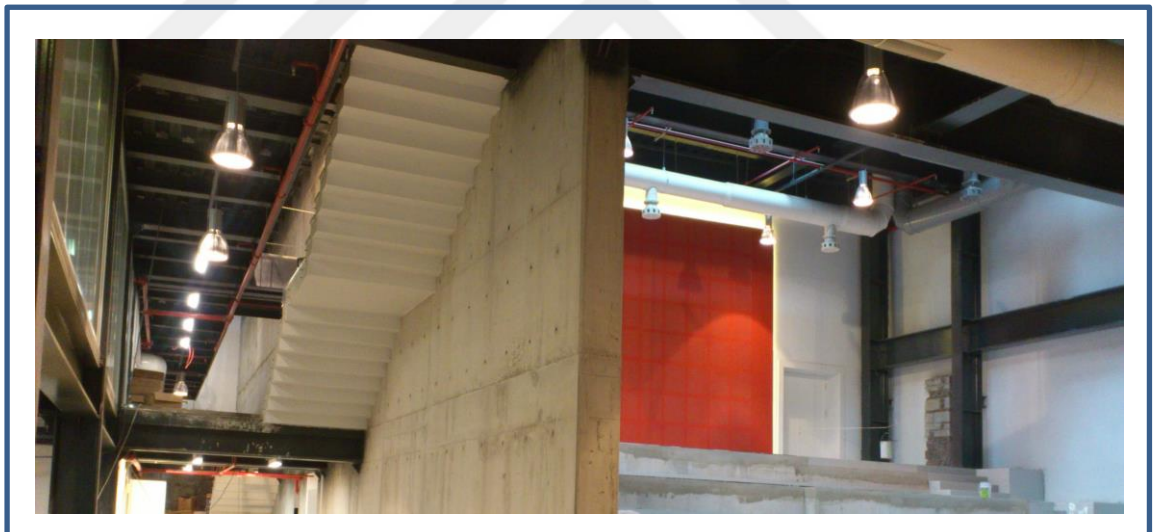
³ [Http://www.brownfields2002.org/proceedings2000/track1.htm](http://www.brownfields2002.org/proceedings2000/track1.htm) (accessed March 30, 2005).

Figure 4.33: Section of the Izmir Chamber of Architects



Some of the columns, especially the ones in the auditorium were removed with the load support of the concrete wall to create the required space for this function.

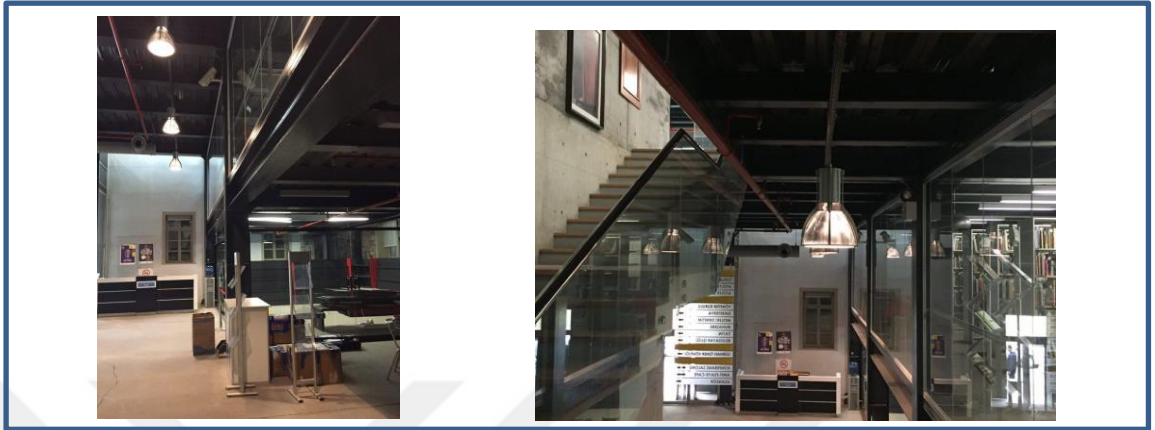
Figure 4.34: Interior View of the Main Concrete Wall



With the use of the old building's previous and new installed beams in some of the interior areas in a way that the compromise of the interior spaces does not occur, some of the beams and columns worked as frames for defining a specific area instead of walls. The mentioned accession demonstrates a new approach to separating the space, yet highlights the necessity of defining different units but in a more flexible way rather than the rigor and solid interior layout with a transition from inside to outside. This type of pragmatic practice can be marked as a turning point in the morphological evolution

principle disciplinary of contemporary design that represents openness and has also been well accepted by the professional community of architects.

Figure 4.35: View of Black Steel Beams Use in Unit Framings



Façade of the building was tried to remain as before, with the same materials, color and opening placements. Many of the urban building's façades are deemed prominent for the reasons that are mostly related to architecture or history. The fabric used may contain especial texture, distinctive color or significant quality in terms of aesthetic features. Old characteristics of exterior facades were representative of a special architectural style or a unique land mark. In many examples however, the interior configuration of the previous structure is considered inappropriate for the modern working and living demands and their maintenance is challenging as regards the financial and technical arrangements and skills. Hence, retaining the façade appearance in many cases is looked at as the closest solution to preserve the historical morphology of the old heritage. This methodological approach leads to arise of the question: are the closest solutions enough for the buildings morphological continuity? This question can be seen as a serious philosophical compromise between the sometimes conflicting points of views of architects. Moreover the completed project resembles the original building in the appearance perspective and what remains is what is worth preserving, regardless of the skeleton behind the walls which were extremely changed and were mainly replaced rather than being retained. This kind of approach creates a style which has number of similar edges with 'facadism' or 'Facadomy'.⁴ At the extreme, the focus on retaining the façade, can blemish the bond

⁴ More often it refers to the practice where only the facade of a building is preserved with new buildings erected behind or around it.

between the continuity and change and be a superficial remedy. The issue has been the center of debate between traditionalists and modernists for a long time. The latter group approaches to the functional and pragmatic aspects of adaptive reuse, with the idea that building is meant to be for the sake of people's use and as long as the structure is being put to a good use can be transformed and shaped into various forms freely and they find the maintenance of the façade enough and positive for streetscape and as an urban landmark. On the other hand, the first group criticizes this point of view because of the damage it causes on the morphological integrity of the total building; therefore as a result of the focus on the façade, the internal building is a fake. They look at the old building's cultural and historic characteristics in order to keep the continuity of the overall projects. The extremes of the each two point of views can misconstrued and distort the result of an adaptive reuse project as a modest.

Figure 4.36: Façade of Izmir's Chamber of Architects



In the Izmir's chamber of architects, the façade has been tried to evoke the previous image of the old warehouse, using the same material the same color in the used plaster with the modern products. However, the appearance of the building barely represents an old building except for the structural placements and windows framings which are the cliché basics of the Baroque style of an industrial building. This kind of approach to keeping the heritage's appearance has been worked counterproductive in eliciting the nostalgia of the old building.

4.4 MATERIAL ANALYSIS

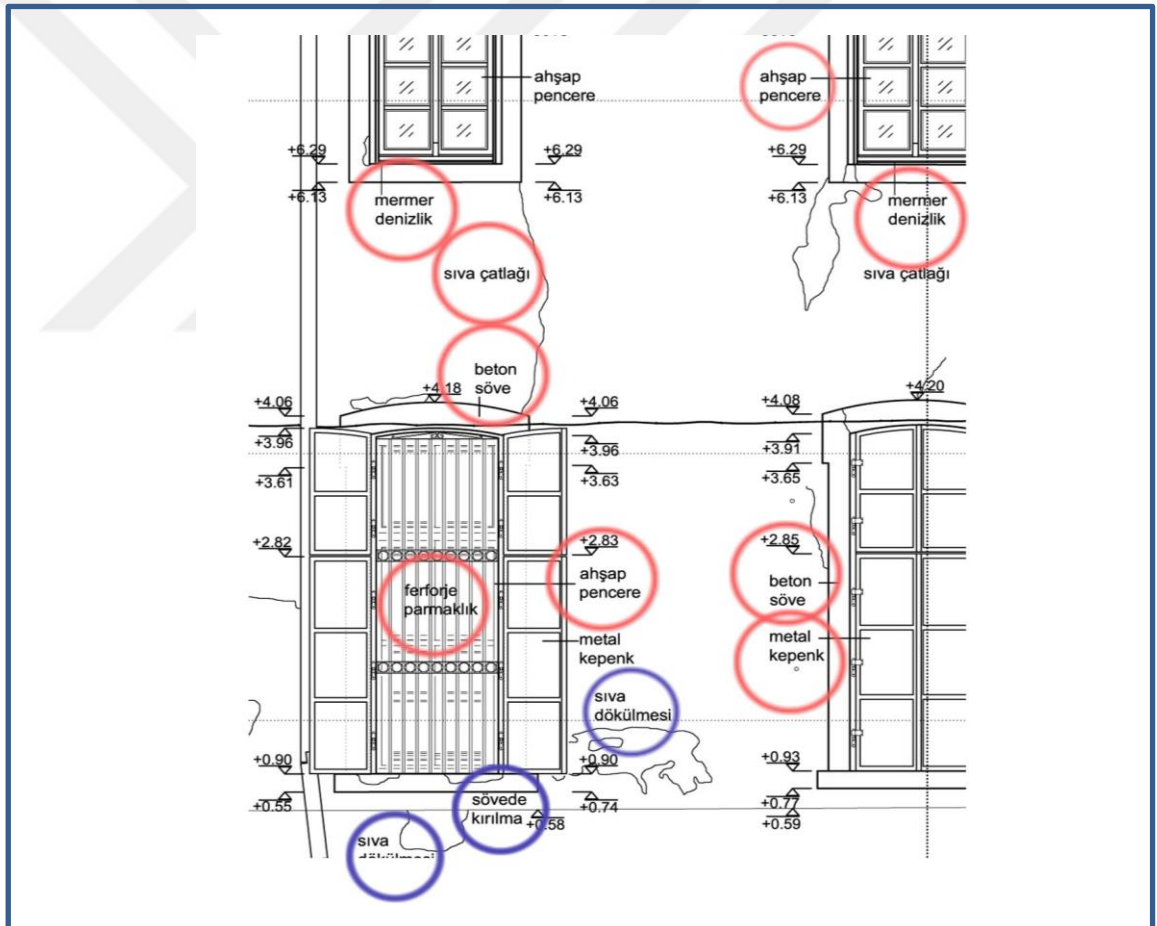
According to the old building's material, as written in the plans of the old building, in a glancing view are mainly consist of concrete floors, brick walls, steel beams and wooden

columns with concrete and plaster coverage, which is also the material of the façade, wooden roofs and windows with steel shutters. This set of material is the typical set used in a warehouse, in an industrial construction style.

4.4.1 Exterior Layer of the Old Building

As shown in the figure (3.20) the exterior materials of the building are solid with monolithic tones. Brick, concrete and plaster on the wall, and a slight contrast with wooden windows and concerted window frames and steel shutters represent the essence of an industrial building in its best pick point. There is a minor use of marble stone in the window ledges, as it is shown in one of the remained façade plans in facade (3.2)

Figure 4.37: Old Situation of the Façade of the Warehouse



Source: Izmir Chamber of Architect's Old Document Archive

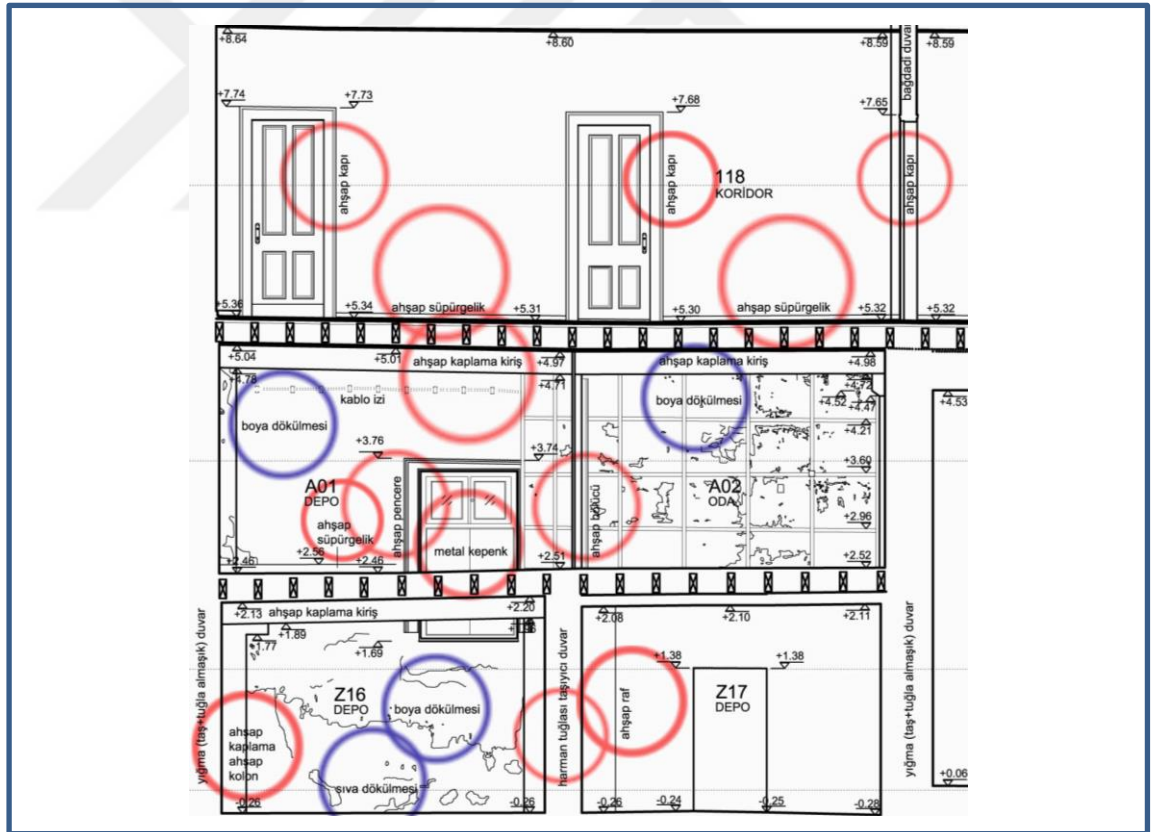
In the figure below which belongs to a new survey of the building's condition in 2011, the previous materials are shown in red and the blue color represents the serious damages

within the exterior façade of the building that needed intense interventions even due to the maintenance of the building.

4.4.2 Interior Layer of the Old Building

As the same date's survey, the building's interior materials follow the same pattern of an industrial building, built in 1930s in turkey. With less decay because of the less exposure to the natural causes. The internal spaces are mainly consisting of wooden windows, doors and columns and brick walls with the paint coverage as shown in the section (3.2.). The major usage of wood as a weak insulation against heat, sound and humidity, the new design should have considered an effective operation within the new atmosphere to make sure that the structure can be introduced as a multifaceted character in the new generation of sustainable structures.

Figure 4.38: Old Warehouse Section

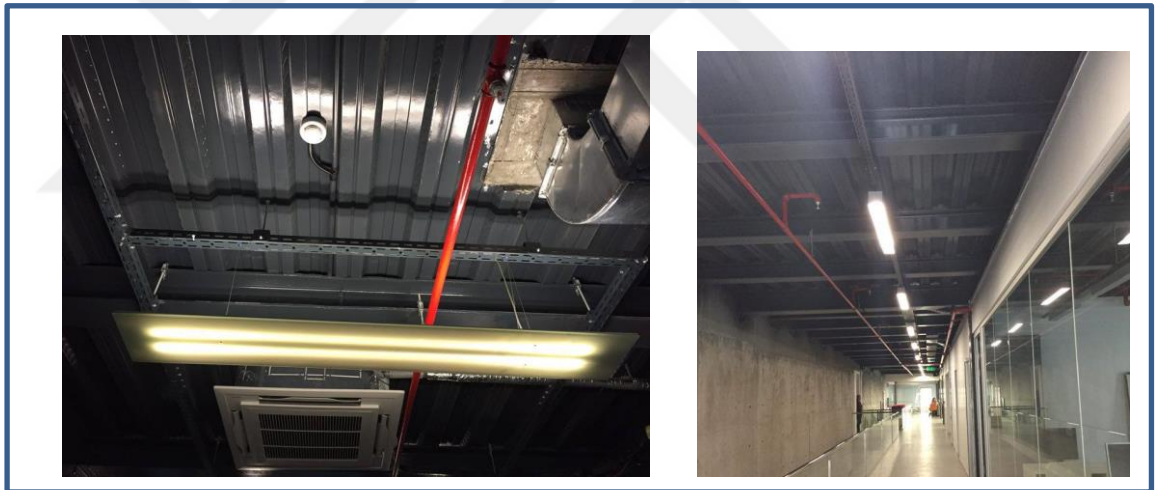


Source: Izmir Chamber of Architect's Old Document Archive

4.4.3 Interior Layer of the New Building

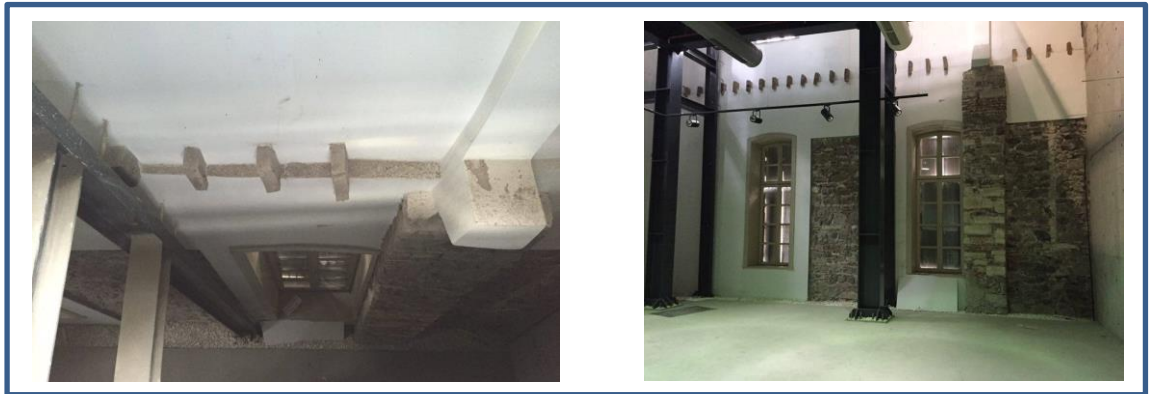
Major switch happened in the new material selection. Bare steel columns and beams, totally visible electric, heating and plumbing facilities appearing in black, red and white, the three extreme tones in the color pallet, appearing on the top of the concrete floors and the huge load bearing wall in the middle of the building, makes a color coding area with its exposed skeleton. Glass as a transparent divider of the external old layer and the new fused structure creates a modern ambience, with the influence of the open space architecture alongside. Each story's roofs with black steel, cuts the intensity of the natural sunlight reaching from the outstanding, recessed windows, which make a pervasive atmosphere. The fire alarm system all in the color of red disintegrate the ambiguity of the depth that the black color causes and gets the attention of audience in the first glance.

Figure 4.39: New Interior Materials of Izmir Chamber of Architects



The gap between two layers has remained untouched and visible in the mezzanine floor and the first floor. Moreover the materials of the exterior walls are also left as the old version, in some parts of the building in order to emphasize on the principles of design, which has brought to light evidence of the original identity of previous historical structure. This 1 meter gap is somehow a wormhole between the old original blight and redundant structure and a brand new full functional office; a physical hollow atmosphere between the past and the present.

Figure 4.40: Exposed Layer of Old Materials in the New Design



The concrete wall plays distinguished, unique role in the whole structure both constructional-wise and material-wise. As the main load bearing wall and the smart, chosen material, it can be noticed from the moment of the visitor's entrance as a foremost effective element of an industrial building and in some senses independent from its within standing physical atmosphere, while integrating the old structure and the new design at the alongside, supports an innovative approach to change, while continuing the original structure's comprehensibility.

Figure 4.41: Big Load Bearing and Divider Concrete Wall of the New Design



The roof of the second floor remained with the same wooden material in the lofts, while replacing the old decayed tiles totally with the brand new ones and reinforcing their structural strength with black steel stiffeners. The red thin fire alarm pipes, spreading all over different levels of the building; make a notable contrast with the wooden gable roof in this story as well as the contrast it makes with the black steel in the previous floors.(figure3.15)

4.5 CONTINUITY AND CHANGE

As it was illustrated formerly in different analyses of the old and the new characteristics of the structure, the trend of change in the Izmir's chamber of architecture and the approach to continuity is evidently a relative relationship.

Interior materials faced major transformation in order to create a totally modern working station, while the exterior facade has been tried to remain the same as the old building, yet with the modern materials.

Despite the sufficient switch in some of the interior spaces of the new design, such as the back gallery of the entrance floor or some bare parts of the building in which the old brick walls are exposed and help the old industrial building's approach to a keep the old identity, or the transparent gap between the old structure and the new one which works as a wormhole, other spatial separation and alterations are massive and seething at the first glance which diverges unity of continuity and change.

Values of the building was tried to be kept in an acceptable level with reinforcing the building with a high-tech design which are in some parts ersatz, avoiding the main emphasis on the old building's injured identity according to the required principles for an ideal adaptive reuse. However, the building's new design and material preferences were well adored by the international architecture community because of the well represented, high performance and also use of the old maintained structure.

As a result of long-term obsolescence and decay the building is sought to "have no identity" as an industrial building and overlooked from the designers point of view. According to the statement of Orhan Ersen one of the architects of the group 'Ikiartibir' who had been a member of the new design of the project states in our interview: the building had been through various changes before being obsolete; therefore it had lost its original identity over time. This allegation almost represents the intricate character of decay in the structure and investigating the old identity of the building, yet the requirement frames of the design in which the building is claimed to suffer from the lack of identity, gives the legitimacy to the new design to use its credit as a tool to conquest a self-created battle with a continuity that faces serious decrepitude, beating its importance

as an old character in order to make a modern full-functioning working space. As a result of such a dilemma, attention to the continuity of the building is considered a disdain more than a recuperation of an industrial heritage. Hence evident neglect can be spotted in various parts of the process, which has more correlated borderlines with restoration rather than adaptive reuse.

Such an ideal intervention confirms the inconsistency of the dereliction in continuity and focusing on creating a perfect change that represents the modern design as a greedy privilege in the hands of architects, seizing the maximum functional benefit out of an old building, which is looked at as an advantageous enclosure for the project to be done within it.

As a result of this trend, the building lacks a clear perspective of the balance between newness and old in identity. Following to this shortage, a legitimate question arises: has the integrity to the old building's continuity been preserved in this project at its best ends? And how far seeking for the modern perfection can go in order to draw the principles of adaptive reuse?

5. CONCLUSION

In a nutshell, if seeking a harmonious project would be the core aim of an adaptive reuse project, there is a great need for a detailed enquiry into the previous characteristics of the building in order to determine the chances and obligations for a viable modern function. Architectural styles change as so the approaches evolve through time. Alteration for the sake of perfection with outraged to history is not desirable in such process as adaptive reuse. Thus obtaining a proper balance between the continuity and change must be the main duty of any alteration in the project, even in adjusting the most embryonic stages. This requires the will of conduction and not only observation in the initial approaches to find what the building used to possess rather than what it didn't used to include. The bargain to set the modern designs and facilities to bury the injuries and imperfections may not be the best approach to heal the damaged identity of the obsolete building. The structures capacity of adaptation can be determined by picturing a complete analysis of the aged structure. it is enormously influential to conduct historical studies and surveys to come up with appropriate design alternatives for structures with intricate identity to reflect a revised version of the old existing identity rather than replacing it to prevent any oversight in adaptive reuse. As the result the strong character of the building is perceivable and can be easily discerned with the modern design while being pertained to each other at the same time. A big part of adaptive reuse's entity is about contrast; the contrast between old and new, decay and construct, previous and contemporary, continuity and change. Each of these entities needs to contain a certain dosage of their own category for producing a successful result. The project of adaptation may be resulted in subtle or overt results of contrast. The former one embodies a harmonious bond, meanwhile helping with the unity in a way that the new function wouldn't be hurt. However, the latter is focusing on either of the notions in order to prove the capability of one over another. Accordingly, the process of consolidation will totally be deviated, while the implication of both being highly flexible in interacting and concordant is the pivotal base for the project's success.

Various projects have successful and unsuccessful aspects, which builds a complete view about them accordingly. A brief comparison between the characteristics of change and continuity is provided in two tables below in Table (5.1) and Table (5.2):

Table 5.1: Comparing the Continuity in Mentioned Examples

Examples	Structural Continuity	Morphological continuity	Material Continuity	Collective Memory
Kodak (Dublin)	Interior overall layout Maximum usage of natural sun	Major Use of the Original building as an enclosure(mainly exterior)	Use of same materials in Façade Interior steel columns	Major similarity (Adaptive reuse)
The Factory (Barcelona)	Complete use of the original interior layout	Complete use of the original structure as an enclosure(interior and exterior)	Complete use of the original materials	Complete adaptation (adaptive reuse)
Salt Repository (Istanbul)	Defining new spatial layouts ,using both new and old approaches	Major use of the original building as an enclosure(exterior and interior)	Use of same materials in Façade Major use of Transparent material	Similarity in the concept of the building as an enclosure (Adaptive Reuse)
Izmir Chamber of Architects (Izmir)	Minor use of the interior layouts	Average Use of the Original building as an enclosure(mainly exterior)	Usage of the same material for the façade Minor use of the old materials in interior spaces	Average similarity (Restoration Adaptive Reuse)

Table 5.2: Comparing the Change in Mentioned Examples

Examples	Structural Change	Morphological Change	Material Change	Functional Change
Kodak (Dublin)	Interior detailed layouts Defining new spatial principles		Use of same materials in Façade Interior steel columns	From Kodak laboratory, warehouse and residence to a modern office
The Factory (Barcelona)	Change in interior layout definitions due to the change of function	No change	Minor changes	From cement factory to office and residence
Salt Repository (Istanbul)	Defining new spatial layouts ,using both new and old approaches	Major use of the original building as an enclosure(exterior and interior)	Use of same materials in Façade Major use of Transparent material	From warehouse to a modern full functioning office
Izmir Chamber of Architects (Izmir)	Major change in Spatial definitions Switching from flexible inferior to solid layouts	Average Use of the Original building as an enclosure(mainly exterior)	Usage of the same material for the façade Minor use of the old materials in interior spaces	From warehouse to architectural office and event hall

Adaptive reuse takes place with knowledge about the depletion and decreasing standards of the structure which is mostly followed with decrepitude and leads the building into obsolescence. This information should be looked at in a more positive spectrum to find the suitable solution for each specific building. Obsolete buildings may have lost their value overtime but they should be concerned prominent individuals of the city's memory with a powerful integration with their previous identity, if they have been decided to be adapted instead of demolished and reconstructed, to obtain an acceptable result. Hence the major conversions that contain close edges with renovation and restoration illustrate extremes that compromise representing the essence of adaptive reuse with its modest diffusion of the old spirit all over its existence while representative of the contemporary trends in architectural modern design. Spatial, constructional and material alterations are to be consistence with the old building's architectural merit and conversion with the goal of perfection at any cost, undermines the entity of the building and transforms the whole character of the building into an anonymous object that is only used as an enclosure for the design to be materialized within it.

Narrowing down the study to the Izmir Chamber of Architects, there can be different conclusions to be discussed. Firstly the lack of archive of documents from the previous building is a proof that the previous building's identity had less central attention than the new desire to seize the best functional standard out of the new design. It can also be a result of the building's various alterations in different interior spaces and materials which made it lose the originality over time in some point of views. As Orhan Ersen one of the architects of the project states: "there used to be numbers walls in the previous building which was tried to be preserved firstly and , then it downsized to one, as one of the main constructional elements to represent the old building's identity, but generally in old buildings it is impossible to keep an interior old wall because of the serious need of pinning and reinforcing procedures on the foundation for new functions which is a big challenge and not an easy practice, therefore if the aim would be to preserve any walls, they will be taken up, and then put back to that place, therefore they have zero constructional value and can be only ornaments which was not in our interest. We believed that If a wall is supposed to remain, it should have the ability for the new skeleton's sake in the buildings load bearing system rather than just being there as a

decoration. Hence we removed all of the interior walls”. According to the functional importance that the project was pursuing, the challenge to reinforce the walls were off the table among the other challenges in the process of the new design. And demolition was recognized as a more logical and feasible solution. The old building’s lack of originality was played as a pass card to demolish interiors, replace the materials and keep the façade for ‘historical aims’.

An obsolete building’s original identity has already been compromised at the very moment of the beginning obsolescence. However, at this point a question is to be asked: what makes an obsolete building original? Is it something other than its imperfections and its lack of standards that lead it through isolation? Obsolescence, decay, age, intricate alterations in different periods, is the originality of the old industrial building. Otherwise it would never go through depreciation.

In other state of the architect, he cites that “because of the industrial nature of the building as a tobacco warehouse, our hands were more open in alterations and demolitions. It wouldn’t be that easy if the building was a residence or a building with a more bald identity”. This refers to the different level of importance in types of building’s previous function and identity in order to shape the procedure of the modern design. A residence or a religious monument can be more secure in the process of adaptive reuse and gains more sensibility in the decision making about any minor demolitions, yet the industrial buildings acquire moderately less. There is to be considered in the further questions that what makes the industrial buildings less valuable in terms of characteristics, identity and the will for their continuity? What type of evaluation makes a building meritorious to prevail over demolition? And is it pragmatic for continuity and change principles to stand equally in the industrial heritage recuperation?

The interaction between continuity and change should stand far from supremacy and outstrip of one over the other. Integrity of both, are vital for integration to let the building stand on its feet and recuperate from the obsolescence’s anathema. Lastly it is imperative to get a more clear acquaintance with identifying the exact concept of connection between continuity and change in a sensitive process as adaptive reuse is; keeping in mind that:

“Adaptive reuse is not about obstructing the continuity, oblivious to the old with the aim of creating a modern perfection; it is all about an impeccable new approach to change through the original imperfection”



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APPENDIX A.1: Final Presentation

Slide 1

CONSOLIDATION OF CONTINUITY AND CHANGE IN ADAPTIVE RESUE, INTENDING TO RECUPERATE OBSOLETE BUILDINGS, FOCUSING ON THE IZMIR CHAMBER OF ARCHITECTS

DENA HAGHSAY KHASHHE CHI
MASTER THESIS PRESENTATION
DEPARTMENT OF ARCHITECTURE
12 JANUARY 2016
SUPERVISOR: ASSOC. PROF. DR.EMINE OZEN EYUCE

Slide 2

Jane Jacobs, 'the Death and Life of
Great American Cities'

"Cities need old buildings so badly it is probably impossible for vigorous streets and districts to grow without them. By old buildings I mean not museum-piece old buildings, not old buildings in an excellent and expensive state of rehabilitation—although these make fine ingredients—but also a good lot of plain, ordinary, low-value old buildings, including some rundown old buildings"

Slide 3

ADAPTIVE REUSE

the process which makes it possible to cope with the obsolete structure in a way that it can stand and function properly

converting the task of the building from how it meant to perform in the first place at the same time, parallel to awareness of characteristics, value, and identity of the building as a heritage.

Slide 4

An old building that is reused carries **complexities** but more sensible while concentrating on the **'newness'** and **'age'**, next to each other in a more specific study frame.

Alice Mah:

Newness mostly focuses on the **nowadays need** for **'change'** and on the other hand, **age** mostly focuses on the **'continuity'** of the **identity** that has been **carried** from the **past**, containing **different layers of memory** from the building as an **old city member**

Slide 5

a logical perspective about the **existence** of a structure

the **concepts** of **'change'** and **'newness'**, the **principles of the present** and the **inherited contents** from the **past**, **transparent notions** from **'age'** and **'continuity'** must be well illustrated next to each other.

CONTINUITY:

1- Something that is the same or similar in two or more things and provides a connection between them. 2- The quality of something that does not stop or change as time.

CHANGE:

to become different.

Slide 6

Despite the contradiction between the words **"continuity"** and **"change"**, neither of them **outstrips** one another.



Change is a **vital** need for a **society** to make its **parcels** move **toward completion** with their **continuity** being preserved

Slide 7


History:
Renaissance period, **classical monuments** were transformed for **new uses**.
during the French Revolution religious buildings were **transformed** for industrial functions or military uses after they had been confiscated and sold.

Buildings which used to have a **strong and safe skeleton** used to be changed to accommodate **new needs for new users** and used to be **transformed** without any **contravene**

Slide 8

The **theoretical** discussion on adaptive reuse started in the **19th century**, between two opposing orthodoxies:
the **restoration-movement**, led by Eugène Emmanuel Viollet-le-Duc (1814-1879)

“the best way to **preserve** a building is to find a use for it, and then to satisfy so well the needs dictated by that use that there will never be any further need to make any further changes in the building”



Eugene Emmanuel Viollet-le-Duc (1814–1879)

Slide 9

Authentic

Do not let us deceive ourselves in this important matter; it is impossible, as impossible as to raise the dead, to restore anything that has ever been great or beautiful in architecture.
John Ruskin, 1849

Restored

To restore a building is not to repair it, nor to do maintenance or to rebuild, it is to reestablish it in an ultimate state that never existed before.
Eugène Viollet-le-Duc, 1855

Two conflicting theories converge in Viollet-le-Duc's restoration of the tower of the Cathedral of Amiens (1844 and 1855). The left side shows the original tower, the right side shows the restored tower.


Slide 10

opposite ideas of Ruskin and Le-Duc ,a different context of examination after the early 20th century.

Alois Riegl(1858-1905) dissected the heritages according to their values can be narrowed down into two types of measurements:

CONTINUITY → commemorative values (including age-value, historical value and intentional commemorative value)

CHANGE → present-day values (including use value, art-value and newness-value)



Slide 11

Methodology and scope of study:

qualitative methodology that contains the comparative and interpretive approaches. (Narrative)

focus on the evolution of the building, with a comparative analysis of the old and new features, spaces, and materials in order to find a logical notion of adaptive reuse.

focus on the flexibility of both idea of design and the old building itself as an enclosure. general interpretive analysis of architectural identity and character of an abandoned building as an example of a heritage after being adaptively reused

Slide 12

OBSOLESCENCE

condition of no longer being used or useful, also in biology, it refers to: Becoming reduced during the course of evolution; vestigial or nearly vestigial. Used of an organ or another part of an organism.

In architecture, the word obsolescence is accompanied with number of related words with very similar lexical orders

In architectural dictionary obsolescence is referred to the result of the usefulness of a building over time.

Causes of obsolescence: the external and internal alterations.

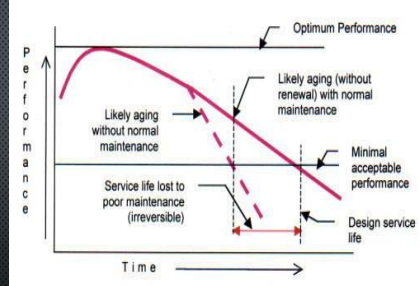
Maintenance Aging Decay Depreciation **Ruin**

Slide 13

Signs such as the **electrical system, mechanical system, fire protection, structural system, plumbing system** the **interior elements** and **spaces** face serious defect that cannot be **matched** to today's **perceptions** and **demands**

The pace of decay

- ⇒ skeleton ⇒ nature of the structure
- ⇒ materials ⇒ endurance
- ⇒ level of their exposure to the effective causes of decay



Slide 14

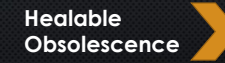
main forms of the building's vacancy:

short-term vacancy

Long-term vacancy



**None-Healable
Obsolence**



**Healable
Obsolence**

Type of obsolescence	Criteria	Factors
Economic (including Financial and Site)	Cost-effectiveness. Rate of return. Depreciation.	Rental income levels. Capital value versus redevelopment value. Oversupply or drop in demand.
Functional (including Locational)	Fulfillment of purpose. Degree of use. Technological adequacy.	Decreased utility. Inadequacy. Incapacity. Errors and omissions in the building's layout or form. Technical advances.
Physical (including Environmental)	Structural stability. Weather-tightness. Overall performance.	Structural failure. Physical deterioration. Dilapidation. Urban blight.
Social (including Cultural)	Satisfaction of human needs. Cultural requirements.	Demographic trends and shifts. Changes in taste and style. Changes in expectancy levels.
Legal (including Control)	Compliance with statutory requirements.	Changes in legislation or regulations. Changes in planning policies. Existing adverse legislation. Nuisances and hazards – dangerous buildings.
Aesthetic (including Architectural)	Style of architecture is no longer fashionable.	Office building designs of the 1960s.

Slide 15



side effects :

- vandalism
- homeless sheltering,
- social criminal activity
- drug dealer
- gatherings
- depressing effect on surrounding area
- ruptures in the urban context
- urban connectivity.

'the longer a property remains empty, the greater likelihood that its physical condition will **deteriorate**, which makes it more difficult to bring back to **occupation** at a later date and **increasing** the likelihood that it will impact on neighboring properties'

Slide 16

reasons of obsolescence of industrial buildings: growth of the cities, come to the center gradually noise, smell, dust, pollution

do not allow industry in the city center. Companies move their production to country side with lower production-costs

CATEGORY	TYPOLGY
Industrial heritage	FACORY WAREHOUSES LARGE INDUSTRIAL SITE
Religious heritage	CHURCH AND CHAPEL CONVENT BEGUINAGE PRESBYTERY
(Semi)public building	CITY HALL POST OFFICE RAILWAY STATION HOTEL
Residential building	CASTLE COUNTRY HOUSE FARM TOWN HOUSE
Military Building	FORTRESS BARRACKS
Building with initial retail function	GROUND FLOOR SHOPPING-UPPER FLOORS DWELLING PASSAGE DEPARTMENT STORE

Slide 17

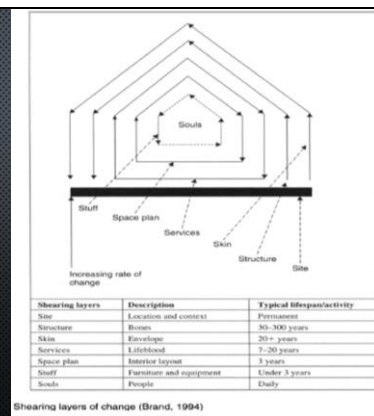
Related entities similar to Adaptive reuse



Slide 18

Concept of Change in Adaptive Reuse:

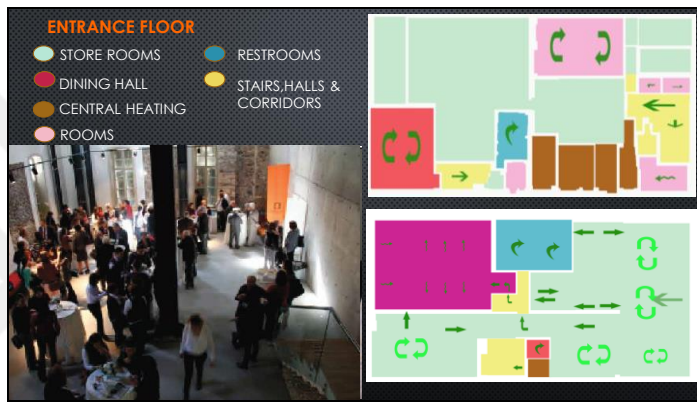
the intervention problems level must be at its minor, while altering or installing, hence enable the building to adapt to the users preference over time.



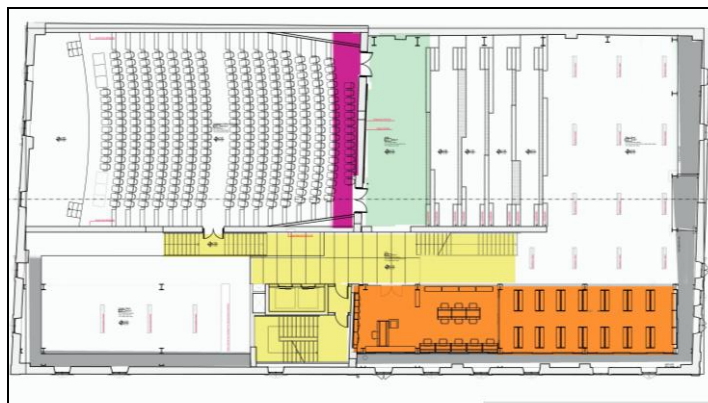
Slide 22



Slide 23



Slide 24



Slide 25

MEZZANINE FLOOR

- STORE ROOMS
- ROOMS
- STAIRS, HALLS & CORRIDORS

SPATIAL DIVISION AND ORIENTATION

Slide 25 content: A legend for the Mezzanine Floor, a photograph of the interior space, and two diagrams. The legend lists 'STORE ROOMS' (green), 'ROOMS' (pink), and 'STAIRS, HALLS & CORRIDORS' (yellow). The photograph shows a modern interior with a mezzanine level and a red wall. The diagrams show a top-down view of the mezzanine with numbered zones (1-5) and arrows indicating movement, and a cross-section view showing the vertical relationship between the mezzanine and the floor below.

Slide 26



Slide 27

FIRST FLOOR

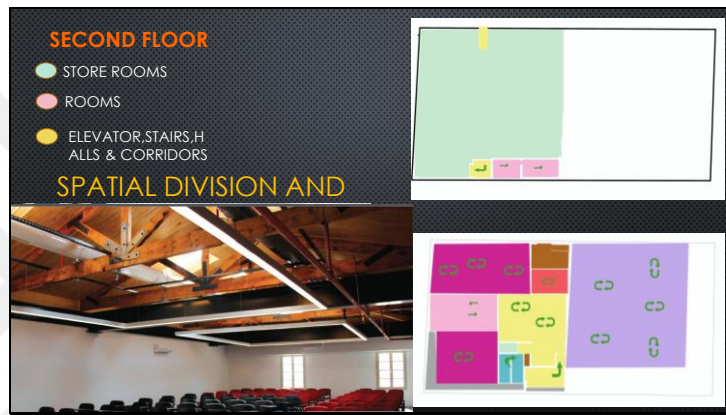
- STORE ROOMS
- RESTROOMS
- ROOMS
- MEETING ROOM
- STAIRS, HALLS & CORRIDORS

Slide 27 content: A legend for the First Floor, a photograph of the interior space, and two diagrams. The legend lists 'STORE ROOMS' (green), 'RESTROOMS' (blue), 'ROOMS' (pink), 'MEETING ROOM' (magenta), and 'STAIRS, HALLS & CORRIDORS' (yellow). The photograph shows a modern interior with a purple sofa and glass partitions. The diagrams show a top-down view of the first floor with numbered zones and arrows indicating movement, and a cross-section view showing the vertical relationship between the first floor and the mezzanine above.

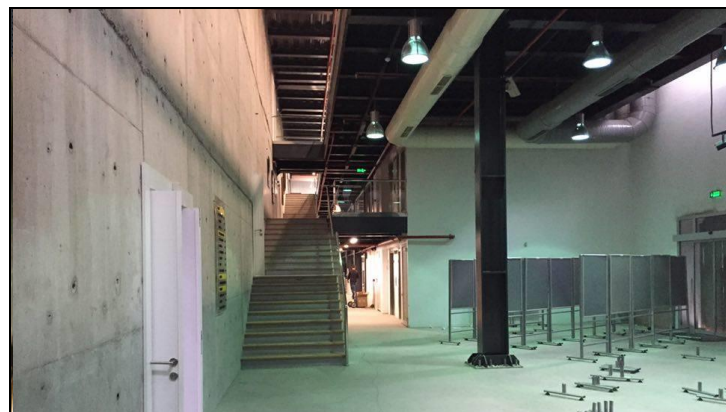
Slide 28



Slide 29



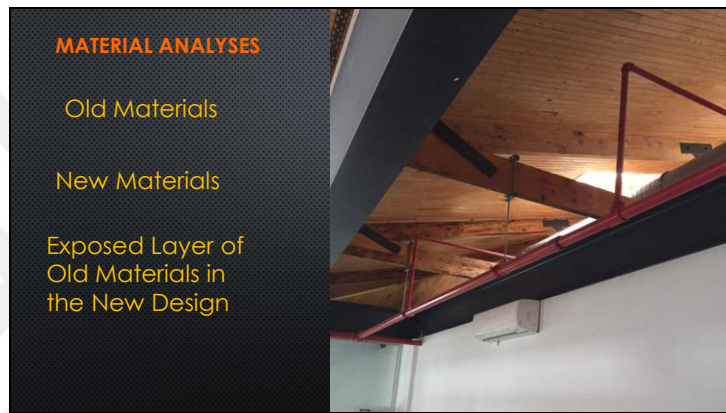
Slide 30



Slide 31



Slide 32



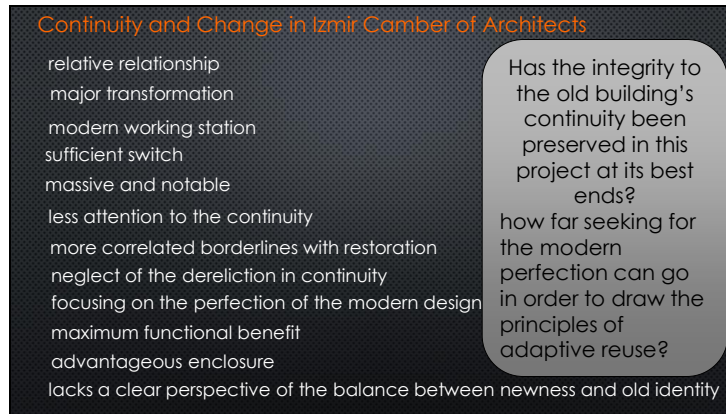
MATERIAL ANALYSES

Old Materials

New Materials

Exposed Layer of
Old Materials in
the New Design

Slide 33



Slide 34

CONCLUSION

CHANGE	CONTINUITY
Modernity	Age
chances ,obligations for a viable modern function	previous characteristics

A big part of adaptive reuse's entity is about **contrast**.
may be resulted in **subtle** or **overt results** of contrast
"Adaptive reuse is not about creating a **modern perfection**, it is all about an **impeccable approach through imperfection**"

