

UNIVERSIDADE DE LISBOA
INSTITUTO SUPERIOR TECNICO

Contemporary Architecture in Historical Context

Continuation/Integration/Change and Improvement of Historical Urban Fabric

Naeem Abrar

Supervisor: Doctor João Rosa Vieira Caldas
Co-Supervisor: Doctor Helena Silva Barranha Gomes

Thesis approved in public session to obtain the PhD. Degree in Architecture
Jury Final Classification: Pass

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Doctor Ana Catarina Graça de Almeida Marado, Centro de Estudos Sociais, Universidade de Coimbra

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Dedication and Acknowledgment:

I dedicate this thesis to seekers who travel to learn and fulfil their commitments for the betterment of a holistic community. I would like to thank my parents, teachers and mentors for the support and encouragement, fellows who helped to open a new door and showed multiple ways to explore a problem/idea/concept.

The study of small cities and towns of Azad Jammu and Kashmir that have seen the dark periods equipped me to research the international and especially European city centres and countries. The learnings from Architecture and Urban-Developments and their connections with historical roots, whether international or local resulted in the production of this document.

Abstract:

This thesis explores Contemporary Architecture in vital Historic-Urban-Context. Significant projects in European city centres are studied as primary and secondary case studies.

Cores of historical cities with their heritage and urban fabric play a key role in the regions architectural language and built formation. The vital relation of constructed patterns and layers of development over time encapsulates the history and documents the culture, tradition and values of a region and its people. Nowadays cities are competing for international attention to increasing tourism and business prospects. Urban renovation and regeneration are the tools that are used to uplift the image of a city and often local authorities hire prominent architects to do so. Frequently, iconic architecture or the signature style of star architects produces non-contextual solutions and makes headlines with praise and criticism. To streamline and provide the guidelines for intervening in historic cities there are over fifty important charters and conventions, produced by international institutions, which provide guidelines regarding the conservation of historic urban fabric and laydown points for the introduction of new architecture and urban renovation projects. However, there are many gaps and contradictions between these documents as they have developed over time, even though some have been developed upon and improved. This dissertation includes a synthesis of important articles that provide guidelines for new projects in historic urban contexts, pointing out relevant criteria.

The main focus of this research is to understand the persistence, transformation, improvement and incorporation of historical urban fabric. Therefore, this dynamic subject has been explored with a case-study based research approach. Thirty important referential projects have been discussed and six primary case studies in Portuguese and Spanish cities have been analysed in-depth, providing a comprehensive understanding of different scales and approaches adopted by architects in different European cities. The key question of how to add the new structures in the valuable historic context is discussed through the analysis of important documents, as well as observing significant built projects that have a relationship with valued historic context due to their approach, design and tactics.

Keywords: Historical Cities, Heritage Buildings, Urban Renovations, Architectural Interventions, Contemporary Architecture.

Resumo:

Esta tese explora a inserção de Arquitetura Contemporânea em contexto urbano de valor histórico. Alguns dos projetos mais significativos realizados em “centros históricos” de cidades europeias são aqui analisados enquanto casos de estudo principais e secundários.

Os núcleos de cidades históricas com o seu tecido urbano e respetivo património desempenham um papel fundamental na formação da linguagem arquitetónica e da paisagem construída de cada região. A relação vital dos padrões arquitectónicos sedimentados em diferentes camadas de desenvolvimento ao longo do tempo fixam a história e documentam a cultura, tradições e valores de uma região e do seu povo. As cidades de hoje competem entre si para atrair a atenção internacional procurando incrementar o turismo e as perspetivas de negócio. A renovação e a reabilitação urbanas são as ferramentas mais usadas para revigorar a imagem das cidades e frequentemente as entidades municipais contratam arquitetos famosos para fazê-lo. Muitas vezes o uso da arquitetura icónica ou a assinatura de arquitetos do star system, ainda que podendo produzir soluções não contextuais, dá origem a manchetes com críticas elogiosas. Para simplificar e melhorar a intervenção em cidades históricas existem mais de cinquenta documentos produzidos por importantes organizações internacionais que fornecem orientações sobre a conservação do tecido urbano histórico, diretrizes para a renovação urbana e sugestões sobre os locais apropriados à introdução de novos projetos de arquitetura. No entanto, existem muitas lacunas nestes documentos, uma vez que se desenvolveram ao longo do tempo, por vezes contradizendo-se entre si, embora alguns tenham sido desenvolvidos e melhorados. Nesta tese faz-se uma síntese dos documentos considerados mais relevantes neste âmbito, particularmente para aqueles que fornecem orientações para a introdução de construções novas em contexto patrimonial, e foi concebido um conjunto de critérios para a respetiva apreciação.

O foco principal desta investigação está na compreensão das permanências, transformações, melhorias e capacidade de incorporação da construção nova no Tecido Histórico Urbano. Esta temática dinâmica será explorado através de uma abordagem baseada em casos de estudo. serão discutidos 30 projetos-referência e analisados seis casos de estudo principais em cidades de Portugal e Espanha, proporcionando uma compreensão abrangente e diversificada no que respeita a escalas e tipos de abordagem utilizados por arquitetos em diferentes cidades europeias. A questão-chave de como introduzir novas estruturas em contextos históricos de significativo valor patrimonial é discutida com o apoio das mais importantes cartas e convenções internacionais, através da análise de significativos projetos construídos que estabelecem uma relação com o contexto histórico que se pressupõe valorizado em função do tipo de abordagem, do desenho arquitetónico e das táticas utilizadas.

Palavras-chave:

1. Cidades Históricas,
2. Património Arquitetónico,
3. Renovação Urbana,
4. Arquitetura Contemporânea,
5. Intervenção em Contexto.

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Abbreviations:

CIAM	Congres Internationaux d'Architecture Moderne (International Congress of Modern Architecture).
COE	Council of Europe.
HUL	Historic Urban Landscape.
ICC	International Conference on Conservation
ICCROM	International Centre for the Study of the Preservation and Restoration of Cultural Property.
ICOMOS	International Council on Monuments and Sites.
IMO	International Museum Office.
SPAB	Society of the Protection of Ancient Buildings.
UIA	Union Internationale des Architectes, (International Union of Architects)
UNESCO	United Nations Educational, Scientific and Cultural Organisation.
WHC	World Heritage Committee.

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Introduction

Objectives & Methodology

Disclaimer:

I hereby declare that this thesis is my original work and has not been submitted before to any other institution for assessment purposes.

Furthermore, I have acknowledged all the sources used and have cited them in the reference section.

This research is divided into six sections.

1. Introduction: It sets out the research's aims, objectives, and key research questions. A brief prologue of the background of the research is also provided in this chapter.
2. Chapter 1: Literature Review: in this chapter an in-depth review of existing writings and work has been conducted to gain knowledge on the subject of building new buildings into historical context. Hence, a theoretical framework is built based on the available literature.
3. Chapter 2: International Charters and Guidelines: A review of international charters and guidelines has been conducted to gain a thorough knowledge of the specialised international criteria that are developed for the historical cities and preservation of culture and heritage.
4. Chapter 3: Referential Case studies and Key Criteria: In chapter three, different projects from European cities have been documented and reviewed. Showcasing a variety of projects, the importance of new buildings into historical context, reviewing historical context of the important cities and analysing the built design solutions.
5. Chapter 4: Primary Case Studies: This chapter examines six projects in detail, studying the importance of historical context and the effect of the new building addition. These cases have been chosen in the city centres of Portugal and Spain. The historic cores and the contemporary architecture have been discussed in the cities of Lisbon, Porto, Fatima, Coimbra, Seville, and Cadiz.
6. Conclusion and Future-Research-Scope: The main findings and results are summed up in conclusion. It also provides answers to the main research questions and highlights the areas of further research opportunities.

1.1 Research Theme

This thesis investigates contemporary built projects that have an important relationship with historic context due to their design, approach, dialogue or argument. The investigation studies the different tactics to understand how effective and prosperous the attempts of integration/differentiation or other approaches have been for the specific site.

A detailed review of preservation and intervention criteria and their application on the different projects has been conducted. These rules and criteria are defined in international charters, standards and guidelines made available by different international institutions, such as UNESCO or ICOMOS. The purpose of this study is to establish and study the method to recognise the right approaches that deal with a multi-layered urban context.

Statement of the problem

The examination of this subject brings together many different aspects of studies, literature and conceptual approaches to working with historical context. The study of contemporary architecture in relation to historical urban centres is, thus, fundamental to this thesis.

After the use of aviation and naval advancement as a medium for luxury, travel, tourism and businesses involving a quick displacement of human masses, cities have started competing with each other in promoting themselves. Many architectural projects have been proposed and built in historic contexts and have become landmarks in those areas, as happened with world-wide famous examples of contemporary architecture, such as the Pompidou Centre designed by Richard Rogers and Renzo Piano (1977) and the Louvre pyramid (1989), also in Paris, designed by I.M Pei. Whereas if we look into previous centuries the development of industrial/exhibition icons, the built projects of Gustav Eiffel in European cities are amongst a handful of patterns for the industrial and progressive foot-printings.

Most of the projects in important urban fabrics are awarded to or won by highly reputed international architects. A building is accepted as a landmark for a community, county or region and the role played by architects/builders becomes a tool for promotion. Architects with identified concepts and forms can be seen as brands and the ones that can provide branding are referred to as Star-Architects; the Star-Architects have become famous with their monogram style, and can easily be distinguished unless following strict outlines of international style (Misirlisoy, 2017). Questions have been raised by academics/practitioners all over the world asking about the excellence and distinction of the proposed new building forms in their contexts. Supplementary queries and challenges have been found in particular cities with historic contexts (i.e. contexts with historic value) where the potential impact can go beyond touching the architectural characters to affecting the built heritage, which includes the physical fabric of heritage and customs.

The monumental or iconic architecture helps to grant the city in international attention. Among the best examples for this kind of work stand out the Sydney Opera House (1973) in Australia, the

Oslo Opera House (2008) in Scandinavia, Esse-Hydro (2013) and SEC-Armadillo (1997) in Glasgow and the MAAT Museum (2016) in Lisbon. However, it can be said that the Bilbao effect got the most media/print attention and hence is amongst the most debated case-studies. It refers to the Guggenheim Bilbao Museum (1997) designed by Frank Gehry and the effect it produced on the decaying industrial city. This insertion of new forms into an important historical context is done without upsetting the character of the ancient urban context. Conversely, very few approaches succeeded in achieving this and some cities around the world had to pay the cost by losing their eminence as a World Heritage Site due to their failure to manage this balance (Pendlebury, 2009). The city of Dresden in Germany and Kutaisi in Georgia lost their title as World Heritage Site due to unsuitable interventions in historic context.

1.2 Incentive of Exploration

The specified subject was chosen after becoming interested in the subject of the historic importance of ancient city centres during under-graduation in Pakistan. Growing up in the suburbs of Old-Mirpur city and experiencing the 2005 Kashmir Earthquake, which was centred near the city of Muzaffarabad and affected the region of Jammu & Kashmir, Islamabad and Khyber Pakhtunkhwa province of Pakistan. The major reconstruction of the city centre was possible with foreign aid and foreign builders. While visiting the city in 2012 for undergraduate thesis research, I realised that the city changed drastically with many constructions that had foreign influences.

The interest to study the European city centres was established during an excursion across Turkey and the United Kingdom in 2011, visiting the important cities of Istanbul, Ephesus, Perini, Chezme and Izmir, in the first country, and Birmingham, Nottingham, Burton-upon-Trent, Derby, Glasgow, Falkirk, Edinburgh, Tamworth, Leicester, Bradford, Leeds, Loughborough and London in the second. After choosing Germany to pursue the Masters' studies, the subject was further explored by travelling to many historic and important cities of Germany, the UK, France, Italy, Spain, Malta, UK, Brussels and Greece. The interest in the subject grew while visiting the buildings of Egon Eiermann, Carlo Scarpa, I. M. Pei, Alberto Campo Baeza, Richard Rogers, Renzo Piano, Bernard Tschumi and Peter Zumthor. Visiting the historical cities to understand the concepts of Altstadt/Neustadt (old city/new city), travelling across the cities of Berlin, Leipzig, Dresden, Kothen, Magdeburg, Wittenberg, Haale, Hannover, Paderborn, Dortmund, Aachen, Cologne, Dusseldorf and the connecting suburbs further solidified the research interests.

Choosing Lisbon to study for a doctorate due to its regional importance and having a rich context along with the important cities in immediate reach was an essential factor. The important historic city centres and new buildings were studied in 2018, travelling across Portugal to the cities of Lisbon, Porto, Coimbra and Fatima. This perspective was complemented with field trips to the

Spanish region of Andalusia, namely to Seville, Cordoba, Granada and Cadiz. The subject was further explored by visiting major cities in Switzerland, Liechtenstein, Austria, Czech Republic, Poland, Lithuania, Latvia, Estonia and Finland.

1.3 Preamble

Reference Institutions and Organisations

Major international institutions and decision-makers are stakeholders are recognised in this research as those who have been involved in the design control and in the process of consultation, validation and supervision. In addition to the local authorities that make planning decisions, the applicants and other governmental and non-governmental bodies involved in the process also have a major stake. Among the most relevant organisations established in the twentieth century stand out:

- UNESCO – The United Nations Educational, Scientific and Cultural Organisation.
- WHC – UNESCO's World Heritage Committee.
- ICOMOS – The International Council on Monuments and Sites.
- ICCROM – International Centre for the Study of the Preservation and Restoration of Cultural Property.

At the national and local levels, decision-makers are governing authorities, legislators, municipalities, policy-makers, conservators, project managers, architects, planners, urban designers, developers, investors, client/project owners and concerned citizens who may involve themselves in design review processes. Each decision-maker plays a specific role. For example, clients specify the requirements and programme for a project, while architects decide how to design the building and municipal authorities evaluate the project proposal and determine whether the building should be constructed with or without modifications.

From an international standpoint, both the UNESCO's World Heritage Committee and ICOMOS have been dealing with the problem by establishing conservation and management guiding principles, in the form of Charters and Recommendations. While these documents remain valid because they have set the stage for urban heritage conservation, they do not sufficiently address the insertion of new buildings in historic contexts.

Conflict, Knowledge and Information

One of the earliest known documents regarding the historical context is the Manifesto of the SPAB - Society for the Protection of Ancient Buildings, written by William Morris and Philip Webb in 1877, enhancing protection to the detriment of restoration, which is not considered as an option, while the construction of a new building is preferable to adding on to the existing one (Morris, 1877).

There are conflicts of information in various subsequent documents. In 1964, the Venice Charter stated that the “traditional settings must be kept and no new construction, demolition or modification which would alter the relations of mass and colour must be allowed” (Venice, 1964). Its Article 9 added that “any extra work which is indispensable must be distinct from the architectural composition and must bear a contemporary stamp” (Venice, 1964). Hence, emphasising distinction rather than compatibility. On the other hand, the 1983 Appleton Charter states that “new work should be identifiable on close inspection or to the trained eye, but should not impair the aesthetic integrity or coherence of the whole” (ICOMOS, 1983, p. 6). Put differently, it advises that distinction should not be immediately evident. As a result of these and other contradictions, it is hard for architects designing a new building to decide which document has validity for their design challenge. Hence, scientific research that investigates the effectiveness and appropriateness of existing regulatory tools, as well as creating local and regional perspectives, would be beneficial and would most probably add to contemporary literature on the problem, thus contributing to overcome the insufficient guidance directed at the insertion of new buildings in historic urban environments. The extensive and ongoing dialogue in literature, including documents issued from the UNESCO and World Heritage Centre (WHC), shows the lack of clear guidance and policies controlling contemporary interventions.

City branding and urban development strategies have developed significantly over the last decades. Though these policies are not new, different communities have been using them to attract investments, tourism and global focus. City management is always looking for new strategies for international promotion. According to Riza et al., the contemporary city has to be updated continuously. Many cities have policies to support and present themselves in the international market (Riza et al., 2005). Multiple authors agree that there are mainly three approaches that are used for the endorsement of cities: cultural events, restoration, promotion of heritage and the construction of iconic structures. The healthy competition amongst the cities can be considered as one of the effects of internationalisation, which can be observed in different forms. Production of iconic architecture is the method that is used extensively amongst cities. Prominent architects are hired and the promotion of the unique style or identifiable image makes the publicity and promotion easier to gain attention and attraction (Kavaratizis & Ashworth, 2005; Hankson, 2006; Riza et al., 2005).

Cities, both through their administration and their citizens, are in a run for responding to global trends and, sooner or later, to the contemporary needs of their inhabitants. “The importance of keeping up to date means constantly refreshing cities to understand the resources they have to work with and the needs they have to supply. These changes are not innocent or spontaneous; on the contrary, they respond to and reflect the wishes of actors and agencies” (Madgin, 2010, p. 29). In recent years, due to the competition for tourism, cities are in search of new ways to promote themselves. Amongst many aspects of the shift in international environment where world is becoming more connected, cities are striving towards creating culturally rich workplaces and tourist destinations (Kotler, 2002).

Questions regarding the quality of the new buildings into the historical context have been raised for a long time. Adding new buildings in a historical context is defined in international charters and guidelines as to insert these forms without disturbing the basic harmony of the context. The concept of urban identity comes often to mind when the term heritage is discussed, involving the use of distinguishable architectural styles, forms, construction techniques ornaments. Nevertheless, the construction of new buildings inspired from the past, regenerating historic districts can play a major role in reconstructing the present cities, vanishing urban identities (Boussaa, 2017). As Rossi observed: “The city itself is the collective memory of its people and like memory, it is associated with objects and places. The city is the locus of collective memory. This relationship between the locus and the citizenry then becomes the city’s predominant image, both for architecture and landscape and as certain artefacts become part of its memory, new ones emerge. In this entirely positive sense, great ideas flow through the history of the city and give shape to it” (Rossi, 1982). Cities have evolved over time, the built patterns constructed over time with layers. These layers of construction make up the identity of the region and include local architecture, geographic elements, cultures, traditions and lifestyles of that area. When the vital relationship between these aspects is compromised the place loses its identity, this affects people directly as it results in the loss of sense of belonging (Schulz, 1980).

In the present, specific buildings reinforce the importance of the cities helping them to become tourist attractions. In the postmodern world, the role of these sites is constantly changing and the tourists with their requirements have forced the organisers to come up with more innovative solutions for this diverse market, which has led to its evolution (Kruczek, 2012). For the cities to flourish and keep their character the decisions that retain the local identity, values and unique urban fabric should be made continuously. Currently, the subjects of cultural heritage and conservation have become specialised and these multidimensional fields have focused on the historical regions and urban centres, improving the concepts of local and regional management. For the long-term objectives of city development, local management has to be considered of significant importance. These special considerations and conservation of historical city centres make the developments and draw the blueprints for future planning (Bruggemann and

Schwarzkopf, 2001). Urban development and future city growth plans, particularly those of large and fast-growing cities, consistently declared significant portions of the historic fabric as a part of the urban renovation and urban renewal schemes. “Areas for urban renewal, mean that the existing historic structures could be removed to make way for new buildings and any elements” (Rojas, 2007, p. 45).

1.4 Objectives and Research Questions:

With the current ongoing reimagining of the historical cities, with multiple new projects being anticipated and constructed in important historical cities, the study of contemporary architecture and its relation to historic architecture becomes essential. Although there are many rules and guidelines provided by ICOMOS and UNESCO, the complexity of present circumstances requires an in-depth revision of the literature and practice of the subject. Therefore, this research will review a set of important buildings that have recently been built in European cities, finding the results from the application of the obtainable knowledge and also endeavour to find new approaches and procedures.

The success of new buildings integrated into historic contexts depends on understanding and responding to the character and potentials of the context. Similarly, to the work of archaeologists and conversation specialists, the understanding of the area is important for architects to successfully design newly built work (Macdonald, 2011).

Objectives:

This research aims to develop an in-depth understanding of factors that determine the integration of a newly-built structure into a historical area. It also aims to explore the approaches that are highly responsive to the needs and requirements of the urban centres.

1. Understanding the importance of historic urban context, the process of Urban renovation and restoration.
2. Analysing the knowledge on contemporary architecture and its integration produced by international organisations.
3. Documenting significant projects in the European continent. Choosing a multitude of approaches with a diverse range of solutions.
4. Outlining a criterion and a framework that can be used to analyse and study contemporary projects for the historic urban fabrics.

Objective one is achieved through the Investigation of different design approaches to insert new buildings into the historical context and settings. Object two is achieved by studying the available international charters and guidelines to understand the framework of rules and set of principles that can investigate the success factor of buildings into the context. A wide range of academic literature on the subject is reviewed, creating a framework to review new constructions in urban centres. Defining the common points from the international guidelines, memorandums and charters to determine the factors to integrate a new built form into historic context. Objective three is addressed by analysing the selected case studies in the European context under the developed criteria. The selection and review of the case studies also provide the sum of significant projects and approaches in the historic city centres. Objective four is achieved by drawing up a method to analyse and study the new and proposed projects.

Research Questions:

The described objectives will be achieved through investigating the following key questions:

Q1. What are the main issues to take into consideration when introducing new buildings into a historic urban context?

Secondary questions:

1. What is a historical city centre? What defines an urban centre?
2. What is the context in architecture? What is contextual architecture?
3. What are the guidelines to follow while dealing with the historic urban fabric?

Q2. How do we evaluate the design of new buildings, extensions and additions into a historic urban fabric?

Secondary questions:

4. How to define identity in contemporary architecture? How does it shape or affect the identity, uniqueness and distinctiveness of a region, as a whole?
5. Based on the international guidelines and charters, what framework can be recommended to analyse new buildings into historical context?

Q3. How does the introduction of new building types affect the urban fabric and how can the addition of contemporary architecture impact the perception of a place and its identity?

Secondary question:

6. What are the most important aspects of the immediate context of the site?

Contributions of the Research:

This research aims to provide an original contribution to the knowledge in different ways. Firstly, it thesis broadens and synthesises knowledge of the recommendations and guidelines, especially the directly relevant articles concerning the production of new buildings into a historic setting. The main research contribution is experiential and applied knowledge, as it involves drawing a criterion to evaluate architectural projects. This is achieved through the analysis of significant built projects offering a complete view on the subject.

Therefore, this thesis brings together the knowledge gained by the review of the important case studies of the buildings that have been built in European settings to understand the concepts of building in a historical context. This research provides the criteria for attaining suitable results in the historical urban context by studying the standards and elements that make the old and new architecture work together successfully.

1.5 Research Methodology:

This thesis explores different approaches to new projects in a historic context by examining the current literature available on the subject. As Demiri points out: “The relationship between new architecture with its historical context is determined from the values assigned to the meaning of its heritage architecture and consequently its modern interpretation” (Demiri, 2013 p. 44).

The qualitative approach has been divided into two parts. In the first part, a literature review has been conducted by reviewing the major rules and guidelines that are described in international charters and memorandums. Developing a cohesive knowledge of the set of rules and criteria. Secondly, a case study approach has been used where the significant contemporary buildings in the historical context have been visited, discussed and analysed.

Investigation based Strategy:
Case Study Research

The primary method of investigation is based on case studies research, which is done by selecting relevant examples of different functions. This comprises evaluating projects according to the criteria drawn from literature review and charters, as well as identifying different approaches used by architects and their solutions for challenges that existed on-site.

Choice of Geographic Region:

The geographic region chosen for this study is the European Continent. There are three main reasons for choosing this specific research project.

1. While discussing historic architecture and contemporary approaches to deal with that context, primary examples and pre-existences are in the European context. Secondly, the majority of available literature regarding the guidelines, charters and memorandums concerning the historical urban fabric is written and organised in Europe.
2. Having studied and practised in Pakistan, I realised that most of the younger breed of architects are using European case studies as references without having a deeper understanding of the local contexts. These studies in the majority of the cases are only surface-based and there is a need for in-depth knowledge to deal with the contextual issues.
3. European historic cities have a wealth of museum, cultural and institutional buildings. Multiple Urban renewal, heritage conservation and contemporary additions projects serve as international examples and benchmark for intervention and urban regeneration. In Pakistan cities are losing their heritage and history due to the rapid urbanisation and depleting resources. Studying the European historic cores and intervention projects allow to understand the approaches that cities are using to preserve their history while adapting to changing urban requirements.
4. The abolished borders between Schengen area of European Union and easy access to surrounding territories provide an ideal condition to conduct doctoral research in architecture. As the freedom of movement between these countries gives an opportunity to conduct on site study to understand cultural, historic, built urban patterns and exchange of knowledge between these countries.

Criteria for the selection of case studies:

Projects of contemporary additions built in important European historic contexts have been selected based on their historical importance, heritage value, timeline and geographical setting. The chosen cities had to be accessible during the research, study and write-up phase for site visits and data collection.

The referential case studies are chosen from different European cities to document a wider understanding of approaches, typologies, design ideas and perspectives. Whereas the primary cases have been narrowed down to the Iberian Peninsula. Each site is chosen considering the city centre and impact that the new addition(s) have made on its historic value. It is important to understand the contextual, cultural and heritage importance of a given site before proposing a building. There are many approaches to introduce the new building, however, the context is the main source of reference. Studying the context is essential to fully analyse the proposals and their effects on the site. Therefore, the micro and macro context of the site and contemporary intervention is given importance, and the chosen cases have an impact on the city due to their program and design approach. In order to preserve and develop the historic context that is of a global importance, it is essential to analyse and evaluate these approaches and learn from the success and shortcomings of their implementations.

Referential Cases:

The secondary case studies include an expansive range of projects from the broader European context. The thirty projects have been shortlisted considering the six main categories: large scale urban renovations, infrastructure projects, museum interventions, cultural buildings, memorial revivals and government buildings.

Primary Cases:

The six primary cases have been chosen in the Portuguese and Spanish cities of Lisbon, Coimbra, Fatima, Porto, Seville and Cadiz. This choice is made by considering historic importance, timeline, diversity and accessibility of these projects during the doctoral studies. The selected projects that have made a cultural impact and hold a significant value due to the functional, religious, cultural and heritage significance.

Museum Intervention: The National Museum Macahdo de Castro is chosen as a primary case study because of the contemporary intervention that is a direct insertion into the assemblage of

historic complex. The extension designed by Goncalo Byrne is a representation of its time on a site that has been restored, renovated and expanded to host one of the most important Portuguese museum.

Open public spaces: The two projects of mixed used solutions have been selected in open public space design. First project Redesign of the Praca de Lisboa in Porto, this proposal creates an open public space, revives the memory of the historic market place and fulfils the city needs by creating underground parking. Design considers relationship with the neighbouring historic structures and does not use a vertical approach. The second project is the Metropol Parasol in Seville, the design has gained critical reception as it has a monumental and iconic presence. This project encapsulates multiple functions by creating a museum in lower level for the archaeological remains and reviving historic market. However, Huge wooden structure in the historic plaza of Seville clashes with the site. These two projects have two opposite approaches in the urban plaza space and showcase how the different solution impact the site.

Project for a transient community: City of Lisbon has a historic connection with the sea, as it is one of the most important port city in the world. The project of new Lisbon Cruise Terminal was opened for competition to meet the city needs. The fundamental aspect is its site and location that is in the heart of historic core. It is designed in contemporary language with plain facades giving importance to the neighbouring scale of historic city centre.

Intervention in religious/cultural context: The project of outdoor alter in the prayer area of Fatima is the contemporary addition in the complex. The city of Fatima, its Sanctuary and surrounding neighbourhood has developed constantly over 100 years. The projects with their individual presence come together and create a pilgrimage site. This project effortlessly fits into the site considering the historic context. The study of this important context is essential to understand the importance of contemporary architecture and its role in developing a religiously significant site. The second project is built between the two historic cathedrals in the city of Cadiz, Spain. This Spanish city has its importance due to its connection with the sea, it is one of the oldest inhabited cities in the world. Historically, it gained popularity and wealth due to the trade routes with American continents, at this time the New Cathedral was constructed next to the Old Cathedral. The project Between Cathedral provides a platform that showcases the cities connection with sea by utilising the empty site between these two cathedrals.

Chapter 1

Literature – Review

(Books and Articles)

Introduction:

Chapter one is composed of the literature review. A detailed study and review of significant texts including books, articles and thesis available on the topics of context, built environment, heritage, urban-regeneration & contemporary architecture are conducted.

This chapter addresses key issues regarding new buildings in the historically important context. Explanation and understanding of the main concepts and terms are important to address the topic of contemporary architecture and the different approaches concerning the new additions into their relevant historic context. The main aim is to introduce major terms and research keywords, i.e. context, urban context, contextual architecture, planned vs organic city, built heritage, built environment etc. After the definition and review of key terms, a brief description of the urban regeneration ideas and different design approaches in historical context are discussed. The revision of the essential literature on the topics helps to create a framework that shows the existing state of knowledge on the subject and the gap in the research. It also highlights the key investigation themes and sets a foreground for the investigation project.

1.1 Context & Contextual Design:

To understand the connotation of 'context' in architecture we have to start by looking at the meaning of the word context. According to the Oxford dictionary, context is defined as "the circumstances that form the setting for an event, statement, or idea, and in terms of which it can be fully understood" (O-D a, n.d). Whereas, Cambridge dictionary describes context as, "all the facts, opinions, etc. relating to a particular thing or event" (C-D a, n.d). According to one of the earliest pieces of documentation of the 15th century, the word comes from Latin, *contexere* meaning to weave or join together. Context is also the surrounding or setting in which something exists. When we say that something is contextualized, we mean that it is placed in an appropriate setting, one in which it may be properly considered or understood (M-W, n.d).

According to Miao (2012), if we narrow down the word context, it can be understood as the connection between each sentence of an article where every word relates to another to make a cohesive paragraph. Presently, it can be said that context is the background of a certain region, nation or city including geographic condition, cultural atmosphere, traditional transmission, and socio-cultural background. Historical-Urban-Context and sites are a vital part of any city or region as they provide an important insight into the past lifestyle, building techniques, tradition and cultural values. The conservation of these traditional values and revitalization of architectural heritage is essential for the preservation of the culture of an area. "The main goal of conservation is to enliven cultural properties by evaluating their architectural, historical, environmental, visual and aesthetic characteristics" (Ipekoglu, 2006, p. 386). "The relationship between new architecture with its historical context is determined from the values assigned to the meaning of its heritage architecture and consequently its modern interpretation. It is the architect's task to express architecturally his or her era and simultaneously get involved in a dialogue with the context, in which the architect builds" (Demiri, 2013, p. 44). Hence, it is important to understand the values of the traditional context and the significance of heritage to interpret them with the contemporary design solutions and proposing the project according to the character of the historical urban fabric.

Context has multiple external elements that influence a design. These elements are physical and non-physical. Roads, buildings land contours are examples of physical elements, while non-physical elements are the weather condition, local culture, as well as political and financial constraints (ASAG, 2018). According to the Architectural Site Analysis Guide, the broader meaning of context includes the cultural and social aspects within the definition of context. Therefore, while talking about context architecturally, both tangible and intangible aspects have to be considered. For a new design in the important context, where one has to consider the tangible elements of climate, geography and economic factors, the list of intangible elements is also a bigger one. The main aspects include the cultural, traditional, social and artistic qualities of the region. Thus to come up with a feasible proposal more concerns have to be catered to and considered accordingly.

Hence, the consideration of tangible and intangible aspects of the context has to be given prime importance. "Each city is a context containing its own architectural language. It is also a living organism

with a unique culture and a past, called a contextual history. It also has a future in which new buildings act as the threads, that weave the cities living traditions into the new and whole fabric” (Molaei & Mahdavi, 2011, p12). Contextualism is also referred to as an idea of inclusion by replication or recognition and the defining aspects of a local physical environment (Cohen, 1974). Contextualism originated from the desire to resolve problems of harmony with the historical environment and the placement of new buildings within historical surroundings (Cizgen, 2012). Now there is much more focus on making an effort towards a design that echoes with the architectural elements of its neighbours. Paul Goldberger in an article for the *Times* archive discusses the notion of changing ideologies that architects are following a philosophy where it may be better to be discreet than to be original. “Whereas modern buildings once tended to be conceived as pure, abstract objects, independent of what was beside them, there is now much more attention paid to the notion of fitting a building into its architectural surroundings.” (Goldberger, 1981).

While studying the contemporary architectural buildings in a historic context, the most significant aspect of context is to know the contextual relevance of the new-built with the provided environment. It is also important to find out the relationship of users, residents, locals as well as visitors who are there for a short time and how they become part of the context.

Climatic Context:

Oxford dictionary defines climate as, “the weather conditions prevailing in an area in general or over a long period” (O-D b, n.d). Whereas, according to Merriam-Webster dictionary, “The climate is the average course or condition of the weather at a place usually over a period of years as exhibited by temperature, wind velocity, and precipitation” (M-W b, n.d). Hence, the relationship between architecture and climate can be described as the following: climate is a creation of nature in every given context, while architecture is a providing designed by inhabitants or builders there by being a human creation.

Pearlmutter describes nature as “an ongoing dynamic of atmospheric processes whose patterns and structure are governed by physical laws and by the peculiarities of our planet. Yet, architecture and climate, which may seem to belong to entirely separate fields of study, have always been intertwined. This linkage is not a one-way relationship, but rather a cyclical chain of human actions and reactions to environmental feedback” (Pearlmutter, 2007, p. 753). The main purpose of architecture is to make available the physical forms that can provide shelter against natural forces. Architecture design conclusively ends up giving shape to a social, communal and visual climate in which we live, taking its indications from the regional climate that provide the details for the changes in design languages accordingly. Although the technological advancements and ever-improving construction techniques are bringing forth the methods to achieve and realise the designs that can withstand extreme climatic conditions without taking influence from the local and earthy solutions that have evolved over multiple centuries. Therefore, the need and costs of these solutions are arguable as they affect the character of the area.

Across the different continents, countries and regions architecture language changes. In a region where one needs to retain warmth in the snow or to stop the heat in the deserts, the usage of thermal insulation

techniques, use of wood as finishes, cavity walls etc. are some of the examples that are used. Hence, architecture takes direct influences from the impacts of climate. "Architect has been a climatologist far longer than he may realise, because the architect throughout the ages has been exercising control over climate through orientation, site and town-planning devices, such as brise-soleil, tree-planting, wind-breaks, etc" (Kanvinde, 1959, p. 163). Human beings have always responded to the climate and developed feasible architecture to counter the impacts of climate. According to famous Architect Hassan Fathy, known for the voice of traditional approaches that cater to environmental solutions and critical regionalists: "A machine is independent of its environment. It is little affected by climate and not at all by society. A person, however, is a member of a living organism that constantly reacts to its environment, changing it and being changed by it" (Fathy, 1986). Hence, consideration of all aspects of the climatic context while designing a project is an important part of the design process.

Geographical Context:

As defined by Etymology Dictionary, geography comes from the Greek word 'geographia', literally meaning 'earth description' (Harper, 2001). Oxford Dictionary defines geography as "The study of the physical features of the earth, its atmosphere, and of human activity as it affects and is affected by the distribution of populations, resources, political and economic activities" (O-D c, n.d). It is a scientific field that concerns the study of the environment, ecosystems, oceans, landmasses and the interaction between human society and their impact and connections with their atmosphere and surroundings. Geography is the study and research of the earth and its features including surface, vegetation, climates, countries, climates and how humans use the world's resources (BBC-a, n.d). According to Sen Nag (2017), geography is the study of the earth's physical features and environment including the impact of human activity on these factors and vice versa. These subjects also include the study of human population distributions, land uses, availability of resources and their utility and industrial setups. The interdisciplinary approaches in this subject allow for the observations and analysis of the materials and distributions of the earth space and development solutions accordingly.

Murphy and Sen Nag further describe that geography also interacts with culture and the natural environment. Locations and places can have an impact on people and how they live and adapt accordingly. Geography seeks out to understand the natural resources, how to work with them, how they change over time, where they can be found and how to develop them accordingly. Because the study of geography is broad and a specialised profession, the field of geography can be divided into multiple secondary branches. However, the primary distribution can be classified into physical geographies, cultural geography, developmental geography, human geography, regional geography and settlement geography (Murphy, 2011; Sen Nag, 2017).

- Physical Geography- It is a branch of geography that encompasses the study of the natural features and processes on the Earth.

- Human Geography: It is a branch of geography that deals with the study of how human civilization is influenced by the earth's surface and environment and how in turn, human actions impact the planet.
- Cultural geography: It explores how and why culture and customs differ in space and place. It thus deals with the study of the spatial variations of human cultures including religion, language, livelihood choices, politics, etc.
- Developmental geography: It explores the quality of life and the standard of living of the human inhabitants of the world and attempts to understand how and why such standards vary with place and space.
- Settlement Geography: The study of the earth's surface that consists of human settlements. It explores the urban and rural settlements, infrastructures, economic and social structures, etc.
- Regional Geography: It takes a different approach to specialisation, directing attention to the general geographic characteristics of a region. There are different ways one can define a region, there are different branches that include climate zones, cultural regions, or political regions.

Hence the geographical context is the combination of multiple different aspects of the earth studies and it is an important part to study and consider the geographical context while producing or studying the architecture of/for a specific region.

Cultural Context:

As per the Oxford dictionary, culture originates from the word 'cultivation' implying the meaning of growing through knowledge or experience and it is defined as "the arts and other manifestations of human intellectual achievement regarded collectively and the ideas, customs and social behaviour of a particular people or society" (O-D d, n.d). Whereas, according to the definition in Merriam Webster dictionary, culture is defined as "the customary beliefs, social forms, and material traits of a racial, religious, or social group or characteristic features of everyday existence (such as diversions or a way of life) shared by people in a place or time" (M-W c, n.d). Hence, it can be said that culture is a representation of a collage that contains social, cultural and religious values of a group or a broader community. Schmutz V. Elliott describes the relationship of individual and culture as, "The culture of the individual is dependent upon the culture of a group or class, and the culture of the group or class is dependent upon the culture of the whole society to which that group or class belongs" (Elliot, 1949, p. 19). Consequently, it can be said that the culture of the society is essential for the individuals and as a broader whole. To study architecture that is built for or in a specific cultural context, Kenny (1996) emphasises the importance of the study of society in which an architectural form is built. Reviewing the aspects of the culture is important to understand what has

affected the architectural form. “Not all the aspects of the culture are significant in architectural form, certain aspects are more likely to be incorporated into the architecture and only through a study of past architectural forms can these aspects be revealed” (Kenny, 1996, p. 6). “Architecture is the portray of a nation’s culture integrated with all aspects of human life and has a profound impact on it” (Ettehad, et al., 2014, p. 410). Hence from the study of Elliot, Kenny and Ettehad et al., it is apparent that the architecture and culture are interdependent, where architecture represents and portray the culture of a country and on the other side the architecture draws many influences from the culture of a particular region.

According to Thompson (2003), tradition and culture provide the background and knowledge in a structured way. Culture allows us to know what is essential, but sometimes there is a conflict where one group of people will believe they are more correct than the other group. The beliefs and the history of endeavours are questioned and the knowledge that created the tradition or culture has multiple different understandings and points of view. This aspect highlighted by Thompson shows that the diverse views in society are present and should be considered. Deo (2016) recommends an architecture of response to the culture, as it has a voice and it represents the culture of the region and area. In this case, there are many forces including nature, inhabitants, place and purpose that shape the buildings and while designing a building one has to respect all these aspects. “Our cities would be experientially rich and meaningful if the places and spaces within them were not impositions but responses to the rich culture of the people within them” (Deo, 2016). Hence, it can be said that culture and architecture are interdependent entities and architecture that responses to culture become meaningful and sensitive, therefore the consideration of the cultural aspect is a very important factor to consider while proposing a design in a rich context.

Economic and Political Context:

Economy and politics are influential role players in the production of architecture in different territories. Architect Andrés Jaque explains that politics is a key role player and it has a lot to do with how things are brought together, and to determine the possibility of certain situations that have to be produced by architects and the ones that cannot be considered. He emphasises that “this doesn’t mean that all architects are aware of this political performance of what they design, nor does it mean that it is only the architect that makes the architecture perform politically in a particular way; but it means that architects in a way are confronted with, at one point, being aware and taking responsibility or not of the political performance that their building, design, and practices are part of” (Valencia, 2017). According to Swedish Architectural Association, “Architecture and politics belong together. Politics has the task of developing and improving the society we live in. Architecture makes an important contribution towards that kind of social construction. Architecture is both concrete and visionary. It performs a task and looks ahead but is also something from which we can decipher our common history. It is people, not architecture, who create life, but architecture is capable of underpinning our aspirations and activities” (SAA, 2009). According to Eltjo R. Poort, architects need to consider and understand the wider context of their solution. “When we view architecture as a set of design decisions, a good measure of a decision’s architectural significance is the economic impact of that decision on the collective stakeholders affected by it. So for architects to understand the significance of their decisions, they need to have a firm grasp of the economic context of

the solution they are architecting” (Poort, 2018). Cowan (2005) in his studies emphasises that the different urban agencies are biased towards the urban spaces and regeneration projects and the projects of transformation and development are connected with the political and economic factors. Hence, it can be said that the economic, political, social and physical aspects of a region are interconnected while developing a policy to improve the life quality of an urban area and its dwellers.

1.2 Contextual Architecture & Contextualism:

According to Molaei and Mahdavienejad, contextual architecture or Contextualism is the architecture that responds to the specific physical characteristics of its site. “Unlike any specific architectural style, contextualism can be seen as a set of values, which help distinguish the architecture” (Molaei & Mahdavienejad, 2011, p. 12). Whereas Tabarsa & Naseri (2017, p. 356) define contextualism as “(...) one of architectural approaches that interact with culture and cultural context and emphasize on the climate of a particular region”, Miao describes contextualism as an understanding of the whole environment, partial characteristics, structures. In specific the detailed correlations between site, geography, drainage, plants, street pattern, fundamental space structure, locations of buildings from a broader perspective, architectural features, and the study of macro to micro. Hence, contextual architecture takes its influences from multiple factors, important one’s being the relationship of the immediate context, culture, climate and regional considerations. Whereas according to Johnson, “When modern architectural usage is considered, the word context may have more than one meaning. It may refer to the physical built fabric in which a project is situated, it may refer to the ground, or it may refer to the environment in which the architects work taking into consideration the culture, history and other aspects” (Johnson, 1994, p. 284).

Daglioglu (2015, p. 267), while talking about the historical references, discusses that the idea of contextualism existed long before the term has been popularised, it has “(...) a definition beyond the physical features of a site, context is embedded in the notion of *genius loci*, translated today as ‘spirit of place’, in old Roman architecture. In Renaissance architecture, *decorum*, inherited from Vitruvius’s *décor*, was developed as a key strategy to communicate with context through symbolism. Ecole des Beaux-Arts introduced *tirer parti*, meaning to make the best from what is found in the existing physical and political context”. Hence, the historical importance of contextualism can be understood with the discussion of historical references. Whereas, a new idea of fitting in has been argued by Paul Goldberger highlights how the perception and approach have changed over time, now there is more attention to fit the building into its surroundings whereas in the past modern designs were conceived to be independent of the context. In other words, “(...) to make certain that the building echoes many of the architectural themes of its neighbours. It is a philosophy of design that suggests, by implication at least, that it may be better to be discreet than to be original” (Goldberger, 1981). Contextual approach, as the term itself, communicates in the architectural meaning that it is to be understood as context-dependent. “Contextual architecture is defined as architecture that strengthens the relationship with its specific site or its broader physical, or

visual, environment to create whole that is greater than the sum of its parts” (Sotoudeh & Abdullah, 2013, p. 1277).

The term ‘context’ needs not only to be understood in spatial settings of an architectural expression but more widely. “We could begin with a simple and intuitive listing of possible meanings of the term in architecture. First, it would be the spatial context, which in architectural interpretation seems to be more customary. It could mean: 1) a specific building is seen in the context of other buildings (this mainly refers to the city); 2) a specific building seen in the context of the surrounding landscape; 3) a specific element of the building seen in the context of all the other elements of the building; 4) the relationship between a building’s exterior and interior” (Taurens, 2008, p. 77). Any site, location or a place includes several natural features that characterise it and create the context of that place. In architectural design, all these features should be determined, analysed as well as considered during the design process, to integrate the building into its context. Architecturally, it can be said that the context is an entity that unifies the whole and gives meaning to the different parts of the building by combining them. However, contextual architecture, or contextualism, can be defined as the architecture that provides a solution or responses to the main characteristics of the area and the available site. Unlike any specific architectural style, contextualism can be seen as a set of standards, which help differentiate the architectural work and production of design (Shorbagy, 2011). It can be said that the main branches of contextualism include three distinct types: Vernacular Architecture, Regionalism and Critical regionalism.

Vernacularism (vernacular architecture)

The term vernacular is derived from the Latin *vernaculus*, meaning "domestic, native, indigenous" (M-W d, n.d), whereas, according to Oxford dictionary vernacular is a local style in which ordinary houses are built (O-D e, n.d). It can be said that vernacular architecture is the structures, buildings, villages and regions that are built by and for the local inhabitants using the locally available products, building techniques and resources. Vernacular architecture also grows over time to echo its surroundings, culture and historical context. Several important factors influence the forms and shapes of vernacular architecture, including demographic, climatic, socio-economic, culture and construction materials.

According to Brown and Maudlin, “Vernacular Architecture is the language of the people with its ethnic, regional and local dialects, it is the product of non-experts” (2012, p. 340). Paul Oliver (2003, p. 14) also share the similar views architecture “the architecture of the people, and by the people (...)”, he further argues that “...it is contended that 'popular architecture' designed by professional architects or commercial builders for popular use, does not come within the compass of the vernacular”. Vellinga, Oliver and Bridge (2007, p. 3) describe that “from the billions of buildings existent worldwide, 80% or even a higher proportion, to be vernacular architecture. Therefore, it is clear that more than a half of the actual population lives in vernacular dwellings”. Hence, the study of vernacular buildings as part of contextual architecture is of great value. “It is relevant to discuss if informal housing is vernacular architecture? What is vernacular architecture? Worldwide, if the majority of people live in vernacular buildings, why has this

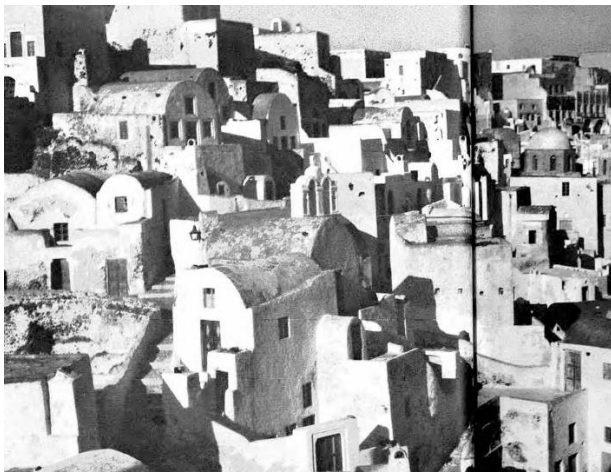
architecture been less acknowledged? Is it due to its significance, then, what does it mean and what is the value of 'vernacular architecture'?" (Carlos et al, 2015, p. 1).



A - Italian Hill town – Positano



B - Spanish Mojacar Hill town – Almeria



C - Apanomeria Santorini-Greece



D - Marrakesh, Quadrangular courtyard housing

Figure 1. (A/B/C/D) Vernacular Housing-Examples 'Architecture without Architects' Bernard Rudofsky.

Bernard Rudofsky published a book in 1964 called '*Architecture without Architects*' in the Exhibition of the same name. He made the word 'Vernacular Architecture' eminent in an architectural context, and brought the concept into the eye of public and mainstream architecture, including black-and-white photography of vernacular buildings around the world. The exhibition was extremely popular, "for want of a generic label we shall call it vernacular, anonymous, spontaneous, indigenous, rural, as the case may be" (Rudofsky, 1964, p. 58).

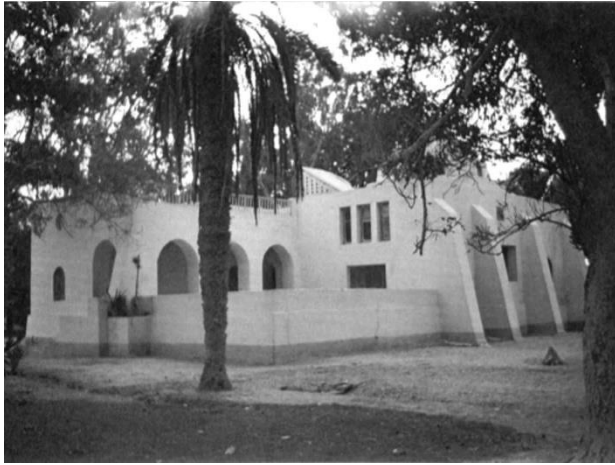
According to Carlos et al., "Despite the recent developments of this area of study and its thematic enlargement, it is common the use of the terms: Traditional, Vernacular and Popular Architecture as

indiscriminately synonyms. This is far from the real potential of each term, despite their close relation.” A further explanation has been added and the difference of the vernacular from the traditional has been explained as: “Traditional architecture is the broadest term; it derives from the actual application of the constructive tradition and empirical knowledge, based on oral transmission between generations...A significant portion of traditional architecture can be considered Vernacular and Popular” (Carlos et al., 2015, p. 4). Traditional architecture and vernacular have a connection with each other, there is an inclusion of non-local styles and elements for aesthetic purposes in the traditional architecture and we can see this very often in the temples and palaces. These buildings are not included in the vernacular and have been given a lot of importance internationally by architects and designers (Eurwyn, 2010). “Many vernacular solutions are today regarded as regional icons, aimed at long processes of appropriation, up to the point of becoming more characteristically representing their region” (Carlos et al., 2015, p. 5). Bernard Rudofsky gives an example of Italian hill houses of Positano, Spanish Mojcar Hill-town, quadrangular courtyard housing of Marrakesh and Apanomeria Santorini as examples of Vernacular Architecture (figure 1).

Regionalism and regional architecture

As described in Oxford Dictionary, the region is “An area, especially the part of a country or the world having definable characteristics but not always fixed boundaries” (O-D f, n.d), whereas, Merriam Webster dictionary describes it as “an administrative area, division, district or a broad geographic area distinguished by similar features” (M-W e, n.d). Hence, a region in an architectural context can be understood as an area or territory having definable features but not having secure boundaries. According to Canizaro (2007), in architecture, regionalism commonly refers to the formation of connections between new works and pre-existing local and regional characteristics. This process of response is quite straightforward, and sometimes regionalism is minimally interpreted as a response to local climatic conditions or specific topography.

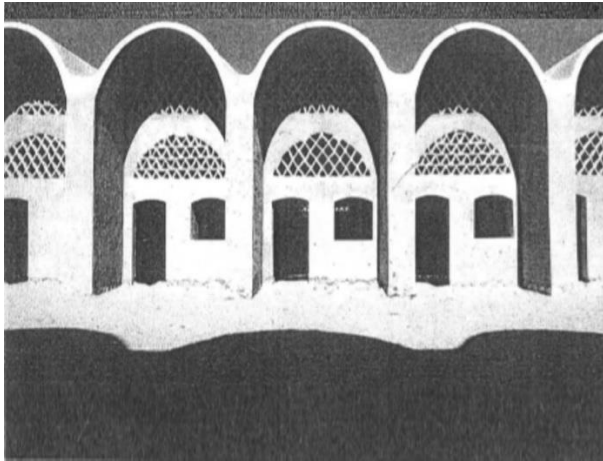
According to Harris (1958), when the adjective ‘regional’ is attached to the word ‘architecture’ implies that there is something special about the architecture of a particular locality, something that occurs nowhere else. “Regionalism in architecture is about the context and customs of making buildings in a particular region having specific knowledge of the climate, geology, geography and topography of the region. ‘Regionalism’ refers to an architecture of local characteristics (...) prompted by climate and available materials” (Drexler, 1979, p. 18). Whereas in another argument it is stated that, “A region’s most important resource is its people and not its climate, its topography, nor the particular kind of sticks and stones it has to build with. It is the people’s mind that creates the intellectual ferment necessary for greatness” (Harris, 1978, p. 11). Drexler gives importance to the tangible aspects of context, climate, geology and geography, whereas Harris gives importance to the intangible factors that include people and their views towards a specific region, giving more importance to the people and considering them the most vital mean.



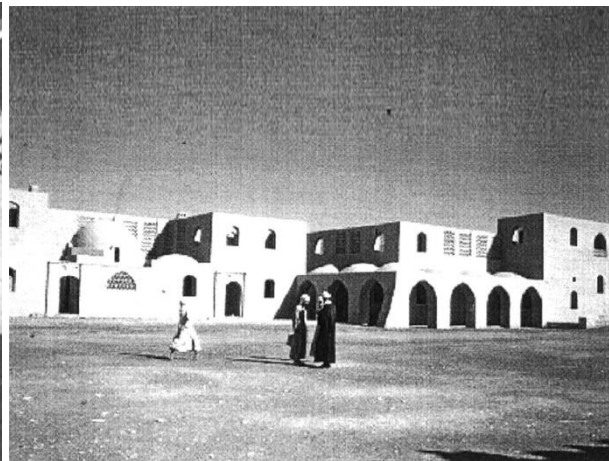
A - Al-Nasr House, Fayum, 1945.



B - Stopplaere House, Luxor, 1950.



C - New Bariz Market Courtyard (1964-1967)



D - New Gourni village (1945-1948)

Figure 2. Hasan Fathy Projects - examples of regional architecture (El-Shorbagy, 2001).

Regionalism is developed by architects relating their designs and taking direct influences from the region. "Regionalism in architecture is about the context and customs of making buildings in a particular region having specific knowledge of the climate, geology, geography and topography of the region" (Canizaro, 2007, p.16). According to Soha Ozkan, the regionalist approach identifies the vernacular modes of building. Even though it covers such a wide array of attitudes. Regionalism has respect for the local culture, climate, and technology, at its core.

"The most important contributor to conservative vernacularism is Hassan Fathy a regionalist architect. He devoted more than half a century of his professional life to bringing back the vernacular mode, a building tradition in danger of extinction due to massive post-world war II building activity" (Ozkan, 1985, p. 18). "The most important contribution of Fathy to twentieth-century architecture probably lies in his commitment to regionalism. He pulled together a collection of traditional positions and tendencies towards

vernacular forms as well as a celebration of local materials and methods of construction” (Shorbagy, 2001, p. 180). Mito (1990) analysed Fathy's vocabulary, but the main objective of his thesis was a comparison between Fathy and the Indian architect Balkrishna Doshi's approaches towards vernacular architecture. He considered the two architects as the two most prolific regional architects in the context of modern architecture.

According to Lewis Mumford (1928), regionalism suggests a cure for many current ills. Its production is focused in the region, enhancing the local life, cultural and practical activities, while when architecture is not connected with context and dedicated to archaic or abstract schemes even the finest solutions seem out of place and meaningless.

Critical Regionalism

According to Amirjani (2018), it can be argued that the rise of Regionalism planted the seeds of Critical-Regionalism. Regionalism stood against the international style and forces of the post-WWII era of modern architecture. “The term critical regionalism first appeared in print during the early 1980s, in essays by Alexander Tzonis, Liana Lefaiver, and, a little later, Kenneth Frampton. These describe a type of recent architecture that engaged its particular geographical and cultural circumstances in deliberate, subtle, and vaguely politicized ways.” (Eggeneer, 2002, p. 28). Regionalism differs from critical regionalism in the sense that critical regionalism was an intellectual construct to counter the modernist and post modernist's lack of identity and disregard of context (Lefaiver & Tzonis, 2003). Critical Regionalism usually refers specifically to the character and not appearance as proposed by Kenneth Frampton in his essay. It's more useful when considered as a practice (a way of thinking and making based on local culture and economics) than a retroactive category applied to things in the same place that has typological or visual similarity. Frampton (1983) thought it had political potential that might allow geographically based cultures to resist the supposedly standardising forces of global resources.

The main task of Critical Regionalism, according to Lefaiver and Tzonis, is “to rethink architecture through the concept of region.” Critical Regionalism differs from Regionalism because it “does not support the emancipation of a regional group nor does it set up one group against another” (Tzonis, Lefaivre 1990, p. 31). For Critical Regionalists, a region/place does not coincide with a nation or a territory of an ethnic group but it is mindful of local potentials. As Tzonis says in *Critical Regionalism, Architecture and Identity in a Globalized World*, critical regionalists are “opposed to mindlessly adopting the narcissistic dogmas in the name of universality, leading to environments that are economically costly and ecologically destructive to the human community” (Tzonis, Lefaivre 2003, p. 20). Richard Ingersoll puts it as “The architectural theory of Critical Regionalism is intended as an alternative to both the dehumanizing aspect of modernism and the kitsch of postmodernism. It is a laudable attempt to reverse the trend of placelessness by mass culture, and at the same time, it resists the simulations, the pseudo-places, of vernacular and historic revivals” (Ingersoll, 1991, p. 235). In the studies of Eggeneer (2002), Speck (1987), Ozkan (1985) and Framton (1987) it is seen that Alvar Aalto, Mario Botta, Alvaro Siza, Richard Neutra, Luis Barragan & Tadao Ando are amongst some of the architects who have achieved the work of delicate sensitivity and critical relevance.



A. Quadra San Cristóbal e Fonte dos Amantes (Luis Barragán), B. Saynatsalo Town Hall (Alvar Aalto).



C. Malagueira Housing Evora (Alvaro Siza), D. Santa Maria Degli Angeli Switzerland (Mario Botta).

Figure 3. Examples of Critical Regionalism (Photo Source: Archdaily).

“Critical regionalism self-consciously seeks to deconstruct universal modernism in terms of values and images which are locally cultivated, while at the same time adulterating these autochthonous elements with paradigms drawn from alien sources” (Frampton, 1983). “Critical Regionalism does not intend to revisit history or dwell in the past, but to find a middle ground between two extremes” (Zeini, 2017, p. 1). The term critical regionalism has raised several arguments in the field of architecture. Critical Regionalism has provided a counter and argue on the idea of the international design, that every building can be placed anywhere. Critical regionalism provides the idea that every region has specific characteristics and that could serve in the architecture while deciding form function and efficiency. Each region provides different materials and techniques and that can be used while designing and these elements combined with modern methods and contemporary language can be bases for a strong architecture language grounded on regional architecture.

1.3 Critique of Contextual Approach:

Contextual design approaches have been countered by renowned international modern and contemporary architects. Walter Gropius, the conformed German modernist, supported this attitude, being persistently against allowing the study of traditional architecture to influence the theory of modern design (Collins 1965a, p. 35). He asserted that the study of the history of architecture does not contribute to the evolution of a contemporary theory of architecture. He also stated that "when the innocent beginner is introduced to the great achievements of the past, he may too easily be discouraged from trying to create for himself" (Collins 1965b, p. 2).

The statement from Rem Koolhaas has also been used as the defence against anti contextual approach "As their protagonist, Koolhaas 'fuck context' statement shows, architects, when they become agents of global neoliberalism, can ignore contextual concerns since the purpose of their pragmatism is to allow them to operate in different territories under contradictory political regimes and social conditions" (Daglioglu, 2015, p. 270). Architects have tried to move away from the contextual approaches to show their signature style. Many a time while the projects have created international fame and they have bought success and fame for the countries they have been built in. Guggenheim Bilbao is an example of star architecture that has bought the new identity to a rundown industrial city and made it a global tourism destination (Moore, 2017). "It was long debated and acknowledged that the building became a symbol of urban regeneration and a landmark for the host city, in the same time reference to 'Bilbao effect' or 'wow factor'. The building in the case reached the socio-cultural and economic landmark status at the community level and was invested with brand value and due to public interest and media coverage became a magnet for tourists" (Niculae, 2016, p.69). "Frank Gehry and his curved surfaces, Daniel Libeskind and his angular forms, the late Zaha Hadid and her fluid volumes are examples of brands with a focus on creating easily identifiable shapes" (Misirllisoy, 2017, p. 208). Damla Misirllisoy (2017) argues that the local authorities permit these interventions by ignoring international and local preservation standards and charters since these iconic buildings become part of a city's brand.

International architects have seldom gone against the contextual design approaches and ignoring the international heritage charters but sometimes the results produced have had to consolidate impacts on the economy and identity of the region. According to a report by *Economist* (2018) "Visitors' spending in Bilbao in the first three years after the museum opened raised over €100m (\$110m) in taxes for the regional government, enough to recoup the construction costs and leave something over. Last year more than 1m people visited the museum, at least half of them from abroad. This was the third-highest number ever, so the building continues to attract visitors even though the collection on display is modest".

Niculae (2016) argues that high-rated and famous architects are working as individualistic, socially insensitive, unethical and destructive designers, hence, cutting off from the contextual inspirations. "The legacy of 'Bilbao effect', a successful 90s urban development concept, lingers nowadays reinterpreted in other geographical contexts. The era of starchitecture is being challenged though by the socially responsible architecture representing the public interest and raising awareness about environmental

issues” (Niculae, 2016, p. 72). Starchitecture has the global impact advantage but doesn’t resonate with a local identity, culture or regional practices. The contemporary architecture solutions should respect the context and there should be an aim to tackle social issues within a global society.

1.4 Built Environment:

According to Oxford Dictionary, man-made structures, features and facilities are viewed collectively as an environment in which people live and work (O-D g, n.d). Environment comes from the French word *environ* meaning ‘around’ environment, in its most basic meaning, is “that which surrounds” (M-W g, n.d). Roof and Oleru (2008) describe that the built environment is a manmade surrounding and it includes locations and areas where the human activities take place, they can range from constructed buildings and all of its supporting elements that also include roads, parks etc. Hence, a built environment is a man-made space where people dwell, work and recreate daily.

The term built-environment contrasts with the natural environment. “The built environment refers to human-made resources and infrastructure designed to support human activity, such as buildings, roads, parks, and other amenities” (UNESCO, 2011, p. 6). The precise boundaries of the Built Environment when considering it as a subject are not fixed but Griffiths (2004) has described it as a subject that is based on practice and is concerned with the design, management and development of the structures, spaces and places. The *UK Research Assessment Exercise sub-panel* explains the built environment as a field that encapsulates engineering, construction, architecture, building sciences urbanism and landscape design (HEFCE 2005).

According to Holford (1965), the fundamental process in the range of activities that produce the built environment can be generally defined as architectural, it compromises the numeral construction activities and developmental methods defined in such a way to produce harmony and meaning. Halford further emphasises that architects perform the function of artists by helping and changing the impartial thing ‘the environs’ into something with character and personality and becomes an environment. This suggests that architecture that is the process of human activity and created by human interventions is fundamental for the production of man-made environments, particularly the city. In this research, the term ‘built environment’ and historical built environment will be considered as the architecture produced over time and the course of centuries by different generations.

Urban Context

As per the Oxford dictionary, the term Urban originated in early 17th century and comes from the Latin word ‘Urbanus, urbs’ meaning ‘city’ (O-D h, n.d). According to the Merriam-Webster dictionary urban means relating to a city, characteristic of the city, or constituting a city (M-W g, n.d). The *United Nations Statistics Division* defines an Urban area as a human settlement that has a high population density, Urban

areas are then considered accordingly in each country. Urban areas have an infrastructure of the built environment and they are created through urbanisation and are categorised by urban morphology as cities, towns, or suburbs. (UNSTAT, 2005). The term contrasts with rural areas such as villages and settlements in the study of urbanism. An urban setting can be defined broadly based on population density, the concentration of administrative bodies, infrastructure, a diverse set of livelihood and income generation activities (CEUP, 2013).

Urban areas are created and made with the contribution of numerous entities, “our cities are the product of the actions of the countless individuals and groups. It is, therefore compulsory on all engaged in this long collective process of urban design to appreciate and understand the forces which have formed the environment and to distinguish clearly those structures which give direction to future development” (Moughtin et al, 1999, p. 30). Hence, the inputs provided by all the different groups are considered and have a special value in urban development, growth and design process. In the research of Ozaslan (1995), she talks about the city and architecture being inseparable entities. Therefore, whenever we talk about the city, it always falls into the territory of architecture. The architecture includes not only the production of a city, which is an intricate form of the built environment, but its task is also to design man’s environment. Production of the city is dependent on the condition of man's intellect, as well as his manual skills. Therefore, it can be said that the city in the sense of its urban form is produced by architectural design. Robinson et al., provides a similar insight where he writes that the “(...) cities and civilizations are indelibly linked: cities are nodes which connect many different places, enabling large-scale interdependence. Additionally, they are the major locals of social change where new forms of working and housing are continually invented and reinvented to create new dynamic and expansive worlds of human activity” (Robinson et al, 2016, p. 5).

Rossi thinks of the city as “(...) the locus of the collective memory. This relationship between the locus and the citizenry then becomes the city’s predominant image, both of architecture and landscape and as certain artefacts become part of its memory, new ones emerge. In this entirely positive sense, great ideas flow through the history of the city and give shape to it” (Rossi, 1982, p. 130). Hence Rossi’s approach is to see the city as a place where events occur that create the image and become part of a memory which eventually lead to the construction of the city, providing it with the shape, structure and character. He considers the city as a product of architecture that has been built over time and considers it as an artefact like all the great works of art. “The urban phenomenon appears to be one of the most important features of man's civilisation throughout history. Although contemporary civilisation faces a higher of urbanisation than previously known, the phenomenon of the city always had an important place in man's civilisation” (Ozaslan, 1995, p. 121). Aldo Rossi considers that the “city is an object of nature and a subject of culture” (Rossi 1982, p. 33). Spiro Kostof (1991) also shares similar views and considers the city and urban form as a matter of architecture, with considerations of time, place and social parameters and thinks that these elements are the inseparable parts of the urban place. Wang (2012) also shares similar views that historical sites and urban areas portray the memory of a city, and the overall landscape created by the historical fabric display the scene of the city in a certain historical period. Therefore, it can be said that city, urban form and architecture are inseparable entities.

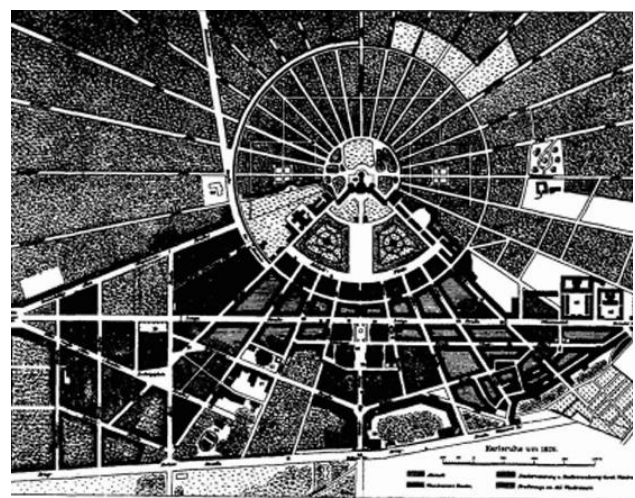
Thus cities, through their unique connections, sizes and densities, provide prospects for people to innovate and adapt their living, they are always in relationship with many other places around them namely suburbs, villages and towns and are always interconnected with the surrounding environment. Cities can be categorised into organic and planned cities, they can also be the amalgamation of organic and planned.

Organic and Planned city

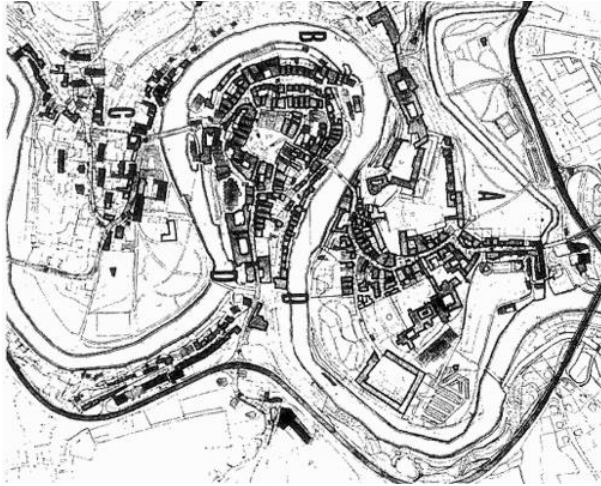
Throughout history, from ancient times to contemporary day and age, cities have been categorized into two types.

1. Cities that grow naturally or organically.
2. Cities that are planned or have artificial growth.

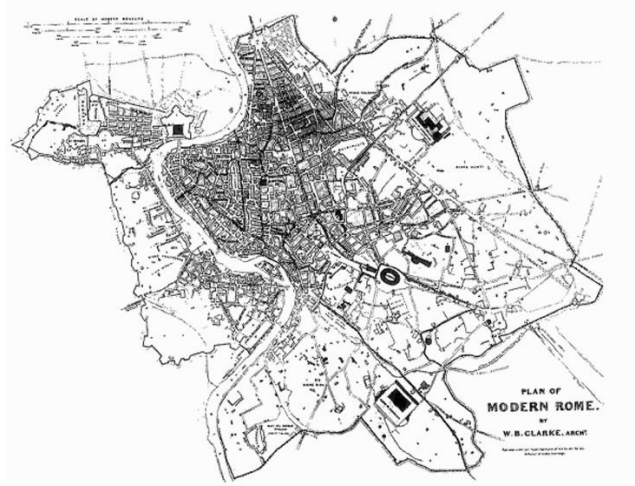
The distinction between these types is diverse and often unclear, and of course, there exists a continuum from organic to planned growth, many if not most towns being formed from elements of both. One of the key differences involves the speed at which cities change, while another relates to the scale of their development (Batty & Longley, 1994). But here one must consider another aspect as Kostof (1991, p. 52) argues, “a seemingly arbitrary form of the city does not prove that they were not planned. But the design was processional, rather than immediate and totalistic, and, therefore, the time parameter is one of the main motivators of its form”. A fine example of this can be the city of Rome which has the planned and organic growth amalgamated with a unified consistency as shown in figure image D. Further emphases are provided in the research of Batty and Longley (1994, p. 9), where it is further stated that organic cities grow slowly and naturally where decisions are made on a smaller scale while the planned cities are the actions of larger agencies.



A. Planned city of Renaissance Palmanova B. Planned circular town: Karlsruhe



C. Medieval organic growth in Cesky Krumlov



D. Organic growth of Rome by early 19th century

Figure 4. Examples of Planned and organic development of cities. (Morris 1979). In the book 'Fractal cities'

Planned cities show a direct impact of human directness that is imposed the straight lines, orthogonal or geometric patterns. Hence, “(...) embodying some sense of man's direct control over nature through technology. Until this century, such planned developments were either parts of larger towns or very small complete towns, more at the scale of the village.

The very first examples of the planned cities can be found in the cities of Mohenjo-Daro and Harrapa along the Indus-valley river, one of the largest settlements of Indus-valley civilization around 2500 B.C. The excavations have revealed the geometrical planning, ordered streets and buildings following grid plans (Kenoyer, 1997, 1998). The remarkable documented legacy of the planned towns was left by the Greek and Roman, largely as there struggle to colonialize the world, amongst one of the initial towns planned on a grid, Miletus and Priene are the fine examples (Alan & Greaves, 2002; Rumscheid, 1998). Another fine example of the early planned town is the Roman military camps also called ‘castra’ that would assemble in hours. These camps enforced a geometrical order on the places where there was no order before. This geometry then was executed on the larger scale imposed on the landscape through straight roads, walls and agricultural cultivation (Roth, 1999). Hence, it can be said that this also gave foundations to the earlier planned cities. The planned cities, in this sense, are set down at one moment according to a determined pattern, which is commonly a geometric diagram. “The pattern can be a grid structure like Miletus or Pirene of ancient Greece or Manhattan in 20th century America; a circle as in Baghdad in the 8th century; or a polygon, like Palmanova in the 16th century Italy” (Ozaslan, 1995, p. 121). “All the important cities of the ancient world, Babylon, Knossos, Mycenae, Athens and of course, Rome, provide much evidence of a well-ordered geometry largely built around the gridiron as a basis for the construction of temples, market places, civic buildings and organized leisure in terms of sport and drama”. (Batty & Longley, 1994, p. 19).

“The organic city has an optimum size: the city is born and, like organisms, comes to maturity” (Moughtin et al. 1999, p. 89). Whereas, unplanned or organic cities developed not according to a master plan but

through time and in parallel with changes in society (Ozaslan, 1995). Batty and Longley further state that, “organic towns when viewed in plan form resemble cell growth, weaving in and out of the landscape, closely following the terrain and other natural features, embodying the technology of movement through main transport routes, like spider webs or tree-like forms focussed on centres which usually contain the origin of growth. Their geometry seems irregular” (1994, p. 8).

“The descent of Europe into its dark and middle ages led to the disappearance of the city of pure geometry. Towns looked inward; their form was compact although irregular and idiosyncratic, buildings huddled around the centre which by now was church and market square (...) the Renaissance, however, was the time of high theory for the city of pure geometry. The rediscovery of the architecture of Greece and Rome through the written works of scholars such as Vitruvius led to massive experimentation and speculation on ideal town forms. (...) Excellent examples date from the replanning of Rome under Pope Sixtus V in the late 16th century, Hausmann's Paris in the mid-19th century, Nash's Regent's Park in London, and L'Enfant's plan for Washington DC which was modified by Ellicott, the last two both being implemented during the early 19th century” (Batty & Longley p. 22).

Figure 4 image A shows the geometrically planned city of Palmanova of the Renaissance built at the end of the 16th century. image B shows one of the best examples of the circular planned town Karlsruhe. Image C shows the Medieval organic growth in Cesky Krumlov. Image D shows the organic growth of Rome by the 18th century, Rome is an example of both planned and unplanned growth also the planned growth in small portions which gives the city an overall organic growth. Among some of the 20th century planned cities are Chandigarh, Brasilia, and Canberra. Islamabad and Chandigarh were planned using an orthogonal grid while Brasilia using an axis. Canberra is designed based on the principles of the garden city, an idea of the garden city movement (Gordon, 2006).

To sum up the difference between the planned and organic cities, it is clear that planned cities look more regular and somehow show the control of man over nature. Historically planned towns have been associated with political, religious power and colonial towns. It is not easy to identify only the organic growth of a city or examples of wholly planned mega cities, these two classes of city planning merge on many scales and different levels.

1.5 Built Heritage:

According to the Oxford dictionary, ‘heritage’ in architecture can be described as “1. Valued objects and qualities such as historic buildings and cultural traditions that have been passed down from previous generations. 2. Denoting or relating to things of special architectural, historical, or natural value that is preserved for the nation” (O-D i, n.d). Merriam Webster dictionary describes heritage as, “property that descends to an heir and something transmitted by or acquired from a predecessor” (M-W h, n.d). Heir and predecessor have a relationship that has to be maintained from generation to generation and built heritage when passes from one generation to the next one, it has marks of each generation embedded onto it.

ICOMOS International Scientific Committee on Conservation Economics described the built heritage “(...) is the capital resources that each generation is born into and it is made up of three kinds:

1. Natural resources.
2. Manmade resources through an investment of the capital applied to natural resources and it consists of movable for example. Furniture, cars and immovable heritage for example. Built environment.
3. Human resources people inhabiting, multiplying on a plane” (ICOMOS, 1993).

“Heritage creates and strengthens social relations, values, and meanings about people's past and present. No wonder it is employed by nations as a powerful instrument to reinforce national identity. Heritage enables people to develop a sense of collective belonging to a nation” (Salazar & Zhu, 2015, p. 241). Historical buildings are the symbols of the past, they draw international attention and there is a significant public interest in these buildings as they are the window to the historical era for any region and its history. Historical buildings and built heritage can consist of castles, religious and cultural buildings down to the small houses. Built heritage also consists of the places or sites where the events of international attention have occurred. “Our traditional architecture has developed in a context whose understanding is of urgent necessity to develop a piece of in-depth knowledge about its development. This period, the era of tradition’, is different from (and before) the modern age, and unknown to us. Without having a valid knowledge of any age, we cannot grasp the architecture of that period” (Borazjani et al, 2018, p. 15). “Historic areas typically exhibit a range of heritage values, such as social, historical, and architectural. Frequently, they also have aesthetic significance; therefore, the design quality of new insertions in a historic area is important” (Macdonalds, 2011, p. 13). “Historic city centres are a core part of European cultural heritage. The majority of these centres are protected under each country’s legislation. In addition to this, many of them have been included in the UNESCO List of World Heritage Sites” (Hernandez et al, 2007, p. 2). Locations of historical events of international down to local significance, particular sites have a significance due to their value and historical centres hold special importance, they are symbols of the past which command growing public interest, preserving the built heritage depend mainly on expert opinion for deciding the range of choice. The responsibility for choice is onerous because experts such as architects and town planners may profoundly disagree amongst themselves about the ‘value’ of the built heritage in its various indicators.

“Particular problems that have to be faced are: (i) the extent to which artefacts should be restored; (ii) whether adaptation should be made for the modern use of the properties; and (iii) the classification of artefacts according to their importance” (Peacock & Rizzo, 2008, p. 4). Heritage experts have been getting the responsibilities for the demarcation and documentation of built heritage, this has generated a public debate. Their recommendations and listings often interfere with the rights of the private properties as they become the historical heritage, this also sometimes becomes difficult for the locals and residents as they have to adjust their daily lives accordingly. Prentice divides the heritage into three categories.

- “Historic and artistic: Examples include relics with physical/tangible characteristics.
- Scientific: This category refers to elements drawn from birds, animals, rocks etc.
- Cultural heritage: Examples include folk, fine arts, traditions, and languages” (Prentice, 1993).

UNESCO in the *Recommendation on the historic urban landscape* defines that urban built heritage comprises of three main categories. These are to

- “1. Monumental heritage of exceptional cultural value.
2. Non-exception heritage elements but present in a coherent way.
3. New urban elements to be considered (for instance): Urban built form; The open space; Urban infrastructures” (UNESCO, 2011, p. 6).

Heritage is a representation of the past, it is inherited by society to pass it on to the next generations, it is also a connection between the past present and future (Lowenthal, 1998; Graham et al., 2000). It is important to create a connection between the past and present, there should be a continuation for the heritage to be presented, preserved and developed for future generations. "The present selects an inheritance from an imagined past for current use and decides what should be passed on to an imagined future" (Tunbridge and Ashworth, 1996, p. 6). Selection of the built heritage is also an important part of the decision making for the present and future development and preservation of built heritage.

“Historic urban fabric is the total representation of urban architecture that has the capacity of creating the urban space and urban life of a particular society. It has guidance on providing the coherence between architectural values and cultural continuity of built environment” (Koca, 2016, pg. 439). Built and cultural heritage produces a series of economic effects, hence, producing a direct impact on the cultural sector itself that includes employment, income, production, etc. and secondary impacts in other related sectors that include finance construction tourism transport etc. The cultural factor is being used more and more as a medium of urban transformation and as an element to attract economic activities and new residents, undoubtedly, this set of effects establishes physical determinants on the strategies of economic development of any area (Herrero et al., 2006).

Urban conditions may change with the changing circumstances of the modern world, but the core of the historical urban fabric and built heritage lies in the architectural elements, synchronicity and pattern of the structures produced in different centuries. With quick urbanisation, unrestrained changes and development, there is a grave danger to the authentic character and historic urban heritage, therefore preservation of the historical fabric and the flexible solutions of contemporary design and forms have to be studied in depth to come up with the appropriate solutions and approaches.

Tourism and Built Heritage

Silberberg defines heritage and cultural tourism as visits by persons from outside the host community, driven wholly or in part by curiosity in the historical, artistic, scientific or lifestyle/heritage offerings of a community, region, group or institutions (Silberberg, 1995). There has been significant growth in cultural tourism, over last two decades there has been a significant boom which is constantly growing, “total international arrivals in 2018 are 1,326 million with Europe sharing 51% of the tourists counting 672 million an increase of 7% from last year and bringing in a revenue of 519 billion US Dollars” (UNTWO, 2018). An estimated one-third of all international tourism is related to visiting cultural heritage sites, monuments, and landscapes (UNWTO, 2009). One of the recent phenomena that have been seen is the inscription of

the property as the World Heritage Site by UNESCO results in the arrival of big numbers of tourists, increasing number of opportunities for the public sector, infrastructure and helps promote culture and heritage, however, the negative impacts can include a contribution to overcrowding, traffic congestion, increased cost of living and crime rate (Su & Wall, 2014; Latkova & Vogt, 2012). The major role for the selection of the world heritage sites is played by the official advisory bodies of the International Council on Monuments and Sites (ICOMOS) and the International Union (IUCN) for the Conservation of Nature and Natural Resources in measuring and articulating concerns about sustainability and tourism through an analysis of their assessments of over 800 cultural and natural sites nominated for inscription on the World Heritage List (Schmutz & Elliott).

Heritage sites are seen as an economic asset by the tourism authorities and tourism industry, whereas according to the heritage sector heritage is used as a marketing tool and hence cultural values are getting compromised in this process (Avrami, et al. 2000; Diekman & Gilliot, 2010). Heritage administration authorities find cultural properties of intrinsic value related to community and identity while tourism investors focus on the economic standards, whereas, the heritage administration is interested in the architectural and historical values and do not search for the improvement of the numbers of visitors or promotion (Page & Hall, 2002). However, according to Andereck et al. (2017) tourism cannot be sustained without the backing of local community members, this support depends upon the awareness of the tourism development and how it will impact their communities.

Heritage tourism provides financial development opportunities, preservation of heritage, provides growth including increased jobs, revenues and additional incomes. It also is an effective way to revive the economy (Cheng & Pei, 2010). "Cities are the most important component of cultural tourism in Europe. Visitor influx tends to be concentrated in urban centres, which overlap unevenly with historic centres" (Hernandez et al, 2007, p. 2). Heritage and cultural tourism have developed a lot over the past decades. It is a complex term, that exhibits a wide range of meanings and, therefore, it is not uncommon to find sometimes differentiated views on it. For the cultural and heritage tourism, few voices from the locals have separated views while there are documented positive influences of the tourism that are associate with the built heritage that impacts the positive growth of the economy and job sector. (Deepak, 2010). According to Silberberg (1995) cultural and heritage tourism is a tool of economic development that provides economic growth through attracting visitors from other territories. Tourism can assist in the promotion of cultural identity, preservation and revival of traditional arts and encourages the local community to be proud of their culture (Tovar & Lockwood 2008).

Therefore, it can be said that the researchers have found that there are both pros and cons of the cultural and heritage tourism residents, some of the negative aspects are increased cost of living, food and increased traffic these can be managed with the proper policy-making and administrative regulation but the pros of built and cultural heritage accede in numbers and hence, the growth of heritage and cultural tourism is proving to be a positive point for the heritage, traditional architecture and portraying the cultural values of a region internationally.

1.6 Urban Regeneration:

Urban regeneration plays an important role in the restoration, renovation, renewal and development of the historical urban fabric. Different authors have defined urban regeneration differently: Jones and Evans (2013: p. 2) describe it as “The large scale process of adapting the built environment”, according to Robert (2000, p. 17) it is “(...) comprehensive and integrated vision and action which leads to the resolution of urban problems”, whereas, Weaver (2001, p. 2) describe urban regeneration as, “(...) the attempt to reverse that decline by both improving the physical structure, and, more importantly, and elusively, the economy of those areas”. What does urban regeneration mean, what sort of interventions and policies that this term might include is not straightforward? At the widest level, it has been applied to any significant intervention improving rundown urban areas and is roughly identical with terms such as ‘urban renewal’ and ‘urban revitalization’. Urban regeneration can further be described as a “(...) comprehensive and integrated vision and action, which leads to the resolution of urban problems, which seeks to bring about a lasting improvement in the economic, physical, social and environmental condition of an area that has been subject to change” (Roberts, 2000, p. 17).

City branding and urban regeneration are made up of multiple steps and processes that involve public and private institutes, the purpose of these organisations is to sell the local image to bring in international investments, tourism and business. There are two main reasons for doing so to generate attractive finances, creating jobs and developing the local economy. Whereas, these actions also make the locals understand the importance of urban projects and developments (Philo & Kearens, 1993, Sklair; 2010; Jencks; 2005; Saunders; 2005).

From its emergence as a distinct policy field in the 1970s to today, urban regeneration has come to signify that field of public policy that deals with the regrowth of economic activity, the restoration of social function or social inclusion and the re-establishment of environmental quality in vicinities in which those elements have deteriorated (Couch and Fraser 2003). McCarthy highlights that there is a particular need for an understanding of the root cause of the problems for the process for the urban-regeneration, the study of the economic and social declines of the city is significant to come up with the appropriate responses and policies for these issues. From the 1960s onwards the policies and programs were initiated that started addressing socially and economically deprived inner-city areas. There is a need for additional attention towards the urban-regeneration for the transformation of the living and working spaces in a suitable way (McCarthy 2007). At the core of the urban-regeneration, it is important to understand the reasons for the economic decline of a locality along with the social and environmental problems to more effectively address the issues of that area. Challenged and declined urban areas need special attention and the results are often the resilient buildings, the strategies to do so include both the physical and social advantages for the transformation of areas into more attractive and liveable neighbourhoods as well as turning around the negative tendency experiences in these areas. According to Schuurmans et al., (2018), the improvement projects that include renovations of run-down urban areas pose a challenge of the energy renovation as well, which if combined with other factors, not only improves the quality of the citizens to

live a better more sustainable life but also provide an opportunity to reduce health and social problems of the society.

Famous international architects also known as star architects have made significant contributions in urban renovations in the last two decades, they have used the urban-regeneration as a marketing tool for new projects to re-imagine the decaying and declining cities (Sorkin, 2005). There have been successful urban regeneration projects around the world and architects have played a major role by introducing a key part of the plan which has helped in bringing attention to the city. There is a need for harmonising the key strategies to bring the experts on the subject on the same page for better execution of these projects.

Urban Regeneration as City Branding Strategy

Cities around the world are using urban regeneration as a city branding strategy. According to Kravartziz & Ashworth (2005), European cities especially apply the concept and techniques of city branding as a policy for place marketing. Urban regeneration and city branding has become international phenomena and cities all around the globe are applying city branding to achieve their economic, touristic and cultural objectives, “the very purpose of city branding through commissioning signature architecture is increasing economic and political power of cities. (...) In a discussion regarding star architects and an accelerating international trend of commissioning signature architecture has been seen” (Zaroga & Samic, 2014: p. 273). “City leaders, anxious to secure global status for their city in an increasingly competitive world, have turned to these international celebrity architects to create new iconic landmarks to put their city on the map. For example, Frank Gehry’s brief for the Guggenheim Museum (1993–97) was to do for Bilbao what the Sydney Opera House did for Sydney.” (Macdonalds, 2011, p. 14). This vision, particularly adopted by cities deeply affected by the disappearance of industries, has its origin in the ‘Bilbao effect’. “The building of the Guggenheim museum in Bilbao as part of a wider urban renewal project represented a turning point” (Patachi, 2015, p. 356). “The most optimistic forecasts were that the Guggenheim would get half a million visitors a year. It opened in 1997 and in 1998 it got 1.4 million visitors. According to official figures, the project paid for itself in just two years. The museum has benefited the city, turning Bilbao into a world-class tourist destination overnight. Bilbao became a benchmark for others” (Moix, 2010, p. 38). This strategy has worked for the city and brought further large scale transformations and now the city is one of the major tourist destinations. “Since the quality of the architecture and places are often supposed to be crucial for attracting local and global investments and final users, for generating a new identity of place and for the success of the intervention over time, star architects tend to be highly considered and paid” (Ponzini, 2014, p. 11).

According to Muratovski (2011), the city branding should not be focused on ‘selling’ the city, but on enhancing the status of the city and the lives of its inhabitants, which means taking into account social, cultural, political and economic environments and practices. While Bernard Tschumi thinks that urban regeneration projects often push the project brief and in many cases architectural aesthetics are overwhelming for them to become regeneration projects and pushed the architectural aesthetics to become more remarkable for public attention, to have a strong impact on the mass media (Tschumi, 1994). Urban renewal projects are good for the cities the moderate to large-scale urban design projects are aimed

to improve conditions of the cities on multiple levels by improving social, economic and infrastructure of the area, and not only focus on the single objective of physical urban renewal. The projects that aim to regenerate inner cities are planned as a series of unified activities in which the increase of employment levels is interlinked with sustainable improvement in general (Moughtin et al. 1999).

Therefore, urban regeneration projects are aimed not only to improve the existing urban conditions of the area but come with additional aims and goals to strengthen the city in economic and social sectors. Urban regeneration projects can be a big scheme in totality, or small schemes combined to slowly regenerate the urban area.

Identity Through Design

According to Norbert Schultz (1980), the identity of a city is constructed over time and involves multiple factors, it is also called '*genius loci*' or the distinctive spirit of a place. The architecture of the city is what defines the community and presents insight into the culture. Zohreh and Brehman define architecture as being "(...) part of the identity of each community and carries the message, concept, and characteristics attributed to the community where it was born. Therefore, it depends on the geography, traditions, manners, insights and knowledge of the community as well as its history" (2013, p. 107). According to Salman (2018) throughout history, human civilization has evolved and kept its continuation through integration with the surrounding environment and is dependent on the preservation of nature. Over time and the multifaceted interaction of evolution and human adaptability to the ambient environment, every place and region developed unique characteristics that distinguished it from other places, that is, the core of identity. "Historical identity is related to the collective memory of the inhabitants (monuments, landmarks, events taken place in the city" (Demiri, 2013, p. 45). "The historical centre, as a public space, is a symbolic space because it possesses a heritage of symbols which generate multiple, collective and simultaneous identities" (Carrion, 2005, p. 7). According to Nooraddin, "Architectural identity of a particular local culture represents a living landscape with a common sense of place that is produced by the community's accumulated efforts over time to contain meanings and way of life that form the national architectural identity" (2012, p. 82). The construction of a city's identity happens over time, it consists of jointly shared perceptions about a city's continued "character" or "ethos" (Bell & de-Shalit, p. 2011). Thus historical cities develop their character and identity over time and Kostof warns that when a city's historical fabric or iconic buildings when they are destroyed as a part of urban renewal, war or other causes, the part of a city identity is erased and becomes a loss of historical memory (Kostof, 2005). Kevin Lynch (1960), in his book *Image of the City*, describes that the city identity elements can be created by the following elements: paths, edges, districts, nodes and landmarks, suggesting that the infrastructure and the buildings and local structure of the city are the main aspects of the city's identity. Buildings include the historical structure and the infrastructure into public spaces, open and functional spaces, residential commercial and service spaces.

Another type of identity is provided by the specific landmarks, as Kevin Lynch describes landmarks as the point of references to be considered externally by the observer “(...) are simple physical elements which may vary widely in scale. There seemed to be a tendency for those more familiar with a city to rely increasingly on systems of landmarks for their guides—to enjoy uniqueness and specialization, in place of the continuities used earlier. Since the use of landmarks involves the singling out of one element from a host of possibilities, the key physical characteristic of this class is a singularity, some aspect that is unique or memorable in the context” (Lynch, 1960, p. 78). Landmarks become more easily recognisable, they are of more significance when they have a clear form, contrasting to background or due to their position in the location they are, figure background relationships are a very important part to determine the landmarks and their impact. “The value of architectural identity is easily tested. The Eiffel Tower, the Sydney Opera House and the Empire State Building are three of the most visited buildings in the world, together attracting over 20 million paying visitors each year. Do they define the identity of Paris, Sydney and New York? Yes, they do. They are now cultural ambassadors for France, Australia and the USA” (W & M, 2017). Individual buildings can also become the icons of the city and portray an identity “In terms of the built topography, buildings can become iconic for a city, such as Arc de Triomphe, Notre Dame Cathedral and Eiffel Tower for Paris, encapsulating the city’s key” (Jones & Svejenova, 2017). Thus, it can be said that the identity of the city or a country can be created by individual buildings, architectural design and monuments designed carefully with specific concepts and ideologies.

1.7 Contemporary Architecture in Historical-Context:

The value of historic architecture can be understood in terms of its heritage, cultural and traditional roots. Every designed project or a built form has an expression that is transmitted through its multiple architectural layers. There is a historical value of the time and every project that is built serves a specific purpose and represents that era and time. UNESCO defines heritage as “our legacy from the past, what we live with today, and what we pass on to future generations” (UNESCO, 2007). Understanding this notion, one comes to know, that we inherit a place and learn from the achievements of the past, put in our share and then pass the knowledge on to the next generation. “Cities, both through their administration and citizens, are in a run for responding to global trends and, sooner or later, to the contemporary needs of its inhabitants. The importance of keeping up to date means constantly refreshing cities to understand the resources they have to work with and the needs they have to supply. These changes are not innocent or spontaneous; on the contrary, they respond to and reflect the wishes of actors and agencies” (Madgin, 2010, p. 29). If the new proposed design solutions are reflected and derived from the context, the conversation between old and new creates a thought-provoking phenomenon. “Our cities would be experientially rich and meaningful if the places and spaces within them were not impositions but responses to the rich culture of the people within them” (Deo, 2016).

There are many recommendations and charters available that guide architects, planners and designers to design in the historical urban fabric. “New construction, such as an addition to a historic building, a separate building or an infill, is a contemporary intervention that will inevitably induce change in the urban environment. Whether that change will be positive or negative depends, to some extent, on the guidance available for applicants and evaluators who respectively submit and review new project proposals” (Khalaf, 2015, p. 77). These guidelines are available for the architects and designers that can help in different stages of the project. “The new intervention project’s success in a historic context depends on the prior assessment and the designer’s sensitivity toward the context, but it is not guaranteed. The context’s prior assessment is supported and guided by the international instruments of conservation policies (Paun, 2016, p. 196). Conservation policies have been developed over time in different formats that include recommendations, declarations, charters, guidelines and other documents written by experts and conservationists of the historical environment. International conservation policies have improved over time with the attention paid to the issue of new construction by the concerned authorities and group of experts and now there are over 50 different charters and guidelines available in the online archives of ICOMOS and UNESCO that can be consulted while designing in the historical context. “The degree of application and contrast in building features to achieve visual harmony is an issue that experts and public involving with it are concerned when discussing about new infill design in historical context. For designing in historical context, an important aspect is considering the contextual design approach” (Sotoudeh & Abdullah, 2013, p. 1286). The international heritage charters, recommendations and guidelines prefer and endorse the contextual approaches, there are many international groups and prominent architects that share the opposite point of view. Star Architects have started a phenomenon for the landmark buildings and iconic forms, they strive to leave their signature on every building that they design and take very little from the context that it sits in. “Landmarks become more easily identifiable, more significant, if they have an innovative form, if they contrast with their background, and if there is some prominence of spatial location” (Barranha, 2009, p. 7).

Changes in Historical Context

A building goes through multiple changes over a period of time, most often it’s the internal layouts of the buildings that are changed, the changes to the finishes and materials, however, these changes have to be considered in a way that they do not compromise on the integrity of the building (Orbasli, 2008). Cities are settled, built, developed and urbanised over time, “architecture is timeless, but buildings cohabit periodically in the territory. New and old relationship is an ample debate in historic area architecture intervention discourse” (Paun, 2016, p. 195). “The problems of the interrelation between the new and old architecture in the urban fabric are crucial in all cities, which represent physically the combination of the historical part of corridor streets, grid organisation of the roads, squares, green public spaces, free-standing public buildings and buildings articulated in a line with the main facade” (Demiri, 2013, p. 44). Change is a constant, it is impossible to prevent change, however, it is important to reorganise in a manner that gives importance to unity and wholeness. In a historically significant structural changes have to be proposed very carefully, unnecessary innovation and extreme conservative methods can damage the city’s historic

continuousness and harmony (Groat, 1988). Hence, the development as the continued improvement and preservation to maintain a relationship should be integrated cohesively. "Preserving the identity and special characteristics of a place requires an in-depth understanding of the natural systems in place and immersion into the time-tested cultural responses to that environment's assets and liabilities, which contain the essence of sustainability (Salman, 2018, p. 8).

"A critical issue facing decision-makers and conservation professionals is accommodating change to heritage places and adding new layers to the historic urban environment in ways that recognize, interpret, and sustain their heritage values. Over the last decade, a vigorous debate has ensued regarding the appropriateness of contemporary architectural insertions into historic urban areas. This debate has polarized sectors of the architectural community, pitting conservationists against planners and developers. It has positioned conservationists as antidevelopment and anti-progress, responsible for stifling the creativity of a new generation of architects and their right to the contemporary architectural expression" (Mcdonald, 2011, p. 13). This statement by Mcdonald sums up the current situation of the historical preservation and challenges faced by architects, developers, planners and city authorities around the world. "The adaptability of the historical setting to 'changes', i.e. to new technologies, new socio-economical standards and life cultures is a necessity for the vitality of it. Introduction of the new buildings is actually one aspect of change but also it is the reflection of changes in many cases on the architecture of the city" (Bilgic, 2007, p. 7). It is the quality of the new building in the historical context a factor that determines if the new form is enriching the existing context or deteriorating it. According to Costa (2006), historical centres are spaces that maintain the memory, identity and values of a society, they are a cultural asset with a high potential to give leverage to and assist local development, then it is not just the question of preservation but also the urban planning issue where the new terms of reconstruction, renewal, revitalisation which make possible the social, economic and cultural resurrection of these spaces.

Design approaches in a Historic Context

"Whether new construction should look like or differ from adjacent historic buildings and structures is one of the most hotly contested battlegrounds in the debate over the reconciliation of heritage conservation and development. Advocates of the traditional outlook fear that contrasting forms will result in the loss of the heritage values and character-defining elements of historical places, whereas advocates of the contemporary outlook fear that similar forms will inhibit design creativity and obstruct the sense of evolution" (Khalaf, 2015, p. 78). According to Schittich (2003), it is a challenge to design in the historical context, when an architect is given a context it imposes a constraint on the designer, there are given restrictions and limits, and hence the solutions can be more creative and fascinating.

"Places that have been identified as being of heritage significance to the community have inherent values. The architect's role is through the creative process: to reveal those values, to interpret them and to sustain the place into the future to create new layers, new life, and, in some cases, achieve the addition of a new level of significance to the place" (Hill, 2004, p. 35). Trystan (1924) has categorised the approaches in his

book *Good and Bad Manners in Architecture* as replication and contrast but has used the terms of “polite” and “rude” in buildings relationships to the surroundings where the more compatible approach to the building is a polite way while the contrasting approach is considered a rude way of dealing with the context. Eleishe (1994) has similar views to Trystan considers two main approaches for designing in a historical context replication and contrast. Brolin (1980) also recommends the two main ideas of either copying the architectural elements literally from the context ‘replication’ or using new forms that can enhance and evoke the visual essence of the buildings. Steven W. Semes (2007) also focuses on the design approaches in the historical context with his approach as “Differentiated and Compatible: Four Strategies for Additions to Historic Settings”. These approaches are further divided into four categories 1) Literal replication, 2) Invention within the same or a related style, 3) Abstract reference, and 4) Intentional opposition.

“Replica and contrast may lead to monotony and confusion - two sides of the same coin, both unwelcome in a city” (Brolin, 1980, p. 139). The strategies that have been defined by Brolin as replica and contrast can be found in the methods designed by concerned and Self-governing attitudes. If we consider the approach proposed by Brolin of the sympathetically designed structures in a historic context, we can further discuss the approaches that are important and innovative while designing with a contextual approach. To go beyond the compatible and contradictory approaches for the solutions of contextual design and the experiments within this process, the skills and personal efforts are amongst the top requirements.

1.8 Concept of Compatible/Harmony (Compliment – Replication)

One of the approaches is to use the same style and materials as the original building, or, to build in the original style. To avoid the physical alterations to the historic buildings, mostly the experts determine that the best and easiest way is to make a new building look like the existing one or to scale it and make it appropriate to the existing structure. However, this approach has many downsides, as Keith Ray says in his book *Contextual Architecture*, it is not necessarily the easiest or the best of the solutions. “Before this practice is employed, the designer must understand the original style very well in order to obtain good results, otherwise it is likely to result in a ‘parody’ of the original style instead of a reproduction. This approach also raises the question of misrepresentation. By adding to a historic building using the same style and design elements it could affect the later interpretation of the building and the understanding of what is really historic and what is not” (Ray, 1980, p. 65).

“To reach ‘compatibility’, new buildings in a historic area should attain a contextual fit with the existing historic built environment and not create any conflict that weaken the local urban identity. In addition, ‘cohesiveness’ can be achieved by creating a homogenous built environment and not fragmented with a myriad of styles. In this way, a coherent urban design pattern would help in strengthening an identity of an area” (Boussaa, 2017, p. 4). Whereas harmony and unity are defined by Lauer and Pantek (1999) as the combination of objects as close to their definitional analogy of integrity as possible, considering it a rule

within art. It is not a coincidence but the composition of elements in a certain way to bring a harmony of objects with each other to make them belong for a certain location. It is further stated that if the relationship is not harmonious and is unrelated or separated will not achieve unity. Under the heading of 'Ways to Achieve Unity', they note that the elements such as shape, texture, colour, direction etc. if repeated can create achieve unity.

Meiss (1990) declares repetition and similarity as the factors for the establishment of unity, whereas, Brolin (1980) on the other hand, argued that there are no guidelines that tell and guide how to design. To achieve visual harmony, integrity and unity in design it is important to build considering the characteristics present within the context, after the analysis of these characteristics it can be decided to build in the similarity or differentiation. Some of the points that have to be considered while creating a new design in harmony with the surroundings include: Set back from the street, spacing from adjoining buildings, Massing: how the main volumes of the building are composed. Approximate height, Facade proportions and directionality, Shape and silhouette, Window and door dispositions, window and door size and proportions, Material, colour and scale. Sotoudeh (2011) also agrees with Brolin and sets out similar guidelines. He mentions that neighbouring building's characters must conform. The particular characteristics that will make a building harmonise with its surroundings or its neighbour's character are defined by Sotoudeh as height, surface covered, mass, scale and proportions, materials and colours to more minute aspects such as details, ornaments and reliefs. "If change is inevitable, then it should be moderated and controlled so as to prevent violent dislocation and regenerate a maximum of continuity with the past" (Lynch, 1972, p. 33).

In the publication of National Trust for Historic Preservation '*Old and New Architecture: A Design Relationship*', the list of suggestions is concerned with compatibility theory are fairly similar. These are used to judge a building as appropriate or inappropriate as well and include scale, proportion, volume, texture, materials, massing, fenestration patterns, height, respect for alignment, colour, as well as the space around a building. A variation fits in with a varied environment and a context of a series of similarities needs similar massing, volume and scale. The greatest chance of achievement of compatibility comes with a combination of all these efforts, beginning with a healthy respect for the site, careful analysis of the existing building or group of buildings, accurate determination of their essential characteristics and the weaving of these data into an uncompromising contemporary design concept (THP, 1980). According to Gehl et al. scale, rhythm, transparency, texture, a mix of functions, and facade rhythms appeal to senses. These ideas are compatibility theory because as a rule. New urban infill construction desires to relate in this way to an existing context. (Gehl, et al., 2004).

1.9 Concept of Distinction, (Contrast – Conflict)

In 1921 Mies Van Der Rohe declared while submitting a design proposal for a historical site in Berlin's Friedrichstrasse "Instead of trying to solve new problems with old forms, we should develop the new forms from the very nature of the new problems" (Hawkes, 2008). According to Mies Van Der Rohe "It is hopeless

to try to use the forms of the past in our architecture. Even the strongest artistic talent must fail in this attempt. Again and again, we see talented architects who fall short because their work is not in tune with their age. In the last analysis, despite their great gifts, they are dilettantes; for it makes no difference how enthusiastically they do the wrong thing. It is a question of essentials. It is not possible to move forward and look backwards; he who lives in the past cannot advance" (MOMA, 1947). "Another approach calls for using a similar or slightly different style. This approach, also known as abstraction" (Ray, 1980, p. 65).

Decision-making

Decision making is the most important part when it comes to building new projects in a significant context. "Understanding the *genius loci* is a good starting point when beginning a study of the site. The sensitive perception of the spirit or nature of a place often provides the key to charting the direction for future developments. Peeling back the layers of history which encrust the modern city reveals the reasons for its present form and function. Knowing how that which is, came to be is a sound basis for future actions" (Moughtin et al, 1999, p. 29). Hence, it can be said that the most vital part is to understand the context, site, area and locality. After knowing the fundamentals about the site, the design process and approach can be initiated accordingly.

Chapter 2

Examination of

International Charters and Standards

Review of international Charters, Memorandums and Guidelines:

For the protection, promotion and prosperity of monumental architecture, architectural heritage, historical sites and built environment, many conferences, symposiums and seminars have been organised and are continuously being organised. The agenda of these events, from the committees and commissions organising them, have been to produce the outlines for the protection and preservations of historical architecture and sites amongst the study and promotion of them.

The international charters, principles and guidelines have been studied and reviewed with the aim that, the gained knowledge will help to develop the framework for the introduction of new buildings in the historically significant built fabric. These principles and guidelines have been transmitted either as charters, resolutions, declarations, recommendations or statements, and drafted and adopted mainly by international organisations such as UNESCO and ICOMOS. The main development of conservation principles started in the 2nd half of the 20th century after the establishment of UNESCO in 1945 and later the establishment of ICOMOS in 1964 (ICOMOS, 2004; UNESCO, n.d). Today, more than 40 documents exist, mainly produced by international organisations such as UNESCO, Council of Europe and ICOMOS, that deal with the main objective of protecting cultural property, which includes historical monuments, buildings, groups of buildings, sites and towns around the globe, against various threats (Ahmed, 2006).

The review of important international charters, memorandums and guidelines on the principles of heritage and conservation is conducted. The criteria applied to the shortlisted charters are concerned with contemporary architecture: the charters that have talked about or given guidelines on the subject of introducing contemporary architecture into the historical fabric.

Finally, the chapter summarises the key terms and points that emerge from literature and builds a framework that can be used in the study of the proposals of the new built forms in a historically significant context.

2.1 1877 SPAB Manifesto

(SPAB, 1877).

One of the most important and earliest documents that can be found on the conservation and protection of built heritage is the *Ancient Building Manifesto 1877* by SPAB (Society of the Protection of Ancient Buildings). SPAB was founded by William Morris, one of the most significant cultural figures related to the Victorian era of Great Britain. The SPAB is one of the oldest and important amenity organisations concerning the preservation of historic places (Wong, 2016; Mehr, 2019; Burman, 2008). The *SPAB manifesto* is written by William Morris and Philip Webb, it emphasised the importance of historical monuments. This charter also emphasises the conservation problems of the 19th century. *SPAB Manifesto* following the establishment of the society emphasised the baseless restoration. It put forwards the following recommendations:

1. To put protection in the place of restoration;
2. Staving off decay by daily care;
3. To raise another building rather than enlarging the old one.

It recommends staving off of the decay by daily care. Protecting buildings of all styles and ages. Built heritage has to be protected and handed down instructive and venerable to future generations. It further recommends that the changes made under the name of restoration and the thought of bringing them back to the best of their appearance in history are not a good solution as it destroys the original and creates a gap between what earlier builders have built. During the process of restoration, when the whole surface of the building is tempered, the appearance of antiquity is taken away from the old parts and fabric of the building. “(...) if it has become inconvenient for its present use, to raise another building rather than alter or enlarge the old one” (Morris, 1877).

The ‘*SPAB approach guideline*’ based on the original Manifesto has the following recommendations (Slocombe, 2019). Regular maintenance of the buildings as some deterioration over time is inevitable thus ‘referring to the stave off decay by daily care’: “Buildings are also likely to age and weather according to the conditions on a particular site, it is not recommended to move the buildings to new locations nor the reduction to only facades” (Slocombe, 2019, p. 11). Repairs are recommended to be carried out on-site to maintain the integrity of the existing fabric. Respect for age and essential work only. Repair, not restoration, and recommendations for conservative repair: “A careful choice of material and using approved methods for conservation only” (Slocombe, 2019, p. 17).

SPAB approach guidelines recommend building a new structure to complement the old. In the guidelines sympathetic alteration, adaptation or extension to old buildings for their usefulness are recognised. “There are occasions, the *SPAB Manifesto* argues, when it may be better to leave an old building unaltered and to build a new one if the adaptation required would involve serious damage” (Slocombe, 2019, p. 19). Further alterations and additions, the Society believes, are best when they complement what exists. “They should not compete unduly with the old building in form or position; nor should they mimic the original or pretend to be historic” (Slocombe, 2019, p. 19). New buildings should fulfil modern needs in a way that respects the

old building's form and context. Hence, the *SPAB manifesto* encouraged the construction of new buildings rather than making an adaptation that would damage the building.

2.2 1883 Carta del Restauro (Charter of Restoration)

(Boito, 1883).

The eight points of the *Charter of Restoration* were presented during the third Congress of Engineers and Architects 1883 in Rome, these were the criteria that were used by the authors of the *Athens Charter* in 1931 (Marzo, 2003; Riverablanco, 2017). They were composed of the following:

“1.- Difference of style between the old and new. 2.- Difference of materials in their fabric. 3.- Suppression of mouldings and decoration in the new parts. 4.- Exhibition of the material parts that have been eliminated in a place next to the restored monument. 5.- Insertion of the date of intervention or display of a conventional sign in the new part. 6.- Descriptive epigraph of the intervention, fixed to the monument. 7.- Description and photographs of the various phases of the works deposited in the monument itself or a nearby public place, or publication of all of them, and 8.- Visibility of the actions carried out” (Boito, 1893 p.24). These points of *Carta del Restauro* are very important as they laid the footprints for the Athens charter which became the foundation for the contemporary charters on the heritage and restoration work.

Importance of 1931 and 1933 Athens Charters:

Architectural Heritage has been put on a national level and as a national concern before these charters. Until the end of the 19th century, many different associations operated in different countries but their interest was never international and remained very limited to the national level (ICOMOS, 2011; Jokilehto, 2007a). Cultural internationalism happened after the World War, the creation of the League of Nations and throughout the Second World War, with the creation of the United Nations and the formation of UNESCO. *1931 Athens Charter* was truly the first international document that was accepted at an intergovernmental level that dealt with policies related to built heritage (Tomaszewski, 2008; Haspel, 2008).

The *1931 Athens charter* was presented in the First International Congress of Architects and Technicians of Historic Monument organised by IMO (International Museums Office). The *Athens Charter 1933* was drafted by Le Corbusier after the fourth assembly of the International Congress on Modern Architecture. Both the charters signify a major step in the development of ideas because they reflected an increasing realisation among specialists around the globe and introduced the concept of International Heritage (ICOMOS, 2011).

2.3 1931 IMO Athens Charter

(IMO, 1931).

The *1931 Athens charter* was prepared by International Museum Office during a conference organised in the year 1931. *IMO* was established after the First World War due to the raising concerns over restoration (Jokilehto, 2007b). It has seven main resolutions, amongst them the recommendations for the establishment of an advisory council for restoration and problems to be solved by legislation at a national level are suggested. It also recommends that proposed projects of restoration are subjected to knowledgeable criticism (IMO, 1931).

The highlighted important articles concerning built heritage are: “Modern techniques and materials may be used in restoration work” (IMO, 1931, Article 5). “Attention should be given to the protection of areas surrounding historic sites” (IMO, 1931, Article 7).

“When, as the result of decay or destruction, restoration appears to be indispensable, it recommends that the historic and artistic work of the past should be respected, without excluding the style of any given period. The conference recommends that the occupation of buildings, which ensures the continuity of their life, should be maintained but that they should be used for a purpose which respects their historic or artistic character” (IMO, 1931, p. 1). This charter is similar to the *SPAB Charter* where it recommends the regular and permanent maintenance over stylistic restoration, hence valuing the styles of all periods (Kim, 2010; Morris 1877). This charter shares a similar view with the *SPAB manifesto* on the idea of regular maintenance.

In the general recommendations, it is mentioned “In the construction of buildings, the character and external aspect of the cities in which they are to be erected should be respected, especially in the neighbourhood of ancient monuments, where the surroundings should be given special consideration” (IMO, 1931, p. 2). Hence, there is an allowance for the new construction as long as it respects the character and external aspects of the cities. The *Athens Charter* further expressed that it was important to preserve heritage buildings in their original location and respect their particular features. Under these conditions, the use of modern advancements such as reinforced concrete was approved to preserve heritage buildings. Regarding ruins and archaeological sites, the fragments and small portions could be replaced and the introduction of new materials was recognised (Iamandi, 1997). Charter emphasises the new materials and techniques to be used in the restoration work. Highlighting the importance of historical sites and the protection to be provided to the surrounding areas around the historic site. The charter recommends that for the continuity of the life of a building should be occupied but this use should respect the historical character of the building. Thus, it can be said that the charter ultimately recommends the adaptive reuse of the heritage buildings and prevention from decay. By expressing ‘the new materials should be recognizable’, the *Athens Charter* reinforces and recommends that the modifications to a heritage building should be identifiable.

2.4 1933 CIAM Athens Charter

(CIAM, 1946). Published in 1946

The Athens Charter is the name given to a document advocating rational principles of town planning that allegedly emerged from C.I.A.M IV, the Fourth Congress of the Congres Internationaux d'Architecture Moderne, held in 1933. CIAM was founded in June 1928 at La Sarraz, Switzerland by 25 prominent European architects as a medium to endorse Modern Architecture (Gold, 1998). The *Athens Charter* was published in 1943 almost 10 years after the conference. The original observations were significantly reworded, as well as adding new, hence it can be said that the charter was largely an expression of Le Corbusier's concerns (Curtis, 1986; Mumford, 2000). Internationally, the manifestation of the modern movement not only in its iconic architecture but also for its urban design, this charter also talks about the historical urban fabric. The main ideas provided in the charter are a decentralised model of a city based on the four main functions of the urban man: to inhabit, to work, to recreate and to circulate (Aun, 2016; Philippou, 2008).

The charter is divided into three parts: 1. City in its regional setting; 2. The four functions of the city; 3. Conclusion. Athens Charter 1933, focused mainly on urban planning, nevertheless, the CIAM congress also included the articles to address historic parts of cities (Curtis, 1986; Mehr, 2019).

The article, 65-70 talks about the historical urban fabric and buildings. "It is recommended that the fine architecture, whether individual buildings or groups of buildings, should be protected from demolition" (CIAM, 1946, Article 65). Here, similar to the 1931 Athens charter, the concern of protection is raised for not only the individual but a group of buildings. The charter further stresses: "The grounds for the preservation of buildings should be that they express an earlier culture and that their pretention is in the public interest" (Article 66). The charter also emphasises the point that preservation should be to make people live in better and improved conditions. One of the important points in Article 68 is to take radical measures "If their present location obstructs developments, radical measures may be called for, such as altering major circulation routes or even shifting existing central districts". This charter allows and gives preference to the demolition of slums to create opportunities for new public spaces (Article 69). Article 70 talks about not using the past styles for the new construction, "The re-use of the past styles of the building for new structures in historic areas under the pretext of aesthetics has disastrous consequences. The continuance or the introduction of such habit in any form should not be tolerated" (Article 70). This is an important point of the charter that recommends not to use past styles for the new building structures. Whereas, the 1931 charter recommends the usage of modern techniques and materials for the restoration work while the character and external aspects of the city are to be respected when constructing the new buildings (IMO, 1931). Charter further recommends not to use the past styles and endorses the design of the time for the construction of the new buildings. Though 1933 charter is more important in the urban design perspective, especially the part that addresses the subject of dealing with the historical architecture and urban centres. The importance of the charter is due to the representation views of the leading modern European architects and contemporaries of the time.

2.5 1964 Venice Charter

(Venice, 1964).

After the 1931 Athens conference, it was not until 1957 that the architectural specialists themselves organized their congress in Paris. The congress recommended seven points, amongst which the creation of the international assembly of architects and specialists for historical buildings and organisation of the symposium for further discussion was suggested and recommended. Congress ended with the invitation for the second congress in Venice. The Venice charter was presented during the 2nd international congress of Architects and Technicians of Historic Monuments, Venice, 1964. It has 16 Articles and a resolution that was put forward to UNESCO for the creation of the International Council on Monuments and Sites (ICOMOS, 2004, p. 20). *Venice charter* is adopted by ICOMOS in 1965. *Venice Charter* of 1964 is specially drafted for the restoration and preservation of monuments, but it also addresses the addition of the new construction in the historical areas (Venice, 1964).

The first 3 articles of the Charter elaborated on the definition of the historical monument: Article 1 defines a historical monument to not only a single building but also the rural and urban setting; Article 2 includes the access to all sciences and techniques which can contribute to the study and safeguarding of the heritage; Article 4 to 8 are addressing the subject of conservation; Article 3 & 4 address why monuments should be conserved; Article 5 recommends that the buildings can be facilitated by usability for social purpose. Article 6 gives the detail about the setting. “No new construction, demolition or modification which would alter the relations of mass and colour must be allowed”. This article gives the impression that the new construction is allowed, but the only consideration is of mass and colour as the emphasis is only placed on them, whereas the other important aspects of a solid void, material, cultural aspects, functionality etc. are not mentioned. Hence, it can be used out of context as a point of reference to place highly unsuitable and contradictory forms into the context.

Article 7 and 8 recommend that the displacements of monument or parts is not allowed. Sculptures, paintings, or decorations may only be removed for the sole means of ensuring preservation; Article 9 is important as it addresses the process of restoration and deals with the preservation, aesthetic and historical value of the monument. This article recommends that the extra work that is required has to be ‘distinct’ from the actual architectural composition and must bear a ‘contemporary stamp’: “(...) any extra work which is indispensable must be distinct from the architectural composition and must bear a contemporary stamp”. This article is drafted for conservation but is often misused or to justify the contrasting modern additions by the architects to come up with the justifications for the proposed designs in the historical context (Hardy, 2008; Nypan & Sjur, 2008). Article 10 recommends the use of modern techniques in case the traditional techniques are inadequate. Article 11 recommends that all the additions from different times must be respected. Article 12 and 13 elaborates on the replacement of the missing parts and additions to the structures; “Replacement of missing parts must integrate harmoniously with the whole, but at the same time must be distinguishable from the original (...)”. “replacement of the missing part” which could also apply for a new building in the missing place but the principle does not explain what constitutes a “distinguishable” yet “harmonious” replacement, because it does not define these words or

give an example of attributes or qualities that could be used in architectural design to achieve such integrations (Khalaf, 2013); Article 14 is about the safeguarding of sites of monuments. Article 15 deals with the excavations of the archaeological sites. And the final article recommends precise documentation in every stage of preservation, restoration or excavation.

Hence, it can be said that articles 6, 9, 12 & 13 provide guidance on the insertion of new buildings into historical context but there is a lack of definitions as discussed earlier. The *Venice Charter*, according to many authors lacked many aspects of definitions and solid set criteria, whereas many professionals have considered it biased and outdated (Erder, 1977; Petzet, 200; Hardy 2008). On the other hand, according to many authors including Markeviciene (2009), Jokilehto (2007a) and Taylor (2004), this charter is the first international charter of significant importance. It became the foundation for the heritage and conservation principles and all the works that followed have been based upon or drawn from the content of its principles.

2.6 1968 UNESCO Recommendation. (UNESCO, 1968).

At the end of the UNESCO general conference meeting in Paris from 15th to 20th November 1968, at its fifteenth session, adopted the *1968 UNESCO Recommendations*. Acknowledging the role of industrialisation, its impacts on the cultural heritage and considered the impact that projects of urban expansion. The effect of renewal projects and the progress of industrialized civilisations on the cultural properties and damage done by both the public and private works (UNESCO, 1968).

In the considerations, it is mentioned that “it is urgent to harmonize the preservation for the cultural heritage with the changes which follow from social and economic development” (UNESCO, 1968). It recommends the harmony of preservation with changes, which in a way can be vaguely understood as the acceptance of the new buildings and structures along with the preservation of existing fabric. Documents emphasise the effort to meet the requirements of the present, but definition and framework are lacking in the whole document. In the 1st and 2nd Articles, the term Cultural Property here includes movable and immovable property, where the moveable property is referred to as the collections inside the museum and immovable cultural property is referred to as architectural heritage. The immovable cultural property was defined to include architectural, archaeological, historical sites and structures of the past as well as the artistically or historically important recent sites and structures. This definition of cultural property is extended from the term Historic Monument used in the Venice Charter 1964 which was reinterpreted by *ICOMOS* in 1965 as monument and site (Ahmed, 2006).

Article 3 to 12 define the general principles, expanding the cultural property to the whole territory of the state and recommend that measures are to be taken according to the size and character of the property. “Preventive and corrective measures should be aimed at protecting or saving cultural property (...) urban expansion and renewal projects, although they may retain scheduled monuments while sometimes removing less important structures, with the result that historical relation and the setting of historic quarters are destroyed” (Article 8). This article gives importance to the surroundings of protected property and the significance of ambience/settings and the need to retain them. The section on the preservation

and recovery measures that has been divided with the legislation, finance, administrative measures, procedures to preserve and to salvage cultural property, penalties, repairs, some mentioned points can be used as guidelines for the new development in historical places. This charter recommends the responsibility of cultural property entrusted to appropriate official bodies. The establishment of distinctive bodies is recommended, that have specialists such as architects, urbanists, archaeologists, historians, inspectors and other experts and technicians.

Article 21 emphasises that “(...) several variants of the project should be prepared, at a regional or municipal level, before a decision is taken. The choice between these variants should be made on the basis of a comprehensive comparative analysis (...)”, hence, it recommends that several possibilities should be tested and considered and analysed, but the criteria are not mentioned or the pointers on which such a decision should be based is not given. Point 24 recommends the protection of cultural properties. In Article 24b, historical quarters and traditional structures should be zoned and appropriated regulations should be adopted. Further the control on “(...) degree to which the historically or artistically important structures can be renovated and the type and design of new structure which can be introduced”. Hence it allows the construction of the new structures but still, it recommends the consideration of appropriate regulations without setting any rules or criteria. It further states that the preservation of the monuments should be given priority in urban redevelopment of historical districts and due allowance should be made for the modification of ordinary laws while constructing new buildings in a historical context.

There are important considerations in the charter mentioning harmonising of the cultural heritage with changing social and economic developments, but there are no criteria given and the word harmonise is not explained. Similarly, the multiple possibilities of the new proposal in the historical context are suggested, but the benchmarks to judge the suitable solution is not provided.

2.7 1972 ICOMOS Budapest Resolution

(ICOMOS; 1972).

3rd General Assembly of ICOMOS - International symposium on the introduction of contemporary architecture into Ancient Group of buildings, held in Budapest from 25th-30th June 1972 (ICOMOS, 1972). This draft is one of the earliest international policy documents to focus on the insertion of contemporary architecture in a historic urban context (Lardinois et al., 2015). Due to the increasing growth of the towns, it is recommended that an urgent systematic approach for the preservation of historic monuments and groups of buildings, and that such preservation should make an active part in contemporary life. It recognises that architecture is the expression of its age and development as a continuous process. Further elaborating that past, present and future should be treated in harmony with each other. It emphasises that historical buildings have a value that enables them to adapt to changing culture, social, economic and political contexts while fully retaining their structure and character.

Following are some of the important points from *Budapest Resolutions*: It must fit without affecting the structural and aesthetical qualities of the ancient structures. In paragraph 2 it is stated that new addition must be appropriate in terms of “mass, scale, rhythm and appearance”. Paragraph 3 emphasises the

importance of authenticity regarding the historic monuments and there should be no imitation that would affect the historical and artistic value of the monument. It further states that new uses are positive as long as they cause no harm—that is, the new uses are compatible with the historic site. The points mentioned in *Budapest Resolution* are very important as this is the first document that talks directly on how to deal with contemporary architecture in a historical context, though there is a lack of definition of terms of mass, scale, rhythm and appearance as they can be applied in different categories and have a wide range of definitions.

2.8 1972 UNESCO Recommendations

(UNESCO, 1972).

The General Conference of UNESCO at its seventeenth session, from 17th to 21st November 1972, adopted recommendations concerning the protection of cultural and natural heritage (UNESCO, 1972).

This document considers that the urban fabric of cities around the world is changing at an accelerating pace. It emphasises the importance to preserve a setting that has evidence of civilizations that have been there throughout history. The UNESCO convention regarded heritage as both ‘cultural heritage’ as well as natural heritage, and the earlier definition provided by UNESCO of cultural heritage as “movable and immovable cultural property”, the *1968 Paris recommendations*, have been further developed in these recommendations. “The definition of monuments and sites was rephrased and a third category — groups of buildings — was introduced. Cultural heritage was now defined to include monuments, groups of buildings and sites” (Ahmed, 2006, p. 295). In the recommendations, the definition of cultural heritage is described as monuments, architectural works, groups of buildings, sites that have a special value for the point of view of history art or science while the natural heritage consists of geological and physiographical formations and natural sites are the combined works of man and nature.

In the considerations of the recommendations, while communicating the threats of the present times to the cultural and natural heritage, defines heritage as “(...) a source of enrichment and harmonious development for present and future civilization” and that the “cultural and natural heritage forms a harmonious whole, the components of which are indissociable” (p. 1). Article 5 states, “The cultural and natural heritage should be considered in its entirety as a homogeneous whole (...)”. According to Khalaf, Article 5 creates confusion, “article seems to substitute the concept of harmony with homogeneity (...) The use of the term homogeneous in this sentence is misleading because it conveys the impression that harmony is only expressed in places that possess a standardized appearance, although it may exist in heterogeneous places that possess” (Khalaf, 2013, p. 49).

Article 16 and 17 are regarding the large-scale projects, where it is suggested there should be cooperation at all levels among specialised services so that the decisions made, taking into account the various interests involved. Article 23, regarding the new work done in the settings; explains that the “work done on the cultural heritage should aim at preserving its traditional appearance, and protecting it from any new construction or remodelling which might impair the relations of mass or colour between it and its surrounding.” The mass and colour have also been discussed in Article 6 of Venice charter: “No new

construction, demolition or modification which would alter the relations of mass and colour must be allowed" (Venice, 1964). Paragraph 2 of *1972 Budapest resolutions* also has similar ideas: "new addition must be appropriate in terms of mass, scale, rhythm and appearance" (ICOMOS, 1972). Hence, it can be said that the relationship of mass and colour is very important in the international charters and recommendations when contemporary architecture is built in a historical context.

Article 24 mentions that "the harmony established by time and man between a monument and its surrounding is of the greatest importance and should not, as a general rule, be disturbed or destroyed." Further, it states that the isolation of a monument by demolishing its surrounding should not be authorized. It reminds of Article 8 of the (UNESCO, 1968) recommendations where the isolation of the monument is forbidden and further elaborates on the definition of harmony that is missing in the *1986 UNESCO Paris Recommendations* by calling it a connection between "man and the monument", but a description of the elements is not given which can be interpreted differently by readers.

Article 32 recommends finding suitable uses for groups of historic buildings that are no longer serving their original purposes. Article 36 allows the internal alterations to groups of buildings and installation of modern conveniences, provided that they do not drastically alter the real characteristics and features of ancient buildings. Article 42 states that "No new building should be erected, and no demolition, transformation, modification or deforestation carried out, on any property situated on or in the vicinity of a protected site, if it's likely to affect its appearance, without authorization by the specialized services." The emphasis given in this article only to the 'appearance' gives the notion that the visual elements are of more importance, it is a very broad term and can be interpreted differently.

2.9 1973 ICOMOS Lausanne Resolution

(ICOMOS, 1973).

ICOMOS Symposium on The streetscape in historic towns was held in Lausanne, Switzerland, from 17th to 22nd of June 1973. In this resolution, importance is given to the street, as it is considered a necessary element for equilibrium and identity of the region, and equally important as a heritage of mankind (ICOMOS, 1973).

It recognises the importance of constructing new buildings in a contemporary language, "(...) any construction which is proven necessary should be designed in a contemporary expression taking into consideration the important characteristics that are typical of the ancient town" (ICOMOS, 1973, p. 85). This can be compared to the *Athens charter*, where it states "In the construction of buildings, the character and external aspect of the cities in which they are to be erected should be respected" (IMO, 1931). Similarly, the ideas of *Budapest Resolutions*, contemporary must fit without affecting the structural and aesthetical qualities of the ancient structures (ICOMOS, 1972). It also recommends that "all the new advantages of modern life should be introduced into the ancient towns respecting the culture of each town" (ICOMOS, 1973). Hence, the concern is to make the new buildings with contemporary characteristics, but taking inspiration from the local character. The introduction of modern advancements in the historical towns is an important aspect that has been highlighted in this resolution.

2.10 1974 ICOMOS Kazimierz Resolutions

(ICOMOS, 1974).

International Seminar on Integration of Modern Architecture in Old Surroundings, organized by ICOMOS and UIA (Union Internationale des Architectes), in collaboration with Europa Nostra, was held at Kazimierz Poland, from 16th to 19th October 1974. The resolution starts with the statement that “All human settlements, if they are to remain living entities, must adapt to changing circumstances” (ICOMOS, 1974). These resolutions include that “the introduction of the new elements into the old setting is both feasible and desirable if it adds onto enriching the social, functional, and aesthetic character of the existing fabric” (ICOMOS, 1974, p. 84). Further, there is an explanation for the change of function, the introduction of new usage, that must not destroy the physical structure of an area that has historical or architectural technology.

Contemporary architecture, which makes conscious use of present-day techniques, must respect the structural, aesthetical, historical and social qualities of its old surroundings and be sensitive to the local vernacular. “The careful design of the new and old must go together as parts of a comprehensive scheme for rehabilitation of an area” (ICOMOS, 1974, p. 85). Hence, *ICOMOS Kazimierz Resolution*, as a continuation of the early 1970s resolutions of Budapest & Lausanne promotes and works towards establishing guidelines for the integration of contemporary architecture in a historical context.

2.11 1975 ICOMOS Bruges Resolutions

(ICOMOS, 1975).

International Symposium on Conservation of Historic Towns was organized by ICOMOS, it was held from 12 – 15th of May 1975 in Bruges. It proposed the resolutions on the principles governing the rehabilitation of historic towns (ICOMOS, 1975).

It consists of 10 Articles. Articles 1, 2 and 3 highlight the importance of the built environment and historical towns. It is emphasised that historical towns are threatened due to technical, economic and social upheaval. “All over the new world new is imposing on old, stifling and bruising, if not destroying, its ancient fabric (...)” (Article 4). According to Lardinois et al, this document recognizes the potential threat of new buildings that do not follow the traditional urban pattern in historic towns (Lardinois et al, 2015). Nevertheless, there it is also stated and there is a provision given which allows historic towns to adapt to the new solutions for the needs of their populations. Article 5 emphasises that the historic towns must be saved with their human scale. Articles number 6, 7 and 8 discuss that the preservation should be justified by the cultural and aesthetic value. During rehabilitation and conservation, attention must be paid to the rights of residents. Preservation of the historic towns can be done in the framework of regional and city planning programs. Article 9 is important as it recommends that “The preservation necessitates the adaption to the requirement of contemporary life; this must, however, be done in a way that the fabric, structure, and history are not destroyed”. In Article 10, the importance of historical towns has been emphasised, declaring them a finite asset. These historical towns cannot be replaced and they should be preserved.

2.12 1975 CoE Declaration of Amsterdam

(CoE, 1975).

1975 was declared as European Architectural Heritage Year by the Council of Europe. Congress held by CoE from 21-25 October 1975 in Amsterdam made the following important considerations regarding the built architectural heritage of Europe (CoE, 1975). This declaration states that architectural conservation must become an integral part of urban and regional planning. It calls for an integrated conservation approach involving both local authorities and citizens that also considers social factors, further emphasising the importance of integrated conservation, stressing the responsibility of local authorities and participation of citizens in such initiatives (Jokilehto, 2007b; Lardinois et al., 2015). This declaration gives the following recommendations.

The importance to preserve the European culture is because of its significance and as it provides a common consciousness to the people of Europe for their shared history and forthcoming future (Point A). Similar to the *1972 and 1968 UNESCO Recommendations*, it includes not only the individual buildings but the surrounding buildings and also the villages of historic or cultural interest in Architectural Heritage (CoE, 1975, Point B). Heritage is joint possession of the people of Europe hence a mutual property (Point C).

(D). Architecture Conservation as a major objective of town and country planning.

(E). Local authorities should assist one another and exchange ideas and information.

(F). Rehabilitation of the historical areas should not necessitate a major change in the social composition of residents. All sections of society should benefit.

(G). Strengthening of the administrative and legislative laws.

(H). Availability of adequate financial supports.

(I). Involvement of the younger generations, "Architectural heritage will survive only if appreciated by the public and in particular by the younger generation".

(J). Encouragement to local, international, national, independent organizations to help awake public interest.

(K). Regarding the addition of contemporary buildings "(...) since the new buildings of today will be the heritage of tomorrow, every effort must be made to ensure that contemporary architecture is of a high quality".

In the *Amsterdam Charter*, importance is given to the consideration of contemporary architecture as being of high quality and there is no further explanation to what is meant by high quality. The importance of the charter lies in its approach for integrated conservation, where it underlines that historical continuity must be preserved in the environment if we are to maintain or create surroundings.

2.13 1976 UNESCO Recommendations

(UNESCO, 1976).

During the 19th general conference meeting of UNESCO held in Nairobi, the recommendations to safeguard the contemporary role of historic areas were proposed. Considering the importance of historical areas, the council noted that due to expansion, modernization, ignorant demolition and irrational/inappropriate reconstruction work, major damages are caused to the historical heritage. Following recommendations were proposed for safeguarding and introduction of contemporary role in Historic Areas (UNESCO, 1976).

Article 1 provides an important definition of historic and architectural areas the definitions; most importantly historical architecture also includes vernacular architecture. The importance of which can be understood as “(...) the cohesion and value of which, from the archaeological, architectural, prehistoric, historic, aesthetic or sociocultural point of view are recognized (point a)” Further it is stated that “(...) Safeguarding shall be taken to mean the identification, protection, conservation, restoration, renovation, maintenance and revitalization of historical and traditional areas and their environment (point c)”.

Articles 2 to 6 consist of the general principles. Articles 4 and 5 are specifically important as they provide guidance that can be used for contemporary architecture in a historical context. Article 4 warns against the damage that can be caused to the historical context by incompatible uses, additions and changes: “historic areas and their surrounding should be actively protected (...) particularly that resting from unsuitable use, unnecessary additions and misguided or insensitive changes such as will impair their authenticity, and damage from any kind of pollution”. It further states that “(...) great attention should be paid to the harmony and aesthetic feeling produced by the linking or the contrasting of various parts which make up the groups of buildings and which give to each group its particular character”. Hence, here the harmony is further elaborated than the previous charters and relation is said to be made by “linking or contrasting”, what seems to be missing is the measures against which the success or the harmony has to be calculated. Article 5 emphasises the importance of the views and vistas while designing new buildings: “Architects and town planners should be careful to ensure that views from and to monuments and historic areas are not spoilt and that historic area are integrated harmoniously into contemporary life”.

Article 7 mentions the importance to draw the national, regional and local level policy. Article 8 to 46 provide the safeguarding measures for the historical areas. Article 28 describes the suitable procedures for designing new buildings in historic areas, which consist of a preliminary assessment of the context to determine the basic principles that will guide the design “to ensure that their architecture adapts harmoniously to the spatial organisation (...) the relationship between the volume of buildings and the spatial volume, as well as their average.” It is further stated that “(...) this analysis shall examine dominant features, e.g., the harmony of heights, colours, materials, and forms, constants in the way the facades and roofs are built, the relationships given to the size of the lots since there is a danger that any reorganization of the lots may cause a change of mass which could be deleterious to the harmony of the whole” (Article 28). Article 29 forbids the isolation of monument through the demolition of its surroundings.

The harmony is defined in detail in this charter. If compared to the *UNESCO recommendations of 1968 and 1972* (UNESCO, 1968; UNESCO 1972), there is a focus on the harmony of heights, colours, materials, and forms, façade and roof lines and size of lots, hence there is a criterion which can be used for the insertion/addition of the contemporary/present-day architecture into the context (UNESCO, 1976).

2.14 1983 ICOMOS Appleton Charter

(ICOMOS, 1983).

Appleton Charter for the Protection and Enhancement of the Built Environment was published in August 1983 by ICOMOS Canada (ICOMOS, 1983). This document focuses on setting concise principles to guide appropriate interventions in historic fabric (Lardinois et al., 2015). “Interventions within the built environment may occur at many levels (from preservation to redevelopment) at many scales (individual to entire sites). And will be characterized by one or more activities, ranging from maintenance to addition” (Article B). Hence, it is stated that interventions can occur on many levels but safeguarding and enrichment of the built environment are of greater importance.

An emphasis is given to the appropriateness of the interventions; the selection of the design can only be chosen after the consideration of the following: “Cultural significance, condition and integrity of the fabric, contextual value, appropriate use of available physical, social and economic resources” (ICOMOS, 1983, p. 2). In this charter, levels of intervention have been described as:

“Preservation - retention of the existing form/material and integrity of the site.

Period Restoration - recovery of an earlier form, material and integrity of a site.

Rehabilitation - modification of a resource to contemporary functional standards which may involve adaptation for new use.

Period Reconstruction - a recreation of vanished or irreversibly deteriorated resources.

Redevelopment - insertion of contemporary structures or additions have to be sympathetic to the setting.

Redevelopment is the level that is applied for the introduction of the contemporary architecture into the historical context” (ICOMOS, 1983, p. 3).

In Section C, there are eight principles defined in this charter: protection, artificial value, setting, relocation, enhancement, use, additions and environmental control.

“Enhancement: the activities of removal or addition are characteristics of measures in support of enhancement of the heritage resource.” Hence emphasising that the addition and removal are possible if it is to enhance the heritage resource. “Additions: new volumes, materials and finishes be required to satisfy new uses or requirements. They should echo contemporary ideas but respect and enhance the spirit of the original”.

In Section D, there is a focus on documentation in regards to distinguishability, “New work should be identifiable on close inspection or to the trained eye, but should not impair the aesthetic integrity or coherence of the whole” (ICOMOS, 1983, p.5).

Reversibility: “the use of reversible processes is always to be preferred to allow the widest options for future development or the correction of unforeseen problems, or where the integrity of the resource could be effected” (ICOMOS, 1983, p. 5). The contemporary architectural interventions have been discussed here with regards to historical context but complete definition or the level of appropriateness to determine the quality of design or insertion is undefined.

2.15 1985 CoE Granada Resolution

(CoE, 1985).

The convention for the Protection of the Architectural Heritage of Europe was held in Granada on the 3rd of October. It was organised by the Council of Europe (CoE, 1985). This convention builds on the recommendations of the CoE’s *1975 European Charter of the Architectural Heritage*, by outlining legislative measures and protections to safeguard the architectural heritage of the European states (CoE, 1975; Lardinois et al., 2015).

Article 1 states that the architectural heritage consists of monuments, a group of buildings, sites combination of work produced by man and nature. Article 2 identifies the scope of properties that have to be protected. These assets include monuments, groups of buildings and sites. Articles 3, 4 & 5 are about statutory protection measures. Article 4 states that “implementing appropriate supervision and authorisation, (...) submission to the competent authority of any scheme affecting a group of buildings or a part thereof on a site which involves. Demolition of buildings, erection of new buildings, substantial alterations which impair the character of the buildings or the site”. Article 5 prohibit the removal in whole or a part, of any protected monument except when the material safeguarding of such monument makes removal imperative.

Articles 6, 7 and 8 consists of ancillary measures: “in the surroundings of monuments, within groups of buildings and within sites, each party undertakes to promote measures for the general enhancement of the environment” (Article 7). Articles 9 to 13 are about sanctions. According to Article 9 in case, the laws are not followed “(...) entail an obligation on the offender to demolish a newly erected building which fails to comply with the requirements or to restore a protected property to its former condition”. Hence, these articles allow and provide provision for the construction of new buildings but only after the approval from the competent supervising authorities. In Article 11 it is stated that the use of protected properties can be altered or changed in the light of needs to contemporary life. Adaption, when appropriate of old buildings for new uses is recommended in this article. Articles 15 and 16 are about information and training. Articles

17 to 21 discuss the European coordination for conservation policies. It is allowed to build new structures and add the addition but they have to be carefully considered and must not affect the historical property.

2.16 1987 ICOMOS Washington Charter

(ICOMOS, 1987).

The charter was adopted by ICOMOS general assembly in Washington DC in October 1987. This charter complements and extends the concepts explained in the 1964 *Venice Charter*, allowing new constructions with the consideration of relationship to surrounding considering mass, colour, solid/void, materials and cultural steps (Venice, 1964). *Washington Charter* emphasises the up-gradation of historical areas to contemporary standards, “(...) steps necessary for the protection, conservation and restoration of such towns as well as their development and harmonious adaptation to contemporary life” (ICOMOS, 1987, p. 1). This Charter established principles for the preservation of historic urban areas given the threat posed by rapid urban development (Lardinois et al., 2015).

Washington charter has 16 Articles. Articles 1 to 4 focus on the principles and objectives while articles 5 to 16 focus on the methods and instruments.

In the principles and objectives, *Washington Charter* recommends that the planning policies must adapt to the conservation of historical places. The qualities that have to be preserved in historical towns are mainly historic character, composed of “urban patterns as defined by lots and streets (...) appearance, interior and exterior of buildings as defined by scale, size, style, construction, materials, colour and decoration”. It also includes the “relationship between the town or urban area and its surrounding setting, both natural and man-made” (ICOMOS, 1987, p. 1-2).

The following articles can be used as a guideline for the introduction of new architecture into historical context. In the methods and instruments part of the charter, Article 5 states that “the conservation plan should aim at ensuring a harmonious relationship between the historic urban area and the town as a whole”; it further states that “before any intervention, existing conditions in the area should be thoroughly documented” (ICOMOS, 1987, p. 2). Article 8 states that the “new function should be compatible with the character of the historic town or urban area”. The *Washington Charter* gives a lot of emphasis on compatibility and harmony, but there is no clear definition or criteria that have been established or mentioned. On the other hand, the concept of distinction is not discussed in this charter. According to Article 10, “when it is necessary to construct new buildings or adapt existing ones, the existing spatial layout should be respected, especially in terms of scale and lot size”. This article gives an impression that harmony can be meant for respect in terms of scale and lot size. It further states that “(...) the introduction of contemporary elements in harmony with the surroundings should not be discouraged since such features can contribute to the enrichment of an area” (ICOMOS, 1985, p. 2).

2.17 1994 ICOMOS Nara Document on Authenticity (ICOMOS, 1995).

The *Nara Document* was presented during NARA Conference jointly organised by UNESCO, ICCROM (International Centre for the Study of the Preservation and Restoration of Cultural Property) and ICOMOS held at Nara, Japan (ICOMOS, 1994). This is an important document that addresses authenticity in the context of cultural heritage and contextual heritage. The term authenticity and concerns regarding the authenticity of the historical fabric have been discussed in multiple charters by ICOMOS, UNESCO and CoE, but this charter is of significant importance as it is specifically dedicated to the subject.

The charter is divided into three parts. Articles 1-4 consist of a preamble. It extends the knowledge on expanding the scope of cultural heritage and its concerns and interests in the contemporary world.

Articles 5 to 8 consist of Cultural Diversity and Heritage Diversity. Article 5 discusses the promotion of cultural and heritage diversity and how it has to be actively promoted as an essential aspect of human development. Article 6 describes the significance of cultural heritage and diversity that exists in the time and place. It also emphasises that authenticity demands respect for other cultures. Article 7 underlines tangible and intangible aspects of culture and societies which constitute the heritage and highlights that it should be respected. Article 8 stresses the responsibility of the cultural heritage and the management of its belongings. In addition to these responsibilities balancing with the other cultural communities is also emphasised.

Articles 9 to 13 consist of Values and Authenticity. Article 9 describes that conservation of cultural heritage in all its forms and historical periods is rooted in the values attributed to the heritage, and we can understand these values by Information sources. Article 10 states that “(...) authenticity, considered in this way and affirmed in the *Charter of Venice*, appears as the essential qualifying factor concerning values. The understanding of authenticity plays a fundamental role in all scientific studies of the cultural heritage”. In Article 11 it is mentioned that “judgement about values attributed to cultural properties as well as the credibility of related information sources may differ from culture to culture, and even within the same culture”. Thus, it is not possible to base judgements of values and authenticity within or from a fixed criterion. According to article 12 “(...) within each culture, recognition to be accorded to the specific nature of its heritage values and the credibility and truthfulness of related information sources”, emphasising the immediate context and sources. Article 13 focuses on the authenticity of information sources that include, the form, design, materials, substance, use and function, traditions and techniques, location and setting, spirit and feeling, and other internal and external factors. Hence, this article is of great importance as it provides the key terms to analyse the authenticity of cultural heritage. The use of these sources, key terms and criteria permit the elaboration of the specific artistic, historic, social, and scientific dimensions of the cultural heritage being examined. This document puts an emphasis on the authenticity and its relationship with the context, while introducing new built fabric the factor of the authentic additions has to be understood based on the principles provided.

2.18 1999 ICOMOS Mexico Charter

(ICOMOS, 1999).

The charter on Built Vernacular Heritage was ratified in October 1999 during the 12th General Assembly of ICOMOS which was held in Mexico. This charter explains the importance of the Vernacular Heritage as it occupies a central place in the regard and pride of all peoples. It appears informal but has an order. It is functional and at the same time keeps attentiveness and exquisiteness. It focuses on contemporary life yet at the same time a record of the history of society (ICOMOS, 1999). This charter is divided into three parts. The first part includes general Issues, the second part includes principles of conservation and the third part provides guidelines for practice.

1. General issues - “Vernacular is a manner of building shared by the community having local or regional character responsive to the environment. Coherence of style, form and appearance, or the use of traditionally established building types” (ICOMOS, 1999, p. 1). it is recommended that Involvement of community, continuing use and maintenance for successful protection of the vernacular heritage has to be considered.

2. Principles of conservation - “Conservation must be carried out by multidisciplinary expertise while recognizing the inevitability of change and development, and the need to respect the community’s established cultural identity” (ICOMOS, 1999, p.2). Hence the charter recognises that the change is inevitable and there should be respectful towards the community maintenance of cultural identity. For the contemporary work the charter further states that “(...) contemporary work on vernacular buildings, groups and settlements should respect their cultural values and their traditional character” (ICOMOS, 1999, p. 2).

3. Guidelines in practice - Regarding the intervention, this charter states that “Interventions to vernacular structures should be carried out in a manner which will respect and maintain the integrity of the siting, the relationship to the physical and cultural landscape, and of one structure to another” (ICOMOS, 1999, p. 2). It also recommends the continuity of traditional building systems and craft skills. Regarding the replacement of materials and parts it is stated that “alterations which legitimately respond to the demands of contemporary use should be effected by the introduction of materials which maintain a consistency of expression, appearance, texture and form throughout the structure and a consistency of building materials” (ICOMOS, 1999, p. 2). Hence, adaptation and reuse of vernacular structures should be carried out in a manner that will respect the integrity of the structure, its character and form. Change over time should be appreciated and understood as an important aspect of vernacular architecture. Conformity of all parts of a building to a single period, should not normally be the goal of work on vernacular structures.

2.19 2000 The Charter of Krakow

(ICC, 2000).

International Conference on Conservation (ICC) was held in Krakow in 2000 with the theme of Cultural Heritage as the Foundation of the Development of Civilisation. The *Krakow Charter* was prepared by

participants of the conference, 14 principles were drafted and principles for the conservation and restoration of built heritage were recommended (ICC, 2000). This charter was prepared in the context of the process of European unification, the new millennium, and increasing awareness of the plurality of heritage values in Europe. According to Lardinois et al, Article 6 and articles 8 to 10 are of particular relevance to the topic of appropriate new developments in historic environments (Lardinois et al., 2015).

In the preamble text of the charter, it is stated that this charter is developed acting in the spirit of the *Charter of Venice*, taking note of the international recommendations. This statement emphasises that *Krakow Charter* is built and developed on the *Venice Charter* and the charters that followed, it expands on the knowledge considering the turn of the millennium and European unification.

Articles 1 to 4 consist of Aims and Objectives. In Article 1, it is stated that “conservation can be realised as different types of interventions. It includes environmental control, maintenance, repair, restoration, renovation and rehabilitation. Any intervention implies decisions, selections and responsibilities related to the complete heritage, also to those parts that may not have a specific meaning today, but might have in the future” (ICC, 2000, p. 1). Aims and methods include maintenance, repairs and participation in restoration projects this may include traditional and subsequent new materials, structural investigations, graphical and dimensional analysis and the identification of historical, artistic and socio-cultural significance. Article 4 specifically allows the construction of contemporary architecture “If necessary, for a proper use of the building, completion of more extensive spatial and functional parts should reflect contemporary architecture”.

Articles 5 to 10, discuss the different types of built heritage. Article 6 states that “the purpose of conservation of historic buildings and monuments, whether in the urban or rural context, is to maintain their authenticity and integrity, including internal spaces, furnishings and decoration according to their original appearance” (ICC, 2000, p. 2). Hence, authenticity and its importance have been emphasised. Article 8 states that the restoration project of the historic town or village should anticipate the management of change, in addition to verifying the sustainability of selected options. Article 9 states that “it is important to understand and respect the character of landscapes, and apply appropriate laws and norms to harmonise relevant territorial functions with the essential values” (ICC, 2000, p. 3). Article 10 states that “the chosen intervention should respect the original function and ensure compatibility with existing materials, structures and architectural value”. Hence this reminds the link with the *Venice Charter* where the emphasis of architectural values and materials has been emphasised while dealing with interventions (Venice, 1964).

2.20 2005 Vienna Memorandum

(UNESCO, 2005).

Vienna Memorandum on the World Heritage and Contemporary Architecture - Managing the Historic Urban Landscape was presented and drafted as a result of an international conference on World Heritage and Contemporary Architecture, which was requested by the World Heritage Committee under the sponsorship of UNESCO at its 27th session (UNESCO, 2005). *Vienna Memorandum* was the beginning of the HUL

(Historical Urban Landscape) approach, at the outset as a constituent of the operational guidelines within WHC and UNESCO, it proposed the recommendation to manage the successful insertion of contemporary architecture into the historic environment. (Albert et al., 2013). According to Lardinois et al, it builds on previous international charters; this is the latest international policy document to specifically target infill construction (Lardinois et al., 2015).

This document is divided into 6 parts; articles 1-5 provide a preamble to the main recommendations. In this section importance of the previous charters and discussions on the universal value of world heritage and sustainable conservation of the monuments and sites is highlighted. This memorandum proposes a key statement for an integrated approach linking contemporary architecture and sustainable urban development.

Articles 6 to 12 provide the definitions. Article 6 refers to the UNESCO world heritage list and cities with important historical monuments. Article 9 talks about contemporary architecture where “Contemporary Architecture in the given context is understood to refer to all significant planned and designed interventions in the built historic environment, including open spaces, new constructions, additions to or extensions of historic buildings and sites, and conversions” (UNESCO, 2005, p. 2). Article 11 states that the “Vienna Memorandum focuses on the impact of contemporary development on the overall urban landscape of heritage significance”. It is referred to as the Historical Urban Landscape approach. It further mentions that HUL goes beyond the traditional terms of historic centres or surroundings “(...) to include the broader territorial and landscape context” (UNESCO, 2005, p. 2).

Articles 13 to 17 include the Principles and Aims. Articles 14 and 17 are of particular importance regarding contemporary architecture. Article 14 states that “The central challenge of contemporary architecture in the historic urban landscape is to respond to development dynamics to facilitate socio-economic changes and growth on the one hand, while simultaneously respecting the inherited townscape and its landscape setting on the other” (UNESCO, 2005 p. 3). Article 17 states that “a central concern for physical and functional interventions is to enhance the quality of life and production efficiency by improving the living, working and recreational conditions (...)” (UNESCO, 2005, p. 3).

Articles 18 to 21 consist of Guidelines for Conservation Management. Article 18 states that “Decision-making for interventions and contemporary architecture in a historic urban landscape (HUL) demand careful consideration, a culturally and historic sensitive approach, stakeholder consultations and expert know-how. Examining the spatial context between old and new, while respecting the authenticity and integrity of the historic fabric and building stock” (UNESCO, 2005, p. 3). According to article 21 “Urban planning, contemporary architecture and preservation of the historic urban landscape should avoid all forms of pseudo-historical design, as they constitute a denial of both the historical and the contemporary alike” (UNESCO, 2005, p. 4). Hence use of the artificiality by mimicking historical forms is not forbidden but it is recommended that it should be avoided.

Articles 22 to 26 consist of Guidelines for Urban Redevelopment. Article 22 states that “Architecture of quality in historic areas should give proper consideration to the given scales particularly with reference to building volumes and heights” (UNESCO, 2005, p. 4). It is also stated that new construction should have minimum impact on important historical elements. Hence, the consideration for scales in reference to

building height and volumes should be considered. Article 25 states that “Townscapes, roofscapes, main visual axes, building plots and types are integral parts of the identity of the historic urban landscape. With regard to renewal, the historic roofscape and the original buildings plots serve as the basis for planning and design” (UNESCO, 2005, p. 4). Article 26 states that proportions and design must fit into the particular type of historic pattern and architecture. Henceforth, Articles 22, 25 and 26 provide criteria for the introduction of contemporary architecture into historical context.

Articles 27 to 31 consist of Ways and Means. In these articles, the discussion includes the topics of; management of dynamic, changes and developments, development and implementation of a management plan and economic aspects bound to long term goals. Article 31 states that “historic buildings, open spaces and contemporary architecture contribute significantly to the value of the city by branding the city’s character. Contemporary architecture can be a strong competitive tool for cities as it attracts residents, tourists, and capital” (UNESCO, 2005, p. 5). The final article is principally important as it declares the role of contemporary architecture and how it can contribute towards the economical, societal and internationalisation of the historically important areas.

2.21 2011 UNESCO Recommendation

(UNESCO, 2011).

UNESCO adopted the recommendations on the Historic Urban Landscape on the 10th of November, 2011 in Paris. This document continues on the *2005 Vienna HUL recommendations* (UNESCO, 2011). The document was produced in preparation for the formulation of the Valletta Principles 2011 and was meant to be universal. Therefore, the concepts presented were relevant to different cultures and forms of an urban landscape, and the proposed tools were to be adapted to local contexts (Lardinois et al., 2015). This document consists of an introduction and six parts namely: 1. Definition; 2. Challenges and opportunities; 3. Policies; 4. Tools; 5. Capacity building research; 6. International cooperation.

The First 7 articles are the introduction to the recommendations. It is stated that urbanisation and urban areas as engines of growth are important and act as centres of innovation and creativity. The side effects of massive urbanization can be social and spatial fragmentation and drastic deterioration of the quality of the urban environment and the surrounding areas. This recommendation addresses the need to better integrate and frame urban heritage conservation strategies within the larger goals of overall sustainable developments. The prominence of policy, governance and management concerns involving different stakeholders. It suggests a landscape approach for identifying, conserving and managing historic areas within their broader urban context, by considering the interrelationships of their physical forms, their social, cultural and economic values.

Articles 8 to 13 consist of definitions. HUL is described in article 8 as the urban area understood as “(...) the result of the historic layering of cultural and natural values and attributes, extending beyond the notion of the historic centre to include the broader urban context and its geographical setting”. According to article 9 “(...) wider context includes notably the site’s topography, geomorphology, hydrology and natural features, its built environment, both historic and contemporary, its infrastructures above and below

ground, its open spaces and gardens, its land-use patterns and spatial organizations, perceptions and visual relationships, as well as all other elements of the urban structure” (UNESCO, 2011, p. 3). This definition provides the basis for a comprehensive and integrated approach for the identification, assessment, conservation and management of HUL within an overall sustainable development framework. HUL approach as described in article 11 “(...) It is rooted in a balanced and sustainable relationship between the urban and natural environment, between the needs of present and future generations and the legacy from the past” (UNESCO, 2011, p. 3). Whereas according to article 12, “the historic urban landscape approach, considers cultural diversity and creativity as key assets for human, social and economic development, and provides tools to manage physical and social transformations and to ensure that contemporary interventions are harmoniously integrated with heritage in a historic setting and take into account regional contexts” (UNESCO, 2011, p. 3).

Articles 14 to 20 consist of Challenges and Opportunities. “The HUL approach supports communities in their quest for development and adaptation while retaining the characteristics and values linked to their history and collective memory, and the environment” (UNESCO, 2011, p.4). In the present day and age; where urban growth is transforming the essence of many historic urban areas, global processes have a deep impact on the values and attributes of communities to urban areas and their settings. It also impacts the perceptions and realities of their inhabitants and users. On the one hand, urbanization provides economic, social and cultural opportunities that can enhance the quality of life and traditional character of urban areas. Whereas it can also impact the identity of the area with the fast-paced development.

Articles 21, 22, 23 consists of policies. It is mentioned that “(...) conservation of the urban heritage should be integrated into general policy planning and practices and those related to the broader urban context. Special emphasis should be placed on the harmonious, integration of contemporary interventions into the historic urban fabric” (UNESCO, 2011, p. 4). All the government, local, national and federal, aware of their responsibility should contribute to the definition, elaboration, implementation and assessment of urban heritage conservation policies. Article 24-30 consist of the information regarding the HUL approach’s tools, capacity-building, research and international cooperation.

2.22 2011 ICOMOS Valletta Principles

(ICOMOS, 2011).

Valletta Principles for the Safeguarding and Management of Historic Cities, Towns and Urban Areas was adopted by the 17th ICOMOS General Assembly on 28th November 2011. This document proposes the principles and strategies applicable to every intervention in the historic town and urban areas. These principles build on two pre-existing documents: *The Washington Charter* (1987) and the *Nairobi Recommendation* (1976). There are 4 parts to this document: 1. Definitions; 2. Aspects of change; 3. Intervention criteria; 4. Proposal and strategies (ICOMOS, 2011).

Part 1. Definitions: Historic Towns in these principles are considered of having both tangible and intangible elements. “The tangible elements include, in addition to the urban structure, architectural elements, the landscapes within and around the town, archaeological remains, panoramas, skyline, view-lines and

landmark sites. Intangible elements include activities, symbolic and historic functions, cultural practices, traditions, memories, and cultural references that constitute the substance of their historic value” (ICOMOS, 2011, p. 3).

Part 2. Aspects of Change: In this part of the principles is stated that “historical areas are constantly changing, these changes affect all the elements of the town (natural, human, tangible and intangible) change when appropriately managed can be an opportunity to improve the quality of historic towns and urban areas on the basis of their historical characteristics” (ICOMOS, 2011, p. 4-5). It is further mentioned to emphasise on the subject of new constructions and buildings that “contemporary architectural elements must respect the values of the site and its setting. The basis of appropriate intervention in spatial, visual, intangible and function terms should be respected for historical values, patterns and layers” (ICOMOS, 2011, p. 6). “New architecture in its spatial organisation must be compatible to historical area and respect its traditional morphology. Regardless of style and expression, all new architecture should avoid the negative effects of drastic or excessive contrasts and of fragmentation and interruptions in the continuity of the urban fabric” (ICOMOS, 2011, p. 6).

Part 3. Intervention Criteria. Following are some of the important criteria that have been highlighted.

Values: “All interventions must be designed respecting the tangible and intangible cultural values and should be designed to improve the quality of life”.

Quantity: “Multiple changes could have a negative effect on historic town and its values. Changes that are inherent to urban growth must be controlled and carefully managed”.

Coherence: “Historic towns and urban areas as well as their settings must be considered in their totality. Their balance and nature depend on their constituent parts”.

Balance and compatibility: “The safeguarding of the historic towns must include, as a mandatory condition, the preservation of fundamental spatial, environmental, social, cultural and economic balances”.

Time: “The speed of change is a parameter to be controlled. Excessive speed of change can adversely affect the integrity of all the values of a historic town”.

Part 4. Proposals and Strategies. A1. Elements to be preserved:

1. authenticity and integrity of historic towns consisting of the following: (A. Urban patterns as defined by the street grid, the lots, the green spaces and the relationship between buildings and green and open spaces; B. The form and appearance, interior and exterior as defined by their structure, volume, style, scale, materials, colour and decoration; C. The relationship between the town or urban area and its surrounding setting; D. Function of the town; E. Cultural traditions, traditional techniques, the spirit of place and everything that contribute to the identity of the place). 2. The relationship between the site and its totality. 3. Social fabric, cultural diversity. 4. Non-renewable resources (ICOMOS, 2011, p. 7-9).

A2. New functions: “The introduction of new functions must not compromise the survival of traditional activities or anything that supports the daily life of the local inhabitants” (ICOMOS, 2011, p. 12). Regarding the construction of contemporary architecture, it is mentioned, “when it is necessary to construct new

buildings or to adapt existing ones, contemporary architecture must be coherent with the existing spatial layout in historic towns as in the rest of the urban environment” (ICOMOS, 2011, p. 12). It is further states that “contemporary architecture should find its expression while respecting the scale of the site, and have a clear rapport with existing architecture and the development patterns of its context” (ICOMOS, 2011, p. 12). Regarding public spaces, as it is an important aspect in the historical town, the balance between public open space and the densely built environment must be carefully analysed and controlled while considering the new interventions and the new uses.

2.23 2013 ICOMOS Burra Charter

(ICOMOS, 2013).

Burra Charter was first adopted in 1979 and revised in 1981, 1989, 1999 & 2013. This charter starts with definitions and it is further divided into three parts: 1. Conservation principles; 2. Conservation processes; 3. Conservation practice (ICOMOS, 2013). According to Lardinois et al., the Burra Charter provides preeminent practice guidance for the conservation and management of places of cultural significance (Lardinois et al., 2015). It consists of 34 articles.

Article 1 provides definitions to the important and relevant terms ‘Place, Cultural Significance, Fabric, Conservation, Maintenance, Preservation, Restoration, Reconstruction, Adaptation’, The charter can be applied to all places of Cultural Significance, which is defined as places with “aesthetic, historic, scientific, social or spiritual value for past, present or future generations” (ICOMOS, 2013, p. 2).

Articles 2 to 13 consist of the conservation principles. In Article 7 it is stated that “the most significant ones Use of the place of cultural significances should be retained or have a compatible use”. Articles 14 to 25 contain conservation processes. “According to circumstance, include the processes of retention or reintroduction of a use; retention of associations and meaning; maintenance, preservation, restoration, reconstruction, adaptation and interpretation; and will commonly include a combination of more than one of these” (Article 14). Article 15 talks about the change in the historical fabric, “change may be necessary to retain cultural significance, but is undesirable where it reduces cultural significance. The amount of change to a place and its use should be guided by the cultural significance of the place and its appropriate interpretation” (ICOMOS, 2013, p. 6). This article further states in the sub-article 15.2 that, “changes which reduce cultural significance should be reversible, and be reversed when circumstances permit” (ICOMOS, 2013, p. 6). Article 16 emphasises on maintenance and presents it as a fundamental to conservation. Article 17 highlights preservation, “it is appropriate where the existing fabric or its condition constitutes evidence of cultural significance, or where insufficient evidence is available to allow other conservation processes to be carried out”. Article 18,19 and 20 discuss that restoration and reconstruction should reveal a culturally significant aspect of a place. Adaptation: adaptation is acceptable only where the adaptation has minimal impact on the cultural significance of the place (article 21). Article 22 specially address the issue of new work, article 22.1 it is stated that “new work such as additions or other changes to the place may be acceptable where it respects and does not distort or obscure the cultural significance of the place, or detract from its interpretation and appreciation” (ICOMOS, 2013, p. 7). In the explanatory notes, it is mentioned that “(...) new works should respect the significance of the place through consideration of the

new work's siting, scale, bulk, form, character, colour, texture, and material. Imitation should generally be avoided" (ICOMOS, 2013, p. 7). It is further stated that "(...) new work should be readily identifiable as such, but must respect and have minimal impact on the cultural significance of the place" (ICOMOS, 2013, p. 7). Article 23 states the retaining or reintroducing use "retaining, modifying or reintroducing significant use may be appropriate and preferred forms of conservation" (ICOMOS, 2013, p.7). Article 24 is regarding retaining associations and meanings and recommends that the significant associations between people and a place should be respected, retained and not obscured. Article 26 to 34 contains the conservation practice; the application of the Burra charter and management of changes is discussed in these articles.

2.24 2017 ICOMOS Delhi Declaration

(ICOMOS, 2017).

The 19th General Assembly of ICOMOS was held in Delhi, India from 11th to 15th December 2017. The significant themes of this declaration are Heritage and Democracy as a key ingredient in a people-based approach to sustainable development (ICOMOS, 2017). This declaration consists of the following four points.

1. Managing heritage resources for common future. Respecting values, significance and authenticity. "The concept of heritage has widened considerably from monuments, group of buildings and sites to include large and more complex areas, landscapes, settings, and their intangible dimensions, reflecting a more diverse approach" (ICOMOS, 2017, p. 1). Hence, the declaration emphasis conserving significance, integrity and authenticity in the management of heritage resources.
2. Develop ethical principles and education for managing heritage resources. Providing guidance to inform decision and practice. "Ethical principles should be established and implemented to guide heritage conservation and management. These include principles for interpretation, adaptation, intervention, and for sustaining complex heritage systems and places, and should engage local and interested communities and consider the historic layers that contribute to the evolution of the place" (ICOMOS, 2017, p. 3).
3. Promote inclusive democratic community engagement processes for all people, by all the people, for all the people. "Specific guidance is necessary to ensure the harmonious insertion of contemporary interventions into heritage settings" (ICOMOS, 2017, p. 4).
4. Ensure and respect the continuity of living heritage. Heritage conservation is a condition of sustainable development. The responsibility for safeguarding heritage resources extends between nations, communities and cultures.

This charter is significant as it introduces and promotes the democratic solutions for the historical sites and the inclusion of new architecture with autonomous decisions.

Table 1: Compilation of the points from the shortlisted charters and recommendations.

In the following table, the points that directly concern the introduction of a new addition into the historical city or next to a heritage building have been provided.

Ancient Buildings Manifesto 1877 (SPAB, 1877).	<ul style="list-style-type: none"> • Regular maintenance of the historical property. • To put protection in the place of Restoration. • To raise another building rather than enlarge old one
Carta del Restauro (CdR, 1883)	<ul style="list-style-type: none"> • Difference of style between the old and new. • Difference of materials in their fabric. • Suppression of mouldings and decoration in the new parts. • Visibility of the actions carried out"
1931 Athens Charter (IMO, 1931).	<ul style="list-style-type: none"> • Surrounding areas of the historical property to be given protection. • Regular maintenance of the historical property. • Use of modern material in the restoration work. • New construction should respect the character of the historical context.
1933 Athens Charter (CIAM, 1933).	<ul style="list-style-type: none"> • Not to use the past styles for the new construction in the historical areas. • Demolition of slums around the historical monuments to create new opportunities. • Historical buildings, individual and group of buildings, should be protected from demolition
1964 Venice Charter (Venice, 1964).	<p><u>Article 6.</u> Traditional settings must be kept, no new construction, demolition or modification which would alter the relations of mass and colour must be allowed.</p> <p><u>Article 9.</u> Any extra work which is indispensable must be distinct form the architectural composition and must bear a contemporary stamp.</p> <p><u>Article 13.</u> Additions cannot be allowed except in so far as they do not detract from the interesting parts of the building, traditional setting and relations to surrounding.</p>
1968 Paris Recommendations (UNESCO, 1968).	<p><u>Point 3.</u> Cultural property should extend to the whole territory of the state and should not be confined to certain monuments and sites.</p> <p><u>Point 8.</u> Preventive and corrective measures should be aimed at protecting or saving cultural property such as the urban expansion and renewal projects, although they may retain scheduled monuments while sometimes removal of less important structures, with the result the historic relation and the setting of the historical quarters is destroyed.</p> <p><u>Point 24.</u> The imposition of controls on the degree to which historically important structures can be renovated and the type and design of new structures which can be introduced. The preservation of the monuments should be an absolute requirement of any well-designed urban redevelopment especially in historical districts.</p>
1972 Budapest Resolution (ICOMOS, 1972).	<p><u>Point 2.</u> Contemporary architecture will fit itself into an ancient setting without affecting the structural and aesthetic qualities as far as due allowance is made for the appropriate use of mass, scale, rhythm and appearance.</p> <p><u>Point 3.</u> Authenticity of monuments as a basic criteria and avoidance of imitation.</p>
1972 Paris Recommendations (UNESCO, 1972).	<p><u>Point 23.</u> Any work done should aim towards preservance of the traditional appearance, and protect it from any new construction or remodelling which might impair the relations of mass or colour between it and its surroundings.</p>

	<p><u>Point 32.</u> Finding suitable uses for groups of historic buildings no longer serving their original uses.</p> <p><u>Point 36.</u> Internal alterations to the groups of buildings and the installation of modern conveniences should be allowed.</p> <p><u>Point 42.</u> No new building should be erected if it affects the appearance of the built heritage in protected area.</p>
1973 Lausanne Resolution (ICOMOS, 1973).	<ul style="list-style-type: none"> • New construction that is necessary should be designed in contemporary idioms. • New construction should be harmonious to the typical of the ancient towns. • All the advantages of the modern life should be introduced, suiting to the character of the town • Motor traffic should be excluded from the historical centres. • To keep the human scale, the diversity of social composition and range of activities should be preserved and recovered.
1974 Kazimierz Resolution (ICOMOS, 1974).	<ul style="list-style-type: none"> • All human settlements, if they are to remain living entities, must adapt to changing circumstances. The introduction of new elements into old surroundings is both feasible and, to the extent that it affords the opportunity of enriching the social, functional and aesthetic character of the existing fabric. • Introduction of new use must not destroy the physical structure of an area of historical or architectural value or vernacular interest. Modern architecture, making conscious use of present day techniques, must respect the structural, aesthetic, historical and social qualities of its old surroundings. The careful design of the new and old must go together as parts of a comprehensive scheme for the rehabilitation of an area.
1975 Burges Resoloution (ICOMOS, 1975).	<ul style="list-style-type: none"> • Historical towns must be saved, their human scale, there beauty, their richness, the subtlety and variety of the surroundings they have to offer, the diverse and flexible human relationship they support, and the enormous capital of buildings they represent. • The preservation of historic towns, their rehabilitation and adaptation and to present day needs thus form an essential part of any genuine policy for the human habitat. • The preservation of the historic town necessitates its adaptation to the requirements of contemporary life; this must however be done in such a way that its fabric, its structure and its history are not destroyed.
1975 Amsterdam Declaration (CoE, 1975).	<ul style="list-style-type: none"> • The architectural heritage includes not only individual buildings of exceptions quality and their surroundings, but also all areas of towns or villages of historical or cultural interest. • The architectural heritage will survive only if it is appreciated by younger generation. • Ensure that contemporary architecture is of a high quality.
1976 Nairobi Charter (UNESCO, 1976).	<p><u>Article 5.</u> Architects and town-planners should be careful to ensure that views from and to monuments and historic areas are not spoilt and that historic areas are integrated harmoniously into the contemporary life</p> <p><u>Article 28.</u> Particular care should be devoted to regulations for and control over new buildings so as to ensure that their architecture adapts harmoniously to the spatial organisation and setting of the groups of historic buildings. To this end, an analysis of the urban context should precede any new construction not only so as to define the general character of the group of buildings but also to analyse its dominant features, e.g. The harmony of heights, colours,</p>

	<p>material and forms, constants in the way the facades and roofs are built, the relationship given to the size of the lots since there is a danger that any reorganization of the lots may cause a change of mass which could be deleterious to the harmony of the whole.</p> <p><u>Article 29.</u> the isolation of a monument through the demolition of its surroundings should not generally be authorized, neither should a monument be moved unless in exceptional circumstances and for unavoidable reasons.</p> <p><u>Article 33.</u> protection and restoration should be accompanied by revitalisation activities.</p>
1983 Appleton Charter (ICOMOS, 1983).	<p><u>Setting:</u> Any element of the built environment is inseparable from the history to which it bears witness, and from the setting in which it occurs. Consequently, all interventions must deal with the whole as well as with the parts.</p> <p><u>Additions:</u> New volumes, materials and finishes may be required to satisfy new uses or requirements. They should echo contemporary ideas but respect and enhance the spirit of the original.</p>
1985 Granada Charter (CoE, 1985).	<p><u>Article 7.</u> Enhancement of the environment. In the surrounding of monuments, within groups of buildings and within sites.</p> <p><u>Article 11.</u> Use protected properties in the light for needs of contemporary life; the adaptation when appropriate of old buildings for new uses with due regard to the architectural and historical character.</p>
1987 Washington Charter (ICOMOS, 1987).	<p><u>Article 5.</u> Planning for the conservation of historic towns and urban areas should be preceded by multidisciplinary studies (...) harmonious relationship between the historic urban areas and the town as a whole (...) before any intervention, existing conditions in the area should be thoroughly documented.</p> <p><u>Article 8.</u> New functions should be compatible with the character of the historic urban area.</p> <p><u>Article 10.</u> When it is necessary to construct new building or adapt existing ones, the existing spatial layout should be respected, especially in terms of scale and lot size. The introduction of contemporary elements in harmony with the surroundings should not be discouraged since such features can contribute to the enrichment of an area.</p>
1999 Mexico Charter (ICOMOS, 1999).	<ul style="list-style-type: none"> • Contemporary work on vernacular buildings, groups and settlements should respect their cultural values and their traditional character. • Interventions to vernacular structures should be carried out in a manner which respect and maintain the integrity of the siting, the relationship to the physical and cultural landscape, and of one structure to another. • Alterations which legitimately respond to the demands of contemporary use should be effected by the introduction of materials which maintain a consistency of expression, appearance, texture and form throughout the structure and a consistency of building materials.
2000 Krakow Charter (ICC, 2000).	<p><u>Article 4.</u> The reconstruction of entire parts 'in the style of the building' should be avoided. If necessary, for a proper use of the building, completion of more extensive spatial and functional parts should reflect contemporary architecture.</p> <p><u>Article 6.</u> The purpose of conservation of historic buildings and monuments, whether in the urban or rural context, is to maintain their authenticity and integrity, including internal paces, furnishings and decoration according to their original appearance.</p>
2005 Vienna HUL Memorandum	<p><u>Article 18.</u> Decision-making for interventions and contemporary architecture in a historic urban landscape demand careful consideration, a culturally and historic sensitive approach, stakeholder consultations and expert know-how, such a process allows for adequate and</p>

(UNESCO, 2005).	<p>proper action for individual cases, examining the spatial context between old and new, while respecting the authenticity and integrity of historic fabric and building stock.</p> <p><u>Article 26.</u> As a general principle, proportion and design must fit into the particular type of historic pattern and architecture, while removing the core of building stock worthy of protection “facadism” does not constitute an appropriate mean of structural intervention. Special care should be taken to ensure the development of contemporary architecture in World Heritage cities is complementary values of the historical urban landscape and remains within limits in order not to compromise the historic nature of the city.</p>
2011 Paris HUL Recommendations (UNESCO, 2011).	<p><u>Articles 8 & 9.</u> The HUL is the urban area understood as the result of a historic layering of the cultural and natural values and attributes, extending beyond the notion of “historic centre” to include the broader urban context and its geographical setting. This wider context includes notably the site’s topography, geomorphology, hydrology and natural features, its built environment, both historic and contemporary its infrastructures (...).</p> <p><u>Article 15.</u> The HUL approach supports communities in their quest for development and adaptation, while retaining the characteristics and values linked to their history and collective memory, and to the environment.</p> <p><u>Article 22.</u> (...) Special emphasis should be placed on the harmonious, integration of contemporary interventions into the historic urban fabric (...)</p>
Valletta Principles (ICOMOS, 2011)	<p><u>Principle 2.</u> The introduction of contemporary architectural elements must respect the values of the site and its setting. Basics of architectural interventions in spatial, visual, intangible and functional terms.it must be consistent with the spatial organization of the historic area and respectful of its traditional morphology.</p> <p><u>Principle 4.</u> Contemporary architecture must be coherent with the existing spatial layout in historic towns. Contemporary architecture should find its expressions while respecting the scale of the site.</p>
Burra Charter 1979 Revised- 2013 (ICOMOS, 2013).	<p><u>Article 15.</u> Change may be necessary to retain cultural significance, but is undesirable where it reduces cultural significance. Changes that reduce cultural significance should be reversible. Demolition of significant fabric is not acceptable however minor demolition may be appropriate as part of conservation.</p> <p><u>Article 21.</u> Adaptation is acceptable where it has minimum impact on the cultural significance and minimum changes to significant fabric.</p> <p><u>Article 22.</u> New work should be readily identifiable and respect and have minimum impact on the cultural significance of the place</p>
2017 Delhi Declaration (ICOMOS, 2017).	<p><u>Article 1.</u> Concept of heritage has widened considerably from monuments, groups of buildings and sites to include larger and more complex areas, landscapes, settings, and their intangible dimensions, reflecting a more diverse approach(...)it includes value systems, beliefs, traditions and lifestyles, together with uses, customs, practices and traditional knowledge. There are associations and meanings; records, related places and objects. This is a more people-centred approach.</p> <p><u>Article 3.</u> Promote inclusive democratic community engagement processes. Of all the people, by all people, for all the people. Specific guidance is necessary to ensure the harmonious insertion of contemporary interventions into heritage settings.</p>

Highlighted important points

Maintaining the authenticity and integrity of the historical context.
Regular Maintenance of historical property.
To raise another building rather than enlarge old one.
Use of modern material in the restoration work.
New construction should respect the character of the historical context.
Not to use the past styles for the new construction in the historical areas.
Historical buildings, individual and group of buildings, should be protected from demolition .
Any extra work must be distinct and must bear a contemporary stamp.
Additions should do not detract from the interesting parts of the building, traditional setting and relations to surrounding.
Contemporary architecture will fit itself into an ancient setting, appropriate use of mass, scale, rhythm and appearance.
New construction or remodeling should not impair the relations of mass or color between it and its surroundings.
Finding suitable uses for groups of historic buildings no longer serving their original uses.
New construction should be harmonious to surroundings.
Modern architecture must respect the structural, aesthetic, historical and social qualities of its old surroundings.
Adaptation and to present day needs - new function should be compatible to the character of the historical area.
Contemporary architecture should be of high quality.
Harmony of heights, colours, material and forms, constants in the way the facades and roofs are built, the relationship given to the size of the lots.
Proportion and design must fit in particular context.
Changes that reduce cultural significance should be reversible.

1877 SPAB
1883 CdR
1931 Athens
1933 Athens
1964 Venice
1968 Paris
1972 Budapest
1972 Paris
1973 Lausanne
1974 Kazimierz
1975 Burges
1975 Amsterdam
1976 Nairobi
1983 Appleton
1985 Granada
1987 Washington
1999 Maxico
2000 Krakow
2005 Vienna
2011 Paris
2011Valletta
2013 Burra
2017 Delhi

Table 2: Criteria developed from the common and shared points.

Following are the 19 points that have been extracted by comparing and analysing the charters. These highlighted points are common or have been highlighted in different times and resolutions.

1	The new building keeps the traditional settings.
2	New addition bears a contemporary stamp.
3	Additions should not distract from the traditional setting and relations to the surrounding.
4	New building fits itself into an ancient surrounding.
5	New buildings must not destroy the physical structure of the area.
6	New building should respect the structural, aesthetic, historical and social qualities of their old surroundings.
7	The careful design of the new and old must go together as parts of a comprehensive scheme.
8	Contemporary architecture finds its expressions while respecting the scale of the site.
9	Changes that reduce cultural significance are reversible.
10	New work should be readily identifiable
11	Contemporary architecture should fit into historical context considering, mass, scale, rhythm and appearance.
12	New construction should be harmonious with the surrounding.
13	Harmony of heights, colours, material and form, constant in the way of facades and roofs.
14	Proportions of design must fit in a particular context.
15	New additions should respect the authenticity and integrity of the historic fabric.
16	Not to use the past style for new construction.
17	New construction should not impair the relation of mass and colour between it and its surrounding.
18	Proportions and design of contemporary architecture must fit in a particular context
19	New buildings should not devalue the heritage building.

Chapter 3

Referential Case Studies

& Key Criteria

3.1 Key Criteria:

Having studied the important international charters and memorandums in chapter two, the key criteria have been summed up and analysed to understand the common points that are of high significance. The following key terms have been shortlisted and derived from the charters. These include the important aspects that have to be considered while analysing and proposing the new projects in a historic urban neighbourhood.

Mass & Scale

Mass is the bodily volume or substance of a solid body. Whereas, massing is a combined arrangement of two-dimensional shapes or three-dimensional volumes, especially one that has or gives imprints of weight, bulk, and density. Scale denotes how we observe or review the size of something concerning something else while dealing with the issue of scale. Hence, we are always comparing one thing to another (Ching, 2007). Urban scale is the size of a project in the context of a city, or neighbourhood scale. When we evaluate if a building is appropriate to its setting within a city, or a street scale, we start by noting its mass, relative scale and sizes.

Mass and scale should be observed and no building should be allowed that alters the mass and scale of the surrounding (Venice, 1964). Budapest resolutions recommend that the new addition should be appropriate in terms of mass and scale (ICOMOS, 1972). 1972 UNESCO Recommendations also describe that the mass should not impair the existing setup. Bruges Resolutions recommend that the historic towns should be saved with their human-scale (ICOMOS, 1975). Change of Mass with regards to the lot sizes has to be carefully altered (UNESCO, 1976). Consideration for scales in reference to the building's mass, height and volumes should be considered. "Townscapes, roofscapes, main visual axes, building plots and types are integral parts of the identity of the historic urban landscape. With regard to renewal, the historic roofscape and the original buildings plots serve as the basis for planning and design" (UNESCO, 2005). Valletta principles recommend that contemporary architecture should find its expression while respecting the scale of the site (Valletta, 2011). Burra Charter recommends that new works should respect the significance of the place through consideration of the new work's siting, scale, bulk (ICOMOS, 2013).

Harmony & Height

Harmony in the visual construction is created by proportions and a sense of order among the elements. The arranged, fair, or compatible arrangement of the elements or parts in a designed work and composition. (Ching, 2007). The orders represented in their proportioning of elements the perfect countenance of exquisiteness and harmony. ICOMOS Budapest resolutions recommend that the past, present and future should be treated in harmony with each other (ICOMOS, 1972). 1976 UNESCO recommendations suggest that "(...) great attention should be paid to the harmony and aesthetic feeling produced by the linking or the contrasting of various parts (UNESCO, 1976). Architecture should adopt harmoniously to the spatial organisations and harmony of height should be observed with the surroundings (UNESCO, 1976). Washington Charter recommends that the conservation plan should aim at ensuring a harmonious relationship between the historic urban area and the town as a whole" (ICOMOS, 1987).

Contemporary interventions are harmoniously integrated with heritage in a historic setting and take into account regional contexts (UNESCO, 2011). The balance of the interventions with the historic is of great importance, the harmony of preservation of the cultural heritage with the changes (UNESCO 1968)

Composition & Form

A regular Composition can be created from Regular Forms whereas an Irregular composition of regular forms: (Ching, 2007). So refined is our skill at detecting parallels to human beings in forms, textures and colours that we can interpret a character from the humblest shape. A line is eloquent enough. A straight example will signal someone stable and dull, a wavy one will appear foppish and calm, and a jagged one angry and confused (Botton, 2008).

Solid and void of the composition should be respected (Venice, 1964). Forms of the surrounding should be in harmony with the newly built structure (UNESCO, 1976; ICOMOS, 1994). Elements to be preserved while adding new buildings form, interior and exterior as defined by their structure, The relationship between the town or urban area and its surrounding setting (ICOMOS, 2011). Burra charter recommends that new work should consider the significance of place through the form (ICOMOS, 2013).

Volume & Proportions

The relationship between the volume has to be harmonised (UNESCO, 1976). New volumes should echo the contemporary language and should be distinguishable (ICOMOS, 1983). The elements of volume, style and relationship between site and its totality should be preserved decoration (ICOMOS, 2011).

The measurements and proportions of the human body directly influence the proportion of things we use, the height and distance of things we try to reach, and the sizes of the fittings and fixtures we use for sitting, working, sleeping and eating. There is an alteration between our physical dimensions and those dimensional necessities that are an outcome of we reach for something on a shelf, sit down at a table, walk down a set of stairs, or interact with other people. These are functional dimensions and will vary according to the nature of the activity engaged in and the social situation (Ching, 2007).

Character & Appearance

The character of the city and the buildings surrounding should be respected (IMO, 1931; CIAM, 1946). Budapest Resolutions recommends that new buildings should be appropriate in terms of their appearance (ICOMOS, 1972). The new building should not be erected if it alters the appearance of the surrounding (UNESCO, 1972). Lausanne Resolution recommends that the New construction should consider the important characteristics of the ancient buildings (ICOMOS, 1973). Washington Charter recommends that the new function should be compatible with the character of the historic town and urban area (ICOMOS, 1987).

“Character of the ground plane influences the form of the building that rises from it. The building can merge with the ground plane, rest firmly on it, or be elevated above it.” (Ching, 2007, p. 20). Burra Charter also recommends that the character of the site should be considered while proposing a new design (ICOMOS,

2013). The form is a comprehensive term that has numerous meanings. It may denote an exterior appearance that can be recognised, like that of an object like a table, chair or the human body that sits in it. It may also refer to a specific condition in which something acts or shows itself, as when we speak of water in the form of ice or mist. In art and design, we regularly use the term to signify the formal construction of a work (Ching, 2007).

Texture, Material & Finishes

Athens charter Modern materials and finishes to be used (IMO, 1931) (CIAM, 1946). The colours of the surrounding should not be altered and any new construction should respect the existing (Venice, 1964) (UNESCO, 1972). The Colour and material of the old and the new have to be balanced (UNESCO, 1976). 1983 Appleton charter recommends that materials and finishes should echo contemporary ideas (ICOMOS, 1983; ICOMOS, 1994). Appearance and texture should be maintained and consistent throughout the structure when the new addition is built (ICOMOS, 1999). Krakow Charter recommends that the intervention should insure compatibility with the existing materials and architectural value (ICC, 2000). Valletta Principles also recommends that the material and colour of the context has to be preserved (ICOMOS, 2011). Burra Charter recommends that new work should respect the significance of the place via colour, texture, and material (ICOMOS 2013).

The visual and particularly physical quality is given to a surface by the size, arrangement, shape, and sizes of the fragments. Texture also defines the point to which the surfaces of a form reflect or absorb the light (Ching, 2007). The way we observe lighting conditions, among many other things also depend on the colouring and even more so the way the colour and materials act depending on how they interact with light since it affects not only the colour quality or gradation but also the character of the material and the perceptiveness of the boundaries, most importantly if the colour scale seems consistent and well-composed or not (Sallstrom, 1980).

Patterns, Coherence & Rhythm

Linear patterns have the ability to emphasize the height or length of a form, unify its surfaces, and define its textural quality (Ching, 2007). Budapest Resolution recommends that the new building should follow the rhythm and should be appropriate (ICOMOS, 1972). Valletta principles recommend that the contemporary architecture must be coherent with the existing fabric and have a clear rapport with existing architecture and the development patterns of its context (ICOMOS, 2011).

3.2 Referential Case Studies:

Having studied the principles and criteria by reviewing and analysing significant charters and memorandums, the relevant criteria have been shortlisted and extracted. Following is the list of 30 projects that have been visited and studied during the doctoral studies.

This shortlist provides essential built projects. These projects are chosen across the significant European cities, to document the different and diverse approaches. Hence, presenting the perspective and methods of different architects that have been used while dealing with the historic urban fabric. Furthermore, six projects have been chosen as a primary case study and they are analysed and discussed in the fourth chapter.

Project Classifications

Projects have been divided into six main categories.

1. Large scale urban renovations:

The large scale urban renovation projects involve multiple buildings or a grand masterplan in the city centre.

Bullring Birmingham, Museum Island Berlin.

The two analysed projects have a different approach after WWII, in the developments of Birmingham's city centre the complete remodelling of the historic core twice to make it one of the most active retail hubs of Europe, whereas the approach in Berlin's museum-island is to restore and carefully adding the contemporary architecture.

2. Infrastructure:

The projects that are built in the historic city centres as infrastructural projects including transportation and bridges.

Millennium Bridge London, Guillimens Railway Station Liege.

Infrastructure projects are used for commute, connection and become part of daily life for a multitude of users. Two projects have been studied in the referential case studies.

3. Museum Interventions:

Extensions and newly built projects of Museums in historic city centres.

Louvre Pyramid Paris, The Great Court at British Museum London, Kunsthaus Graz, Johanneum Museum Graz, Raina Sofia Museum Madrid, Trianna Ceramic Museum Seville, Extension of Zurich Museum, Kunsthaus Zurich.

Museums play an important role in society, they document, exhibit and showcase historically significant events, objects and stories. From the revolutionary approaches of courtyard intervention Louvre extension to the new intervention of Johanneum museum. The projects of the extension and additions have an important role the different approaches of complimentary and contradictory approaches have been discussed in different European cities.

4. Other Cultural buildings:

The public facility and gathering buildings including tourist facilities, multipurpose exhibition spaces and auditoriums. Public facility buildings of diverse functions play a dynamic role in the cities. The seven projects with monumental, contrasting and complimentary approaches have been discussed in this typology.

Pompidou Centre Paris, Gaia chairlift Porto, El-Greco congress centre Toledo, Casa da Musica Porto, Shop and office buildings in Rotterman Quarters Tallinn, Dancing House Prague, Caixa Forum Madrid.

5. Memorial revival:

Projects built on or next to the important historic ruins or archaeological remains.

Kolumba Museum Cologne, New Acropolis Museum Athens, Kaiser-Willhelm memorial church Berlin, Musealisation of Praca Nova da Lisboa, Jewish Museum Warsaw, House of 24 Porto, Martin Luther Geburtshaus Eisleban, Moorish wall Granada.

Reviving a memory of a place is a challenging task, these buildings have to carefully consider the fundamental aspects of the context. The discussed projects have been analysed to study the results of the interventions.

6. Government buildings:

The state projects of government headquarters.

German parliament Berlin, Liechtenstein parliament Vaduz, Malta parliament Valletta.

The three significant projects with distinct approaches, an intervention inside the building complex that was damaged during WWII and is revived with the contemporary addition. The proposal of the state parliament in the centre of Liechtenstein on a historic master plan amongst the important government buildings. Project of Malta parliament and city gate in Valletta, where a reimagination of the city gate by cutting and intervening the historic walls to create an entrance into the capital city and the restoration of archaeological remains of opera house have been achieved.

3.2.1 Development surrounding Bullring, Birmingham UK.		Master Plan: Benoy	Large Scale Urban Renovation
2000-2003	Having a market place since 12 th century. This significant city centre of England has been redesigned many times. With the only remaining ancient landmark being the St. Martin Church the area has been replanted on a large scale.		



A. (Image: July 2011).



B. First Bullring centre



C. Present-day development (Dargue, 2008).

The major urban planning project in the Birmingham city centre after the 1940s WW2 bombing was the first bullring built in the 1960s. The city was first given the right to hold a market in 1166 in the area that is now known as the Bull Ring. Most of the market people were gathered close to the church walls and in the special street today this still runs from the inner ring road (Chin, 2003). The importance of the St. Martin's Church in the 17th century was huge, as it was the only church in Birmingham which was a small town that developed and became the second biggest city in the UK. The area has its historical importance due to the marketplace, getting replanted several times throughout centuries. The current bullring has the historical monument of Saint Martin Parish Church that, rest of the region has been redesigned, 'The Old Bullring' developed in brutalist architecture, due to public dislike multiple proposals were considered in the 1980s to redevelop the area (Lerwill, n.d). The new master plan designed by Benoy in the 1990s with the proposal of the Selfridges designed by Future systems "It is, says its developer, the Birmingham Alliance, 'Europe's largest retail-led regeneration project, representing an investment of over £1bn, providing 110,000 sq. m of new retail accommodation over three trading levels" (Glancey, 2003).

Analysing according to the framework developed from the international charters: The Bullring Birmingham project does not keep the traditional settings. During the construction of the first Bullring major historical buildings including the market, the hall was demolished. Apart from the St. Martin's church most of the surrounding fabric has been rebuilt as a part of the retail-led urban regeneration program. Another point is that the new building should not destroy the physical structure of the area, both the master plans changed the urban fabric of the surroundings on a huge scale, it can easily be said that apart from the church, almost the entire surrounding area has been redeveloped. Most of the important buildings were demolished to build the first intervention, the second intervention has even a bigger footprint. The project bears a contemporary stamp with a contemporary language. The Selfridges department store designed by the future system stands out and does not fit in with the new addition as a part of a comprehensive scheme. Additions are of a huge scale and the only historically significant building of St. Martin's church acts as a monument that has been dealt in separation, whereas most of the fabric around it has a contemporary setting. New work is readily identifiable from the historical context as there is extreme contrast between the St. Martin's church and the new development. Contemporary architecture is successful as the project is considered a successful project in the urban renovation and the city of Birmingham has become the commercial hub, but the project overpowers the surrounding context.

3.2.2 Neues Museum & James Simon Gallery, Berlin – Germany.		David Chipperfield Architects	Large Scale Urban Renovation
1998-2019	The development projects on the Museum Island in Berlin are important due to the scale and framework of masterplan of the area. It is expected to be completed in 2025/26.		



Neues Museum (Images A & B: November 2014)

Image C: James Simon Gallery with Neues Museum in the background (Janberg, 2010)

Museum complex on the northern part of the Spree of Berlin. Surrounded by the Schlossplatz and Berliner Dom, in the immediate context lies the Bode Museum, Altes Museum, Alte Nationalgalerie and Pergamon Museum. It was added to the UNESCO world heritage site in 1999 due to its historical importance. The projects were commissioned to David Chipperfield, for the renovation of Neues Museum and the addition of contemporary architecture of James Simon gallery. Surrounding the important setting containing the original structure designed by Friedrich August Stüler, built between 1841 and 1859 was left in ruins after WW2 (Museumsinsel, n.d). In 1997 David Chipperfield Architects along with Julian Harrap won the competition for restoration. In 2009 the museum reopened to the public as the 3rd restored building on Museum Island (Chipperfield.A, n.d). James Simon Gallery acts as the backbone to the master plan of 1999. Acting as the new gateway of the Museum island, it was completed in 2018. It forms a physical connection above ground with the Pergamon Museum and links the museum via the Archaeological-Promenade at basement level with the Neues Museum, the Altes Museum and the Bode Museum (Chipperfield.B, n.d).

Analysing according to the framework developed from the international charters: Project of the Neues Museum keeps the traditional setting, a careful redevelopment and renovation have been done. The addition of the James Simon gallery does not collide with the museum building, it compliments the settings and major surrounding building. Museum Island is a carefully planned urban regeneration project that has been executed without destroying vital buildings, fulfilling the criteria that the new building should not destroy the physical structure of the area. The addition of the gallery does not alter the historic masterplan but rather provide an entrance gallery and a transition space. The careful reconstruction of the historic projects with the grand master plan has been achieved in stages with many projects still under construction. The project of Neues Museum keeps the external Façade, whereas the interior has been done with the contemporary design language. James Simon gallery as shown in the picture acts as an entrance space to Museum Island and marks it as a transition space. The minimalistic design language does not collide with the monumental façade that can be seen in the background. Additions are of a humane scale surrounding the important buildings of historical significance to create a dialogue between the new and old. New work is readily identifiable from the historical context as there is a difference of scale and design language and it has been created as an access space. Contemporary architecture is a successful addition in both the projects by David Chipperfield as they provide successful urban regeneration for the master plan of Museum Island.

3.2.3 Millenium Bridge, London – UK.	Norman Foster + Partners	Infrastructure Project
1998-2000	The footbridge in London is placed between two important bridges, the Southwark bridge opened in 1921 and Blackfriars bridge that opened in 1886.	



(Images: October 2018)

In the historical city centre of London, a steel suspension pedestrian bridge connects the east bank of river Thames with the west. It is located bank between the Black Friars Bridge and Southwark Bridge. One can see the London skyline and views of the London bridge, it visually and physically ties up Saint Paul's cathedral on one end and the Tate Modern Museum on the other end. The contemporary addition of the pedestrian bridge provides an ideal platform to experience the city while taking a walk on the east and west bank. The construction of the bridge started in 1998 and it was inaugurated in the year 2000, developed with the Engineering firm Arup and artist Anthony Caro the project was assigned in 1996. The first pedestrian bridge in central London crossing over the Thames, spanning over 320 meters (Foster MB, n.d). The addition of this bridge is a prime example of how the public structures apart from buildings are also a prime example to uplift an important area, when pushed the boundaries of engineering and technological advancements the results can generate important breakthroughs and results.

Analysing according to the framework developed from the international charters: The Millennium bridge is proposed into the important setting surrounding the contemporary, modern, historic and listed buildings. The bridge is designed with the latest available technology and connects the important areas for pedestrians. There has been an improvement of access for the pedestrians in the area to cross both sides of the Thames river. Hence this intervention has allowed the connection between the historic buildings and important sides of the city. This bridge does not destroy the physical structure of the area, minimalist design with sleek steel details allow the design to intricately fit into the context. The project bears a contemporary stamp with a contemporary design language, high-tech materials and advanced construction technology. It stands out from the surrounding bridges and showcases the timeline of its construction. Surrounded by the listed buildings one can find a mixture of old and new buildings coming together creating a healthy dialogue in the context, in the case of this project it is surrounded by a former bridge of which the foundations remain and are heritage icon a historic train and vehicular bridge, weaving itself into the infrastructural projects. New work is identifiable from the historical context due to its material and design language. Contemporary intervention is successful as it has become the main point to connect the main landmarks of London and one of the most important pedestrian bridges of the city.

3.2.4 Guillimons Railway Station, Liege – Belgium.	Santiago Calatrava	Infrastructure Project
1996-2009	Design of the station is conceived as a link between two parts of the city of Liège, which was separated previously by the railroad tracks. North of the site is urban area, laid out in a typical 19th century style. Whereas located on the south host a less dense, landscaped residential area.	



(Images: January 2016)

When the first railway station that was built in 1883 was not sufficient to handle the travel load and incorporate the modern high-speed trains, the new railway station was commissioned. Opened in the year 2009, the Guillimons central railway station acts as one of the main nodes in the North European high-speed train network providing links to the United Kingdom, France, Germany and the Netherlands. It has 9 tracks and 5 platforms (three of 450 m and two of 350 m). To cater for the increasing demands of high-speed train transit the design proposal of Santiago Calatrava was commissioned amongst the submissions from architects all over Europe, due to the precedence of Oriente station in Lisbon, Lyon-Satolas Air rail and the reputation for high tech design solutions. The station links the two distinct areas of the city of Liege, that were separated previously by railroad tracks. Providing a 200m wide passenger terminal, designed symmetrically the transparency is the main focus that is achieved by monumental vaults consisting of steel and glass construction providing the continuity between and blurring the boundaries between the station and the city (Calatrava, n.d). The actual structure of the building becomes the façade for the station and the interaction between the interior and exterior becomes seamless due to the use of glass. The monumental roof envelops around and becomes the facade of the project.

Analyses according to the framework developed from the international charters: The project of the new terminal building does not keep the traditional setting, the old station was used until the semi completion of the terminal and then was completely demolished to complete the remaining part. The urban area is laid out in typical 19th-century style on the south side and the less dense area on the north is connected via this contemporary addition that acts as a node. The project changes the historical character of the area and site that is not recommended in charters but provides an open planned transparent structure and acts as a transition space between the two parts of the city. The project has been designed with the contemporary design language using state of the art technology and materials. The contemporary design language with the signature style of architect Santiago Calatrava provides a monumental presence, hence new work is identifiable from the extreme distances but due to the transparency and the visibility, the structure sits in coordination with the surroundings. The design is a success as it does not only act as a central station successfully but also connects two parts of the city as a transition space.

3.2.5 Louvre Pyramid, Paris – France.		I. M. Pei	Museum Intervention
1984-1989	Main pyramid serves as the main entrance to the Louvre Museum. The secondary two pyramids act as the light wells for the connecting tunnels.		



(Images: July 2015)

Louvre pyramid the project insertion designed by I.M Pei is a glass pyramid with metal sections, reaching up to the height of 21.6m with a square base with each side of 35m. With a base surface of 11,000 sq ft, the composition consists of 603 rhombus-shaped and 70 triangular glass segments (Simons, 1993). The project was proposed due to the influx of visitors to the Louvre and the main entrance was no longer sufficient to welcome the guests. The smaller pyramids also surround the main pyramid acting as the light well to the underground tunnels and connecting the concept of courtyard intervention (Louvre, 2016) The main pyramid serves as an intervention into the main courtyard that acts as the main entrance to the museum, whereas the other two pyramids act as the light well to the tunnel connecting the different wings. The location that is at the centre of Paris city is an ideal location for the contemporary addition to being observed a historical context, carefully considering the context of Louvre castle built in the late 12th to 13th century, materiality and history the projects aim to drive the periodical journey, where the remnants of the fortress can be seen in the basement of the museum (Parrot-Shaffer, 2008).

Analysing according to the framework developed from the international charters: This project was a highlight with praises and criticism, it set up a precedence for many projects to come. The careful insertion of the intervention in one of the most visited and significant projects proposed a solution that was to use the entrance from the courtyard with a glass pyramid connected via tunnels. It came into the news due to its contrasting modern language with the classic French Renaissance style Palais du Louvre. Museum intervention does not touch the building but proposes an underground intervention and only a glass pyramid on the sky with a transparent facade to keep the visual balance. The additions do not collide with the museum building but the contrast of materials and design language make it stand out despite its minimalistic detailing. The careful intervention is majorly hidden under the central courtyard and does not destroy the character of the courtyard. Hence, it does not destroy the physical structure of the area, the addition of the pyramid and courtyard entrance does not alter the historic masterplan but rather provide an active solution for the courtyard where the building can be enjoyed from the outside and once inside the courtyard can be seen.

3.2.6 The great court at British Museum, London – UK.		Norman Foster + Partners	Museum Intervention
1994-2000	A glass and steel gridshell roof encloses the 6,700 sq metre (92m x 73m) courtyard and features more than 6,000 individual steel members connected at 1,800 nodes and 3,312 glazing panels makes it one of the biggest covered courtyard in the Europe (Brown, 2002).		



(Images: August 2018)



The revamp and addition to the British Museum incorporates the contemporary glass dome to cover the garden courtyard into a public gathering space, bringing in the light, providing a more protected and social platform for the museum visitors. The project is significant due to its vital urban context. The building of the museum was designed with four wings enveloping a garden by Robert Smirke in 1823 and completed in 1852, designed in Greek revival style with Greek temple inspired 43 columns on exterior, triangular pediment and public scale large steps welcoming into the museum building. The building was completed using the latest materials and the latest technology available at the time (British Museum, n.d). The great court at the British Museum was commissioned in 1994 and completed in the year 2000 with the capacity to host 1000 visitors is designed by Norman Foster + Partners. Covering an area of 19000sq meters (Foster BM, n.d). The design of Foster proposed a centralised circulation system connecting the surrounding galleries, converting the centralised library with the exhibition and public space with incorporated facilities. The roof is made up of 3,312 individual panels of glass, with no two identical in shape and stands 26.3 meters above the floor at its highest point. The 315 tons of glass is supported by a steel structure of 478 tons (Foster, 2020).

Analysing according to the framework developed from the international charters: Project has been proposed in a courtyard that was not accessible to the public. The roof makes the courtyard accessible for the museum and intervention also allowed more floor area for the usage of the museum. British museum is UK's most visited museum, the glass museum protects the visitors from the harsh weather of rains and cold from outdoor and makes the whole museum accessible internally from the courtyard as well. Due to its sleek steel sections and use of glass the structure seems light to the eye. The addition is designed in contemporary language and bears a contemporary stamp, though it looks distinct from the building but does not collide with it but creates a seamless design composition. The addition of the courtyard roof does not destroy the physical character of the area as it does not touch the ground from inside the courtyard and stands independent of the support from the inside. It does not alter the historic composition and layout of the courtyard but opens up multiple access points to and from the courtyard.

3.2.7 Kunst Haus Museum Graz – Austria.		Peter Cook & Colin Fournier.	Museum Intervention
2000-2003	Opened in 2003 as the program for Graz being the European capital of culture. Located opposite the historic city centre, this project also revitalises the less privileged part of the city.		

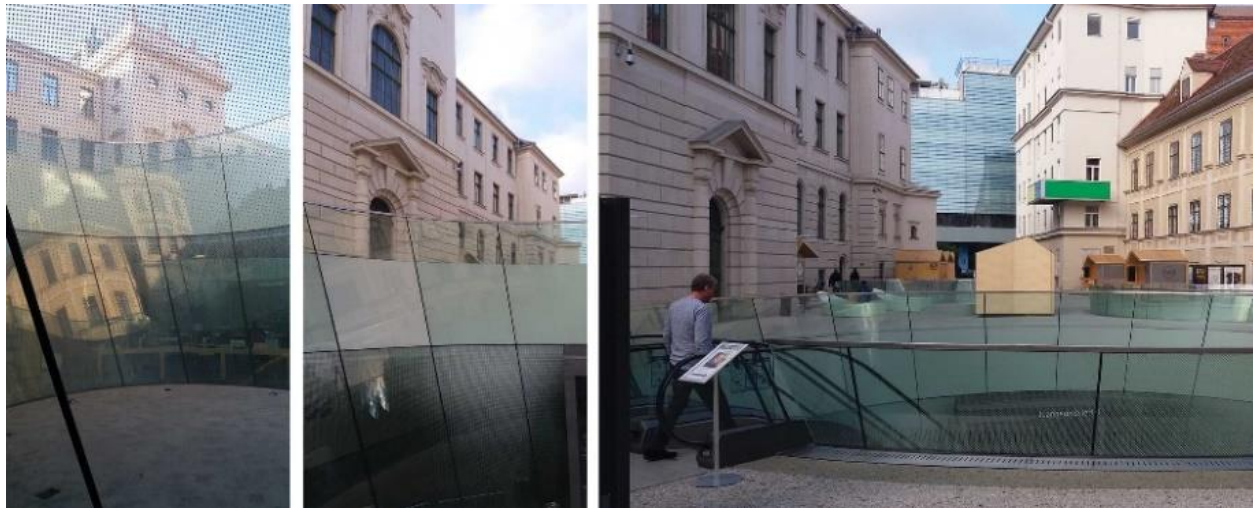


(Images: November 2018)

The Kunst Museum located across the historical city centre of Graz, overlooking the river Mur is designed by Architects Peter Cook and Colin Fournier, designed by architects who introduced the ideas of the Archigram movement proposes a biomorphic shape. The project was part of the Graz plan for becoming the European capital of culture. This museum houses the contemporary art exhibits of the building, the project has an imposing appearance and its irregular external skin can be used as a gigantic multimedia device (Arch KU, n.d). The project also incorporates the building of 'Iron House' the structure that went through multiple changes was restored to its original condition and incorporated with the new structure creating a dialogue. The idea of having a space for contemporary art, a communicative and constantly changing site was in discussion during pop culture in 1960s London in Archigram designs, this project displays a built construction of those ideologies, the form protruding in the contradiction with the neighbouring buildings can be seen from the distant and immediate context with its distinguished shape (Joanneum, n.d). The building has become a landmark of the city and is also called Friendly Alien, project creates a dialogue with its distinct design language and historic setting of the urban district along the Mur.

Analysing according to the framework developed from the international charters: Project is built on the empty lot, it keeps the traditional setting of the Iron House, carefully restoring it and incorporating it into the new design. The new design drastically contradicts the building structures and design language of the surrounding buildings. The materials also contrast the setting with the overall form overpowering and dominating the area. The new building creates a dialogue with the surrounding buildings, it completely contradicts the surrounding and marks its presence, the building incorporates the Iron house into the design with internal access and linkages. The parametric design solution also brings to life the vivid ideas of the Archigram visions and sketches, the façade that can be used as multimedia skin are some of the distinct features of the project. This project created multiple headlines due to its appearance and became an iconic project on its inauguration. With its presence from around the city and its attention the project has become a success to revive the old part of the city, that once did not get much attention.

3.2.8 Joanneum Museum Extension, Graz – Austria.		Nieto Sobejano Architects	Museum Intervention
2006-2011	The minimal intervention in the courtyard space allows the entry points for the three buildings of the museum putting all the major functions underground providing a flowing space in the courtyard.		



(Images: November 2018)

The competition for the Joanneum museum extension and refurbishment was won by Architect Nieto Sobejano in 2006. The Johanneumviertel of Graz is formed by the interception of three buildings: the museum of Natural history from 18th century, the regional library of Styria and a new gallery of contemporary art built in the 19th century, as they belonged to the same institute the common access and a collective organism to welcome the visitors were intended resulting in the underground extension from the courtyard to the structures (Carrai, 2014). The new proposal sets out to the complex by providing welcoming spaces, conference hall, reading areas, services, archives and storage. Instead of providing an iconic intervention that is visible in the expansions of the neighbourhood, the unique opportunity has been used with an approach of urban and architectural transformation by providing an underground courtyard solution (Frearson, 2012). Building a complex with common access, and under ground, spaces housing the required program. This decision acknowledges the value of the existing historical construction, continuous surface of the new square is marked by a combined series of conical light-wells and courtyards that bring natural light into the underground spaces and house the entrance, the lobby, and the areas shared by the museums and the library (NietoSobejano, n.d).

Analysing according to the developed framework: The project keeps the traditional setting, respecting the setting of the historic buildings the whole program is proposed underground and the access is provided from the courtyard area. It also reminds of the solution that was proposed by architect I. M. Pei for the Louvre museum. The addition does not collide with the museum buildings and compliments the settings. Hence the proposal does not destroy the physical structure of the area and does not alter the historic masterplan but rather provide an entrance gallery and a transition space. The careful reconstruction of the historic buildings. The goals have been achieved carefully by putting the access underground from the courtyard while maintaining the contemporary design language that can be experienced while transitioning from the courtyard. The minimalist design language on the ground does not collide with the historic facades of the surrounding. New work is readily identifiable from the historical context as there is a difference of scale and design language and it creates a dialogue with the buildings.

3.2.9 Raina Sofia Museum Extension, Madrid – Spain.		Jean Nouvel.	Museum Intervention
1999-2005	The three wings are organized around a courtyard facing the old building. The first, to the south, is a library; meeting rooms, auditorium and eateries to the west and the north is for temporary exhibitions space and the only one with a direct connection to the museum.		



(Image A: July 2015)



Image B & C (Nouvel, n.d).



The current museum building stands on the site where San Carlos hospital was built in the 16th century, in the eighteenth century the building was updated with the designs of architects José de Hermosilla and Francisco Sabatini. In 1965 hospital was closed, the building survived demolition and was later declared a national monument. In 1986 after the restoration museum opened (RainaSofia, n.d). Architect Jean Nouvel's office won the design competition for the extension of the Raina Sofia museum. An addition of 26,500 square meters was added that included two new exhibition spaces, a 500 seat auditorium and complimentary functions. "The museum takes under its wing a triangular block to the west, three or four existing buildings and several trees: even if these buildings are being replaced, the substitutions remain approximately in the same place. The rapport with the neighbouring architecture has not fundamentally changed; instead, the western façade of the museum has simply been freed up" (Nouvel, n.d). Each building opens onto terraces, some public, others for employees. The library captures overhead light and shadow with suspended dome skylights. The large windows are protected by steel louvres that are perforated in calligraphic patterns – small refinements that create intimacy and quality of light suitable for study.

Analysing according to the developed framework: The project adds a composite of three new parts to the existing building, significantly enlarging the complex. Designed in contemporary language, the building has a huge presence. The use of contemporary materials with steel, glass and cladding finishes make it stand apart from the historic building. The design sits in harmony with the existing building, it contrasts with its design language but does not compete with it in scale and both buildings have their character with each defining its era. The new building sits into a pre-existing built site contributing to the enhancement of the neighbourhood and immediate surroundings that surround it. The new complex creates a public plaza and a semi-covered courtyard Hence the proposal does not destroy the physical structure of the area, however, the design language stands out from the immediate context and surrounding buildings, successful bearing contemporary stamp. New work is identifiable from the historical context as there is a difference in design language, materiality and form.

3.2.10 Trianna Ceramic Museum, Seville – Spain.	AF6 Arquitectos	Museum Intervention
2009-2014	The project carefully restores a former factory and connects different internal spaces for a museum that tells a story about the ceramic culture of the city. The facades have been kept with the traditional historic settings whereas the combination of new and old creates a creative dialogue inside the complex.	



(Images: August 2018)

Seville has the pottery and ceramic region that has its roots since the early 12th century. The project develops in the former pottery complex Santa Ana factory, an exhibition centre for ceramics, an interpretation space within commercial and productive activities of the factory. While approaching the site the minimal presence for the interventions in street, allows the visitors to walk into the many small local businesses and ceramic shops that sell the locally produced objects. The project is developed into an old pottery complex, converting into an exhibition centre of ceramics. The Triana district has historical importance as ceramic and pottery production. The project includes an interpretative centre that is on the intersection of the tourist routes in the quarter of Triana, as well as the multiple productive activities and commercial zone that are active on the day to day life activities (Valencia and Martins, 2015). It consists of two interconnected plots where there are three different buildings attached. The old factory kept its production until the end of the 20th century. It is not visible from the outside, hidden behind the buildings which make up its urban image (Archdaily Triana, 2014).

Analysing according to the framework developed from the international charters: The Museum building keeps the historic setting for the external facades, when one approaches the museum the streetscape is restored and the presence of the museum is discreet. With the ceramic shops on the road. One can only see the contemporary museum intervention and experience the architectural intervention where the old and new come together. Weaving together the different spaces of old small spaces of factories with the newly built masses to make use of the created spaces for the display creates a play of masses and volumes where old and new come together in a careful design composition. The complex keeps its traditional setting on the street level in an external façade whereas in the internal spaces and courtyards the combination of old and new forms is used. The specific finishes of metal and ceramic elements on the elevations are used. The new building does not destroy the character of the historic city or assemblage of the old buildings, the careful restoration of the different parts in the site has been done for the experiential visit to the museum where once a factory existed. The design intervention bears a contemporary stamp and the new work is identifiable, the visitor can see the difference between the old and new parts.

3.2.11 Extension of Landes Museum, Zurich - Switzerland		Christ & Gantenbein Architects	Museum Intervention
2002-2016	The new design proposal connects with an old building making a complete loop. It creates a courtyard that is not completely closed but as the new wing rises catering to its internal functions it also provides the experience for the victors and opens views to the river Limmat.		



(Images: November 2018)

The Swiss national museum was built in 1898 as a monument to the state. Over a period of time and with growing collections the original layout had become outdated and had to be renovated and an expansion was needed for the museum. Christ and Gantenbein won the international competition in 2002, designating a contemporary space as an extension to the museum on the park side of the existing structure, addressing the requirements. The roof is integrated with the form responding to the geometry, having a footprint of 1240 sq meters. Both the new and old buildings used the advanced techniques and learnings of concrete in their time (Christ & Gantenbein, n.d). The new proposal created a unity between the old and the new by translating the original layouts and proposing the new extension accordingly, the origami-inspired roofscape of the new structure enhances the characters of the original structure while creating a dialogue fulfilling the contemporary standards, the double-wall construction of the new addition is as thick as the 19th-century walls creating relevance. (Architonic, n.d).

Analysing according to the developed framework from international Charters: The new addition to the Swiss national museum does not follow the traditional setting but creates a new form and design solution for the new requirements. The building form is designed into contemporary language and sits in contrast with the existing complex. The two buildings coming together also make an extension courtyard in the centre but have a different design language and represents their own time. The new building does not destroy the physical character of the area but enhances it by creating a courtyard and adding additional space for the important exhibits and provides the visitors with the visual experience of new and old both externally and how they have been connected internally. The project bears a contemporary stamp with a contemporary language, new work sits with the old building but both buildings maintain their own identity and carefully come together as a composition and as a part of a comprehensive scheme. New work is readily identifiable from the historical context as there is extreme contrast between the design language of new development and historic building.

3.2.12 Kunst Haus, Zurich - Switzerland		David Chipperfield Architects	Museum Intervention
2008-2020	First building of the museum was designed by Karl Moser and Robert Kurjel and opened in 1910. The extension of the museum sits right across the original building and has a visual connection, but does not physically touch the structure.		



(Images: November 2018)

The new building of Kunsthaus sits right across the first building of the Zurich art museum, which was built between 1904 and 1910. The new project is commissioned to David Chipperfield after the international competition in 2008, The construction timeline was 12 years and the building finished in 2020. The existing museum is expanded with this new addition, adding a passageway that connects the two museums from underneath the square and links the two museums, together with the theatre on the south-east side of the square, the museum building forms a 'gateway to the arts', an urban entry to the education mile leading to the university buildings to the north. The new structure combines the innovation with the traditional materials by adding the vertical fins crafted from local limestone with the sawn surface at regular intervals on the façade, providing the building with its urban and cultural context in a contemporary manner (Chipperfield C, n.d). The placement of a clear geometric volume to the north edge of the square, provides the two new public spaces, an urban square framed by architecture to the south and the art garden acting as a neutral counterpoint to the north. The façade of the extension is designed in traditional stone, which can be found in the existing museum, carefully embedding the building into its urban context (Gonzalvo, n.d).

Analysing according to the developed framework: The extension of the museum project keeps the traditional setting intact, as it is sitting across the project site, the two buildings are connected from underground and there is no physical connection between the two structures. Museum extension does not destroy the physical character of the area, due to the simple geometric volume, the building sits and responds to its site, due to plain and simple finishes the project becomes subtler. It enhances the quality of the master plan with the surrounding masterpiece buildings and adds another quality structure into the timeline. int is that the new building should not destroy the physical structure of the area. The project is designed with contemporary minimalist design language and fits into the site while corresponding to the surrounding structural masses. Design is readily identifiable from the historical context and surrounding buildings, contemporary architecture is successful as the project fulfils its design purposes and proposes a contextual solution for the city and does not overpower the surrounding rich environment.

3.2.13 Pompidou Centre, Paris – France.		Richard Rogers and Renzo Piano	Other Cultural buildings
1971-1977	Pompidou centre was built as the most radical idea of its time. Having most of the services outside the internal space was freed up the verticality along with the high-tech architecture in the historic core of the city earned this project a lot of international attention.		



(Images: July 2015)

The competition to design a cultural and arts complex that will hold a museum of modern art, reference library, industrial design centre, temporary exhibition space, library, art centre, audio visual research centre and restaurants was held in 1970. Built in the historic core of Paris the modernist structure was designed in a high-tech style of architecture, an effort of collaboration by the teams of Italian architect Renzo Piano, and British architect Richard Rogers (Perez, 2019). An ideal combination with the contemporary high tech structure, providing views of the city with each level having external circulation and movement. Piano describes the building as "The centre is like a huge spaceship made of glass, steel and coloured tubing that landed unexpectedly in the heart of the Paris, and where it would very quickly set deep roots" (Crook, 2019). The proposals main idea was that the building will only occupy half of the site and leave the other half for the public square. This meant the building getting taller in height to cover the required floor area making it 42 meters in height with six-story column-free space and a floor area of 103, 305 square meters making it the largest museum of modern art in Europe. Placing the services, corridors, elevators and structural members on the exterior of the building made the internal spaces free and allowed the flexibility for them to be rearranged accordingly (Bostjan, 2019).

Analysing according to the developed criteria: The project of Pompidou centre does not keep the traditional settings as the project does not fit in with the immediate neighbouring buildings and the area due to its scale and architectural language. The building makes a bold statement having service protruding outside, designed with the state of the art technology and due to the huge scale, the building dominates the neighbourhood and becomes a centre stage of attention. The new building makes a significant impact on the area, bringing in a record number of visitors, due to its iconic presence. It has a radical design language that was unique for its time. The project bears a contemporary stamp and is distinctly identifiable, as it has contrasting features from the small scale traditional buildings of the city core. This dominating structure has been used as a precedence for many interventions that followed.

3.2.14 Gaia Chairlift, Porto – Portugal.		Menos e Mais Architects	Other Cultural buildings
2007-2009	The Gaia chairlift project has two stations the upper station that is implanted into the garden of Moro across the monastery of Serra do Pilar and the lower station is next to the waterfront of Douro river across the municipal market.		



Images: April 2018

The upper station is nestled into the garden of Morro, and the bottom station is right at the river bank. The upper station sits across the Monastery of Serra do Pilar, towards the right hand while crossing the Luiz I Bridge to reach Gaia, adding to the landscape and the context, with its complex technical and standardised requirements of power station the design solutions sit within the context fulfilling all the requirements along with the considerations of heritage and historic surroundings. The roof of the upper station becomes the extension to the Morro garden and acts as the urban balcony of the city. Following a minimal design approach, the design respects the surrounding structures and incorporates itself into the existing context by fitting into the existing retaining walls of the garden and aims to have a neutral and abstract character. The project seeks to merge with the context (Archdaily Gaia, n.d). The upper station having strong historic structures of bridge and Monastery building. Lower Station is situated next to Municipal Market in Cais de Gaia. The contemporary design fits in with the historic surroundings very subtly, yet it can be distinguished due to the play of openings designed for the functional and structural requirements. The project has a built area of 2931 sq. meters and covers the distance of 562 meters from the Upper station to the Lower station (Menos E Mais, n.d).

Analysing according to the developed framework: The project keeps the traditional settings of the area. The new project fits itself into the retaining wall of the slope, with its plain geometric finish catered to the machinery. The intervention does not collide with the historic character of the area, the projects top level acts as an urban balcony and acts as an extension of the Morro garden. Hence the building does not destroy the physical structure of the area. The project is built in a contemporary design language using new technology, materials and finishes. The overall scheme becomes a part of the whole and fits in with the surrounding structures due to its humane scale and form. New work is identifiable from the historical context and surrounding buildings but ties up the whole complex uniformly. The success of the project is determined by how the project successfully integrates between the historic structures and how it ties the two parts of the city. It does not subdue the surrounding context and becomes part of the overall landscape

3.2.15 El Greco Congress Centre, Toledo – Spain.		Rafael Moneo	Other cultural buildings
2000-2010	The Toledo city centre is a UNESCO world heritage site. The building designed by Moneo works as a part of the master plan developed by Barcelona urbanist Joan Busquets for the integration of functions and parking to reach the city core.		

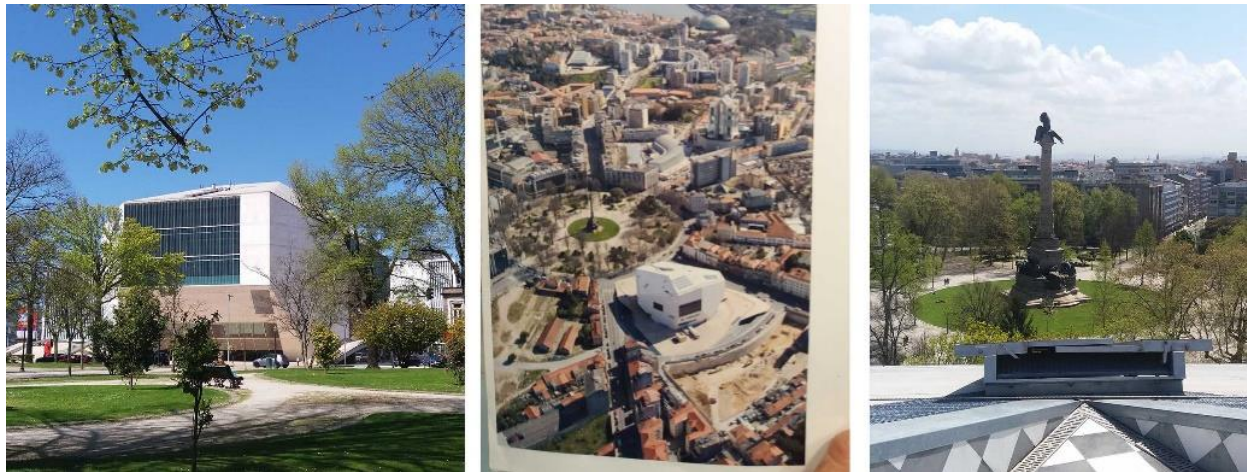


Images: July 2015

The ancient city has a combination of integrated ancient cultures, with a combination of religious and institutional setups. Project designed by Rafael Moneo is built on an old parking lot and a former rundown shopping centre. The challenge of inserting a contemporary and ambitious Convention Centre with a footprint of 400,000 square feet into a city that has scarcely changed since El Greco painted it in the 16th century was a big one (Cohn, 2013). The project aims for reversibility of the site. Within the strict city boundary walls, the program of making a parking lot for 650 automobiles, a 1000 seat auditorium and additional services of convention Centre have been added blending with the surroundings. The building is designed with contemporary language, the entrance is marked with a grand gesture, the roof of the building acts as a garden that has been landscaped and becomes a public square giving back to the city and become a viewing platform while accessing the building from the historic core level. The natural contours of the site with its sharp topography allowed the parking to be designed with separate entrances from the lower levels (Rafael Moneo, n.d).

Analysing according to the developed framework: The project carefully considers the traditional settings and there is an attempt for making more public open space by using the roof as the public square, using the levels of site and the advantages of topography to design the parking with access from a different level. Making the massing as a part of the urban terraces and landscape, the whole form becomes part of the city's boundary wall. The new building does not destroy the physical structure of the area, it carefully addresses the site the requirement of the city and produces a solution that incorporates all the demands without destroying the character of the historic city. The project is designed in contemporary language using new technology and advanced materials, careful consideration has been paid to the finishing of the building, the use of local stone blends the structure with the cityscape and makes it a part of a comprehensive scheme and master plan.

3.2.16 Casa da Musica, Porto – Portugal.		Office of Metropolitan Architects	Other Cultural buildings
1999-2005	Rem Koolhaas breaks away from the typical forms of the amphitheatre for the Opera house and proposes a carved volume that incorporates large glass on the two sides of the main hall.		



(Images: April 2018)

The building designed by the office of Rem Koolhaas, OMA, is built in the new public square in the historic Rotunda da Boavista, it faces a big public with three sides of mix used buildings. With its distinctive form made out of white concrete, holding a significant presence and authenticity on the site. “we chose not to build the new concert hall in the ring of old buildings defining the Rotunda but to create a solitary building standing on a travertine-paved plateau in front of the Rotunda's park. With this concept, issues of symbolism, visibility, and access were resolved in one gesture” (OMA, n.d). The form provides a notion being carved out from a single solid mass, the 400mm thick concrete shell that ties up the whole building with two 1m thick walls of the main auditorium that act as structural core of the building Its distinct feature is that the 1300 seat auditorium has two walls made out of glass, simple hollow mass from end to end along with ten rehearsal rooms a more flexible space with no seating, recording studios, educational facilities, a restaurant, terrace, bars and administrative area along with the provision of 600 underground car park provided an ideal solution. The project is an uncompromising contemporary addition to the 19th-century neighbourhood (Sudjic, 2005).

Analysing according to the developed framework: The project breaks away from the traditional settings and the project stands out as an individual entity and makes a bold statement in the area. The new building does not have any relationship with the neighbourhood that has mostly 18th and 19th-century structures. The project responds to the grand public space of the Rotunda da Boavista and makes a public space outside the auditorium building that is accessible and various interactive features including the slopes for skating and small outdoor seating are incorporated into it. The new building becomes the main source of attraction in the area and due to its iconic presence, it gains a lot of attention. As the project does not utilise the whole site and gives back to the city with its open space it enhances the character of the area and city. The project is designed in contemporary language using new technology and advanced materials. The project has a distinct character and has become a landmark building for visitors and locals.

3.2.17 Rottermann Carpenter's Workshop, Tallinn – Estonia.		KoKo Architects	Other Cultural buildings
2006-2009	The two lower floors of the old carpenter's workshop have been restored and house the commercial facilities of the workshop and three towers resting on the central core independent from the facades of the historic structure have been added to host the offices.		



(Images: December 2018)

In the Rotterman quarter of Tallinn the extension to the 19th-century industrial estate, converting it to the shop and office building in Rotterman, although there are many buildings still waiting to be transformed or inhabited, one can experience the results of the process. The compact pedestrian area envelops many shops, restaurants, offices and accommodation facilities. The facility of introducing the historic carpenter's workshop, designed by KOKO architects and completed in 2009 is one of the contemporary solutions proposed that references to the 20th-century industrial architecture by putting three techno futurist towers (Archdaily CW, n.d). The 19th-century industrial building is combined with the new high tech architecture solution. The historic building is untouched from the facades to avoid harm to the walls. The approach of developing the structural core placed on a pile is used. The towers are designed to rest on the central core and ensure the autonomy of the three volumes. This bold statement is visible from the surrounding areas outside the quarter due to the height that the structure has achieved (Lige, 2009).

Analysing according to the developed framework: The project keeps the traditional setting. The façade of the historic building and overall volume on the street level has not been touched. The original façade has been restored and the building has been revitalised. The new addition of three towers does not destroy the physical appearance of the building. The original volume has been kept and the tower stands apart from the original volume with the central core. Designed in contemporary language the additions are distinguished from the original historic building and become part of the comprehensive scheme. New work is readily identifiable from the historical context as there is extreme contrast between the design language of the two parts of the project, both of them represent their own time and era. However, the composition of the two and the attempt to regenerate the historic industrial architecture brings a lot of attention to the region's architecture and revives the industrial heritage of the quarter.

3.2.18 Dancing House, Prague - Czech Republic.		Frank Gehry & Vlado Milunic.	Other Cultural buildings
1992-1996	Built on an important site surrounded by historic buildings, this project gained attention due to its deconstructive design. This project has become a landmark for the city and has the signature style of Frank Gehry.		



(Images: December 2018)

Nationale Nederlanden, also known as the dancing house building in Prague, is placed on a site amongst residential blocks. The site was destroyed during WWII bombings and the structure remained ruined and later cleared in 1960. The plot was empty and then it was designed by a collaboration between Frank Gehry and Vlado Milunic in a significant region on an important site was built from 1992 to 1996, the site is located in the historical centre of Prague, adjacent to the public square, responding to the site, the design creates a smooth transition from the street to the building entrance enhanced by the massing strategy that establishes a sculptural dialogue appropriate to the context of the immediate context (Knight, 2000). The deconstructive design is proposed with its distinct shape. The design gained a lot of international attention due to its non-traditional design approach amongst the Baroque, Gothic and Art Nouveau buildings of Prague. Designed in deconstructive architecture, the structure is supported by 99 concrete panels, each is of a different shape and dimension. On the top of the building, a large twisted structure of the metal is placed. Having two central bodies, a tower of glass and a curved body supported by pillars, the second runs parallel to the river which is characterised by the moulded wavy façade distributed through the nonaligned openings (Architectural times, 2020).

Analysing according to the developed framework: The project is designed in a deconstructive style of architecture. It stands out from the surrounding buildings, similar in height the project follows the standards of the building but due to the non-conventional approach for the massing and finishes the undulating surfaces the project becomes a centre of attention. The project does not destroy the physical structure of the area, as the same standards and building codes of setbacks and floor area ratio has been used, the plans do not alter the historic masterplan of the area, project carefully considers the surrounding volumes. Simon gallery as shown in the picture acts as an entrance space to Museum Island and marks as a transition space. New work is readily identifiable from the historical context as there is a difference in design language.

3.2.19 Caixa Forum, Madrid - Spain	Herzon & Demeuron.	Other Cultural building
2001-2008	The building uses the façade element of the historic building that occupied the site. Freeing the base, the building is divided into two parts with the major chunk underground including theatre, auditorium and car park. Multistore building above ground holds galleries, restaurants and administrative offices.	



(Images: July 2015)



(Herzog Demeuron, n.d).

The former midday power station has been converted into a cultural centre with social and cultural activities in Madrid. In the classic surroundings of Paseo del Prado. The building of the late nineteenth century has been utilised where the shell has been incorporated into the design of the Caixa Forum. Located opposite the Botanical Garden and next to the Prado Museum, the Thyssen-Bornemisza Museum and the National Museum Reina Sofia Art Centre, the innovative structure with the mass hanging out and floating invites the visitors inside. The use of the classified brick façade of the old power station has been incorporated into the building's external elevations (Etherington, 2008). The project includes galleries, administrative offices, an auditorium and a restaurant. During the design of the project, careful consideration of using the parts of the heritage building was considered to revive the memory of the place. The former building represented the early industrial age of Madrid. Hence, the idea of using the part of the facades by separating the base and removing the parts of the structure that was no longer needed. By removing the base of the building and cantilevering the upper floors the huge covered plaza was achieved that acted as a natural entrance space and allowed the visitors to spend more time outside under a sheltered space, solving the problem of the narrowness of streets, placement of main entrance and architectural identity of the building (Herzog Demeuron, n.d).

Analysing according to the developed framework: The project does not keep the historic building, only the external façade has been used as a part of the composition for the elevation of the design. The new building does not destroy or overpower the physical structure of the area, the same footprint has been used that the previous building of the powerhouse had. The Bottom part has been removed opening it up for the public making the access and an open plaza defining the entrance. The project is designed using high tech construction materials and technology with contemporary finishes. New work is identifiable from the surrounding buildings but makes an effort towards retaining the memory of the historic building by incorporating its facade into the design of the elevation.

3.2.20 Kolumba Museum, Cologne – Germany.	Peter Zumthor	Memorial Revival
2003-2007	Built on the former site of Saint Kolumba church, the new building uses the church remains and encases the small chapel built-in 1950. The design uses the remains and incorporates them inside design of the new museum building.	



(Images: January 2016)

Located on the site of the former St. Kolumba church that was destroyed in World War II bombings, it was then replaced by a chapel, the museum now hosts one of the oldest museum collections previously hosted near the Cologne cathedral. The new structure envelops the chapel that was designed by Gottfried Bohm on the former site and the ruins of the Gothic church St. Kolumba, enveloping them like a cloak (Kimmelman, 2011). The perforated grey brick facade incorporates the original walls that remained from the Kolumba church, creating a new image for the museum's contemporary design. The building has been designed to showcase the internal remains with the play of light that come from the openings that vary in scale. 16 exhibition rooms in the heart of the building a landscaped courtyard have been added. The materials have been specifically chosen to reflect and respect the rich context, clay plaster, flooring made with a combination of limestone, terrazzo and mortar. Whereas the ceilings are designed with a poured mortar shell, window frames, doors, casings and fittings of steel, wall panelling and furniture of wood, textiles and leather, curtains of leather and silk. The combination of different materials coming together to create a subtle and incorporated context (Kolumba, n.d).

Analysing according to the developed framework: The project of Kolumba Museum does not keep the traditional settings but instead incorporates them into the new structure. Most of the remnants have been incorporated as an experience within the shell of the building. The building does not destroy the physical structure of the surroundings but attempts to envelop it and make it part of the new scheme. There has been no attempt towards reconstruction, but rather the ruins have been dealt with as a memory. The project bears a contemporary stamp with a contemporary design language. An attempt has been made to use the simple materials and finishes with a geometric volume that does not collide with the surroundings or overpower the remains of Kolumba church. The design of new and old has been tied up as a part of a comprehensive scheme. New work is identifiable from the historical context but becomes part of the external volume, one can see the new walls incorporated on the old foundations in parts. The project has gained international attention and praise due to the solution proposed by the architect and careful consideration of the remains with the incorporation of contemporary architecture to host the collections of the oldest museum of the city.

3.2.21 New Acropolis Museum, Athens – Greece.		Bernard Tschumi	Memorial Revival
2001-2009	Having an area of 14,000 square metres. The new museum stands at the foot of the Acropolis, only 280 metres away from the Parthenon. The museum stands on the important archaeological remains carefully protected and made part of the design.		

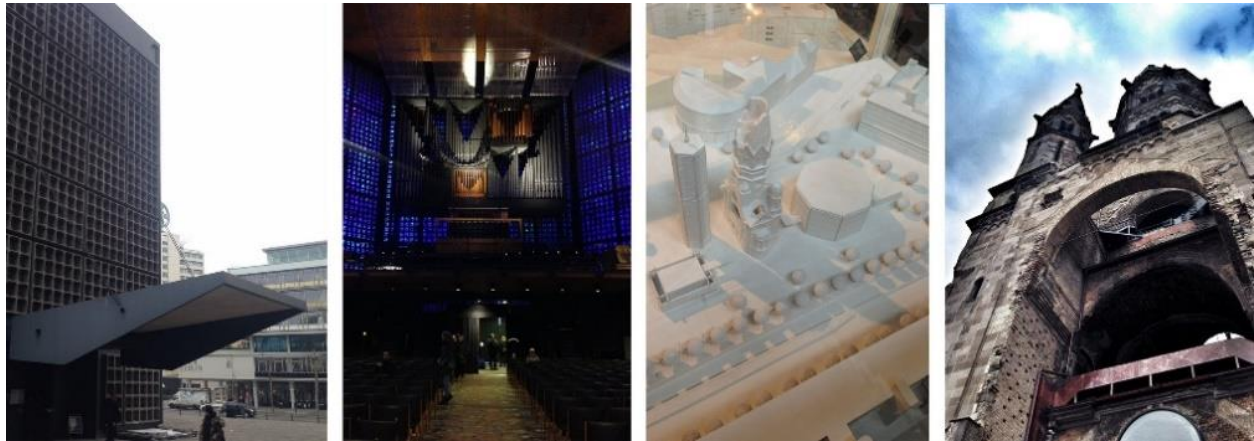


(Images: May 2016)

The insertion of the New Acropolis Museum on the archaeological remains of the Roman period in an important part of the Athens city next to Acropolis is of vital importance. The Museum stands on the foot of Acropolis only 280m directly from the Pantheon. The first museum completed in 1874 went through an expansion in the 1950s but successive excavations discovered the important site and objects that exceeded the original capacity, hence a new competition was arranged (Pantheon Archive, n.d). The top floor provides a 360 view of modern Greece and direct views of the Acropolis with 8000 square meters' space of exhibits showcasing the life on the Athenian acropolis. The base of the museum is floating on pillars and is designed with careful negotiation and discussion with archaeological experts. Built over the archaeologically important site, the slab rests on the sleek series of columns, a transparent glass ramp overlooking the archaeological remains with a view of Acropolis leads to the galleries in the middle. The transparent closure provides direct views from inside the building and proves an ideal light for the sculptures using the most contemporary techniques to protect from heat and light (Tschumi, nd).

Analysing according to the developed framework: Project of the New Acropolis Museum intervene directly into the traditional setting. The new museum considers a careful plan for the incorporation of the archaeological remains into the master plan of the new scheme. The museum building is lifted on a series of sleek columns that support the base slab. There is transparent glass that allows the visitors to have clear views of the remains while inside the building and from outside as well. The project distinguishes itself from the surrounding context due to the material and finishes the rectangular volume with its dark glass finish to make it prominent, giving it a monumental presence in the context. New museum building intervenes in the historic context but does not destroy it, rather makes careful insertion into the project. The new work is identifiable from different parts of the city due to its scale, the presence and direct connection with the site of Pantheon give it significance and makes it a strong node for the city. The contemporary design language with the archaeological remains and direct visual connections from the different levels of the museum allows the visitors to have the connection with the new museum the remains in the lower level and city at all times. The buildings create a dialogue between the new and old. New work is readily identifiable from the historical context as there is a difference in scale and design language.

3.2.22 Kaiser Wilhelm memorial Church, Berlin – Germany.		Egon Eiermann	Memorial Revival
1959-1963	The Modernist building placed on the site of the destroyed church carefully uses the damaged structure and uses it with the new design solution making the complex as a whole.		



Images: January 2015

The original church was built in the 1890s, damaged heavily during the World War II air raid in 1943. At the present day, the church consists of a new building and tower designed by Architect Egon Eiermann. Initial plans were to completely replace the structure with the new proposal, but due to the public response, the plans were changed. The solution was proposed to keep the church as it was and restore it as it was, keeping it as a war memorial and proposal of the new building was built integrating the remains of the old church and was constructed from the year 1959 to 1961 (Falser, 2009). The complex consists of four buildings, On the west of the old preserved, remains a new church with a foyer and a separate tower with a chapel to its northeast. The tower is hexagonal in shaper whereas the church is octagonal, constructed with a combination of concrete steel and glass. The church is 35m in diameter and 20.5m high, whereas the tower is 12m in diameter and 53.5m in high (Gerlach, 2007). The old remains carefully restored in the centre of the new church complex provide the experience of the historic church with its tower kept in the same shape and cladded to protect from the weather. Inside and outside of the church visitors can see the damages done by the wartime to the building.

Analysing according to the framework developed from the international charters: The design solution proposed by the architect keeps the existing settings and add new units on the site incorporating the remains by carefully restoring them. Hence, the new building does not destroy the physical structure of the area. The remaining tower of the church acts as a memorial, as most of the city around the area has been redeveloped with very few original buildings from that era. The project designed in modern language bears a contemporary stamp. The building is composed by using the latest technology available at the time with contemporary materials of glass and steel, providing a huge cantilever. The new and old keep their identity while providing an experience as a whole. New work is distinguished from the old with its materiality, form and finishes and the contrast is visible from all around the site as the building s almost stand independent and can be viewed from all four sides while approaching them.

3.2.23 Musealisation of Praça Nova, São Jorge Castle, Lisbon – Portugal.	João Luís Carrilho da Graça (JLCG) Architects.	Memorial Revival
2008-2010	A sheet of corten steel is proposed that brings together the different areas of the site by tying up the archaeological remains. It contains the topography and articulates the sites encouraging the walk and discovery of the area.	

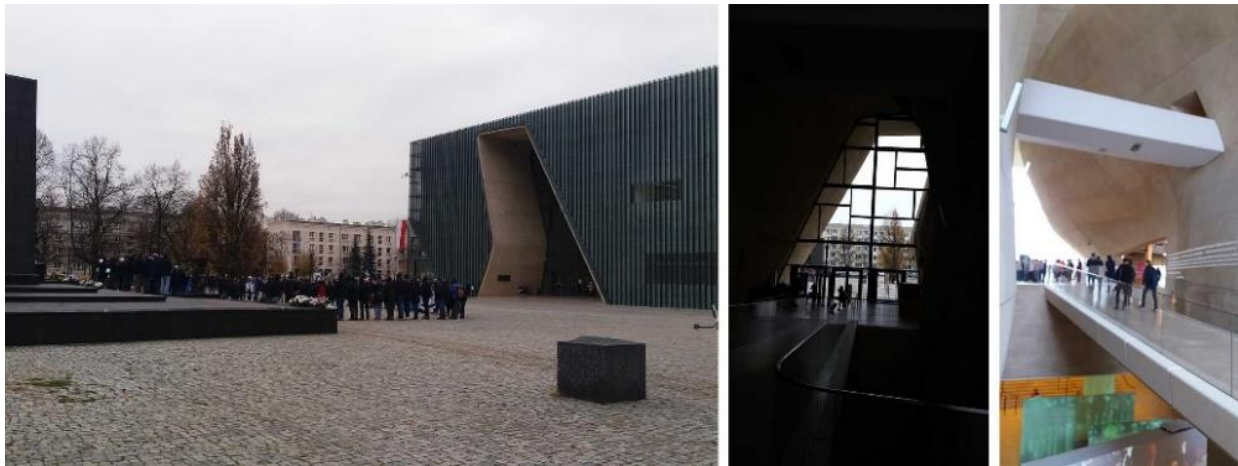


(Images: May 2008)

On the hill that occupies the Castle of the São Jorge the project of Lisbon's Musealisation of Praça Nova is considered the first settlement of the city of Lisbon. The site has vantage points that overlook the river Tagus and the inland territory of Lisbon city. Although the first fortifications on Lisbon's Castel hill are known to be no older than the 2nd century BC, Iron Age people occupied the site from the 8th to 6th century BC. (Silva, 1991). The site is enclosed by the defensive walls to the North and the West and Santa Cruz church to the south. An extensive archaeological excavation of the uncovered remnants of the successive periods of inhabitation from the iron age to the Moorish occupation and fifteenth-century palace on the site (Marquez, 2018). The symbolic reconstruction of Moorish quarters the 11th – 12th-century building, apart from their size (160 Sq.m) and (190 Sq.m) the houses are noteworthy for the geometric designs decorating the plasterwork on the walls of the rooms, a floating canopy protects the existing mosaics, where the, producing a special experience where the structure does not touch the ground respecting the archaeological remains, a series of independent rooms arranged around a courtyard provide an experiential journey (JLCG AM, n.d).

Analysing according to the developed framework: The careful insertion of the corten steel in the archaeological remains showcases the different layers and levels. There is an attempt to revive all the layers from the archaeological team and the architectural inputs revive all the levels by weaving them together and creating a story. The project makes an attempt towards the revival of traditional settings. The new architectural input is done to minimal levels and does not destroy or alter the physical structure of the area. Minimal and careful intervention allows the visitor to experience all the levels. Intervention is designed in contemporary language with the latest materials. An attempt has been made with the plain minimalistic forms for the revival of the housing quarters that existed on site between the 11th and 12th centuries. The whole design comes together with the continuation of the corten steel, making the new addition a part of a comprehensive scheme. New work is identifiable from the archaeological remains, careful consideration is given for the visitors to understand the remains and memory with the integrated design solution.

3.2.24 Museum Historii Żydów Polskich, Warsaw, Poland.		Lahdelma & Mahlamäki Architects.	Memorial Revival
2009-2013	The Museum faces the memorial commemorating the Warsaw Ghetto Uprising of 1943. The project is built on the former Warsaw ghetto, the area was demolished after 1940 and has been rebuilt over time.		



(Images: December 2018)

Located on a significant site of the former Warsaw ghetto. The museum plot is one kilometre away from the old centre of Warsaw. Warsaw museum for the history of Polish Jews sits alongside the memorial of the Jewish Ghetto uprising (Davis, 2013). The site is situated in a public park surrounded by residential buildings. Designs of Mahlamäki + Kurylowicz & Associates were selected from the international design competition and the project is built from 2007 to 2013. Museum has a covered area of 18300 sq meters. (Archdaily JM, n.d). The frame of the building is cast-in-situ concrete. The exterior is clad with glass fins and copper mesh. Free-form walls and the curving shapes of the roofs connecting to them establish the frame system. Steel structure thickness and concrete wall is approximately 60cm. Design of the curved walls with load-bearing structure. Achieving geometrical double curving surface that has ever been realised, a specifically designed software was used for the specific achievement. The building holds the history of different periods until today, located on a critical site project that includes research, exhibition, education and cultural spaces. The basic form of the design is compact, not detracting from the park or the surroundings (Lahdelma & Mahlamäki, n.d).

Analysing according to the developed framework: Project sits on the site of the former ghetto site. Most of the neighbourhood was demolished in the 1940s the building is proposed into the site of the park where there is a monument to the Ghetto uprising and the events that took place in WWII. The building does not destroy the physical structure of the area as it is located inside the park and due to the simple form with glass divisions the building blends into the landscape and slowly reveals its prominent features once it is approached. The project is built using the contemporary design language with state of the art technology, materials and finishes. The simple form does not collide with the surroundings. The building with its simple external volume gives glimpses of the internal street that is curved and goes through the whole volume with its undulating pathway. The visitor experiences rather than a loud design statement, a building that has a compact and reserved form, the design welcomes the visitors with the grand gallery. New work is identifiable due to its design language from the surrounding context but the building does not detract or overshadow the surrounding park and area.

3.2.25 House of 24, Porto – Portugal.		Fernando Tavora.	Memorial Revival
1995-2000	Built as the Chamber house building and as a part of the reconstruction of the tower project. Project designed by celebrated architect Fernando Tavora stands right next to the important site Cathedral of Porto.		

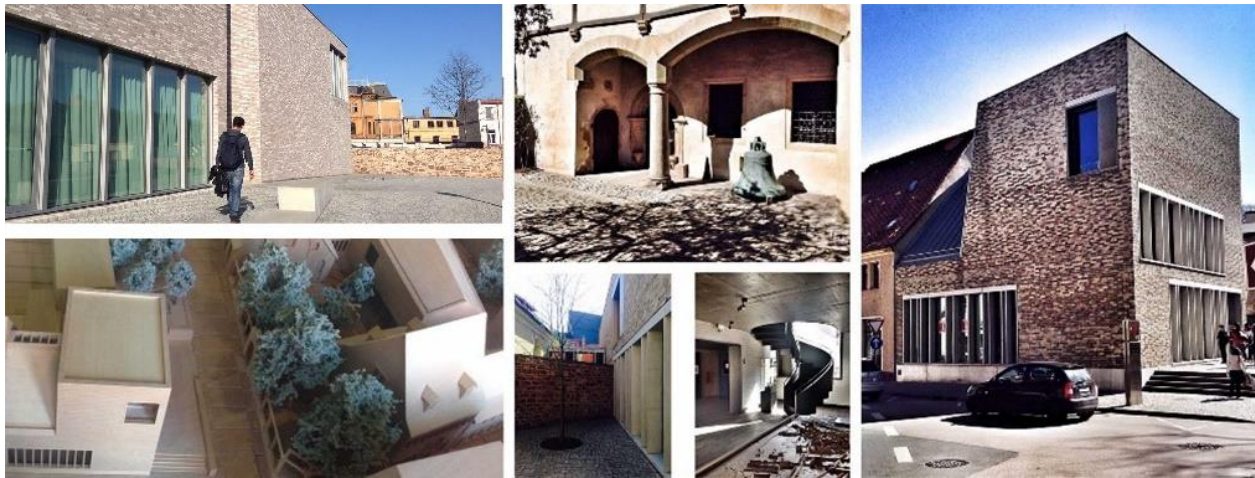


(Images: April 2018)

The chamber house, designed by Fernando Tavora, operates today as a tourist office. It is located on the site of Porto Cathedral, having a direct relationship with the important historic building, being only seven meters away from it. The city's topography provides an ideal juxtaposition of contemporary interpretation as the buildings are visually connected with many parts of the city due to the vantage point. Before 1350, the municipal senate functioned in a small, wooden house alongside the cathedral. The original chamber house dated back to the 15th century for the representatives of 24 seats from different trades, a fire in 1875 destroying the original building that remained abandoned for many years (Chamber House, n.d). In 1960 it was proposed to consider the property a national monument and classifying it, however, due to the excavations 1980s under the responsibility of Dr Manuel Real proved the Gothic construction of the tower, further, demolition of the part of the Romanesque wall was done (Sereno and Costa, 2006). Reconstruction of the tower began in the year 2000, the whole building was done with contemporary design language. The design proposal used the stone and subtle translation to fit the new addition into the context Built on an isolated location along the wall of the Cathedral. The plan incorporates the leftovers of the municipal house, the contemporary tower over the eastern edge, the vertically dominant tower, covered by a terrace on top (Casa dos 24, n.d).

Analysing according to the developed framework: The Casa da Camara is built next to the historic centre and culturally important building of Porto Cathedral, built over the Romanesque wall there is direct access from Rua de Sao Sebastiao with a grand staircase. The plan has an irregular footprint based on the old municipal house with the rectangular contemporary tower on the eastern edge, which is observed in context looks like the modern interpretation of the Cathedral's Medieval tower that is right across it. The project does not affect the heritage building as it has been built on a site of a demolished building and also recreating the purpose revives the memory of the tower and makes an attempt towards the revival of traditional settings. The design language is minimal with a plain volume with the use of glass in a linear manner on the frontal and back elevation. Minimal and careful intervention allows the visitor to experience the tower-like shape and provide access to the cathedral with the stairway insertion along with the project of the chamber house. Designed in contemporary language, the project is identifiable in context.

3.2.26 Martin Luther's GerburthHaus, Eisleban – Germany.	Springer Architects.	Memorial Revival
2005-2008	The architect aims to insert two buildings into the World Heritage Site. Due to the importance of the existing structure, the additions are made to fit in naturally into the context.	



(Images: April 2015)

The project to add contemporary buildings along with the restoration of the original houses and facilities in Sachsen-Anhalt, Martin Luther Gebursthaus Eisleban is the insertion of two contemporary buildings in the context of historic houses in Eisleban (Slessler, 2009). The contemporary inputs are carefully inserted amongst the significant context of world heritage sites. The area and specific site have significant cultural, religious and regional importance. With new exhibition wings, the architects have used the idea of minimal presence for the new structure to have less monumentality and the buildings sit in harmony with the historic houses. This provides an ideal scenario and context to study contemporary architecture into a valuable context, the new buildings with their sublime presence provide a subtle solution for the contextual and architectural built pattern studies. The museum addition is a long barn-like volume, whereas, the visitor centre is a chamfered cube. Both the new additions are on the same scale as the surrounding neighbourhood. The brick walls with the pre-weathered titanium zinc roof finish act to blend the new structures into the context of the historic façade (Springer Architects, n.d).

Analysing according to the developed framework: The addition of new buildings keep the traditional settings, the careful insertion of the new structures amongst the historic houses does not overpower or collide with the scale or massing of the project. The projects designed in contemporary language, similar in scale with surrounding structures, have simple material and finishes that complement the neighbouring facades. The new building does not destroy the physical structure of the area, both the structures have been carefully inserted while considering the masterplan, surrounding and visitor experience. The project bears a contemporary stamp with a contemporary language and becomes part of a comprehensive scheme. Additions are of a humane scale and the historically significant houses have been restored and become part of the museum. New work is readily identifiable from the historical but due to the finishes, materials and scale, it becomes a subtle part of the context and does not overshadow the neighbouring buildings. Architects successfully introduces new functions and restored the project as a part of a comprehensive scheme in a UNESCO heritage site.

3.2.27 Restoration of Moorish wall, Granada – Spain.		Antonio Jimenez Torrecillas.	Memorial Revival
2004-2006	The project completes the missing part of the Moorish wall. The architect carefully planned the wall that is offset from the original structure, keeping its integrity whereas the new wall same in width can be accessed internally.		

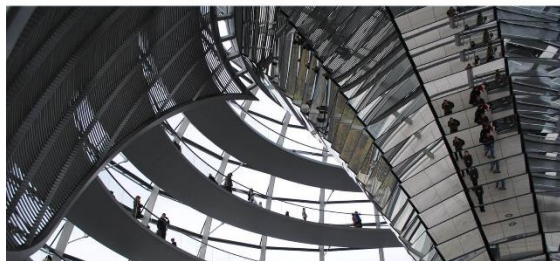


(Images: August 2018)

On the San Miguel hill, opposite the hill of Alhambra and Generalife one can see the panoramic views of Granada. The project of an intervention designed in the remnants of the Moorish city fortification wall aims to complete the missing part. The wall was originally built in the fourteenth century. Architect Antonio Jimenez Torrecillas designed the new part as a visual continuity, if viewed from a distance along the landscaped paths, from afar, the new parts match its appearance with the original wall by respecting its linear sequence. Whereas, the proposal also closes the gap in the wall that is from the nineteenth century (Archdaily MW, 2015). Structurally the form does not use the massive and solid presence but rather is perforated with the space in-between. This project shows the changing lattice of the city by placing the new architecture next to the ancient and promotes the enriched and active traditions of Granada's built heritage. Designed by using the external cladding that has the exact thickness of ancient wall without touching the historical remains, focusing on optimal preservation. To negate the massive solid presence of the structure, the hollow shell can be walked in with the perforations giving views to the city. A stacking of stone slabs arranged above others, provide the visuals as well as the experience of a journey, showcasing that the city continues to enrich and actively build the architectural tradition (Torrecillas, 2015).

Analysing according to the developed framework: The intervention keeps the traditional setting by not touching the historic structure and offsetting the new intervention. The project aims to revive the physical structure of the area by fulfilling the gap between the fortification wall of the city. The offset from the wall allows the structure to separate respecting the context, furthermore, the structure is the same in width but is hollow from inside with the walkable gap built by stacking the local finished stone of varying scale with openings of different sizes. The project bears a contemporary stamp with a contemporary design language and is distinguished from the historic wall, the comprehensive landscaping of the surrounding area allows the visitors to experience the area with the important historic monuments insight.

3.2.28 German Parliament Building, Berlin – Germany.	Norman Foster + Partners	Government building.
1992-1999	The original structure that went through many changes as was unused after the damages of WWII was restored with contemporary additions by Norman Foster + Partners with transparency as the main idea of the design theme.	



Images Source: www.archdaily.com/775601

The original building was designed by architect Paul Wallot and was built from 1884-1894. Having caught fire in 1933, it was not used for parliamentary sessions. Getting heavily damaged during World War II, the building was almost a ruin, restoration efforts were carried slowly after the war and the building was rarely used. Plans to restore the building for parliamentary use were stalled in 1971. After the reunification, the site was used as a symbol and in 1992 the competition was held for the proposals of the building being used as a parliament. Norman Foster design was shortlisted but it covered the whole building in glass and extending it to the river. However, during the second round of the competition, the budget inclusion was studied and the plans of Foster + Partners were finalised to start the construction phase (Jaimes, 2015). The design keeps the masonry shell structure of the heritage building while redeveloping some of the core areas. The project retains most of the original building and structure. The main aim of the renovation was to bring in openness and light. To accomplish this a large dome-shaped skylight was added that has public access where the visitors can directly view the assembly hall. The project also stripped back to the original building and imprints from the past were unearthed, these discoveries influenced the space to act as a living museum, helping to create a platform for the German democratic process (Foster, 1999).

Analysing according to the developed framework: The project keeps the traditional setting of the heritage building. The whole structure of the building has been restored and most of the parts of the damaged building have been restored. The major renovation of the parts has been carefully done to bring the building to the 21st-century democratic parliamentary building. The building does not destroy the physical structure of the area; careful consideration of the original master plan has been done. The project intervention bears a contemporary stamp with a contemporary design language for the openings and central dome of the building. Transparency is the main feature of the building. Visitors can see the assembly from the glass dome on the top that has a spiral ramp installed. The comprehensive scheme fits with the context of the original building. The new additions have been designed in contemporary language and the shell and structure have been restored to the original.

3.2.29 Parliament House, Vaduz – Liechtenstein.	Hansjoerg Goeritz Architecture studio.	Government Building.
2000-2008	The new parliament building placed in the historic government buildings of Liechtenstein has two main volumes one for the assembly one for the complimentary functions connected by a transparent volume.	



Images: November 2018)

The Project to design a state parliament building was won by Hansjorg Goritz in 2000 and the new building was opened in 2008. Placed in the context of steep slope amongst the government buildings dating from 1905, a parish church from 1872 and a federal state museum. Taking inspiration from the structure of the site and the contemporary interpretations of the original masterplan of the city, using custom brick and stonework for the finishing of the contemporary addition. The new buildings and the structure that was built for retaining the steep slope uses around a million bricks custom made for the project (Architonic Vaduz, n.d). The project has three wings: Longhouse with offices, conference rooms and terrace, two-story High house with pitched roof for the parliamentary sessions and a glazed joining house that is the in-between result of built exterior and interior built exterior and interior spaces showcase and interprets the ideas of separation of powers within the Alemannic cultural region from the Alps' Rhine River valley. They also stand for a conscious understanding of an architecture of urban contiguity, whereby the original masterplan of Luigi Snozzi has been newly reinterpreted (Hansjoerg Goeritz, n.d).

Analysing according to the developed framework: The project keeps the traditional settings of the area. The new project is designed by retaining the steep slopes and creating a new area for the building. The historic masterplan and the public space have not been altered and new access is given for the additionally added functions. Hence, the building does not destroy the physical structure of the area. The project is built in a contemporary design language using new technology, materials and finishes. The overall scheme becomes a part of the whole and fits in with the surrounding structures due to its humane scale and form. New work is identifiable from the historical context and surrounding government buildings but ties up the whole complex uniformly. The success of the project is determined by how the project successfully integrates between the historic structures and the steep slopes of the hill. It does not subdue the surrounding context and becomes part of the overall landscape.

3.2.30 Parliament and City Gate, Valletta – Malta.		Renzo Piano Building Workshop.	Government Building
2009-2015	The project has three parts, the development of the city gate demarcating the entrance, the restoration of the Opera House ruins converting it into an open house amphitheatre and a new Parliament building.		



(Images: October 2015)

The site originally had housing, later station of Malta Railway. After the WWII bombings station and surroundings were demolished and areas was converted into an open square which was commonly used as a car park. Parliament house was part of the redevelopment project of Grand Harbour Regeneration Corporation (Attarad, 2008). The fifth and present city gate was constructed between 2011 and 2015 designed by the Renzo Piano Building Workshop. This project included the restoration projects of the ruins of the former Royal Opera House into an open-air theatre and a new Parliament house alongside the insertion into the fortification walls and the landscaping of the ditch (CityGate project, n.d). To bring back the depth strength and to reinforce the narrowness of entrance to the city, the new city gate is inserted into the wall being only 8m wide, inserting 60mm-thick steel blades to slice through the old and new development. The parliament building is made up of two massive blocks of stone that balance on slender columns giving floating and lightness to the block, whereas the Royal Opera house has been converted into an open-air theatre treating the remains of the site as archaeological remains (RPBW, n.d).

Analysing according to the developed framework: The city gate project intervenes in the historic setting of Malta. The project rebuilds the gate for the fifth time. The project keeps the settings of the historic opera house that was damaged during WWII and restores it to use it as an open-air theatre with a clear metal structure that differentiates itself and is designed in contemporary language. This urban regeneration project gives a new identity to the city by defining a gateway cutting into the historic fortification wall and introducing a wider bridge. The new parliament building is built onto an empty urban square that was used as a car park. New structures do not destroy the physical character of the area, the widening of the bridge and incorporation of the metal part to separate the old wall from the new city gate makes the distinct insertion of contemporary addition. However, the use of local stone makes the building respond to the context and the intervention becomes humane due to its scale responding to the surrounding structures. The project successfully regenerates the entrance area of the capital city, designed with new technology, materials and contemporary language.

Chapter 4

Primary Case Studies

Iberian Peninsula (Portugal, Spain)

Case Studies in Portugal:

The National museum Machado de Castro, Coimbra.

Outdoor Altar Space in prayer area, Fatima.

New cruise terminal, Lisbon.

Praca da Lisboa, Porto.

Case Studies in Spain:

Metropol Parasol, Sevilla.

Between Cathedrals, Cadiz

4.1 Portuguese Context:

4.1.1 National Museum (Machado de Castro), Coimbra.

Coimbra is an important Portuguese city with a population of approximately 106,000 inhabitants, it is located between Lisbon and Porto. It has its reputation and popularity due to the University of Coimbra, one of the oldest universities in Portugal and Europe. The University of Coimbra attracts national, international students and visitors (INE, 2019; WPR, 2020). Coimbra is also the first university of Portugal, giving it further reputation importance as a university city. Apart from being the oldest city, Coimbra was also the capital of Portugal before Lisbon (Ferreira, 2016; University of Coimbra, 2018).

Historical Importance:

Machado de Castro is one of the premium museum of the country due to its art collection, situated next to the New and Old Cathedral, it occupies the building complex of the former Episcopal Palace of Coimbra. It contains important collections of painting, sculpture, jewellery, ceramics and textiles. Other notable landmarks in surrounding include the Romanesque old cathedral - Se Vellha (1170), the church of Sao Salvador (12th century), the new cathedral (1598), Santa Cruz Monastery rebuilt (1520), the Aqueduct of Sao Sebastiao (1568–70) rebuilt on Roman foundations, and the 12th-century Monastery of Celas (Salkin et al., 1995). During Roman times, the city was called Aeminium with the administration of Conimbriga, 10 miles outside of Coimbra. It was later abandoned in the late 6th century during the Germanic tribe's time, during this Visigoth era, the county of Coimbra was created. Moors occupied the Iberian Peninsula in the early 8th century, with Coimbra capitulating in 714, its principal city with a walled enclosure supporting between 3000 and 5000 inhabitants and a fortified palace was used by the city's governor, which was later converted into the Royal Palace. In 1064 the unification took place, the county of Coimbra and Portucale were integrated into one territory. During the 12th century, it became a fortified city with a population exceeding 6000 inhabitants and the construction of the Old Cathedral was commissioned (Gilliat-Smith, 1926). During these middle ages times, Coimbra was divided into Cidade Alta or Almedina, where the aristocracy and the priesthood lived, whereas merchant, artisan and labour resided in the lower city (Arrabalde or Cidade Baixa). The city was surrounded by a fortified wall, of which some fragments are still visible like the Almedina Gate (Evans, 2004).

Context of the Site:

Coimbra is one of the most significant Portuguese city, due to the infrastructures, organisations, academic institutes and international corporations. Beyond its historical importance and privileged geographical position in the centre of mainland Portugal, Coimbra is also a city of art, there are 31 art galleries spread throughout the city.

The site of Machado de Castro is surrounded by all the major significant landmark buildings, including the Church of Sao Salvador towards the North from the museum was commissioned in the second half of the twelfth century. The building survived on the half slope of the city, still keeping part of its original (Pereira, 1995). It underwent a major renovation in the eighteenth century, the high choir retains the essentials of

the old medieval structure from the 15th century, all the other additions are executed in 1699 (Dias, 2002). The new cathedral building is situated North-East of the Museum. Right across the site, the building of the College of Jesus began in 1547. The first phase of the works altered in 1560 to better suit a large number of religious demands, the sanctuary began to be built in 1598, The works were developed slowly, and the worship began only in 1640 and was inaugurated only in 1698 (Lobo, 1999). The built set follows a scheme used since the Middle Ages in utilitarian buildings, the facade of the temple was completed in the eighteenth century (Almeida, 2007).

The old cathedral building is 70 meters west of the Museum, corresponding roughly to 1139, built during the period of Romanesque workshops of Coimbra. The main works will have been completed by the beginning of the 13th century with the works of the cloister beginning around 1218 (Rodrigues, 1995). The Old Cathedral and, to a lesser extent, the Churches of Santiago and San Salvador, are proponents of the Romanesque Coimbra, other churches in the city such as Santa Cruz Monastery and Sao Joao de Almedina were greatly altered (Fernandes, 2006). Santa Cruz Monastery is 250 meters northwest of the museum, founded in 1131. Of the early Romanesque monastery little remains (Real, 2001). Its construction took place over almost a century from 1131 to 1228, and the altar was consecrated in 1150. At the beginning of the 16th century, it was destroyed along with the commission of construction that gave the building its present look. The turrets with buttresses dating between 1507 and 1513 (UC, 2018). Towards the south, the University of Coimbra, has several architectural masterpieces, including the cloister of Graca College and Jesus College. Examples of the Portuguese Baroque and one of the prolific European libraries Biblioteca Joanina, built between the years 1717 and 1728. It has more than 53 thousand books from the 16th to the 18th century (WH, n.d). The oldest part of the University is the former Royal Palace of Coimbra that was used for five centuries before becoming part of the university. The occupation of the old Royal Palace of the Alcacova by the General Studies took place in 1537 and was named Patio das Escolas after the definitive acquisition by the University in 1597. Following are some of the buildings and their timeline; Iron Gate (1633 – 1634); the Minerva Stairs (1724); the University Tower (1728 – 1733); the Gerais (1698 – 1702); the Via Latina (1773 – 1777) and the St. Peter's College, inaugurated in 1545 (UC, 2016). Paco das Escolas building is built in the former royal palace of Coimbra, it was built over several hundred years. The original building was built at the end of the 10th century (Pimentel, 2005). The university complex has multiple layers and buildings from different eras that have been added over different times, with the most recent intervention being the rehabilitation of the Patio by Goncalo Byrne in 2011 (GBA A, n.d).

Project Description:

In 2019, Machado de Castro national museum was integrated into the UNESCO world heritage area of Coimbra Alta and Sofia, which was given the status of the world heritage site in 2013 (Lusa, 2019). It is one of the most important museum of fine arts in Portugal, named after renowned Portuguese artist and sculptor. The declaration for the creation of the National Museum of Machado de Castro dates from 1911. In 1912, the Episcopal Palace was handed over to the Coimbra Municipal Council to set up a museum. In October 1913 Machado de Castro Museum opened to the public after the completion of works that converted it into a museum. (MMC, n.d).

The building complex of the Machado de Castro Museum is composed of over 2000 years of history. This building arrangement of the museum, in the time span of two millennia, has accumulated the meeting of many features, revealing a set of multiple buildings that continued, overlapped, interlocked, fragmented, demolished and rebuilt, telling a story of different eras, construction techniques containing the marks of different builders. This complex showcases the construction and its layers. Surrounded by the rich architectural history of buildings the complex of Machado de Castro itself is a timeless container of the architecture and the visitor can get to travel through the time to experience the built geography of the hill while walking amongst the significant historic buildings and approaching the museum (ArchdailyGBA, 2015).



Figure 4.1 Images of Machado de Castro

The museum is located at the Alta de Coimbra at one of the highest points of the hill, its history and building construction goes back to more than 2000 years and document different phases and additions, the pre-restoration images can be seen in Figure 4.1C whereas the 4.1D shows the image of the courtyard after restoration and expansion. The museum stands on an artificial platform, as the archaeological evidence reveals, it is composed of the cryptoporticus built halfway through the first century as the podium of the Forum of Aeminium (Carvalho, 1998). After a long period of abandonment, in the 11th century the site hosted Bishop's Palace. The archaeological evidence has been found that proves the existence of the church of Sao Joao de Almedina being built around 1083, a new church was built to replace the original

later on, around 1416 the Bishops' Palace was abandoned due to the gradual ageing and decay of the building caused by seismic episode. The loggia designed by Fillippo Terzi was added at the end of the 16th century as a new addition that connected the two wings of the palace and the site became an urban balcony looking towards the city (GBA B, n.d; Alcoforado, 2011). In 1912 the palace was leased by the city council for the installation of a museum, opened after one year of construction work to the public, from 1933-1935 the excavations of cryptoportico took place, between 1952 and 1962 the galleries were emptied on top floors for the restoration works of vaults. To cater to special requirements, the land adjacent was purchased in the 1980s and in the 1990s the expansion programs were approved leading to the design competition, won by architect Goncalo Byrne in 1999, the museum was closed in 2004 to start the necessary works for the archaeological and geo technical requirements and the construction was completed in 2013 (MMC, nd; MDC Patrimonio, n.d).

During the renovation and extension of the museum, the layout of the buildings was maintained, three large bodies built around a central courtyard, unified at the top by the sixteenth-century balcony, to which the church is attached at the opposite end, this can be seen in the figure 4.1 C and D that looks towards the sixteenth century loggia designed by Fillipo Terrazi. The text provided by the architect states "The Machado de Castro National Museum is located in Alta de Coimbra, in one of the highest points of the hill and behind it stands the impressive silhouettes of the buildings of Se Nova and of the University of Coimbra. However, its roots are in the slope on which the historical city has grown up over the course of 2000 years". One can understand the historical importance of the site on which today stands the Museum due to the interventions over time (Byrne, 2018). "Two elemental volumes define a flooded neutral space, illuminated by diffuse light to show the temporal sequence of the fragments of the 18th-century apse of the Tesoureiro Chapel. The gallery occupies the entire volume of the trapezoidal shape, rising to four levels and creating a platform (the terrace of the restaurant) where it lays the rectangular volume of transparent and translucent glass that at night becomes a sort of lantern light" (GBA B, n.d) Image 4.1B shows the addition of the two rectangular volumes aligned, where the longitudinal volume is inserted into the old building as intervention whereas the smaller volume is the expansion for the previous boundaries. The before and after can be compared in Image 4.1 C and D, the inserted volume expanded the height and the play of internal double and triple height spaces double-height spaces provide the ideal settings for exhibits.

Analysis according to the developed criteria:

The project carefully restores the existing settings and adds the new intervention. The new architectural insertion can be seen as distinct from the traditional settings. The renovation and extension of the museum do not destroy the physical structure and character of the area. The new addition is designed in contemporary language. New work is identifiable from the historic layers of structures, it can be distinguished due to the material and design approach, however, it sits responding to the immediate. The north wing with the longitudinal geometric volume maintains its language while intersecting itself within the historical core. The addition of the glass volume in front distinguishes the new addition and also creates the urban plaza and deck. The renovation and expansion is a successful attempt to integrate contemporary architecture with historic while respecting all the layers, resulting in the design that enriched the existing context, tying up the buildings of different timelines into one whole.

Mass and Scale

The new addition extends from the boundaries of the prevailing settings. A singular volume on the western wing and the addition of an external deck to the complex also incorporates the bottom levels as a museum. One can view the surrounding and immediate context from this deck looking inwards. Accessible from the cafeteria, that also reminds of the urban forum as it acts as the meeting space.

Harmony and Height

The design is considerate of the proportions to the existing set of buildings, materials and forms and the new inserted forms are respectful in terms of mass and colour to their surroundings and do not damage the character of the historical features and design elements.

Composition and Form

The new additions are not designed using the historical style of complex, contemporary architecture finds its expression by relating with the surrounding context but being distinguished and readily identifiable. The comprehensive scheme of the museum is designed carefully. The interventions and remodelling of the complex are designed to be structurally, aesthetically and visually compatible with the surrounding context.

Volume and Proportion

The new addition is an additive geometry where a volume can be seemed to have been plugged in into the existing setting and extends beyond the initial boundaries. On the right side of the wing, it is visible once you enter the complex. New additions are added into the location respecting the traditional setting. Whereas, most of the building has been restored and upgraded as part of the up-gradation.

Character and Appearance

The new addition has been designed with a contemporary language and is visually distinguished from the existing architectural settings, it however fits in with the setting due to the design language. Additions of contemporary form in the existing context does not distract from the surroundings, it does not overpower the context and fits in the surroundings very well.

Texture, Material and Finishes

This extension also allows access to the cryptoporticus of the Roman Forum. Contemporary additions are carefully placed into the historical buildings, and the interventions respect the structural values, aesthetics and historical qualities of the old settings. The new intervention is distinguished from the existing settings and extends beyond the boundaries of the site.

Pattern, Coherence and Rhythm

New building breaks away from the patterns, coherence and rhythm of the complex and uses new materials and structural elements. The patterns in the new addition can be found separate from the existing composition and have their rhythm and coherence that ties the whole scheme.

4.1.2 New Altar Space in the Prayer Area, Fatima.

Fatima is a small city and it has a population of approximately 12000. It is located between the cities of Coimbra and Lisbon in close proximity to the city of Leiria, belonging to the province of Litoral in the central region of Portugal. Having an area of 71.29 square km with a population of 162.7 inhabitants per square km. The city has significant importance due to its religious affiliations and the 'Sanctuary of our lady of Fatima' located in the place of 'Cova da Iria', attracting religious tourism hosting about 6 million people every year (Ourem, 2019).

Historical Importance:

The Basilica of 'Our Lady of the Rosary of Fatima' stands at the place that holds significant importance due to the events that are believed to occur on May 13, 1917, involving three child shepherds of Fatima. Having the religious and sacred importance, Fatima now attracts thousands of pilgrims from all over the world, particularly on the pilgrimage days in May and October, the large torch-light processions in the evening are also important, often led by cardinals and bishops attracting many visitors (Fatima Portugal, n.d). The visitors gather in Cova de Iria, a square with the chapel. There is a multitude of shops and small stalls that sell religious and memorial items. Towards the end of the plaza, the main basilica is situated, built in the neo-classical style. Its central tower has a height of 65 meters. The tombs of the siblings Francisco, and Jacinta Marto who passed away in 1919 and 1920 respectively, and the third shepherd Lucia dos Santos who passed away in 2005 are located in the basilica. The construction of the basilica began in 1928 (Kondor, 2007).

Over the years due to the development of pilgrimage, Fatima became an important centre for worship and received international attention due to the importance given by the church, popes and prominent institutes. The city now attracts a large number of visitors from all over the world. In 2015 Fatima welcomed a large number of visitors counting over six million visitors with the multiple celebrations and events held throughout the year (Abreu, 2003). The attention is given by the monasteries of convents from catholic orders and religious congregations brought a great development for the parish of Fatima and the entire surrounding region, hence Fatima was given a status of the city from a town on July 12, 1997, which also stimulated the economic sectors for the area (Prandi, n.d). Over a century of developments of religious and sacred buildings along with the add on facilities have shaped the area, incorporating the transportation, accommodation and hospitality facilities that have resulted in boosting the region's economy and value.

Context of the Site:

Sanctuary of Fatima has a number of different structures, built over one century. The whole complex showcases a timeline of buildings built according to the importance and order, a religious centre that is developing with time. The start of the construction began in the year 1920 with the chapel of Apparitions which is located in the Cova da Iria, it marks the location where it is believed to be the place where the three child shepherds received the apparitions. (Apparitions Fatima, 2019).

Following are some of the important structures in the sanctuary of Fatima.

1. Main Basilica:

The building of the main basilica is also the backdrop for the outdoor altar space, it was designed by Gerardus Samuel van Krieken and then continued by Joao Antunes. The first stone for the development of the area was put on May 13, 1928, by the archbishop of Evora. The allegiance took place on October 7, 1953, and the title of the basilica was granted on November 11, 1954. The structure is 70.5 meters long and 37 wide, built with locally produced limestone. The bell tower located in the centre is 65 meters in height with a bronze top that weighs 7 tons. The architectural colonnade in the front was designed by Antonio Lino, consisting of 200 columns (Fatima, 2019).

2. The Basilica of the Holy Trinity:

A new basilica of the Holy Trinity was added in the complex of Cova da Iria with a capacity of 8,633 seats and a total covered area of 4000 square meters. The Greek architect Alexandros Tombazis was selected after the international design competition to build the new basilica. The project was inaugurated in 2007 on the 90th-anniversary occasion of the apparitions of the Fatima (Ferreira, 2012).

3. Paul VI Pastoral Centre:

For the religious studies and the message of Fatima, the complex with two auditoriums having a seating capacity of 2,124 and 700, and the accommodation facility to host approximately 400 pilgrims was opened in 1982. This is located on an axis across the Main basilica towards the other opposite end, the new chapel is situated in the centre of the Pastoral Centre and main basilica.

4. High Cross:

The monument of the high cross can be seen at the end of the walkway towards the south, it is built to honour the closing of the Holy Year in 1951.

5. Monument to Pope Paul VI, Monument to Pope Pius XII:

Monument to Pope Paul VI is dedicated to the pope's visit to Fatima on 13 May 1967. The monument to Pope Pius XII is built as a gift from German Catholics in 1961.

6. Rectory:

While approaching the main basilica the Rectory building can be seen on the right side, the rectory hosts the main administrative functions of the complex.

7. House of Our Lady of Carmel:

A place that would host and accommodate the residence for 250 people is located in the house of our lady of Carmel, it is located behind the building of Rectory.

8. Berlin Wall:

A piece of the Berlin wall was given to the city of Fatima by German Catholics as a memorial. It is situated at the entrance of the sanctuary. It consists of a concrete section that was part of the wall and weighs 2,600 kg, measures 3.60 meters high and 1.20 meters wide. The monument was designed by the architect J. Carlos Loureiro and was inaugurated in the year 1994 (Portugal Virtual, n.d).

Project Description:

Having managed the work for the supervision of the Holy Trinity church designed by Alexandros Tombazis from 1999-2007, the architect Paula Santos was very well aware of the context and city. Project of outdoor Alter space in the prayer area on the site of the shrine was designed by the office of Paula Santos Architect (Santos, n.d). The inauguration of the project took place in May 2017 by the visit of Pope Francisco, making it a permanent structure for the outdoor praying activities in the Altar of the prayer area.



A. Inauguration day (CNA, 2017).



B. Annual mass gatherings (Guerra, 2018).



C. View from the front



D. Side View (VOA, 2017).

Figure 4.2 Outdoor Altar in the prayer area Fatima.

The providing has a capacity of 140 for the service officials and it was built within a year, the new altar also implied the reorganisation of the stairs of the praying area, the intervention in the approaching steps uses the similar local stone. The external altar is composed of two levels with an area of 600 square meters. The upper level that also marks the central landing of the approaching staircase is for the religious celebrations, this platform is open with minimal glass railing. The lower level that is underground the platform consists of the services, supporting functions and technical area. The platform rests on the central part that is made out of concrete. The roof of the altar space is built with metallic structure and finished with fibreglass panels, the altar takes the central position in the praying area and the chair is on the central axis, providing full visibility to the person that is presiding the event (Francisco, 2017). As seen in Figure 4.2 A and B the intervention is built on the central axis.

This project also provided the improvement of the facilities for the access of disabled to enter the old basilica with ease, improvement of the colonnades and redesign of the staircase and access points to the main structures of the complex. The main cantilever canopy that is designed to provide shade has a covered area of 600 square meters and is built from steel and fibreglass. It is only supported by the white concrete block from the centre at the rare end, also concealing the services and technical and vertical accesses for the access to bottom levels incorporating a lift.

The design carefully considers the important services and access for the priests to reach the platform, there are reserved rooms and multifunctional spaces in the bottom levels. The use of new materials for the structure and the finishes give a very distinct quality to the outdoor Altar. The huge cantilever with the central concrete mass, placed centrally gives more significance to the entrance and enhances the area. The extended steps of the existing chapel and new steps have been linked with the stone finishes. The careful consideration of the platform that has been designed in steel with an additional shade provided by a smaller canopy as seen in the Figure 4.2 C. Figure 4.2 D, showcases the side view where the continuation of the steps can be seen that have been extended using the same language and material to incorporate the design into the context. The new intervention is distinct from the traditional setting of the main basilica, however, its sleek finish and unsupported minimal cantilever provide an ideal solution for the requirement without destroying the physical character of the area.

The minimal intervention of the central post does not break the harmony of the facade in the background and the building could be seen clearly due to the sleek characteristic of the cantilever. As seen in Figure 4.2 the background is visible. However, in Figure 4.2 B, one can see the achievement of the big cantilever for the design intervention of the outdoor sermons in the prayer area. To cater to the big audience that can fill the area, the cantilever acts as an anchor and frames the presiding event by marking the importance of the altar and also provides shade for the clergies.

Analysis according to the developed criteria:

The design intervention bears a contemporary stamp, it fits and incorporates itself within the approaching steps of the main basilica building, extending the entrance steps and also making the approach more accessible for the handicapped. The canopy has been designed with the minimal structural support that is from the central part and due to the huge sleek cantilever, the facade of the basilica in the background does not get covered. Hence, the contemporary addition does not disregard the historic structures. The new addition is identifiable from the surrounding structures as it is designed using contemporary materials, finishes and design language. The contemporary intervention does not disregard the historical significance of the structure in the background, an extension of the approaching steps uses the same material finish from the local stone, also catering to the needs of the handicapped improves the existing conditions. The new architectural insertion can be seen as distinct from the traditional settings, designed in contemporary language, design is identifiable from the surrounding structures. The structure with its huge cantilever that almost seems floating makes it a datum in the complex. Design is inserted respecting the historic layers and carefully considers the importance of neighbouring buildings, minimal blockage of the views of the main basilica building in the background.

Mass and Scale

The sublime scale of the intervention carefully extending and penetrating the volume into the exiting approaching staircase merges the boundaries of the complex, the canopy with its sleek mass with the central support provides a little hindrance to the view of the main building.

Harmony and Height

Design carefully considers the backdrop of the enveloping building, keeping the scale and grandeur with its entrance intact. The height of the structure is proportionate and does not overpower the façade of the main building in the backdrop.

Composition and Form

The geometric volume is carved out of the rectangular proportions, the form consists of the steel mesh with the fibreglass cover with coated finishes. The grooves of the joinery can be seen and are composed accordingly.

Volume and Proportion

The proportions of the intervention do not challenge the surrounding buildings. The contemporary addition has its distinct presence with the form as well as the usage of materials. The proportions of the staircases have been extended and the finishes of the stone are matched with the existing stone staircase.

Character and Appearance

The cantilevered form provides a solid presence amongst the surrounding structures. The canopy almost giving the feel of hovering over the welcoming steps, along with the practical aspects of providing shade from sunlight and rain.

Texture, Material and Finishes

The textures of the footings have been finished to merge with the existing staircase elevating to the entrance of the chapel. The incorporation of the texture makes it balance with the scenario. The steel design of the canopy hovering over the

Pattern, Coherence and Rhythm

The intervention due to its small scale does not make a pattern of the elements. However, it fits into the scheme of design and development of the whole complex, the site located in the centre of the perfect symmetry leading to the design of Alexander Tombasis and extending to the complex towards the south.

4.1.3 New Cruise Terminal, Lisbon

Lisbon is the capital city of Portugal, having the 11th most populous area in the European Union, city has a land area of 84.8 square kilometres with an estimated population of 547,733. The administrative body of Lisbon extends further up to 858 square kilometres with the number of inhabitants reaching up to 2.45 million (Cox, 2013). Lisbon has the second-largest container port on Europe's Atlantic coast, making it one of the major economic centres in Europe. As per World Economic Forum, Portugal was ranked 14th amongst the 136 countries that are the most competitive tourist destinations in the year 2016, hosting international tourists in excess of 11,423,000. Making it more than the residents in the (Moreira, 2018; UNTWO, 2017).

Historical Importance:

One of the primogenital cities in the world, Lisbon is the second oldest European capital after Athens. Located on the Atlantic coast, however, when we analyse the art, music, literature and the history of the city, we can notice that its roots are linked to the Mediterranean Sea (Livermore, 1973). The cultural roots present in the urban structure and its inheritance comes from different great civilisations, that at some point ruled this region. Lisbon had continuous growth as an important port-city throughout its history. During Roman times, it was named Olissipo and it was integrated into the province of Lusitania. After the fall of the Roman empire, it was ruled by different Germanic tribes, in the 8th century, it was controlled by the caliphate of Cordoba until the re-conquest in 1147, Lisbon was made capital and of Portugal in 1255. Due to the decline of Portugal as an overseas empire, there was a big effect on the city of Lisbon and other port-cities took the leading role that once, Lisbon used to have (Sanchez, 2016).

The biggest catastrophe that struck the Portuguese lands was on 1st November 1755, when a natural disaster changed the structure of the city. In Figure 4.3, the plan of Lisbon before the earthquake of 1758 is shown and in Figure 4.3 B post-earthquake planned area can be seen. Having its epicentre in the Atlantic Ocean, close to the Portuguese coast caused major destruction in Lisbon. The consequences of the earthquake combined with a tsunami and a fire added to a massive economical, infrastructural and human loss (Tostoes & Rossa, 2010). After the catastrophe, the city was required to develop a rebuilding plan for the downtown, which happened to be the most affected area from the earthquake. The prime minister of Portugal at that time Marques de Pombal was the head figure during the whole process was. Several schemes were presented for the improvement and reconstruction of the city centre and the majority of them focused on the ideals of time considering to build more balanced, healthier and coherent cities. The same principles were followed by the Engineers Carlos Mardel and Eugenio dos Santos, who were responsible for the execution of the project. (Pardal, 2003).

Context of the Site:

The North bank of the Tagus river is surrounded by the historic and cultural centre of Lisbon, the development of this waterfront was done in several phases. In 1887 Port authority was created and the port became a self-governing organisation, the first plan for the port of Lisbon was also developed at the same time which structured industrial development in the city (Costa, 2006). With the progressive

industrialisation of the bank and the formation of various complimentary functions such as railway lines or the demarcation of the port area. After several complimentary projects, the improvements and development of the port of Lisbon were done for 20 years. In 1907 the port of Lisbon conclusively became the property of the state, and the first autonomous board of directors was appointed (Baixinho, 2015). At the same time, new industrial districts were emerging, driven by the industrialisation of the banks, both to the west (Alcantara) and to the east (Santa Apolonia, Xabregas, Beato). The works starting in the late 1930s that ended in 1946 provided the territorial advances towards the river specifically to the eastern area which shapes today's bank area. At the start of the 50s, the partition of nearly 18 km of the bank was in the shape that can be recognised and compared to the one we know today. The undulating and flexible margin of sand and swamp that prevailed until the mid-nineteenth century, gave rise to the current fixed and straight margin with its walls and port docks. Since then, the main transformations of the relationship between the river and the city are no longer of a morphological nature but instead, they are essentially becoming functional (Costa, 2008).

There were several plans for the improvement of the waterfront area before the great earthquake to improve the port infrastructure and surrounding neighbourhoods. From 1980 and onwards, the riverfront has been the focus and a strong foundation of urban renovation and regeneration. The river represents the city of the future. The latest redevelopments of the port area have also led to the renovation, restoration and conversion of former warehouses along with the improvement of the docks, as a leisure and entertainment area. (Tostoes, 2004).



A. Plan before Earthquake



B. Plan after Earthquake (Rossa & Tostoes, 2010).



C. Rendered image of design proposal (ArchDaily JLCGa, 2010).



D. New cruise terminal Lisbon (Archdaily JLCGb, 2018).

4.3 Contextual plans and New Lisbon Cruise terminal.

Numerous authors have recognised different proposals for the improvements of the riverfront. Another innovation was the introduction of new green spaces, in some cases the highlight of the avenue, creating a public space that did not exist until the time (Barata, 2009). According to Timothy Sieber (1999, p. 64) “The restructuring of the waterfronts is a phenomenon of societies, in the phase of advanced capitalism, which began in the period after the second world war with the emergence of companies transporting goods and containers, and which gave origin to all these port cities, during the years 1950 and 1960, an increasing abandonment of the vast and endless kilometres of urban waterfronts”. Port areas provide an opportunity, and the project of Lisbon cruise terminal is a key building that does not only uplift the port area but also the surrounding neighbourhoods. “Dynamic spaces of action and interaction par excellence, port areas are constantly subject to redevelopment, in the sense of responding to several situations of obsolescence and renovation, representing the potential for the consolidation of the city but also for social and technological innovation” (Ferreira & Castro, 1999, p. 30-31).

Project Description

While taking a walk onto the riverfront road of Ribeira das Naus, from Cais do Sodre to Santa Apolonia, one can see the unobstructed views of the Tagus and Alameda and Barreiro regions across the river. New Lisbon cruise terminal is built towards the end of Alfama slope castle. Port areas are very significant for the cities, the territorial and commercial developments often depend on huge stakes in these areas. The new Lisbon cruise terminal building is constructed on the Terreiro do Trigo dock, and also retains a part of it in the new scheme. Plain from the riverside as seen in figure 4.3D, the structure responds to the heights of the neighbouring building contextually across the road. The proposal by JLCG architects was selected after an international design competition, the design proposal was the most compact one amongst all the submissions. The project has a covered area of 12,440 square meters. The dock has been reclaimed and filled to build the terminal building. “One of the key points of this proposal is the maintenance of the existing dock’s structure, reaffirming its memory by keeping the void space and recovering the surrounding stone walls” (Cliento, 2010). Occupying the ideal site, it can be viewed framed between streets of Alfama, while exploring the historic neighbourhood. “Responding to the desire of liberating the surrounding area for the general public. the building is assumed towards the park and the city as a pavilion, an overflow system. it appears to be a floating volume, as it is broken, generating tension zones and inflexions that suggest entry and exit points for the building. a path/promenade surrounds the building, allowing a slow discovery of the surroundings while passing through the different facades” (JLCG Architects, 2018). The Lisbon port area has gone through several changes in the past century, however, the new terminal building with its humble proportions, suitable volume and minimal form and finishes add to the valuable context and site. Having a small footprint, the building does not overpower the context with the scale. Design solution considers compatibility, sitting on the ideal site in Lisbon in the historic core of the city. “The creation of the terminal provides the opportunity to address the interstitial space between the city and river. Designed as a simple volume that responds to the ‘desire of liberating the surrounding area’, the terminal will create a new public realm providing green spaces that can support varying activities for the city and adjacent neighbourhoods” (Cliento, 2010).

While the passenger arrives on a cruise, they see the Alfama and Sao Jorge castle on the top of the hill as seen in figure 4.3D, this area is the less affected area after the great earthquake and still preserves the ancient character with historic monuments. Just at a walking distance the Pombalian architecture or Baixa is the planned reconstruction as seen in figure 4.3B. From the point of view of the visitor, the cruise terminal is located at an ideal location with proximity to the major historic sites. The terminal building has a subtle presence and does not dominate the historic character of the area. Design with simple volume and the plain/minimal finishes make it less impulsive. The front facade of the building is angular and is designed in a way that gives the floating feel, almost touching the ground at one point and then gradually rising and falling. “The main facade features a folded form that emphasises the location of the various entry and exit points. The surface is elevated above the ground to create the impression of a floating concrete shell that encloses the functional core” (Griffiths, 2018). Hence, this new addition witnesses the historic town and its evolution and becomes part of the setting while respecting the surroundings and neighbouring architecture. The partial set of the existing context of the site has been kept and made part of the design, it maintained a part of the existing dock making it a partial feature of the design, however, there were no important built structures on the site but the whole historical city centre is right across the road. “This sort of exoskeleton, which encircles the areas assigned to the terminal’s program, is built of structural white concrete with cork – a solution specifically developed to reduce the building’s weight, limited by the preexisting foundations” (Urbannext, n.d). The form of the building and finishes do not seek extra attention and all the focus is given to the historical Alfama architecture in the background.

Analysis according to the developed criteria:

The new addition is designed in contemporary language with a simple form and does not borrow any elements or characteristics of the historical or traditional architecture hence bears a contemporary stamp. The new building does not contrast with the setting; the simple form of the buildings makes it sit in the context with ease. The blank facade toward the sea allows the passenger to approach and leaving a blank canvas that emphasises the backdrop of the historical region. While walking on the road one can enjoy and appreciate the historical architecture and buildings on the terrain and a simple form on the other side. The building fits itself into the setting due to its simple geometry and does not clash with the context. The new building is identifiable from a distance as it acts as an individual entity and can be viewed from the winding streets of Alfama hill while walking down and around, it is also a visible presence with its simple form and rectangular volume. The building develops the waterfront giving the sculptural quality for the visitors. The building does not devalue the heritage and historical buildings, the building is designed with contemporary materials and design language and does not use the historical features or construction techniques but fits harmoniously to surroundings due to the formal simplicity. The terminal building finds its expression while respecting the scale of the site, it was one of the most compact solutions in the design competition and hence it respects aesthetically and structurally with the considerations of scale, mass, appearance and textures. The new building does not impair the context in terms of height colour or mass and does not devalue the heritage buildings.

Mass and Scale

The compact mass of the terminal building sits isolated into the context, placed right across the old Alfama city in the historic city centre of Lisbon. The scale of the building corresponds to the surrounding urban fabric and does not increase in height and dimension.

Harmony and Height

The height of the building is proportioned to the buildings and warehouse right across the road from the terminal, however, the placement of the building with the removal of the old buildings on the site, making it stand as a singular entity in the immediate surrounding gives it distinction and breaks away from the harmony of the surrounding. The height of the building is proportionate to the surrounding context and volume considers the importance of the context and design fits proportionately into the context.

Composition and Form

The simple rectangular form with angular geometry on elevation and columns laid on-grid provide an ideal composition into the linear site and ample amount of additional services for the transition from the tourist cruises to the city with the access to public and private transport.

Volume and Proportion

The façade towards the city is plain while approaching from the sea side the flat façade provides an ideal vista of the background and lets the visitors and travellers enjoy the city views.

Character and Appearance

The building has a plain façade on towards the riverside, where it creates a discreet presence. The angular faced towards the city side just opening up from the entrance and access points. The building acts as a transition for the users of the terminal acting as a mediating point between the user, the city and the river.

Texture, Material and Finishes

The building material used for the structure is white concrete mixed with cork — a solution specifically developed to lighten the building's weight, limited by the pre-existing foundations.

Pattern, Coherence and Rhythm

The terminal building is a singular coherent volume with the front façade, composed with the concrete geometric patterns of the cast prominent on the elevations and in overall volume. The rhythm of the circular columns in the interior gives coherence to the theme of the design.

4.1.4 Praca De Lisboa, Porto

The second biggest city in Portugal after Lisbon, Porto has a population of 237,591 with the extended metropolitan area has an overall population of 1.9 million and an area of 2,395 square kilometres (Campos, 2013). It is situated in northern Portugal alongside the Douro River, one of the oldest and major European urban centres. The historic centre of Porto was included by UNESCO as a part of the World Heritage in 1996. This inclusion of the old part of the city that was in the interior of the medieval wall, is among the significant assets of the world and has given Porto the attention of national and international authorities. The world heritage site includes a historic core, Monastery of Serra do Pilar and Luiz I bridge have been listed (ICOMOS, 2018).

Historical Importance:

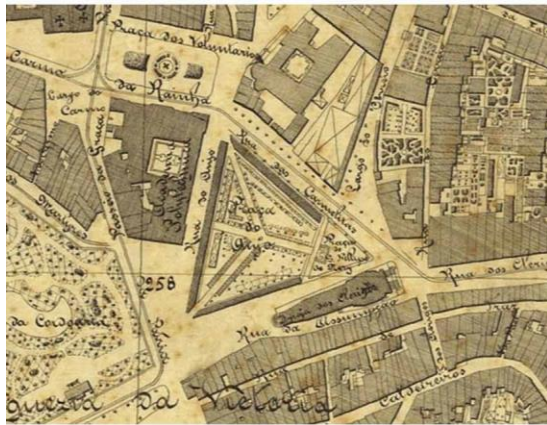
Having a prolific history of over 2000 years the historic city of Oporto is built on the hillsides, along the slopes of Douro river that provides magnificent views and the amalgamation of building from different centuries. Porto has been historically a place for commercial, agricultural and military activities, being a port city with its demographic advantages and constant growth due to its link with the sea many architectural monuments can be seen from a different timeline. The name Portus, or port was given by Romans in the first century BC. The historic city centre of Oporto has many buildings that are an incredible testament to the developments that spread across multiple centuries, this incredible European takes much of its cultural and commercial roots from the sea. It has been proved with the archaeological evidence that this region has been inhabited since the 8th century BC when the Phoenician traders settled here. Over time this area became important due to its strategical and locational advantage, until the 5th century it was known for organisational and trading activities, it continued to develop. It was attacked and ruled by different tribes and groups including Visigoths, Normans, Moors and Swabians. In the 11th century, it was established as a part of the new kingdom and as a part of Portuguese independence. The city expanded in the 14th century, Porto kept growing as an important commercial hub and due to its port it received and departure ships to major parts of Europe using the route of Douro river. This quick growth of the city caused the enlargement of the city limits and a new line of walls was commissioned and finished in the 1370s. These large stone walls were built to protect the two important centres of the town, the important medieval town and the extended harbour area (Worthington, 2017).

These walls are called Fernandine walls that are named after Dom Fernando the king of Portugal under whose reign the walls were completed. The historic centre recognized by UNESCO is located within these walls along with the smaller areas that still retain the characteristics from the medieval period. This area includes the two remaining sections of the Fernandine wall, the larger conserved area of the medieval town with its urban fabric and other monuments that were built later within this area. This living and breathing outstanding urban area have the rich inclusion of distinct architectural styles of Romanesque, Gothic, Baroque, neoclassical, Renaissance and modern. In this historic centre, there are many buildings and important Romanesque core of Se cathedral that dates from the 12th century. The other significant buildings include multipole religious buildings and churches built in different styles including the church of Santa Clara built in the mid-15th century, Neoclassical stock exchange building, Sao Joao theatre and former

prison building Cadeia de Relacao built at the end of the 18th century, Palacio da Bolsa built from 1842 to 1910 and Sao Bento railway station built in early 20th century. This living historic centre is active and bustling due to the institutional and social setup of the city which allows it to constantly improve while preserving the historic character (UNESCO, 1996).

Context of the Site:

Praca de Lisboa is located in the historic centre of Porto, surrounded by important landmarks that include the Rectory building of University of Porto on west and Igreja e Clérigos on the south. It is a myth, associated with a medieval legend there was a chapel in honour of S. Michael at this site. As described in a legend while returning from Coimbra in 1153 and heading towards Guimaraes, D. Afonso Henriques and D. Mafalda had an incident at this exact site as the queen fell into a ditch in Olival. On this occasion, king asked S. Michael, the angel to help her and this chapel was built and to honour him. (Uporto, n.d).



A. Plan of the historical marketplace



B. Google Earth Image dated 06/2007



C. Picture of the historic marketplace (Archquiston, 2014)



D. View towards Igreja e Clérigos (Architizer, 2013)

Figure 4.4 Historic imprints and images of Praca de Lisboa Porto.

In 1672, the Reclhimento dos Anjo was built to help women in need on this site, at the initiative of D. Helena Pereira with the support of the Bishop, the King and the city council. Elisabete Jesus describes that in 1832 the Recolhimento dos Anjos was facing difficult situations and only housed old ladies and it was difficult to meet the expenses as there was no support or maintenance of the complex. The residents were struggling at their own expense, during the siege of Porto the situations became more difficult. The building was then switched to be used for military purposes and a hospital. Finally, by a verdict of May 20, 1833, it was declared unusable and was donated to the city council with all of its belongings. Council had to sell most of the belongings of the property to pay the debts that were overdue (Jesus, 2006). From 1834 to 1839, the space was unused and was in a devastating condition, waiting for a renovation and new use. Porto needed a market due to large fairs that were taking place around the city, Porto chamber decided to build a market at this site and the project was started shortly after the Portuguese civil war. The plan of the historic marketplace can be seen in figure 4.4A and the image can be seen in figure 4.4C (Madureira, 2002).

Praca de Lisboa also visually and physically extends the garden of Cordoaria. It is located on the southwest of the Praca de Lisboa and it was inaugurated in 1867. Igreja dos Clergios church, built in 1763 is on the south side of the Praca de Lisboa, and the Neo-classical rectory building of the University of Porto is on the North-West. Madureira discusses that this specific site was selected to build the market due to two main reasons. Firstly, the available land was on the edge of the city, making it an ideal location. Secondly, after the decree of the extinction of religious orders, there was an opportunity to use the empty spaces. Hence, the marketplace was built on this exact and inaugurated in 1839, shortly after the demolition of the Reclhimento dos Anjo. The layout plan of the market can be seen in figure 4.4A. Throughout time, from its opening until 1948 the market remained unchanged. Several years after it was built, it was no longer in the conditions to successfully function the market, as it was no longer possible due to its rundown condition and it was demolished in 1948 (Madureira, 2012).

Project Description

The designs of Balonas and Menano Architects were chosen after a design competition that was held in 2006. In figure 4.4B the plaza before intervention is shown where “In the 1990s, the area had become an open square with peripheral galleries and commercial spaces known as the Clerigos Shopping. The centre did not have much success and it was permanently closed in 2006” (Disup, 2013). The city of Porto started building the new large scale urban renewal project in 2007. This project has a covered area of 5,000 square meters, built to revive the memory of the ancient market that existed on the site and a public plaza that keeps the site open and maintains a green public park. This contemporary intervention has brought together three different programs inside one complex, using the topography to its advantage it contains a commercial area in the centre, an underground car park and a roof garden. However, the access and the commercial street connects Clerigos tower via a diagonal route that cuts through from the middle of the design. The execution of the project is done with the public square that adjusts to the city, pedestrians and connects the program with the valuable historic context. The concept of a public garden and the semi-covered commercial street that connects the garden of Concordia towards south and Praca Gomes Teixeira on north which also marks the entry to rectory building of University of Porto. The commercial streets connect the Praca Gomes Teixeira to the Igreja e Clerigos and frame the church while accessed from the

north side. The project restores some elements of the history of the place such as the Parco degli Ulivi with a cover of the new shopping centre with greenery and where 50 olive trees have been installed a new meeting point, recreation and wellness for residents of Porto, visitors and tourists (AAsarchitects, 2013). “The scale and shape of the building seek to develop a rich dialogue with the surroundings. The slabs in concrete offer shade or shelter from the rain on both sides of this “new street” near their storefronts. The elevations silhouette is the result of the roof design and conditioned by the car park level and the slope of the surrounding streets. The facade is composed of textured prefabricated concrete and white metallic structural elements” (Architizer, 2013).

The idea of a street that cuts diagonally, creates relationships between different usages, opening the structure outside as a public space, whereas the shops face the street. The pedestrian public space makes the project an architectural uniformity that creates a dialogue with the surrounding buildings. Combining the program by creating the underground car park, commercial area and providing an innovative landscaped area of 4500 square meters solved the required program and also overcomes the gap in the supply of green spaces in an important part of Porto city.

Analysis according to the developed criteria:

The contemporary design intervention is an urban renewal project that uses the whole site of the old marketplace covering 5000 sq. meters. It does not keep the historic settings, archaeological remains or features. Designed in contemporary language, the historic functions have been given a reinterpretation by creating the shopping street. Hence, reviving the historic spirit of the place, the public plaza is also created by the play of levels. The contemporary addition fits into the context without interfering with the physical structure of the area or blocking any visuals or views.

“Project is built to respect the views; it maximises the views of the surrounding context. While approaching from the north street connects Praca Gomes Teixeira and the Igreja e Clérigos while framing its tower. The urban garden rises from the ground and creates an upper level as a public garden and gives visual continuity to the garden of Cordoaria, the level changes are very subtle incorporating the multiple levels of the scheme without giving the overwhelming scales in height variations. The project successfully incorporates the parking garage in the underground that can be easily accessed from the slope of the road, the shopping street keeps the historical memory of the site alive and the public garden makes it a gathering space for the public” (Abrar, 2019, p.173).

The contemporary addition responds to the surrounding context and due to the design and horizontality of the project, it does not overpower the neighbouring historic fabric. The major part and factor of the project are that it rises from the ground and ties up the different parts and functions. Due to the design language, new work is readily identifiable from the historical context but it respects the surroundings and creates a dialogue with it. Hence, contemporary design intervention successfully finds its expression while regarding the scale of the site.

Mass and Scale

The design incorporating the multiple functions, incorporating a public plaza/garden, underground car parking, a shopping area reviving the market uses the triangular intersecting site with the gradually rising scale according to the terrain and levels of the site, balancing the different functions. The scale is not vertical and hence maintains the connections with the surrounding plazas.

Harmony and Height

The landscaping and project execution ties harmoniously the three sides and the building facades and views from and to the neighbouring buildings. The design is carefully considered and grounded to emphasize the importance of the neighbourhood and give a subtle feel to the plaza.

Composition and Form

The prefabricated concrete elements with white finished structural members compose the front composition of the building. They provide shade and also make up the identifiable façade and tie up the whole plaza. The unique form of the design directly corresponds to the site.

Volume and Proportion

The volume rises from the ground and takes its shape and proportions are set accordingly to incorporate the different functions of the public plaza, garden space, shopping space and commercial parking. Proportions are set accordingly and create a rich dialogue with the surrounding context.

Character and Appearance

The design has 2 different roofs that rise from the ground giving it a unique character and appearance. While the visitors walk into the commercial street the 2 roofs meet at the top forming the top most point of the design that is connected with a glass walkway.

Texture, Material and Finishes

The complex has been composed of two planes coming together. Built in concrete with recessed windows and precast slabs of geometric patterns. The use of glass and steel on the top level for the public park has been well composed. Considering all the finishes including the planting of the olive trees to revive the memory of the historic garden.

Pattern, Coherence and Rhythm

The pattern composed on the façade on all the sides is coherent, that grows according to the height of the building and according to the street elevations.

4.2 Spanish Context

4.2.1 Metropol Parasol, Seville

Seville is the capital of the autonomous region of Andalusia and the province of Seville. It is the fourth most populated city in Spain and 30th most populous area in European Union. The city has a population of approximately 690,000 and the greater metropolitan area having around 1.5 million, this makes it the biggest city in Andalusia (INE, 2018). The historic city centre of Seville has three important sites that have been recognised by UNESCO world heritage sites, namely Alcazar palace complex, Seville cathedral and Archivo General de Indias (UNESCO a, n.d).

Historical Importance.

Historically, Seville is around 2,200-year-old. It has a rich culture and character due to the occupation and passage of multiple civilisations, that became instrumental to the city's growth. The original historic core of the city dates back to the 8th century. During the reign of Phoenicians and Tartessians, this area was called Hisbaal, the pre-roman Iberian locals of Tartessos controlled the valley at the time. The Archaeological evidence from the excavations done in 1999 found that the original walls of Alcazar dated back to the 8th-7th century BC (Alcazar, n.d; Salgueiro, 2007).

During Roman rule and later, the city was called Hispalis. In these times, the city became one of the important industrial centres of Hispania and developed a greater market (Nash, 2005). Many Roman features can be found in Seville, including the remains discovered in the underground Antiquarium of Metropol Parasol, remnants of the aqueduct, three pillars of a temple in Marmoles street, a column of La Alameda de Hercules and the remains of Patio de Banderas square surrounding the Seville cathedral. The original city walls were built during the time of Julius Caesar. However, their current situation and design is the consequence of the Moorish reconstruction (Salgueiro, 2007). The city was conquered by Moors during the invasion of Hispalis in 712, becoming the capital city for the Umayyad Caliphate from the 8th to 13th century. Moorish structures in Seville include Patio del Yeso in Alcazar, the reconstructed city walls, the bell tower of Seville Cathedral and the main section of Giralda (Ruggles, 2004). There were many public buildings constructed after the Castilian conquest in 1248, constructions included many churches and religious buildings built in Mudéjar and Gothic styles, including the Seville cathedral that was built during the 15th century in Gothic architecture (Mackay, 1972).

The takeover of the Americas in 1492 brought in a new period of significant development for the city, as it became one of the first European passages for America. By the end of the 16th century, many of the travels and arrangements were contracted from Seville as it became the main Castilian port. During this time Seville had great expansion as the wealth and goods that came from America were controlled in this city and it was the main port of call, the population surpassed 100,000 this time and it became the biggest city in Spain. This metropolis had consulates from all regions of Europe and merchants came from all across the continent, settling and creating companies in Seville. The city became a multicultural city that flourished in arts, architecture, painting, sculpture and literature (Casay, 2002). Starting from the 17th century the city's fortune began to change, the main cause of this being the shift of trading contracts to the port of Cadiz,

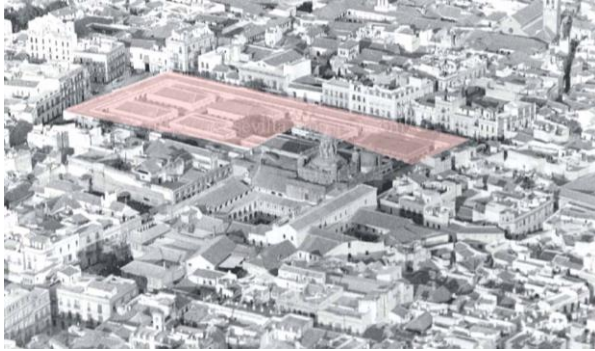
the city that had the competition with Seville. The city also suffered from the economic crises that affected the whole continent, in addition to usual flooding and calamities the greatest suffering came from the great plague of Seville that hit the city causing the death of 46% of the population and reducing the city size from 130 000 to 70 000 inhabitants (James, 2002).

Context of the Site:

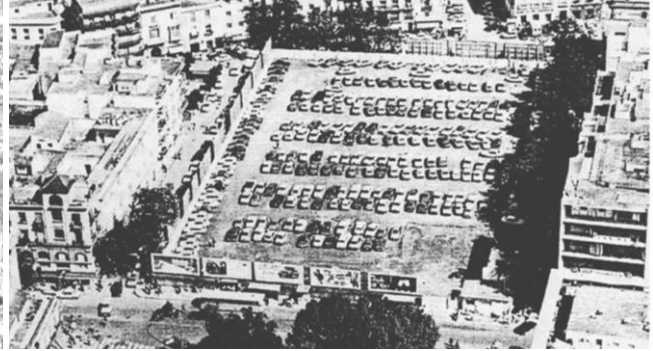
The project Metropol Parasol is built in the Plaza de la Encarnacion, which is situated in the historic hub of Seville, Spain. Metropol Parasol is designed as a wooden structure in La Encarnacion square. Situated in the historic core of Seville, it was designed by the German architect Jurgen Mayer Hermann and it was completed in 2011. It is 150 by 70 meters with an approximate height of 26 meters. The building is popularly known as mushrooms of the Encarnacion due to its shape.

The plaza gets its name from the convent of Encarnacion, which historically occupied the site. In the year 1587, city council purchased the land and multiple public buildings surrounding the convent to proceed with the plans of demolition and expansion of area to create a new public square. The historic plaza and the current plaza with its surrounding area is the result of these decisions and steps carried out in 16th century (Bueno, 2006). During the French invasion in the early 19th century, the convent of the Encarnacion was demolished. The site was used to build a market with three streets having covered galleries. The fountain that was used in the market square was the only remaining part from the convent, which is also the part of the new square. The remnants with the foundations can be seen under the Metropol Parasol's archaeological museum (Berrocal, 2014).

Mercado de la-Encarnacion was built between 1833 and 1837, this old market occupied the site of plaza de la Encarnacion which currently has Metropol Seville. It was possible to enter this market from all sides as it was designed with multiple entrances. The Aerial view of the old market can be seen in figure 4.5 A. During the construction, the fountain in the centre was placed from the nearby square where it was installed since 1720. The market was partly demolished in 1948 to expand the surrounding streets and creating a plaza, a shape that can be seen in the current organisation of the area. The fountain was moved after this demolition and it continues in the place to date. The market was in a rundown state and was not in usable conditions, the decision to demolish the market was taken in 1973 and the complete demolition took place. The site was used for parking for many years as seen in Figure 4.5 B. Different plans were proposed and later the site became abandoned, unused and protected by a solid barrier. (Esasevilla, 2010). Renovation works began in 1982, the project was considered for commercial reactivation. However, the excavations resulted in the archaeological findings from the first-century Roman era, this resulted in putting a hold on the development and the square became an archaeological excavation site with a dig. The situation of the site was protested by the local businessmen, but after the project was reconsidered for the archaeological findings and the museum, it has become a major attraction and point of interest for the international community due to tourism and cultural interests. (Bordas, 2012).



A. View of the Marketplace



B. View of the parking lot (Esasevilla, 2010)



C. Looking towards the entrance of plaza and marketplace



D. Ariel view (Metropol Parasol EUMies, 2013).

Figure 4.5 Images of the Metropol Parasol.

Project Description

In 2004, an international design competition was held by the Seville city council to come up with a suitable proposal for the square that incorporates multiple programs and creates an innovative gathering space. The German architect Jurgen Meyer was the winning architect with their project called Metropol Parasol. The competition brief was to come up with an innovative and aspiring solution that included a complex program of having a municipal market, public square and an archaeological museum. It was also specified that the project becomes an architectural landmark by generating an iconic impact to create a touristic attraction and gives an identity to the site. As described by Connor, the experimenting mix of the tradition with the contemporary architecture and coming up with the iconic impact that looks towards the future while holding the historic identity. The project was completed and inaugurated in December 2010, the plaza de la Encarnacion now has an urban plaza with a wooden sculptural construction that can be accessed on top levels with cafes, it also includes the Market Abastos de la Encarnacion and underground museum El Antiquarium. The market revives the memory of a historic market that existed on-site with 40 stalls of twenty square meters each. The underground museum Antiquarium holds the first stones that were put

in plaza de la Encarnacion by Romans, the remains of Roman emperor Tiberius and the archaeological findings of the houses from the 12th and 13th centuries could also be noticed (Connor, 2011). “Realized as one of the largest and most innovative bonded timber-constructions with a polyurethane coating, the parasols grow out of the archaeological excavation site into a contemporary landmark, defining a unique relationship between the historical and the contemporary city” (MAYER-Herman, 2011). The street level of the project has a farmer’s market and a few cafes, the levels below the ground floors are designed for the archaeological excavations and the museum exhibits. The project has a raised platform below the structure which is an open area, this raised platform provides the visitor with an ideal space to experience the size and scale of the structure. The views open up towards the rich historic neighbourhood while observing the grandeur of the intervention. The fourth level is the very top of the project where a large panoramic deck has been designed to see the 360-degree views of the ancient city centre.

Shane Hudson while writing for BBC has criticised the intervention that has been built in the historical city centre. He points out that as the city offers visitors an implausible mix of architectural statements from different centuries and shaped by the over 1300 years of history there is a sensitivity and character it offers. The city offers a variety of history from Roman ruins to Moorish minarets, Baroque palaces to Renaissance churches. However, with this new intervention, the city’s architectural heritage has come under an impediment, threatening Seville’s UNESCO World Heritage status. The Metropol Parasol, a marketplace and museum that has been built after abandoning the project of commercial development due to the discovery of Roman ruins, is now preserved in the underground Antiquarium museum. Hudson thinks that there have been many efforts, however, the new addition of the Metropol parasol that looks like giant mushrooms and is considered to be the world’s largest wooden structure has not quite settled into its neighbourhood (Hudson, 2012).

Analysis according to the developed criteria:

The project does not keep the traditional settings as the contemporary additions disregard the vital historic and context and heritage buildings. The project bears a contemporary stamp and revitalises the historical character of the site by incorporating the market, it revives the memory of historic activity on the site. The underground museum is designed to showcase the archaeological findings. However, the overpowering design solutions neglect a vital point of ‘not destroying the physical character of the site’. The project seeks all the attention and due to its volume and scale. Due to the intervention, the views to and from the surrounding buildings in the areas have been compromised which also adds to the neglected considerations.

The design of Metropol Parasol sits in contrast with the surroundings as seen in figure 4.5 D, “the new addition does not respect the traditional language of the urban fabric. Additions of the contemporary projects distract from the traditional settings and there is an overpowering presence of the project in the urban plaza. Intervention does not fit into the context, intervention stands out and becomes an imposing structure. The physical structure of the area has been compromised as the contemporary addition contradicts the character and sensitivity. Structurally and aesthetically, there are no similarities of design language, the project sits in stark contrast with the existing settings. The design of the project radically

diverges from the rest of the city and it has an overwhelming scale in comparison to the rest of the surroundings” (Abrar, 2019, p.177). Although the new work is readily identifiable from the surrounding context and the large wooden cantilevered structure has a prodigious existence in the context.

Mass and Scale

The proposal includes a big hollow structure composed of wood and steel joinery with concrete footings the overall mass is superimposing on the surrounding structures and context and creates a massive presence dominating the site. The scale of the building is a representation of the whole site that almost extends to the boundaries of the area.

Harmony and Height

The proposal neglects the harmonious solutions that sit in coordination with the buildings but rather dominate the surroundings including the height of the building. It providing views of the historic surrounding from the top deck. However, blocks the views from the historic neighbourhood with its presence.

Composition and Form

The solution for the proposal is to include the archaeological site, the historical market and urban plaza and visual gallery on the top for views and including the sculptural look for the iconic representation.

Volume and Proportion

The overall volume of the design is composed of circular geometry with a juxtaposed formation. The overall visual volume gives a sculptural look and provides an experience of the city with the skywalk platform. The organisation of the geometrical composition can be observed in the archaeological site.

Character and Appearance

The overall character is very distinguished in material and formal appearance, hence it gives a very distinguished look.

Texture, Material and Finishes

The wooden material used with the concrete foundation was adapted accordingly to suit best the top image and composition of a wooden structure.

Pattern, Coherence and Rhythm

The pattern of square wooden blocks has been followed that grows accordingly to give an organic shape to the overall composition. The rhythmic growth of the geometry to give an organic shape is coherently composed using wood and metal joinery.

4.2.2 Between Cathedrals, Cadiz

The city of Cadiz is built on a peninsula projecting out into a harbour. It is nearly surrounded by water in its totality. Phoenicians found their first trading post in Cadiz in 1100 BC and named it Gadir, later on, it was ruled by Carthaginians and during Roman rule, it became a flourishing port. It saw less activity during the rules of the Visigoths and Moors but achieved great developments in the early 16th century as it became one of the main ports for the voyages to the lands of America. Cadiz was later raided by Britain, in the struggle to gain control of trade with the New World, the city also managed to withstand a siege by the French army. City also has its importance as the first constitution of the country was declared here in 1812 as it became central to the anti-monarchists movement in the early 19th century (Pedro, 2007; Edward, 2002).

Historical Importance:

Located in southern Spain on the coast of the Atlantic Ocean, Cadiz is one of the oldest cities in Western Europe and it belongs to the Andalusian autonomous community. Archaeological discoveries have proved that the Cadiz has been inhabited continuously and some of the findings have been 31100 years old (Espinosa, 2006; Nash, 2007). As a city it was found by Phoenician sailors from Tyre by developing the pre-existing setup, it is considered one of the oldest city, with ancient roots in western Europe (SpanishInCadiz, 2019; Head et al., 1911). It is located on a piece of land jetting towards the sea, one of the most culturally rich Andalusian city due to its vistas and well-preserved historic landmarks. The old town of the city that is within the remnants of the city walls is well regarded for the antiquity of its historic quarters that include El-Populo, La Vina and Maria, these areas present the stark contrast to the newer areas of the city. The old city's streets are composed of narrow winding alleys that connect the large plazas (Galloway, 2019). The city had a layer of fortification walls and gates. Gate to the El-Populo district was built in the 13th century. Las Puertas de Tierra originated in the 16th century, having multiple layers of walls, one wall remains today. In the 20th century to remodel the old city entrance and accommodate the traffic, two side by side openings were carved into it that act as the primary entrance to the old city. The city has an abundance of religious buildings built in various styles along with the multiple plazas with their landmark buildings. Plaza de Mina, Plaza San Antonio, Plaza de Candelaria, Plaza de San Juan de Dios, and Plaza de Espana are some of the important historic landmarks, apart from that Cadiz had more than 160 towers, Tavira tower holds specific significance today.

Context of the Site:

The project is located between the two historic cathedrals of the city, the old and the new cathedral. The church of Santa Cruz (old cathedral) is the oldest church in Cadiz that was built in 1263, it was built on top of the former mosque structure at the orders of Alfonso X of Castile. The original structure was built in Gothic Mudejar style; however, it has gone through many modifications and has been expanded multiple times. The elevations and exterior is composed of simple elements that were also used and taken inspiration from while constructing the new cathedral. The building was extended during the necessary reconstruction in 1606 as it was severely damaged during wars. It has a simple front facade as most of the

elements were used in the construction of the new cathedral only three shields remain on the lintel with the emblems (TuDestino, N.D). The building of Counting-House is separated from the main church building and it has the tower attached with it, this building is finished with a polygonal chapitel covered with ceramics. The altarpiece was built in 1640 and it is considered the most significant part of Cadiz Baroque, this is one of the main features of the interior and is made out of gilded wood, the surrounded sculpting was made until 1658, a single unit divided into five sections by fluted pilasters and columns (Ebert, 2019). The core segment of the cathedral is in the hemicycle shape with 12 niches that have the apostolate, highlighted by Solomononic columns. The Genoese section has decorations and iconography that dates back to 1671 and is arranged on the coloured marble altar. In the section of El-Sagrario chapel, there is a Rococo gilded wooden altar with the statue of Saint Anthony. The old cathedral built in a different timeline is tied up and presents the historical timeline (AyuntamientoCadiz, 2012).



A. View of the old cathedral (Mandrygin, n.d) B. Looking towards the new cathedral (Spainblog, 2019).



C. Side view D. Front view (ArchDailyBaeza, n.d)

Figure 4.6 Context and images of Between Cathedrals Cadiz.

Cadiz Cathedral also known as the new cathedral is a Roman Catholic church in Cadiz, it was built between 1722 and 1838. The cathedral was recognised as cultural heritage and declared Bien de Interes Cultural in 1931. It receives the denomination of 'Santa Cruz Sobre el Mar' (Francisca, 2012). It is known among locals

as New Cathedral, in contrast to the Old Cathedral. Its construction took place due to the underprovided state of the Old Cathedral, the other main reason was the status that the Cadiz got after becoming the headquarter of the House of Contracts in 1717, becoming the central commercial port for trading with the American continent (Acero, 2016; Turespana, 2019). Its construction took around 116 years to complete, during this time many architects contributed to its design, including Vincente Acero, Gaspar Cayon and Torcuato Cayon (Fischer, 2016). The main facade of the cathedral is designed with the typical elements of Baroque style, the mixture of concave and convex forms, as the completion took a long time the mixture of different styles with the additions of neoclassical style are also visible (SpanishinCadiz, n.d). Towers and the sacristy were amongst the last of the elements to be built, multiple sculptural works inside the cathedral are taken and moved from the old cathedral. The interior has a particular character due to the vaults of the high altar and the choir stalls. The cathedral has a dome decorated with golden tiles.

As the construction lasted over a hundred years, the building went through different phases of design phases due to multiple reasons including the declining city wealth, change of architects which also explains the different styles; Baroque, Neoclassical, and Rococo. The economic crises that the city faced lead to the use of different materials which is visible while visiting the building both on the inside and the outside. One can see Genoese marble in the interior, mainly in the different altars and doors whereas, the combination of limestone and scallop stone can be seen on the exterior walls (CadizNet, n.d). Due to the delays in the work, the cathedral was exposed to an open atmosphere. The long time in construction along with its location of being right at the edge of the sea has started a condition in the stone which is causing it to slowly disintegrate. Upon visiting, one can notice multiple nets around the vaults of the cathedral, the reason is to prevent the rubble from falling to the ground. Since the beginning of the 21st century, restoration and maintenance works are being performed regularly in the cathedral (Canas, 2020).

Project Description:

Between Cathedrals is the project designed by architect Alberto Campo Baeza, it is a space between the old cathedral (Santa Cruz church) and the new cathedral.

The design intervention proposal for the site is valuable and most noteworthy because of the historical importance of the location and the history of the city intertwining with the setting. Historians consider it one of the most historical city of the West, the design built between the old and the new cathedrals and on the premises of the archaeological excavations (Baeza, n.d). The design caters to the archaeological remains as well as provide space on a raised platform as an observatory, providing an unobstructed view to the waters, where once the transport ships and now a harbour activity can be seen. Due to its raised location, the passing by cars on the circle road does not obstruct the views of the visitors and the juxtaposition of the old and new cathedral along with the scenic views due to this intervention give visitors an ideal place to observe and enjoy culture and history of the city.

A sleek design of metal is painted in white to give a lighter look and distinction from the surrounding facades. Access to the top deck is provided by a side ramp, the archaeological remains can be seen in the lower level. The small steel columns have been raised carefully on which the platform rests. This large platform also acts as a shell structure to provide protection and covering. Above the platform, a canopy has

been made that provides a pavilion space for the cover from sun and rain. The whole design is composed in white to accentuate the lightness (Singhal, 2012).

The project seeks to create an experience that is worthy of the city's collective memory. An intervention that is precise to the significant location and the place, a space facing the sea located between the old and new Cathedrals (McManus, 2020). Along with the usage as a cover and protection of the archaeological remains this intervention serves as a public viewing platform, temporary exhibition space, gathering space and a public space that provides unobstructed views of the sea from the passing by cars on the circle road.

Analysis according to the developed criteria:

The project between cathedrals keeps the traditional settings and does not negate the context. The intervention has been designed with the humble scale and does not interfere with the old or the new cathedral but rather sits in between on an empty site that has the archaeological remains beneath. The proposal is lifted from the ground using sleek columns and provide the covering and shade for the archaeological remains that can be seen and experienced. The project bears a contemporary stamp and above the remains, a platform is accessible via a ramp that looks towards the sea. This public space incorporates the seating space and a shaded area with a covering that does not block the building in the background as it is raised on the small columns. The contemporary addition by Alberto Campo Baeza does not interfere or destroy the physical structure of the area and does not block the views or clash with the context due to its level of insertion and scale.

The main building material is metal and finished with white paint stands out from the materials of the surroundings, the work is identifiable from the surrounding context due to the design language and finishes but does not dominate the context. The horizontality and the scale of the surrounding structures stand out and the intervention acts as a breathing space. The design opens up the views towards the sea, raised on the platform, when a visitor approaches the upper platform, due to the height the passing cars on the front become under the eye level and the clear unobstructed view of the harbour and the ocean can be seen. Contemporary addition creates an interesting dialogue with the surrounding buildings. Hence, it becomes a successful intervention and finds its impression in an important context.

Mass and Scale

The sublime massing of the design with its openness does not overpower or emphasises its presence in the rich context of the area. The scale of the building is very small and sleek with its slender construction hence providing a platform and pause space in the provided area.

Harmony and Height

The horizontal construction with its minimal presence in comparison to the immediate surrounding and vertical presence of the two cathedrals in the neighbourhood provides an ideal solution of contemporary addition while respecting the context.

Composition and Form

The rectangular composition with a platform on the top as a visual gallery providing the views framing views of the ocean. Composed out of the steel and stone finishes the form sits minimalistic in scale and design approach.

Volume and Proportion

The volume has been designed respecting the excavation site with the temporary exhibit space accompanying the remains from archaeological excavations. The ramp leading up to the platform provides non-interruptive views of the waters with a small covered platform provided a temporary resting place with minimal seating designed accordingly.

Character and Appearance

The sleek steel construction provides a distinct solution for the prominent site with the stone constructions of cathedrals. The stark difference of appearance that does not compete with the scale but sits humbly with the horizontal presence gives it a discrete look.

Texture, Material and Finishes

Plain finishes with the white paint on steel with minimal concrete tile flooring on the platform that also provides the covering for the archaeological remains.

Pattern, Coherence and Rhythm

The design does not follow the patterns from the immediate context, instead provides a simple solution with plain geometry. The design is coherently proposed with the slender columns and repetition of the elements in the finishes of the seating spaces.

Conclusion

To achieve a design that unites past and present is a challenging task. There is no single correct method, the new design must enhance the character of the settings. Contemporary additions always create a debate when they are built in a location that has been developed generation after generation and holds a sentimental, traditional and cultural value. There is no checklist that determines the successful outcome of a project, even after meeting the international conservation criteria, projects do not successfully revive the historic city centre. Complimentary or contradictory design strategies have their own advantages and disadvantages; design has to be fundamentally driven and anchored into the context. Can contextual approach be the solution? Designing in contrast can create a one-time wonder but then repetition of the same idea will diminish the historic value of the site and slowly the past roots will diminish. Architects should take the historical material as a source of inspiration and conceptually translate them into the design.

Context is one aspect that provides most of the answers. In this thesis the methods that took element from the context and utilised it with deeper understanding provided results that weave old and new. This creates a story and interprets the essence of the place. Contemporary strategies if linked with the identity of the place can interpret the historical forms, materials and ideas in new ways. The historic neighbourhood and its surroundings should be analysed as a source, not only as a product of past but as a living organism that is continuously adapting changing and growing. In this sense, new additions should be in harmony with the context, showing their own time and having a contemporary stamp. During the design phase, careful consideration has to be given to the socio-cultural, economic and symbolic meaning of the surroundings. Contrast and conflict can create an attraction, iconic design can bring in attention but its repetition over time will end up vanishing the existing and historic characteristics will diminish soon afterwards. Context and contextual solutions can end up resulting in a hybrid strategy and an abstraction to interpret the historic context, creating a link instead of the conflict. Architects have the tools to deal with historic architecture as a learning material to create meaning and inspiration.

Unfortunately, many stakeholders and commissioning bodies do not consider the international criteria or rules of preservations when they initiate the intervention projects. Local authorities end up giving permissions to renowned architects and accept proposals that can be inappropriate for the site because they might create an impact or bring in the iconic factor to the city. Nevertheless, even if architects and planners follow the criteria, it does not guarantee that it will produce a successful design. The change and improvement of urban context cannot be limited to the fulfilment of the criteria, it has to understand the place and its identity. The harmonious integration could be a solution, a design approach that is contextual. The regulatory systems, new and existing policies on the conversation have to be improved, the process that defines the harmony and contextual parameters has to be defined improved. The international agreements in the form of charters and memorandums that started developing in the late 19th century have

focused on the preservation criteria and safeguarding of heritage. The development of various international organisations after the Second World War has led to the production of more than 30 significant documents. Although comprehensive data is now available, it mostly deals with preservation and restoration. The guidelines regarding the addition of new architecture cannot be found in one specific document, they are scattered. Hence, a criterion has been developed that examines the important points from the work of international organisations. In chapter two 24 charters have been reviewed, a summary has been drawn in table one containing the major points. A matrix on page 77 provides an insight on the shared ideas leading to the table two that contains the developed criteria. This can be used while analysing the proposals for the new projects. With the amount of development going around the globe in the historic cities, there is a need for international consensus, the development of further international charters or multiple charters that provide detailed guidelines. Apparently, there is a need for a referential or a standards book that can provide details for the proposal and regulations for the contemporary architecture that is built in historic city cores. A historic city centre develops over multiple centuries and encapsulates the work of many generations, it is an amalgamation of ideas, concepts, heritage, culture and philosophies. The Continental-European context is an important one to study and the role that the governmental and non-governmental organisations, local communities and developers play is vital. The argument of building contemporary architecture with the concept of distinction, subtle intervention preservation or iconic architecture will always be in debate and is a stimulating subject for architects, urbanists, heritage consultants and city planners.

Contextual sensitivity should be amongst the primary concerns of the architect, considering micro the macro scale. Contextual architecture becomes challenging while studying how the different cultural identities are formed and how they can be translated into the design, in this case, the designers have to study in-depth the context, as places talk and main ideas can be generated from the location. Design should be considered by checking how effectively it uses the context and its sensitivity. It should respect and prioritise the character of place by creating and sustaining the pre-existent identity and harmony. Learnings from the context provide a link between history, society and culture, thus allowing the design to utilise the features of the place and results to become integrated with the roots of city.

Every design competition or every new building in a significant city centre tend to get national and international attention. Nevertheless, cities are constantly developing and changing with new demands and requirements. In this process, the built heritage often suffers, which directly impacts the residents and locals. Urban regeneration is a vital part to keep any city centre alive and the approaches of contemporary solutions have proven to bring back the deteriorating city centres to international attention. It only goes wrong when the process of urban renovation does not take into consideration the preservation and safeguarding of the heritage, the important parts of the

history get vanished. This directly impacts the image of the region, culture and residents. The phenomenon of iconic structures, that do not take any influence from the context are reaching at peak, we have seen the fate of the cities change by using this approach. However, the historic character and contextual influences have to be considered and retained. Strict conservation and preservation become difficult for many cities due to economic and financial reasons and, therefore, cities seek solutions with the contemporary additions. Furthermore, the development of this subject after the internationalisation and an introduction of a globalised economy along with the improvement of transportation and cross border travels has given a boost to the international style of architecture that has a high dependency on technical advancements and taking very little from the traditional and local architecture. This new style of architecture has an international language and does not depend on the local or regional language. It can be said that the global system of urbanisation doesn't work parallel to the ideas that are suggested by the experts on the subject.

Conservation and restoration of the historic fabric become difficult due to the conditions, services and costs. The strict guidelines regarding the conservation, preservation and safeguarding of heritage and historic architecture are often neglected and looked over. The large parts of historic towns get vanished and removed. It is important to establish the guidelines that can protect the buildings according to their importance. The decaying parts of the city centre can only be revived if they are given new usage and if the surrounding infrastructure is improved, this often leads to the demolition of multiple structures. At this stage, there is a missing link that has to be solidified. When cities compete for international attention and growth due to economic and political situations, it directly impacts the historical cores and architecture, with the ever-growing cities and the increasing concentration in the cities for economic activities, the cores of the city come under a lot of pressure. The need to safeguard the heritage and the preservation of history is challenged with the demands and requirements of space. The rise of iconic architecture has started a race amongst cities to use the Bilbao effect to quickly make city an attractive international destination. However, these approaches have left the contextual design far behind for the sake of an artificial identity. Iconic architecture is being used internationally as a tool for city branding, it communicates a status symbol and attracts visitors and business. The buildings are seen as symbolic interest and planning authorities are allowing and inviting such proposals. However, if the iconic architecture is also context sensitive and not only a product that is been reproduced using only the architect's personal choices, it can have successful results and proposition. Accountability and responsibility towards the context should be preferred over the architect's own design approaches and style. Architecture should tell a story, contemporary intervention has to respect historic essence, location and traditions, it should strive to reflect them, this can result in thriving connection between the past, present and further.

The study of this subject provides directions and open new ways to deal with the context. Architects have to think of a hybrid architecture that can take care of the past and cater to the future, they have to come up with design solutions that consider identity by taking care of the local ideas. Architecture evolves with time, designers have to focus on continuity and not imitation, they must consider the traditional history, Identity, geography and locality of the place before starting the design process. The amount of concentration in cities due to the jobs, immigration, displacement of communities due to the conflicts is a contribution towards the fast-paced change. However, for the city centre to be active, it has to evolve while preserving its character. It cannot be just a tourist attraction and place that is for its memory, many important cities are seeing this phenomenon. The city of Venice is a well-mentioned example. Cities are reviving their town centres, some by the means of iconic buildings, others with subtle interventions. Globalisation affects the historical environment, daily life and cultural activities present in that context. We can say that globalisation has its way to bypass all the guidelines, charters, recommendations, rules and standards. There is a strong need to develop a strategy of how these guidelines can be used as a framework that does not put a stall on the development and growth of the city but provide a way to improve, develop and integrate. Hence, on the international platforms, the organisations and committees must get deeper participation and involve the major stakeholders to engage in efforts to include everyday life dialectics, cultural importance and the globalisation process into consideration while making decisions that impact the historic urban fabric. The broader need is to understand why and how these charters and recommendations have been bypassed or neglected, and to which extent this process generates a loss of identity, history and culture. Once we are capable of defining the exact damages in terms of historical environments, identity, everyday life and culture, the process can be started to propose more precise strategies and recommendations or a model which will avoid additional losses and damages in the discourse of contemporary architecture in historical environments.

The primary cases provided a detailed study of the interventions. The project of the National Museum Machado de Castro in Coimbra is designed to be a continuation of a group of buildings, it adds to an assemblage. This project ties up the whole complex and creates a journey by connecting different levels and structures. The new addition is easily distinguished from the historic structures but sits in harmoniously as it does not overpower in terms of its form and creates a continuation. The argument here can be that the historic settings could have been kept by designing the new building next to the historic structure restored and preserved to its original condition. The approaches that can be seen in the James Simon Gallery in Berlin, Landes Museum Zurich and Raina Sofia in Madrid.

The project of Outdoor Altar in Fatima is the newest addition in Sanctuary of Fatima. Though the timeline of the neighbouring building does not go beyond one century, this area has seen the work

of many significant architects. The intervention is designed with technically advanced structure, materials and finishes advancement, it fits into the context without overpowering the area due to the compact size and supporting functions incorporated under the platform and into the steps. This intervention is carved out of the plain geometric volume, having a top plane a base anchored into the steps, these two planes are connected via a compact core that leaves the background visually connected.

The project of New Cruise Terminal building in Lisbon is built on the northern front of the Tagus river, it looks toward the old city centre, Alfama Hill and the castle. Parts of the old dock have been reconfigured, keeping the memory of what existed there. The plain finishes, compact scale and geometric volume fits into this important part of the city while respecting the historic context, this design proposal had the smallest footprint among the design entries. While passengers arrive at and leave Lisbon they see the Alfama hill with its historic architectural composition and the plain facade of the terminal building from the riverside compliments the view. Design composition makes a simple gesture with geometric volume that does not overpower the surrounding context and fits into the historic neighbourhood.

Praca da Lisboa in Porto has a mixed-use programme. It revives a historic marketplace by creating a commercial street, creates a public plaza that connects the surrounding open spaces and provides underground parking. This project utilises the site levels to their full potential, architects have come up with a solution that does not interfere with the surrounding historic buildings and creates a breathing space for the city. This intervention achieves its goal and meets most of the criteria as it successfully incorporates a diverse programme by reviving historic functions and does not disturb the views towards and from the historic structures.

The project of Metropol Parasol in Seville configures an ideal case where the fate of the site was changed after the discovery of archaeological remains. However, the project received a multitude of criticism due to the unorthodox solution, being composed of the wooden structure that tended to achieve the iconic look with its massive scale. The programme also revives the marketplace and adds a museum in the lower levels. The project has compromised the contextual regard as the project of Metropol Parasol stands amidst the historic architecture and neglects most of the criteria set by international charters and authorities by blocking the views, disregarding the scale of surrounding structures and by overpowering the context with its formal expression. This project uses an opposite approach the Praca da Lisboa, where the architects have given importance to the surrounding buildings. Both these projects had a similar historic journey of being a religious site then converting into a marketplace, being used as a car parking space and later on getting abandoned without a use. The end result shows two different approaches, Praca da Lisboa compliments the historic neighbourhood, whereas Metropol Parasol sits in contrast with historic settings with its overpowering formal expression.

Between-Cathedrals is a viewing platform that has been designed between the new and the old cathedral of Cadiz. It utilises the space between the two significant projects and utilises the in-between space as a visual deck. The lower level protects the archaeological discoveries, making it a covered exhibition space and the top-level acts as a platform that looks towards the sea. Thus, the project complements the historical value of the site with its horizontal emphasis on massing, compact scale and simple design gestures. It is finished with white paint creating lightness. It is very similar in terms of the intervention criteria to the outdoor Altar in Fatima. Both of the projects have a religious significance where one platform is used by the public the other is used to address the public, but the simple interventions that use clean geometry, plain finishes and lightweight and reversible materials are the strong points of these interventions.

The analysis of these buildings provide the data that contemporary additions make a huge impact on the surrounding neighbourhood, these projects bring attention, tourism and economic benefits. In the six primary case studies, we can find that the interventions that are more successful are designed by the regional architect that has a long term association with the city. Goncalo Byrne has spent time teaching in Coimbra, Alberto Campo Baeza grew up in Cadiz, Carrilho da Graca studied and works in Lisbon, Pedro Balonas and Nuno Menano are from Porto and architect Paula Santos spent time managing and supervising the designs of Holy Trinity church in Fatima. These architects were very familiar with the contexts and had a long term association with the areas. The project of Metropol Parasol designed by German architect Jurgen Mayer in Cadiz is the only approach that does not fit into the historic site and creates an iconic and monumental presence. In this specific case, the city authorities selected the project as a competition winner and it fulfils its purpose by bringing in tourists and activating the site but neglects the neighbourhood. An argument could be made that the native architects provide more appropriate and sensitive solutions by giving more regard to the context. Nevertheless, this argument could be countered by the multiple referential cases that have been studied where architects have designed projects with international collaborations and they respect and regard the culture, city and historic neighbour by creating a dialogue with the historic surroundings. It can be said that architects should spend a good time being present on site collecting the data and analysing the characteristics, only then they can fully understand the potentials of the project and come with the ideal solution.

Historic cities are an asset that preserves and contain the imprints and work that has been produced by many generations. The protection of this infinite heritage is not only a national but an international responsibility. The work and guidelines that have been produced by international organisations are an achievement towards a common goal. However, there is a need for consolidating efforts and collaboration of the international institutions with major stakeholders to produce a more cohesive document of guidelines.

The architects, planners, designers and city councils have to work together on the schemes that fulfil and integrate all the guidelines set forth by the international organisations in this field, such as UNESCO and ICOMOS. There is a strong need for the revision or creation of international charters and to come up with cohesive recommendations. In the last century and especially in last four decades' multiple charters concerning built heritage have been produced. However, the main focus has been on the protection, restoration and legislation. There are very few articles that directly provide guidelines concerning new additions. We can refer to pages 77 and page 78 of the thesis for a detailed description of the articles and common points. However, it is crucial and has to be done by producing documents that are more unified and can provide consolidated data concerning the revitalisation and improvement of historic cities. Built, natural and cultural heritage is an international and global responsibility and property, it cannot be defined and limited to individual countries. It is priceless, irreplaceable and belongs to the whole of humanity. The loss of this asset due to the destruction, degradation and disappearance will bring about the loss that will affect all people of the world. There has to be a balance and continuation, new additions are important for an area to revitalise but improvement, conservation, protection has to be prioritised. We take knowledge from previous generations and pass it on. In this continuously changing world, we must learn, improve, integrate and build for the benefit of a global community.

Further Research Scope:

This research further recommends the following areas of the study: Historic cities centres as the breathing cores of a region's history, heritage and economic growth. Contemporary architecture as a plugin to revive the inactive or decaying city. A cohesive book strategizing the intervention techniques that provide a methodology to design and evaluate new proposals in the critical context. This can be useful not only for the architects, planners and professionals but also can be a vital asset for the town committees and city authorities. It will provide assistance in the analysis, review, choice and selection of the proposals and designers. This research required an ample amount of onsite documentation and spending a huge amount of time on the site to document the projects to produce required data. This was however limited by the financial means, furthermore, in the latter part of 2019 through 2020 the worldwide pandemic became a reason for the closure of activities and many of the sites were not accessible. This also points towards a new direction to explore the subject of the pandemic and how it affects cities and especially historic cores. It is unprecedented on such a scale and by developing and improving the city centres that meet and fulfil the requirements of future is a fundamental need of our time. By strengthening the infrastructure and resilience capacities, we can minimise the adverse impacts on the urban populations in future.

Thesis Extension

Annex: Primary Case Studies

Portugal

National Museum – Machado de Castro, Coimbra.

Outdoor Altar in the Prayer Area, Fatima.

New Cruise Terminal Building, Lisbon.

Praca de Lisboa, Porto.

Spain

Metropol Parasol, Seville.

Between Cathedrals, Cadiz.

List of References and Pictures.

Courtesy: Goncalo Byrne Architects

National Museum Machado de Castro	Coimbra, Portugal
Goncalo Byrne Architects	Area = 13,130 m2
Restoration & Expansion	1999-2013
Address: Largo Dr. José Rodrigues 3000-236, COIMBRA	



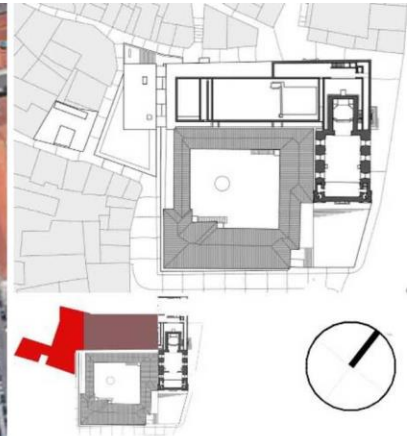
The Machado de Castro National Museum is located in Alta de Coimbra, in one of the highest points of the hill and behind it stands the impressive silhouettes of the buildings of Sé Nova and of the University of Coimbra. However, its roots are in the slope on which the historical city has grown up over the course of 2000 years. The museum stands, in fact, on an artificial platform composed of the cryptoporticus built halfway through the first century as the podium of the Forum of Aeminium, the Roman name for Coimbra.

Within two millennium history that the site accumulates, there are many stories intersected. The archaeological site shows us, not one, but several buildings that remained overlapped or crossed, generating misunderstandings, hesitations or sometimes fantastic and beautiful revelations. The lucid acceptance of contemporary criticism of these sequences, whence the constant mingling of “container” and “content,” is the primary feature of the project in order to correct the rupture of scale and historical context caused by sometimes random juxtapositions.



Master Plan

Courtesy: Goncalo Byrne Architects



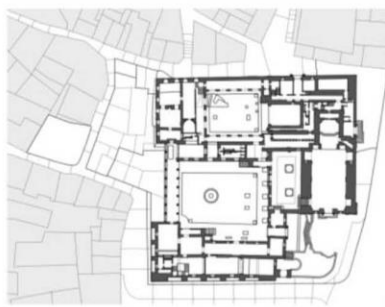
Type of Intervention

Additive Geometry

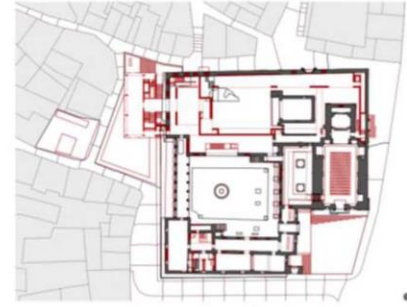
Page 1.3 Drawings / Images



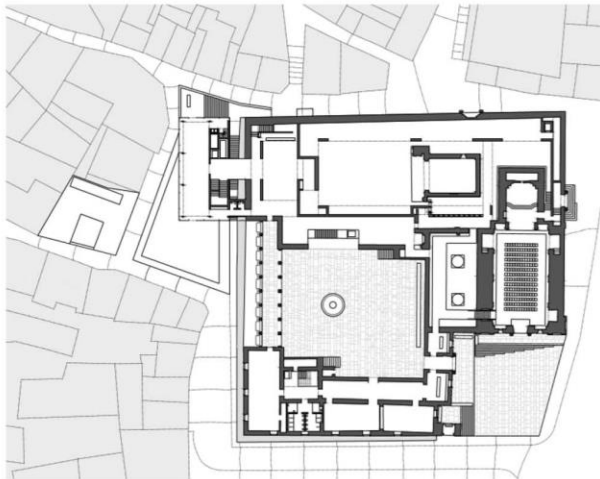
Before



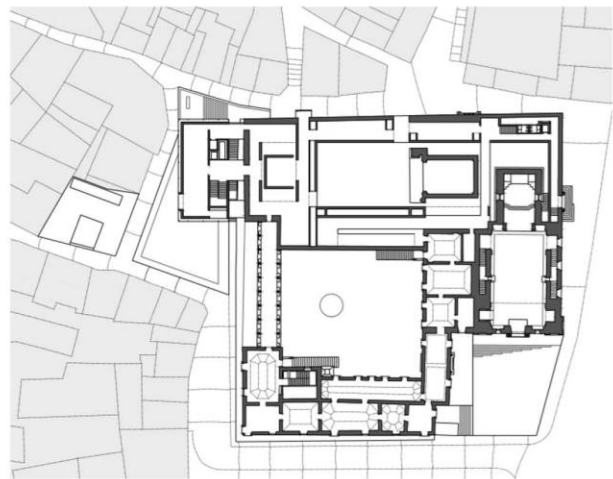
Plan Before Intervention



Plan Showing Interventions

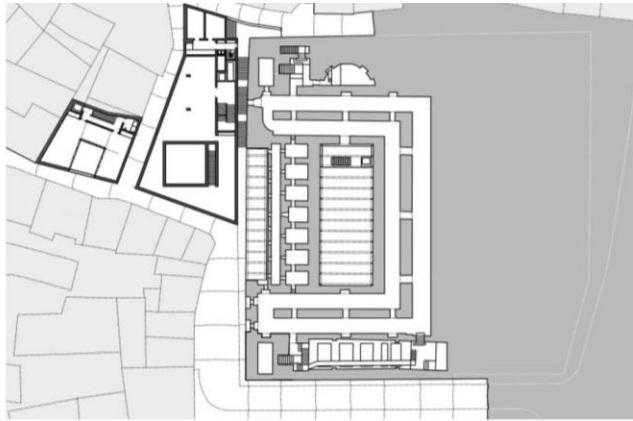


Ground Floor

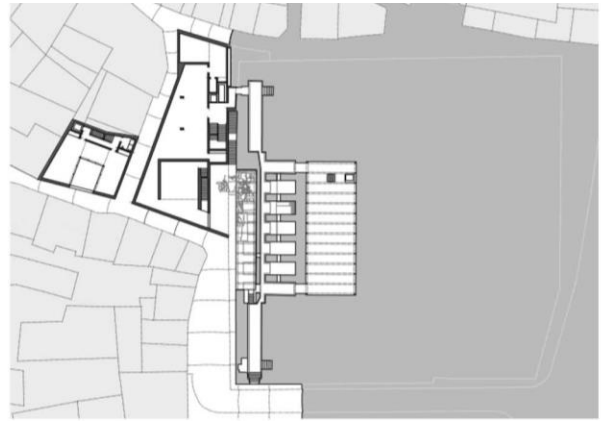


First Floor

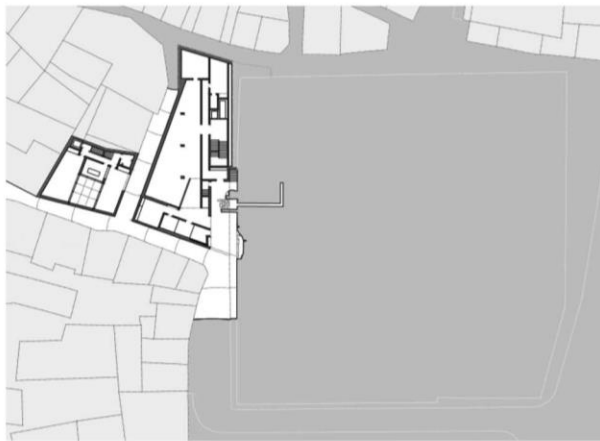
Courtesy: Goncalo Byrne Architects



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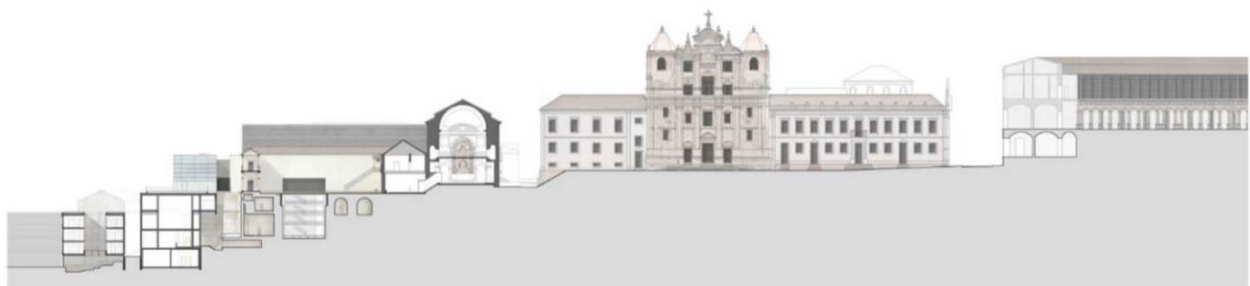
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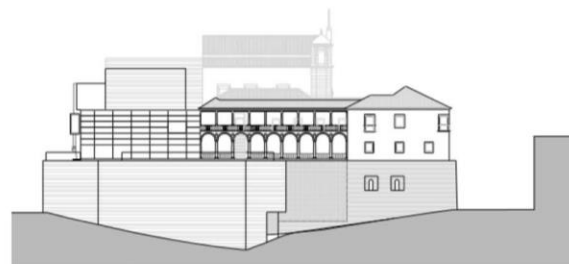
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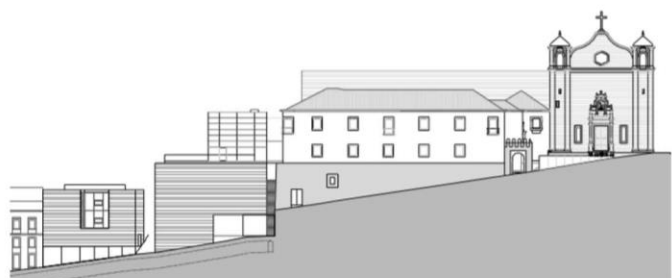
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Longitudinal Section with surrounding context.

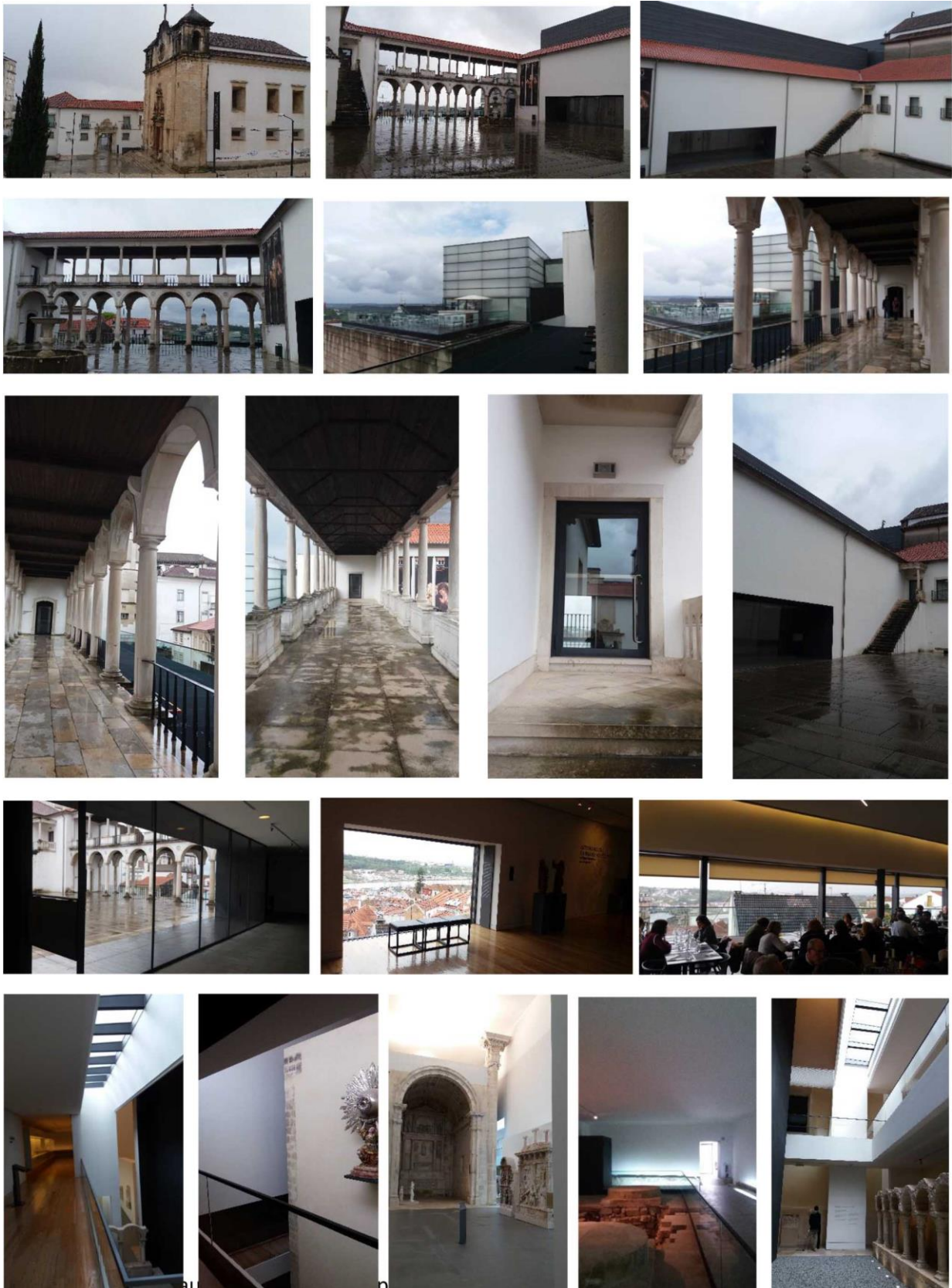


West Side Elevation



South Side Elevation

Captured: April 2018

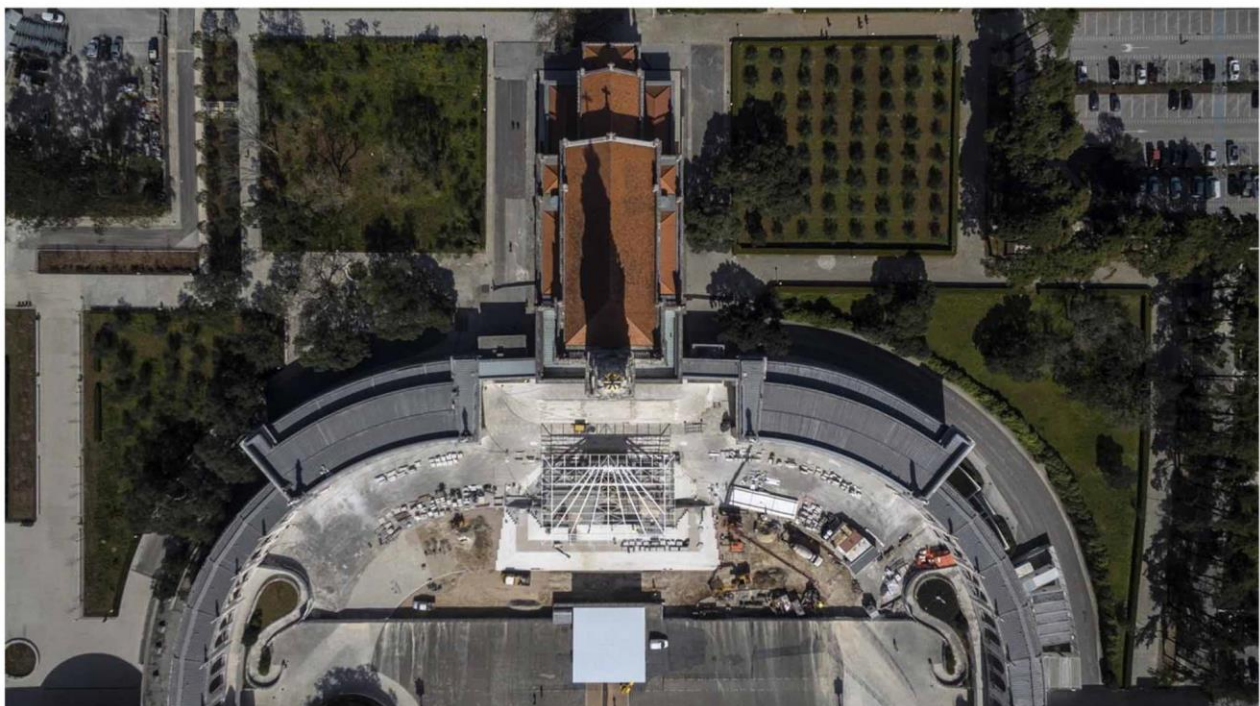


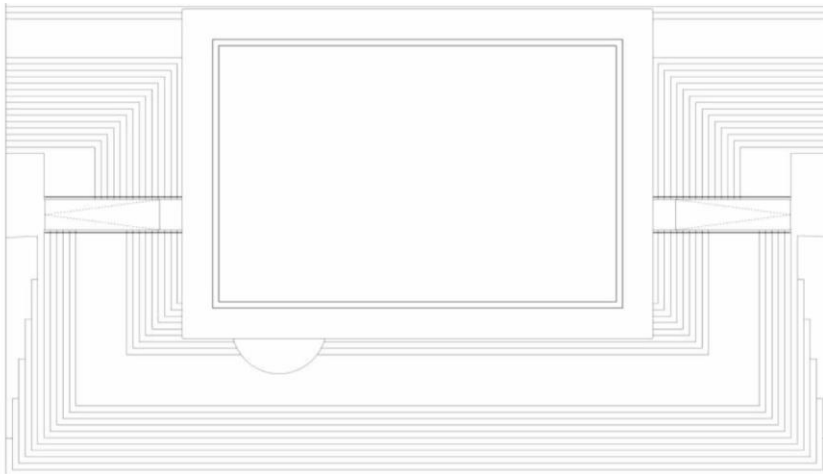
Outdoor Altar in the Prayer Area	Fatima, Portugal
Paula Santos Architects	Area = 600 sq meters.
Addition	2013-2016
Address: Cova de Iria 2495-424, Fátima.	



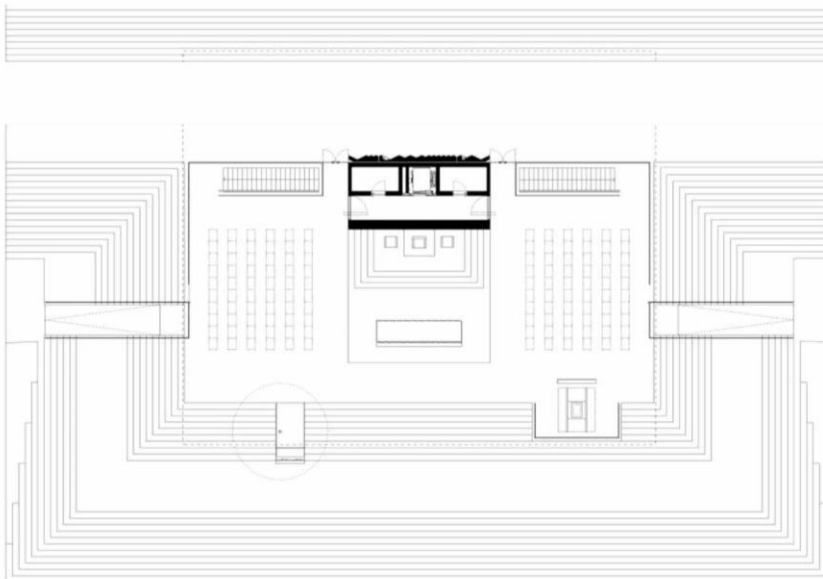
The sanctuary of fátima is one of Portugal's largest places of prayer, and yet, there was not enough room inside its central church for processions to take place. this outside altar was designed by architect Paula Santos to give this sanctuary another inspiring place of prayer. it uses the massive square, where football fields full of people could gather to hear sermons, and optimizes visual experiences with the breath-taking church tower as its backdrop.

the Portuguese architect Paula Santos designed the altar to cantilever out over the complex of stairs. the massive plane above the altar stretches out over 600 square meters in total. this fiberglass cover is coated on both sides with a reflective white finish — the official colour of all churches in Portugal. this expanse is only supported by one block of white concrete at the rear, within which all technical aspects are located. the project was a massive undertaking that required meticulous planning and back and forth between the architects and engineers.





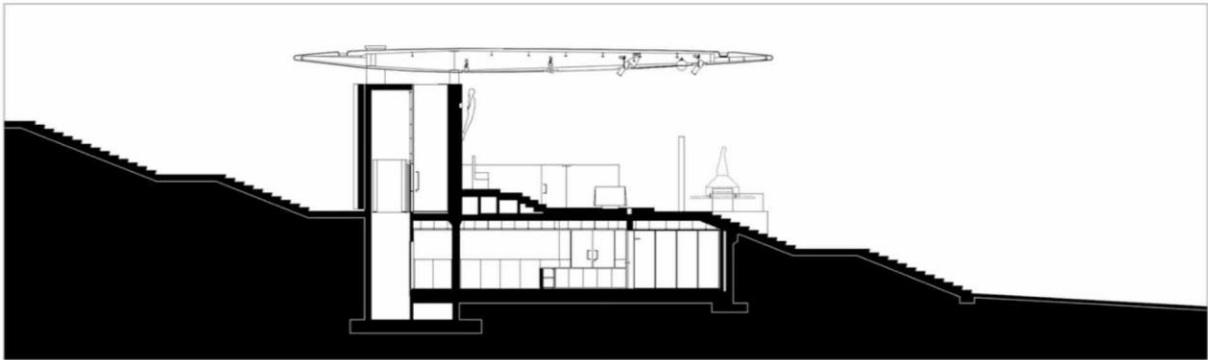
Roof Plan



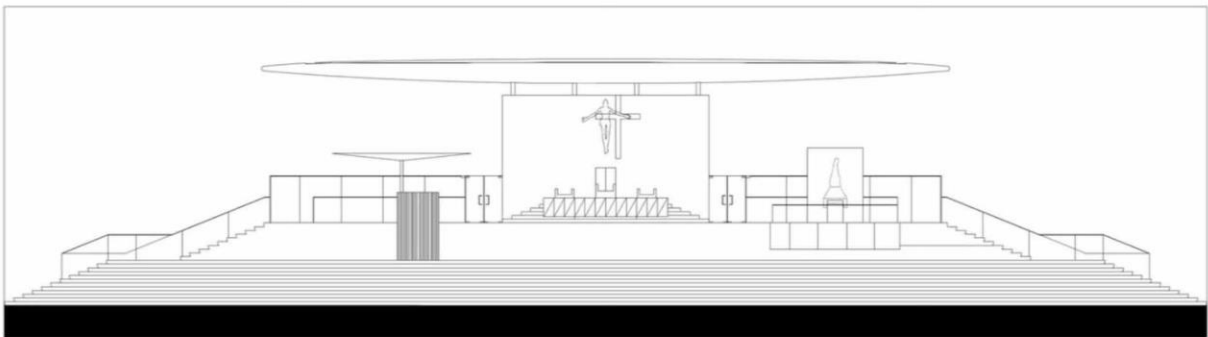
Floor Level



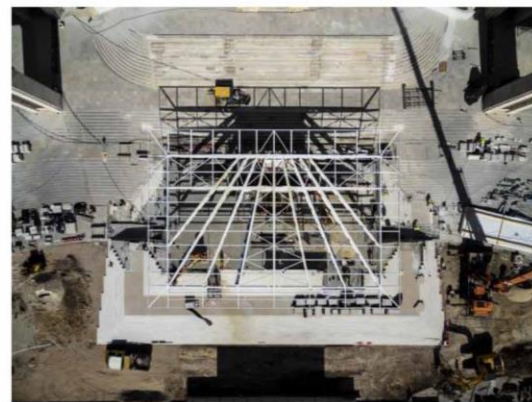
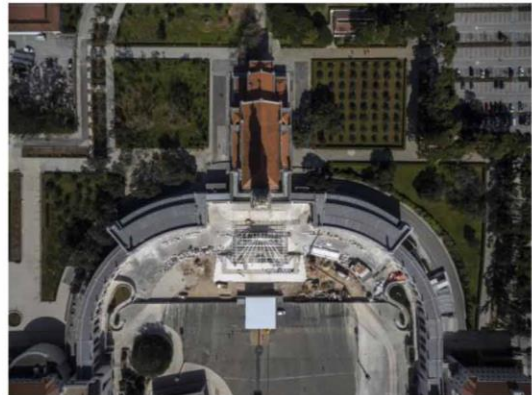
Level -1



Section



Front Elevation



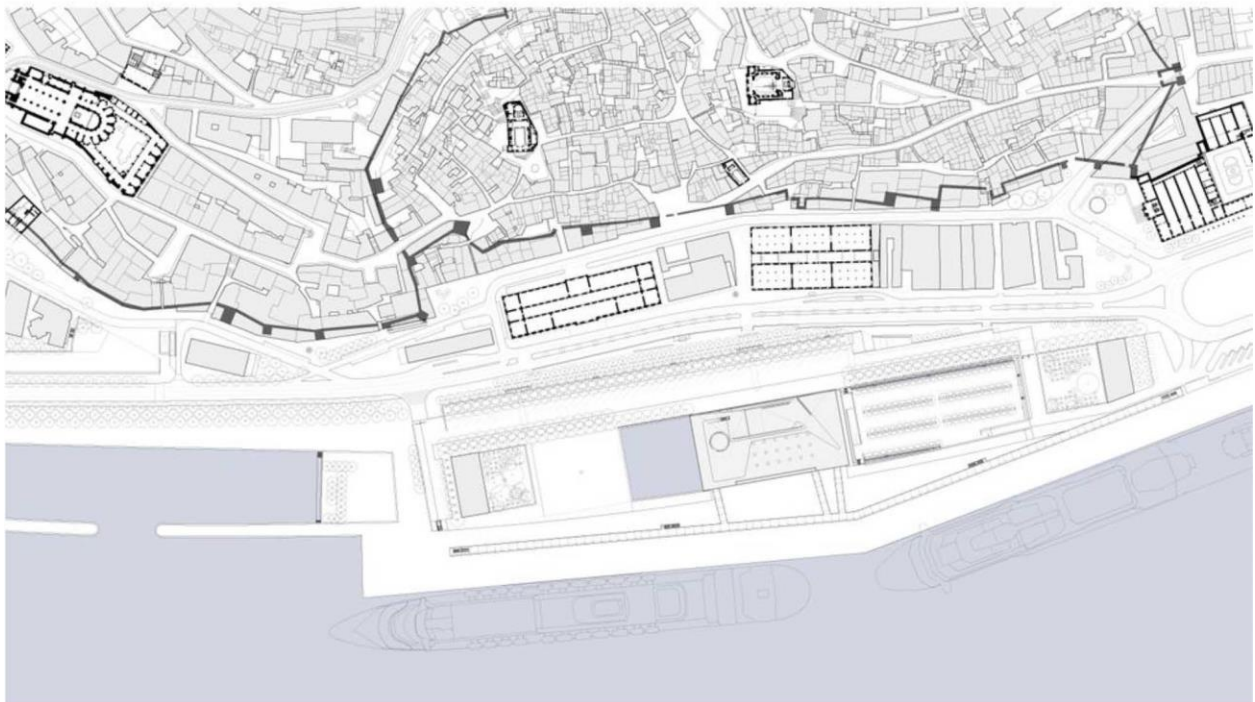
Captured: April 2018



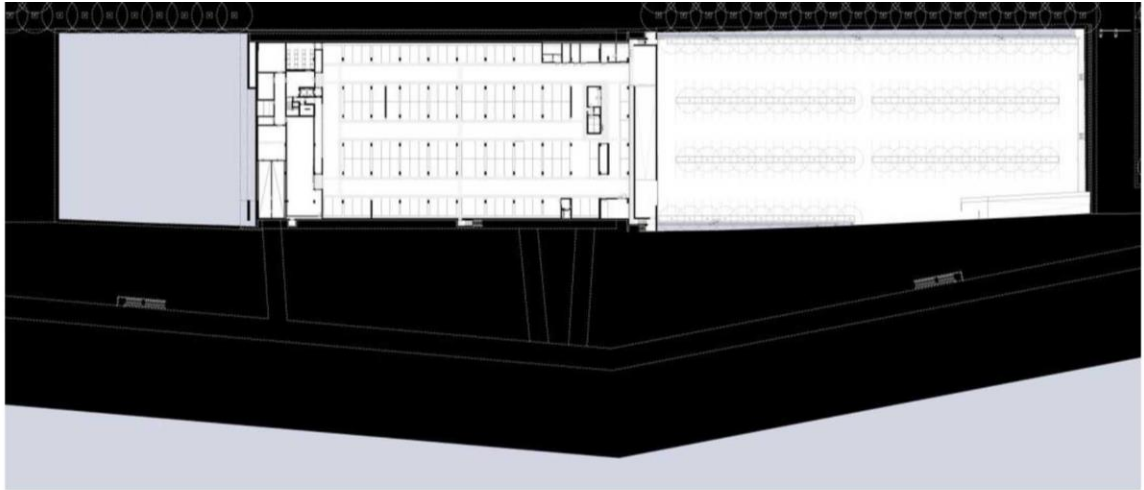
New Lisbon Cruise Terminal.	Lisbon, Portugal
Carrilho da Graça Architects.	Area = 12,440m ²
New passenger terminal across Historical Alfama district Lisbon.	2010-2018
Doca Jardim do Tabaco Terminal de Cruzeiros de Lisboa, Av. Infante Dom Henrique, 1100-651 Lisbon.	



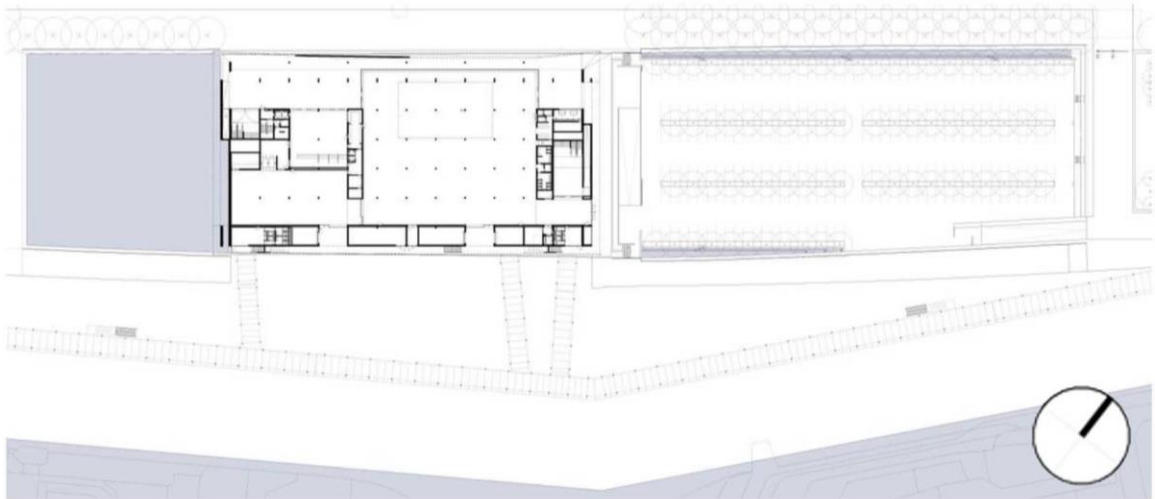
Facing both the Tagus river and Alfama's slope, the proposal presents a building designed as a simple volume, responding to the desire of liberating the surrounding area for the general public. the building is assumed towards the park and the city as a pavilion, an overflow system. it appears to be a floating volume, as it is broken, generating tension zones and inflections that suggest entry and exit points for the building. a path/promenade surrounds the building, allowing a slow discovery of the surroundings while passing through the different facades. this path culminates in the roof that assumes the features of a stage, relating with the river and the city without any obstacles, such as a plaza.



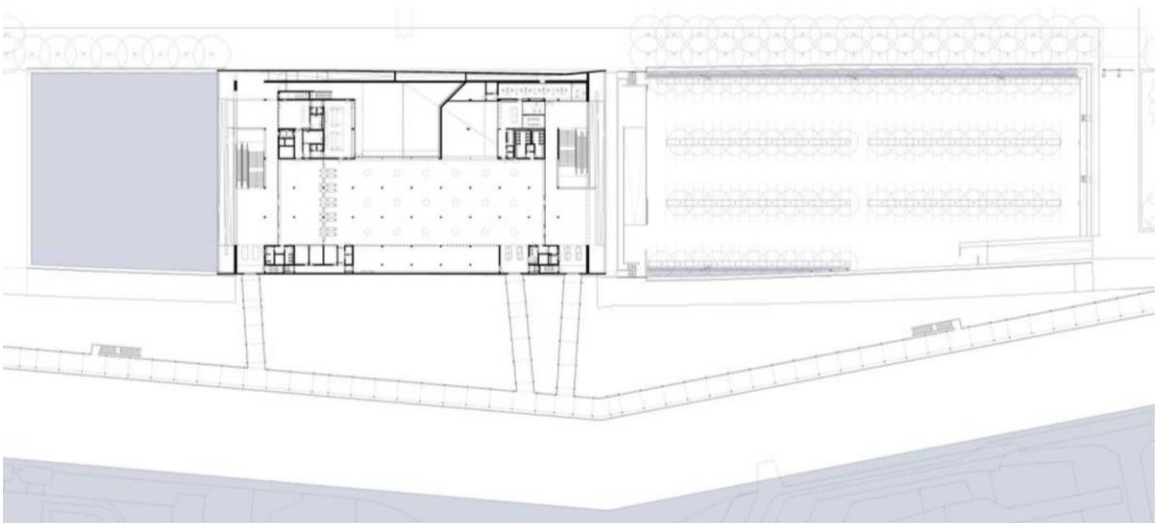
Master Plan



Basements Plan

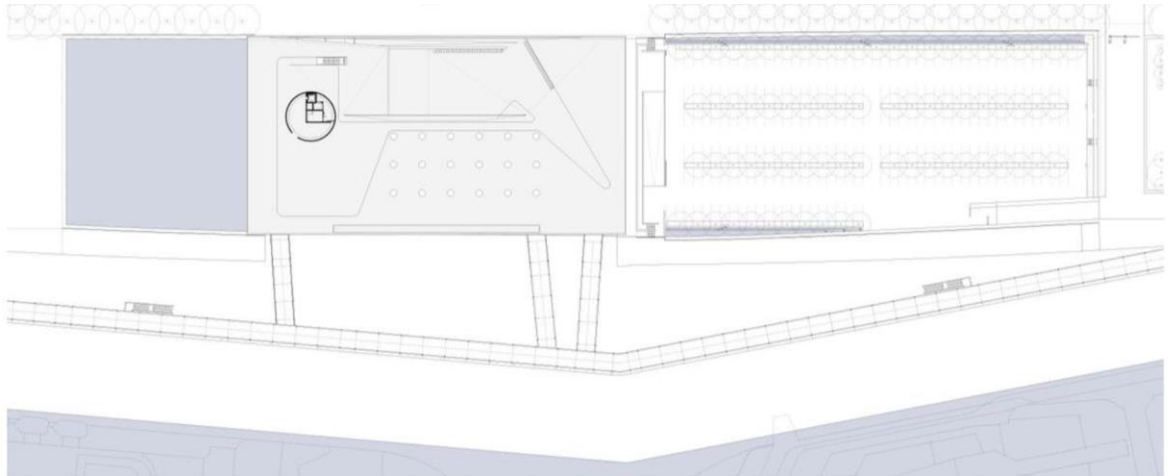


Ground Floor Plan



First Floor Plan

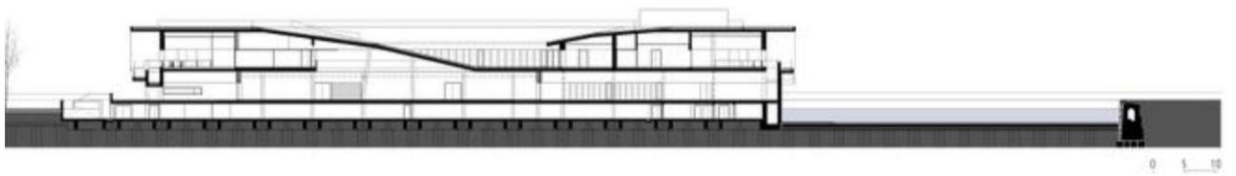
Source: www.archdaily.com/897598



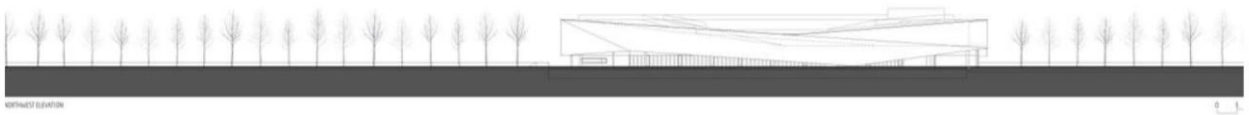
Roof Plan



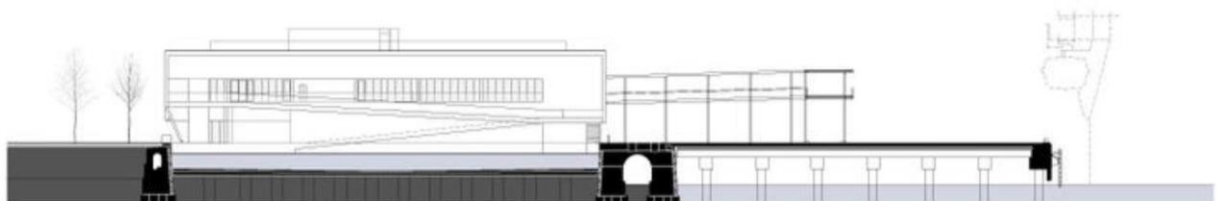
Cross Section



Longitudinal Section

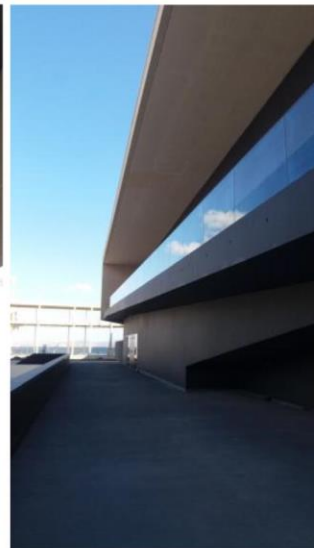


North-West Elevation



South-West Elevation

Captured: April 2018



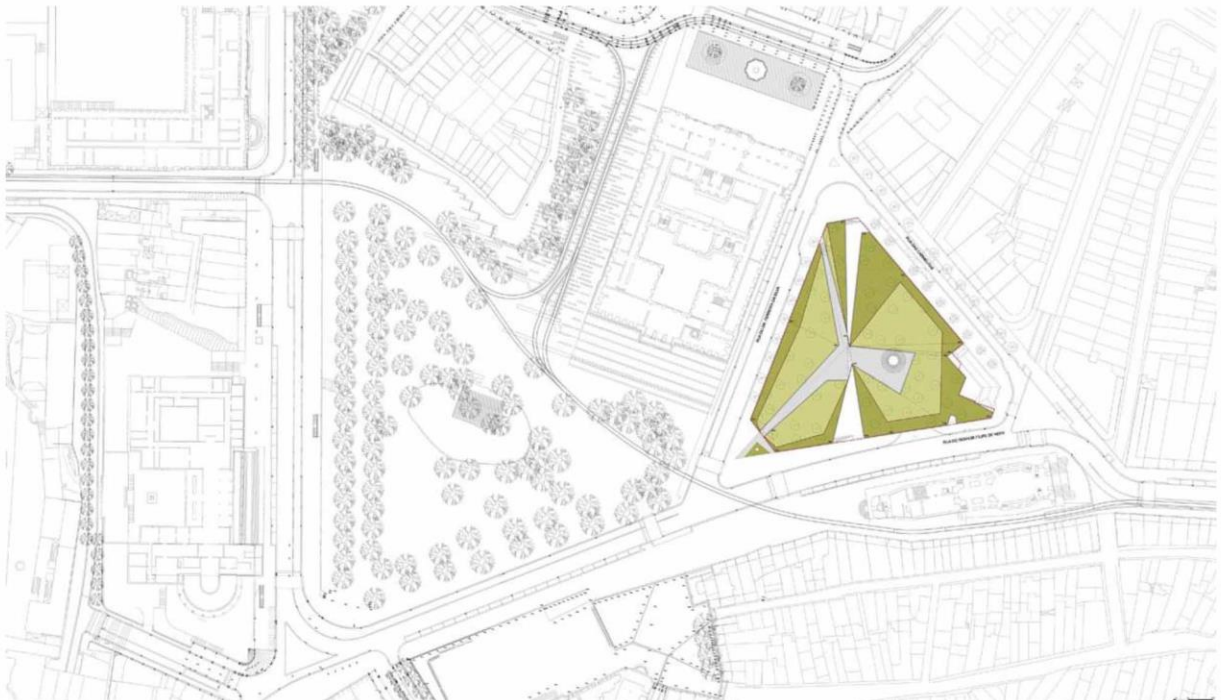
Praca de Lisboa	Porto, Portugal
Bolnas & Menano, Architectural and urban designers concepts.	Area = 13,130 m ²
Regeneration of Commercial and Public Plaza	2011-2013
Address: Intersection of Rua do Dr. Ferreira da Silva, Rua das Carmelitas and Rua de São Filipe de Nery, Porto	



The proposed solution is based on the principle that the square/public space should adopt an open shape to the city drawn for pedestrians, losing the interiority and ensuring an appealing relation with their surroundings.

A singular shape driven by the need to create interior spaces with more dignified free heights, relates dynamically with its surroundings. It is both an urban garden and a building with a semi-covered commercial street, inserted on a slope where the three programmatic levels are incorporated: Garden on the top (corresponding with the Cordoaria garden and Praça Gomes Teixeira; commercial street (in the mid-level that connects Lello Bookstore and Clérigos Tower); and an already existent parking lot in the lower level (connecting with the lower streets).

obstacles and concordant with the surroundings.

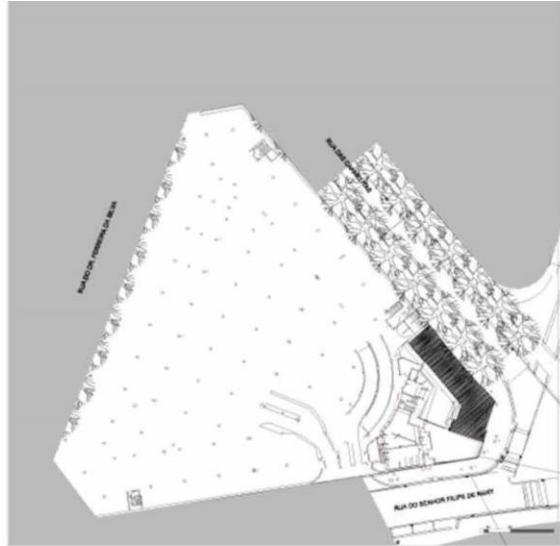


Contextual Plan

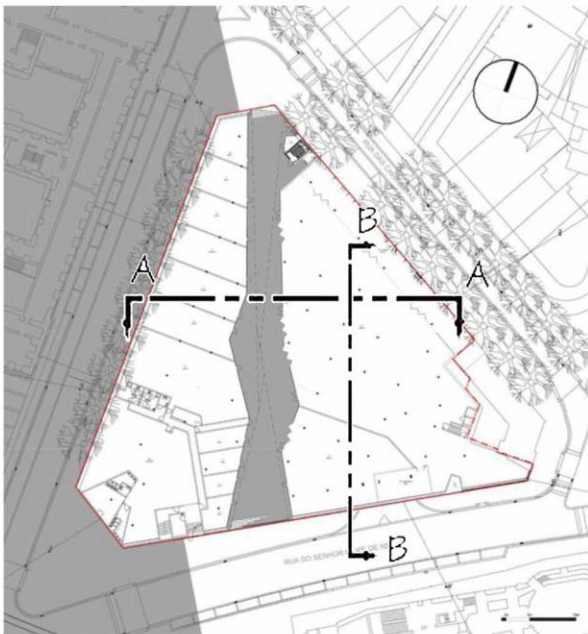
Source: www.architizer.com/projects/praca-de-lisboa



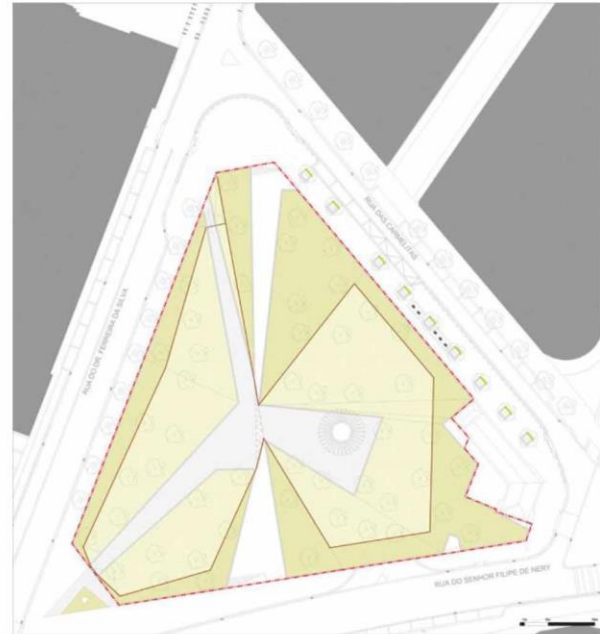
Satellite Imaging: Google Earth



Basement, Car Park



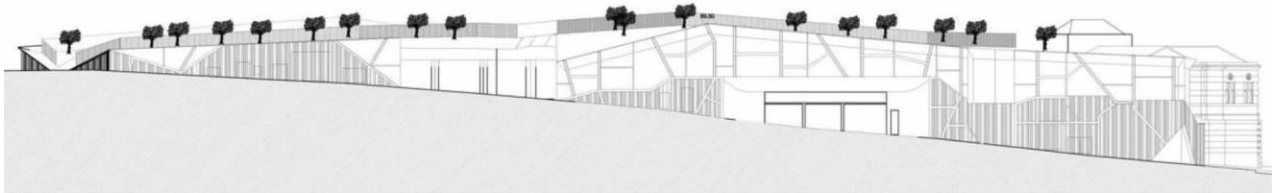
Ground Floor



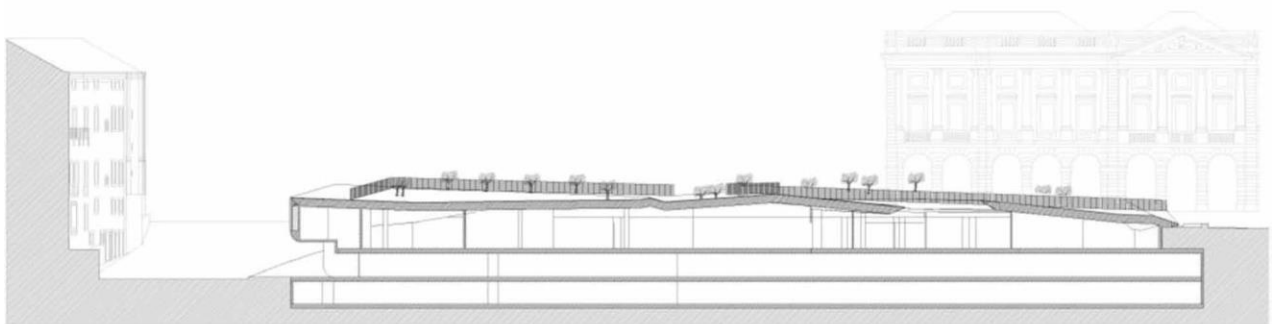
Public Plaza



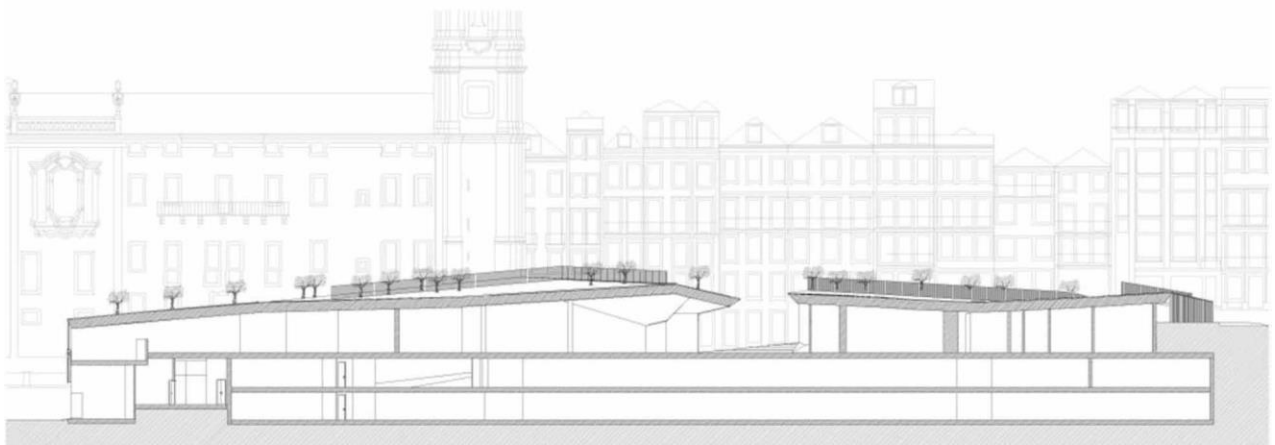
East Elevation



South Side Elevation

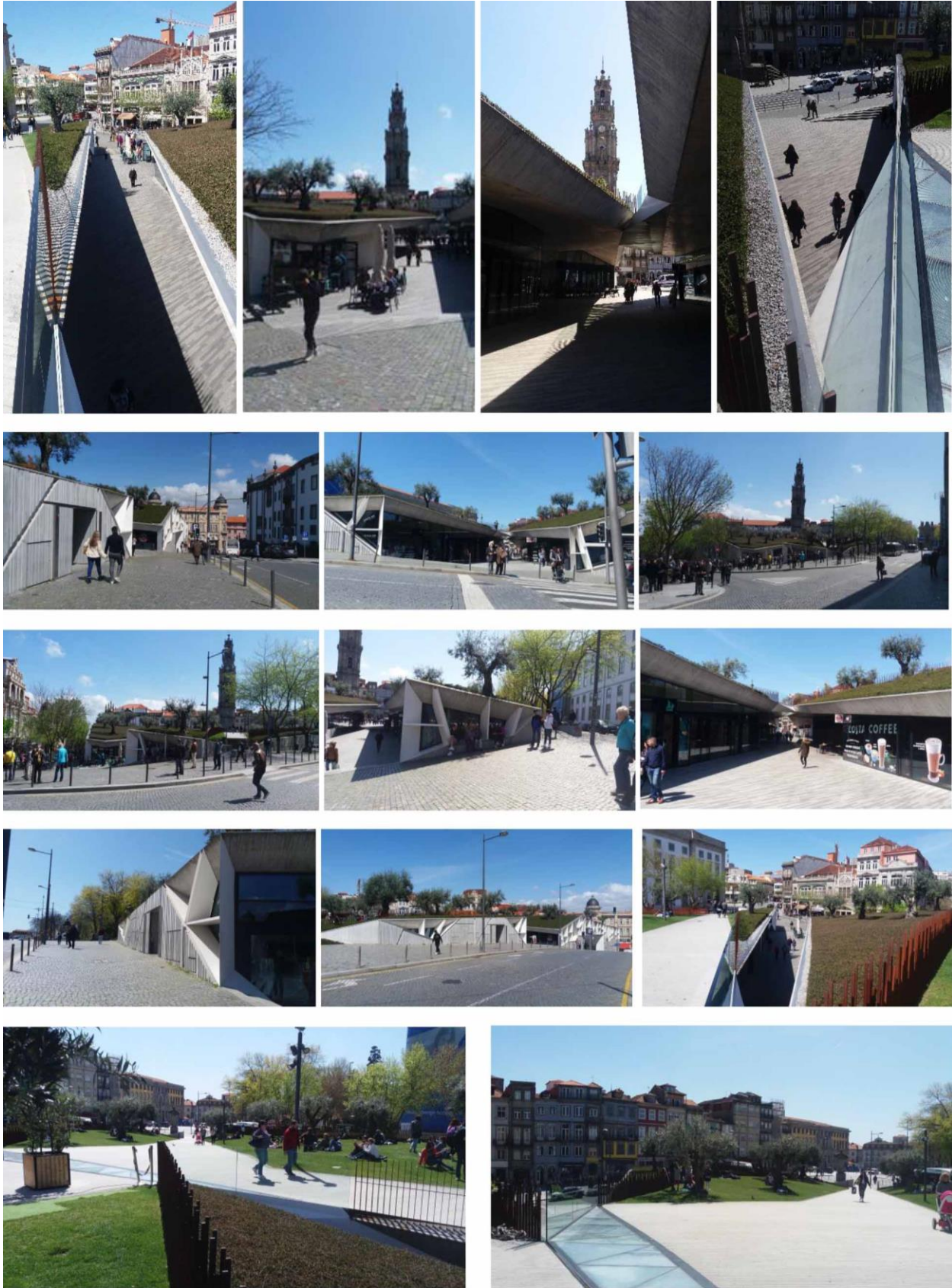


Section AA'



Section BB'

Captured: April 2018

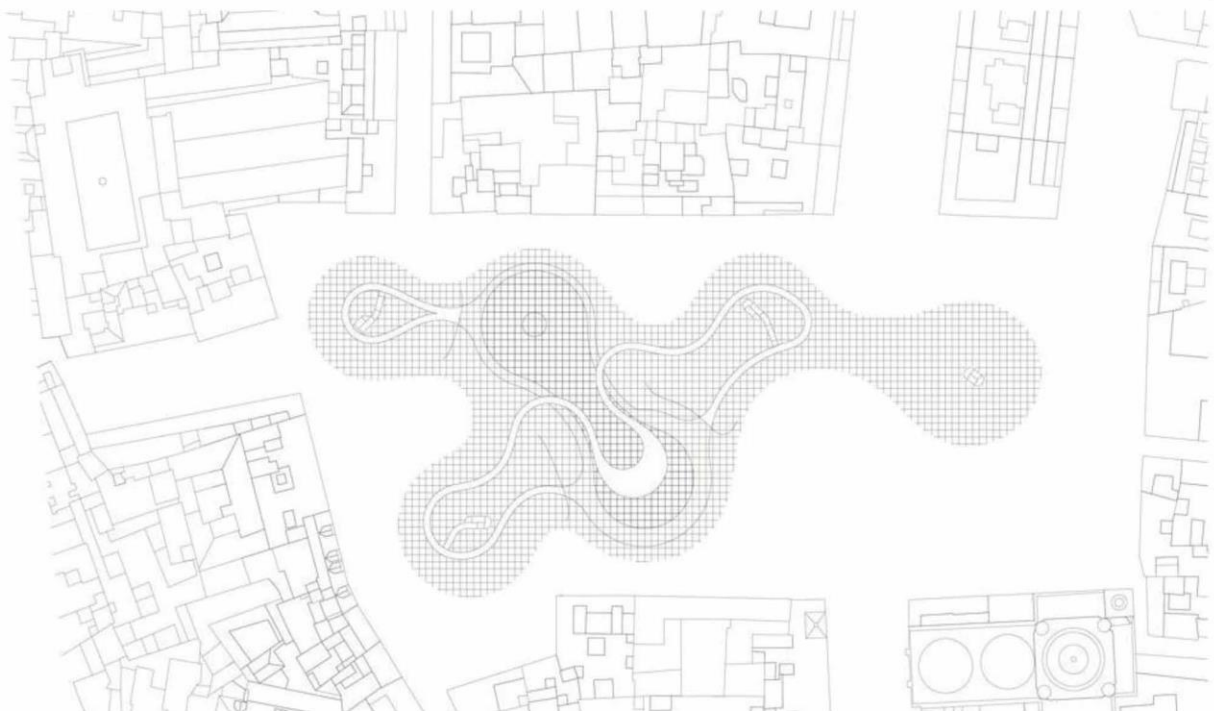


Courtesy: Jürgen Mayer H. Architects

Metropol Parasol	Seville, Spain
Jürgen Mayer H. Architects	Area = 13,130 m ²
Urban Regeneration	2004 - 2011
Address: Plaza de la Encarnación, Seville	

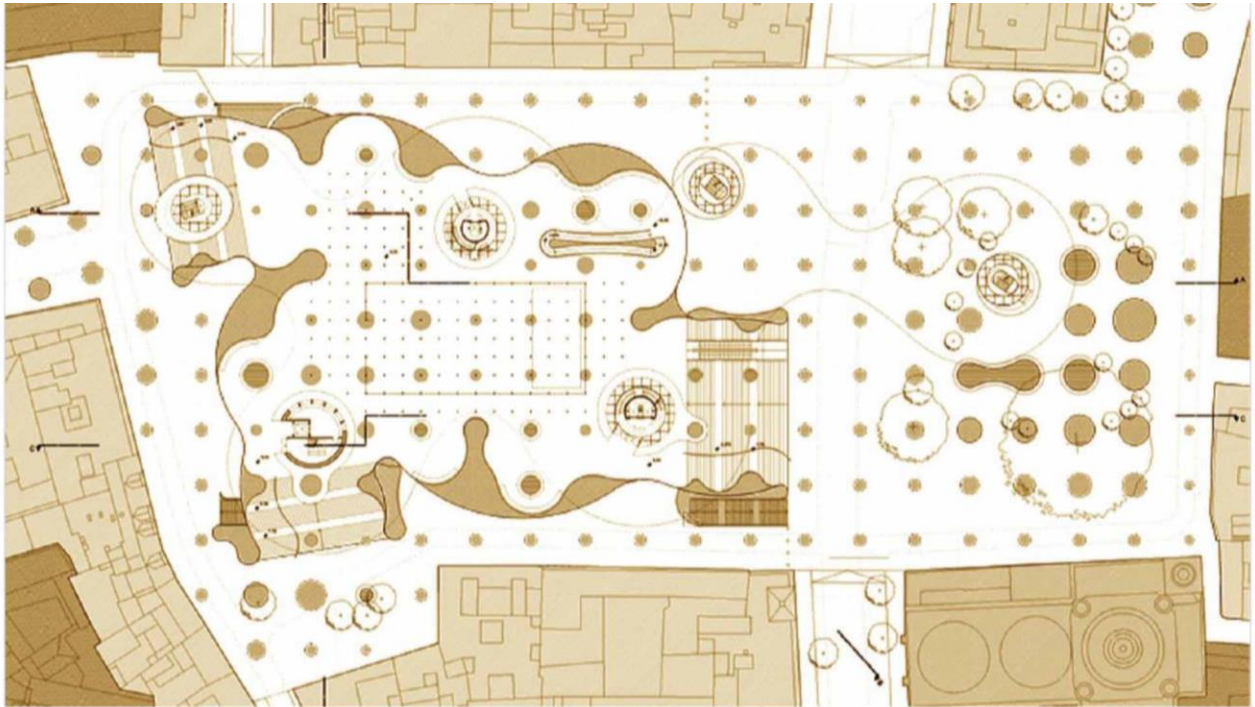


"Metropol Parasol", the Redevelopment of the Plaza de la Encarnación in Seville, designed by J.MAYER.H architects, becomes the new icon for Seville, – a place of identification and to articulate Seville's role as one of the world's most fascinating cultural destinations. "Metropol Parasol" explores the potential of the Plaza de la Encarnación to become the new contemporary urban centre. Its role as a unique urban space within the dense fabric of the medieval inner city of Seville allows for a great variety of activities such as memory, leisure and commerce. A highly developed infrastructure helps to activate the square, making it an attractive destination for tourists and locals alike. The "Metropol Parasol" scheme with its impressive timber structures offers an archaeological museum, a farmer's market, an elevated plaza, multiple bars and restaurants underneath and inside the parasols, as well as a panorama terrace on the very top of the parasols. Realized as one of the largest and most innovative bonded timber-constructions with a polyurethane coating, the parasols grow out of the archaeological excavation site into a contemporary landmark, defining a unique relationship between the historical and the contemporary city. "Metropol Parasols" mix-used character initiates a dynamic development for culture and commerce in the heart of Seville and beyond.

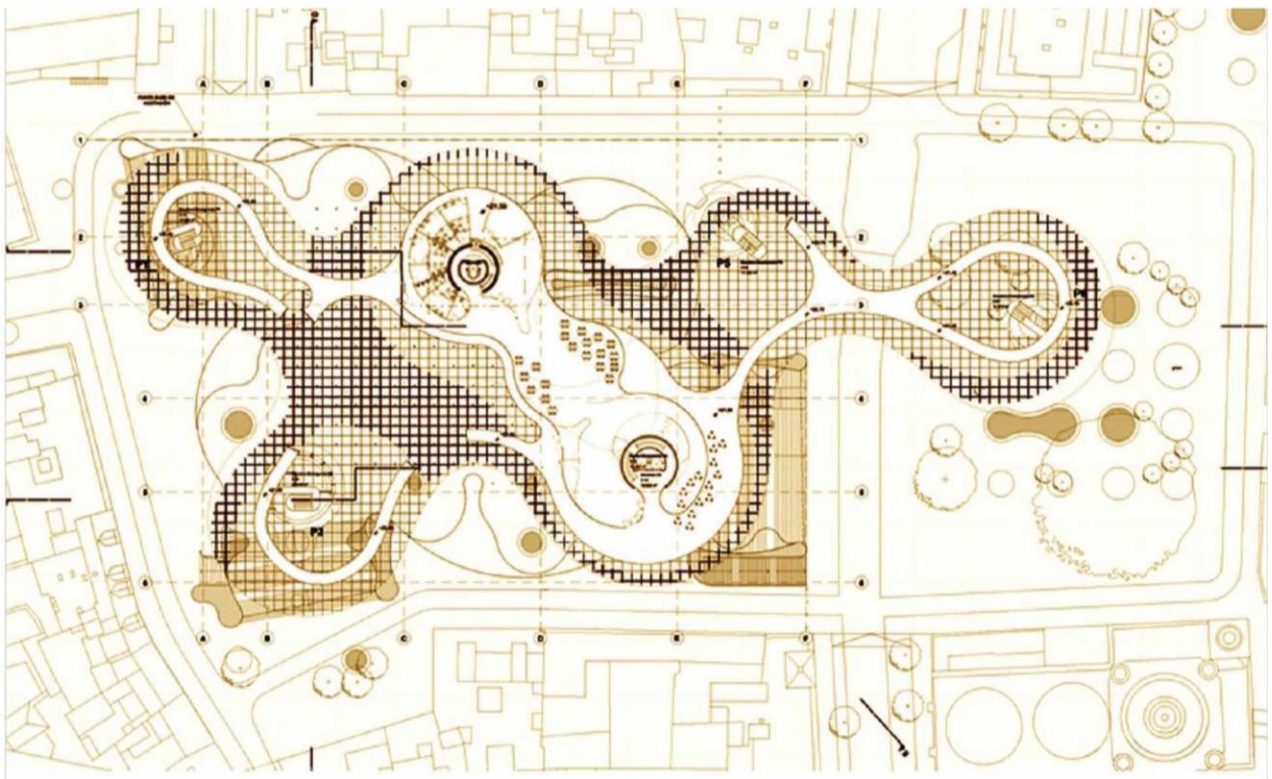


Master Plan

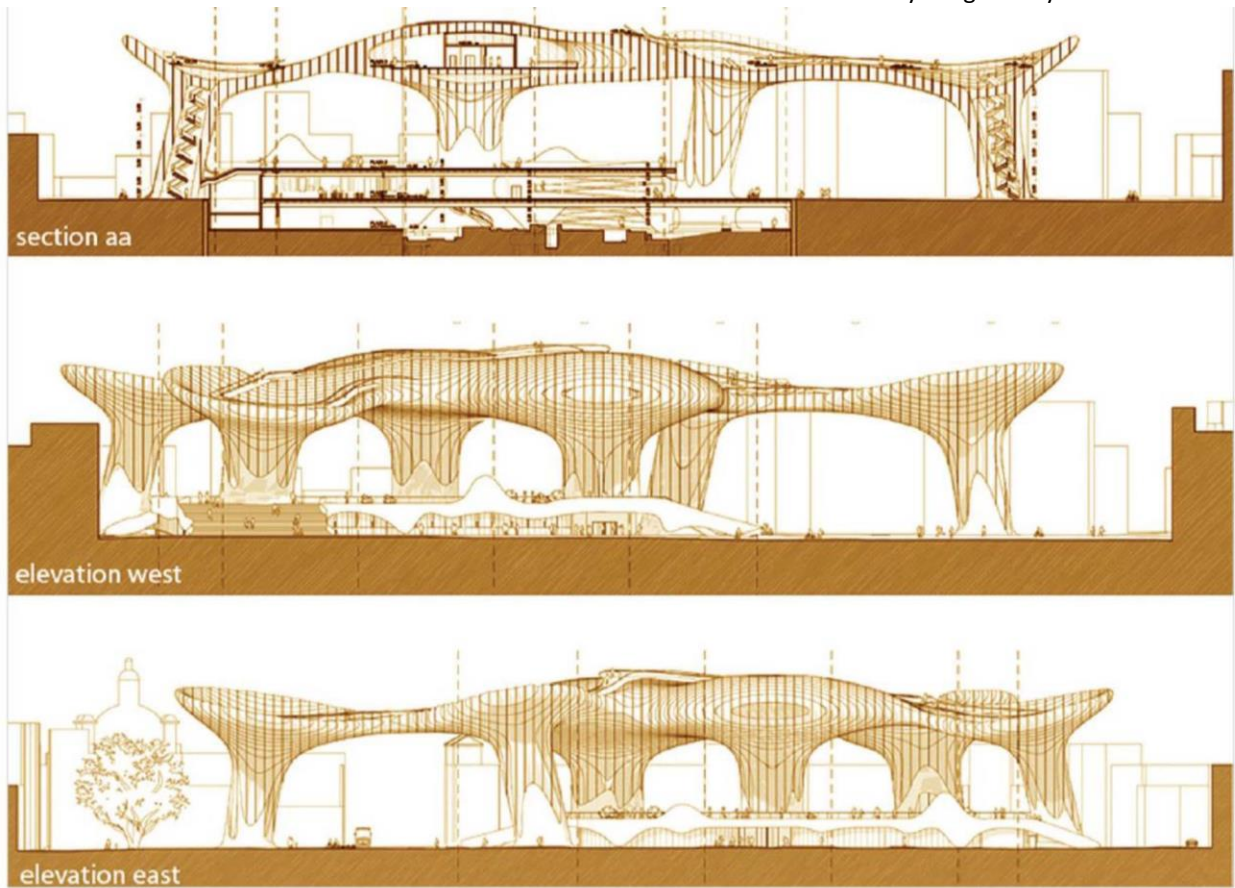
Courtesy: Jürgen Mayer H. Architects



Plan at Elevated Plaza level



Top level (Sky-cafe)



Captured: August 2018



Between Cathedrals – Installation and Exhibit space	Cadiz, Spain
Alberto Campo Baeza	Area = 1,000 m2
Addition	2006- 2009
Address: Avenida Campo del Sur, Cadiz, Spain.	



The project “Between Cathedrals” seeks to create an intervention worthy of the most significant location in the history of Cadiz, the oldest city of the West: the empty space facing the sea located between the Old and New Cathedrals. The basic premise is to cover and protect an archeological excavation. Additionally, this new plane serves as a base for a space facing the ocean, a raised public space providing clear views unobstructed by cars passing on the circle road.

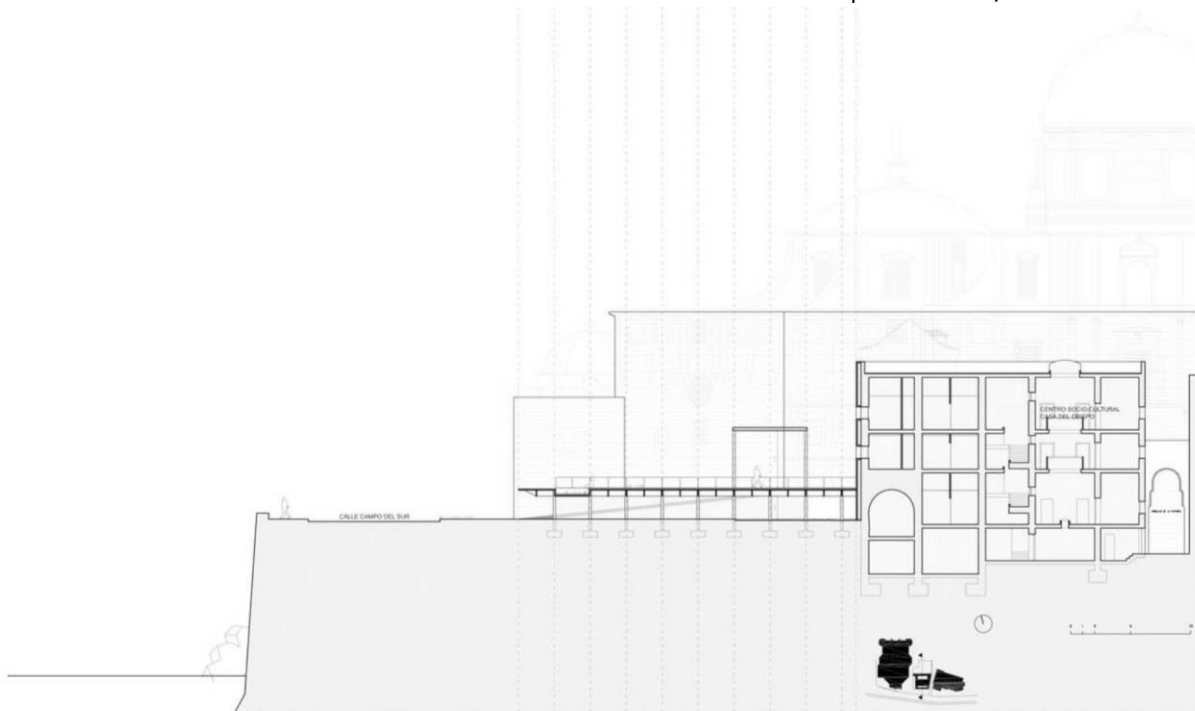
A light, white platform is thus conceived, poised over the excavation as if on tiptoe, and reached by a side ramp. Over this plane, a huge canopy structure is built to provide protection from the sun and rain. Constructed as if it were a ship, it is painted completely white to accentuate its lightness. The paved area is carpeted in white marble. In the construction of the base; the memory of ships. In that of the shade structure, as if it were a baldachin; the memory of a holy week procession.



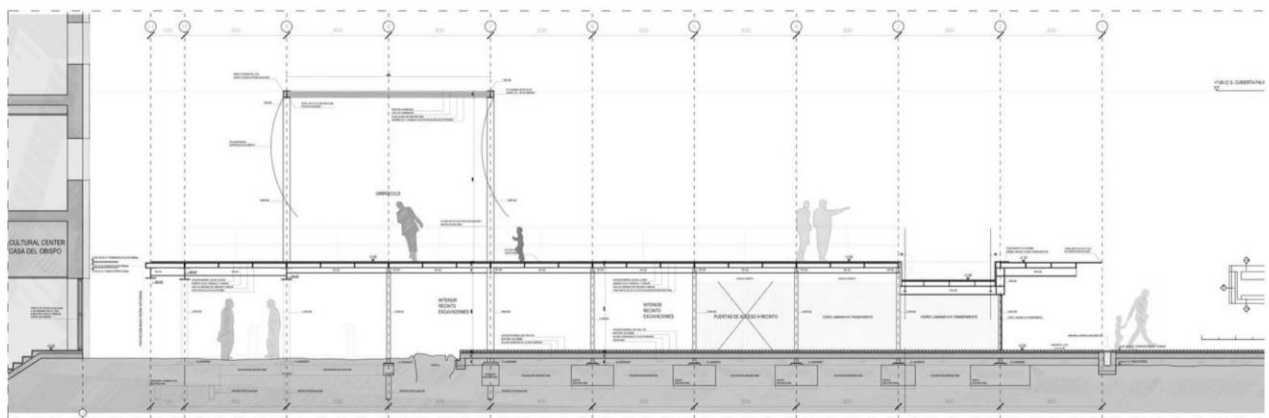
Architectural site plan of the Cathedral of Santa Cruz in Bogotá, Colombia. The plan shows the layout of the cathedral complex, including the main cathedral building, the new cathedral (Catedral Nueva), and the old cathedral (Catedral Vieja). The plan also shows the surrounding urban context, including the city grid and the location of the cathedral relative to the city center. A scale bar and a north arrow are included in the bottom right corner.

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Source: www.campobaeza.com/between-cathedrals/



Section towards West



Section towards East

Captured: August 2018



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