MUSEUMCLUSTERS

The interaction between the Museum-park and the public space in the city

A CASE-STUDY RESEARCH

THESIS EXPLORE LAB - ARCHITECTURE - TU DELFT - 2017

Sophie Kugel



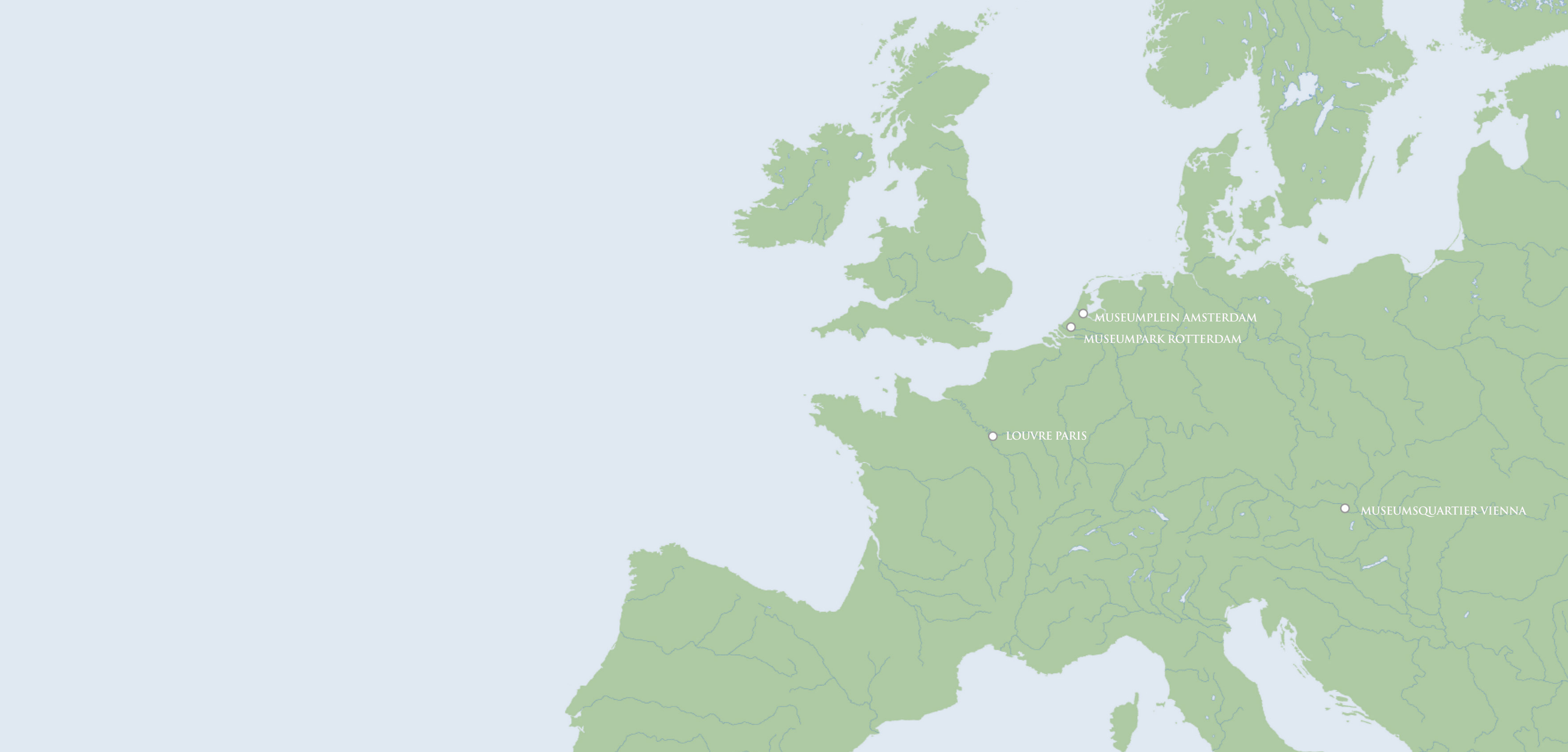
MUSEUMCLUSTERS

MUSEUMPLEIN AMSTERDAM

MUSEUMPARK ROTTERDAM

LOUVRE PARIS

MUSEUMSQUARTIER VIENNA


MUSEUMPLEIN AMSTERDAM
MUSEUMPARK ROTTERDAM
LOUVRE PARIS
MUSEUMSQUARTIER VIENNA

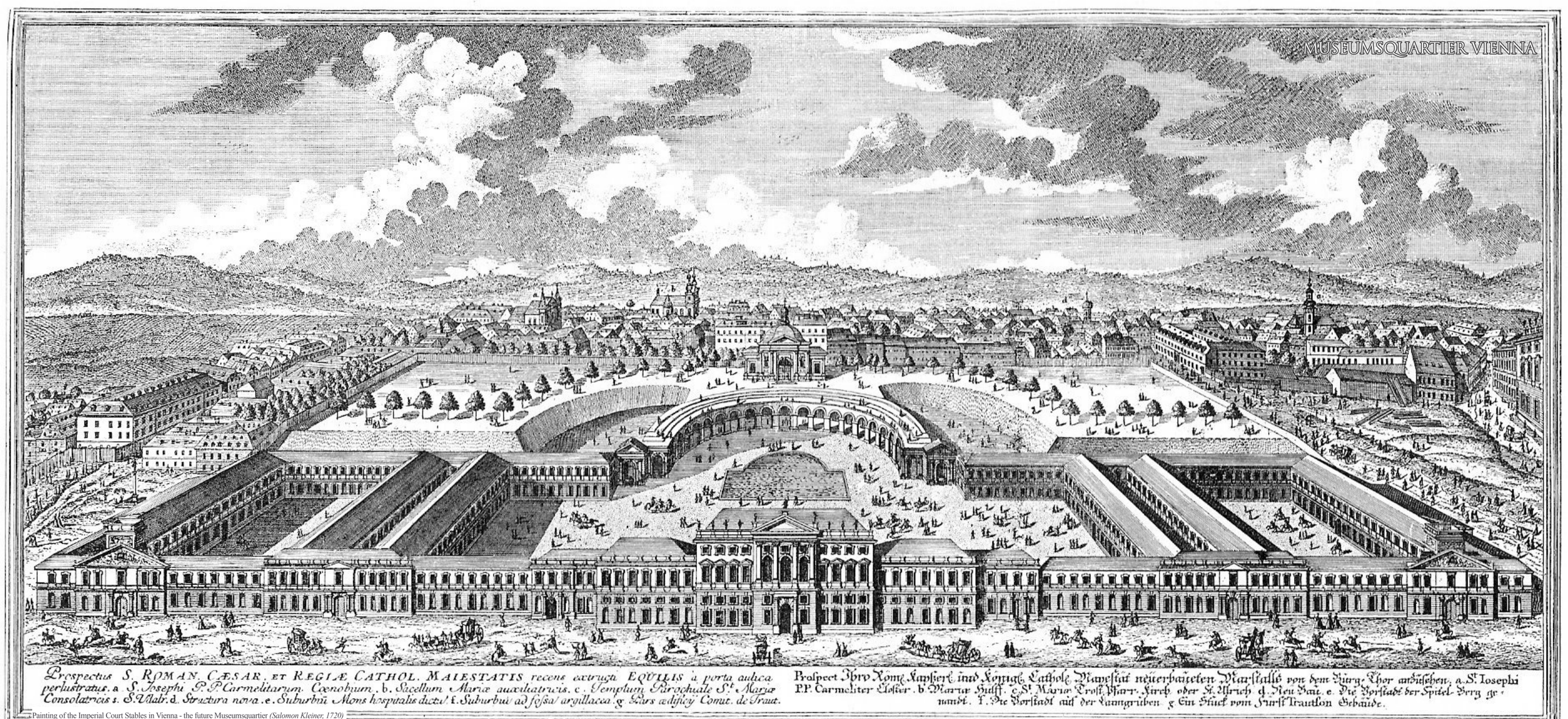


Museumsquartier Vienna from above *(Architekturbüro Ortner & Ortner BAUKUNST, 2016)*



Courtyard of the Museumsquartier in Vienna *(Frank Paul, 2016)*

MUSEUMSQUARTIER VIENNA



Painting of the Imperial Court Stables in Vienna - the future Museumsquartier *(Salomon Kleiner, 1720)*

Sal. Kleiner Elect. Mogunt. del. Cum Priv. S. C. M. I. A. Corvinus sculpsit.



The Louvre in Paris from above *(Matthias Kabel, 2010)*



Courtyard of the Museum Louvre, and its pyramid in Paris *(Hürriyet Daily News, 2016)*



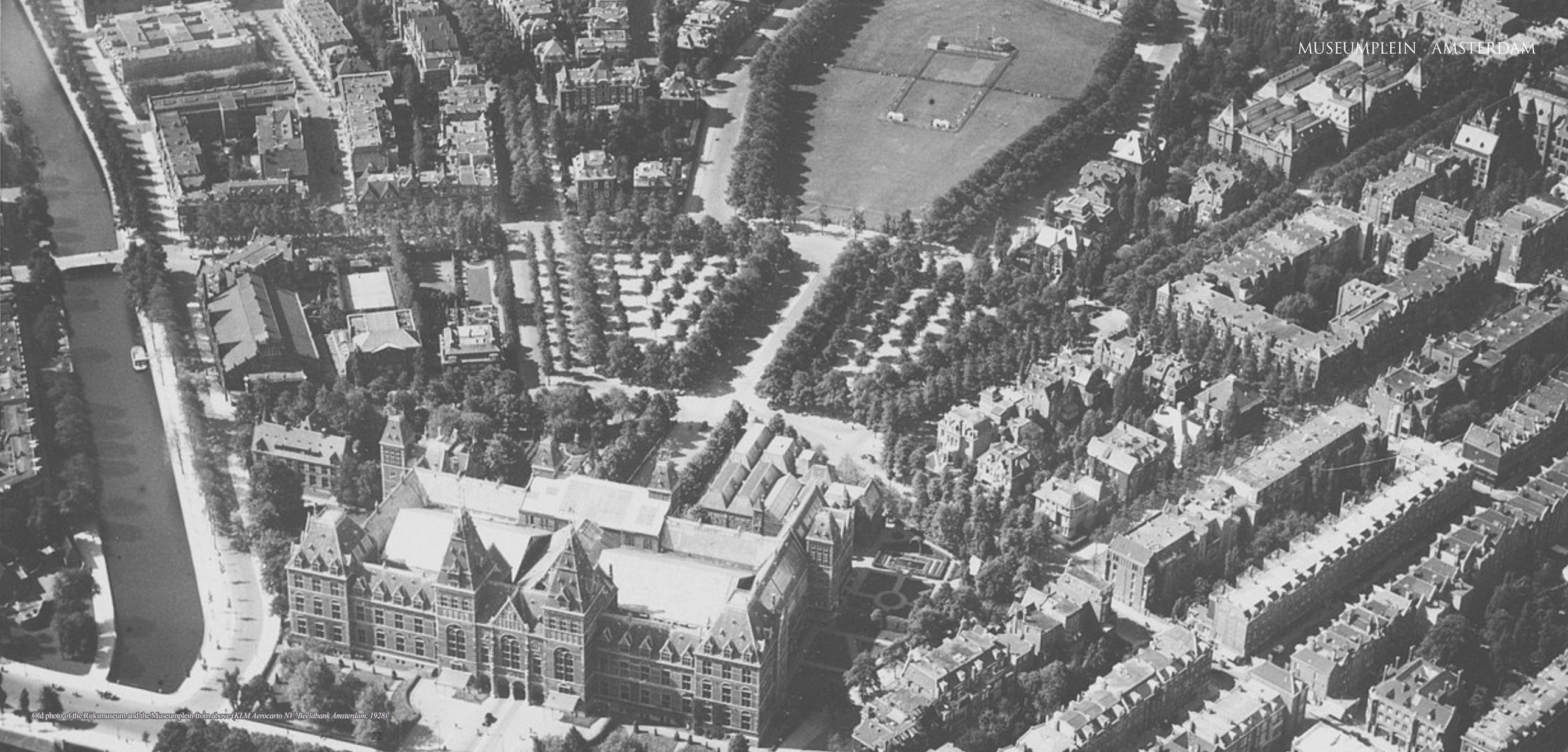
Painting of the vast complex formed by the Tuileries Palace and the Louvre Palace - viewed from the Tuileries Gardens *(Charles Fishco, 1850)*



Museumplein Amsterdam from above *(M. Mulder: Snow-white luchtfotografie, 2017)*



The middle of the Museumplein Amsterdam, with the Van Gogh Museum and the Rijksmuseum *(mapio.net, 2016)*



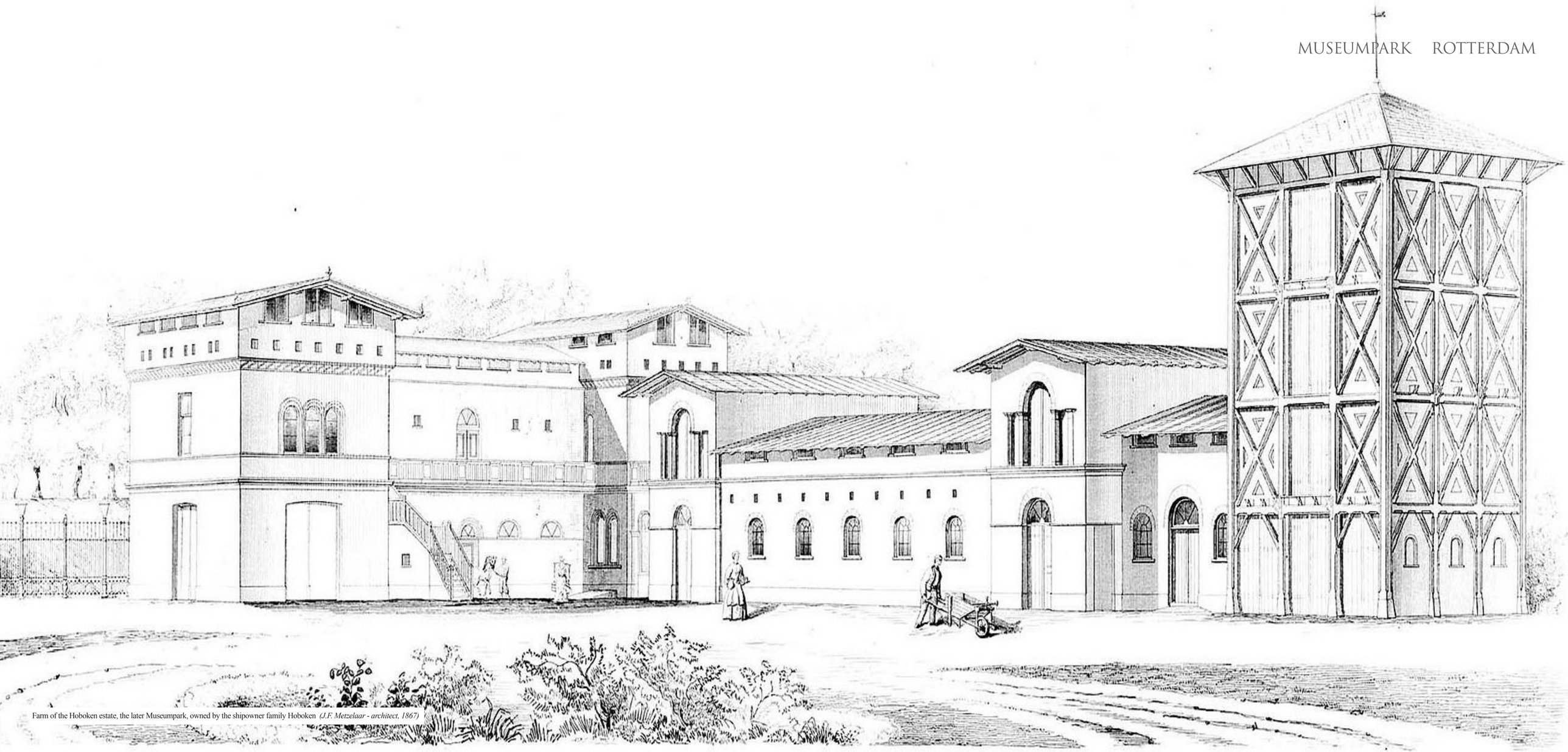
Old photo of the Rijksmuseum and the Museumplein from above (*KLM Aerocarto NV/ Beeldbank Amsterdam, 1928*)



Museumpark Rotterdam from above *(Rotterdam Xpanded, 2017)*



A sightline in the Museumpark Rotterdam *(mapio.net, 2016)*



Farm of the Hoboken estate, the later Museumpark, owned by the shipowner family Hoboken *(J.F. Metzelaar - architect, 1867)*

FOREWORD

By dr.ir. Willemijn Wilms Floet 36

INTRODUCTION

Reason for this research **40**
A TU Delft graduation project 40
Fascination: Tropenmuseum and Oosterpark Amsterdam 40
Design challenge: my aim for this area 40
Research methodology **47**
Case-study research 47
Literature study 47
Qualitative research 47
Plan analyses 49
Selection procedure 49
Case-study questions **51**
Structure of this book **53**

1. MUSEUMCLUSTERING

Development of museum-clusters **57**
Purpose of a museum building 57
Architecture of a museum building 57
Museum-boom 57
Clustering the museums 58
Combination of museum-clusters and public parks: museum-parks **61**
Effects of clustering museums **63**
Benefits of museum-clustering 63
Disadvantages of museum-clustering 65
Four museum-parks selected for this case study **67**
1. Museumsquartier Vienna: from imperial horse stables to cultural complex 67
2. Louvre Paris: from royal palace to world's largest museum 77
3. Museumplein Amsterdam: from world exhibition to museum-square 95
4. Museumpark Rotterdam: from family-estate to museum-park 113

2. POSITION IN THE URBAN FABRIC

Location in the city **132**
At the old city border - Ringstraße Vienna 135
Along the river Seine - Axe Historique Paris 141
Along the 'Singelgracht' - Canal of Amsterdam 149
Along a dike - an old Estate in Rotterdam 155
Urban morphology **159**
Axes and sight-lines **165**
Configuration of the museum-park and the surroundings **167**
Boundaries of the plot 169
Role of the park in the city structure 176
Elevation view in the city **178**
Closed, monumental, and repetitive facades 178
Loose elements of different types of architecture 179
Conclusion location **180**

3. SPATIAL COMPOSITION

Sizes, proportions and expressions 188
Classification of the gardens of the museum-parks 192
French formal garden - 17th century 193
Baroque garden - 19th century 195
Mixed and contemporary gardens - 20th century 196
Interaction between park, museums and public space 200
Orientation 204
Conclusion *spatial composition* 206

4. ROUTE

Connection city and museum-park: the entrances **216**
Horizontal circulation **226**
Pedestrian routes 226
Performative potential 227
Transportation **230**
Public transportation: tram- & metrolines 230
Parking solution 230
Vertical circulation **235**
Underworlds 235
Height-difference solutions 242
Conclusion *route* **244**

5. ARCHITECTURAL REPRESENTATION

Historical layering **252**
Architectural types and styles **254**
Historicism in Vienna: (neo) baroque 254
Classicism in Paris: french renaissance 260
Historicism in Amsterdam: (neo) gothic, renaissance & classicism 266
Mixed styles in Rotterdam: contemporary architecture 270
Identity of the museum-park **277**
Monumental versus contemporary: icons on a historical setting 277
The value of stay: binding themes 277
Conclusion *architectural representation* 278

FINAL CONCLUSIONS

Solving the case-study questions **282**
Epilogue: research as a tool for design **288**

AFTERWORD

Bibliography **308**
List of Illustrations **312**
Acknowledgments **315**

TABLE OF CONTENTS





The interior of the Leopold Museum with a view of the Museumsquartier Vienna *(Architekturbüro Ortner & Ortner BAUKUNST, 2016)*
The interior of the Cour Marly Greek Sculpture Hall inside the Louvre Museum in Paris *(The Daily Travel Photos, 2017)*



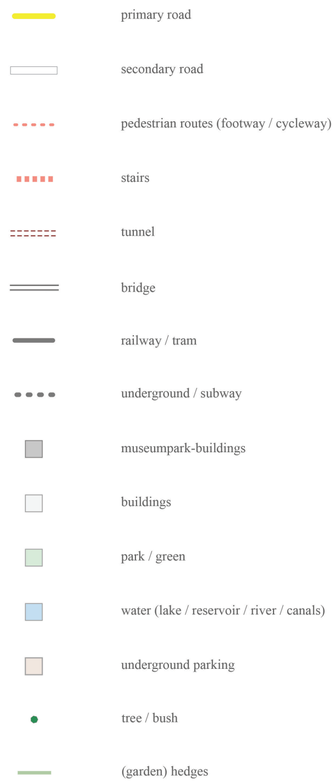


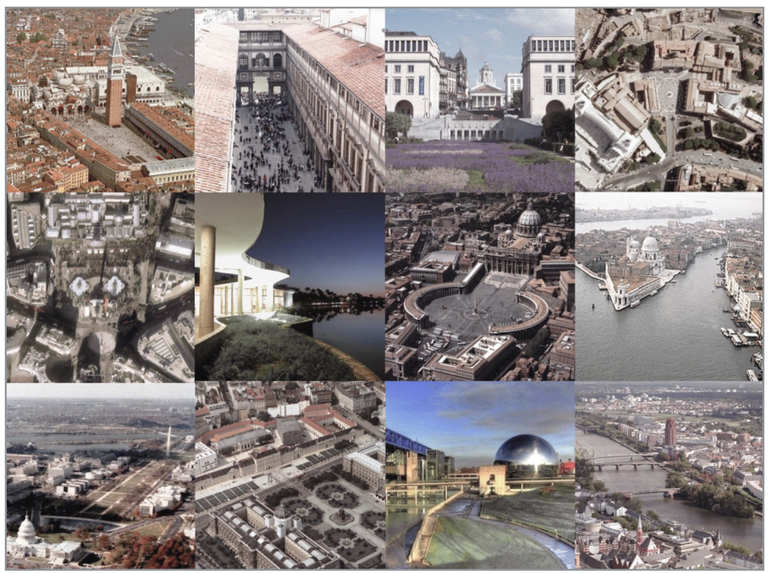
The Nachtwachtzaal was specially designed for Rembrandt's famous painting the 'Nachtwacht' *(Rijksmuseum.nl, 2018)*
The interior of the Boijmans van Beuningen Museum in Rotterdam with the wardrobe-installation *(Studio Wieki Somers, 2015)*

TYPES OF DRAWINGS AND MAPS

urban scale	**topographic map**	1:15.000
composition scale	**topographic map**	1:5000
situation scale	**topographic map**	1:2500
comparisons scale	**topographic map**	1:25.000 1:8000 1:5000
architectural scale	**drawing**	axonometric projection 1:2500 (elevation views) 1:1000 1:500
categorized	**symbol**	pictogram

Map Key / Legenda





Museum Clusters Today. What do all these spaces have in common? Apart of being some of the most significant and symbolic urban places, they are all museum clusters. And they are all around us (© M. Nikolić, Museumclusters.worldpress.com)

FOREWORD

Since the development of the modern European civilian society in the 19th century museums are part of the public domain; they are actors par excellence in celebrating collectivity.

Inside museums collections usually are put together over long periods, by different people with different intentions: to store, to remember, for pleasure, to express wealth and proudness, to know and educate, but also for debate, subversion, experimentation and leisure. Large municipal and national museums represent socio-cultural values from different fields, periods and origins to share with a wide audience. Self-evidently collections are growing entities (to display and store them), which usually goes with extensions and transformations of the buildings.

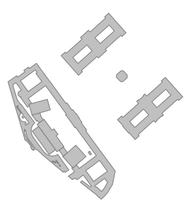
Since global tourism developed the category of museum visitors has scaled up from local citizens (from school children to devotees) to all sorts of people and from all over the world, especially in metropolitan cities. The recent trend to cluster museums is efficient for both visitors and museums, and for the city. Next to the question of what is needed it raises the question what could be new representations and identities.

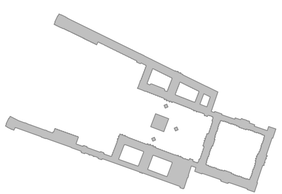
In line with the agenda of celebrating the public domain, the exterior of museum buildings is part of strategic objectives in an urban agenda; the location and position of modern museums developed from single monumental buildings, but are now accentuating important infrastructures and connecting neighbourhoods, or an urban ensemble on its own.

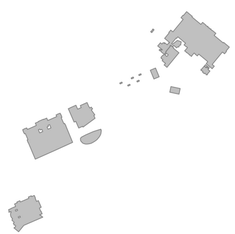
The interesting opportunity of clustering museums is to regenerate not only a place, but also change its immediate surroundings, the neighbourhood and the city at large. Think about the ‘grand-axe’ connecting Louvre’s central pyramid and the business-district of La Defence while an extensive underground programme is connected to the metro-stop.

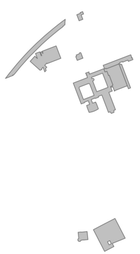
The architectural study of four different museum clusters by Sophie Kugel takes up avidly the double focus of the projects as institutions and their role as catalysts in urban transformations perfectly. She has studied them meticulously in the language of architecture itself. The systematic comparison of four museum clusters on different scales and design aspects by means of beautiful drawings unlocks its complexity and unravels the set of instruments to create meaningful public space and place.

dr.ir. Willemijn Wilms Floet









Four typologies of **museum-clusters**: Museumsquartier in Vienna, Louvre in Paris, Museumplein in Amsterdam and the Museumpark in Rotterdam *(Sophie Kugel, 2016)*

INTRODUCTION



Oosterpark Amsterdam, with in the corner the building of the Royal Tropical Institute *(bingmaps, 2016)*

Reason for this research

A TU Delft graduation project

This book contains my graduation research. Within the graduation procedure *Architecture* at the Faculty of Architecture of the Technical University in Delft, you can find the studio *Explore Lab*. This is a research driven graduation-laboratory for exploration of fascinations in the profession of building sciences. Graduation students with an obsessive interest in a specific (architectural) situation or subject can further unravel their fascination in this studio and in the first six months they will write a thesis about this theme. Following the first half-year, resulting in a completed research-study, the second six months are used for designing. The results of the research (may) be used in the final design. You have now started reading the book that contains my entire research for this studio and my graduation.

Fascination: Tropenmuseum and Oosterpark Amsterdam

On the photo on the left you can see the Oosterpark in Amsterdam. The yellow outline shows one of the most interesting buildings of Amsterdam. My fascination for this property was caused by its rich, imaginative history.
The building from 1926 is home to the *Royal Tropical Institute* and the *Tropenmuseum*. Father and son Van Nieukerken designed it in an exuberant neo-Renaissance style (Lucassen & Kloosterman, 2016).

The Tropenmuseum is a museum of Ethnography with a large collection of ethnographic art or artifacts from the former Dutch overseas territories. Nowadays, the museum also organizes public exhibitions such as: '*Doorbreek de stilte'* (about the historical involvement of the Netherlands in slavery). The museum is located around a large indoor atrium, which is designed specifically for this function. The Royal Tropical Institute is a knowledge institute for international cooperation, focusing on developing countries.

The building, that houses both the museum and the institute, is placed in a corner of the Oosterpark. It is a beautiful location along the Singel canal; a site with a lot of potential. Unfortunately because of the current setup of the surroundings, this building doesn't reach its full potential yet.

Design challenge: my aim for this area

Currently the Tropical Museum is a sinking ship because visitors in Amsterdam do not know where to find the museum. From the façade it is impossible to predict what is established inside the building and the entrance is very hard to find. Moreover, the large building blocks the connection between the city center and the Oosterpark. To save the museum it must become part of, and meaningful for, the city of Amsterdam.

When we look at the location of this area in the city and draw the most important axes, we can see that it is situated very structurally; it is an important pivot in the city (see maps on the pages 44-45).

The aim for this area, which is now a mixture of different random functions, is to make a new architectural and spatial design for it and transform it into a *museum-park* with a specific theme.



North Facade of the Royal Tropical Institute, formerly Colonial Institute, seen from the Plantage Middenlaan *(J.J. van Nieukerken, 1854-1913)*



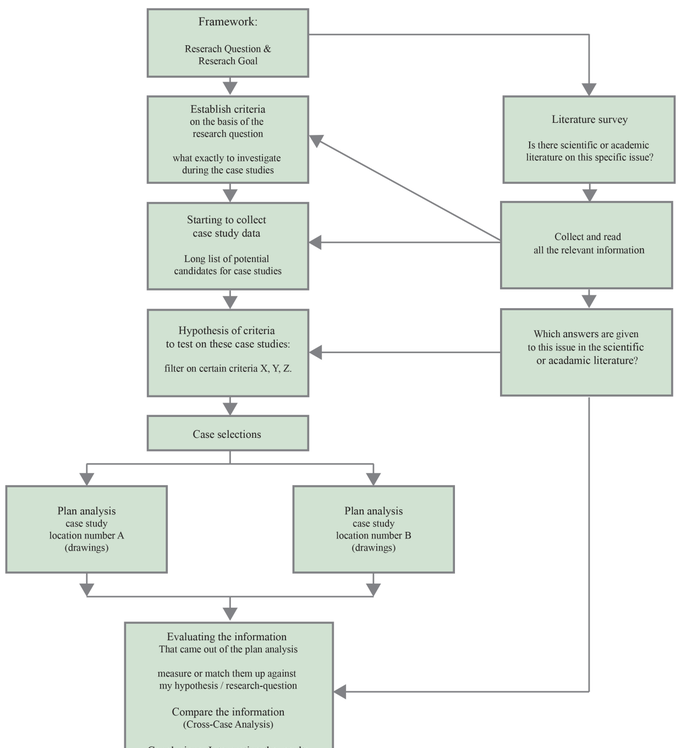
South Facade of the Royal Tropical Institute, formerly Colonial Institute, seen from the side of the Oosterpark *(J.J. van Nieukerken, 1854-1913)*



Oosterpark and Tropenmuseum in Amsterdam **SCALE 1:15.000**, *(Sophie Kugel, 2016)*



Oosterpark and Tropenmuseum in Amsterdam **SCALE 1:2500**, *(Sophie Kugel, 2016)*



My research-framework

Research methodology

A case-study research

Before I start the actual design challenge, I thoroughly researched several existing and similar museum-parks that do have a good connection with the city concerned. Examining the properties and characteristics of these museum-parks can help me target my design concept in the right direction.

There are various ways in which architects can obtain, undertake and use research (Lee, Nettley, Prin, & Owens, 2014, p. 6). The research I have conducted is on the basis of *case-studies*. In architectural research case-studies are very common (Alizadeh, 2006, p. 57). Case-studies contribute to the building of a professional and specialized repertoire of a certain topic. An architect's work can be based on comparisons between, and combinations of, known cases from the researched selection and the actual design situation (Schön, 1991). In other words, a case-study is a study of a particular case that is comparable to my topic of the design project. This way you will get more insight and knowledge of cases that are (quite) similar to the design assignment and this will help me understand the various aspects that I have to consider and reflect on while designing.

Literature study

Simultaneously with the case study research I did an extensive literature study. The literature study consisted of reviewing the meaterial available on the subject *'museum-clusters'* which came in the form of scientific articles and research papers. The literature study gave me more insight into the topic. There is information available on the museum-clusters in general and more specific about the Louvre in Paris, the Museumquartier in Vienna, the Museumpark in Rotterdam, and the Museumplein in Amsterdam (and the connection they have with the city). Books not directly related to the topic, such as *'het Hofje'*, by Willemijn Wilms Floet, have supported the methodology and systematics used in this book.

Additionally, through this literature study I got a better idea of what was needed to examine during the actual case-studies. Several questions arose in my mind while I was doing the literature study. To find answers to those questions, a comparative case-study of two or more different cases was needed.

Qualitative research

The case-study research can be formed by following a formal research method. During a case-study you capture the complexity and diversity of a single case (Johansson, 2003, p. 2). During a case-study research you investigate the (development of a) location (case) on all possible components. Because the various cases are so different, it is actually impossible to take an average of a certain quality of a museum-park. This is impossible, since the different case-studies are very dependent on the influences of the place and the environment. During the research it is important to compare the various components with each other in order to gain a better understanding of the opportunities that exist with regard to designing and what effects this will have on the location.

For my own design, I will partly make intuitive choices per item, whereas it is a creative process. Not one outcome is the right one, but several design components are possible, provided they are well founded and well attuned to each other. Therefore, this case-study research is called a *qualitative research*. Qualitative research is aimed at obtaining information on **how** it was designed (the design choices that were made in the various museum-clusters), **why** these choices were made and **what effects** they have on the site. It provides in-depth information by going into underlying motivations, choices, developments and history of the place.

1. Museumplein, Amsterdam
2. MAS, Antwerp
3. Park Güell, Barcelona
4. Museumsinsel, Berlin
5. Abandoibarra Etorbidea, Bilbao
6. Kunstberg, Brussels
7. Varosliget Citypark, Budapest
8. Millenium Park, Chicago
9. Civic Center, Denver
10. Van Abbemuseum, Eindhoven
11. Museumsuffer, Frankfurt
12. Groninger Museum, Groningen
13. Elswout landgoed, Haarlem
14. Exhibition Road, London
15. Museo Nacional del Prado, Madrid
16. Federation Square, Melbourne
17. Red square, Moskow
18. Museum Mile, New York
19. Kröller-Müller Museum, Otterlo
20. Louvre, Paris
21. Centre du Pompidu, Paris
22. Museumpark, Rotterdam
23. Balbao Park, San Diego
24. Skeppsholmen, Stockholm
25. Hermitage, St. Petersburg
26. Kitanomarupark, Tokyo
27. The Palace of Versailles, Versailles
28. Museumsquartier Vienna
29. Memorial Park, Washington
30. Museum de Fundatie, Zwolle

Plan analysis

Each case-study is basically a comprehensive plan analysis. Most knowledge I will get out of (self-made) drawings. On the basis of these images and descriptions of the buildingmass, sections, plans, use of color and use of materials; an analysis of the situation, the spatial structure, material design, aesthetics, features, relationships between form, function and technology, and influence on the context is presented. This often leads to wonderful studies, also called plan analysis. This does justice to the complexity of a museum-cluster (and thus the design task) and the necessary syntheses of many different requirements, needs, and constraints within a museum-park.

Selection procedure

Before I was able to select the museum-parks for my research, I had to clarify the definition of a museum-park. When can you call a park a **museum**-park? For that I needed to take a step back. Because before I could determine what a museum-**park** is, I had to define what a museum-**cluster** is.
A museum-cluster is a place where several museums (or a large museum with different departments) are located within a short distance from each other. A museum-cluster should possess a level of symbolic identification: something that makes the place recognizable; it becomes a meetings place. (Hitters, 2009, p. 4). In addition it has a focus on art and culture. Below are the two most important definitions that are found in the literature. A museum-park is actually exactly this, but then situated in a **park-like setting**:

'A museum-cluster is a relatively clearly defined urban area, characterized by a high concentration of museums and cultural activities. Ideally, a creative cluster should possess a level of symbolic identification.'
(Hitters, 2009).

'A museum-cluster is about the representation of art and cultural heritage (of the city). It is a geographical area within a (large) city that focuses on culture and creativity. In this area one can find buildings where cultural activities can take place. The area and (sometimes) the buildings are designed with the aim of promoting cultural activities.'
(Roodhouse, 2006).

These definitions are a bit adjusted from cultural-clusters to museum-clusters (for more information, see chapter 1, section: Clustering the museums).

My first step in the research process was to make a list of thirty interesting museum-parks and museum-clusters around the world. These museum-clusters appear on the alphabetical order of the cities (see page 48).

For my research I wanted to focus on a special **type** of museum-clusters.
I needed to define this very clearly, because it was impossible to investigate **all** museum-clusters, and in addition it should be as relevant as possible for my subject.

When I look at my own site, the Oosterpark, that I want to transform into a museum-park, you can notice a number of things:

- There is a museum located in a building with a rich history (the building of the Tropenmuseum)
- It's located in a Western-European city
- It's situated in a park-like setting (het Oosterpark)
- It's surrounded by urban fabric
- In my future design-plan it will contain a newly built museum, an extension of the existing museum, or another architectural intervention in contemporary architecture that will turn this park into a museum-park (my design goal)

This means that I can filter the list with potential candidates on these criteria:

- The case-studies must contain **historic layering**: a combination of at least 1 museum located in a historic building with at least 1 newly built museum, an extension of the existing museum, or another architectural intervention
- Located in a **Western-European city**
- Situated in a **park-like setting**; like a large public garden
- Surrounded by **urban fabric** (in other words: a museum-park that, like the Oosterpark, forms an importantt hinge in a big city)

The following four museum-clusters meet those criteria:

1. *Museumsquartier in Vienna*
2. *Louvre in Paris*
3. *Museumplein in Amsterdam*
4. *Museumpark in Rotterdam*

These four museum-parks will be my case-studies. Despite the fact that these two are very different, these museum-clusters do have 5 similar circumstances and conditions under which they are selected. During the detailed plan analysis I will compare them with each other to find out how these museum-parks are designed in different ways and with different (architectural) solutions to deal with the (comparable) circumstances. Perhaps certain patterns or elements can be found that recur in these two museum-parks. Although some of the results may be generalizable, this is not necessarily true for all museum-cluster. Maybe it is possible to make generalizations from the important and specific aspects of these cases, that I can potentially use in my own design.

Case-study questions

Research question

In the previous chapter, I described the decision-criteria and choice for the different museum-parks. By using these important aspects of the museum-parks that need to be studied, I have prepared the following research question:

> *What is the interaction between the museum-park and the public space in the city and in what architectural way makes the museum-park use of the advantages of museum-clustering?*

Sub questions

The outcomes of the different case-studies will be compared with each other, and with this material (combined with the information of the literature study) I try to answer the sub questions. With these answers of the sub questions I will try to solve the bigger question; the research question.

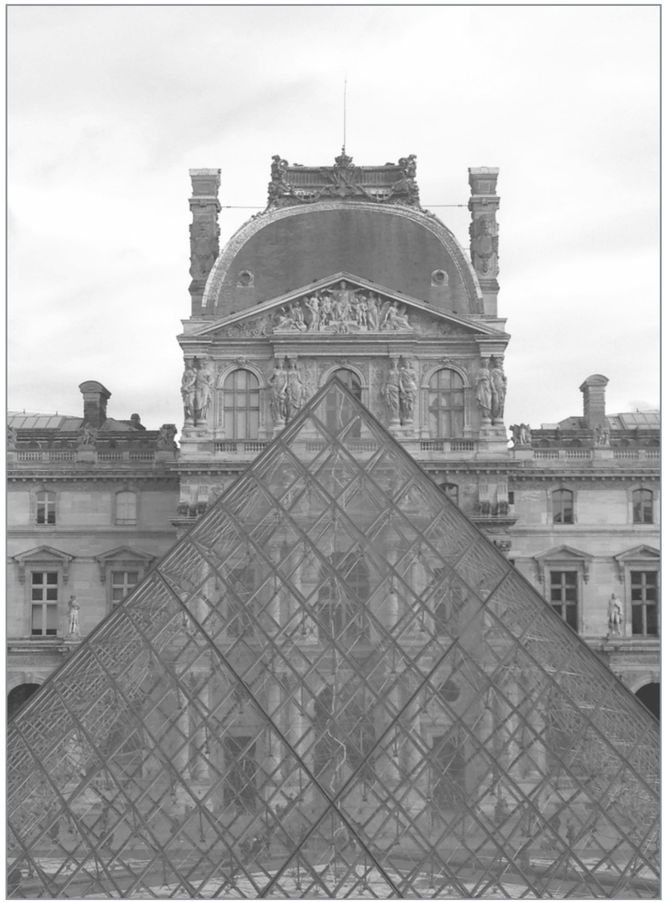
Chapter 1
- *What was the original function of this area?*
- *Was this area developed with one major intervention, or were the additions built in several stages?*

Chapter 2
- *How are the museum-parks embedded/rooted in the urban fabric?*
- *What is the relationship between the park and the city?*
- *What is the role of the park in the relationship between the city and the museum (cluster)?*

Chapter 3
- *What is the optimal spatial structure and composition of (the buildings and the park of) a museum park?*

Chapter 4
- *How is the entrance of the park (or multiple entrances) staged in the urban fabric?*
- *What are the boundaries of the building(s), the clusters and the park (what is private, public, etc.)?*
- *What is the route in the museum-park: the interaction (connection) between the park and the museums?*
- *The traffic settlements: how is the public transport / parking issue resolved?*

Chapter 5
- *What are the different architectural types and styles inside the museum-parks?*
- *What was the original function of this area? And can you still see this in the current architecture or design of the museum-park?*
- *Was this area developed with one major intervention, or were the additions built in several stages?*
- *Building typology: how is the relationship between the historic buildings (the existing urban fabric) and the newly built (sometimes iconic) architecture?*
- *Museum-clusters must be able to provide an added value to the park (strengthen the identiy of the place). How is this done in these museum-parks, and how do you increase the 'value of stay' in a museum-park?*



The large glass pyramid serves as the main entrance to the Louvre museum *(ritournelleblog.com, 2016)*

Structure of this book

This research-book tries try to answer the various sub questions that were mentioned in the previous chapter, on the basis of the comparison of the case-studies. In order to do that carefully and manageable this book is built up in several subjects. Each chapter will handle a specific theme (aspect) of the museum-park, and unravel the details of that facet. The foundations of all the chapters are the architectural drawings.

The different chapters and subjects will not be handled by city, but handled by subject. Therefore, it is possible to compare the four museum parks with each other on different scales and with different types of drawings. From a large scale on a map, to see how the museum is located in the urban fabric, to drawings at building-level in the form of axonometries and sections. This way the museum-parks can be analysed in different ways (for example; morphological and typological) and the coherence of these museum-parks will become clear. All the drawings in this book are made in the same style. This will make it easier to compare the different case-studies with each other. The history and background of the museum-parks will also be studied and provided with a detailed explanation.

In **chapter 1**, the phenomena *museum-clusters* and *museum-parks* are examined and the characteristics and possible benefits of these parks and clusters are described. At the end of this chapter the four museum-parks that have been selected as case-studies are further introduced. The chapter explains the various functions that exist within the programmic structure of the museum-parks today, and examines the history of the museum-clusters; what were the original function(s) of these buildings?

The **second chapter** shows the museum-parks in their position in the urban fabric. On the basis of urban morphology and axes and sight lines in the city, the configurations of these museum-parks are described and drawn in their relationship with the surroundings.

In **chapter 3** the museum-parks are analyzed on their spatial composition. Their sizes, proportions and expressions will be discussed and the interaction between the park, museums and public spaces (inside the museum cluster) are explored. How are these museum-parks oriented and how are they defined?

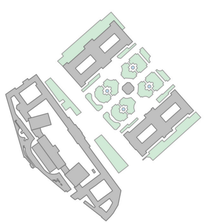
The routes are the subjects of the **fourth chapter**; the entrances that make the connection with the city, the pedestrian routes, the circulation in the museum-parks itself and how public transport and parking are solved.

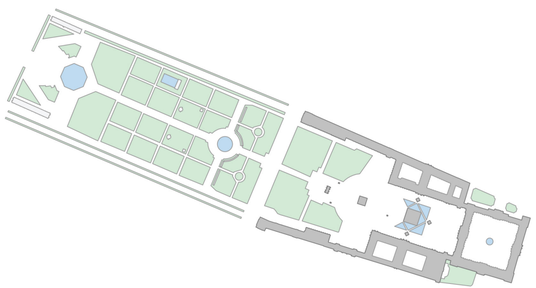
The **fifth chapter** stands for the architectural representation of the museum-parks. Some of the museum-clusters have a monumental appearance, and others a more intimate feel. Even within the same museum-park this may differ. This chapter addresses the form and function of the museum clusters. Chapter 5 also deals with the historical layering within the museum-parks and the different architectural types, styles and interventions that are involved. At the end of this chapter the identity of the museum-park is analysed. Binding themes or distinctive activities and objects in these museum-parks are necessary for a unique character and I will describe how this can contribute to the cultural benefits of cultural clustering and the value of stay.

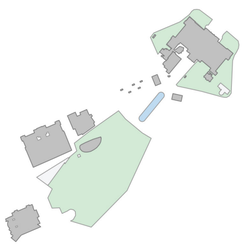
The **conclusion** will answer the sub questions and the main question of this research. Moreover, it wil discuss other aspects that were noticed in the information of the previous chapters.

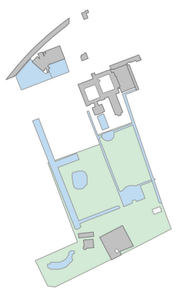
Finally I will discuss in the **epiloque** how this research can be used as a tool for my design. Like explained earlier, it is my plan to transform the Oosterpark into a new museum-park. The results of this research I can use as a sort of ‘toolbox’ in my new design for this museum-park. In the final part of the book I will give an overview of the potential ideas and architectural ‘solutions’ that I obtained from this research and how I could potentially use this in my final design.

At the end of this book you can find the bibliography, the illustration-list, and the acknowledgments.



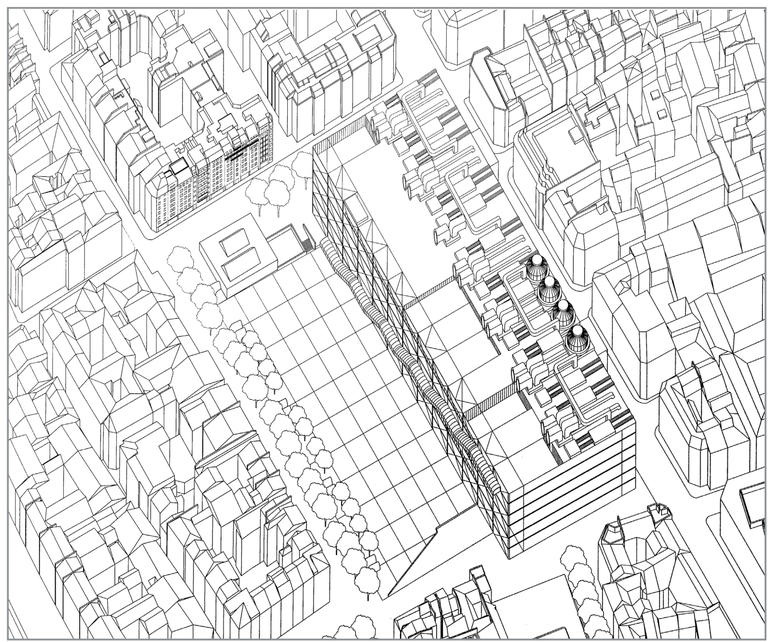






Four typologies of museum-clusters with the adjacent **museum-parks**: Museumsquartier in Vienna, Louvre in Paris, Museumplein in Amsterdam and the Museumpark in Rotterdam *(Sophie Kugel, 2016)*

1.MUSEUMCLUSTERING



An axonometry drawing of the Centre Pompidou in Paris, designed by R. Rogers and R. Piano *(Sophie Wolfrum ed, 2014)*

Development of museum-clusters

Purpose of a museum building

It is not easy do define a complex institution like a museum. Douglas Allan, the late director of the Royal Scottish Museum in Edinburgh, wrote that 'a museum in its simplest form consists of a building to house collections of objects for inspection, study an enjoyment' (Alexander & Alderson, 1996; Allan, 1967, p. 13).

The term *museum* dates back to 290 BC. In Alexandria, a *mouseion* (museum) was founded by Ptolemeus I. The name comes from *Mnemosyne:* the Goddess of memory.
Back then, a building like this included a study collection, a library, an observatory and facilities for research and education. It was a learning place for scientists, philosophers and historians. This institute had a programme of storing knowledge (Bazin, 1967; Bennett, 1995). These early museums were for the elite, uninspiring for the general public (Arinze, 1999, p. 1).

During the Enlightenment, there was also an urge to catalogue and preserve all the knowledge of mankind. Museums were established as specialized sites for collecting, studying and presenting artefacts. This purpose has not changed since (Impey & MacGregor, 1985).

However, in the 20th and 21th century, museums have become more accessible to the general public. They stand for more openness, pragmatism and collective involvement in dealing with subjects that have an impact on people nowadays. A museum houses the culture of a nation or community in the broadest sense of the word; things created by nature or by man (Arinze, 1999). Its purpose may have many different reasons: inform, entertain, educate, inspire or shock.

Architecture of a museum building

Museum buildings are built (or sometimes restored) for art or heritage. This says something about the task of a museum and about *the role of the architecture*. A museum is not a place where art or artefacts originally come from or where they are made, but a place where they are approached in public on their right to exist. The museum is a platform where the results of an (artistic) production are exhibited (Davidts, 2002-2003, p. 358).

A museum provides a *scene* with its architecture; to show the artworks or objects, independently of their place of production. This will give these objects a public character. The task of architecture is to give *meaning* to this place of performance (Davidts, 2002-2003, p. 358).

Museum buildings are public spaces where the art or the exhibited objects are constantly under discussion (Keenan, 1995). During the opening of the Pompidou Centre (see image on the left), Gilbert Lascaux wrote that artwork or ancient objects in museums never find the ideal conditions to appear. He stated that architecture cannot participate in the art and doesn't have the ability to 'move along' with the variety of artworks and artefacts. Therefore, this architecture is always a compromise. But without museums, art and heritage have little chance of survival. Architecture can only provide a framework for these artefacts and create the opportunity to display these objects in a *meaningful context* (Lascaux, 1976; Rubin, 1979).

Museum-boom

Since the seventies, an international trend is visible in the field of museums. In these recent decades there has been a strong growth of museums. Not only in Europa but also in the rest of the world (De Regt, 2013, p. 1). This growth in the number of museums can be called the *'museum-boom'* (Van Aalst & Boogaarts, 2002, p. 195).

The museum-boom took place in the years 1970-1980, immediately after the Centre Pompidou in Paris was completed. The Centre Pompidou can be seen as the new cultural centre of Paris. In this area are not just museums located, but also restaurants, a library and conference rooms (Van Aalst, 1997).

The museum-boom refers to both *quantitative* growth and *qualitative* growth (Burton & Scott, 2003). Quantitative growth is an increase in the number of museums. Qualitative growth indicates the place occupied by museums in society. The role of museums in society has become more important in recent years. This qualitative growth, according to Burton and Scott (2003), increased the number of functions (roles) of the museum-clusters.

The original function of a museum is the preservation and interpretation of materials of a given culture. To be exact, the Museum Association in the United Kingdom has defined a museum as:

'An institution that collects, documents, preserves, exhibits and interprets material evidence and associated information for the public benefit.'
(Museum Association Bulletin, 1996, p. 352)

Recently developed roles of museums are defining the urban spaces by adding a symbolic value to an area and (therefore) to stimulate the local economy (Burton & Scott, 2003).
This wider meaning of museums is reminiscent of the *mouseion* in ancient Alexandria, where it was an establishment with a very broad program and an important institution in the society of a city.

Anthropologist Richard Handler therefore gives a completely different definition of a museum. He writes that a museum is first of all a social area, and not a repository of objects. When he walked into a museum he watched people move around and noticed that they are interested or concerned about the objects displayed and the architecture that houses these artefacts. But he also sees people looking at other people and how they react to these objects, the architecture and the meaning they attribute to it (Handler, 2008, pp. 33-34).
This way, the collection, the architecture and the visitors of the museum are closely linked. He therefore gives the following definition of a museum:

'A museum is an institution in which social relationships are oriented in terms of a collection of objects and architecture which are made meaningful by those relationships'.
(Handler, 2008, p. 33)

This definition of the anthropologist is even more applicable to a place where several museums are clustered together. At this location a meeting place will arise where it is about much more than just the exhibited art. The architecture of these grouped museums will play a major role in this matter.

Clustering the museums

This development of the museum-boom brought changes in the structure and organization of museums; more and more museum-clusters emerged (Van Aalst & Boogaarts, 2002). From that period on the phenomenon of clustering became somewhat of a trend (Mommaas, 2009).

Museum-clustering refers to locations where several museums are located within a short distance from each other (De Regt, 2013, p. 5). Michael Porter first introduced this term in the late nineties (Tien, 2010). Porter (1998) described the concept of clustering as:

'…a geographically proximate group of interconnected companies and associated institutions in a particular field.'
(Porter, 1998, p. 78).

This definition of the formation of clusters can be applied in various sectors (clusters in general). My research focuses on cultural- and creative-clusters, and more specifically; **museum**-clusters. The phenomenon museum-clusters can be categorized under the concept of cultural-clusters.

And this brings us to the definitions of Hitters and Roodhouse that have been mentioned in the introduction:

'A creative cluster is relatively clearly defined urban area, characterized by a high concentration of entertainment and creative activities for production as well as consumption. Ideally, a creative cluster should possess a level of symbolic identification (recognizable, a 'meeting place') and a governance structure'.
(Hitters, 2009, p. 4).

Roodhouse (2006) is with his definition slightly more specific towards cultural-clusters (and therefore museum-clusters). He makes a distinction between cultural- and creative- (industrial) clusters. He points out that a cultural-quarter is about the representation of art and cultural heritage of a city. He also assumes that cultural production and consumption is stimulated within a cultural-quarter (Roodhouse, 2006).

Roodhouse (2006) writes about cultural-**quarter** instead of a cultural-**cluster**. With the term **quarter** he is especially talking about the geographical aspect:

'A cultural-quarter is about the representation of art and cultural heritage (of the city). It is a geographical area of a large town or city which acts as a focus for cultural and artistic activities through the presence of a group of buildings devoted to housing a range of such activities, and purpose designed or adapted spaces to create a sense of identity, providing an environment to facilitate and encourage the provision of cultural and artistic services and activities.'
(Roodhouse, 2006, p. 23)

Roodhouse based his definition of cultural-quarters mainly on the descriptions of cultural-clusters by Montgomery (2003), O'Connor (2004) and Bell & Jayne (2004).

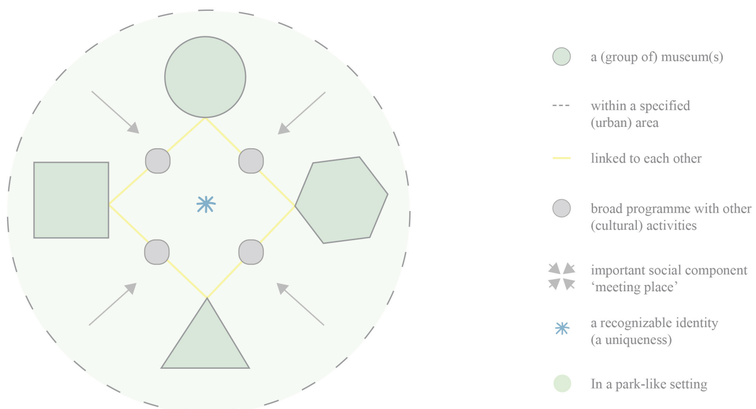
Santagata (2002) is very specifically on **museum**-clustering and suggests that museum-clusters are located especially in the historic city center. He also claims that the fundamental idea for museum-clusters differs from the principle of other types of clusters. Museum-clusters are, according to Santagata (2002), very focused on the past, unlike other types of cultural clusters that focus mainly on the present and the future.

Santagata (2002) illustrates in his theory *Cultural Districts* that for assembling a museum-cluster a group of museums need to be close to each other, and the cluster also needs to be able to add a certain value in some way. This is probably the same thing that Roodhouse meant with *'a level of symbolic identification'* (Roodhouse, 2006, p. 23).

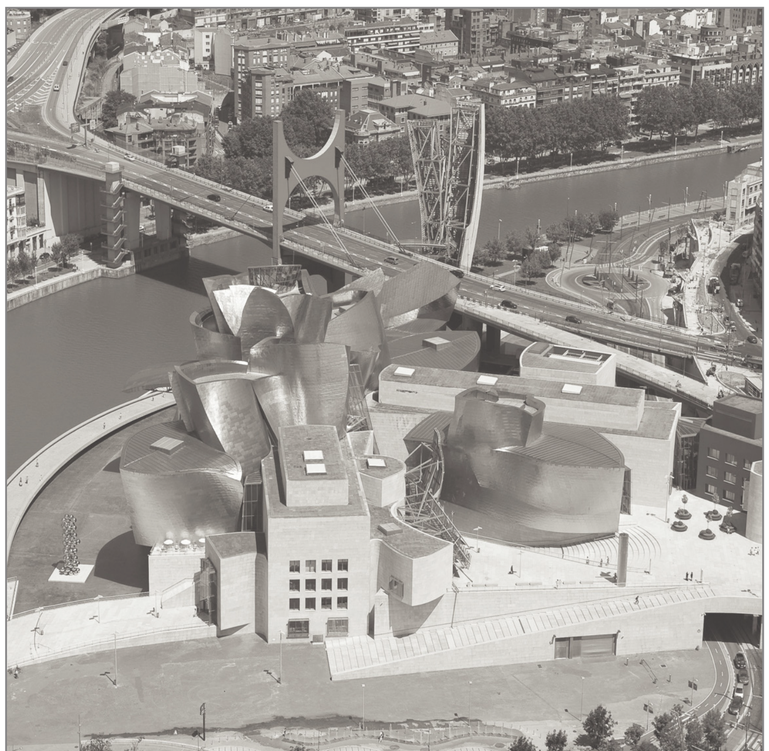


Museum-parks: four combinations of museum-clusters and public parks.: Museumsquartier in Vienna, Louvre in Paris, Museumplein in Amsterdam, Museumpark in Rotterdam.

Combination of museum-clusters and public parks: **museum-parks**



Characteristics of museum-parks *(Sophie Kugel, 2017)*



The Guggenheim Museum Bilbao *(Jean-Pierre Dalbéra, 2009)*

Effects of clustering museums

Benefits of museum-clustering

Architectural benefits

Museum-clusters are often an important link in a city center, and as a spatial phenomenon they are very present in contemporary cities. Particularly the space within and in between the museums is important. This is the place 'in between disciplines' where all the activities take place and where the ideas of spatial design are manifested (M. Nikolić, 2008).

The architecture can also be the reason for the development of a particular area. A good example of this is the Guggenheim museum in Bilbao. This museum created a cluster of twenty different galleries, each with a different theme and connected by a large atrium in the middle. The museum was designed by architect Frank Gehry and opened in 1997. Because of this striking, large and dramatic building the area became an interesting place at once and caused an increase in tourism in the city. The remarkable architecture of the Guggenheim museum has put Bilbao on the world map and simultaneously developed the surrounding area. This is also known as *the Bilbao-effect*, a phenomenon in which a city through the construction of a distinctive building, designed by a well-known architect, grows into a more important or richer city (Beck, 2002; Rybczynski, 2002).

In the last twenty years this Bilbao-effect has been one of the most used concepts in the urban development. It has often been reused in other cities with the hope of the same effect on the architectural, urban, and cultural development of an area (M Nikolić, 2016, p. 1). But not all of these new museums or clusters outside capital cities have had the *Bilbao-effect*. Maybe the precisely designed combination of Gehry's architecture and the Guggenheim's art is what has made this museum-cluster a success (Bailey, 2002). But another theory is that often it is forgotten that in addition to a large architectural investment, it also requires a comprehensive designed program to bring the city in order (Otten, 2012).

Organizational benefits

Austin (2000) writes that museum-clusters are almost always collaborations between private organizations and the government. They are a product of government policy and often arise from political and social considerations (De Regt, 2013, p. 6).

There are several arguments in favor of the formation of a museum-cluster. For the cultural institutions itself, the goal of museum clustering can be to solve problems such as poor accessibility of the museum and a lack of capacity. Partnerships can lead to opportunities to reach new audiences (Tien, 2010). In addition, there are also the benefits of networking, consumption benefits, timesaving benefits and sometimes economic benefits (Santagata, 2002).

For (local) governments the motivation for the formation of a museum-cluster is to increase the economic value of the area. Museum clustering will strengthen the identity, attractiveness and market position of a city. Occasionally it can also help to encourage entrepreneurship, creativity, and innovations in the area and perhaps deal at the same time with a vacancy-problem (Mommaas, 2004).

Furthermore, the organization, location, and name of the cluster are essential factors for the success of a museum-cluster. The fame (brand awareness) of a museum-cluster is of great importance for a city and its attractiveness (Noordman, 2004; Roodhouse, 2006). When the collaboration within the cluster doesn't work well, it may have an opposite effect (see chapter disadvantages of museum clustering).

Cultural Institutions	City / Government
Network Benefits: Visitors will visit other museums near the museum they've just visited (Santagata, 2002). *Consumption Benefits:* More connections between museums lead to more visitors. In addition, the more people visit a museum, the more popular it gets to go there (Santagata, 2002). *Time Advantage:* People who usually don't visit several (more than one) museums will do so now, because the museums are located close to each other. Especially with temporary (small) exhibitions, museums can benefit from this (Santagata, 2002). *Economies of Scale:* Not everything needs to be arranged by museum, but can be organized from above. This can be cost-effective (Santagata, 2002).	*Identity:* Strengthening the identity, attractiveness and market position of the city by means of cultural activities (Van Aalst & Boogaarts, 2002; Mommaas, 2004). *Stimulate a more Entrepreneurial Approach:* Ultimately focused on economic gain of the cultural sector for the city (Mommaas, 2004). *Growing Innovation and Creativity:* Eventually focused on economic gain for the city (Mommaas, 2004). *Avoid Vacancy Buildings:* Focused on city atmosphere and attractiveness and economic gain (Mommaas, 2004; Santagata, 2002). *Increase in Employment* in the city: Secondary employment (Van Aalst & Boogaarts, 2002).

Diagram showing the benefits of cultural clustering

Financial benefits

Because of the economic focus of today, museum-clusters are often seen as tourist attractions ('flagships') of big cities (De Frantz, 2005).The actual goal of a museum is, of course, the exposition of art. But the pas few years the emphasis has been on the economic aspect of these clusters (Tien, 2010). The museum-clusters are a very important part of the tourism sector, and therefore, these clusters play an important role in the local economy of a city or area (Van Aalst & Boogaarts, 2002).

Lord (2002) views the museum-clusters as part of cultural tourism. Cultural tourism is growing at a huge pace, more and more people go on (holiday or weekend) city-trips and visit mostly museums. By clustering these institutions they will draw even more attention and more and more people are attracted to these places. This growing cultural tourism has a huge impact on the economic and architectural development of the area in the city, more and more money is spent on composition and design. This is especially evident in the previously mentioned example Bilbao. The museum attracts more than 1 million visitors annually, since the opening of this building. The Guggenheim Museum also added approximately 4500 jobs in the city of Bilbao (Bailey, 2002; Otten, 2012; Rybczynski, 2002).

Disadvantages of museum-clustering

Fear of competition

There are also disadvantages in the process of clustering museums. According to Burton and Scott (2003), the museum-boom has made the competition between museums stronger. The number of visitors has not grown as strongly as the number of museums (Kirchberg, 1998).
Museum-clusters, or museums that are situated close to each other, often offer a combination-ticket. Examples of museum-clusters offering such a combination ticket are the Museumpark in Rotterdam, the Museumsquartier in Vienna and the Louvre in Paris. This is often beneficial for the visitors, but does not increase revenue for the institutions itself.

Not every museum-cluster cooperates well together. The collaboration within the museum-cluster at the Museumplein in Amsterdam is still somewhat limited. For example, there is no common website (this is also still missing for the Museumpark in Rotterdam) and the combination-ticket is extremely pricey because the Concertgebouw is also involved (Van Aalst and Boogaarts, 2002). Santaga (2002) thinks this limited partnership in various cultural settings arises from *fear of competition.*

Peripheral functions

Because of their increasing role in the cultural section of the city, museum-clusters get more and more *peripheral functions* (Wittlin, 1970, p. 1). Of course, these peripheral functions ensure that more visitors are drawn to this place. But it also ensures that in many museum-clusters, the conventional museum-spaces are becoming more and more oppressed by the parasitic functions (Davidts, 2002-2003, p. 25). In recent decades, the number of peripheral programs has reduced the percentage of exhibition space from an average of 90% to 50% of the total area of the museum building (Peressut, 1999, p. 47). After the Centre Pompidou was built, more and more museum-clusters (exemplified by the Centre Pompidou) were given next to the exhibition rooms, also a gift shop, a restaurant, a library, and sometimes even a theatre or shopping mall. The exploitation of such a restaurant or museum-shop takes more time and effort than the curatorial activities (Vergo, 1989, p. 41). In addition, this new program (which is in a way 'external' to the classical museum-program) is increasingly used to legitimize the building of a museum. (Davidts, 2002-2003, p. 25).

This has an effect on the role of the architecture within these museum-clusters. Because nowadays the museum-clusters play an extremely important role in city marketing, often starchitects are asked for the design of the museums. With the help of extraordinary, eccentric buildings, the museum-cluster hopes to increase their notoriety and fame (also for the city itself) (Vonier, 1988, p. 27). In such cases the emphasis is not on the exhibition spaces (function), but on strengthening the identity by means of an icon (form) (Pearman, 2002, p. 22).



The largest courtyard (haupthof) of the Museumsquartier in Vienna - ‘an urban living room’ *(Hertha Hurnaus, 2015)*

Four museum-parks selected for this case study

1. Museumsquartier Vienna*: from imperial horse stables to cultural complex*

The Museumsquartier, shortened also named MQ, is a 60,000 m² large cultural complex near the centre of the Austrian capital Vienna. It is one of the largest art and culture complexes in the world. The museum-cluster has many courtyards and is therefore also called ‘an urban living room and an oasis of calm and recreation in the middle of the city’ (MuseumsQuartier, 2017).

History & former functions - Imperial Horse Stables

The Museumsquartier in Vienna has a dynamic history. More than 300 years ago the Emperor Charles VI appointed Johann Bernhard Fischer von Erlach to build an **Imperial horse stable complex**. Fischer von Erlach was an Austrian architect, sculptor, and architectural historian whose **Baroque style** buildings profoundly influenced the architecture of the Habsburg Empire (Aurenhammer, 1973).

The imperial horse stables were built along the city wall, where at that time the imperial ‘poultry yard’ with a large garden already existed. Fischer von Erlach based his design of the stables on his reconstruction of the *Domus Aurea Neronis* (a palace built by the Emperor Nero in the heart of ancient Rome). The masterplan of Fischer von Erlach included Imperial stables for more than 600 horses and a wagon-shed for 200 state coaches and gala coaches. He also designed an amphitheatre for the presentation of carousels in the large courtyard and a pond for the horses. In 1725, after Fischer von Erlach’s death, his son Joseph Emnuel completed the principal facade (Dotson, 2012; MuseumsQuartier, 2017).

In the following years a lot of changes and additions to the Imperial horse stables were made. Emporer Franz Joseph I commissioned Leopold Mayer to redesign and expand the stables. These winter riding- and summer riding areas (today the *Halle E + G*) were built between 1850-1884 in **Classicist style**.
In 1874 Empress Elisabeth (Sisi) ordered to build an octagonal riding hall (manege) in the Saddlers yard. She took her ridging lessons here from Elise Petzold, at that time a famous circus rider from the Circus Renz. Today, this octagonal hall houses the library of the Vienna Architecture Centre (*Architekturzentrum Wien*).

Around the same time, the city wall was demolished. This gave way to the **Ringstraße**, a circular boulevard around the city centre of Vienna. In 1872 the construction of two monumental museum buildings began - one for the Museum of Art History (*Kunsthistorisches Museum*) and the other for the Natural History museum (*Naturhistorisches Museum*). These two imposing buildings were designed especially for the many works of art and (natural) objects that the Habsburg rulers gathered over the centuries, and the structures never changed their functions (Gottfried, 2001; MuseumsQuartier, 2017; Telesko, 2012).

The twin buildings mirror each other and were built on either side of a new square, the Maria-Theresia-Platz Square. The design was made by Gottfried Semper, who was also responsible for the design of the *Neue Burg*, the last extension of the *Hofburg* (the palace and residence of the Habsburg rulers). The new museums were built opposite of the Hofburg on one side, and the Imperial horse stables on the other side. Semper made this plan as part of a great imperial forum, the **Kaiserforum**, flanked by two great wings reaching out towards the two museums. The intention was to connect the new wing of the palace to the new museums across the Ringstrasse through large triumphal arches, but the outbreak of World War I and the subsequent fall of the Habsburg Empire put an end to these plans (Mallgrave, 1996).

After the First World War, with the collapse of the Austrian-Hungarian double monarchy and the establishment of the Republic of Austria, the Imperial stable lost its function. A large part of the inventory was sold.

In 1921, the area became a *Messepalast*, a trade fair and exhibition complex. For this function a large hall was built behind the winter riding hall. In 1985, the Messepalast was selected for the Vienna Festival (the *Wiener Festwochen*) and soon the complex became the main address. This was the first time this area was used for cultural purposes (MuseumsQuartier, 2017).



Museumsquartier Vienna, Exterior View *(Peter Korrak, www.neu.mqw.at, 2016)*



Museumsquartier Vienna, Exterior View *(www.bing.com/maps, 2016)*



Sculptured horse heads above a passage in the MQ *(Manfred Werner, 2008)*



'Burgtor mit Hofstallungen', an copper engraving, drawn before the Art History Museum and the Natural History Museum were built *(Leopold Beyer, 1830)*



The facade and entrance of the Imperial Horse Stables - the later Museumsquartier - in aquarelle *(Balthasar Wigand, 1825)*
The facade and entrance of the Museumsquartier in Vienna - the former Imperial horse stables *(Hertha Hurnaus, 2015)*

Institutions & programme structures today - Cultural Complex

The Museumsquartier is an enormous and important cultural development within Vienna's urban regeneration. After an architecture-contest was won by the brothers Laurids and Manfred Ortner (*Ortner & Ortner Baukunst*), the conversion of the complex to Museumsquartier started in april 1998. The new design followed the example of the Centre Pompidou in Paris (De Frantz, 2005; Roodhouse, 2004). Three years later the Museumsquartier was opened to the public in two stages (June and September 2001). The new museums, in the style of modern architecture, are surrounded by the original buildings (the Imperial horse stables) in the Baroque style (Ortner & Ortner, 2017). These three major new museums are:

- Museum Moderner Kunst Stiftung Ludwig Wien, (MUMOK)
- Leopold Museum
- Kunsthalle Wien

The **Leopold Museum** is housed in a large white limestone cube. Rudolf Leopold, who collected an impressive number of works from 19th and 20th century artists, laid the foundation of the collection. He was especially a lover of the works of Viennese artists such as Klimt, Kokoschka, and Schiele, which resulted in the largest collection of works by Egon Schiele in the world.

The **MUMOK** is the most important museum for contemporary art in Austria, and houses one of the largest collections in the world. It is housed in a modern building in dark gray basalt, located opposite of the Leopold Museum. The large and regularly changing collection is exhibited on five floors, and two of those floors are underground. Examples of exhibitions in the MUMOK are the *Wiener Aktionismus* (a Viennese art flow from the 1960s) and other modern art such as *Fluxus*, *Nouveau Réalisme* and *Pop Art*.

Temporary exhibitions are held at the **Kunsthalle**, that is specialized in international art exhibitions. The Kunsthalle focuses especially on photography, video, film, installations, and new media.

The other cultural institutions are spread over the extensive renovated stables complex. There are around 20 different cultural institutions spread across the Museumquartier, as well as a number of restaurants and shops. Some of the institutions focus on a specific audience, such as the *Quartier 21*, housed in the former horse-stables, where temporary exhibitions are held with works from emerging artists. Concerts and shows take place in the *Halle E + G*, the former *Winterreitschule*.
There is also an architecture-center (*Architekturzentrum*), a dance-center for the *Wiener Festwochen* (*Tanzquartier*), a museum for children (the ZOOM museum), a youth theater (*Dschungel Wien*) and even a kindergarten with (for example) a maths center. Furthermore, the complex is still used for various cultural events, such as the *O-Töne* Literature Festival and for concerts, such as the *Jazz Fest Wien* festival (Gottfried, 2001; MuseumsQuartier, 2017; Van Uffelen, 2010). Artist Josef Trattner and PPAG architects designed giant foam multifunctional seatings ('Enzi' outdoor furniture elements) for the MQ. They are highly popular with visitors.

In front of the Museumsquartier is a large public square or park (*the Maria-Theresien-Platz*) that joins the Ringstraße with the Museumsquartier. At the centre of the square is a large statue representing Empress Maria Theresa (Toman, 2015). Facing each other from the sides of the square are two near identical buildings, the Naturhistorisches Museum (Natural History Museum) and the Kunsthistorisches Museum (Art History Museum). A number of prominent Austrian artists, including Frans Matsch, Gustav Klimt and his brother Ernst Klimt decorated the interiors with vibrant murals. These two museums still have the exact same function as they were built for.

Institutions & Programmic Structures Today: **Museumsquartier (Cultural Complex)**

Leoplod Museum	Outdoor furniture	Quartier 21	Head-entrance
MUMOK	Architekturzentrum	Dschungel	Kunsthistorisches Museum
Halle E+G	Library	Tanzquartier	Naturhistorisches Museum
Kunsthalle	Kindergarten	ZOOM Museum	Design forum Wien

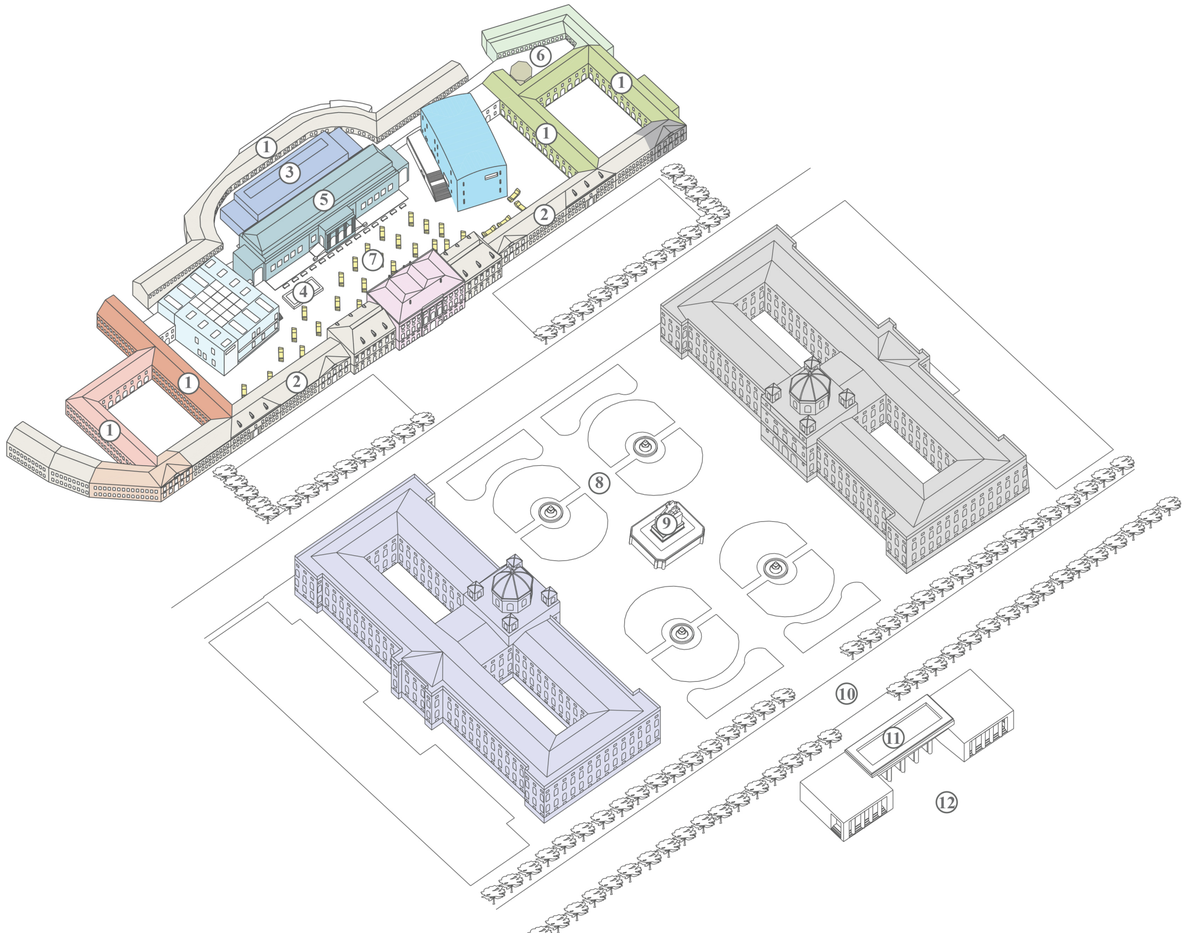
Former Function: **Imperial Horse Stables**

Former functions

1. Horse Stables
2. Wagon Sheds (for state- & gala-coaches)
3. Amphitheatre (for presentation of carousels)
4. Horse pond
5. Winterreitschule
6. Octagonal riding Hall (manege) with Saddlers yard

Other

7. Courtyard (Haupthof)
8. Maria-Theresien platz
9. Statue of Maria-Theresien
10. Ringstraße (Burgring)
11. Äußeres Burgtor (Heldentor)
12. Hofburg / Heldenplatz



Museumsquartier Vienna: former functions and the institutions & programme structures today *(Sophie Kugel, 2017)*



The courtyard with contemporary pyramid entrance by I.M. Pei. The decorated ceiling of the Denon Wing inside the Louvre, with Italian paintings. Stairs of the Louvre, built by Hector Lefuel in 1857 and located in the pavillon Mollien.

From right to left. (Louvre, 2017)

***2. Louvre Paris**: from Royal Palace to the world's largest museum*

The Louvre Museum, one of the most important museums in the world, is located in the first arrondissement, along the river Seine, in the centre of Paris. The museum contains a wide variety of artefacts (over 35,000) from ancient times to the 19th century. The collection is grouped to origin and spread across three wings of the former palace: the *Richelieu* wing, the *Sully* wing and the *Denon* wing. There are halls with Roman art, Egyptian art, Greek art and Oriental art. A large part of the collection consists of European paintings and sculptures (Louvre, 2017).

History & former functions - Royal Palace

The Louvre was originally a **medieval fortress** or **castle**, that became one of the world's largest and most famous museums.

During the reign of Philippe Auguste (1180-1223), the influence of the French monarchy increased significantly. The emperor built walls around Paris in 1190 as protection against the Vikings. In order to strengthen the defence he also made a **fort**, around a donjon (a medieval defence-tower), on the banks of the river Seine. The fortress was situated in what is now the southwest quadrant of the *Cour Carrée*. The building consisted of a large square surrounded by four circular bastions at each corner. In the courtyard there was a high guard-tower and two interior buildings. This fort was already called the Louvre. Today only a small part of the 'lower hall' has been preserved, but mainly underground.

After the *Order of Solomon's Temple* fell in disgrace around 1307, the Louvre became the residence of the royal treasury, which was first preserved in the Templars' headquarters. Charles V made the castle, which lost its strategic significance through the city expansion, his **Royal Palace**. In 1364, architect Raymond the Temple began with the transformation of the old fort in a royal residence (castle). Charles V had commissioned him to build some apartments with large windows and a majestic spiral staircase. A garden was laid out and the rooms were richly decorated with statues and tapestries. As a lover of art, he already provided the Louvre with some of its future function by accommodating his library. According to an inventory of 1368, the library counted 917 books. Charles V was a fervent collector and added between 1373 and 1380 76 new books to his library (Brecs Bautier, 2008; Knecht, 2004).

After the death of Charles VI, the palace was neglected for a long time. It suffered greatly during the Hundred Years' War. That changed in 1527, when François I wanted to settle in Paris. Under his watch, the defence-tower of Philippe I (the donjon) was broken down and plans were developed to rebuild the castle in the ruling **Renaissance style**. In 1546 architect Pierre Lescot and sculpture Jean Goujon were appointed to realize this plan: four wings around a spacious courtyard (the *Cour Carrée*). This complex is the oldest part (above ground) of the current Louvre and corresponds with the *Sully* wing. Construction activities spanned the reign of François I, Henri II and Charles IX, but only two of the four wings were realized (Brecs Bautier, 1995).



Louvre Museum Paris, Exterior View *(culturecommunication.gouv.fr, 2008)*

In the sixteenth century, the Louvre was a mix of old and new buildings. In 1564, Catharina de 'Medici ordered the building of a new palace at about 500 meters west of the Louvre, called the *Tuileries*. The plan arose to connect the Louvre to the nearby Tuileries-palace (Hautecoeur, 1927). Charles IX began in 1566 with the construction of the *Petite Gallery*. This small wing had to be the starting point of a very long corridor along the banks of the Seine that would connect the palaces together. This plan, to connect the palace with the Louvre through a wing along the Seine, was continued by Henri IV: this resulted in the core of the current *Denon* wing The wings surrounding the *Cour Carrée* were not completed until the seventeenth century. This corridor eventually became the *Grande Gallery*, built between 1595 and 1610 (Louvre, 2017).

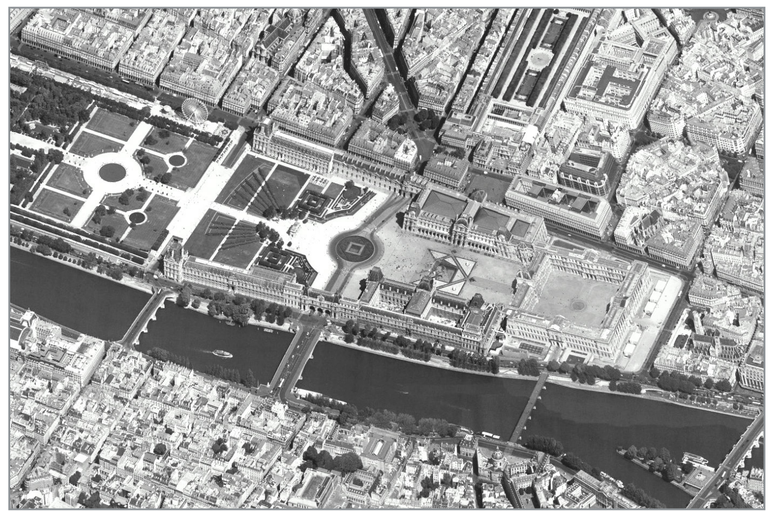
The plan of Henri IV, called *Le Grand Dessin*, served as a guide to all the next generations who engaged in the expansion and improvement of the Louvre. In 1625 King Louis XIII took over an old design of his predecessor Henri IV. This time the northern wing of the medieval part of the building was replaced. In 1639, architect Jacques Lemercier added a characteristic pavilion to the building. This was the *Pavillon de l'Horloge*, the clock pavilion. This pavilion, which contains indeed a big clock, as well as caryatids, will dominate the building and will be an example for the other pavilions. In 1660, architect Louis Le Vau (also known from the Versailles Palace) was appointed to complete this phase of the construction. Both the north and south wing were completed, just like the royal pavilion in the centre of the building. Le Vau built a new façade overlooking the Seine and the last remains of the medieval part are demolished.

At the end of the seventeenth century, King Louis XIV left for Versailles. As a result, the Louvre lost its function as a palace and the further construction of the Louvre stopped for almost a century. Louis XIV's departure provided a new purpose for the Louvre. In 1692 he commissioned an exhibition of sculptures in the building. The Louvre received two new inhabitants: *Académie des Inscriptions et Belles Lettres* en de *Académie Royale de Peinture et de Sculpture*. From 1699, major exhibitions were held in the Salon. This 'Salon' will later gain a high status in the art world. The Tuileries palace was used as a theatre (Oliver, 2007).

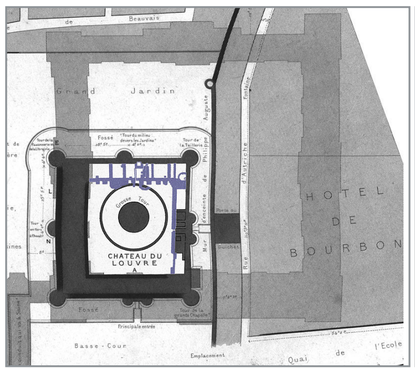
Despite a limited budget, the marquis of Marigny (appointed by Louis XIV as the Louvre manager) hired Jacques-Germain Soufflot to complete the *Cour Carrée*. In 1779, the new administrator, the Count of Angiviller, got the idea of using the Louvre as a residence for (part of) the Royal art collection (McClellan, 1994, pp. 49-90). However, his idea was not implemented because of the outbreak of the French Revolution. Although there was no king during the revolution, the Louvre was not seen as a full public property. D'Angiviller explained his idea of a museum to the new rulers who saw that the national art collection had to be protected from the devastations caused by the revolution. The idea of a national heritage began to evolve and in 1791 the Legislative Assembly decided that a **museum** should be established in the Louvre. (Alexander & Alderson, 1996, pp. 22-26; McClellan, 1994, pp. 91-123).



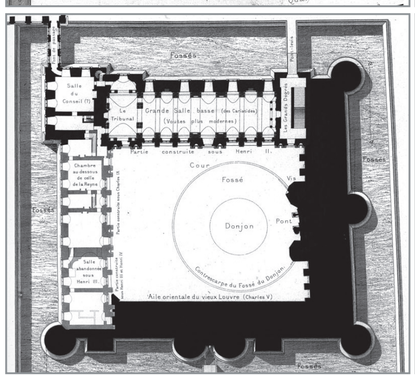
Louvre Museum Paris, Exterior View *(Matthias Kabel, 2005)*

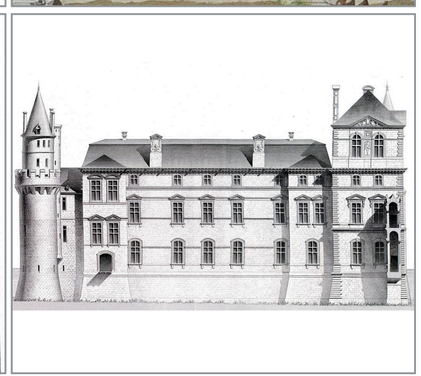


Louvre Museum Paris, Exterior View *(www.bing.com/maps, 2017)*

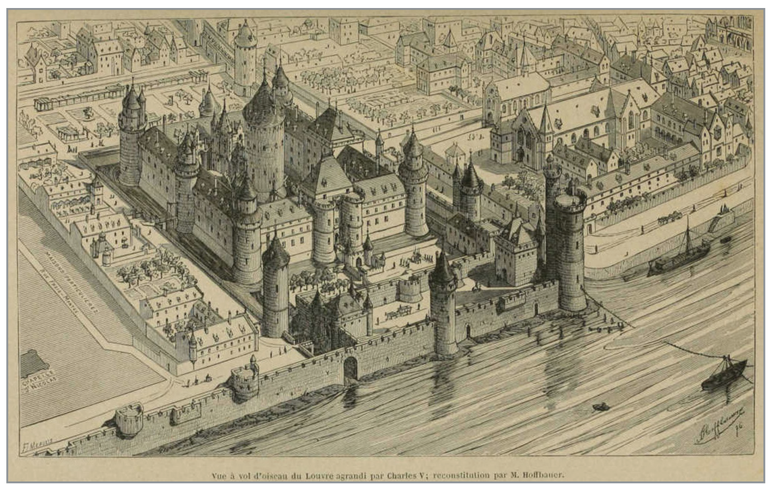




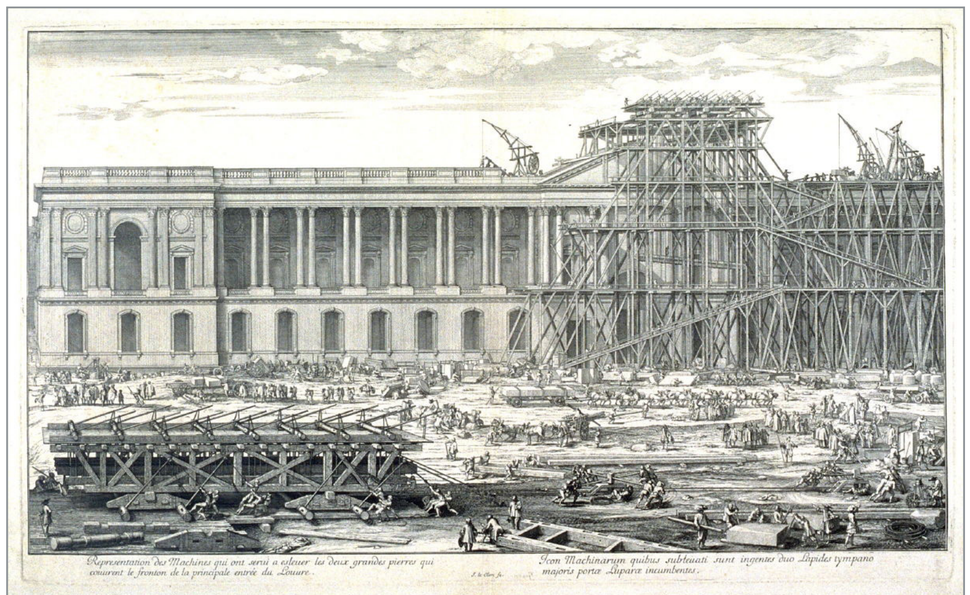




Plan of the **Medieval Louvre** and wall of Philippe Auguste around **1370** with additions made during the reign of Charles V *(Adolphe Berty, 1866)*
Charles V's Louvre in the *Très Riches Heures* of the Duc de Berry, best surviving example of French Gothic manuscript illumination, *(Unknown, ca.* **1440***)*
Ground-floor plan of the **Renaissance Louvre** around **1550** with the Lescot Wing at the top and the south wing on the left *(Adolphe Berty, 1868)*
West facade of the **Lescot Wing** c. **1560**, elevation drawing by an architect based on historical documents *(Henri Legrand, 1868)*



Bird's-eye view of the Louvre enlarged by Charles V, before **1362** *(engraving by Fedor Hoffbauer, around 1850)*



The Louvre under construction *(Sebastien Le Clerc 17th–18th century)*



From left to right (all engraved by Israël Silvestre):

West facade of the Louvre, c. 1644, showing Jacques Lemercier's northward extension of the Lescot Wing with only the ground-floor walls of the terminal pavilion, the Pavillon de Beauvais, completed.

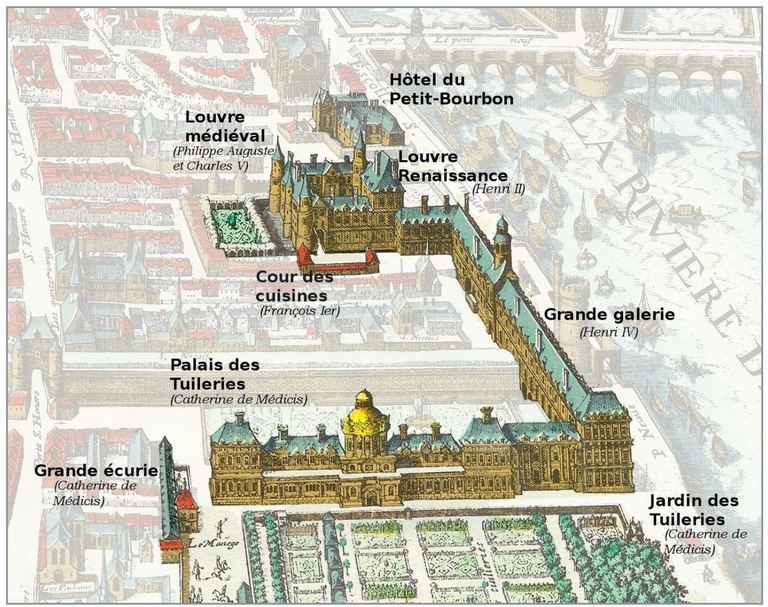
Court facade of Lemercier's wing at a later date, around 1649, showing the Pavillon de Beauvais completed and the first part of the north wing heading east.

South facade with the Pavillon du Roi on the left and the southeast tower of the old Louvre on the right, around 1650.

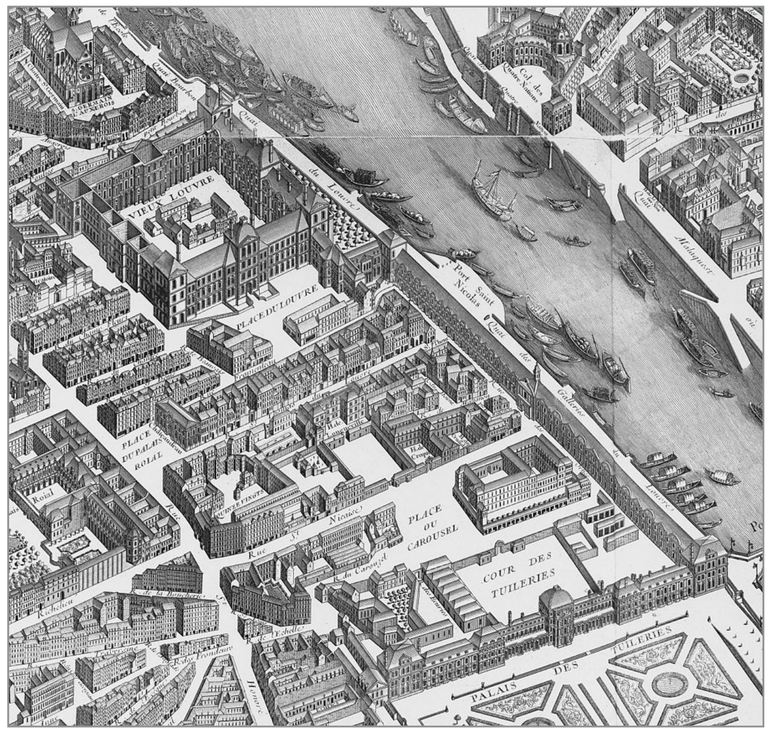
View of the Cour Carrée looking south, showing the demolition of the north wing of the old Louvre with the northeast tower still intact.

View of the Petite Galerie with the south wing on the right, engraved before 1654

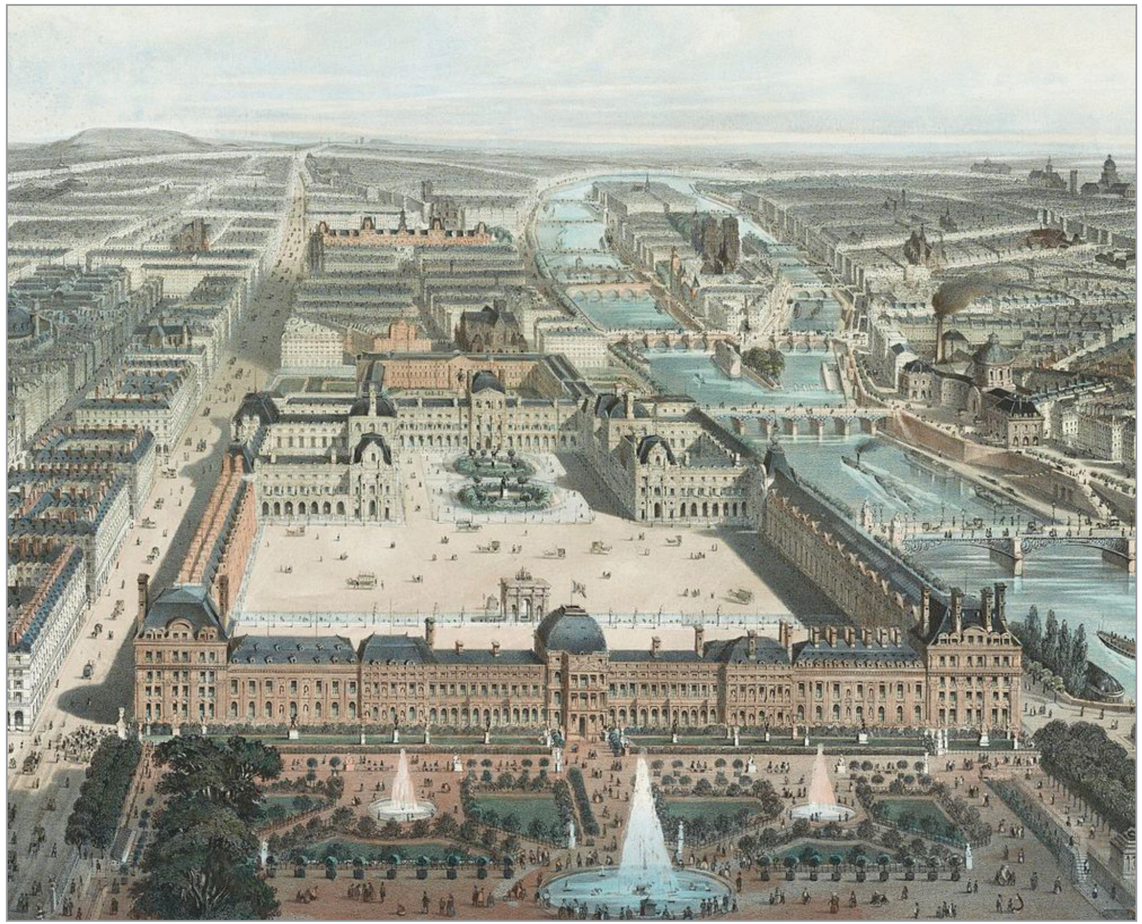
West facade of the Louvre and the new construction on the right (1661–1664) by Louis Le Vau, drawing between 1661-1690



The Tuileries Palace connected by the Grande Galerie to the Renaissance Louvre on map of Paris *(L.H. Wüthrich, Merian map 1615)*



The Louvre on the **Turgot map** of Paris, published in 1739. Louis XIV never finished putting a roof on the north and east wings or the south half to the south wing; it was finally added a century later, under Napoleon. *(Louis Bretez, cartographer Claude Lucas, engraver, 1739)*



Painting of the vast complex formed by the Tuileries Palace and the Louvre Palace - viewed from the Tuileries Gardens *(Charles Fichot, 1850)*



Palais de la Reyne Catherine de Medicis - The Tuileries Palace - from left to right:
Completely intact *(Israel Silvestre, 1600)*
Perspective view of the Tuileries and the Louvre from the Champs-Elysees - connection to the garden *(anonymous drawing, 1870)*
Storm of the Tuileries during the French Revolution *(Jacques Bertaux, 1793)*
'Un jour de revue sous l'Empire' - Military review in front of the Arc de Triomphe du Carrousel *(Hippolyte Bellangé, 1810)*
Fires in Paris *(Charles Fichot, 1871)*

Institutions & programme structures today - World's Largest Museum

On August 10, **1793**, the Louvre was opened as a museum *(Museum Central des Arts)* and is one of the oldest in the world. In subsequent decades, many things in the museum changed in both the collection and the appearance of the building. At the beginning of the 19th century, paintings from the collections of the French Aristocracy and the Royal House were shown to a large audience. The collection was expanded with pieces from the Vatican and Venice. The museum was especially a place for artists to gain inspiration. They had permission to be there all week, when the general public was only allowed on Sundays (McClellan, 1994, pp. 124-155).

At the beginning of the nineteenth century, under the leadership of Jean-François Champollion, the founder of modern Egyptology, the collection was expanded with objects of ancient Egyptian origin. In addition, paintings from medieval and renaissance art were introduced and the ceilings were painted. In the years to follow, the museum expanded further (Alexander & Alderson, 1996, p. 27).

Under Napoleon Bonaparte, the museum was named *Musée Napoléon,* although it was still not a museum in the present sense of the word. Dominique Vivant Denon, namesake of one of the wings, was the first director under Napoleon. Together with his boss, who conquered al lot of art during his battles and field tours, he made the Louvre one of the largest museums in the world. In front of the Louvre stands the *Arc de Triomphe du Carrousel,* built in honour of the victories of Napoleon. This *Arc de Triomphe* was built in the period 1806-1808 and was designed by Percier and Fontaine (Bierman, 2003).

Both Napoleon I and Napoleon III added a number of extensions to the Louvre-building, such as the entire *Richelieu wing*. Napoleon III made it possible for ordinary citizens to visit the museum on all the days of the week. This way the building became a modern museum both in collection and public access. The complex was hardly completed or the *Paris Commune* (a radical socialist and revolutionary government) destroyed the *Tuileries* in 1871. As a result, today the Louvre is no longer closed on the west-side (towards the gardens). Despite this big setback (fire), the museum continued to grow (Devêche, 1981; McClellan, 1994).

The last expansion, beyond the usual renovations in a building of this size, took place during the presidency of François Mitterrand, who was certainly not shy of major projects. In 1981, this French president decided that the Louvre had to strengthen its function as a museum. Besides adding the *Richelieu wing* to the museum (at that time used as part of the Ministry of Finance) he ordered to re-design, re-organise, and thoroughly adapt the entire museum. This project lasted from 1981 to 1999 and was led by the Chinese-American architect I.M. Pei. Pierre Bernard designed the house style in 1988. In 1989 the famous glass pyramid designed by I.M. Pei opened. This huge transparent building serves as the new entrance to the museum. In the *Carrousel du Louvre* (an underground centre with shops, galleries and parking spaces) a reversed glass pyramid is built, which is the mirror image of the main entrance gate. The pyramid ensures that daylight comes into the underground complex (Biasini, 1990; McClellan, 1994)

The 160.106 square meter museum building owns approximately 300,000 artworks, but only ten percent can be exhibited. The most important collectors of the Louvre were chronologically the kings Charles V and François I, Queen Marie de 'Medici, Cardinal Richelieu, King Louis XIV and Napoleon Bonaparte. They collected some of the most famous works of art in the museum, like the Venus of Milo, the Nike of Samothrake, the Dying Slave of Michelangelo and of course Leonardo da Vinci's Mona Lisa.

The Louvre is divided into ten curatorial departments. Although some have existed since the beginning, others were only recently created, such as the Department of Islamic Arts and the Arts Department of Africa, Asia, Oceania and America. The sections of the Louvre are grouped to origin, ranging from works of the great civilizations, antiquity to the first half of the 19th century (see the different departments on page 91). Art-works from later periods or works from other cultures are housed in other museums in Paris.

- Paintings (Western art)
- Egyptian Antiquities
- Greek, Etruscan, and Roman Antiquities
- Near Eastern Antiquities
- Sculptures
- Decorative Arts
- Islamic Art
- Arts of Africa, Asia, Oceania and America
- Prints and Drawings (Graphic art)

In addition there is also the *Pavillon de l'Horloge*, about the history of the Louvre-building itself. The paintingsdepartment is the most famous department of the Louvre and offers a comprehensive overview. Of course, paintings from French artists are best represented, but also Italian paintings from the fourteenth to the eighteenth century, and the collection of Dutch and Flemish paintings is one of the best in the world (Nave, 1998).



In 1784, Hubert Robert was appointed as the guard of the King's paintings. He also studied the development of the *Grande Gallery* between 1784 and 1792, and again between 1795 and 1802. First three paintings, clockwise *(Hubert Robert, 1796)*
Gravure of the recovered *Grande Gallery* visited by tourists and painters *(Thomas Allom, 1844)*

Institutions & Programmic Structures Today: **Museum**

- Entrace Hall & Amenities
- Prints & Drawings
- Sculptures - France
- Greek Antiquities
- Pavillon de l'Horloge
- Islamic Art
- Egyptian Antiquities
- Near Eastern Antiquities
- Sculptures - Europe
- Near Eastern/Egyptian Art
- Decorative Art
- Roman, Italic & Etruscan
- Greek/Roman Antiquities
- Paintings S-Europe
- Paintings N-Europe
- Arts of Africa/Asia/America

Former Function: **Royal Palace**

Richelieu Wing

1. Pavillon de Marsan
2. Aile de Marsan
3. Aile de Rohan
4. Pavillon de Rohan
5. Pavillon de la Bibliothèque
6. Aile en retour Turgot
7. Passage Richelieu
8. Aile de l'Oratoire
9. Pavillon Turgot
10. Aile Turgot
11. Pavillon Richelieu
12. Aile Colbert
13. Pavillon Colbert
14. Rotonde de Beauvais

Sully Wing

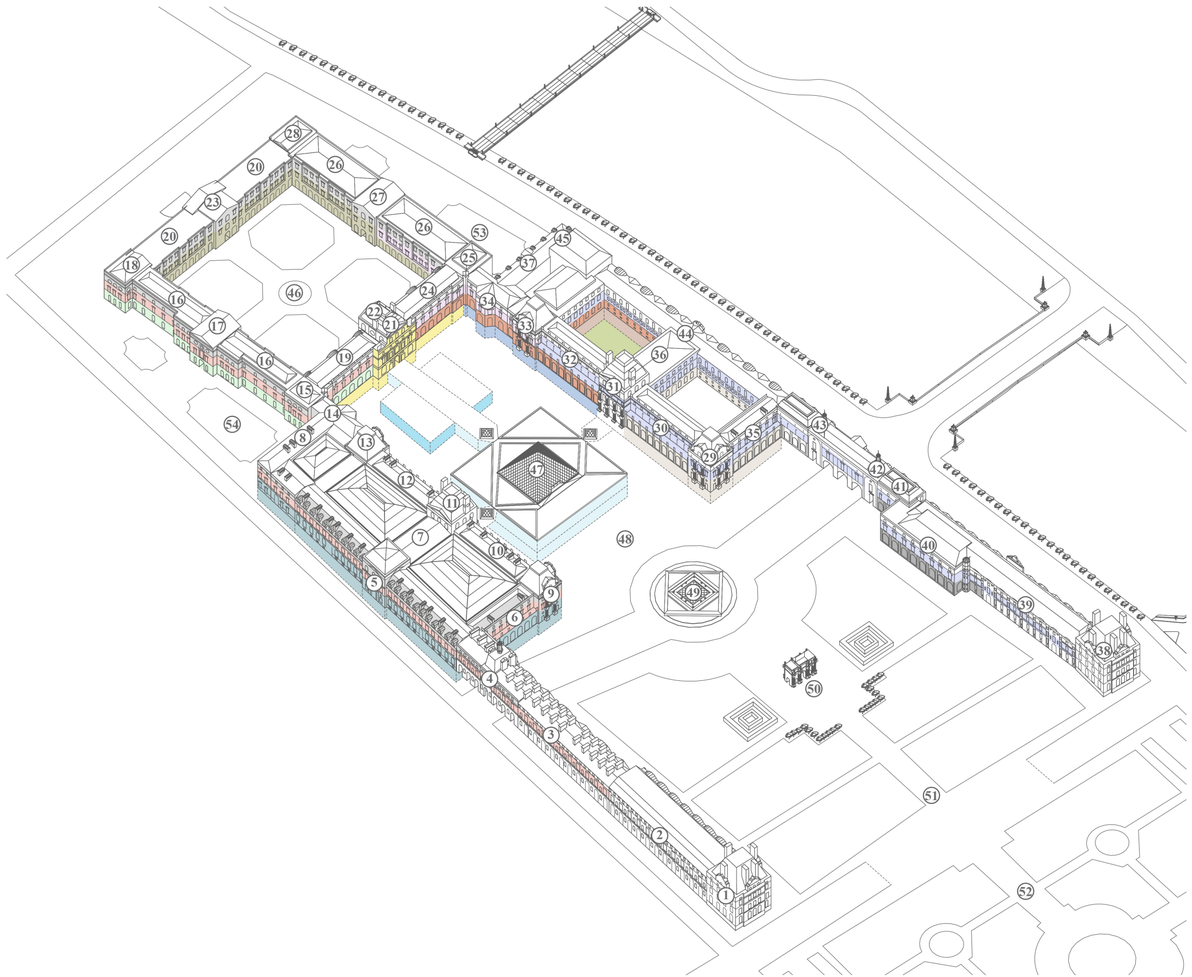
15. Pavillon de Beauvais
16. Aile Nord
17. Pavillon de Marengo
18. Pavillon Nord-est
19. Aile Lemercier
20. Aile Est
21. Pavillon Sully
22. Pavillon de l'Horloge
23. Pavillon Saint-Germain l'Auxerrois
24. Aile Lescot
25. Pavillon du Roi
26. Aile Sud
27. Pavillon des Arts
28. Pavillon Sud-est

Denon Wing

29. Pavillon Mollien
30. Aile Mollien
31. Pavillon Denon
32. Aile Daru
33. Pavillon Daru
34. Rotonde d'Apollon
35. Aile en retour Mollien
36. Aile du Manège
37. Petite Galerie
38. Pavillon de Flore
39. Aile de Flore
40. Pavillon des Sessions
41. Grande Galerie Occidentale
42. Pavillon de La Trémoille
43. Pavillon de Lesdiguières
44. Grande Galerie Orientale
45. Balcon de Charles IX

Other

46. Cour Carrée
47. Pyramide du Louvre (entrance)
48. Cour Napoléon
49. Cour du Carrousel
50. Arc de Triomphe du Carrousel
51. Former Site of Palais du Tuileries
52. Jardin du Tuileries (garden)
53. Jardin de l'Infante (garden)
54. Jardin de l'Oratoire (garden)



Louvre Paris: former functions and the institutions & programme structures today *(Sophie Kugel, 2017)*



The use of the Museumplein for outdoor performances, with in the background the Concertgebouw *(Elena Kovylina, 2015)*

*3. **Museumplein Amsterdam**: from world exhibition to museum-square*

The Museumplein is a 'square' (public space) in the Amsterdam-South borough, just south of Amsterdam-Centrum. Three major museums are located at the Museumplein: the **Rijksmuseum**, the **Van Gogh Museum** and the **Stedelijk Museum**. There is also a building with a concert hall called the **Concertgebouw.**

History & former functions - World Exhibition

The area of the later Museumplein consisted originally of **marshy meadows**, and at some point, a **wax candle factory** was built on this site. From the beginning of the nineteenth century, Amsterdam grew steadily. In the mid-century, the housing demand was so high that within the city borders there was no room for new buildings. That is why constructions began along the *Singelgracht*, which belonged to the fortifications. In 1877, while the fortress walls were demolished, the director of the Public Works Department, J. Kalff, signed an extension plan for the municipality (see map on page 151). The plan contained a ring of neighborhoods around the city centre and behind the Rijksmuseum an open wedge-shaped area between the *P.C. Hooftstraat* and the *Boerenwetering*. On this site the municipality wanted a separate plan for a luxury residential area. For a long time there was a discussion whether these luxury houses should be built or that this place should remain an open square (De-Verdwenen-Stad-Amsterdam, 2015; Ohlerich & Hendrikx, 2015).

Between 1872 and 1891, a flow of designs for the Museum grounds appeared in the press (Maar de & Oskam, 1988). See for an overview of these designs page 152-153 of this book (Chapter 2: *Position in the Urban Fabric*). The proposals were divided into two groups: plans with a large square and plans with mainly urban development. All development proposals consisted more or less in a **range-structure of streets**, like the plan signed by E. Gugel on behalf of the Mayor and City Council Members in 1891. Architect P.J.H. Cuypers and Jac. Ankersmit, former governor of Public Works, responded with a draft proposal in which they pleaded for a **large open space**. They wrote that Amsterdam had the opportunity to organize a large square to the example of other European cities without much sacrifice. Cuypers, as architect of the Rijksmuseum, also wanted to use the square for the best possible integration of the Rijksmuseum in the future city. In Cuypers' plea for a metropolitan square he mentioned mainly aesthetic and functional arguments. Following the big European cities, Amsterdam could not be left behind.

'Het oogenblik is gekomen, waarop de Raad voor altijd zal moeten beslissen, of Amsterdam in het bezit zal kunnen komen van een plein dat ook maar eenigszins in verhouding staat tot de te verwachten verder uitbreiding der Gemeente. In alle groote steden van Europa wordt er naar getracht, om, ten koste van groote opofferingen, in de nieuwe gedeelten ruime pleinen tot stand te brengen. Thans is Amsterdam in de gelegenheid een zeer ruim plein machtig te worden, zonder daarvoor zulke groote opofferingen te behoeven te doen.'
(P.J.H. Cuypers, 1891)

While the discussion continued, the first major art institutions were already built: in 1885 the Rijksmuseum took over the former fortress Amstelveen. The façade of this new museum for Dutch art is facing the Old Town. Behind the museum is the empty (later) Museumplein. In 1881 a number of individuals founded the institution *'Concertgebouw'* with the aim of establishing a music building of international allure. In 1886 the Concertgebouw was built on the *Van Baerlestraat*. In 1895 followed the Stedelijk Museum designed by architect Adriaan Willem Weissman, a museum specialized in contemporary art, with its entrance on the *Paulus Potterstraat*.

The final plan for this open square in the middle of these museums was chosen in 1902 and it was a compromise between the plans of the Mayor with City Council Members and Cuypers. They decided to make a **large, open space amidst a luxurious residential quarter.** The district got a large, diamond-shaped lawn in the middle, separated by a double row of trees and a fence from the surrounding lanes. On the site of the old wax candle factory, some large villas were created. The name **Museumplein** was officially established in **1903** (Ohlerich & Hendrikx, 2015).



Museumplein Amsterdam, Exterior View *(4en5meiamsterdam.nl, 2017)*



Museumplein Amsterdam, Exterior View, the garden of the Rijksmusuem under construction *(Siebe Swart, 2016)*



Iceskating on the Museumplein *(Unkown, Beeldbank Archief Amsterdam*

Before World War II there was always something to do at the site of the Museumplein. Until 1940, during winter times, a large part of the area was put under water and it was possible to ice-skate at the *Amsterdamsche IJsclub.* During the summer, parties were often organized. The empty museum site behind the newly established Rijksmuseum proved extremely suitable for military parades and major sporting events, but also for events like the 1883 and 1895 World Expositions (Visser, 2000).

The 1883 World Exhibition took place from May 1st to October in Amsterdam on the abandoned field behind the Rijksmuseum (which was still under construction) and that became later the Museumplein. This World Exhibition, officially called the **International Colonial and Export Exhibition** or *Exposition Universelle Coloniale et d'Exportation Générale*, was the first international colonial exhibition held to present colonial trade and wealth (Bloembergen, 2002).

The main building in "Moorish" style, designed by French architect Paul Fouquiau, was built of wood covered with plaster and painted canvas to give the impression of marble. Between the two large towers was a large Indian-style cloth with gypsum images of elephant heads and other animals. In the building, 28 countries were represented with pavilions. The World Exhibition, with more than a million visitors from around the world, gave Amsterdam a huge economic boost. The tourism that nowadays is so important for the city, was triggered by this exhibition. A number of hotels in Amsterdam were built or expanded to benefit from the many visitors (Alberdingk Thijm, 1883; Bloembergen, 2002).

In 1895 a second **World Exhibition** took place at the Museumplein, the **World Exhibition for the Hotel and Travel Business** (with the theme of tourism). The exhibition was built under the guidance of architect Evert Breman. Most of the land was confiscated by the miniature village of Old Holland. Sixteenth and seventeenth-century facades were rebuilt from the Dutch cities and villages so that visitors could travel through Holland in one day.

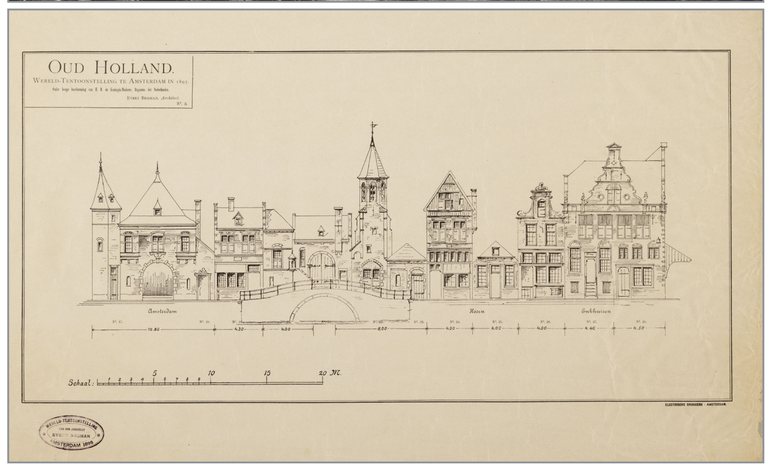
During the **Second World War**, the large open space of the later Museumplein with the Ice skating club fitted well with the needs of the occupants. The Germans held major political gatherings and built several bunkers in the field for defense. After liberation, Amsterdam was left with a devastated square. This situation worsened when immediately after the war the bunkers were removed. The Museumplein changed into a sandy plain (Gemeente-Amsterdam, 2017; Ohlerich & Hendrikx, 2015).





The World Exhibiton with the main building on the Museumplein, where 28 countries were represented with pavilions *(J.C. Greive, 1883)*
International Colonial and Export Trade Exhibition on the Museumplein with on the left the Colonial Building *(Unknown, 1883)*





The World Exhibiton for the Hotel and Travel Business, with the recreated cityscape of Old Holland *(E. Breeman, 1895)*



Museumplein with bunkers,, looking north-east towards the Rijksmuseum *(P. Spijkers, 1949)*
Demolition of bunkers on the former grounds of the Ice Skating Club, in the background the Concertgebouw *(Stadsarchief Amsterdam, 1953)*
The abandoned Museumplein after the war and demolition of bunkers, seen in the southeastern direction *(Archief Dienst Ruimtelijke Ordening)*

In 1947, **Cornelis van Eesteren**, Head of Urban Planning at the City Development Department, together with Landscape Architect **Hans Warnau** made a new design for the Museumplein. The municipality and Van Eesteren were open for discussion with this far-reaching plan and reorganization. The main purpose of the municipality was to strengthen the **cultural significance** of the Museumplein (Wagenaar, 2013).

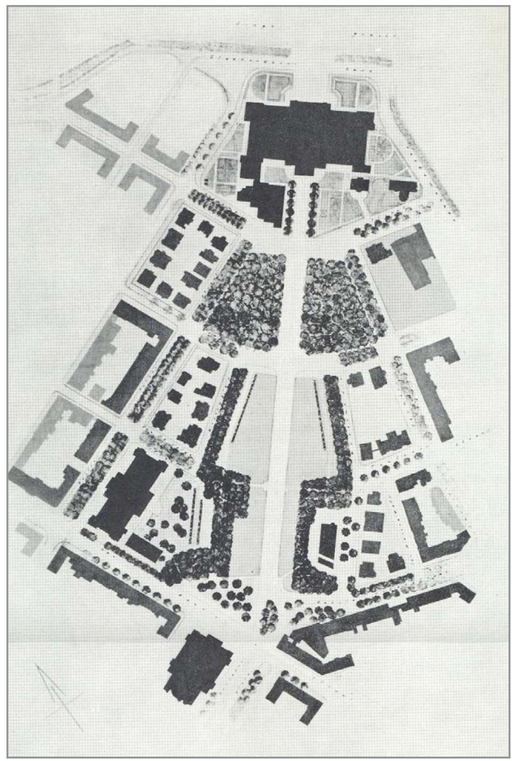
The 20 meter wide road that ran across the square was the most striking element of the plan. With the addition of this **wide central road** across the square, Van Eesteren thought about the function and significance of the square in relation to the inner city and the surrounding. In his opinion, and in view of the rapidly increasing traffic, the city had to get a direct connection to the surrounding region. The addition of this wide central road across the square, in line with the *Rijksmuseum Passage*, could accomplish this. The implementation of this plan began in 1953 and the cobbled street in the middle of the Museumplein was soon called *'the shortest highway in the Netherlands'* (Ohlerich & Hendrikx, 2015).

The changes at the Museumplein mainly concerned the layout of public space. The framework of the Museumplein did not really change. The structure of streets and buildings of the early twentieth century remained largely the same. Eventually, some buildings were demolished to make place for new constructions, such as the expansion of the Stedelijk Museum on the *Van Baerlestraat*. In the early 1970's the construction of the Van Gogh Museum began. The main building was designed by the Dutch architect Gerrit Rietveld in 1963-1964, commissioned by the State of the Netherlands (*Rijksgebouwendienst*). After Rietveld's death in 1964, his sketch design was elaborated by his companions Joan van Dillen and J. van Tricht (De-Verdwenen-Stad-Amsterdam, 2015; Van-Gogh-Museum).

In 1954, the Stedelijk Museum got an expansion-wing for exhibitions with experimental art. This *'Sandbergvleugel'* was demolished in 2006 to make place for the new expansion of the museum. In the late 1950s, a garden of the Stedelijk Museum was built next to this wing, designed by landscape architect Warnau. Where currently the 'bathtub' is situated, was once a real museum garden. It was a garden in clean lines, influenced by *the Stijl,* matching the modern time that had arrived (Stedelijk-Museum).
KLM built a temporary bus station southeast of the square. For almost thirty years, next to the departure point of the buses to the airport Schiphol, there was a also al little KLM building. With the opening of the Schiphollijn in 1981 this building was demolished. The middle road with the bus stops existed until the renovation and refurbishment of the square in 1999.

Another major change was the traffic situation west of the square. In 1958 the tram disappeared from the *P.C. Hooftstraat*. In 1988 the tram returned, running from the *Hobbemastraat* to the *Paulus Potterstraat* after protests against the municipality's plan to use the *Rijksmuseum Passage* for this tram.

The adjacent *Concertgebouwplein* got an important role in the flow of traffic towards the highway in the direction of The Hague. A road with a railway line in the idle was built, that ran diagonally across the Concertgebouwplein. During a major renovation from 1985 to 1988, a new main entrance was built on the side of the Concertgebouw (on the Concertgebouwplein side) with a modern glass foyer, designed by Pi de Bruijn (Concertgebouw; Ohlerich & Hendrikx, 2015).



Design for redevelopment of the Museumplein made by C. van Eesteren and H. Warnau. The most eye-catching element was the 20 meter wide road that ran across the square and linked *de Lairessestraat* with the Rijksmuseum. First phase of desgin. *(Van der Werf, 2014)*




TAXI
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Institutions & programme structures today - Museum-Square

Over the decades, citizens of Amsterdam and touriststs have used the Museumplein with the grasslands to recreate, to rest from their cultural events and as a gathering place. In addition to the usual daily functions, the Museumplein remained extremely suitable as a location for large-scale events and manifestations, whether they were cultural, political or sportive. Examples of this are demonstrations, *'uitmarkten'*, the celebration of Kings/Queens-day, and inaugurations. At those moments the highway on the Museumplein was temporarily closed (Visser, 2000).

The debate on the Museumplein in the 80s and 90s was about the question whether an urban museum-square or -park had to be realized that did justice to the status of a cultural center. Initiatives were developed from different angles. Car traffic had to be reduced and the parking pressure reduced. The Concertgebouw should be more explicitly involved in the redesign. Due to the complex task there was a preference for a foreign designer, because every Dutch architect or designer already dealt with the square. The district wanted a large public space with a green character, and therefore they chose for the landscape architect Sven-Ingvar Andersson. His work for the *Karlsplatz* in Vienna was an important reason to select Andersson. This square in Vienna and the Museumplein, are both surrounded by cultural institutions with one dominant building. They are both located at the old border of the city centre, surrounded by 19th century urban expansions. Stefan Gall was chosen as urban architect (Maar de & Oskam, 1988; Ohlerich & Hendrikx, 2015).

In his design for the Museumplein, Andersson made a strong connection with its history and structure. Andersson noticed the very densely populated district and decided that a large open space was desirable. The typical Dutch skies in the paintings of the Dutch Masters were his inspiration. Andersson wanted to make the Museumplein a place where you can experience the dramatic Dutch clouds. The square is an open, green space detached from the surrounding buildings, without harsh boundaries. The presence of sight lines was maintained, leaving a clear view of the iconic buildings from the square.

With the layout of his design, Andersson anchored the square in the neighborhood and wanted to involve the Rijksmuseum and the *Rijksmuseum Passage* (Huisman, 2013). From a square that was partly paved with trees, the Museumplein turned into a large lawn with a pond near the Rijksmuseum. Around this pond is a gravel surface, flanked by terraces and a museum shop. In the winter, the pond can be transformed into an artificial ice skatingarea. A path behind Van Gogh Museum and the Stedelijk Museum emphasized the urban west side, the group of trees in front of the villas accentuated the quiet east side. On the north side the design is symmetrical, on the south side he emphasized the asymmetry in the design of the Museumplein.

The pavement pattern consists of alternating strips of hard blue rock and vowels. It runs across the front of the Rijksmuseum, via the museum-path to the north side of the *Van Baerlestraat* and the *Concertgebouwplein*. With this he created a relationship between the front of the Rijksmuseum and the rest of the Museumplein.

In 1999, Andersson's plan was implemented for a little over roughly 9 million euros. That is not much money for such a large project. This limited budget is a major reason that essential elements of the plan were not (or partially) implemented. For example, Andersson's proposal for the square in front of the Rijksmuseum was not realized. Originally, the sight-line (visible with light in the ground) should have been made of water with two fountains on the sides. One on the north-west field and the other on the *Concertgebouwplein* (Ohlerich & Hendrikx, 2015).

Since the refurbishment of the square in 1999, the square has no longer a traffic function, except for a few cycling paths. The traffic is directed around the square, the car entrance of the underground carpark is situated at the *Van Baerlestraat* and bus traffic in the *Paulus Potterstraat* and the *Hobbemastraat*. Characteristic of the square is the *'ezelsoor'*, (donkeyear) a sloping piece of grass including the entrance to the parking garage and the entrance to the underground supermarket. New cycling- and footpaths were made around the square; the *Rijksmuseum Passage* with the cycling path was maintained (Huisman, 2013). Due to the postponement of the refurbishment of the *Concertgebouwplein*, this area became a mixture of functions that could not be accommodated elsewhere (for example taxi stations) (Ohlerich & Hendrikx, 2015).

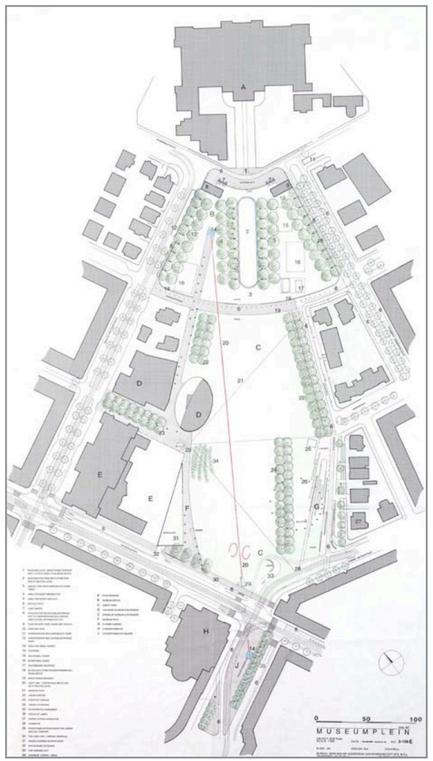
Meanwhile, two cultural institutions prepared for an expansion. Through a donation, the Van Gogh Museum could open a new exhibition wing in 1999, designed by Kisho Kurokawa (Kloos & Van Heeswijk, 2015). This process went much slower at the Stedelijk Museum. Several foreign architects made designs, but it took until 2005 before a Dutch plan of Benthem Crouwel Architects was chosen. In 2012 this construction was completed (Benthem & Crouwel, 2009; Ibelings, 2012).

Around the square are many distinctive buildings with (semi) public functions. In addition to the museums, there are also several city villas in the style of the early twentieth century. The following buildings are clearly visible and prominent elements of the Museumplein:

- Rijksmuseum - North side - Overview of Dutch art and history
- Stedelijk Museum - West side - Modern and Contemporary art and design
- Van Gogh Museum - West side - Vincent Van Gogh's largest collection of works
- Concertgebouw - South side – Building with concert halls, home of the Royal Concertgebouw orchestra

In 2008, plans were launched to re-design the Museumplein. The four cultural institutions together are the number one attraction in the Netherlands. The municipality of Amsterdam believed that the square missed the 'metropolitan character' that the largest inner-city square in the Netherlands should have. They stated that there should be **entrances** of all the four museums and the Concertgebouw on the **Museumplein side** (Gemeente-Amsterdam, 2017). After renovations and extensions were finished in 2012, 2013 and 2015, the main entrances of the Rijksmuseum, the Stedelijk Museum and the Van Gogh Museum were moved to the Museumplein (side). At the Van Gogh Museum, the new main entrance was relocated in Kisho Kurokawa's oval building (Kloos & Van Heeswijk, 2015). The main entrance of the Stedelijk Museum is a bathtub-like construction on the square-side with a glass lobby on the groundfloor including a restaurant and café that are also open after closing time of the museum (Stedelijk-Museum). After the renovation of the Rijksmuseum, the gardens of the Rijksmuseum became publicly accessible and connected the museum to the square (Wagenaar, 2013).

The Museumplein has a hybrid character: it's too green for a square and too open to be called a park. It distinguishes itself in scale: larger than the typical urban squares in Paris, Venice and London, smaller than most cultural-quarters (Ohlerich & Hendrikx, 2015).



Final Design Museumplein *(I.S. Andersson, 1995)*



Final Design Museumplein *(KLM Carto, 2017)*

Institutions & Programme Structures Today: **Museum-square**

- Rijksmuseum
- Rijks library
- Conservators Office Rijksmuseum
- Rijks Teekenschool (educational)
- Philipsvleugel Rijksmuseum
- Asian pavilion Rijksmuseum
- Concertgebouw
- Stedelijk Museum
- Entrance / Expansion Stedelijk
- Van Gogh Museum
- Entrance / Expansion Van Gogh
- Modern Contemporary (Moco) Museum

- Museum shop & museumcafé
- Ice skating and Sports area
- Entrances Underground Parking and Supermarket (‘ezelsoor’)
- 19th Century ‘Villas’:
  Embassies & Companies
  former Boerhaave Kliniek
  Stichting Vincent van Gogh
  Ateliergebouw Rijksmuseum

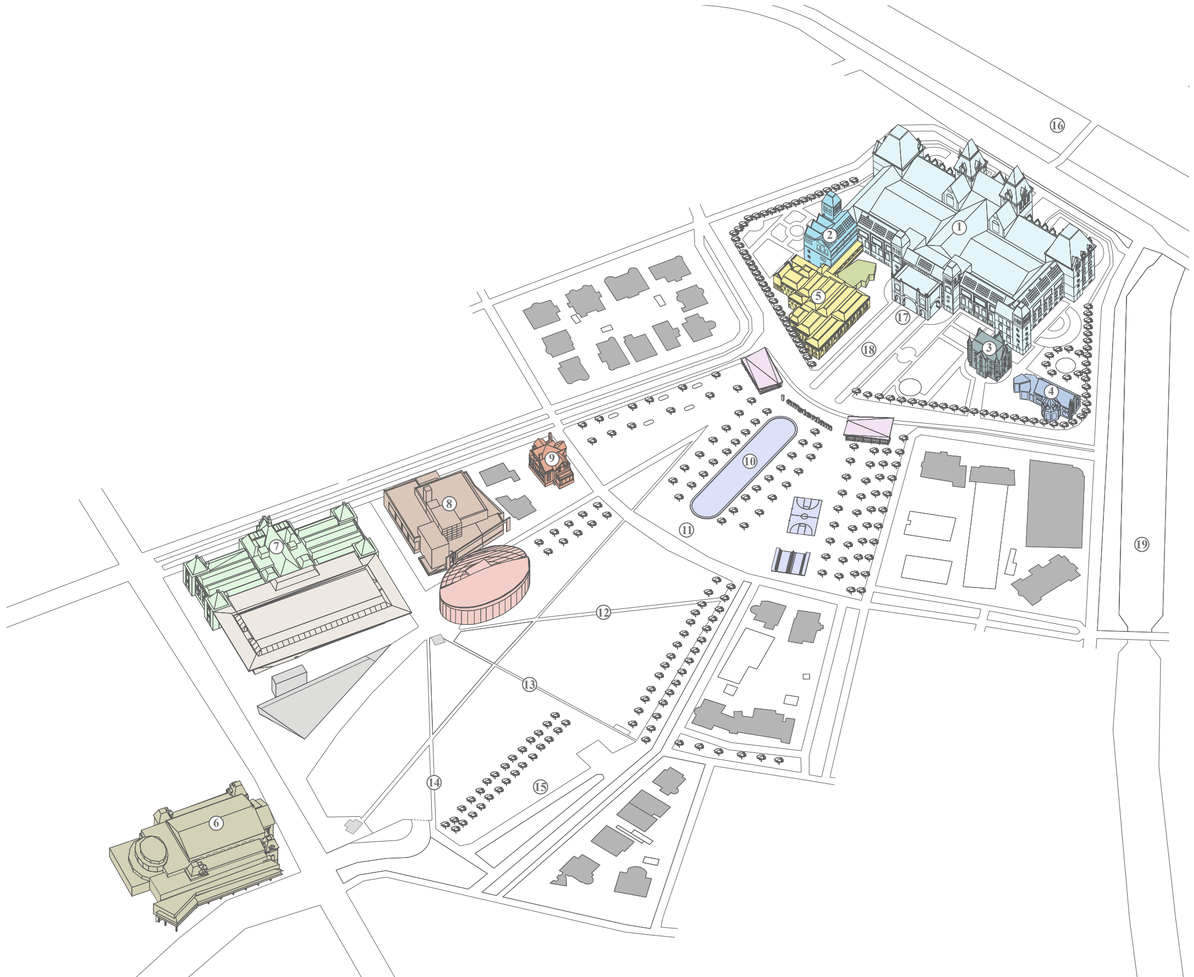
Former Function: **World Exhibitions**

Museums:

1. Cuypers Rijksmuseum
2. Cuypersbibliotheek (library)
3. Director residence
4. Rijksnormaalschool voor Teekenonderwijzers (training school)
5. Druckeruitbouw (expansion)
6. Koninklijk Concertgebouw
7. Stedelijk museum (Suasso-museum)
8. Rijks Van Gogh Museum
9. Villa Alsberg (Eduard Cuypers)

Other:

10. Amsterdamsche IJsclub (ice rink)
11. **World Exhibitions 1883 & 1895**
12. Shortest highway in the Netherlands
13. Bunkers WWII
14. Major (sporting/political) events
15. KLM building and buses Schiphol
16. Singel (old city boundary)
17. Passage Rijksmuseum
18. Garden Rijksmuseum (’Oud Hollandse stijl’, showroom for art)
19. Boerenwetering



Museumplein Amsterdam: former functions and the institutions & programme structures today *(Sophie Kugel, 2017)*



Several impressions as you walk through the Museumpark in Rotterdam, *(oma.eu/projects, 1994; tripadvisor, 2016)*

***4. Museumpark Rotterdam**: from family-estate to museum-park*

The Museumpark is a park with museums in Rotterdam, located between the *Rochussenstraat*, the *Westersingel*, the *Westzeedijk* and the Erasmus MC (hospital) complex. The Museumpark is so-called because of its proximity to a large number of Rotterdam's famous museums: **Museum Boijmans Van Beuningen**, **Het Nieuwe Instituut**, **Villa Sonneveld**, the **Kunsthal**, the **Natuurhistorisch Museum** and the **Chabot museum**. The urban park in the middle is one of Rotterdam's most popular outdoor spaces (Mouwen, De Keijzer, & Vollaard, 2016).

History & former functions - Family-Estate

The Museumpark is located at the former seventeenth century estate of the family van Hoboken in Rotterdam. This **Land van Hoboken** was a property owned by the Van Hoboken ship-owner-family (*redersfamilie*) from the 17th century until 1924. Before this area became their land, it consisted of a **polder area with meadows**.
The Van Hoboken estate was situated between the *Nieuwe Binnenweg*, the *Westersingel*, the *Westzeedijk* and the *Coolhaven*. The area covered 56 hectares and was therefore a lot bigger than the area covered by the Museumpark nowadays (De Boer & United Architects, 2009).

Anthony van Hoboken (1756 - 1850) was one of the largest Dutch shipowners. When the VOC went bankrupt in 1799, Anthony van Hoboken took over a large part of Dutch shipping, especially to Dutch-India (*Nederlands-Indië*). This made him and his family rich (Oosterwijk, 1996).
In the middle of the 19th century the family Van Hoboken built a new outdoor residence along the *Westzeedijk*. Commisioned by the family, architect Johan Frederik Metzelaar designed this residential **Villa Dijkzigt** in 1849-1852. During this time in the nineteenth century, architect Metzelaar played an important role in the debate on the renewal of architecture by means of new building materials, techniques and styles (Floor, 2003). The villa was named after the view of the *Westzeedijk* ('west sea dike'). The design is in neoclassic style with eclectic elements. The building walls and the facades are masonry with crown moldings. On the left side of the original entrance is an octagonal tower with an cantilevered arch frieze (*boogfries*). An old drawing from 1858 shows that this entrance was located on the side of the *Westzeedijk*, and it used to be a lot smaller and narrower than it is today. The original staircase has been preserved, but the rest of the original layout of the house is not entirely clear, partly due to the various renovations (Natuurhistorisch Museum, 2017).

Around this villa there was a landscape park designed by J.D. Zocher Jr. He later also designed *Het Park* in Rotterdam (a park on the other side – south side – of the *Westzeedijk*). The landscape around the estate of Hoboken had a lake, ponds, sweeps of gently rolling lawns set against groves of trees, a deer camp, and a vegetable garden. The landscape style Zocher used in his design was based on the principles of the **English landscape garden** (Smit & Van Beekum, 2016).

Like mentioned before, the total estate consisted of 56 hectares of which 51 hectares consisted of a polder area with meadows. Next to Villa Dijkzigt there was a farm on the estate that was also designed by Metzelaar. For a long time, these were the only buildings in the further empty meadow area. Later the family added a coach house, a second villa (Villa Dijk- and Veldzigt) and a country house named *Huize Lommerlust* (Floor, 2016). The images on page 156-157 of this book (Chapter 2: *Position in the Urban Fabric*) show what the Land van Hoboken looked like when it was in the possession of the shipping the Hoboken-family.

The last resident of Villa Dijkzigt was the musicologist Anthony van Hoboken, offspring of the ship-owner Anthony van Hoboken. After his death, the municipality bought the estate in 1924. They wanted to create a new city district with a villa-park under the direction of city architect Witteveen.



Museumpark Rotterdam, Exterior View *(aerophotostock.com, 2017)*



Aerial photos Museumpark Rotterdam, *(Siebe Swarts, 2012 - 2015)*





Eastern part of the land of the Land Van Hoboken around 1915, seen towards Westersingel-Westzeedijk
(Collectie Gemeentearchief Rotterdam, Lecture United Architects, Historisch Genootschap Roterodamum 2009)





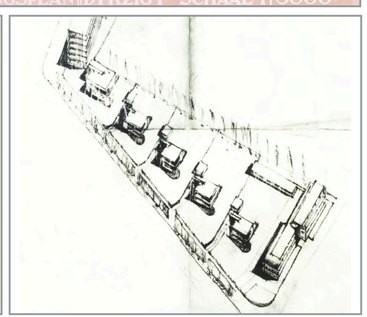




Painting Villa Dijkzigt *(J.L Terwen, 1858-1862).* Photo Villa Dijkzigt (Villa van Hoboken) *(Gemeentearchief Rotterdam, around 1900)*
Sign announcing an exhibition Volksuniversiteit Rotterdam *(W van der Randen, 1938).* Photo Natuurhistorisch Museum *(Landgoedenbuitenplaats.nl, 2012)*







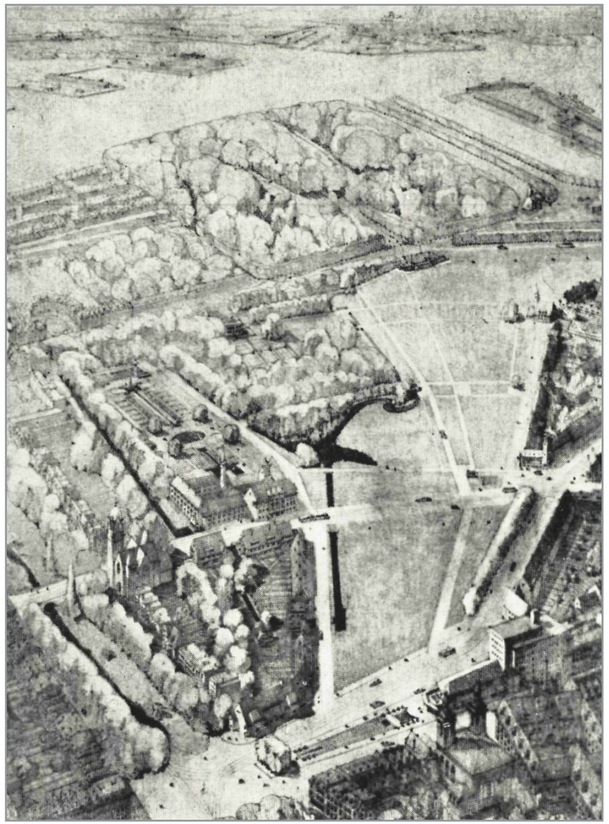
Expansion plan Dijkzigt (above) *(Witteveen, 1927)*
Plan and sketch by L.C. van der Vlugt: the villa-park Dijkzigt on the edge of the land Van Hoboken (below) *(Collection NAi, 1931)*

The Land of Hoboken was purchased by the municipality of Rotterdam in 1924 to maintain a significant part of it as a parkland. In 1927 a large part of the ground of the area was incremented (raised). As a consequence, part of the buildings of the former Land of Hoboken have been lost, like the Hoboken *Koetshuis*, Villa Veldzigt, the Hoboken Farm and *Huize Lommerlust*. Villa Dijkzigt (the former family house) has been preserved (De Boer & United Architects, 2009). Urban architect Witteveen made in 1927 an urban plan for the area, with housing construction north of the *Rochussenstraat*, and offices, museums and a park south of it. In addition, on the south side of the pond a monument was built for Gerrit de Jongh, former director of Gemeentewerken Rotterdam. This plan of Witteveen was named **plan-Dijkzigt** (Het Nederlands Architectuur Instituut, 2011; Mens, 2007).

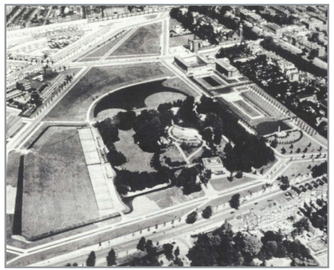
In the archives of *Het Nieuwe Instituut* there is also a plan for this area that is (partly) not implemented. Architect Van der Vlugt made a modern urban design for the Land of Hoboken in 1925, at the same time as he designed the Van Nelle Factory. In the western part of this plan he sketched a residential area, with row housing and open blocks (Het Nederlands Architectuur Instituut, 2011). Later, he would also design the - well-executed - villa-park, entirely in the style of the **Nieuwe Zakelijkheid** (*het Nieuwe Bouwen*). This can be translated as New Objectivity or New Pragmatism. It is a Dutch period of modernist architecture that started in the 1920s and continued into the 1930s. The *Nieuwe Zakelijkheid* is characterized by angular shapes and designs that are generally free of ornamentation and decoration. The architecture is based on functional considerations (Van der Voordt & Wegen, 2005, p. 56).

Witteveen's plan that was chosen for the former estate of Hoboken was a (city)park surrounded by homes, offices and museums. Within this plan, architect Van der Vlugt designed the **Villapark Dijkzigt**, where *Huis Sonneveld* (1929-1933) is part of. With its largely white-colored houses with steel frames and large balconies, Villapark Dijkzigt was the most modern residential area of Rotterdam. The small villa-park was an initiative of the municipality of Rotterdam to stop wealthy citizens from leaving the city that were looking for outdoor life in the vicinity of Wassenaar and The Hague. In the late twenties of the 20th century it was very chic to live outside of the city in a more rural area (Huis Sonneveld, 2017). Rotterdam has several important examples of functionalism, but the most famous residential houses are these white villas in the Museumpark, former homes of the board members of the Van Nelle Factory. The Land of Hoboken was an open landscape with mostly grassland; a green oasis in the middle of the city. Due to the tranquility and a rural atmosphere, it was an ideal setting for these villa's (Adriaansz & Feenstra, 2001).

The first, most northern in the row of modern villas on this strip of land that was reserved for the small villa-park, is the Sonneveld house. Family Sonneveld built their new house on the edge of the Hoboken estate. **Huis Sonneveld** is one of the best-preserved houses in the style of *Het Nieuwe Bouwen*. The detached villa from 1933 was designed by architects Brinkman and Van der Vlugt, commissioned by Albertus Sonneveld, one of the directors of the Van Nelle Factory. The architects designed a total concept in which architecture, interior and decoration are meticulously matched and reinforce each other (Huis Sonneveld, 2017). The house is bright and spacious, with many balconies and large windows that overlook the greenery of the surrounding garden. Almost all furniture and lamps in the house are from the furniture company Gispen, sometimes made especially for the Sonnevelds (Adriaansz, 2001; Broekhoven et al., 2004). This villa is now a museum-villa and part of the New Institute (*Het Nieuwe Instituut*).
The other similar houses in the villa-park, including the villa for H.J. Boevé, Museumpark 9 (1931-'34), were also designed by Brinkman and Van der Vlugt (Molenaar, 2012). *Huis Boevé* was a house for a pediatric surgeon with a practice area. Nowadays it is used as an office.
The Kraaijeveld Villa was built in 1938 at the Museumpark 11. This villa was designed by architect Gerrit Willem Baas, a former employee of Brinkman and Van der Vlugt, and Leonard Stokla, a former office chief of Kromhout. Since 1993 this villa has served as the **Chabot Museum**. The Chabot Museum is a museum dedicated to the Dutch painter and sculptor Hendrik Chabot (Het Chabot Museum, 2017).
All villas are now national monuments (national heritage site). Characteristic of all villas are the bright spaces, the openness to the garden and the unique view of the surroundings of the Museumpark. The gardens form a green oasis in the center of the city, where the special Rotterdam architecture from the period of the New Objectivity can be



Plan Dijkzigt by Witteveen. Bird perspective at 750 meter and seen to the south *(Witteveen, 1927)*







Plan Dijkzigt by Witteveen, 1937 (above) and seen with the open air theater in 1936 (mid) and 1940 (below) *(United Architects, Historisch Genootschap Roterodamum 2009, tijdschrift Groot Rotterdam Stadsarchief Rotterdam, 2017)*

Institutions & programme structures today - Museum-Park

The urban design of Witteveen was the beginning of the current Museumpark. In his plan he reserved a spot for a museum, and here the new **Museum Boijmans** was built between 1928 and 1935.

The Museum Boijmans existed since 1849, with a collection donated by F.J.O. Boijmans. It was originally located in the *Schielandshuis* (more in the centre of Rotterdam), but this property became too small. It was decided to build a new museum for this collection in the newly designed Museumpark by Witteveen. Urban architect Adrianus van der Steur was appointed as the most suitable person for this assignment. During the Interbellum he had a big influence on the architecture of Rotterdam. He considers Museum Boijmans his most important work. At that time there was a rivalry between the innovative modernists and the conservative traditionalists, and Van der Steur took a position between both camps. He was inspired by different styles and chose a suitable variant for every job (Gielen, 2016). The new Boijmans Museum became a light building with natural light that counterbalances the heavy spiritual effort of a museum visit (Boijmans van Beuningen, 2017).

In the rapidly expanding Rotterdam of the early 20th century, the Land of Hoboken was gradually built on. Nevertheless, a part of it, what is now the Museumpark, remained an oasis of calm; a meadow in the middle of the city. In 1935, after the completion of the Museum Boijmans, it became a real city-park and divided into an ornamental garden, a playground with a pond, a lawn and an open-air theater. (Witteveen, 1927).

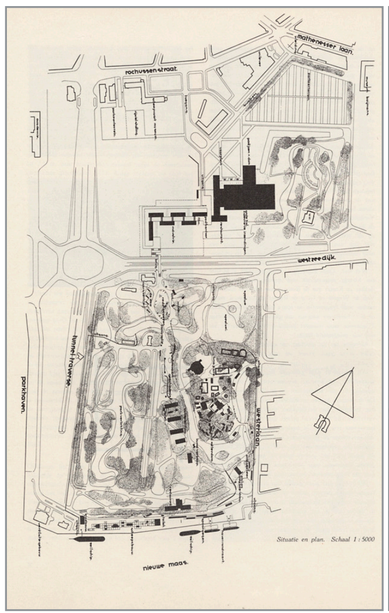
From 1928 to 1984, Villa Dijkzigt (the only remaining original building of the Hoboken family) housed the **Rotterdam Volksuniversiteit**. This public university constructed in the 30s an expansion for a cinema (*filmvleugel*).

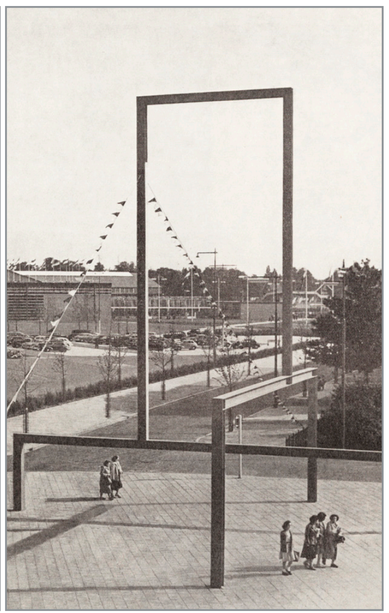
Shortly after the start of the World War II, the 19th century building was occupied by the Germans. It was used to house propagandist organizations such as the *Kreisleitung Rotterdam*, the *Arbeitsbereich Niederlande* of the *NSDAP*, the *Deutsche Arbeitsfront Rotterdam* and the *Nationalsozialistische Frauenschaft*. In 1941, a temporary exhibition of the *Reichsarbeitsdienst* opened (museumrotterdam.nl, 1988).

Due to the completion of the reconstruction of the port of Rotterdam after the war, in 1950 the exhibition **'Rotterdam Ahoy!'** was held on the former Land of Hoboken. This happened on the largely empty area where now the hospital Erasmus Medical Centre is situated. With this exhibition, the reconstruction (*wederopbouw*) of the city was celebrated. It was a mega-manifestation: *'Rotterdam Ahoy'* attracted one and a half million visitors. Architects Van den Broek and Bakema were supervisors and the main designers of the exhibitions. The exhibition buildings spread out from *Het Park* (south of the Museumpark) via an air bridge over the *Westzeedijk* to the former Land of Hoboken. The emergence of *'Rotterdam Ahoy'* exemplifies how Rotterdam acted after the war (*'handen uit de mouwen*: all hands on deck!'). Unique is the special way architects collaborated with artists; in a perfectly equivalent manner. Architects Gerrit Rietveld, Herman Haan, Rein Fledderus, Romke de Vries, and Aldo van Eyck and artists Karel Appel, Constant Nieuwenhuys, Wim Crouwel, and Dolf Henkes signed for the architecture of the buildings and for the design of the exhibitions. With these temporary events, Rotterdam put itself back on the map as an exhibition-city. These events were also used to survey citizens' opinion about the form and content of new urban developments (Het Nederlands Architectuur Instituut, 2011).

The temporarily hall for this exhibition was soon called the *Ahoy Hal* and used until the '60 for various manifestations. Later this convention centre and arena moved a bit further out of the city center, but still goes under the name *Rotterdam Ahoy*.

At the end of the 1950s, the Ahoy Hall made place for the construction of a hospital. The *Dijkzigtziekenhuis* opened in 1960 and derives its name from the Van Hoboken family-owned villa. Since 2002, the name of the hospital has changed to Erasmus MC. Today, about three quarters of the area is seized by this hospital (Erasmus MC, 2016).



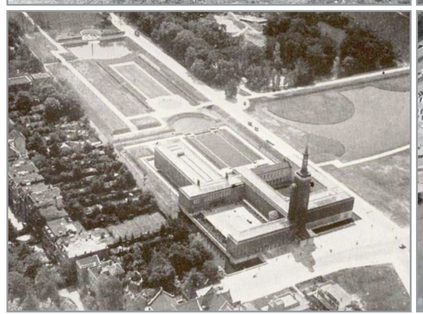


Van den Broek and Bakema: design for exhibition AHOY *(*Collectie NAI*, 1950)*
Entrance of AHOY with the red, steel sculpture of architect A. van Eyck *(J.A. Vrijhoff, 1950)*



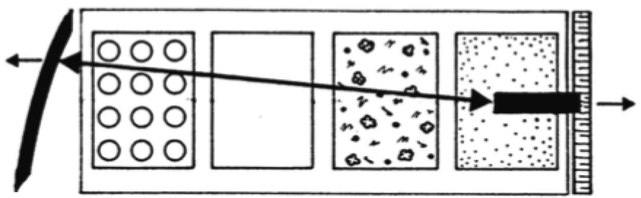


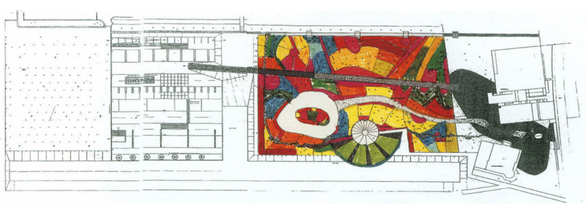






Land of Hoboken, with Huis Sonneveld, Museum Boijmans van Beuningen and the old Unilever building *(Aviodrome Aerial photography, 1938)*
The garden behind the Museum Boijmans after the construction of plan Dijkzigt by Witteveen *(Stadsarchief Rotterdam, 1936)*
Museum Boijmans just after the opening (2x) *(Boijmans.nl, 1935)*
Museum Boymans van Beuningen airphoto 1971 *(J.A. Vrijhoff, 1950)*





Orchard Event-Area (Podium) Romantic Garden Kunsthal (Museum-Area)



Het Vernieuwde Museumpark by OMA *(oma/projects.nl, 1993)*

The new Boijmans Museum was a success, and plans were made for an expansion in the 40s. The lack of space was particularly noticeable when in 1958 the extensive collection of shipping magnate D. G. van Beuningen was added to the collection of F.J.O. Boijmans. That was such a milestone that the name of the museum was changed to the **Museum Boijmans Van Beuningen**. Especially for presenting modern art - often in large format - the small cabinets were problematic. Flexibility and transparency were the criteria for the expansion made by architect Alexander Bodon. This Bodon Wing (*Bodonvleugel*) was ready in 1972 (Claassen, 2016).

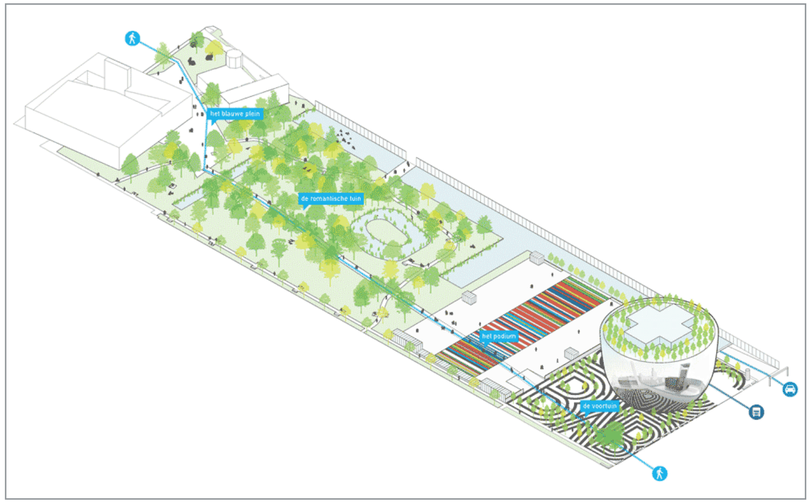
In the early 80's, the Boijmans Van Beuningen Museum borrowed the large collection of Van Beuningen-de Vriese, that contains various items from the period 1150-1800. Later, the museum was allowed to keep this collection as a donation, under the condition that a beautiful location would be found for it. In response to this, architect Hubert Jan Henket designed a pavilion on the garden-side of the Van der Steur building in close collaboration with director Wim Crouwel. They chose for a large transparent construction -pavilion- above a half sunken basement. This construction with lots of windows had a beautiful view of the garden and pond. Today, on the top floor the museum-restaurant is situated while in the sunken part the collection of Van Beuningen-de Vriese has a permanent place (Boijmans van Beuningen, 2017).

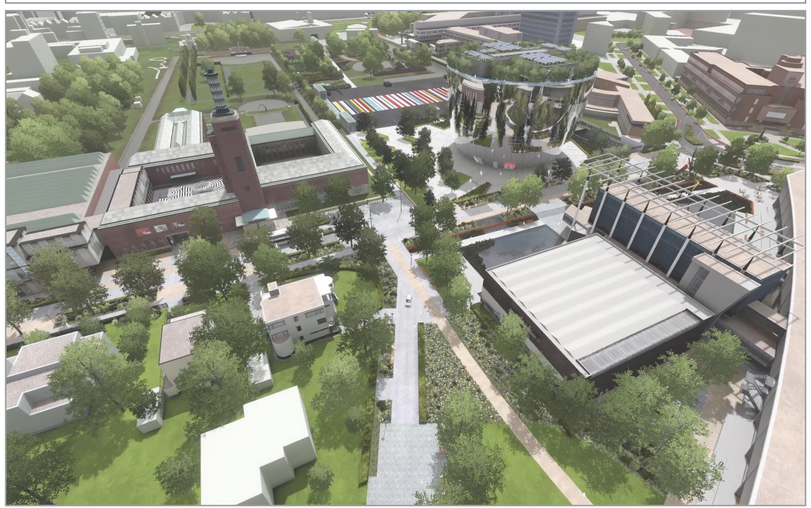
The former Villa Dijkzigt is designated as a national monument in 1973. After the departure of the *Volksuniversiteit* in 1984, the property and the surrounding park from the Van Hoboken family fell into disarray. Only a small pond and two old cypresses next to the villa remained from the former landscape-style garden. Since 1987, the **Natuurhistorisch Museum Rotterdam** has been located in Villa Dijkzigt. In 1990 the building was converted; the roof was slightly raised to realize a second floor with a depot. The attached film hall from the 1930's, in front of the museum, was replaced in 1992 by a glass pavilion. The design for this was made by Erick van Egeraat of the architectural firm Mecanoo (Van Egeraat, 1996).

The reason for this thorough renovation was that at the same time three other cultural public institutions opened their doors in the Museumpark. With the completion of the *Kunsthal* in 1992, the *Nederlandse Architectuur Instituut* (NAI, Dutch Architecture Institute) and the Chabot Museum in 1993, the museum-function of the area was strengthened.

The **Kunsthal** has 3300 m² of exhibition space in a striking modern building, designed by architect Rem Koolhaas. The building looks like a large, flat, square box, with a narrow high tower as vertical accent. All facades are different. With its location between the *Westzeedijk* and the Museumpark, the Kunsthal, next to an exhibition space, is also a traffic junction. A sloping ramp runs through the building and bridges the different in height of six meters, also for passengers that do not enter (Koolhaas & Schwartz, 1995).

At the same time as the Kunsthal, Koolhaas designed the newly renovated Museumpark (**het Vernieuwde Museumpark**, 1985-1993) in collaboration with Petra Blaisse and the young deceased French landscape architect Yves Brunier. Between the Kunsthal and the Boijmans van Beuningen is a classic symmetrical garden, with a pond and at the end a the monument dedicated to G.J. de Jongh, director of the Rotterdam Municipal Service from 1879 till 1910 (the 'Port Builder and City Developer' of the *Maasstad*). This **rose garden** was originally designed by Witteveen. The rest of the park was designed in a scenic way and contained an open-air theater. During the construction of the Kunsthal, the park, next to this rose-garden, was refurbished in four zones: a **museum-area** with the Kunsthal and the Natuurhistorisch Museum, a **romantic garden** (partly a remnant of the Hoboken's old garden), an elevated black asphalt **event-area** and an **orchard** (*voorhof/boomgaard*) with apple trees planted in a regular pattern with whitewashed tribes and white shells on the ground. The museum-area and the romantic garden with monumental bridge functioned well, but the rest of the park suffered from vandalism and neglect. During the construction of the underground parking garage this part of the park had many financial and technical problems. The Museumpark with its garden connects the Kunsthal and the Natuurhistorisch Museum with the NAI (Groenendijk & Vollaard, 2000, p. 150; Worpole, 2000)





Future Depot Boijmans van Beuningen placed in the existing Museumpark *(MVRDV, 2016)*

The **Nederlands Architectuur Instituut** (NAI, Dutch Architecture Institute), currently called **Het Nieuwe Instituut** (NI, The New Institute) opened in 1993 on the north side of the old Land of Hoboken. In his design for the (at that time called) NAI, architect Jo Coenen housed the various functions of the institute in different building-parts. The NAI had formulated three core tasks to create a program of requirements for the building. Collecting, managing and making the archives and collections accessible - including a library -, studying this material and follow current developments, and the dissemination of this knowledge in the form of exhibitions, publications and events. Coenen designed a separate building-part for each of these tasks, adding a fourth building-part intended for public functions, with a café, bookstore and auditorium. The archive is housed in an elongated, slightly curve 200 meters long building. The exhibition space is a square closed box of brown-purple brick. The core of the building is a high glass building, where the study hall and the offices are located. Under the main building is a flat box containing the public spaces. The building components are positioned to secure and reinforce the main directions and sight lines of the Museumpark. The archive building follows the curve of the *Rochussenstraat*, forming the boundary of the Museumpark (Brouwers & Linders, 1998).

In 2003, the Boijmans Van Beuningen Museum was again transformed. The goal was to become a museum of the 21st century, where the visitor and its art experience is the most important element of the museum. Director Chris Dercon wanted to make the museum more accessible and connect it with the city. He chose the Belgian architects Paul Robbrecht and Hilde Daem to partially redevelop and expand the museum. Robbrecht and Daem built a U-shape of concrete and glass around Bodon's building. Due to this renovation, De Bodon wing and the Van der Steur building were connected and became more like one unit. The museum has now three 'courtyards': the inner courtyard, the inner garden, and the grand open spaces of the Bodon Wing (Boijmans van Beuningen, 2017).

After the (much delayed) opening of the parking garage in 2010 this area could finally be redeveloped. Paul de Ruiter Architects came up with this underground parking garage that can accommodate up to 1.150 cars and at the same time functions as water storage with a capacity of 10.000 m3 (De Ruiter, 2013).
They also gave the site on top of the parking garage (that connects the museums with the Erasmus MC) a makeover. In 2013, they opened a pavilion, designed as the connection between the lower and upper ground. This transparent **Museumpark Paviljoen** is an important junction of pedestrian traffic at different levels. The pavilion bridges the connection between the 4.5 meter higher backbone of the Erasmus MC, the traverse and the exit of the parking garage. Seen from the Museumpark, the glass pavilion is the closing piece of the transparent traverse. Paul de Ruiter Architects also designed the bridge that connects the pavilion with the Erasmus MC and the Museumpark (De Architect, 2013).

Anno 2017, the Museumpark is part of the so-called *Kunst-as* and it includes these six museums (soon to be seven) located in a short distance from each other:

- Het Nieuwe Instituut - arts institute for exhibitions, lectures & research on contemporary architecture&design
- Villa Sonneveld - home noted for its modernist architecture
- Museum Boijmans Van Beuningen – art museum
- Chabot Museum - museum about the painter and sculptor Hendrik Chabot
- Kunsthal – museum with a wide range of temporary exhibitions
- Natuurhistorisch Museum Rotterdam - natural history museum
- Depot Boijmans Van Beuningen – art-depot open for the public (under construction, will open in 2020)

Nowadays, every year for one week, a so-called *Pleinbioscoop* takes place on the event-area above the parking garage in the Museumpark (open-air cinema). This is partly a reference to the open-air theater that was situated in the park for a long time. In addition, every year, theater-festival *De Parade* takes place with theater and dance performances.

The collection of Boijmans Van Beuningen currently owns around 145,000 objects, the largest part is stored in the museum depot underground and at some external locations. The existing depots are outdated and overloaded. This causes many logistical problems and a lot of artworks remains unseen by the public.
For these reasons, in 2005, the first plans were made to create a new depot next to the Boijmans Van Beuningen Museum in the Museumpark. This will be the first depot in the world that will be open to the public. The Depot will become the new 'treasure room' of Rotterdam, and a striking piece of architecture; a 'giant reflective flowerpot'. The existing building of Museum Boijmans Van Beuningen consists of three parts with their own function and character. By 2020, the **Depot Boijmans Van Beuningen** will open its doors with an open art-depot, exhibition rooms and a Grand Café (Boijmans van Beuningen, 2017).

Institutions & Programmic Structures Today: **Museum-park**

- Museum Boijmans van Beuningen (BvB)
- Bodon Wing *(Bodonvleugel)* BvB
- Pavilion Van Beuningen-de Vriese BvB
- U-shape concrete & glass BvB
- Collection building BvB (Depot)
- Het Nieuwe Instituut (NI)
- Archives NI
- Villapark Dijkzigt
- Villa Sonneveld (Museum)
- Chabot Museum
- Kunsthal
- Natuurhistorisch Museum (NHM)
- Annexe/Expansion Mecanoo (NHM)
- Monument Gerrit de Jong
- Erasmus MC
- Entrances Underground Parking & Water-storage, Transparent crossing/traverse
- Museum Pavilion (connection to Erasmus MC)
- Greek Church
- 17th-century fence of the former farm Muyden

Former Function: **Family-Estate**

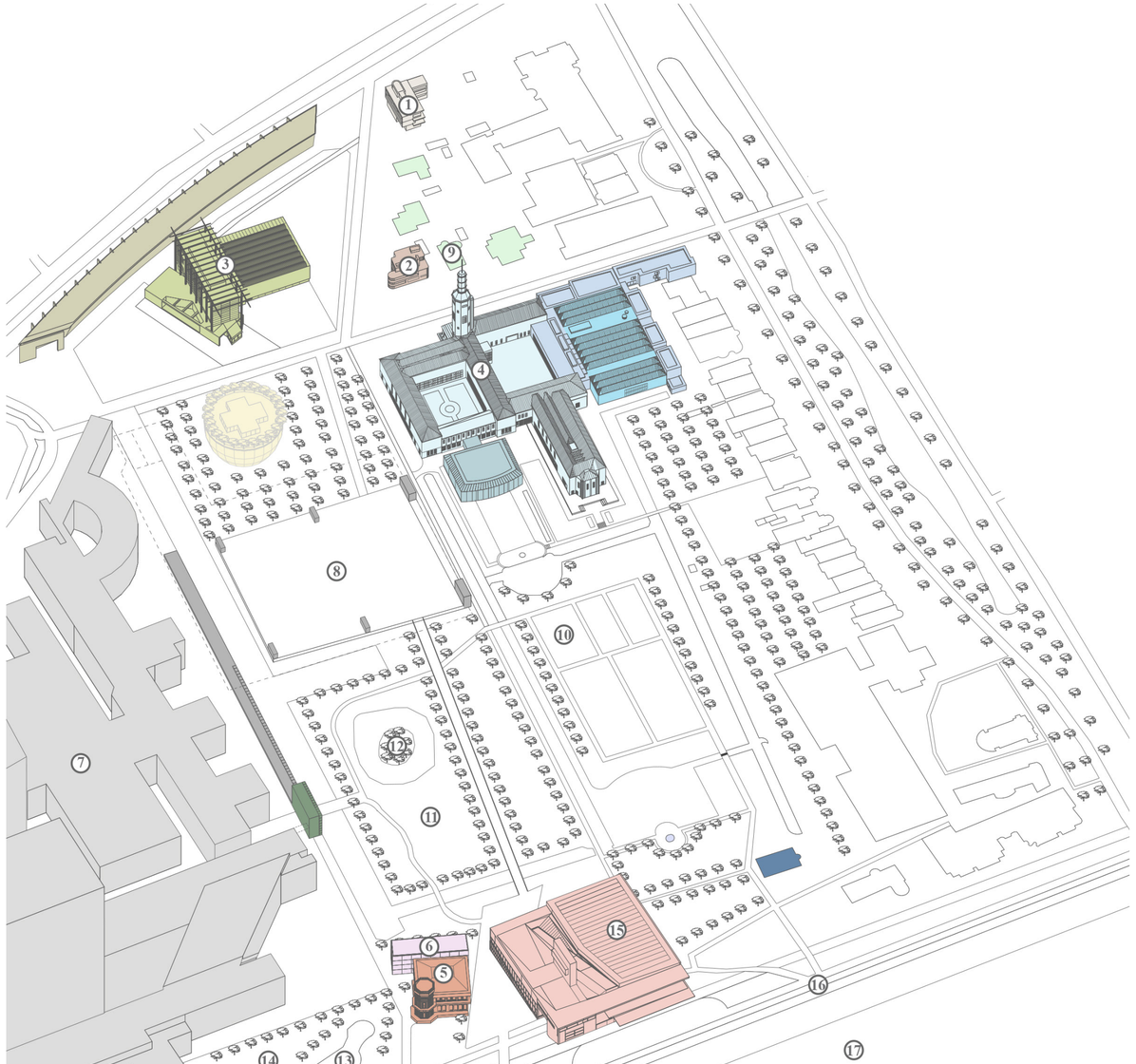
Museums:

1. Villa Sonneveld (family-residence)
2. Villa Kraaijeveld (family-residence)
3. Nederlands Architectuur Instituut (NAI)
4. Museum Boijmans (Van der Steur-building)
5. **Villa Dijkzigt** (17th c.-1924)
   + Volksuniversiteit (1928-1984)
   + NSDAP-building (1940-1945)
6. Exhibitions wing university (*filmvleugel*)
7. Rotterdam AHOY (manifestation, 1950-1960)
   Dijkzigtziekenhuis (hospital, 1960-2002)
8. **Het Vernieuwde Museumpark** (OMA, 1993)
   • museum-area
   • romantic garden
   • event-area
   • orchard

Other:

9. Villa Boevé (family residence & office)
10. Ornamental garden / Rose garden (Witteveen)
11. **Landscape garden Hobok**
12. Open-air theater
13. Pond (remnant of the old English landscape garden Van Hoboken)
14. Farm of Hoboken
15. Huize Lommerlust (’country house’)
16. Westzeedijk (formerly Schielansche Hooge Zeedijk)
17. Het Park

Museumpark Rotterdam: former functions and the institutions & programme structures today *(Sophie Kugel, 2017)*

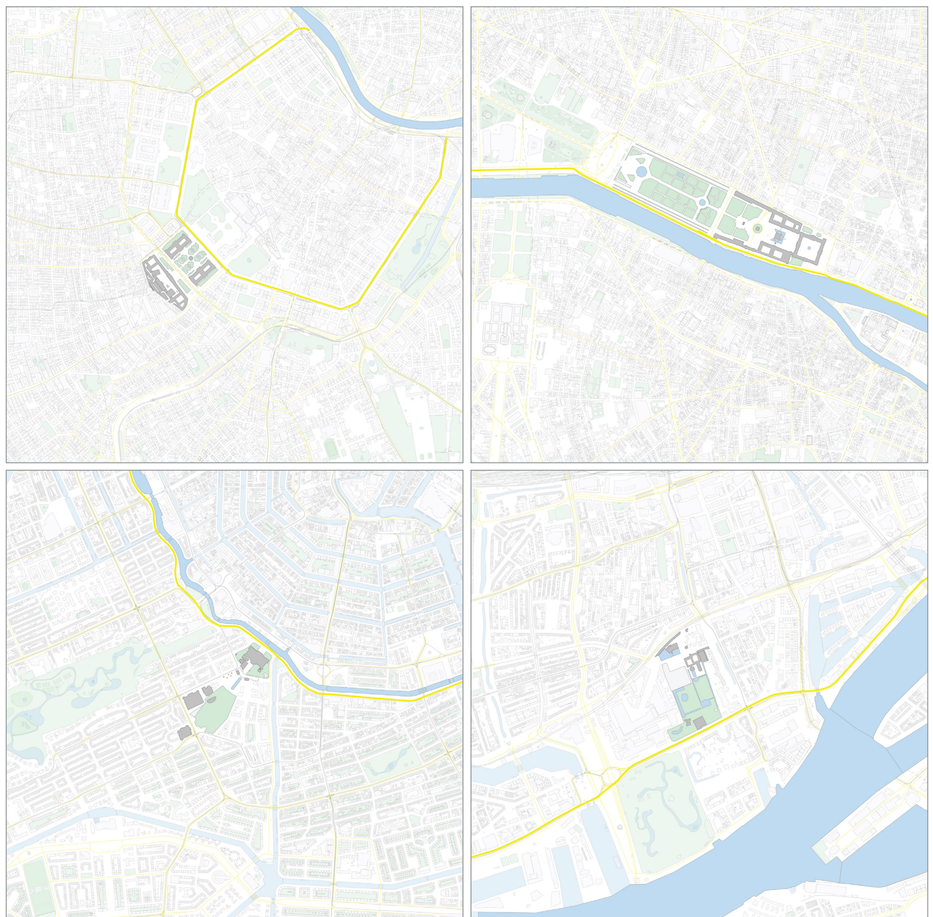




Four typologies of **museum-parks** and their locations: Museumsquartier in Vienna, Louvre in Paris, Museumplein in Amsterdam and the Museumpark in Rotterdam *(Sophie Kugel, 2017)*

2. POSITION IN THE URBAN FABRIC

Location in the city



The locations of the Museum-parks: Museumsquartier Vienna, Louvre Paris, Museumplein Amsterdam and Museumpark Rotterdam. **SCALE 1:25.000** *(Sophie Kugel, 2017)*

Museumsquartier Vienna

The Museumsquartier in Vienna is located along the ring around the historic urban fabric. The *Ringstraße* is the circular boulevard around the center, built between 1857 and 1865 (on the location of the old city wall). Surrounded by numerous imposing buildings: the Ringstraße-style. The two major museums between the rings (the *Naturhistorische*s museum and the *Kunsthistorisches* museum) are part of the city. In line with this, on the second ring, is an enclosed complex. Originally these were the Royal Court Stables, built on the border with the historic city.

Louvre Paris

The Louvre was built north of the Seine, in a zone parallel to this river. It is located in the center of Paris, in the 1st arrondissement.

Museumplein Amsterdam

The Rijksmuseum with the Museumplein, like many other iconic buildings, is located along the old city border, also called the *Singelgracht*, in line with the museum bridge.

Museumpark Rotterdam

The Museumpark in Rotteram is situated between the *Westzeedijk* (a historic dike) and the *Rochussenstraat*, and next to the *Westersingel* (the old city border) and the Erasmus MC complex. It is located on the former estate of the Hoboken family, who lived in the villa that now houses the Natural History Museum Rotterdam (built along this dike).

In order to understand the location in the city, the urban history is often of great importance. This can explain why and how a museum-park is situated in the urban fabric. With the information that is collected in this chapter the following sub-questions will be answered:

- How are the museum-parks embedded/rooted in the urban fabric?
- What is the relationship between the park and the city?
- What is the role of the park in the relation ship between the city and the museum (cluster)?

Urban developments from the past show how museum parks or green spaces (sometimes) located on the outskirts of cities are enclosed in the urban area. The removal of the city walls and their conversion to the current inner city green ‘singels’ and promenades, or the transformation of private palace gardens into public parks, are examples of this. Change of function, changes in technology, growing prosperity, and political developments are parameters that are regarded as influencing factors. These factors influence the spatial design of the public spaces and the transitions between park and city, so that a change of a single factor has spatial consequences for the entire area.
In this chapter, the history of the location of the museum-park in the city will be investigated. The urban morphology, axes and sightlines, and the way the museum park is situated in the area will be compared. All four parks have been created and grown in a different way, but will also have a number of similarities.

On the page on the left is highlighted how the different museum-parks are situated in the city*. A certain aspect has been highlighted for each of them. In the following chapter these different aspects and locations of the museum-parks and their history will be explained further.

Location in the City



Museumsquartier Vienna **SCALE 1:15.000**, *(Sophie Kugel, 2016)*

At the old city border - Ringstraße Vienna

The Museumsquartier is located along the *Ringstraße*. The Ringstraße is a circular boulevard around the city center of Vienna, built between 1857 and 1865. It was built on the site of the old city wall from the 13th century, that had lost its function by the progress of military technology. The road is surrounded by many imposing buildings, including some of the most famous of Vienna. All buildings were built in an eclectic historicist style, sometimes called *Ringstraßenstil* ('ring road style'), using elements of Classical, Gothic, Renaissance, and Baroque architecture. They were designed partly under the direction of city architect Otto Wagner. The Ringstraße was an imperial project, and an imperial building commission was established for its construction. Together with the planned buildings it had to symbolize the glory of the Habsburg Empire (Fogarassy, Schoeller, & Faber, 2014).

During the first plans for the Ringstraße, there were also plans for a central museum for the Hapsburg-collections. In 1864 it was decided that two buildings should be built opposite of the Hofburg: the *Kunsthistorisches Museum* and the *Naturhistorisches Museum*. The **Hofburg** is the former imperial palace in the centre of Vienna. This Winter Palace has been the seat of power of the Habsburg dynasty rulers and the principal imperial winter residence. Today it is the official residence and workplace of the President of Austria (Karner et al., 2008, p. 159)

The Ringstraße was officially opened on 1 May 1865, while only a few of the buildings had been completed along this old city border. The Ringstraße did not acquire its grand, monumental character until the 1870's, when the **Kaiserforum** (imperial forum) took shape on the outer side of the Ringstraße. This architectural project had to become the highlight of the ring-road project in Vienna. It involved the expansion of the Hofburg on one side of the Ringstraße and the connection to the two new museums on the other side of the Ringstraße (Gottfried, 2001).

Gottfried Semper designed this general plan of the Kaiserforum for the entire area from the Hofburg to the *Hofstallungen* (today's Museumsquartier). His designs were informed by symmetrical urban planning in ancient Rome. Semper envisaged making the huge area between the oldest section of the Hofburg in Vienna and Fischer von Erlach's Royal Stables part of a vast palace complex. His design was a grand imperial forum flanked by two great semi-circular wings enclosing the Heldenplatz and reaching out towards the two museums. Grand archways would span the Ringstraße creating a physical connection between the buildings and continuing the visual unity of the project. A new *Festsaal* and throne room would look out onto the new Kaiserforum. Viewed from the stables, a *cour d'honneur* in the French manner would thus have led to the domed *Festsaaltrakt* (Pippal, 2001, pp. 143-144).

Only a small part of this ideal design by Semper was built. The twin museums were indeed built across the Ringstraße according to designs by Carl Hasenauer and were finished in 1891. After this the construction began on the southern wing of the two flanking arms of the expanded palace. In 1913 the constructions stopped on the order of the emperor. While the southern wing, now known as the *Neue Berg*, was completed in 1913, work on its northern complement never started. No one quite knew what to do with the Neue Berg anyhow, as it was not built for any function but for mere aesthetic purposes. Today, the new Hofburg houses the Ephesus Museum, the Museum of Ethnology, most of the Austrian National Library, the Arms & Armoury Collection, and the Musical Instrument Collection (Cusack, 2013).

The historic square on the Hofburg side is called *Heldenplatz* and the green park between the two museums is called *Maria-Theresien-Platz*. In the direction of the Ringstraße, the Heldenplatz is bordered by a wide triumphal gate, known as *Äußere Burgtor* and *Heldentor*.

The Kunsthistorisches Museum and the Naturhistorisches Museum on the Ringstraße do not directly connect to the inner world of the enclosed Museumsquartier, as they are situated on the other side of the street. However, they do 'belong together' in the field of culture and urban development of the 19th century. These two major museums connect the enclosed part of the Museumsquartier, via axes and sight lines, with the Kaiserforum and rest of the city center.

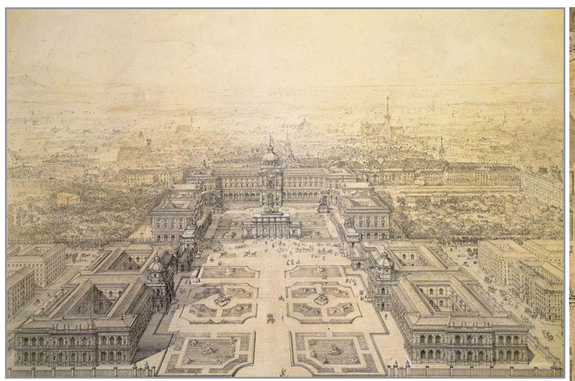


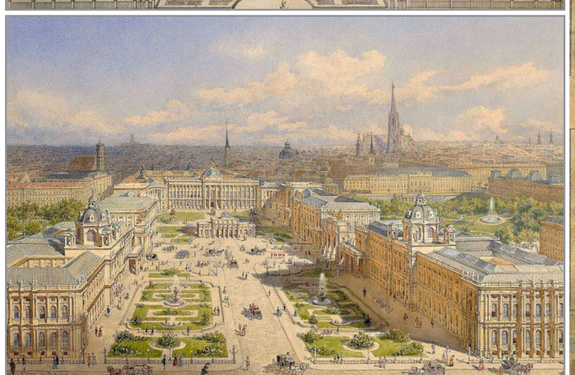
Map of Vienna before the Ringstraße was built *(J & C Walker Sailp, 1858)*

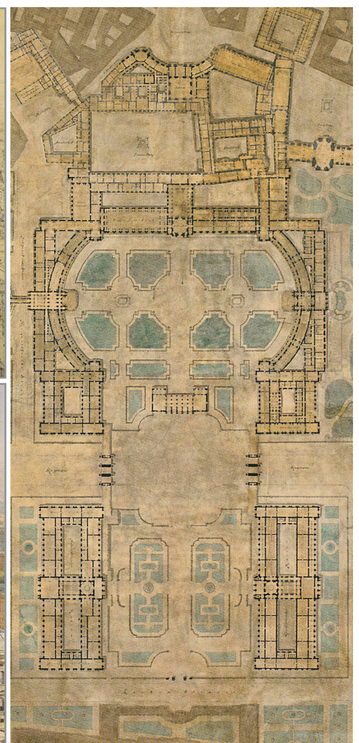




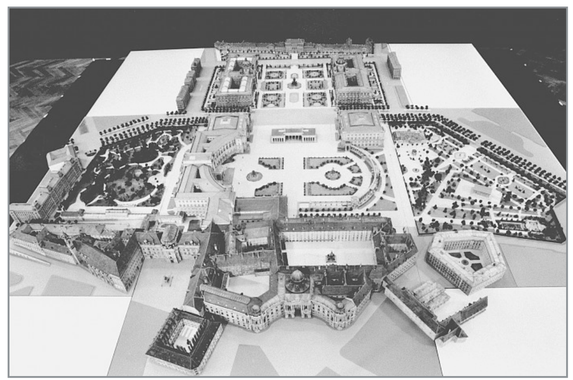
Map of Vienna before the city expansion *(J & C Walker Sailp, 1843)*
The plan for the Ringstraße in Vienna: the new development did not stitch the historic city center with the surrounding suburbs as much as permanently separate them. Rather than a series of urban spaces and connections it was essentially a linear void that circumnavigated the historic city (*Otto Wagner, 1860*)







The Kaiserforum. The unrealised vision of an Imperial Forum for Vienna *(Gottfried Semper and Carl Hasenauer, 1869)* (above and right)
The old and new Burgplatz in Vienna with the Imperial Forum project *(Franz Alt, 1873)*





Model of the Hofburg complex including the Kunsthistorisches Museum, the Natural History Museum and the former Court Stables. The glory that was Rome – Franz Joseph's dream of an Imperial Forum *(Habsburger.net)*
The Museumsquartier And Hofburg Palace today *(Xavier Durán, 2013)*

Location in the City



Louvre Paris **SCALE 1:15.000**, *(Sophie Kugel, 2016)*

Along the river Seine - Axe Historique Paris

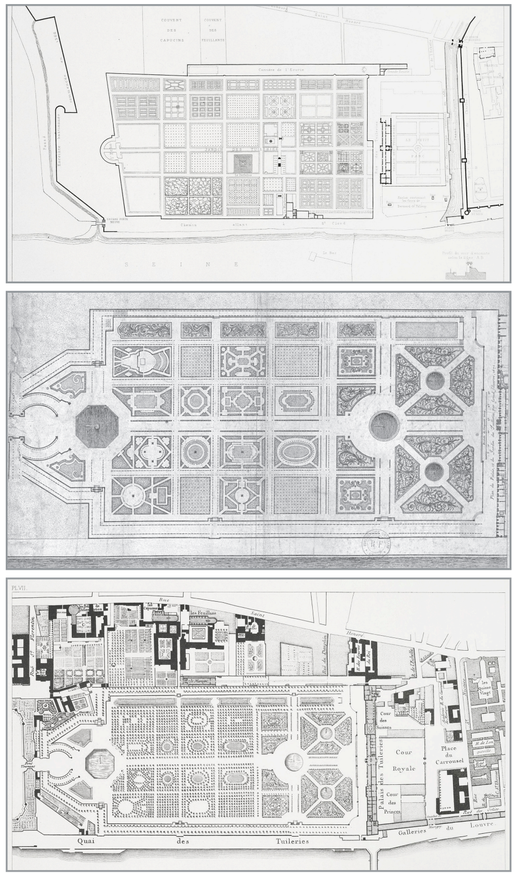
The Louvre was slowly built along the *Seine*. The large complex developed stepwise parallel to this river. The **Palais des Tuileries** was once the closure on the westside of the Louvre complex and was situated in front of the *Arc de Triomphe du Carrousel*.
Catherine de' Medici built the palace after the death of her husband Hendrik II (at that point, this palace was not yet connected to the Louvre, see chapter 1). For hundreds of years it has been the residence of different rulers (Allain & Christiany, 2006).

Catherine de' Medici also created the garden of the Tuileries Palace in 1564, modelled after the gardens of her native Florence. At the time there was an empty area bordered by the Seine on the south, the *rue Saint-Honoré* on the north, the Louvre on the east, and the city walls and deep water-filled moat on the west. Since the 13th century this area had been occupied by workshops, called *tuileries*, making tiles for the roofs of buildings (Jacquin, 1989, pp. 87-105). Catherine commissioned a landscape architect from Florence, Bernard de Carnesse, to build an Italian Renaissance garden. It served as a private palace garden just outside the city walls (Fonkenell, 2010; Hazan, 2011). The garden of Catherine de' Medici was an enclosed space five hundred metres long and three hundred metres wide, separated from the new chateau by a lane. It was divided into rectangular compartments by six alleys. This garden/park with renaissance raster or grid already had a strong symmetry axis that ran parallel to the Seine (Dillen, Elschott, & Van Zuilekom; Russel & Cohn, 2013).

So it was Catherine de' Medici in 1564 that gave the impetus for the **Axe Historique** with the construction of this palace. This axe is a sightline of monuments, buildings and thoroughfares that extends from the centre of Paris to the west. It is a grand alignment also known as the *Voie Triomphale* (triumphal way) (Combeau, 2003).

This Axe Historique was further developed and expressed far more clearly in the design of Le Nôtre for the **Jardin des Tuilleries**. From 1660 to 1664 the garden was redesigned in formal French style by this André le Nôtre, the famous landscape gardener of the Sun King, best known for its garden of Versailles. Le Nôtre built a terrace along the banks of the Seine and created a very strong central axis. Around this wide avenue he designed geometric flower parcels. Since then, the Jardin des Tuilleries been functionally and spatially transformed into a semi-public outdoor space. It is now the oldest public outdoor space in Paris (Hazlehurst & Hamilton, 1980).

Three years later Le Nôtre would extend the central axis with the construction of the *Champs-Élysées* and it's (kitchen) gardens. Le Nôtre planned a wide promenade between the palace and the modern *Rond Point*, lined with two rows of elm trees on either side, and flowerbeds in the symmetrical style of the French formal garden. The new boulevard was called the *Grand Cours* or *Grand Promenade*. It did not take the name of *Champs-Élysées* until 1709 (Dominique, 2009; Papayanis, 2004).



The Axe Historique is already visible in all three phases:
The Jardin and the Palais de Tuileries in 1585 *(Theodor Josef Hubert Hoffbauer, 1585)*
Le Nôtre's Tuileries Garden plan in 1671 *(Israël Silvestre, 1671)*
The Jardin and the Palais de Tuileries in 1770 *(Theodor Josef Hubert Hoffbauer, 1770)*

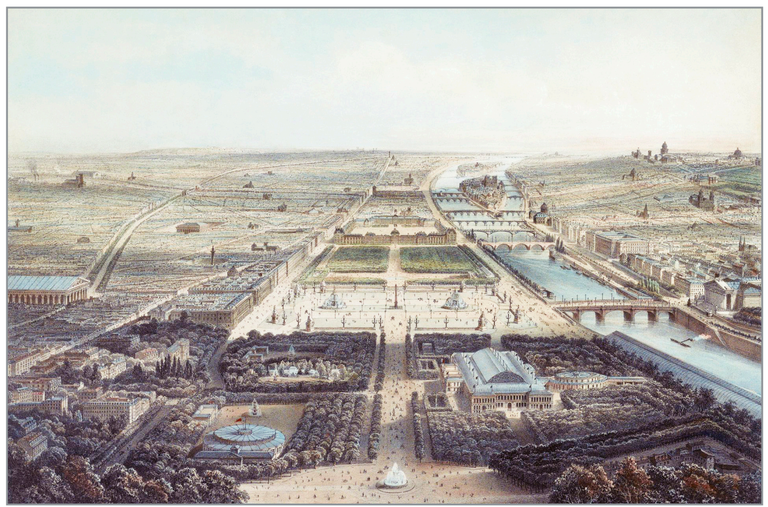
Over the years the *Axe Historique* was slowly extended westwards along the *Avenue de la Grande Armée*, past the city boundary of Paris to *La Défense*. The architect Gabriel received the assignment for the design of the *Place de la Concorde* in 1760. And in 1806, Napoleon instructed to build a triumphal arc (*Arc de Triomphe de l'Étoile*) as the central cohesive element of the *Axe Historique* (DeJean, 2014).

City-architect Haussmann transformed this *Place de l'Étoile* in 1854 to a roundabout where twelve lanes emerge. **Haussmann's renovation of Paris** was a vast public works program and radical transformation of the city structure commissioned by Emperor Napoléon III between 1853 and 1870. A broader design of the layout of streets avenues and lanes was reguired, both for hygiene reasons and to make it easy to beat riots and revolutions. Haussmann's main merit was that he finally brought order in the Paris city structure, building further upon the *Axe Historique*. This historical axis formed the basis for the new urban construction structure applied by Haussman in Paris in 1853. This makes the *Jardin des Tuileries* an essential link in the urban planning concept of avenues and boulevards, as designed by Haussman (Carmona & Camiller, 2002).

The Tuileries Palace, the origin of the Axe Historique, was burned down by the *Paris Commune* in 1871. In 1883 the whole palace was demolished, despite protests from Hausmann and a number of leading artists and architects. Since the demolition of the Tuileries Palace, the *Jardin des Tuileries* connects to the garden surrounding the *Arc de Triomphe du Carrousel* (the triumphal arch that Napoleon I founded in 1808, and that is located behind the old palace, what was once a courtyard). This *Arc the Triomphe du Carrousel* was centered on the palace (on the same axial line that was developing beyond the palace). The older axis extending from the courtyard of the Louvre is therefore slightly skewed to the rest of what has become the Axe Historique. This means there are two different axes that are a little bit different from each other (not parallel): the Louvre Axis (*Axe du Louvre*) and the Historical Axis (*Axe Historique*). The former palace was exactly built at the intersection of these two axes. Nowadays, the *Arc du Carrousel*, at the fulcrum between the two, serves to disguise the discontinuity (de Moncan, 2012; Wikipedia, 2017). In the prolongation of the *Avenue des Champs-Élysées*, a new arch, the *Grande Arche de la Défense*, was built in 1982, completing the line of monuments that forms Paris's *Axe Historique*. After the *Arc de Triomphe du Carrousel* and the *Arc de Triomphe de l'Étoile*, the *Grande Arche* is the third arch built on the same perspective (Reitzel, 2011).

In 1990, French President François Mitterrand asked Jacques Wirtz to make a new garden design for this garden located between the *Place du Carrousel* and the *Jardin des Tuileries*. The design resembles a geometric formal garden with a fan pattern of twelve radially extending hedges and raised green elevated areas on both sides of the triumphal arch (Louvre, 2017).

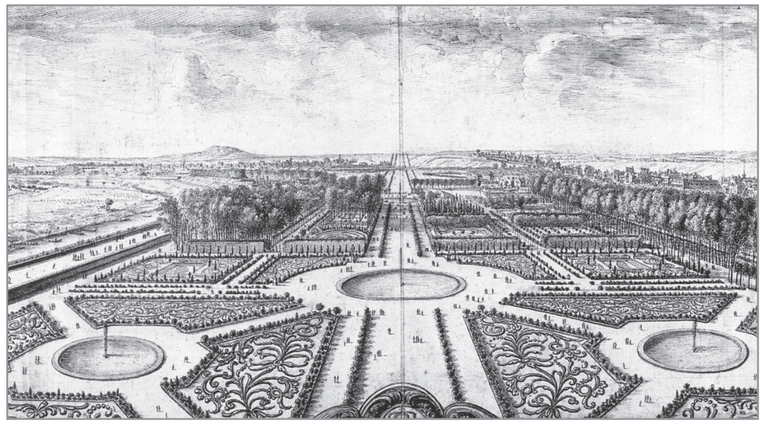
A commission in France has plans to rebuild the Tuileries Palace and is studying its reconstruction since 2003. The main reason for this is that when the palace still existed, the line of sight from the *Champs-Elýsées* ended at the Palace. Now this sightline ends at the *Arc de Triomphe du Carrousel* in an empty space. The Louvre does not really belong to this sightline because it is not exactly on that axis. The commission considers that it is good for the urban structure and history-awareness of the French that such a building, where so many kings and other heads of state played a role in French history and urban construction, can be seen again (La Croix, 2008).



A view of Champs-Élysées looking from the Rond-Point toward the Place de la Concorde *(Charles Fichot, 1855)*



Palais des Tuileries with the Axe Historique *(Unknown, 1840)*





Axe Historique in Paris with the view of the Tuileries Gardens *(Israel Silvestre, second half of 17th century)*
Axe Historique in Paris with La Place de la Concorde and the Champs-Elysees *(Unknown, 1829-1854)*





Le Nôtre's central axis of the Tuileries' parterres in a late 17th-century engraving *(Unknown, 17th century)*
The same view today, past the palace's site to the Palais du Louvre *(Benedikt Beun, 2007)*

Location in the City



Museumplein Amsterdam **SCALE 1:15.000**, *(Sophie Kugel, 2016)*

Along the 'Singelgracht' - Canal of Amsterdam

The Museum Square is now the cultural heart of Amsterdam. Different plans made since 1891 by different architects and urban designers have shaped the character of this square that is situated along the *Singelgracht*: the old city-border of Amsterdam.

The Singelgracht is the name of the waterway that borders the entire Amsterdam-centre and flows along the *Nassaukade, Stadhouderskade* and *Mauritskade*. After the fourth expansion of the ring of canals around 1660, the *Buitensingel*, with the city walls forming the defensive works, became the boundary of the city. In these walls there were strongholds were mills were placed. As a result, the canal had a tortuous course (Mak, 1995).
Amsterdam grew firmly from the early nineteenth century onwards. For two centuries Amsterdam had a characteristic crescent-shaped map. Midway through the century, the demand for housing was so great that there was no space left for new building work. There was room outside the city boundaries, on the banks of the Singelgracht. From the 1850s onwards, after the demolition of the city walls, more and more construction took place in the areas outside the city, even though the city authorities had not produced any official expansion plan.

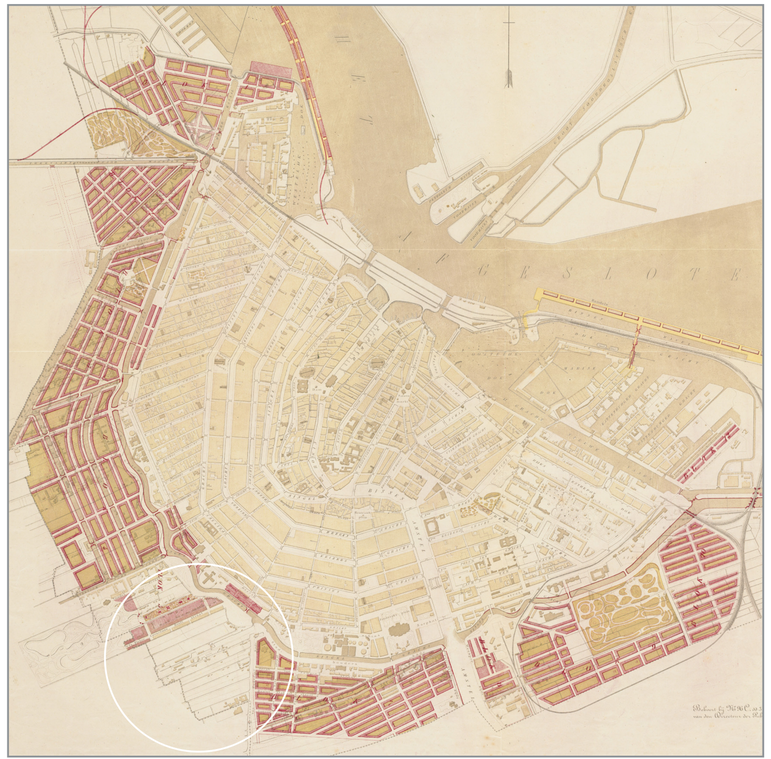
In 1867 the city engineer Jacobus van Niftrik submitted an expansion plan. This plan covered an enormous area, but was rejected in 1868 because not enough houses could be build due to the enormous green areas in his design. The plan was financially unfeasible because it was not possible to expropriate local farmers from their land. In 1877 the director of Public Works Jan Kalff submitted a new expansion plan. The area was about the same as the Niftrik plan, but the expropriation was taken into account by better integration into the existing structures. In addition, the houses were put closer together. This made the plan sufficiently financially attractive for the city council.

The plan consisted of a ring of districts around the centre of the city with long straight narrow streets, which were densely built. Behind the Rijksmuseum, between *P.C. Hooft Straat and Boerenwetering*, there was an open wedge-shaped area. The intention was to develop a luxury housing area, for which the city wanted to draw up a separate plan. For a long time the issue of whether to build here, or whether to preserve the open space, remained unsettled and as a result a lot of different designs were presented in the press.

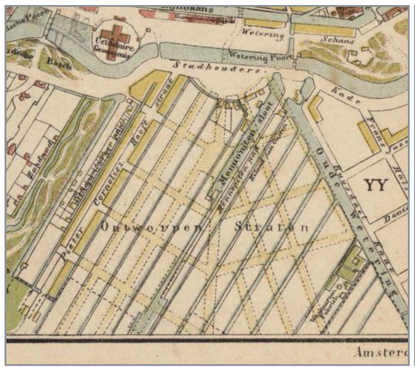
Amsterdam compared itself to other cities in Europe, and like these cities (for example Vienna) Amsterdam now had the chance to have a large square without making major sacrifices. Cuypers, as the architect of the Rijksmuseum, also wanted to use the square to make the Rijksmuseum fit in as well as possible in the future city.
With the approval of the revised 1891 plan from P.J.H. Cuypers, the definitive decision was taken in favour of a large, open (museum) square in the middle of a luxury residential area. In the decades that followed, the Museum Quarter acquired its definitive form (Ohlerich & Hendrikx, 2015).

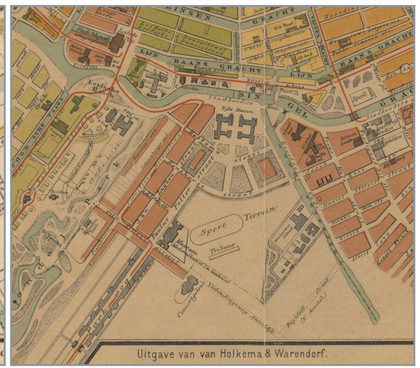


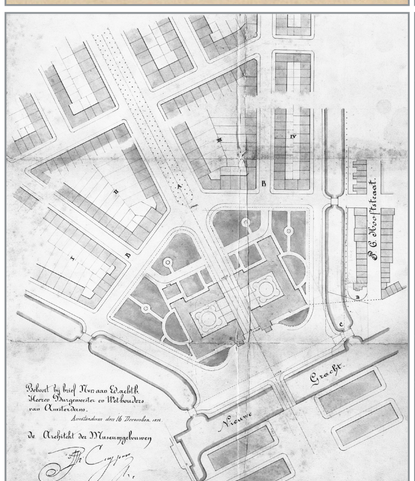
Plan for expansion of Amsterdam, Collectie Koninklijk Oudheidkundig Genootschap - not implemented *(J.C. Niftrik, 1868)*

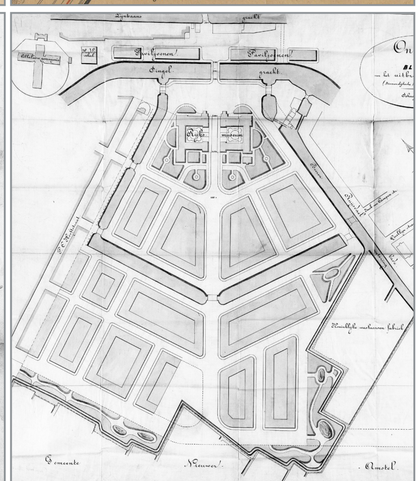


Plan for expansion of Amsterdam by J. Kalff, Collectie Atlas Kok *(J.C. Loman & J. Smulders & Co, 1876)*

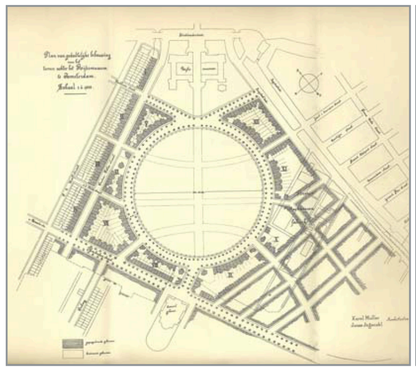


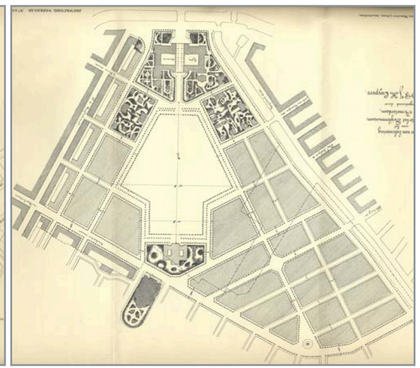


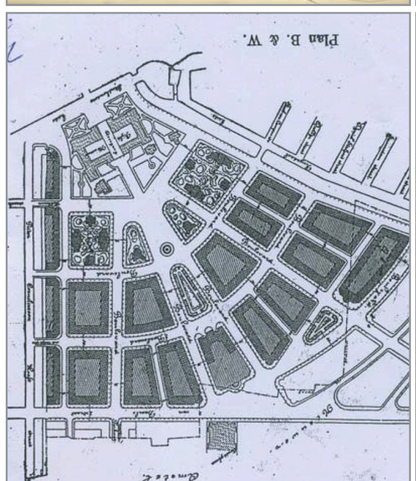


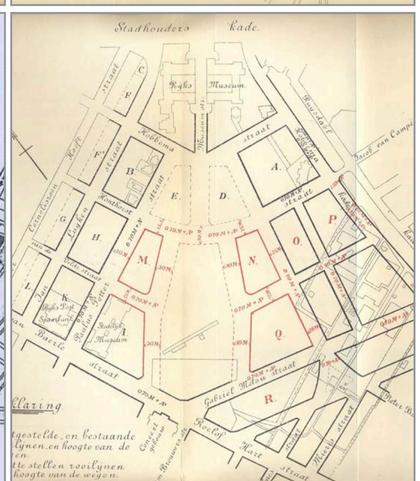


Plan of Amsterdam, Collectie Atlas Kok *(A. Braakensiek & G.L. Funke, 1875)*
Map of Amsterdam *(A.J. Van der Stolk & T. Holkema & Warendorf, 1893)*
Location Museumplein Amsterdam, showing the placement of the Rijksmuseum in surroundings, Collectie Stadsarchief Amsterdam *(P.J.H. Cuypers, 1876)*
Urban design Museumplein and surroundings, highly influenced by the design of architect Cuypers, *(Gemeente Amsterdam, 1877)*



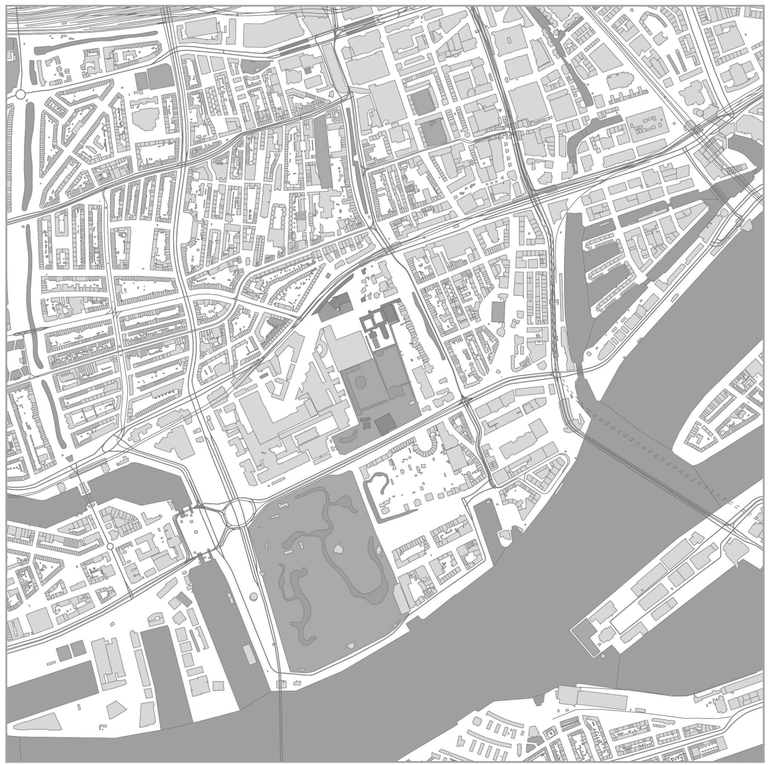






Design for Museumplein, commissioned by D. Josephus Jitta, *(K. Muller & J. Ingenohl, 1888*
Alternative plan by Cuypers and Jacob Ankersmit for open space Museumplein *(P.J.H. Cuypers & J. Ankersmit 1891)*
Design for Museumplein, updated by the Public Works Department *(E. Gugel, 1891)*
The final plan for the Museumplein decided by the Gemeente Amsterdam on May 2nd 1902 *(Van der Werf, 2014)*

Location in the City



Museumpark Rotterdam **SCALE 1:15.000**, *(Sophie Kugel, 2016)*

Along a Dike - an old estate in Rotterdam

Rotterdam is located in the middle of the delta area where the North Sea and the rivers *Maas, Rijn* and *Waal* come together. Rotterdam therefore has a certain risk of flooding of which it requires protection.

The Museumpark is located along the *Westzeedijk*. The Westzeedijk is part of the *Schielands Hoge Zeedijk*, and was constructed in the 13th century to protect the area between Gouda, Leiden and Rotterdam against flooding. The name of the dike comes from the location to the west of the old city of Rotterdam. It is also the name of the street that runs over the dike. The Museumpark Rotterdam is located above the Maas, north of this *Westzeedijk* (Gemeente Rotterdam, 2017).

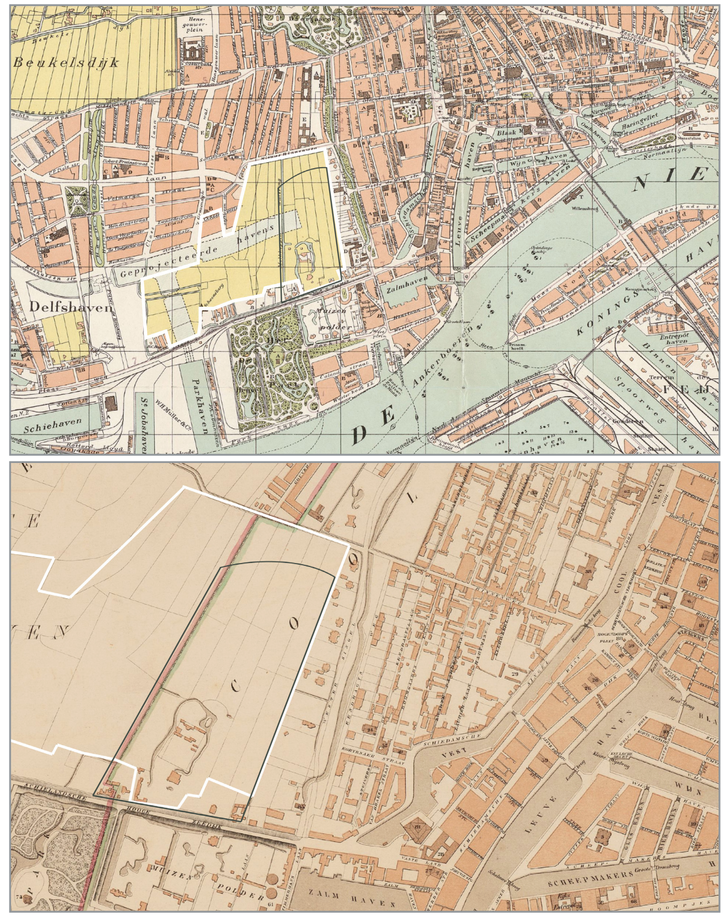
At the beginning of the 20th century there is an empty area under the city center of Rotterdam: the Land of Hoboken. It's situated just outside the historic city center but within the dikes. The estate was, as the name suggests, in the possession of the stubborn Lord of Hoboken who did not want to sell his estate. The Hoboken estate was situated between the *Nieuwe Binnenweg,* the *Westersingel*, the *Westzeedijk* and the *Coolhaven*. This *Westersingel* was ones the old city (west)border of Rotterdam. Nowaday it is still situated on the border of the city centre and the neighborhoods *Oude Westen*, *Dijkzigt* and the Museumpark. The *Westersingel* runs from the *Kruisplein* to the *Westzeedijk*. The Hoboken Estate on the west side of the Singel and on north side of the dike, covered 56 hectares and was therefore a lot bigger than the area covered by the Museumpark nowadays (De Boer et al., 2009).

The biggest part of the estate consisted of a polder area with meadows. Next to Villa Dijkzigt (the residential villa of the family) there was a farm on the estate that was also designed by architect Metzelaar. Together with Villa Dijkzigt, these were the only buildings in the further empty meadow area for a long time. Later the family added a coach house, a second villa (Villa Dijk- and Veldzigt) and a country house named *Huize Lommerlust* (Floor, 2016).

While the city of Rotterdam is growing slowly, 51 hectares of the polder area is used to graze sheep. Already in 1858 the first building plans are made by the municipality, but the Hoboken family wants to keep the area in their possession. Only when their last heir dies in 1924, the municipality eventually buys the land.



Plattegrond der Stad Rotterdam en hare Omstreken. Cartographic document by L.F. Temminck *(Stadsarchief Rotterdam, 1839)*
1. Villa Dijkzigt 2. Huize Lommerlust 3. Farm Van Hoboken 4. Villa Dijk- en Veldzigt 5. Koetshuis Van Hoboken (coach house)



Land van Hoboken. Cartographic document made by J.J. Claus and map by Gemeentewerken Rotterdam *(Stadsarchief Rotterdam, 1907*



Urban Morphology **SCALE 1:25.000** *(Sophie Kugel, 2017)*

Vienna - Urban Morphology around the Museumsquartier

The city of Vienna has three key periods of European cultural and political development, and these are visible in its urban morphology. The Middle Ages, the Baroque period, and the Gründerzeit (Wehdorn, Wehdorn, & Zunke, 2014, p. 5).

In the **Middle Ages**, from the 12th century onward, Vienna was transformed into a ducal residence, the town was encircled by a new curtain wall that determined the spatial extension of Vienna for roughly 650 years.
The **Baroque period** in Vienna only started at the time of *High Baroque*, around 1650. This architecture style took the Roman vocabulary of Renaissance architecture and used it with new explorations of form, light and shadow, and dramatic intensity. The Baroque period in Vienna coincided with a major construction boom.
The **Gründerzeit** was the economic phase in 19th-century before the great stock market crash of 1873. At this time in Central Europe the age of industrialisation was taking place, whose beginnings were found in the 1840s.

These three periods are exceptionally well illustrated by the urban and architectural heritage of Vienna. Since 2001, all three have been listed as World Heritage (Wehdorn et al., 2014, p. 7).

1. The **Historical urban fabric** in the center of Vienna. These buildings used to be within the city walls. At its core, this inner city still contains the medieval building stock. The buildings date mainly from the period 1400-1850 (with a few exceptions that are older). A lot of these structures were refurbished or given new façades in later periods, starting from the Baroque era, by members of the imperial court, the nobility and the bourgeoisie.
2. The political situation left its mark on the city's development after 1683, when the Turkish army was defeated. The following period was characterised by extensive building activities, and Vienna was largely turned into a Baroque city: with the newly accentuated axes leading out to the suburbs and the palaces that were built there. During the beginning of the 16th century the Imperial horse stable complex of the emporer was also built (the building that houses the later Museumsquartier). The most important of these **Baroque Axes** forms part of the core zone of the World Heritage site (Telesko, 2012).
3. The **Urban expansion** after demolition of the old city walls (1857-1863). The Ringstraße is a circular grand boulevard that serves as a ring road around the historic city centre (Old Town) district of Vienna. The road is located where medieval city fortifications once stood, including high walls and the open field (glacis) that lay before them. It was constructed after the dismantling of the city walls in the mid-19th century. From the 1860s to 1890s, many large public buildings were built along the Ringstraße in an eclectic historicist style, sometimes called **Ringstraßenstil**, using elements of Classical, Gothic, Renaissance, and Baroque architecture. All monumental buildings on the border with the historic city (Fogarassy et al., 2014).
4. In Austria the **Gründerzeit** began after 1840 with the industrialisation of Vienna. The need for housing rose in consequence of industrialisation. In contrast to agricultural workers and urban labourers, an increasingly wealthy upper-middle class built itself monuments and mansions. Complete housing developments arose in previously green fields. These 4- to 6-story buildings have often richly decorated façades in the architectural style of Baroque Revival (Hermand, 1977).
5. Following the devastations of the Second World War, **New urban zones** emerged, sometimes close to the historic centre (Wehdorn et al., 2014).

Paris - Urban Morphology around the Louvre

The city of Paris has notable examples of architecture of *every period* from the Middle Ages to the 21st century. Most French kings since the Middle Ages were keen to leave their mark on a city that was never destroyed.
Paris has a very dense urban fabric that has been interrupted by architect Haussmann with sightlines to important monumental buildings. In the middle of the nineteenth century, the centre of Paris was overcrowded, dark, dangerous, and unhealthy. Emperor Napoléon III commissioned Haussmann to design a renovation for Paris between 1853 and 1870.

Haussmann's renovation of Paris included the demolition of medieval neighbourhoods that were deemed overcrowded and unhealthy. Instead Haussmann constructed wide avenues, new parks and squares, the annexation of the suburbs surrounding Paris; and the construction of new sewers, fountains and aqueducts. The street plan and distinctive appearance of the center of Paris today is largely the result of Haussmann's renovation.
Some of the sightlines in the Paris of today were already laid out by the rulers from before, often towards palaces and other important buildings. Haussmann has greatly strengthened these axes and removed all 'noise'.

The concealed underlying reason for the reorganization of the city was for military purposes, namely to easily stop riots. Still many buidings exist in Paris from every period from the Middle Ages, but these are mainly religious houses or court buildings, since these were built in stone. Many old medieval houses have been lost during the thorough renovation of Haussmann. That is why the Louvre today is largely surrounded by 19th century buildings, occasionally interspersed with monumental older buildings (Carmona & Camiller, 2002).

1. **Axes and sightlines** reinforced by ***Haussmann's renovation of Paris***
2. Original densely built **medieval imprint of the ancient past in the layout** of some streets
3. **Religious** architecture and **Palaces**
4. **19th century building-blocks**, occasionally interspersed with monumental older buildings

Amsterdam - Urban Morphology around the Museumplein

The city of Amsterdam has four key periods that are visible in its urban morphology. The 17th-century *Grachtengordel* (Canal District), the *19e-eeuwse-gordel* (19th-century belt), the *Gordel '20-'40* (belt '20-'40) and the *Algemeen Uitbreidingsplan* (General Expansion Plan).

De **Grachtengordel** is the neighborhood situated in the innercity of Amsterdam. This **seventeenth-century Canal District** consists of the area around the city's four main canals: the *Singel,* the *Herengracht*, the *Keizersgracht,* and the *Prinsengracht*. The canals are generally parallel with one another, and are leading from the *Brouwersgracht* gradually southeast into the *Amstel* river. Many of the canal houses in the Amsterdam Canal District are from the Dutch Golden Age (17th century). Many of these buildings, however, underwent restoration or reconstruction in various centuries, meaning that these building display many different architectural styles and facades (Abrahamse, 2010; Wikipedia, 2017b).

In the first half of the 19th century the situation became worse for Amsterdam's citizens. There were not enough houses, so people were forced to live in cellars or attic rooms. Around 1850 Amsterdam was overcrowded. Despite this, the industry continued to grow, partly due to the construction of the *Noordhollandsch kanaal* and the *Noordzeekanaal* (North Holland Canal and the North Sea Canal).

In 1877 the director of Public Works Jan Kalff submitted an expansion plan for a 'ring' of buildings around the old city border. The area was about the same as the plan of city engineer Jacobus van Niftrik, but the expropriation was taken into account by better integration into the existing structures. In addition, the houses were built closer together (less green in the plan). This made the plan more financially attractive to be approved by the municipality. This development can be seen in the urban morphology as a belt around the old canals of Amsterdam. This **19e-eeuwse-gordel** (belt) was the first time that building constructions took place, on the basis of a predetermined plan, outside the original city border (outside the *Singelgracht*) of Amsterdam (Gemeente Amsterdam, 1877). This is also the area (the ring) where the Museumplein Amsterdam is situated: on the old city border.
For an overview of the plans for this *19e-eeuwse-gordel* see page 150-151.

The **Gordel '20 -'40** or **Ring '20 -'40** are names for the expansion of Amsterdam that arose in the period between the First World War and the Second World War. These expansions were necessary because of the strong growth of the Amsterdam population. In order to be able to realize the expansions, in 1921 (large parts of) the surrounding municipalities were annexed. Many houses were built during this period in the style of the *Amsterdam School*. A number of major expansion plans were realized, such as the *Plan Zuid* by H.P. Berlage and the *Plan West* (Feddes, 2012).

The **Algemeen Uitbreidings Plan** (AUP) is an urban plan for the expansion of Amsterdam, that was established in 1934. The first plans that were carried out within the framework of the General Expansion Plan were projects that matched the structure of the '20 -'40 Belt. After the Second World War it was largely carried out; it was the basis for the expansions to the west and south. A paving structure was introduced, finger-shaped lobes with buildings that pointed out of the city, and in between there was room for a lot of greenery. The designers distinguished four urban functions, which should preferably have their own place: living, working, recreation, and traffic. They designed according to the guidelines of the principle of *Het Nieuwe Bouwen*: light, air, and space (Hellinga, 1985; Van Rossem, 1993).

1. **Amsterdam's Canal District**: a ring of canals in the historical urban fabric.
2. **19e-eeuwse-gordel** (19th century belt): the first city extension outside the Singelgracht
3. **Gordel '20 -'40** with *Amsterdamse School* architecture-style, part of the **Algemeen Uitbreidings Plan** (General Expansion Plan)

Rotterdam - Urban Morphology around the Museumpark

Rotterdam is very fragmented in terms of urban fabric due to the bombardments of the Second World War. It has traditionally been a port-city (*havenstad*), located at the mouth of the river *Maas* in the North Sea.

By the end of the 17th century 50,000 people lived in Rotterdam, but the city did not expand beyond its city walls and *singels*. The more or less triangular space between *Coolsingel, Goudsesingel,* and the *Nieuwe Maas* was overcrowded.

At the beginning of the 19th century, the expansion of Rotterdam started outside the old city walls, with for example the districts *Cool* (1820) *Nieuwe Werk* (1840, now known as the *Scheepvaartkwartier*), and in the north *Crooswijk* (1864) and *Oude Noorden* (1870). To the west of Rotterdam was the fairly empty Land of Hoboken situated (the later Museumpark) and the district *Oude Westen*. This neighborhood was created in the late 19th century, and was later annexed by Rotterdam.

In the meantime, the city center was gaining more and more allure. The city walls were broken down, but the *singels*, that were also part of ancient fortifications, were still there. Later these were partially closed to make more space for the increased traffic. This also happened to large parts of the *Rotte*. Port-barons and the municipality invested in prestigious buildings in the center.

Between 1866 and 1872 the *Nieuwe Waterweg* was constructed, a direct shipping connection with the North Sea between Rotterdam and *Hoek van Holland*. This caused a turbulent growth of Rotterdam. Several new harbors were constructed, and employment increased enormously. This attracted workers from all corners of the world. The money earned by the city was spent on the construction of stately buildings in the center. For the newcomers, rows of cheap small houses were being assembled quickly, especially in the south, on the left bank of the *Maas* (Burgers, 2001).

The city was expanded in two ways: through the annexation of a number of surrounding municipalities and through the construction of many new neighborhoods. The first wave of annexations took place at the end of the nineteenth century with *Delfshaven, Feijenoord, Kralingen, Overschie*, *Charlois,* and *Katendrecht* (Van der Schoor, 2013).

A boming during the Second World War destroyed almost the entire city center of Rotterdam, partly because of the big fire afterwards. The fire line (*brandgrens*) is still visible east of the *Westersingel* (the singel that borders the Museumpark on the east side). As a result, original stately 19th century buildings are located on the east side of the Museumpark (Van der Horst, 2017).

1. The **Historic center** of Rotterdam (roughly within the old city borders) was completely destroyed during the Second World War. This area therefore consists of buildings that are roughly built after 1950 and is situated east of the Museumpark. The center of Rotterdam is a place where people experiment with a lot of **highrise** and **modern and iconic architecture.**
2. In between the Museumpark and the city center, also on the east side of the Museumpark, the **Westersingel** is located. The *Westersingel* was part of the *Water Project* of the nineteenth century city by architect W.N. Rose: a monumental edge of water, greenery, and mansions (***herenhuizen***). This area just escaped the big fire. This is one of the few places where the stately 19th century buildings have survived time (Oudenaarden & Vroegindeweij, 2012).
3. Above the Museumpark is the district called the *Oude Westen*, that was also spared during the fire. Nevertheless, the original buildings were partly removed during Rotterdam's urban renewals. It still consists of an original system of narrow, long streets and a collection of squares, **serialized workers' houses** from the nineteenth century, and complexes from the seventies of the twentieth century. A master plan is lacking; the *Oude Westen* has a non-planned origin (Van Es, 2010, p. 5).
4. North of the Museumpark, the part between the *Nieuwe Binnenweg* and the *Rochussenstraat* forms the transition to this district *Oude Westen*. This part officially belongs to this district, but has a completely different character. It consists of a **fabric of classic city blocks** that were part of the expansion plan of city architect G.J. de Jongh and now fall within the protected conservation area *Heemraadssingel-Mathenesserlaan*. However, not all buildings are originally, it is interspersed with **new constructions.**
5. West of the Musempark is the **Erasmus MC complex**. This used to be the Dijkzichtziekenhuis, a hospital built in 1961.
6. To the south of the Museumpark *Het Park* is situated. The municipality of Rotterdam bought this land around 1850 and decided to reserve it for a 'public walk'. The park was designed according to **English Landscape** style by J.D. Zocher, who also designed the landscape park that originally belonged to Villa Dijkzigt (the later Natuurhistorisch Museum).
7. South of the Museumpark is the *Nieuwe Werk* or *Scheepsvaartkwartier*-district with **monumental buildings** from around 1850-1900. Part of the these buildings on the *Westerkade* are white, built in an almost colonial style. They belong to the most beautiful of the neighborhood and are part of the protected city-view. The *Scheepvaartkwartier* was almost entirely spared during the bombing of Rotterdam in May 1940.

Axes and Sightlines



Axis and Sightlines **SCALE 1:25.000** *(Sophie Kugel, 2017)*

Baroque Axes - Vienna
The Axis leading to the former Royal Court Stables (now the Museumsquartier) is in the same sightline of the old *Hofburg* (that is pointing out of the inner city). The Natural history museum and Art history museum are also part of these axes: they are built opposite from each other and their line of sight is perpendicular to the Hofburg-sightline.

Axe Historique - Paris
The Axe historique is a line of monuments, buildings and thoroughfares that extends from the centre of Paris, France, to the west. It is also known as the *Voie Triomphale.*
This axe was already present in the original design of the Jardin des Tuileries (the garden of the Louvre), and was increasingly strengthened over the centuries. Haussmann then made this line even stronger by his renovation of the city, applying sightlines or reinforcing them to monumental buildings (for example the Louvre).

Axis Canal District - Amsterdam
In the original canals of Amsterdam, open spaces and sightlines are already integrated. One of these axes points from the historical city (Canal District), across the museum-bridge, to the façade of the Rijksmuseum (there is a tiny bend in this line). This original front-façade is facing the old city. Cuypers has intentionally built the Rijksmuseum (‘the cathedral of Cuypers) on this sightline.
Nowadays this axis can be extended further, straight through the Rijksmuseum bicycle-tunnel, onto the Museum-plein.

Art Axis - Rotterdam
There are no obvious axes or sightlines in or around Museumpark Rotterdam. The museumpark slowly emerged, without taking into account certain axes in the city. There is a sightline along the long *Westzeedijk*, and you can look far along the *Westersingel*. From the city center a long axis runs from the *Witte de Withstraat* into the Museumpark. This *Kunst-as* was constructed to involve the then neglected *Witte de Withstraat* in the inner city with the cultural center of the city, the Museumpark. The **Rotterdam Art Axis** is the urban ribbon ‘*Museumpark - Witte de Withstraat - Museumhaven*’. Along this route a large concentration of cultural institutions can be found.



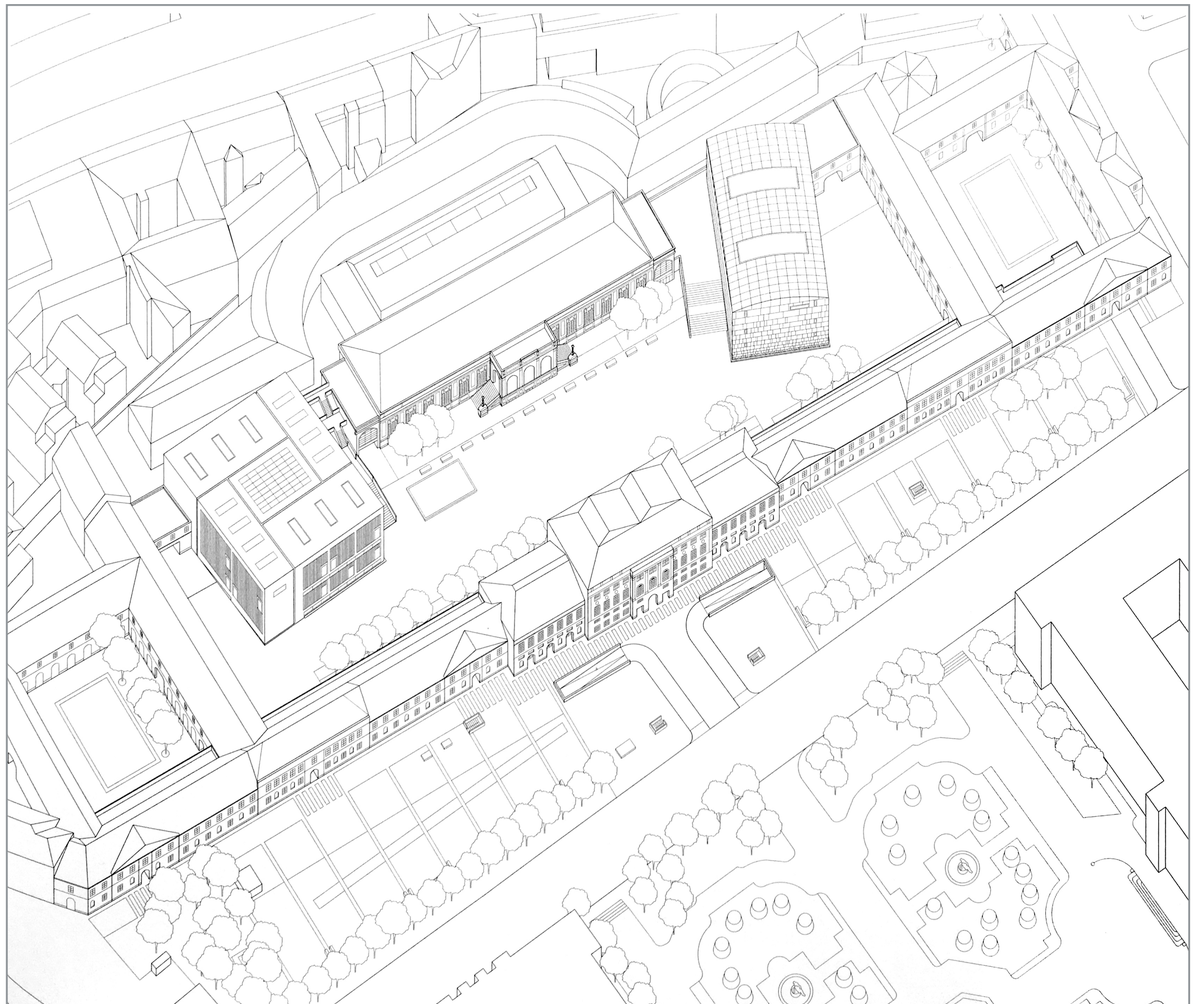
Museumsquartier Vienna (part 1: Maria-Theresien platz): configuration in the surrounding urban fabric *(Sophie Wolfrum 2014)*

Configuration of the Museum-Park and the surroundings

All four museum-parks are situated differently in the urban fabric. The history of these developments is described in the previous headings, and these different developments per city influenced the role of the park in the city structure and the way the museum-parks are nowadays configured between the other urban buildings.

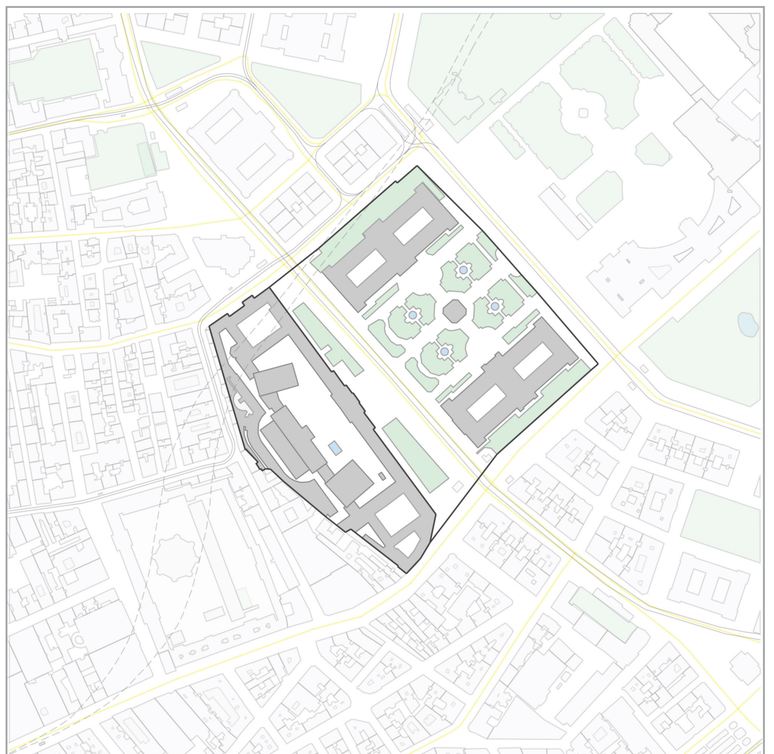
This chapter-section shows the boundaries of the museum parks using axonometric projections and maps. With the one museum-park this is more evident than for the other museum-parks. The Louvre is, for example, very clearly delineated. The museum-park has a clear shape and fits as a whole square object (like a block) into the environment. With the park in Rotterdam it is much more unclear and vague where the park ends and where the rest of the public space begins.

The Museumsquartier in Vienna is a bit of an exception. This museum-park consists of two different parts: and park between two large museums (page 166) and a very large courtyard (page 168). That is why these are shown in two different axonometric projections.
In this chapter-section, the boundaries of the museum-park and the way they are situated in the urban fabric are shown in **drawings**. They will be further explained in **writing** in the next chapter-section: *'the role of the museumpark in the city structure'.*

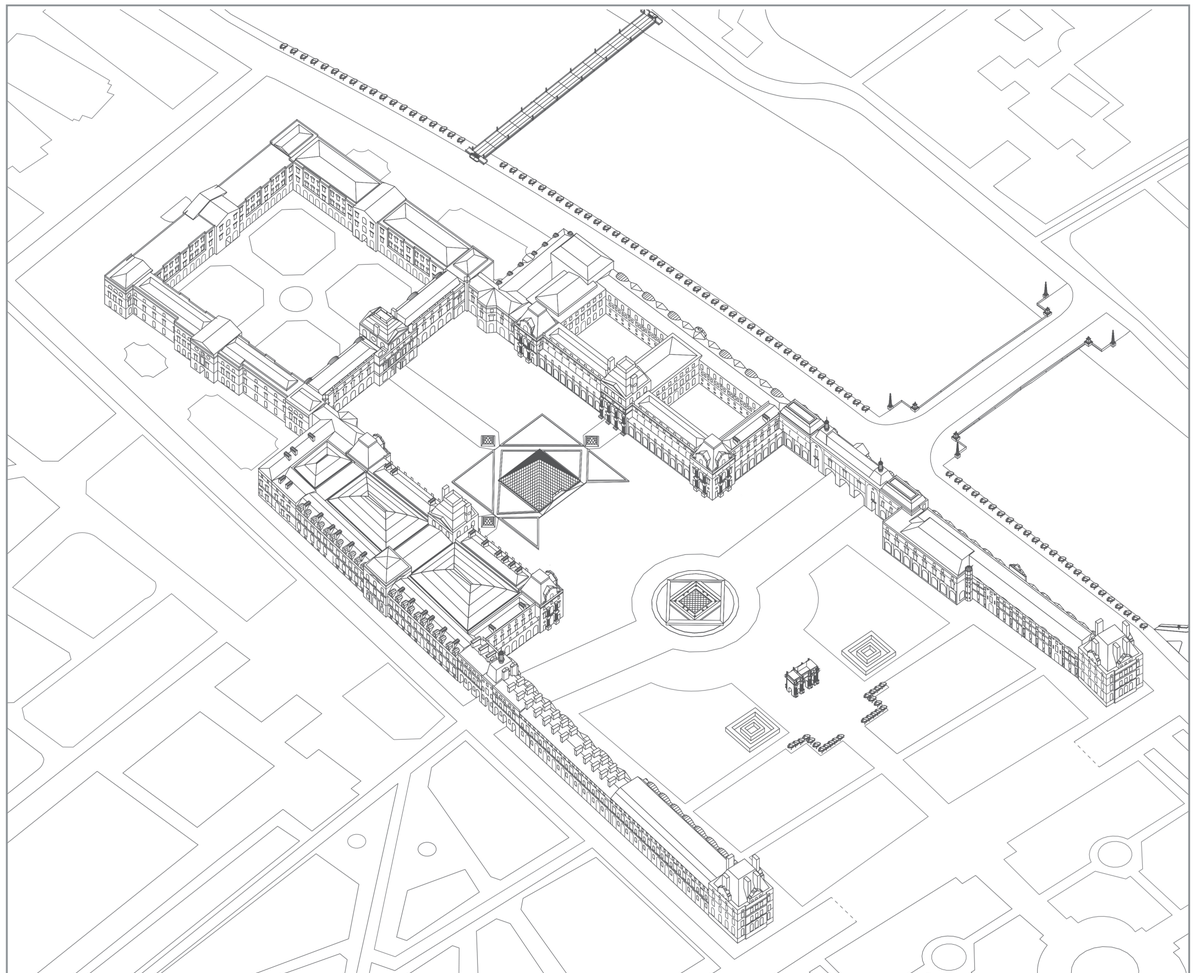


Museumsquartier Vienna (part 2) : configuration in the surrounding urban fabric *(Sophie Wolfrum 2014)*

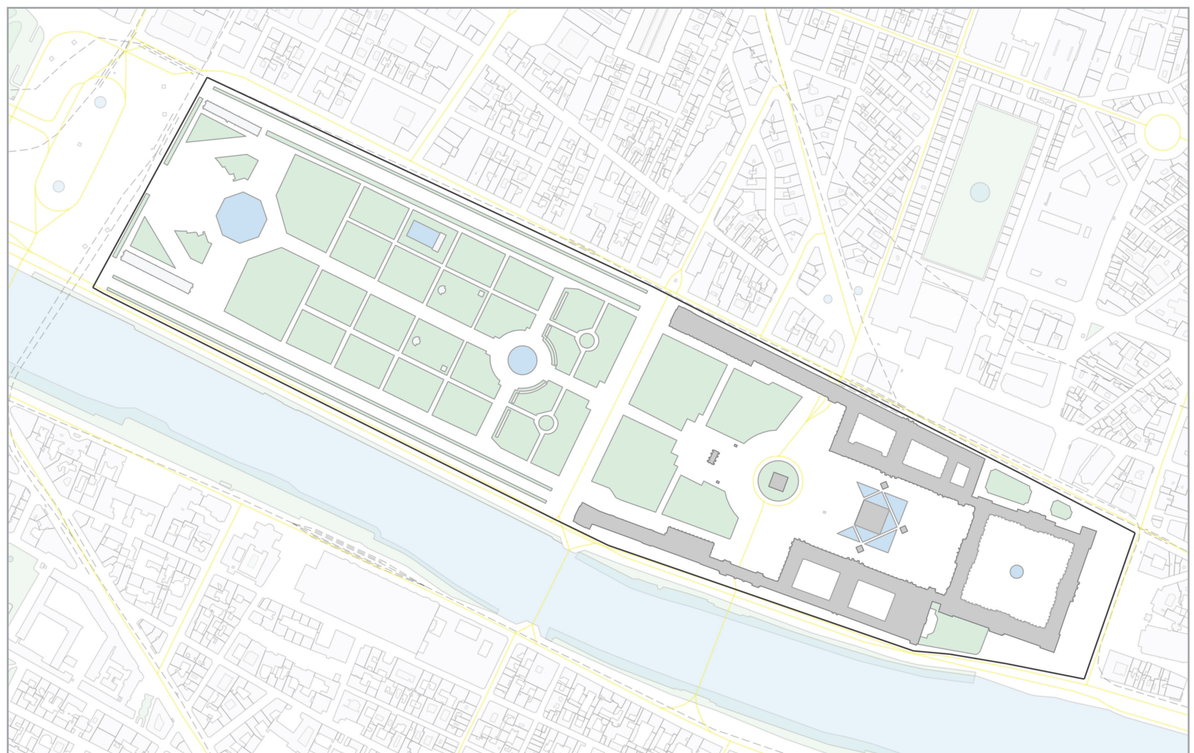
Boundaries of the plot



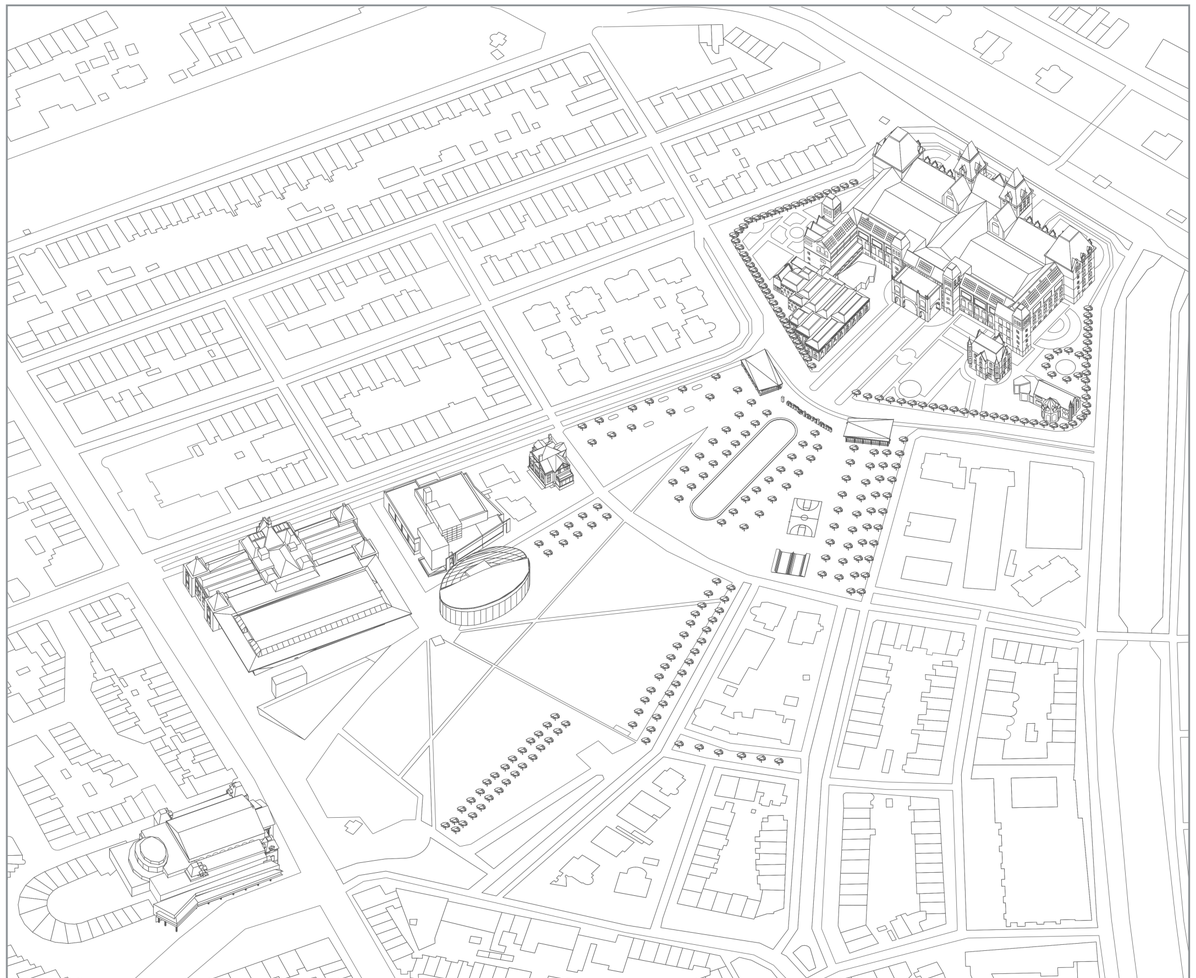
Museumsquartier Vienna: boundaries of the plot. **SCALE 1:5000**, *(Sophie Kugel, 2017)*



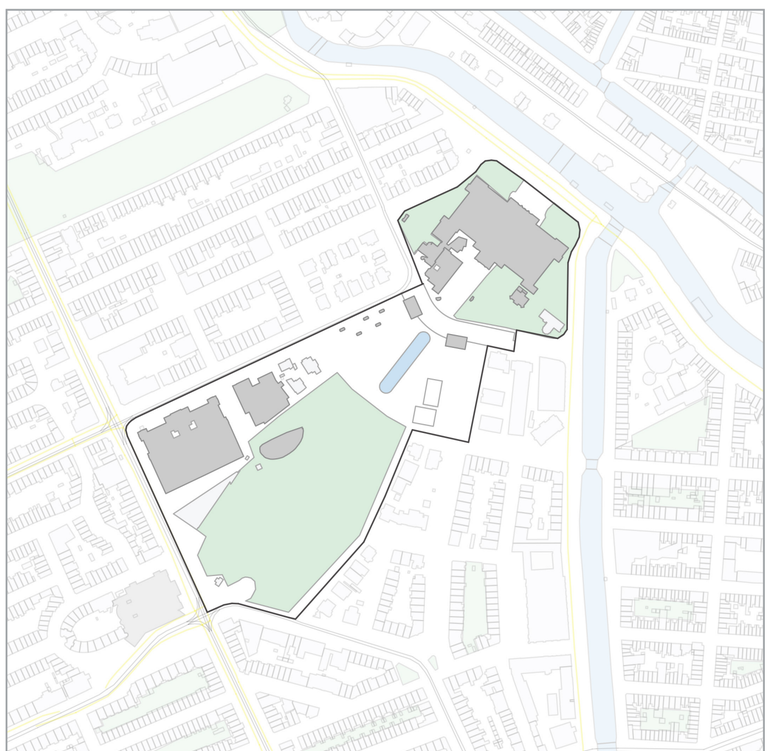
Louvre Paris: configuration in the surrounding urban fabric *(Sophie Kugel, 2017)*



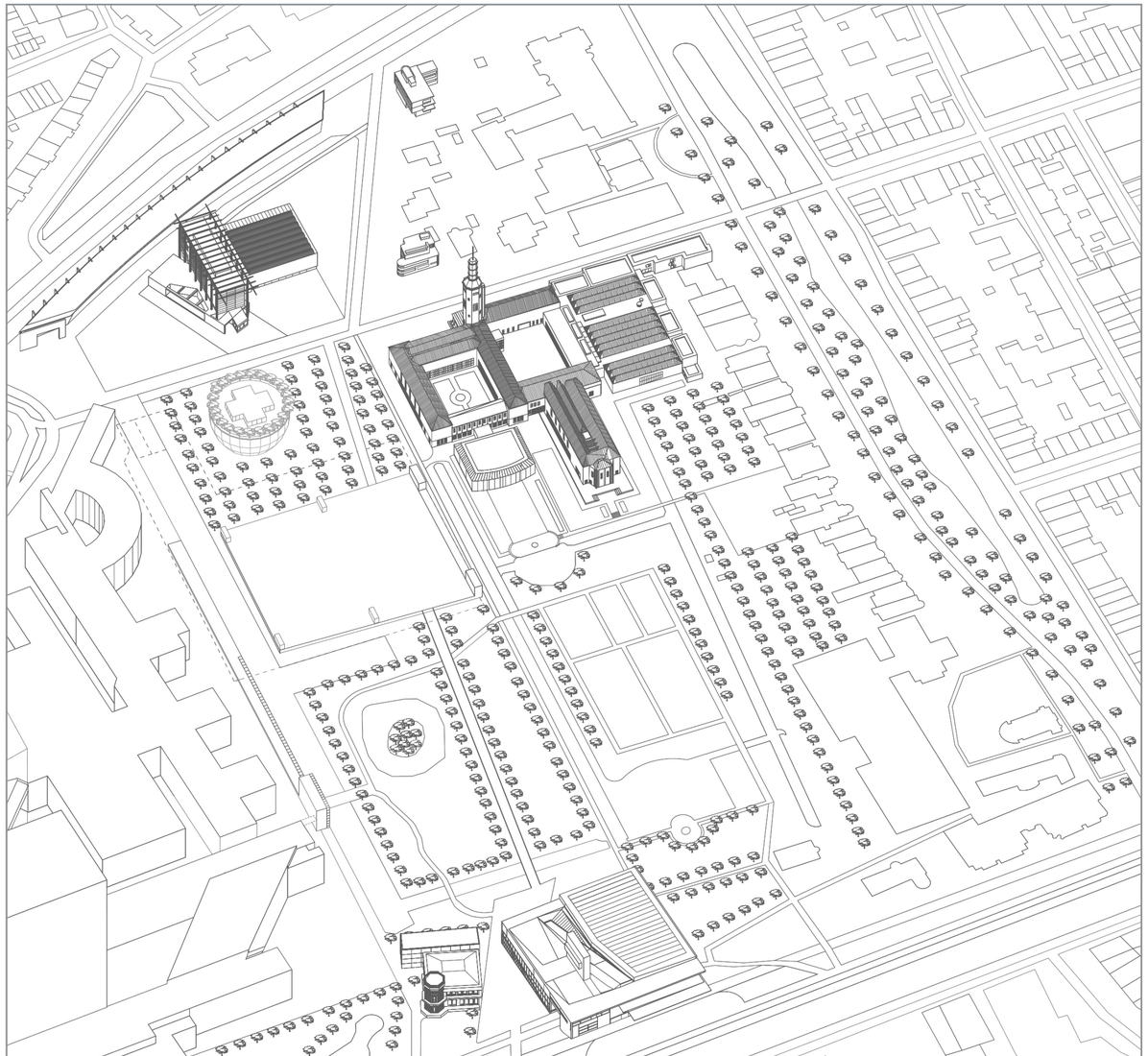
Louvre Paris: boundaries of the plot. **SCALE 1:5000**, *(Sophie Kugel, 2017)*



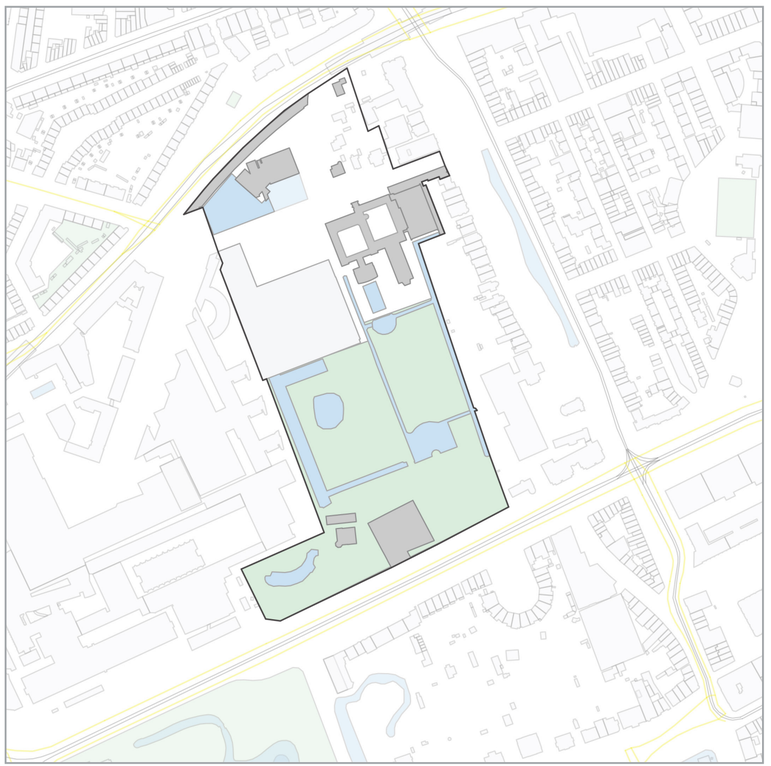
Museumplein Amsterdam: configuration in the surrounding urban fabric *(Sophie Kugel, 2017)*



Museumplein Amsterdam: boundaries of the plot. **SCALE 1:5000**, *(Sophie Kugel, 2017)*



Museumpark Rotterdam: configuration in the surrounding urban fabric *(Sophie Kugel, 2017)*



Museumpark Rotterdam: boundaries of the plot. **SCALE 1:5000**, *(Sophie Kugel, 2017)*

The role of the museumpark in the city structure

Museumsquartier Vienna

The Museumquartier in Vienna is located in the urban fabric between 4- to 6-story buildings that often have richly decorated façades in the architectural style of Baroque Revival. At the backside of the Museumsquartier, the surrounding constructions have been built against the cultural complex. This is especially visible on the axonometric projection on page 164. Originally, the Museumsquartier (that then held the position of court stables) was completely separated from the surrounding buildings. In fact, this royal complex was located in a fairly empty area just outside the old town. This museum-park clearly has a 'backside', and therefore, over time, this area behind the Museumsquartier was completely filled with stately building from the 19th century.

The Museumquartier Vienna consists of two parts: a large closed block with a huge courtyard, and two separate buildings with a park. These two buildings (museums) connect the museum-park as a whole with the historical inner city. The park conncects the two major museums with the closed courtyard.
The Museumsquartier is interrupted by a road. Along this road, cars can reach the entrance to the parking garage to park under the museum-park (see Route chapter).

Louvre Paris

In the urban fabric of Paris, the Louvre was built parallel to the river *Seine* and is therefore situated along this quay. The surrounding buildings consist of 19th-century building blocks, occasionally interspersed with monumental older buildings (in different styles from the Middle Ages until the 19th century). These blocks of buildings are completely separate from the Louvre (with roads in between).

There is also a road that runs completely through the Louvre-complex, with a rotunda around *Place du Carrousel*. There is another underground road between the Louvre-complex and the *Jardin de Tuileries*, that was onstructued to ensure the Axe Historique is not interrupted.
The park (the garden) is built as an extension of the Louvre and contributes to this central axis.

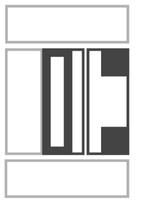
Both at the Louvre in Paris, and at the Museumsquartier in Vienna, it is very clear what the boundaries of these museum-parks are because they consist of 1 or 2 parts, and they are originally also built as one whole complex.

Museumplein Amsterdam and Museumpark Rotterdam

The two cultural complexes in the Netherlands, Museumplein Amsterdam and Museumpark Rotterdam, both consist of separate parts (museums) with the park in between. At both museum-parks most of the buildings didn't have a different function when they were first built. In both cases, the municipality decided to turn these places into a cultural area. The museum-parks in Amsterdam and Rotterdam developed slowly, and new museums were added over time.

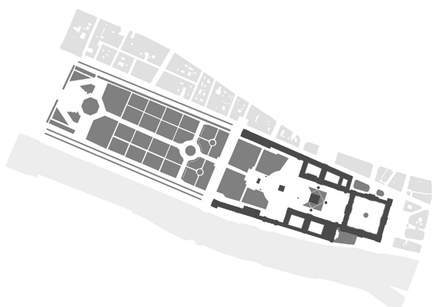
This resulted that the museum-parks are ensembles of different, separate objects. Together they define the museum-park (pulled together by the park-element). In Amsterdam, this spatial development has gone reasonably fast, in Rotterdam this has been spread over a long time.

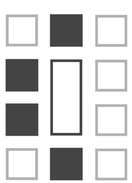
The separate elements together form the museum-park. The surrounding buildings are therefore also separate from the museum-park. These are often unconnected elements (except for the large Erasmus hospital). Therefore it is somewhat difficult to determine the exact boundaries of the two museum-parks.















Museum-park silhouettes with the surrounding buildings, **SCALE 1:15.000**, *(Sophie Kugel, 2017)*

Elevation View in the City

The four museum-parks all have a different appearance in the city scene, sometimes as building blocks, sometimes as separate elements. The appearance of the four museum-parks in the city is discussed in detail in chapter 5 'Architectural representation'.

Roughly speaking, the ways in which the facades of the museum-parks appear as elevation views in the city can be divided into two categories: 1. closed monumental and repetitive facades, and 2. loose elements consisting of buildings with different architectural types.

1. Museumsquartier Vienna & Louvre Paris - *closed, monumental and repetitive facades*

Both of these museum parks were originally royal buildings: city-palaces. In both constructions there is a courtyard behind a closed 'wall'. This inner world was in the original function literally turned away from the public city-life. Both complexes were given a cultural function, and in the case of the Louvre, one side was literally opened (the palace was removed). Yet the remaining authentic and closed façades were preserved

The city facades of both museum-parks have no modest appearance. Because they belonged to the former emperor, they had to have a monumental appearance. This has been achieved by a classic repetitive façade view. This can be clearly seen in the yellow schematic views on the left page, showing the facades situated in the city scene.



Museumsquartier Vienna, Northeast facade in the city



Museumsquartier Vienna, Southeast facade in the city



Louvre Paris, Northwest facade in the city



Louvre Paris, Northeast facade in the city



Museumplein Amsterdam, Southeast facade in the city



Museumpark Rotterdam, West facade in the city

Elevation views in the city - schematic representation - **SCALE 1:5000**, *(Sophie Kugel, 2017)*



Museumsquartier Vienna, Northeast facade in the city



Museumsquartier Vienna, Southeast facade in the city

2. Museumplein Amsterdam & Museumpark Rotterdam - *loose elements of different types of architecture*

Both of these museum-parks have developed more gradually than the Museumsquartier and the Louvre. At these locations it was clear from the beginning that there should be an open space in the city and that the parks should have a cultural function. In both museum-parks, more and more cultural institutions (or additions of these cultural institutions) have been added over time. Therefore the museum-parks give a varied picture in the city image. More classic 'old' buildings are built next to (or combined with) more modern 'new' buildings (or building components).

At the Museumplein in Amsterdam some hierarchy can be seen in the design compared to the Museumpark Rotterdam. That is because the Museumplein Amsterdam had an underlying plan designed by Cuypers, that formed the basis but was not entirely implemented. It took a lot longer before the Museumpark in Rotterdam had a master plan.

The museum-parks are collections of different types of architecture from different times. These separate objects form together with the open space (park), the view of the museum-park in the city scene.



Louvre Paris, Northwest facade in the city



Louvre Paris, Northeast facade in the city



Museumplein Amsterdam, Southeast facade in the city



Museumpark Rotterdam, West facade in the city

Elevation views in the city - axonometric projections - **SCALE 1:2500**, *(Sophie Kugel, 2017)*

Conclustion **Location**

This chapter detailed the position of the museum-parks in the uran fabric. It was found in during the research that each museum-park is configured in the city in a different way and on a different location. However, some general principles can be formulated that apply to all four museum-parks, or to part of these museum-parks.

These four museum-parks are all **located on the outskirts (edge) of the historic city.** Based on these four museum-parks, it can be concluded that this is a typical location for a museum-park. This is the case at the museum-parks in Vienna and Paris (former Royal palaces) and also at the museum-parks in Amsterdam and Rotterdam (a villa-neighborhood and a former family-estate). Land was usually available on the edges of the historic city, because this area outside the city walls was often less densely built.

It is also notable that the museum-parks are often situated on old royal grounds or **places that are of great significance or value to the city.** On the outskirts of the city, an important area often arose just outside the city walls (those walls were later removed). In Paris and Vienna these important buildings were (parts of) Royal palaces. For these monumental complexes, that were accompanied by hierarchical axes and sightlines, was no place left in the inner city.

The museum-parks in Amsterdam and Rotterdam also have a rich history. The park in Rotterdam used to be an old estate of a wealthy family and the park in Amsterdam the open area outside the city walls was built with a Rijksmuseum that was of significance for the whole country. In Vienna and Rotterdam, later in the development of these museum-parks, there were also buildings constructed especially for these kinds of important museums that contributed to the history and culture of a country. Because these buildings were later built, when it was already decided (or partly decided) that these places would get a cultural function, these buildings often provide a good connection with the rest of the (inner) city.

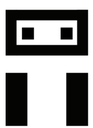
The locations of the museum-parks were not always chosen directly for its function of museum-park. Two cases, the Louvre in Paris and the Museumsquartier in Vienna, originally had **a different function**; that of a royal palace (or a part of it). This can be clearly seen in the appearance, the elevation-views in the city, and the hierarchical structure of these museum-parks. The other two museum-parks in Rotterdam and Amsterdam developed more gradually. Over the years, these areas were labeled as cultural clusters, and gradually more and more new museums or institutes were built to contribute to this. As a result there wasn't an underlying masterplan as was the case in Vienna an Paris, but the separate parts of these museum-parks have later been clustered to become a whole.

Therefore museum-parks are mainly found on the edges of the historic city, where there was still room for open spaces (parks). In the case of Amsterdam, a planned area was reserved for this during the first city expansions. In the case of Rotterdam this was a family estate that only came into the hands of the municipality in the twentieth century, and was therefore quite an empty space (a perfect location for a cultural complex). In Paris and Vienna, the former palace gardens of the Louvre and the Kaiserforum were among the oldest public outdoor spaces in these cities, and they therefore existed long before the first city expansions. They have **formed the basis for the later axis formation and orientation** of a part of the city (Vienna) or the entire urban development plan (Paris).

Both in Vienna and Paris, the enclosed position of the buildings ensures a massive or solid and direct transition to the environment. Previously, these parks were located on the outskirts of the city center, and later the urban expansions and city-structures became attached to and built around the palace gardens. Therefore, the gardens of these museum-parks **form a transitional area** between the hard boundary of the former palace and public space in the city.

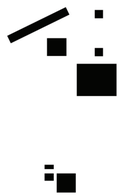
In the museum-parks in Rotterdam and Amsterdam, the park ensures that the museum-park, with its separate elements or objects, is kept together (pulled together), and thus also **forms the connection between the public space in the city and the museum-buildings.**

1. **Located on the outskirts of the city**
   Large cities needed green spaces and parks. In Europe the cities themselves were overcrowded and there was limited place for these large green public areas. On the outskirts of the city the municipality had the opportu nity to organize a large square or park without much sacrifice. After the destruction of the city walls, and \ often even before they were completely removed, the (local) government built along the old historic edges of the city.
2. **Three of the four museum-parks originally had a different function in the urban fabric**
   The Museumsquartier Vienna and the Louvre in Paris were first (part of) imperial buildings, a residence or function for the former emperors. The Museumpark in Rotterdam was first part of a rich family estate. The Museumplein in Amsterdam was designated as a cultural square from the beginning. These differences influenced the appearance and situations of the museum-parks and their elevation views in the city.
3. **The museum-parks are situated on places that are of great significance or importance to the city**.
   There was often no place left in the historic city center for the original functions of these museum-parks (palaces, a family estate or a Rijksmuseum). That is why these important buildings were often located just outside the historic city, so outside the original city wall.
4. **The park provides a connection between the museum buildings and the public space in the city**
   At the stately buildings of the Museumsquartier and the Louvre, the gardens create a soothing border between the museum building and the rest of the city. At the Museumplein and the Museumpark, with their separate and freestanding elements, the park ensures that the buildings in these museum-parks form a whole.
5. **Formed the basis of the later axis formation and orientation of the city**
   In Vienna this was partly the case, the axis to the Imperial stables had an influence on the orientation of the rest of the later Kaiserforum. In Paris, the Louvre determined the entire urban development plan, and centuries later this *Axe Historique* still formed the basis of Hausmann's plan.
   At the Museumplein Amsterdam and the Museumpark Rotterdam, the axes and the orientation of the museum-parks were adapted to the already existing situation or arose gradually. They have not, like the Louvre and the Museumsquartier, left their mark on urban development. But they belonged to, later in the urban development of the city, planned city-expansions.



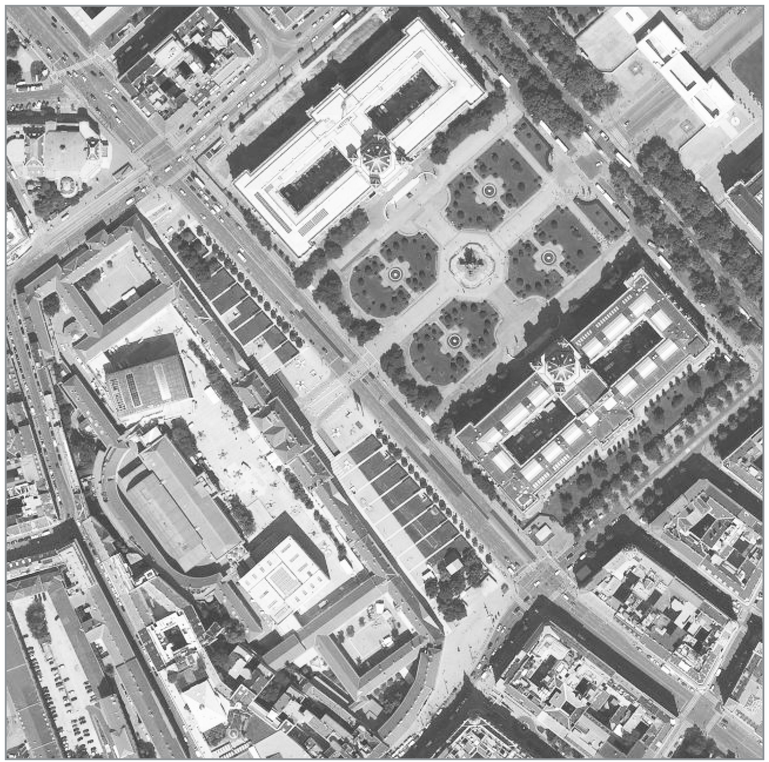






Four (abstract) typologies of **museum-parks:** Museumsquartier in Vienna, Louvre in Paris, Museumplein in Amsterdam and the Museumpark in Rotterdam *(Sophie Kugel, 2017)*

3. SPATIAL COMPOSITION



Museumsquartier Vienna, Satellite image *(www.bing.com/maps, 2016)*



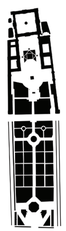
Louvre Paris, Satellite image *(www.bing.com/maps, 2016)*

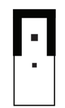


Museumpark Amsterdam, Satellite image *(www.bing.com/maps, 2016)*



Museumpark Rotterdam, Satellite image *(google maps, 2017)*

	Silhouette *complete museum-park*	Surface size *complete museum-park*	Proportions and dimensions *complete museum-park*	Silhouette *buildings*
Museumsquartier, Vienna		**Medium** 122.500 m2	350 x 350 m **1:1**	
Louvre, Paris		**Large** 405.000 m2	1350 x 300 m **1:4,5**	
Museumplein, Amsterdam		**Medium** 105.000 m2	525 x 200 m **1:2,5**	
Museumpark, Rotterdam		**Medium** 135.000 m2	450 x 300 m **1:1,5**	

Basic shape *buildings*	Silhouette *parks*	Proportions *parks*	Basic shape *complete museum-park*	description of basic form
 85.000 m2 = 70 %		150 x 250 m  37.500 m2 = 30 %		Buildings enclose a large courtyard, two separate build-ings with the park in between
 195.000 m2 = 48 %		700 x 300 m  210.000 m2 = 52 %		The buildings and the park are oriented in a longitudinal direction towards a dominant building located at the end, in the depth of the park
 31.800 m2 = 30 %		 73.200 m2 = 70 %		Just as freely arranged objects on a game board create relations between each other, freely distributed buildings stretch out the park
 30.500 m2 = 22 %		 104.500 m2 = 78 %		Just as freely arranged objects on a game board create relations between each other, freely distributed buildings stretch out the park

Sizes proportions and expressions, *(Sophie Kugel, 2017)*

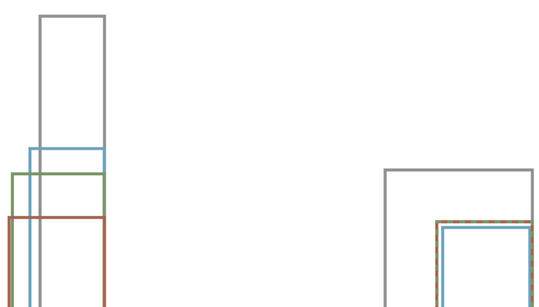
Sizes, Proportions and Expressions

The atmosphere in a museum-park is strongly determined by the spatial design and the materialization of the buildings that form the museum-park. In addition the park-area, the layout of the garden, the planting and the pavement have an influence on this. Together with the orientation and spatial design of the museum-park, they determine the experience and the degree of monumentality-intimacy.

The actual architectural expressions is examined in chapter 5: 'Architectural Representation of the museum-park'. However, the plan, the size, the proportions, the spatial structure and composition of the buildings and the garden, are investigated to understand the architectural effect of the museumparks. The museum-parks are compared by size, dimensions, proportions, and expression. We classify the gardens separately. This gives insight into the regulation of the character of these public urban spaces.

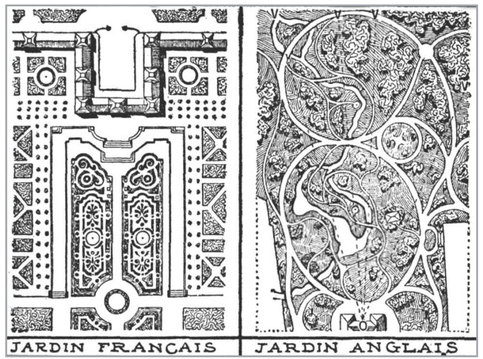
The buildings of a museum-park are always placed (designed) in a certain way in the surrounding or intermediate urban fabric. A museum-park often consists of several 'separate' buildings that, together with the park, form a whole. They can consist of one large block (Paris) or of several smaller separate elements (Amsterdam and Rotterdam).

A museum-park is not standard enclosed on four sides (in any case not in the same way). See page 188-189 for an overview of the sizes, proportions and expressions of the museum-parks. The overwiew provides an idea about the relative size of the museum-parks and the underlying relationships in proportions and expressions.

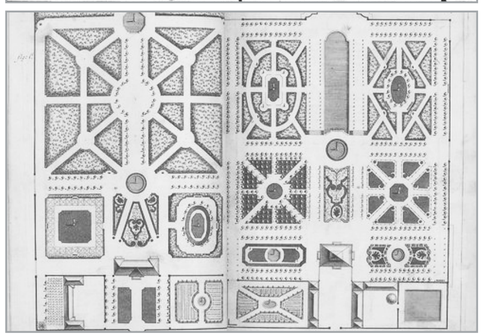


Proportions museum-parks compared - Surface sizes museum-parks compared *(Sophie Kugel, 2017)*

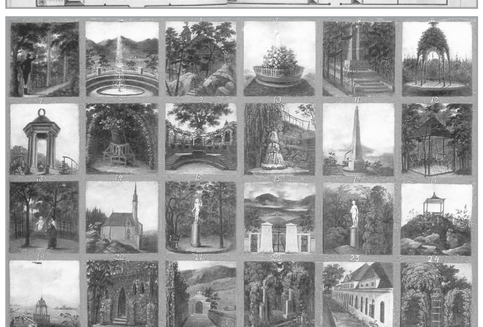
- **Museumsquartier Vienna:** a closed block with a large courtyard. In front of it is the green *Maria-Theresien-Platz* located. The two separate buildings enclose this park. All original constructions are entirely symmetrically proportioned. The new buildings, built on the old courtyard of the former Imperial stables, are deliberately placed skewed.
- **Louvre, Paris:** a U-shape with a semi-courtyard. The buildings and the park are oriented in a longitudinal direction towards a dominant building located at the end, in the depth of the park. The old palace was originally located on this spot and used to close the building-block (at that time the Louvre was a closed building-block with a large courtyard). Now, the Louvre 'points' towards the *Arc de Triomphe du Carrousel*, on the border of the park/garden. Just like in Vienna, everything here is symmetrically dimensioned. The difference with the Museumsquartier is that at the Louvre the modern architectural additions are also completely symmetrical and are placed according to the sightlines and axes of the original buildings. In the middle of the semi-courtyard you can find the mathematically proportioned pyramid.
- **Museumplein, Amsterdam:** this is an open square located between the surrounding buildings (part of those buildings belong to the Museumplein). The buildings are placed in a wedge shape with the park in between, but the buildings that belong to the museum-park are only on one side of the Museumplein. This means that the park consists of separate buildings that loosely define the park.
- **Museumpark, Rotterdam:** Just as freely arranged objects on a game board create relations between each other, freely distributed buildings stretch out the park. The buildings were all built at several times and for different purposes, without trying to form a whole. Different designers later tried to create order with new designs.



Top: Difference in style between the French formal garden and the English landscape garden *(Miltoun, Mansfield, & illustrations by McManus, 1910, e-book 2008, p. 15)*



Middle: Style elements that were used in the French formal garden *(Miltoun, Mansfield, & illustrations by McManus, 1910, e-book 2008)*



Bottom: Painting of the English landscape garden's elements *(János Rombauer, 1803)*

Classification of the 'Gardens' of the Museum-Parks

In the previous part, te urban typology of the museum-parks were compared on the basis of size, proportion and expression. However it is also important to look at the spatial structure of the **park-area** or **garden** within the museum-park.

Given the different history of the four museum-parks as a whole, the **park-elements** also had a different function at the time of the establishments. In all four parks, this (former) function determines (to some extent) the design language to this day. These stylistic elements vary from very formal (*Jardin de Tuileries*, Louvre) to very informal (Museumpark Rotterdam).

Roughly speaking, the parks can be devided into **formal parks** that are inspired or based on the French Formal Gardens. And more **informal parks** that are inspired or based on English Landscape Gardens (often the style of the Dutch city-parks). In addition, there are some contemporary garden-variants that cannot be classified historically.

Jardin des Tuileries in Paris – French formal garden – 17th century

The **French formal garden** (*jardin à la française*), also called the **Baroque garden**, is a formal garden, laid out in a French style, modeled to the example of the Italian Renaissance garden (that originated at the beginning of the 16th century). One of the most famous examples of a French formal garden is the *Jardin des Tuileries* in Paris.

Catharina de' Medici commissioned in 1553 to build the Tuileries Palace and the corresponding gardens in an Italian style. The actual French formal garden was created in the 17th century. In 1664, the garden of the Louvre was refurbished and decorated by the garden architect André le Nôtre, including a wide avenue and geometric flower beds (Wenzler, 2003).

The French formal garden is a style of garden based on **symmetry**, **long perspectives** and the principle of imposing **order** on nature; to demonstrate the mastery of man over nature. Le Nôtre succeeded in processing this symmetry, with the large lawns with parterres (planting beds created in geometric shapes), the shaved hedges in **tight lines** and the box hedges laid out in **symmetrical patterns**, into a harmonious landscape (Prevot, 2006).

After this success he was appointed architect of the king at the court of Versailles. Le Nôtre acquired international fame, and his formal garden style soon spread to other countries and was widely copied by other European courts (Mension-Rigau, 2000).

Together with the Louvre, the *Jardin des Tuileries* used to be part of a palace-complex. Since the demolition of the Tuileries Palace (1883), the park connects with the garden around the *Arc de Triomphe du Carrousel* (the triumphal arch Napoleon I erected in 1808). Since then, the Louvre seems to be part of the central axis between *Place de la Concorde* via the *Champs-Elysées* to the *Arc de Triomphe* and finally to *La Défense* and *La Grande Arche*.

The Tuileries are part of this large urban visual axis between the Louvre and *La Défense*. In the middle of the garden Le Nôtre laid out the *Grande Allée*, which extended 350 meters. This wide lane and symmetry axis fulfills a clear spatial effect between the Louvre and the *Place de la Concorde* by broadening the profile in the park. Other sight-axes are all internal, guided by planting structures they emphasize the length and orientation of the former

The *Jardin des Tuileries* was designed to be seen from above. Therefore Le Nôtre designed a terrace (elevated platform) on the west-side looking down upon the rest of the garden, allowing the visitor to see all at once the entire garden. The ornamental plant beds were bordered by low boxwood hedges and decorated with designs of flowers. In the centre of the flowerbeds he placed three ornamental lakes with fountains. These fountains required a massive pumping station on the Seine called the *Machine de Marly*, and it sometimes could only provide enough water for one set of fountains at a time, and only for a short period.

In addition to the large lane over the *Axe Historique* in the middle of the park, he built two other alleys, lined with chestnut trees, on either side. He crossed these three main lanes with smaller paths, to create diverse sections or compartments in the garden (Hazlehurst & Hamilton, 1980).

On the south side of the park, next to the river Seine, he built a long elevated terrace, that covered the entire length of the park. He planted it with trees and called it the *Terrasse du bord-de-l'eau.* Parallel to this terrace he built a second terrace (*Terrasse des Feuillants*) on the north side, overlooking the garden. On the other side of the garden, at the western entrance, he laid out two ramps and two elevated terraces overlooking an octagonal lake with a fountain in the middle.

Because the garden originally belonged to a closed palace-complex, the park-part is very clearly separated from the rest of the urban public space. Apart from the elevated terraces, the garden is also slightly deepened compared to the surrounding buildings and streets. This enclosed location provides a massive and direct transition to the environment. Historically, the garden lay on the outskirts of the city center, but the urban expansions and structures eventually caught up and became attached to the palace-gardens. The park, with its clearly defined edges, forms a determining unit in the urban network. Today the Tuileries are used as a promenade and as strolling-zone within high urban level (Dillen et al., pp. 34, 158).

After opening up to the public, visitor numbers grew steadily and the Tuileries became a place to relax. The former garden was used as a city park instead of a palace garden. After adding new functions such as kiosks, cafeterias and meeting places, the popularity grew and the public became more diverse.

The landscape architects Louis Benech, Pascal Cribier, and François Roubaud took care of an upgrade of the design in 1996 and after this reform the park got its current design. They restored the garden, but remained almost completely true to the original plan. Some flower beds were replaced by lawns, but the design remained the same.

In 1990, the French president François Mitterrand asked Jacques Wirtz to make a new garden design for the *Jardin du Carrousel*. He made a tight formal garden with a fan pattern of twelve radially extending hedges and raised green chambers on both sides of the triumphal arch. These hedges are placed in a sunken garden that is protected against the busy traffic and noise of Paris. The hedges frame the little triumphal arch as a gateway to the *Jardin des Tuileries*. The designer chose to let this new part of the park fit and connect to the rest of the park in French formal garden style.

Maria-Theresien-Platz in Vienna – Baroque garden – 19th century

This is a large and promp garden-square with two large (by width) and identical buildings on either sides: the *Naturhistorisches Museum* (Natural History Museum) and the *Kunsthistorisches Museum* (Art History Museum). The park joins the *Ringstraße* with the Museumsquartier.

The place is designed in a **formal Baroque garden style,** strongly influenced by the **French formal garden style** from France. The Baroque garden style began appearing in the rest of Europe around 1600-1700. Princes and dukes began to copy the large size and rich decoration of the formal gardens from France, to express their owners' status, power, and social standing. The standout development in these formal gardens had an **enormous scale** and **large central axes**. The rest of the garden was laid out in **geometric symmetrical parterres**, made of lawns, low clipped hedges or flowerbeds. In the middle a **centrepiece** was placed: statues, sculptures, fountains, or water features. Broad avenues were the primary element of the style ("The Baroque garden style," 2014). The monumental parks were designed in harmony with the buildings (Allain & Christiany, 2006).

The garden-square in Vienna is such a Baroque garden, but was only laid out at the end of the 19th century (1872-1888) by Gottfried Semper, Carl von Hasenauer, and Adolf Vetter. Four lawns are arranged in a dual-axis symmetrical order, populated by pruned conifers, well-manicured small trees and separated from each other by a broad pathway. The centre piece of the square is a huge, imposing statue featuring Empress Maria Theresa (namesake of the square), and therefore gains a significant amount of attention (Wolfrum, 2014, p. 276).

Apart from its function as the connection between *Hofburg* and the closed courtyard of the Museumsquartier, it is debatable what kind of activities might be appropriate in this square or garden. The paths between the lawn compartments are large asphalt areas with the dimensions of wide streets. However, from the pedestrian perspective, the square can hardly be gasped as a whole due to the dense vegetation. Hence, it is first and foremost one of the 'seldom preserved, formal decorative squares, typical of the historicist era, in its most elaborate form' (Berger, 2004, p. 86). The garden has not changed much over the years. It has been built for this function and has always retained the same function.

A diamond-shaped lawn in Amsterdam – Contemporary 'garden' – 20th century

At the end of the 19th century, the municipality of Amsterdam wanted to organize a large square or park to the example of other important European cities. Cuypers, as architect of the Rijksmuseum, also wanted to use the square or park for the best possible integration of the Rijksmuseum in the future city.

They decided to make a **large, open space** amidst a luxurious residential quarter with a range-structure of streets. The district got a **large, diamond-shaped lawn** in the middle, separated by a double row of trees and a fence from the surrounding lanes (De-Verdwenen-Stad-Amsterdam, 2015; Ohlerich & Hendrikx, 2015).

The square or park had a **simple setup**. It followed the structure of the street pattern, and was essentially just a **large lawn in a certain shape** in the middle of the city, with a few trees on the sides. There was not a spectacular design behind it.

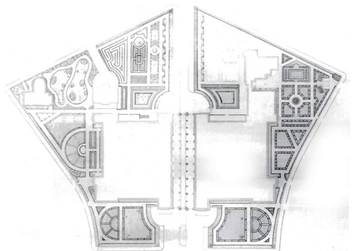
The shape of the park and the trees are preserved exactly this way. In the 20th century a number of adjustments have been made within this diamond-shaped form. The district wanted a large public space with a green character, therefore they chose for the landscape architect Sven-Ingvar Andersson. His work for the *Karlsplatz* in Vienna was an important reason to select Andersson. This square in Vienna and the Museumplein, are both surrounded by cultural institutions with **one dominant building**. They are both located at the old border of the city centre, surrounded by 19th century urban expansions (Maar de & Oskam, 1988; Ohlerich & Hendrikx, 2015).

Andersson wanted to make the Museumplein a place where you can experience the dramatic Dutch clouds. The square or park is an **open, green space** detached from the surrounding buildings, without harsh boundaries. The presence of **sight lines were greatly emphasized**, leaving a clear view of the iconic buildings from the lawn.

With the layout of his design, Andersson anchored the park in the neighborhood and wanted to involve the Rijksmuseum and the *Rijksmuseum Passage* (Huisman, 2013). From a square that was partly paved with trees, the Museumplein turned into a large lawn with a pond near the Rijksmuseum. Around this pond is a gravel surface, flanked by terraces and a museum shop. In the winter, the pond can be transformed into an artificial ice skatingarea. A path behind Van Gogh Museum and the Stedelijk Museum emphasized the urban west side, the group of trees in front of the villas accentuated the quiet east side. The pavement pattern consists of alternating strips of hard blue rock and vowels. It runs across the front of the Rijksmuseum, via the museum-path to the north side of the *Van Baerlestraat* and the *Concertgebouwplein*. With this he created a relationship between the front of the Rijksmuseum and the rest of the Museumplein (Ohlerich & Hendrikx, 2015).

The main part of the park is **symmetrical**. The **sightlines** and **hierarchical structure** are a bit reminiscent of the French formal garden. But in general, this garden cannot be assigned to a particular garden style.

The part of the park surrounding the Rijksmuseum is appropriately called the *Rijksmuseum garden*. The current Rijksmuseum garden, designed by Copijn Tuin- en Landschapsarchitecten, has remained true to the original design of architect Pierre Cuypers from 1901. Based on that original garden-idea, the garden offers a platform for various statues and vases, as well as parts and ornaments of buildings from Dutch architecture. This garden is an extension of the museum, and is especially designed to exhibit objects like sculptures.



The original Rijksmuseum Garden
(Pierre Cuypers, 1901)



The current Rijksmuseum Garden *(Copijn Tuin- en Landschapsarchitecten, 2013)*

A mixture of styles in Rotterdam – English landscape garden-Ornamental garden – Contemporary garden – 20th century

A French formal garden looks very 'mathematical' and reasoned. The flowers are nicely planted in rows, the bushes are pruned into shapes, the paths and ponds seem to be laid out with a compass and a ruler. Just before the French Revolution, this French formal garden style fell out of fashion; many architects then opted for the English landscape garden.

An **English landscape garden** or **English landscape park** or simply the **English garden**, is a landscaped garden that became fashionable in the second half of the eighteenth century and was mainly used in the Netherlands for urban parks in the second half of the nineteenth century. The English garden is completely different from its counterpart, the French formal garden. Landscape designers and architects abandoned the idea that nature should be controlled by people. The gardens were now laid out **without symmetry and balance**, sober pavilions were still being built and sculptures became scarce. The concept is based on the idea of **romantic, park-like landscapes** with surprising views. It drew inspiration from paintings of landscapes by Claude Lorrain and Nicolas Poussin. In practice it is usually shaped by the construction of lawns, preferably on a hilly terrain, surrounded by and alternating with groups of trees (Boults & Sullivan, 2010, p. 175).

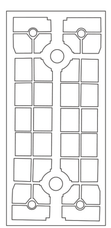
An English landscape garden looks like a 'nature park'. People often have the impression that there are no straight lines and that everything is random. However, English gardens are designed in such a way that they look natural. There are no round or rectangular ponds, but ponds with irregular banks. The paths meander between the lawns, trees and shrubs. These bushes are pruned, but certainly not in forms. Many people find the English garden look natural. In reality a lot of exotic plants, such as conifers, grow in these gardens. Water is an important part of this popular form of landscape construction. Artificial lakes were often constructed (Allain & Christiany, 2006).

At the Hoboken Estate (the later Museumpark Rotterdam) a landscape park was designed by J.D. Zocher jr. around villa Dijkzigt. For the design of these parks, famous and renowned landscape architects were often asked. J.D. Zocher jr. later also designed *Het Park* in Rotterdam (a park on the other side – south side – of the *Westzeedijk*). The landscape around the estate of Hoboken followed the garden-fashion and had a **lake, ponds, sweeps of gently rolling lawns set against groves of trees, a deer camp** and a **vegetable garden**. These larges groves of threes with dark shadows gave the parks a very different atmosphere than, for example, carefully staged and shredded bushes. The landscape style Zocher used in his design was based on the principles of this English landscape garden (Smit & Van Beekum, 2016).

Jardin des Tuileries



French formal garden
17th century



- Symmetry
- Order in nature
- Long perspectives
- Parterres in geometric shapes
- Box hedges in tight lines
- Ornamental flowerbeds
- Geometric lakes with fountains
- Sunken garden
- Clear border with the rest of the city

1. Central axis: *Grande Allée*
2. Long elevated terraces
3. Lawn-compartments
4. Bassin round
5. Bassin octagonal
6. Fan pattern of twelve radially hedges
7. Rows of trees
8. Elevated green shapes

Maria-Theresien-Platz



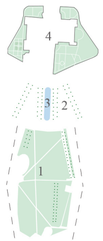
Baroque garden
19th century



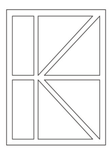
- Symmetry
- Order in nature
- Enormous scale
- To express status and power
- Large central axes
- Centered, with a work of art in the middle (entre piece)
- Broad avenues
- In harmony with rich decorated surrounding buildings
- Bounded by important structures

1. Lawns are arranged in a **dual-axis** symmetrical order
2. Statue Maria Theresa
3. Geometric symmetrical parterres with fountains in the middle

Museumplein



Contemporary garden
20th century



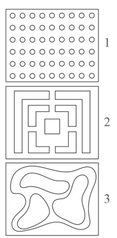
- Large open green space
- Range structure of streets
- Diamond-shaped lawn
- Main part symmetrical
- Hierarchical structure

1. Sightlines to buildings were greatly emphasized
2. Double row of trees
3. Elongated pond
4. Towards dominant building

Museumpark



Mixed garden
20th century
contemporary garden - ornamental garden - english landscape garden



1. Ornamental rose garden
2. Orchard
3. Romantic park-like landscape without symmetry and order
4. Artificial pond with irregular banks
5. Winding path

Classification of the ‘gardens’ of the museum-parks **SCALE 1:10.000**, *(Sophie Kugel, 2017)*

In the rapidly expanding Rotterdam of the early 20th century, the Land of Hoboken was gradually built on. Nevertheless, a part of it, what is now the Museumpark, remained an oasis of calm; a meadow in the middle of the city. The property and the surrounding park from the Van Hoboken family fell into disarray. Only a small pond, a few old cypresses and a winding road remained from the former landscape-style garden.

In 1935, after the completion of the Museum Boijmans, Witteveen designed an **ornamental rose-garden** in the extension of the Museum Boijmans, with a playground, a pond and a lawn (Witteveen, 1927). Ornamental gardens are specially designed areas with plants for the purpose of **aesthetic pleasure and appearance**. The ornamental garden was protected from sun and wind by tall trees. To prevent vandalism, the garden was locked in the evening. Nowadays, part of this rose garden is still present next to the Museum Boijmans van Beuningen.

Between 1985-1993 the park was renovated by Koolhaas, Blaisse, and Brunier. Next to the rose garden designed by Witteveen, the rest of the park was still designed in a scenic way (remnant of the English landscape garden) and contained an open-air theater. During the construction of the Kunsthal, the park, next to this ornamental rose-garden, was refurbished in four zones: a **museum-area** with the Kunsthal and the Natuurhistorisch Museum, a **romantic garden** (partly a remnant of the Hoboken’s old garden), an elevated black asphalt **event-area** and an **orchard** (*voorhof/boomgaard*) with apple trees planted in a regular pattern with whitewashed tribes and white shells on the ground. This change in the design of the park influenced the character of the museum park.

The park currently consists of three styles. A small part is still in the original English landscape style with a winding path between groups of trees and a small lake with an island. In line with the Boijmans van Beuningen, the ornamental rose garden is still present. Koolhaas partially limited the original English landscape garden by creating an elevated event area with an orchard next to it. This part of the garden is very contemporary and can not be assigned under a certain (historical) garden or park-style. The Museumpark with its different garden-styles connects the Kunsthal and the Natuurhistorisch Museum with the NAI (Groenendijk & Vollaard, 2000, p. 150; Worpole, 2000)

Morphological qualities

	 **Entrée** The museum-park serves as an entrance into the (historic) town.	 **Forecourt** The museum-park (or part of it) is located in front of a dominating building, within its spatial sphere of infuence - it serves as its forecourt.	 **Depth-type park** The museum-park is orientated in a longitudinal direction towards a dominant building located at the far end, in the dept of the park.	 **Hub** Several routes intersect in the museum-park, which acts as a distributor of pedestrian and/or other traffic flows.	 **Joint** The museum-park or an essential part of it belongs to two or more spatial systems at the same time; diverse structures or directions interlock in the park.	 **Interface** Two morphological systems abut on each other in the urban structure. Occupying a peripheral position, the museum-park marks the interface.
Museumsquartier, Vienna	●	●		●	●	●
Louvre, Paris	●	●	●	●		
Museumplein, Amsterdam	●	●	●	●		●
Museumpark, Rotterdam				●		

	 **City interior** Building fronts, often closed, give the museum-park the appearance of an interior space, even if there are irregular contours. This character sometimes applies to only one part of the museum-park.	 **Hall** The sense of closure of (part of) the museum-park is enhanced by a regular, for the most part rectangular, shape and the uniform height of the eaves on the building fronts.	 **Courtyard** Originally the courtyard of a building complex, this open space is used as a public square and is (part of) the museum-park.	 **Field** Just as freely arranged objects on a game board create relations between each other, freely distributed buildings stretch out the museum-park between them.	 **Garden** The character of the museum-park is essentially shaped by vegetation.	 **Ornamental park** Formality of furnishings and planting lend the museum-park its ornamental character.	 **Belvedere** Due to its (exposed) position, the museum-park provides overviews and scenic views, mostly in a preferential direction.	 **Expansiveness** In relation to the extensive floor area, the peripheral heights of buildings in the museum-park appear low or are weakly defined; the park's extent is perceived as expansiveness.
Museumsquartier, Vienna	●	◐	●	●		●	●	
Louvre, Paris	◐	●	●		◐	●	●	
Museumplein, Amsterdam				●			◐	
Museumpark, Rotterdam				●	●			●

Morphological qualities *(Sophie Kugel, 2017 & inspired by the book* Squares *by Sophie Wolfrum, 2014)*

● very obvious ◐ partly the case

Interaction between park, museums and public space

Each museum-park has a certain interaction between park, museum, and public space. An overview of these morphological qualities is given in the matrix on the previous pages.

The four museum-parks are so large that all of them form a hub. Several routes intersect in the museum-park, which acts as a distributor of pedestrian and / or other traffic flows. This important element is discussed further in the next chapter 'Route'. The other interactions between park, museum, and public space are explained in the next pages.

Large enclosed square - Museumsquartier Vienna

The museum-park in Vienna actually consists of two spatial systems at the same time: the enclosed Museumsquartier and the adjacent *Maria-Theresien-Platz*. The Museumsquartier is a large enclosed square and feels like an interior space (a so-called city interior). The complex of the Museumsquartier was previously a closed courtyard, not accessible to public. Originally, this place had a very formal appearance, but due to new architectural interventions, buildings have been placed in a very loose manner and these freely arranged objects have completely changed the atmosphere in the courtyard.

The part of the museum-park in Vienna which consists of the Maria-Theresien-Platz with its two large museums on either side, can be seen as a kind of forecourt or entrance to the historic city center. After all, this has been built as part of, and as a line of sight to, the rest of the *Kaiserforum*. The museum-park is situated on the edge of the historic city and combines two different urban morphologies. From the entrance of the Museumsquartier there is a sight line through the Maria-Theresien-Platz into the historic city center (the Kaiserforum).

Structure of hierarchy- Louvre Paris

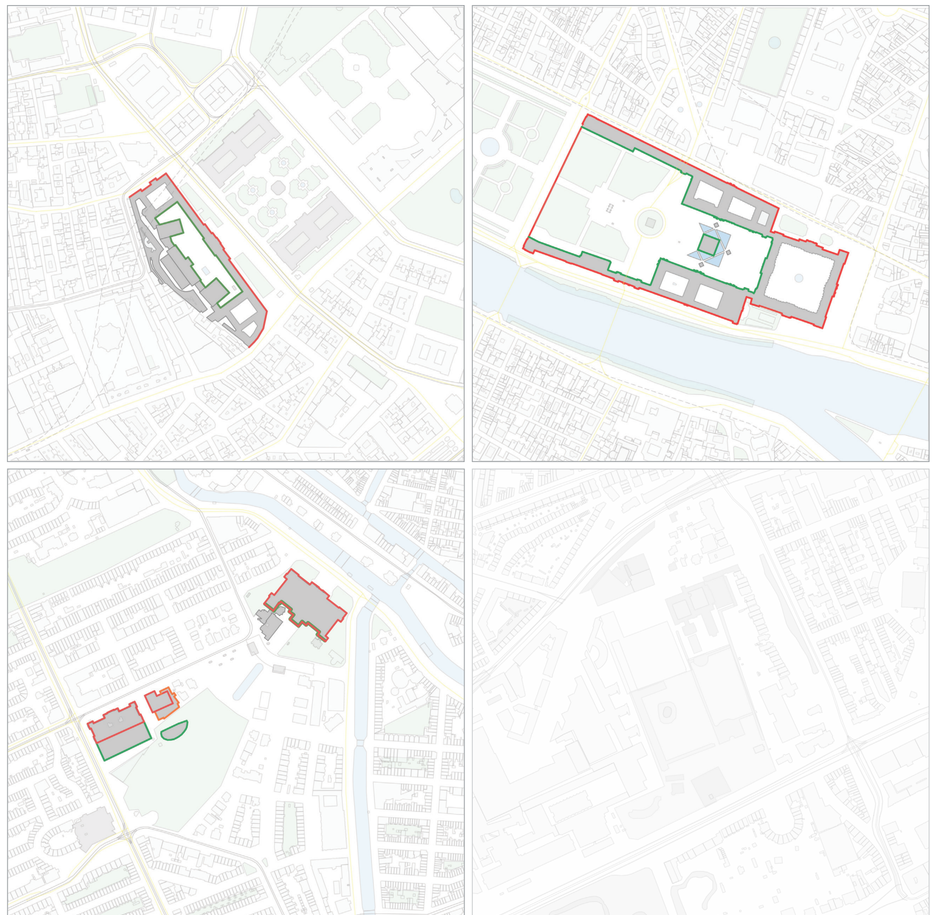
The Louvre and the Jardin de Tuileries together can be seen as a depth-type museum-park. This museum-park is very clearly orientated in a longitudinal direction towards a dominant building located at the far end, in the depth of the museum-park. The dominant building is the Louvre with the glass pyramid in its courtyard. The entire park has a hierarchical structure. The vegetation in the garden-part has a very formal character (typical for the French landscape garden) and this formal symmetry has been extended throughout the entire park.

The Tuileries originally closed of the Louvre complex and there was a large formal rectangular courtyard. The sightline from this place (*Axe Historique*) runs all the way through the (original) historic city. This axis has been accurately maintained and strengthened in all urban renovations, creating a beautiful and stately sightline, a scenic view in a preferential direction.

Free, detached buildings form a whole – Museumplein Amsterdam & Museumpark Rotterdam

The Museumplein in Amsterdam and the Museumpark in Rotterdam both consist of free, detached buildings that together form a whole. The Museumpark in Rotterdam is green; the character of this museum-park is essentially shaped by vegetation. The buildings are freely placed like on a game board and togehter with the park they create relations between each other. These freely distributed buildings stretch out the museum-park between them. This park feels a lot more 'empty' and is less compactly built.

The Museumplein in Amsterdam also consists of separate buildings, but these seem to be placed less randomly than the buildings in the Museumpark in Rotterdam. The buildings are predominantly neatly arranged (next to each other) and in between lies the lawn of the Museumplein. This empty space was labeled by the architect Cuypers as a kind of forecourt for the Rijksmuseum. It is clear that the Rijksmuseum (despite the fact that the other museums also received striking contemporary entrances on the square-side) is still the dominant building that is located at the end, in the depth of the park. The Musemplein is orientated in this longitudinal direction. The Rijksmuseum is on the border between the old historic city center and the 19th century urban expansion. The orientation of the facade of this building was originally aimed at the historic city center. Later a 'new' entrance was created on the other side. The Museumplein therefore marks the interface between two morphological systems.



Change in orientation. The red line is the original front of the building / complex. The green line is the current front / entrance, or a side that, after a architectural intervention, got a different and important meaning. **SCALE 1:8000** *(Sophie Kugel, 2017)*

Back-sides became Front-sides

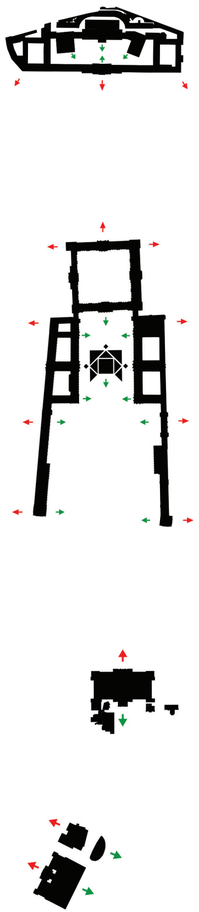
As described in the previous chapters, (part of) the buildings of the museum-parks used to have a different function. This has ensured that, over the centuries, a number of architectural interventions have been made to the older buildings of the museum-parks to make them (more) suitable for their current functions.

The buildings of the Louvre in Paris and the Museumsquartier in Vienna have a distant and formal appearance on the outside. The entrances of these complexes were situated on these sides. The orientation of these buildings was directed outwards, and the courtyard on the inside was an invisible world.

After a number of architectural interventions, contemporary buildings were created on the courtyards of these museum-parks. This caused a total turnaround in the orientation of the complexes. The back sides became, as it were, also front sides. At the Louvre, the glass pyramid in the courtyard is the new main entrance, and at the Museumsquartier the three most important museums in the courtyard have been newly built.

These kinds of interventions, which ensure that the back sides are given meaning, also happened, in a different way, at the Museumplein in Amsterdam. Previously, the buildings of the Rijksmuseum, the Stedelijk museum and the Van Gogh museum were oriented outwards. The fronts with entrances to these museums were situated on the city side and not on the park side. Due to a number of architectural interventions and new buildings, all three museums were (also) given an entrance on the park side. This made the Museumplein become a whole. The park-part of the Museumplein is now the connecting factor with the entrances of all the museums situated on this side. The back sides of the musea became the new front sides.

The Museum Park in Rotterdam is the exception here because this museum-park has not undergone such an **orientation-change.**



The red arrows indicate the original direction / appearance of the buildings. The green the current and new. **SCALE 1:8000** *(Sophie Kugel, 2017)*

Conclustion Spatial Composition

In this chapter the configurations of the buildings and the parks were investigated and compared: the spatial structure and composition of the buildings and the gardens. We have seen that each museum-park is different in size, dimensions, proportions, and expressions.

In the conclusion of the previous chapter, a number of general principles have been formulated that apply to all four museum-parks, or to part of these museum-parks. As a result of this chapter, it is much more difficult to work out general principles, and therefore must conclude that the museum-parks **differ largely in terms of spatial structure and composition.**

The major differences can first be seen in the silhouettes of the museum-parks on page 188-1859. These contrasts can also be found in the sizes and proportions of the museum-parks. These range from square-shaped (ratio 1: 1 - Museumsquartier Vienna) to elongated-shaped (Louvre).

Some museum-parks consists of a high percentage of park and others consists of a high percentage of building. It can be deduced that the Museumplein in Amsterdam and the Museumpark in Rotterdam have the most similarities with regard to the spatial structure of the buildings and the compositions of the museum-park. The percentage-size of the park-part and the amount of buildings in these two museum-parks are comparable (buildings around 25% and the park-element around 75%).

The way the separate buildings are positioned inside the park also resemble each other: **free arranged buildings that create relations between each other and stretch out the park.**

The Louvre and the Museumsquartier consists of much larger building-blocks and have a completely different configuration. However, it can be concluded that these two museum-parks both have a **hierarchical spatial setup, with a strong orientation**. This can be seen in both museum-parks in the symmetrical structure of the original buildings. In the new architectural interventions this style has continued (the symmetrical glass pyramid in the courtyard of the Louvre), or has deviated from it (the deliberately skewed placed new museums in the courtyard of the Museumsquartier).

The gardens (the park-parts) have been classified separately. The stylistic elements have everything to do with the history of the museum-parks (this has been discussed extensively in this chapter) and vary from very formal (*Jardin de Tuileries*, Louvre) to very informal (Museumpark Rotterdam).

Roughly speaking, the parks can be divided into **formal parks** that are inspired or based on the French Formal Gardens, and more **informal parks** that are inspired or based on English Landscape Gardens. In addition, there are some contemporary garden-variants that cannot historically be classified (see the overview on page 198). As with the spatial composition of the buildings, it can be deduced from this that there is not one correct way of building a park together with the museums. Different park-styles can work in different ways. However, it can be seen that a hierarchical garden is often connected to a hierarchical building. In terms of hierarchical structure of the parks the following ranking applies:

Hierarchical and symmetrical

Louvre - Paris

Museumsquartier Vienna

Museumplein Amsterdam

Museumpark Rotterdam

Free and asymmetrical

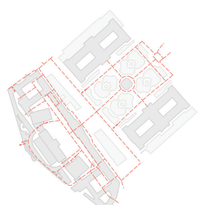
Museum-parks can consist of one large block (Louvre - Paris) or of several smaller separate elements (Museumplein - Amsterdam and Museumpark - Rotterdam). The parks can roughly be divided into three different categories:

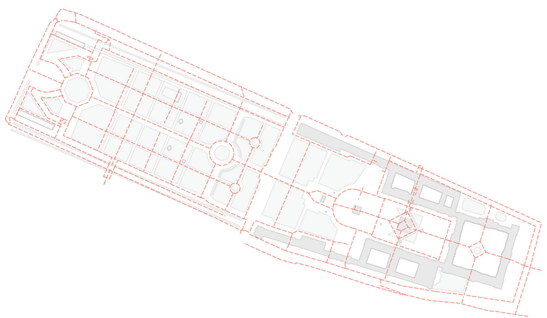
- **Large enclosed square** – Museumsquartier Vienna
- **Structure of hierarchy** – Louvre Paris
- **Free, detached buildings form a whole** – Museumplein Amsterdam & Museumpark Rotterdam

Ultimately it can be concluded that there are no rules regarding the size, dimensions, proportions, expressions and compositions of the museum-parks. The spatial structures and the classification of gardens/parks are different in all four museum-parks. They have their own structure in the urban fabric, that 'works' for all four of them in a different way.

However, some general principles can be formulated that apply for a part of these museum-parks:

- The museum-parks are built up from completely different buildings and they are configured in a completely different way: yet they all **form a unity**. Whether the museum-parks consists of separate buildings or one large building block; the most important thing is that they form a whole together with the park, that it can been seen as one unit or at least as different parts that belong together.
- The museum-parks that are built up in a **hierarchical way**, also have the **clearest orientation** and the **clearest boundaries.**
- Three of the four museum-parks changed their orientation (the Museumsquartier, the Louvre and the Museumplein) after a number of architectural interventions. Contemporary buildings were created on the 'courtyards' of these museum-parks. This caused a total turnaround in the orientation of the complexes. **The back sides became also front sides.** This may also mean that cohesion is increased (more intimate space).









Four typologies of **museum-parks and their routes**: Museumsquartier in Vienna, Louvre in Paris, Museumplein in Amsterdam and the Museumpark in Rotterdam *(Sophie Kugel, 2018)*

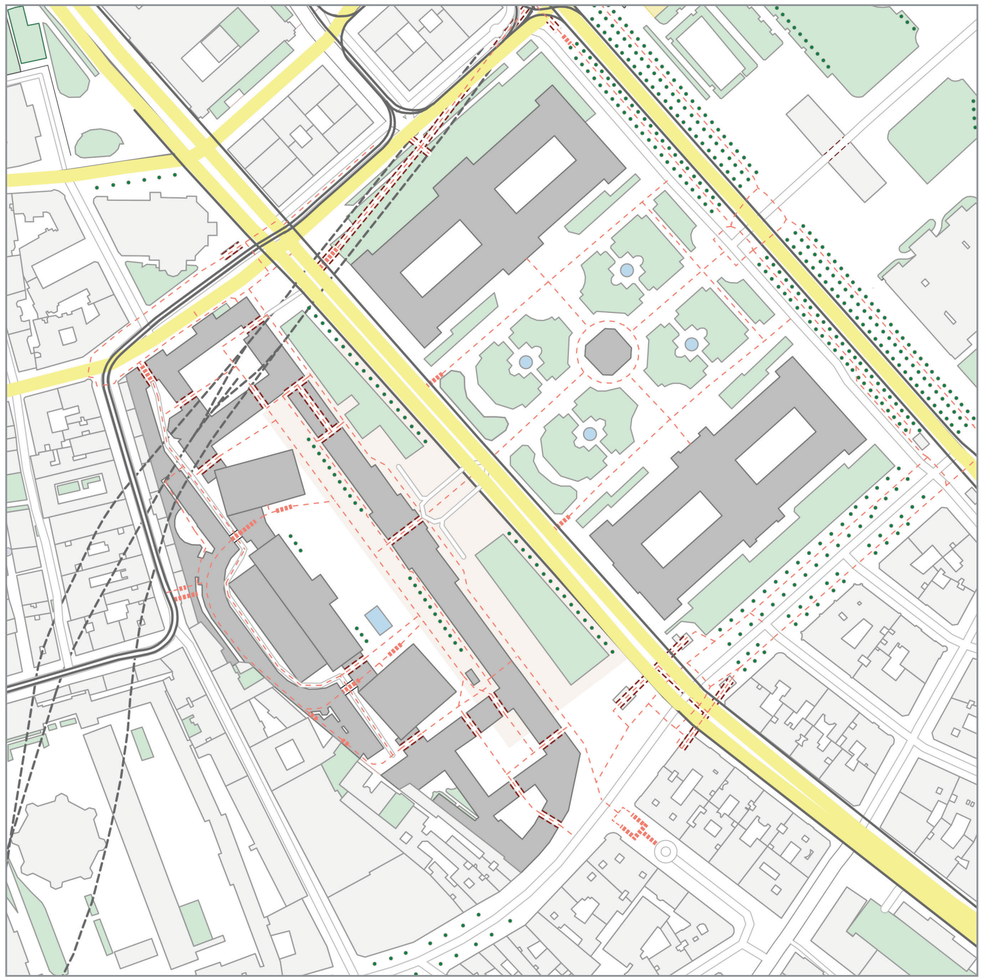
4.ROUTE

This chapter zooms in further on the museum-parks. The locations are now viewed on a scale of 1:2500. This is required to properly examine the different routes that run through the museum-parks. As discussed in the previous chapter, all four museum-parks can be seen as a hub. Several routes intersect in the museum-parks, and act as a distributor of pedestrian and/or other traffic flows.

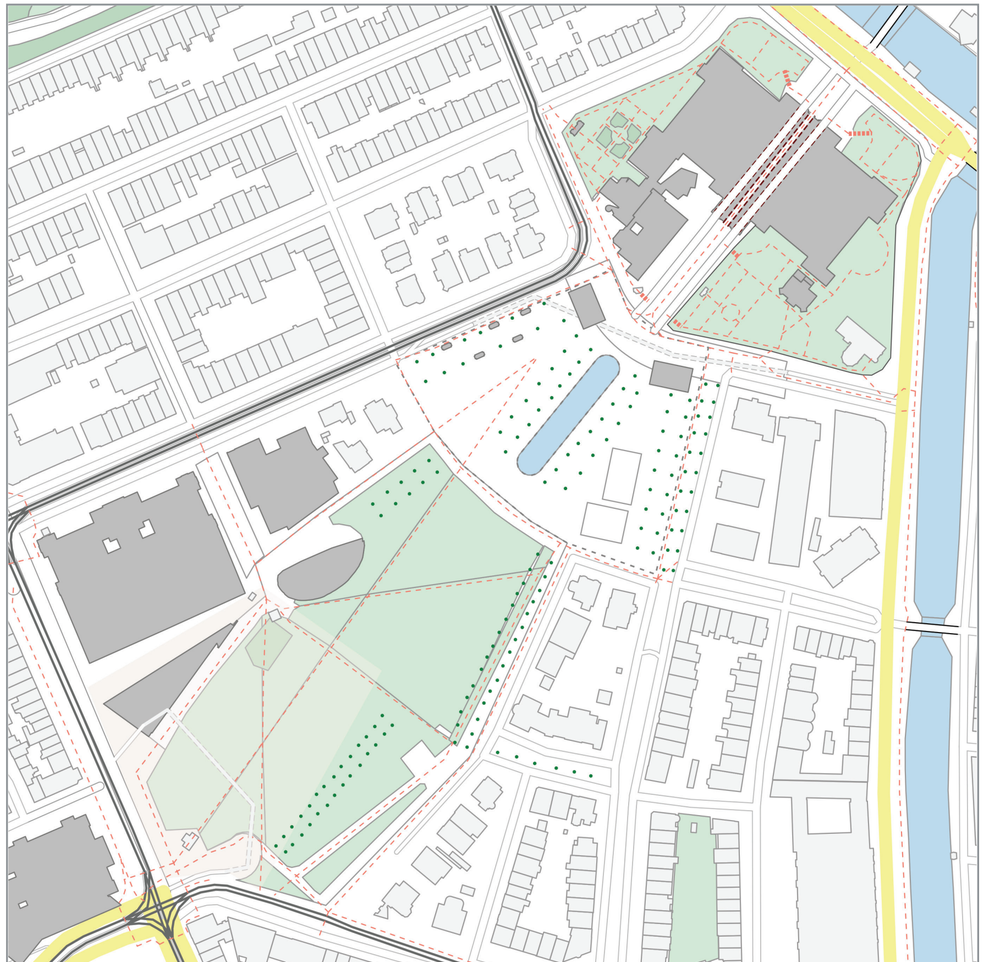
The dimensions of most underground parking spaces are estimates, since this exact information is not publicly available. The location of the entrances, the number of parking spaces and other information, have been carefully assessed based on (publicly) available information. In this chapter the entrances, pedestrian routes, and transport are evaluated. Each element will be compared on the basis of detailed maps (1:2500), on which discussion points are highlighted. Through this research it is assessed how these museum-parks deal with these traffic flows.



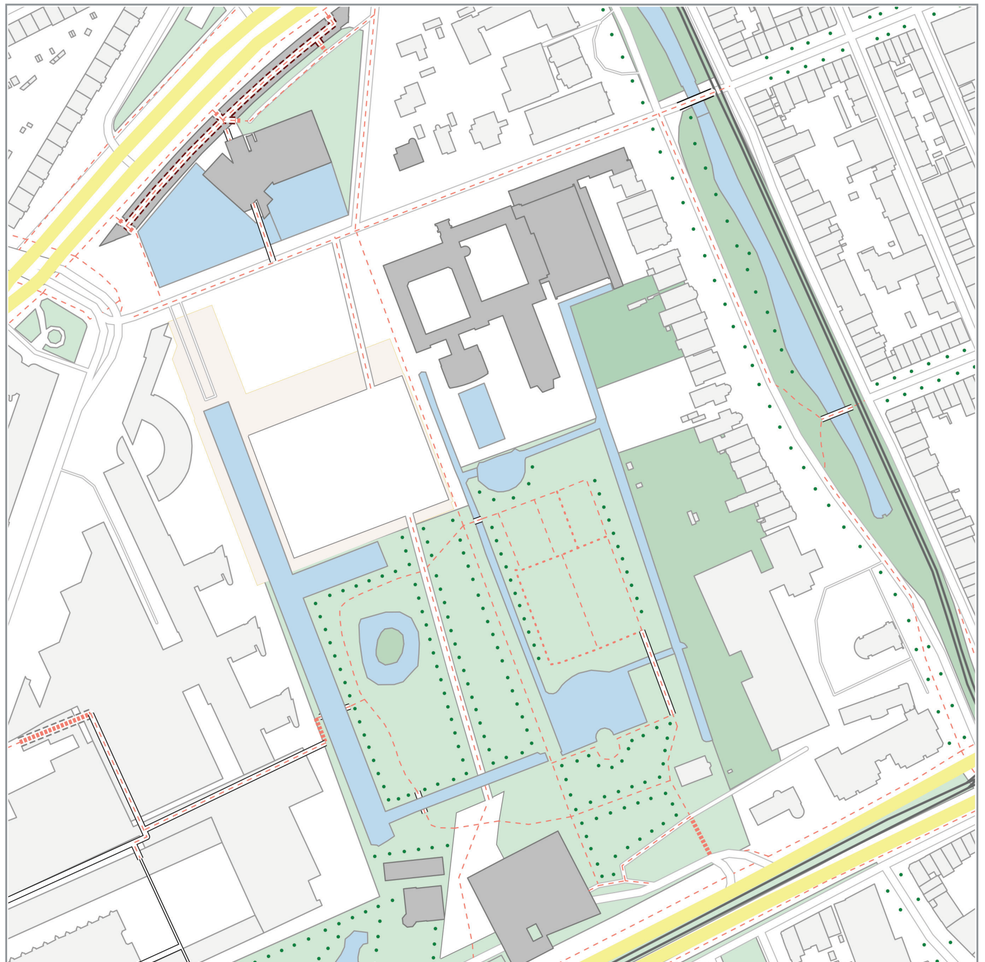
The four selected museum-parks, Museumsquartier Vienna, Louvre Paris, Museumplein Amsterdam, Museumpark Rotterdam, and a number of their pedestrian routes. In the sequence shown: *(L. Specht, 2008), (parijs10.nl, 2017), (mapio.net), (MVRDV, 2013-2017).*



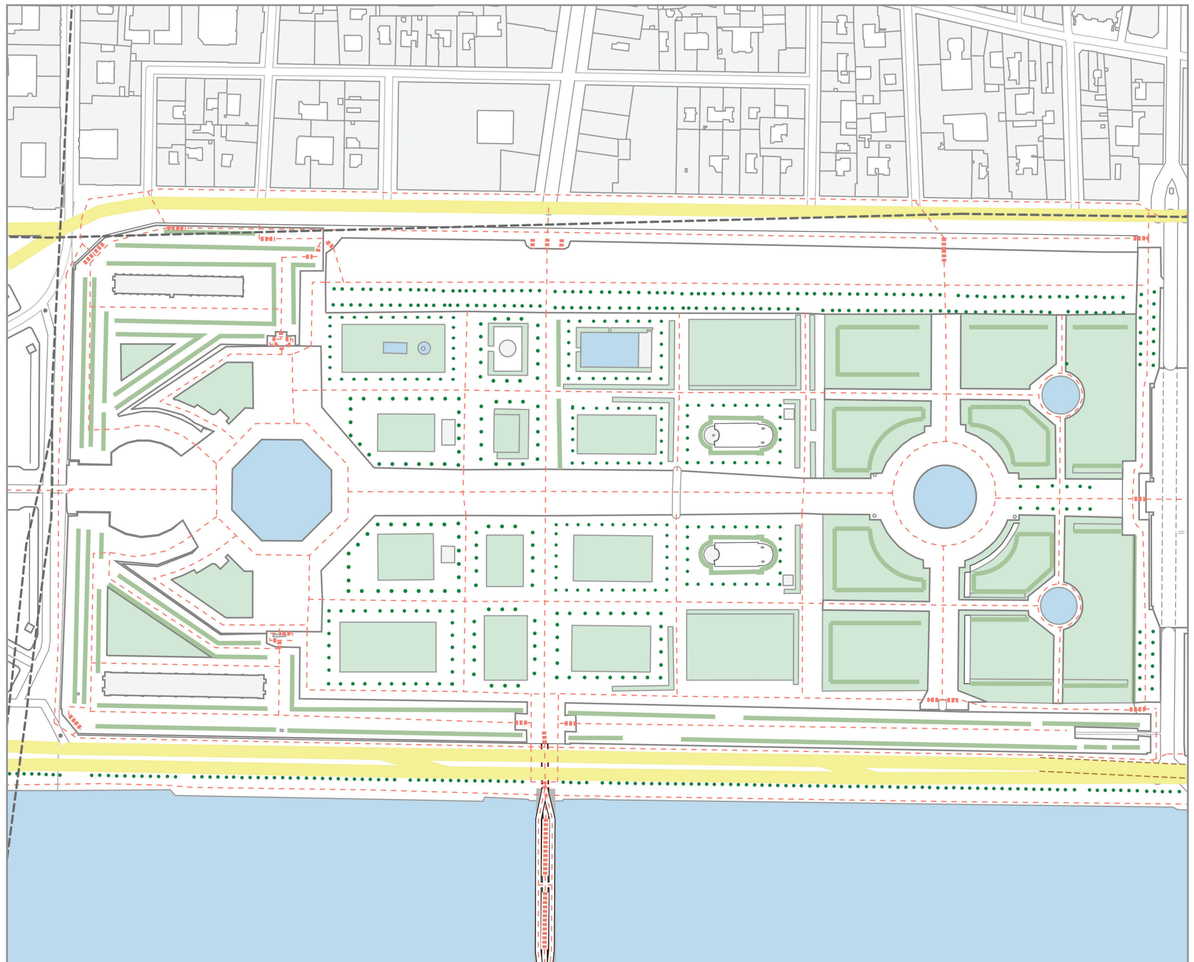
The Museumsquartier in Vienna, **SCALE 1:2500**, *(Sophie Kugel, 2018)*

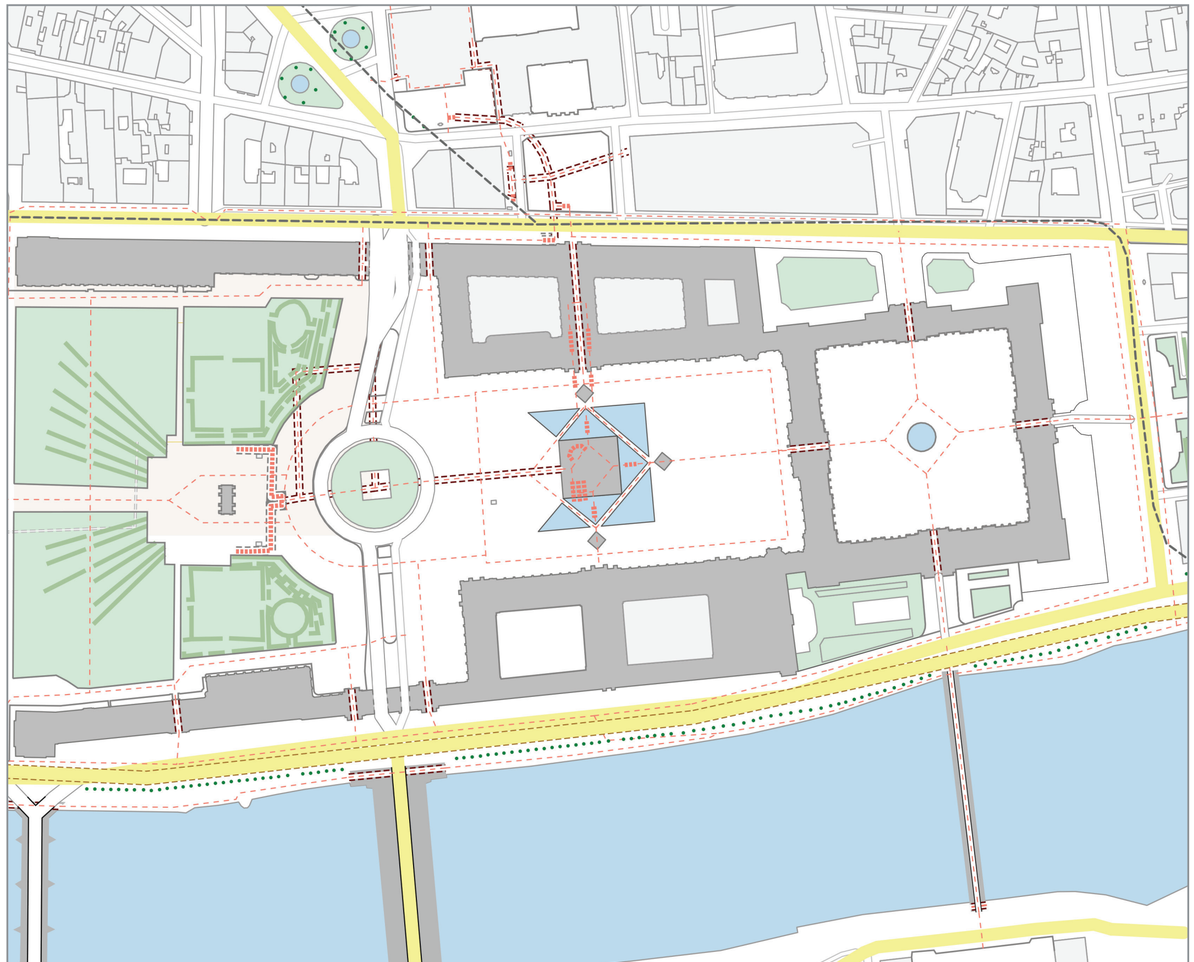


The Museumplein in Amsterdam, **SCALE 1:2500**, *(Sophie Kugel, 2018)*



The Museumpark in Rotterdam, **SCALE 1:2500**, *(Sophie Kugel, 2018)*





The Louvre with the *Jardin des Tuileries* in Paris, **SCALE 1:2500**, *(Sophie Kugel, 2019)*

* This map has been rotated to ensure that the entire museum-park can be displayed: the north is the northwest.

Connection City and Museum-park:

The boundaries of the museum-parks are shown on the maps on pages 169-175. In these images the borders are indicated with hard lines. However, those who visit a museum-park are sometimes made aware in a subtle (or not so subtle) way, that they leave the **public space** of the city and now enter a **semi-public domain**. In the different museum-parks, the different types of architecture ensure whether or not a threshold is raised for the visitor. In order to regulate this **degree of accessibility** of the museum-parks next to the expression of any façade, the location and situations are crucial.

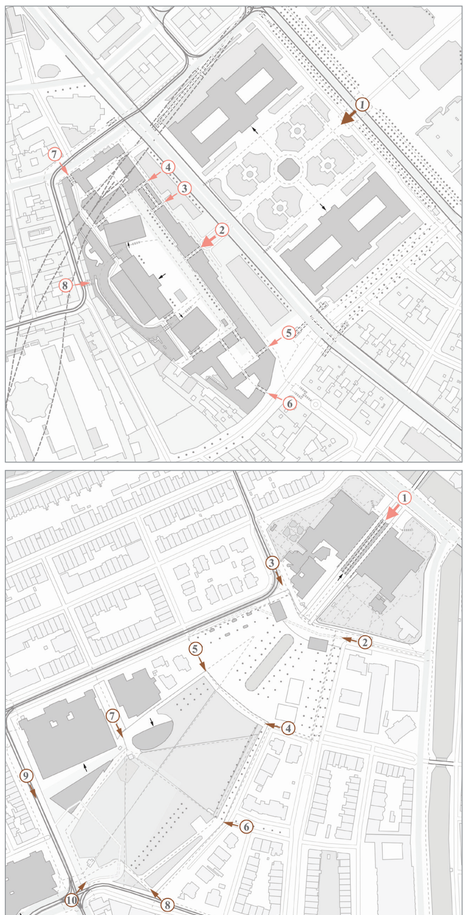
The way the entrances to the museum-parks are designed and situated in the public space has everything to do with the elevation views of these museum-parks in the city. These elevation views have already been shown on pages 178-179 of this book. In this chapter it was explained that the four museum-parks all have a different appearance in the city-scene, sometimes as buildings blocks sometimes as separate elements.A rough division is made into two different types of elevation views of the museum-parks in the city:

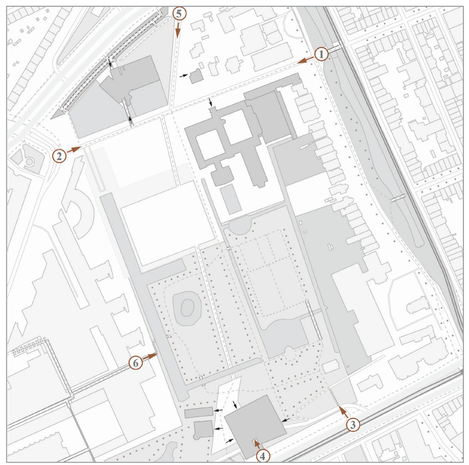
1. Closed, monumental and repetitive facades *(Louvre Paris & Museumsquartier Vienna)*
2. Loose elements of different types of architecture *(Museumplein Amsterdam & Museumpark Rotterdam)*

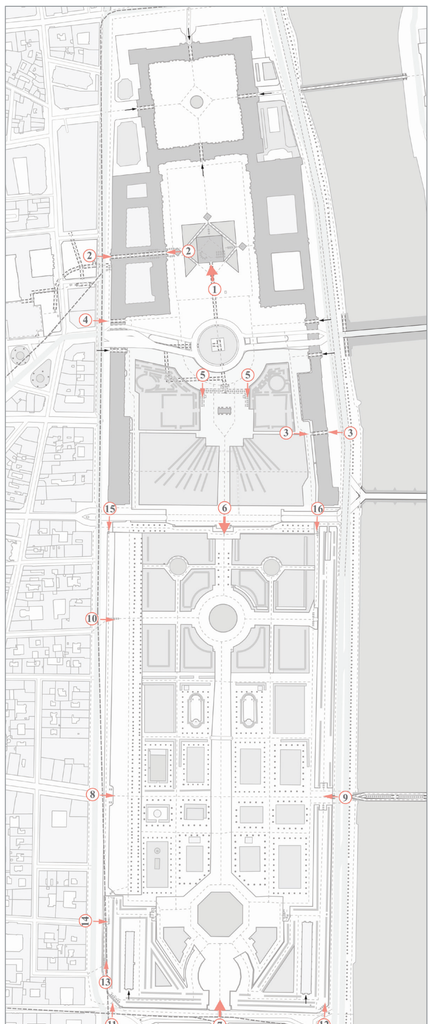
This division in the elevation view of the museum-parks is also strongly reflected in the way the entrances to the museum-parks are regulated. At some museum-parks there is an obvious main entrance, while at other museum-parks there are multiple important entrances. In some parks this entrance is a clear and hard boundary between public space in the city and museum-park, while at other museum-parks this border is more gradual and it is less clear what belongs to the public space in the city and what belongs to the museum-park (this can even partially overlap).

The appearance of the boundary between public space and museum-park is often a direct consequence of the original function of the buildings in the museum-park. The Louvre Paris and the Museumsquartier Vienna were originally (partly) royal buildings (city-palaces). In both constructions the museum-park is partly situated behind a closed facade. Althought the functions have changed to cultural institutions, part of the authentic, repetitive and closed facades were preserved. Logically, there is a clear and monumental main entrance in such classical closed facades.

the Entrances







Main Entrance - hard (clear) border

Side Entrance - hard (clear) border

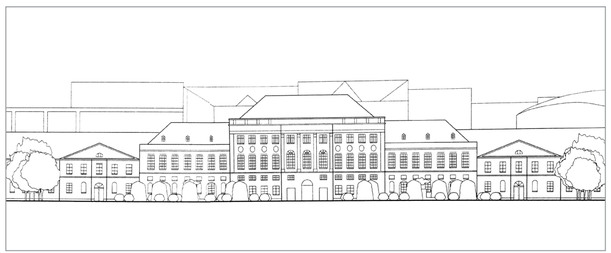
Main Entrance - soft (gradual) border

Side Entrance - soft (gradual) border

Independent entrace (freestanding museum)

Pedestrian Routes, **SCALE 1:5000** *(Sophie Kugel, 2018)*

* The last map of the Louvre has been rotated to ensure that the entire museum-park can be displayed: in this image the north is the south-west.



Facade with main entrance of the Museumsquartier Vienna **(entrance nr. 2),** *(S. Wolfrum, 2014).* Main entrance Museumsquartier **(entrance nr. 2),** *(H. Hurnaus, 2014).* Overview entrances Maria-Theresien Platz, **(entrance nr. 1),** *(Shutterstock, 2016).* Entrances Maria-Theresien Platz **(entrance nr. 1),** *(Screenshots Google maps,, 2018).*

The Museumplein Amsterdam and the Museumpark Rotterdam have developed more gradually. At these locations it was clear from the beginning that this area was given a cultural function. In both museum-parks, more and more cultural institutions (or additions to these cultural institutions) were added over time. This ensures that these museum-parks are made of loose elements of different types of architecture. Therefore it was not required to make a closed building-block, because these places were never a complete private domain. Therefore the buildings could be placed freely in the public space. Logically, the entrances to these parks are less obvious, since they consist of separate objects that have been added over time.

The four museum-parks that have been selected for this research are all large in their size. As a result, there are (besides the main entrance) also other different types of entrances present at each museum-park.

On the maps, a distinction has been made between four different types of entrances. The entrances have been divided into main entrances and side entrances, but a distinction is also made between entrances with a 'hard', physical boundary and entrances with a 'soft', open (abstract) much more gradual boundary (see the map-key on page 217). In addition, the entrances of the museums are indicated separately.

An entrance to a museum-park with a physical boundary can be designed with different architectural elements and can therefore be subdivided into the following components:

- door
- hall
- portal
- passage
- gate
- fence
- stairs
- serie of spaces

In the following text the entrances of the museum-parks are duscyssed one by one, and references to the numbers of the entrances on the maps on the pages 218-224 are included in the text.

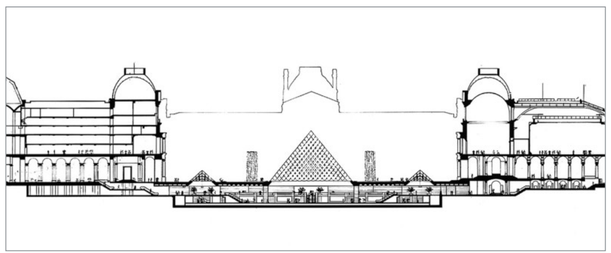
Entrances Museumsquartier Vienna

The Museumsquartier in Vienna consists of two parts. The first part is an open park-area (also called the *Maria-Theresien Platz*) and is situated on the extension of the sight axis of the Kaiserforum. On either side of this Maria-Theresien Platz two mirrored monumental 19th century museums are built. The second part of this museum-park is housed inside the former Royal stables of the emperor, and has a very enclosed courtyard. The main- (or head-) entrance is located in this old Royal building (2).

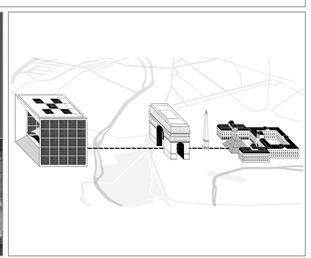
An entrance might be a single door or gate, but the main entrance of the Museumsquartier in Vienna is an entrance in its most extensive form, along a long route. The entrance to Maria-Theresien Platz is situated on an important sightline. This can be seen as an head- or main entrance but with a 'soft' gradual transition from public space to park and without any physical barriers. This sightline to the main entrance starts in the old city centre and runs all the way through the Maria-Theresien-park to the gate of the former *hofstallungen* (1). This monumental main entrance of the Museumsquartier in Vienna manifests itself expressly in the city view (2). It is a gate-building: a closed facade, with three openings. The middle passage is the largest gate and two lower entrances are located on the sides (2). The gate leads to an indoor space (portal) where, among other things, tickets can be bought, and afterwards one can walk to the large courtyard. You enter a semi-public area here, and you are aware of this during the journey. The entrance is a physical barrier for entering the closed courtyard. It used to function as a filter between the public space of the city and private spaces of the emperor. There is no visual relationship between this inner world and the Maria-Theresien Platz outside.

The Museumsquartier is large, and therefore the enclosed courtyard has six other entrances (3,4,5,6,7,8). The latter (8) is striking becausehere the Museumsquartier is built here with its 'back' against the surrounding buildings. Through this entrance you enter an elevated level via stairs (there is an elevated pedestrian route behind the *Kunsthalle*).
The cultural institutions within the closed courtyard of the Museumsquartier, and also the two large 19th century museums on the Maria-Theresien Platz, have their own entrances.

1.	Entrance Maria-Theresien Platz – **soft and gradual border**
2.	Main entrance Museumsquartier – **hard border** – *door, gate, portal, hall*
3, 4, 5, 6.	Side entrances – **hard border** – *door, gate*
7, 8.	Side entrances – **hard border** – *gate, stairs*











Glass Pyramid: the main entrance of the Louvre **(entrance nr. 1),** *(Pei Cobb Freed and parners, 1988).* Glass Pyramid **(entrance nr. 1),** *(Gettyimages, 2016).* Axe Historique with at the end the main entrance of the Louvre **(entrance nr. 1),** *(M. Kirkham, 1995).* Entrance gates to the Tuilleries **(entrance nr. 7 & 14),** *(M. David, 2014).*

Entrances Louvre Paris

The (original city palace) Louvre has no modest appearance. After the monumental entrance to the Tuileries Palace burned down, the Louvre has no closing façade on the east side of the complex. Architect I.M. Pei designed a new glass pyramid that brought back the monumentality. This symmetrical glass structure serves as the main entrance (1). The pyramid leads visitiors to an underground lobby beneath the pyramid. From here visitors can enter the main buildings of the Louvre.

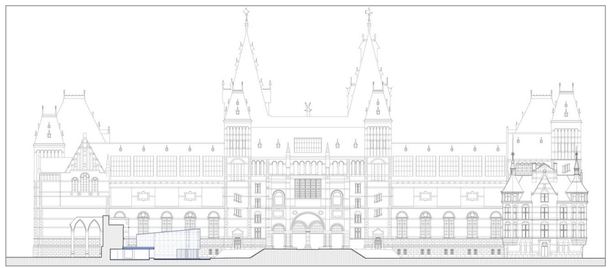
The *Jardin des Tuileries* was originally a private domain, but in the 18th century it gradually became accessible to the public. The boundaries of this garden / park are clearly indicated by fences, gates, and (partly) stone elevations (walls). All entrances have a monumental appearance, even if it is not a main entrance. The high fences with gates are black with golden details and have impressive sculptures of, for example, lions on pillars, on the sides. This makes visitors aware that they are transitioning from a public space to a semi-public domain. The monumental entrances make these borders very clear (6,7,8,9,10,11,12,13,14,15,16).

The entrance called *Concorde* (7) of the Jardin des Tuileries is also made of this monumental black-iron fence with classicistic sculptures on either side. This gate gives direct access to the *Grande Allée* and is in a line of sight with the glass pyramid (the main entrance of the museum-park). The entrance *Concorde* and the pyramid-shaped main entrance are part of the *Axe Historique* in Paris. Just like the main entrance of the Museumsquartier in Vienna with the sightline from the *Kaiserforum*, this long axis in Paris ensures that the entrances at the end of these sightlines become eye-catchers and that the monumentality of these entrances is emphasized (1,6,7).

The Jardin des Tuileries is situated on a lower level than the public street (with the exception of the raised terraces). To walk into the park, you have to descend a few steps. A staircase literally forms a threshold between street and park.

The entrances with the numbers 2,3,4 and 5 can also be used to enter the Louvre-museum. They are official entrances. The black arrows are also entrances to the Louvre but these are not freely accessible to the public.

1. Main Entrance Pyramid – **hard border** – *door, hall, stairs, serie of spaces*
2. Passage Richelieu – **hard border** – *door, gate, serie of spaces, passage*
3. Porte des Lions – **hard border** – *door, gate, serie of spaces, passage*
4. Carrousel shopping mall (underground) – **hard border** – *stairs, serie of spaces*
5. Galerie du Carrousel (underground) – **hard border** – *stairs, serie of spaces*
6. Entrée Carrousel – **hard border** – *fence, gate, stairs*
7. Entrée Concorde – **hard border** – *fence, gate*
8. Entrée Castiglione – **hard border** – *stairs, fence*
9. Entrée Seine – **hard border** – *stairs, fence*
10. Entrée 29 juillet – **hard border** – *stairs, fence*
11. Entrée Poterne du Jau de Paume – **hard border** – *stairs, fence*
12. Entrée Poterne de l'Orangerie – **hard border** – *stairs, fence*
13. Entrée St Florentin – **hard border** – *stairs, fence*
14. Entrée Cambon – **hard border** – *stairs, fence*
15. Entrée Marsan – **hard border** – *stairs, fence*
16. Entrée Flore – **hard border** – *stairs, fence*











Elevation Rijksmuseum **(entrance nr. 1),** *(Cruz y Ortiz Arquitectos, 2013).* Main entrance Museumplein **(entrance nr. 1),** *(123rf.com, 2016).* Passage Rijksmuseum, **(entrance nr. 1),** *(Cruz y Ortiz Arquitectos, 2013).* Side entrances with soft and gradual borders **(entrance nr. 2-10),** *(Parool,, 2016).*

Entrances Museumplein Amsterdam

The Museumplein Amsterdam is very accessible to visitors. Because of the open character, the green square is visible from various places and corners from the street. The cultural institutions are situated around this green square, so the museum-park is defined by these buildings. You can enter the Museumplein by walking in between these cultural institutions (2,3,4,5,6,7,8,9,10). The change in pavement marks the gradual transition between street and museum-park. All buildings and elements in the museum-park are visually in open communication with each other.

From the city center there is a passage straight through the Rijksmuseum building; called the Passage (1). From here it is possible to enter the Rijksmuseum itself, but it is also an entrance to the Museumplein. This axis has been very decisive for the further layout of this museum-park.

1. Entrance Passage Rijksmuseum – **hard border** – *gate, passage*
2, 3, 4, 5, 6, 7, 8, 9, 10 Side entrances - **soft and gradual borders**

Entrances Museumpark Rotterdam

The Museumpark Rotterdam presents itself as an open green oasis in the middle of the city and is very inviting. When one walks into the Museumpark and looks back at the ‘entrances’, these ‘entrances’ are hardly distinguishable from the public space in the city. The public domain and the museum-park gradually merge or overlap.

The precise shape of this museum-park is therefore not entirely clear and the museums, dating from different periods, are diverse in their architectural expressions, which strengthens the urban atmosphere.
All museums are independent and have their own entrance within this museum-park.

There is also a special entrance to the Museumpark Rotterdam. To bridge this difference in height from the dike and the Museumpark, a ramp runs straight through the Kunsthal-building. This ramp connects the museum-park with the promenade on the dike. This ramp serves as an entrance of the Museumpark Rotterdam. Pedestrians do not need to enter the exhibition rooms of the Kunsthal-building itself.

1, 2, 3, 5, 6. (Side) entrances – **soft and gradual borders**
4 (Side) entrance Kunsthal Rotterdam – **hard border** – *passage*



Overview gradual and soft entrances of Museumpark Rotterdam **(entrances nr. 1-5)**
(rotterdamxpanded.com), (easygoingrotterdam.nl), (tripadvisor), (mapionet, 2016), (B. ter Mull, 2012)

Semi-public domain

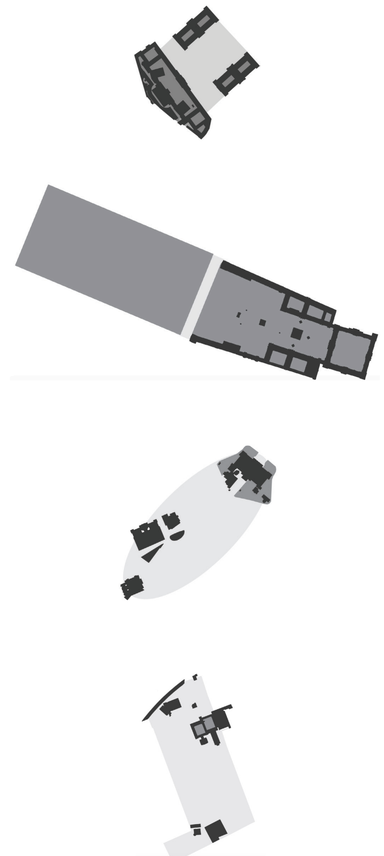
"Public space is not a fixed entity. It is constituted within the relation of public and private spheres. This relation again is not stable, but changes historically over time and according to local conditions."
(Wolfrum, 2014, p. 17)

All four museum-parks have a cultural function. Because cultural institutions are open to the public, the complexes have no longer a private function. However, because the function of some museum-parks has changed over time, the degree of openness and the private character is variable.

The entrances to the museum-parks are architecturally announced in a way that is different for each museum-park: it has already been seen that a wide variety in the appearances of the museum-parks' accesses.

The pictograms show which places can be labeled as **public spaces** (in other words as full public domain) and which places can be labeled as a **semi-public domain**. This means that sometimes part of the original private character can still be found in the current architecture. These buildings and parks were private domains when they were designed and built, but are now publicly accessible through a change in function. Often this has been made possible by public entrances, but most of the times these entrances are still closed at night.

For example, the concept of **visible-invisibility** also applies to the public-private concept. The courtyard of the Museumsquartier is semi-public, but it is not visible behind the closed facade.



Museum-park pictograms, showing: builings semi-public domain public domain. **SCALE 1:15.000**, *(Sophie Kugel, 2018)*

Horizontal Circulation

The circulation within the entire museum-park is taken into account during analyses. Therefore, the research describes mainly how the flow of visitors move through the museum-park. The circulation within the (separate) museum buildings themselves is not taken into account. This can also be interesting, but fits with another research.

In this part of the book it is attempted to find out where the visitor-flows move after entering the museum-park and the routes that are created for them or by them. All four of the museum-parks have something unique, a special feature of the circulation, that will be explained in more detail.

Pedestrian routes

The exact way the pedestrian routes run through the museum-parks can be seen on the adjacent maps and this has a direct connection with, and is a consequence of, the design of the parks as discussed in the chapter *Classification of the 'gardens'* on page 192-199.

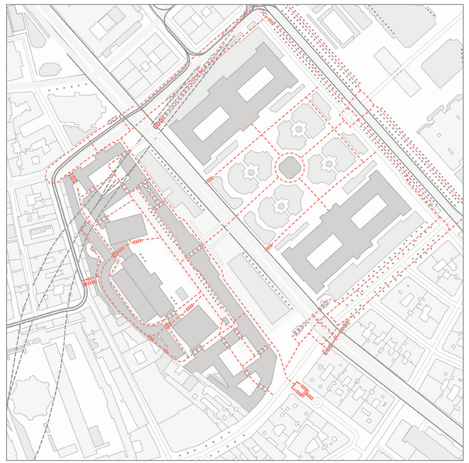
Roughly speaking, the parks are divided into **formal** parks and **informal** parks. The paths made of symmetry and long perspectives from the formal parks and the elegant curving paths from the romantic park-like landscapes of the informal parks can be seen clearly in the routes of the pedestrian flows. Therefore, these drawings of the horizontal circulation do not require much explanation as they speak for themselves.

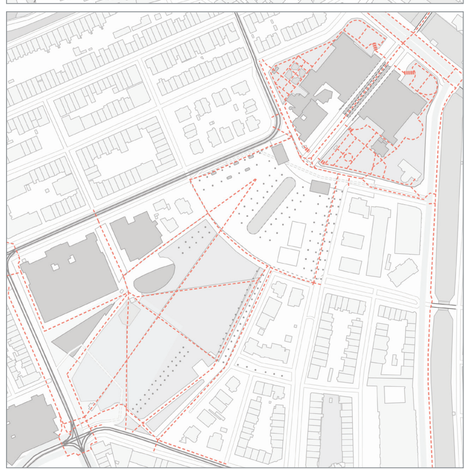
Museumsquartier Wenen
Clearly defined and closed building block with a organized and staged route: an inner-world. In the park-section there is a symmetrical route in the form of the French Landscape style.

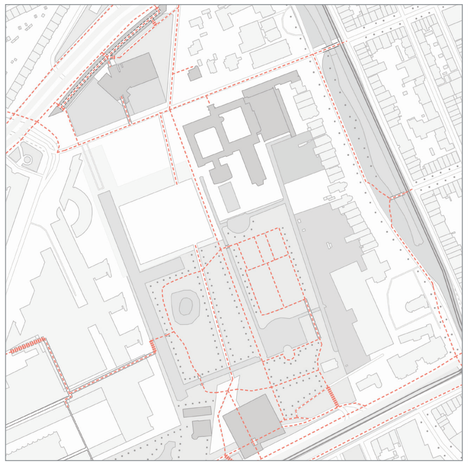
Museumplein Amsterdam
Visitors are lead onto the square through the Rijksmuseum. The big separate buildings serve the public space. The route on the Museumplein is partly symmetrical with paths in sight lines.

Museumpark Rotterdam
A museum-park with 'loose' buildings that are freely build in the public space. The buildings are directed inwards: a kind of enclaves. This museum-park is an open place in the city with closed building masses. The pedestrian-route runs (winding) through it, with two clear axes that intersect.

Louvre Paris
Symmetrical French Landscape Garden (*Jardin des Tuileries*), with a route in clean straight lines. This fitted the philosophy of absolutism: everything was under the power of the monarch (even nature). The park, and thus a large part of the route, is part of the Louvre, which once served as the castle of the kings of France.







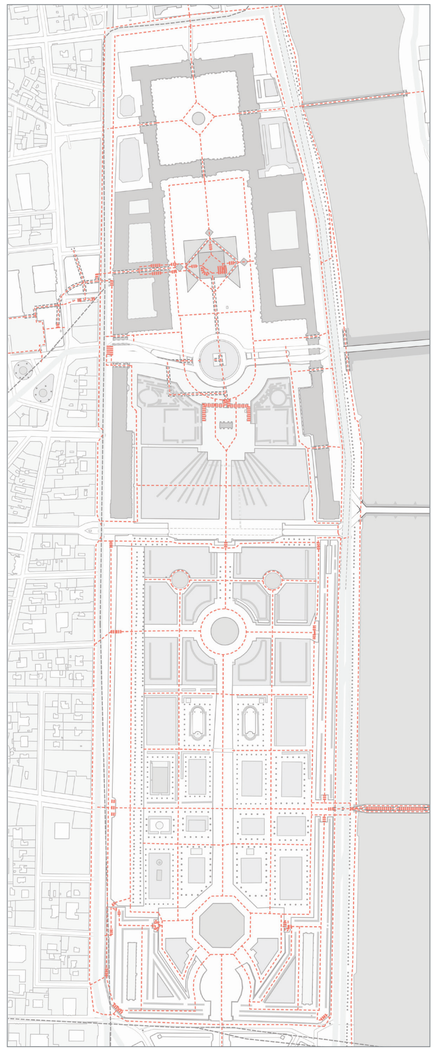
Performative potential

How visitors of the museum-parks experience these routes and what functions and roles these (semi) public spaces fulfill within the city is, however, a special feature in every museum-park that requires more explanation. Some museum-parks, for example, lend themselves perfectly for strolling or meeting people, some parks are only traversed with a certain purpose and in others (or in parts of a park) you can relax. Some (parts) are made for visitors to see certain scenes or perspectives and others consist largely of empty space.

These kind of characteristic features of museum-parks also play a role in how visitors experience the place. Does it really feel like a public space in the city, or does it feel like you are inside an interior, an enclosed space?

It is also interesting to know whether the museum-park is used for certain events because this may say something about the identity of the museum-park. Examples include ceremonies, political or social activities or demonstrations. Such events can give a place a meaning, or the other way around: because the place (the museum-park) is so important to the city, the events take place on this location.

All these characteristics of the museum-parks are clearly displayed in the matrix on page 228.



Pedestrian Routes, **SCALE 1:5000** *(Sophie Kugel, 2018)*

* The last map of the Louvre has been rotated to ensure that the entire museum-park can be displayed: the north is the south-west.

Performative potential

	Strolling Without needing a fixed destination, the stroller moves through the museum-park aimlessly.	**Corso** The shape of the museum-park promotes an up-and-down promenading movement.	**Scene** Part of the museumpark, thanks to its architecture or layout, is explicitly laid out for overview, or for seeing and being seen.	**Ceremonial** As evidenced by its shape and furnish-ings, part of the museum-park is intended, or can be used, for ceremonial procedures.	**Relaxation** A cosy atmosphere and a sensation of comfort entice the visitor to linger, without a fixed intention.	**Being inside** Just as in a room, in the museum-park one has the feeling of being in an interior. Entrance and exit are decisive acts.	**Meeting** One drops in, meets acquaintances, loiters for a while, and leaves again - a continuous coming and going.	**Gathering** The museum-park is (sometimes) the scene of political and social activi-ties, demonstra-tions, rallies, protests, etc., and gives them significance / meaning.	**Void** Predominantly, (part of) the museum-park is traversed, and does not incite any particular action or specific behaviour.
Museumsquartier, Vienna		●	●		●	●	●	●	●
Louvre, Paris	●	●	●	●	●		●	●	●
Museumplein, Amsterdam		●	●		●		●	●	●
Museumpark, Rotterdam	●				●		●	●	●

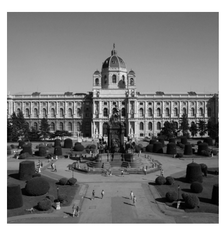
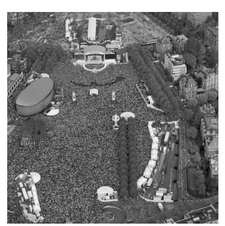
Performative potential *(Sophie Kugel, 2018 & inspired by the book* Squares *by Sophie Wolfrum, 2014)*

● designed for this function ● used for this function








Nine different experiences and activities in the four museum-parks: Strolling *(Gustafson Porter + Bowman, 2015),* Corso *(Guilhem Vellut 2014),* Scene *(Unknown, 1868)* Ceremonial *(parismalanders 2017),* Relaxation *(Schlijper, 2014),* Being inside *(www.mqw.at, 2017),* Meeting *(Ivana Simanek, 2011),* Gathering *(framepool, 2012),* Void *(Wikipedia, 2014)*

Transportation

Public transportation: tram- & metro-lines

Information about the locations of different transportation systems can be found on the adjacent maps. These different types of transport are important for the accessibility of the museum-parks. The four different museum-parks have solved this reachability-issue in a similar way, using underground metro-lines and / or tram-lines. The differences can be found in the amount of public transport and accessibility.

The public transport-stops that are located within 50 meters of the museum-parks:

Museumsquartier Vienna:	3 metro – 4 tram
Louvre Paris:	4 metro
Museumplein Amsterdam:	4 tram
Museumpark Rotterdam:	2 tram

Parking solution

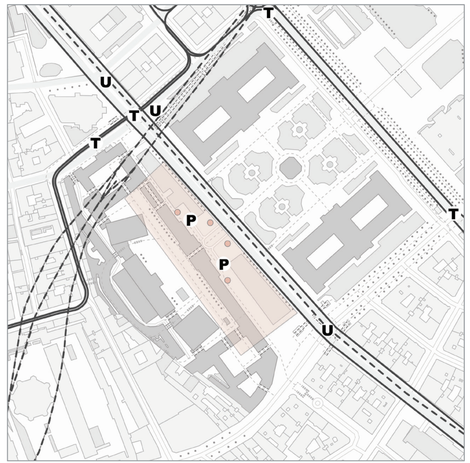
All four museum-parks have an underground parking:

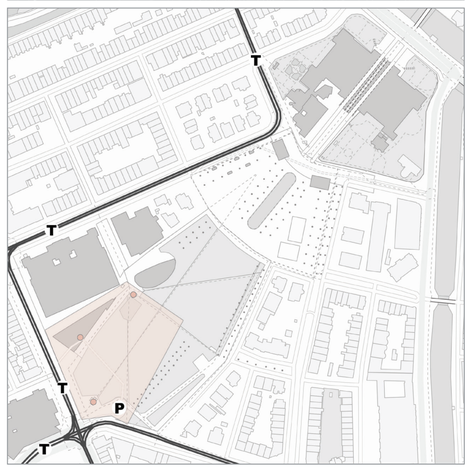
Museumsquartier Vienna:	961 parking places
Louvre Paris:	670 parking places
Museumplein Amsterdam:	600 parking places
Museumpark Rotterdam:	1150 parking places

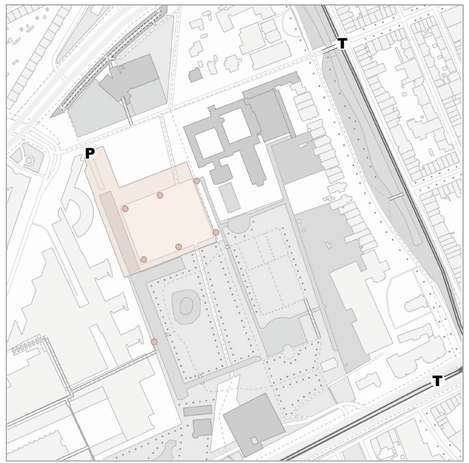
The underground car-park in Vienna offers space for 961 cars to park. The parking garage is located directly under the Museumsquartier. The car-entrance to the parking garage is located in front of the main entrance of the Museumsquartier. Pedestrians then return to the ground floor next to the main building and can immediately pick up their tickets at the main entrance and walk into the MuseumsQuartier (Wien MuseumsQuartier, 2017).

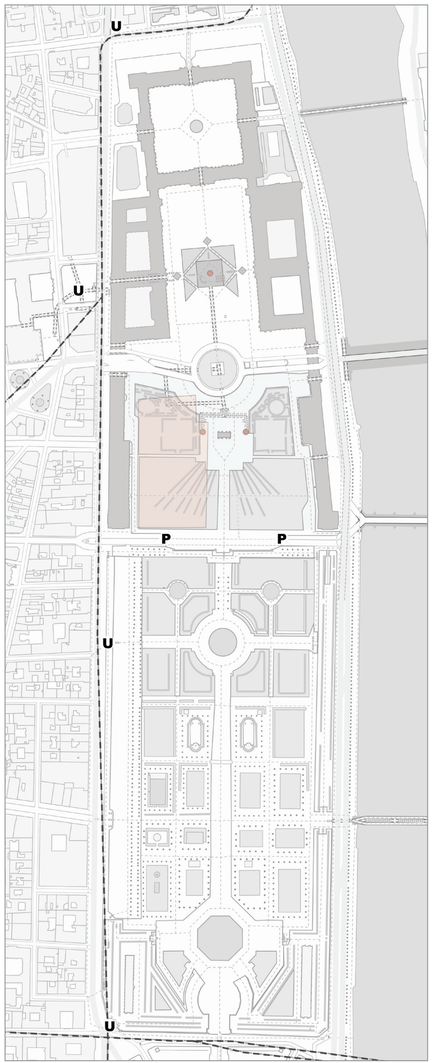
The underground parking garage of the Louvre offers 'only' space for 670 cars. For the huge complex like the Louvre, this is a relatively small parking garage. It is therefore necessary to reserve a parking space a few days in advance. The underground car-park is directly connected to the underground main entrance of the Louvre and the entrance to the metro (Pei Cobb Freed & Partners, 2011). More information is given about these 'underworlds' of the Louvre (and the Vienna museum quarter) in the *Vertical circulation*-section.

Before 2016, the underground parking garage under the Museumplein in Amsterdam was often empty. For bus drivers it was easier and cheaper to simply drive around the Museumplein. As a result, it was often unnecessarily busy in this environment. By means of a reduced price-rate, half of the 890 buses that visit the Museumplein per month, now park in the underground parking garage. There is parking space for a total of 600 vehicles ("Parkeergarage Museumplein Amsterdam," 2018).









P Parking entrance for **cars**

T Boarding point tram-line

U Entrance underground / metro / subway

(underground) Parking

Parking entrance for **pedestrians**

Tram-line

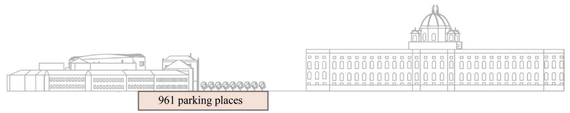
Underground / Metro / Subway-line

Pedestrian Routes, **SCALE 1:5000** *(Sophie Kugel, 2018)*

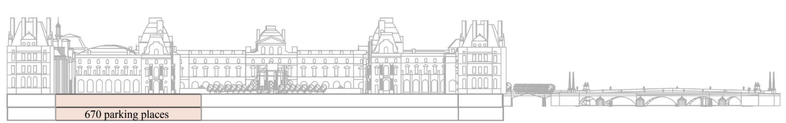
* The last map of the Louvre has been rotated to ensure that the entire museum-park can be displayed: in this image the north is the south-west.



Museumsquartier Vienna, Northeast facade in the city



Museumsquartier Vienna, Southeast facade in the city



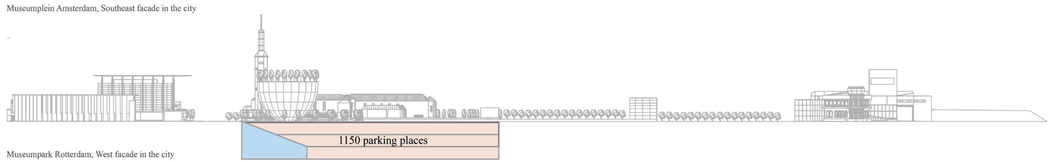
Louvre Paris, Northwest facade in the city



Louvre Paris, Northeast facade in the city

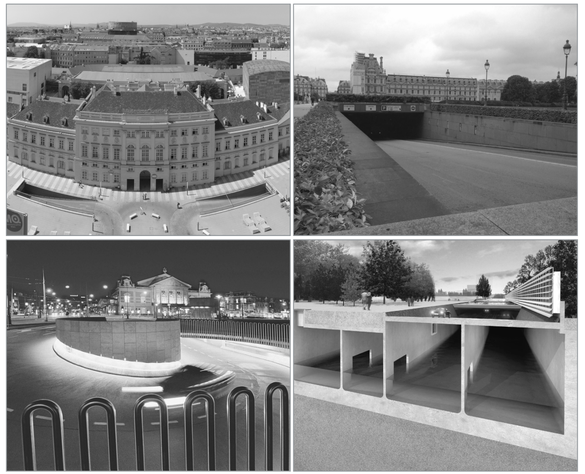


Museumplein Amsterdam, Southeast facade in the city

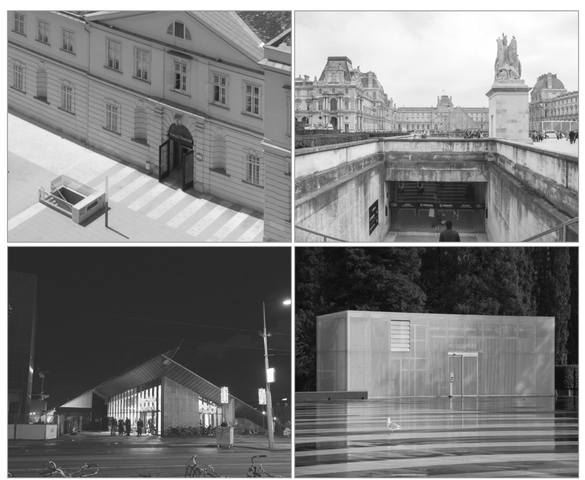


Museumpark Rotterdam, West facade in the city

Schematic representation of the location of the underground parking garages - **SCALE 1:2500**, *(Sophie Kugel, 2017)*



Entrances parking garage for **cars** *(www.mqw.at, 2017), (parkme.com, 2017), (q-park.com, 2017), (rotterdam.nl, 2016)*



Entrances parking garage for **pedestrians** *(www.mqw.at, 2017), (obonparis.com, 2015), (q-park.com, 2017), (Van der Ree, 2014)*

The underground parking garage in Rotterdam is the largest of the four, and has a capacity for 1150 parking spaces. The reason for the construction of this enormous parking garage was the large lack of parking places around the Erasmus MC; in 2004 there were already 1000 additional parking spaces needed around the hospital. The 1150 parking spaces are divided over three underground levels. The cars enter the parking garage at level -2 (De Architect, 2013).

In addition, there is also a water storage facility for rainwater with a capacity of 10.000 m3. Under the entrance to the parking garage is a water basin of 60 by 35 meters to absorb a part of the surplus rainwater in the center of the city, in case of heavy rainfall. As soon as the sewer system threatens to overflow, which happens on average about four times a year, the slider of the underground water storage is opened. Within half an hour the basin can be filled with ten million liters of water.

Thanks to the underground construction, the Museumpark has been left intact as much as possible. Like mentioned before, the underground parking garage has three floors. The two lowest floors are really below ground, but the floor above these is only half sunken (situated partly underground). The reason is that the parking-garage is situated under an elevated event area. Right next to the event area, parallel to the *Melkkoppad*, you can see the glass, and at night illuminated, pedestrian entrances (De Ruiter, 2013).

Paul de Ruiter architects also gave the site on top of the parking garage (that connects the museums with the Erasmus MC) a makeover. In 2013, they opened a pavilion, designed as the connection between the lower and upper ground. This transparent **Museumpark Paviljoen** is an important junction of pedestrian traffic at different levels. The pavilion bridges the connection between the 4.5 meter higher backbone of the Erasmus MC, the traverse and the exit of the parking garage. Seen from the Museumpark, the glass pavilion is the closing piece of the transparent traverse. Paul de Ruiter Architects also designed the bridge that connects the pavilion with the Erasmus MC and the Museumpark (De Architect, 2013).

It can be concluded that an underground parking garage is a requirement for a museum-park in the middle of the city. Museumpark Rotterdam has, for example, only two boarding-points for trams, but a large parking garage (the center of Rotterdam is also easily accessible for cars).

There should, of course, be a connection between the size of the museum-parks and the ‘supply’ of (types of) public transport. At enormous cultural complexes like in Vienna and Paris, more access is needed than in the smaller museum-parks in Amsterdam and Rotterdam. The Louvre, however, has a relatively small parking space and few boarding-points for public transport, compared to the size of the museum-park. This is a known problem, also due to the still growing tourism in the city of Paris.



Louvre Pyramid: the main entrance with the underground lobby *(Deidi von Schaewen, 2017), (Reza, 2010).* The Inverted Pyramid *(Eric Pouhier, unknown).*

Vertical circulation

The circulation that will be discussed in this chapter is the vertical circulation that is important for, and is part of, the entire circulation-flow within the museum-park itself. This does not include the circulation inside the seperate buildings. This vertical circulation inside the museums, has the sole purpose of moving from one floor space to another floor space, or from one museum room to another exhibition space, without this having any effect on the entire circulation flow of the museum-park.

In other words, there are two forms of vertical circulation that will be discussed here:

1. The vertical circulation in the public space which is part of the total circulation flow within the museum-park.
2. The vertical circulation within a building (museum) that is (partly) part of, or has an influence on, the total circulation flow within the (semi) public space of the museum-park.

'Underworlds'

Grand Louvre Paris

"I.M. Pei's plan distributes people effectively from the central concourse to myriad destinations within its vast subterranean network... the architectonic framework evokes, at gigantic scale, an ancient atrium of a Pompeiian villa; the treatment of the opening above, with its tracery of engineered castings and cables, evokes the atria of corporate office buildings; the busy movement of people from all directions suggests the concourses of rail termini or international airports." (Pimlott, 2007)

- *Pyramide du Louvre* – main entrance – with an underground lobby called *Hall Napoléon*
- *Carrousel du Louvre* – underground shopping mall & theatre – with the Inverted Pyramid for daylight
- Storage space for the museum: galleries and preservation laboratories
- Underground parking garage & pedestrian's connection to metro-station
- Underground-connections between the wings of the Louvre

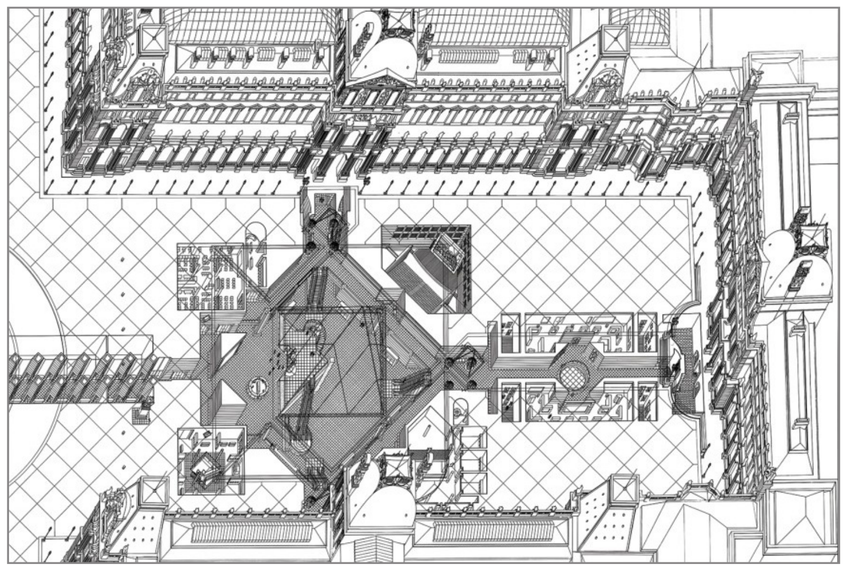
Under the Louvre Museum a large 'underground world' is located called the **Grand Louvre**. It includes the main entrance to the Louvre, a shopping mall, a cinema and an underground parking garage. There is also an underground pedestrian connection to the nearest metro station.

This underground network began with the construction of the Louvre Pyramid (*Pyramide du Louvre*): a large glass and metal pyramid in the middle of the courtyard (*Cour Napoléon*). This building serves as the main entrance to the museum. Through the main entrance you arrive in an underground lobby, from where you can take different routes. This pyramid is surrounded by three smaller triangles that provide light into the underground spaces.

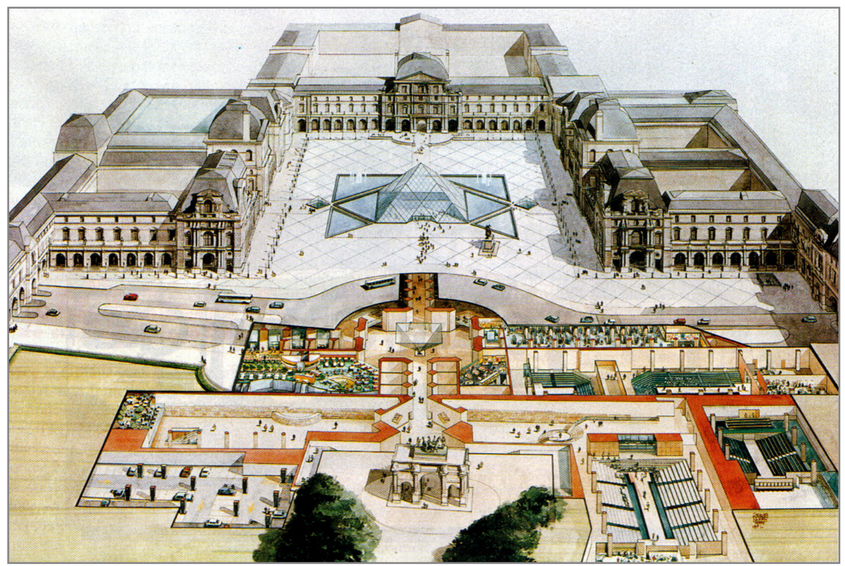
The building was designed by the Chinese-American architect Ieoh Ming Pei. President François Mitterrand unveiled the pyramid on March 29, 1989. After this, the museum-complex was further expanded. Pei's design introduced a new underground organization for the museum, containing galleries, storage and preservation laboratories. Because of these new spaces that were placed under the ground, the museum could also expand its exhibitions. The underground system provide a connection between the different wings of the Louvre (Souza, 2010).

La Pyramide Inversée (the Inverted Pyramid) is a skylight in the *Carrousel du Louvre* (shopping mall) in front of the Louvre Museum. It looks like an upside-down and smaller version of the Louvre Pyramid. When people walk from the underground parking garage or from the metro station, through the underground tunnel to the lobby, the first glass feature that they will discover is this Inverted Pyramid (Wikipedia, 2017c).

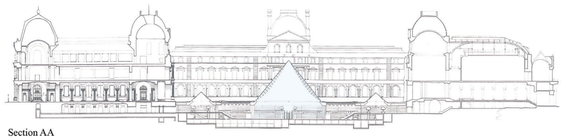
The main pedestrian routes are indicated on the maps on page 239. These routes connect the various wings of the museum and show how you can walk from the parking garage (through the underground shopping mall) to the underground lobby (main entrance), and how the pedestrians tunnels connect to the underground metro station.



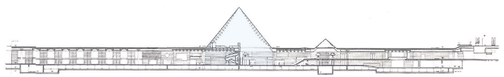
Underground lobby with the main entrance on the courtyard of the Louvre *(drawing by Pei Cobb Freed & Partners, 1989)*



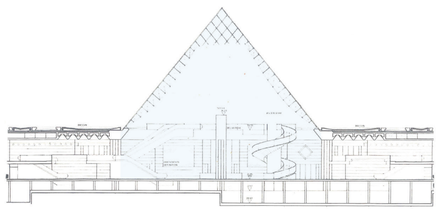
Plan of architect Pei for a large 'underworld' under the Louvre. This plan, as shown here, is only partially implemented *(Pei Cobb Freed & Partners, 1989)*



Section AA



Section BB



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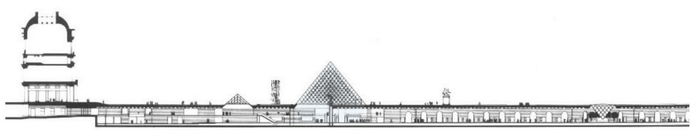
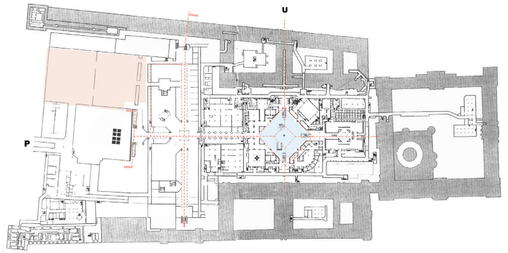


Section DD

Section Louvre Paris. Section A, B & D: **SCALE 1:2500.** Section C: **SCALE 1:500.** *(Emile Biasini, 1990. Edited by Sophie Kugel, 2018)*



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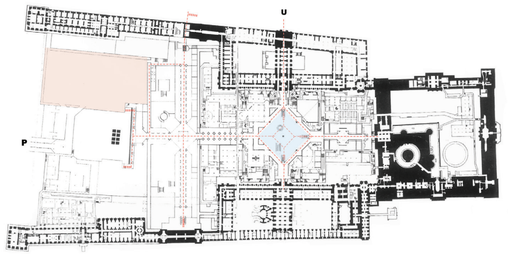

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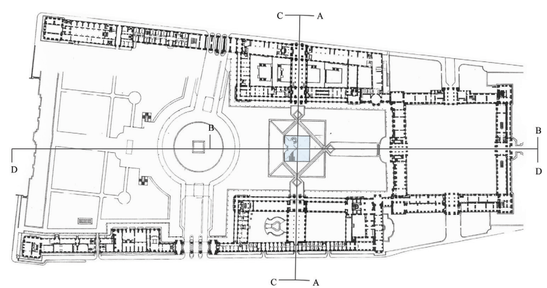
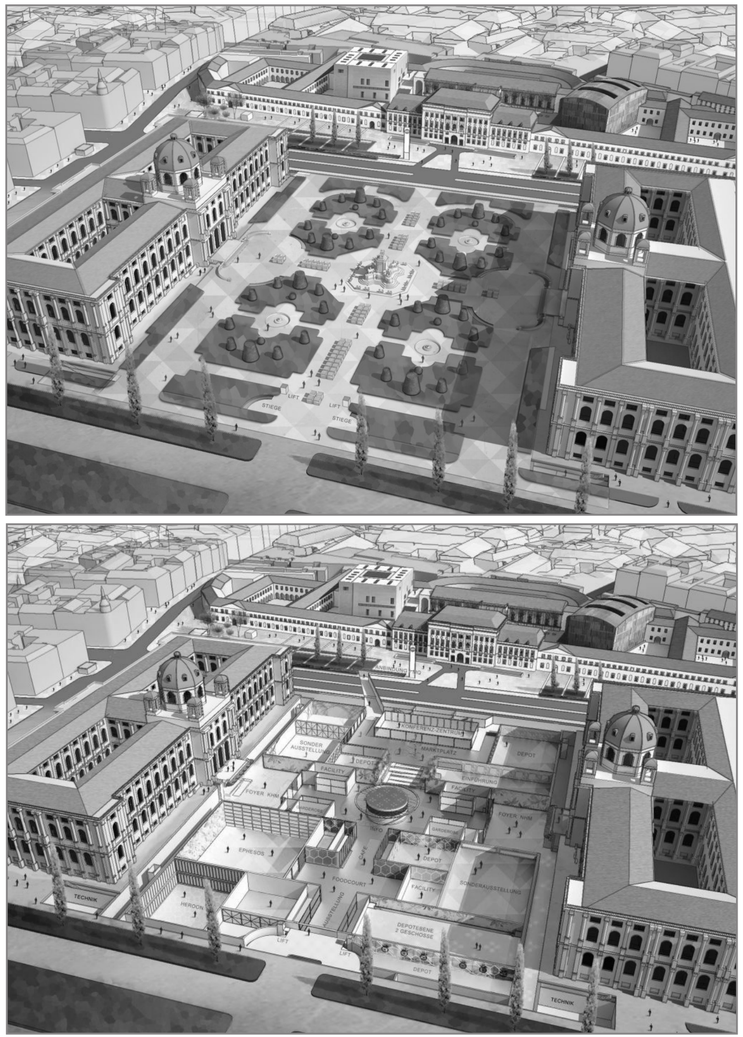


ground floor

Main entrance Underground Parking garage

Plans Louvre Paris **SCALE 1:5000** *(Emile Biasini, 1990. Edited by Sophie Kugel, 2018)*



A plan for new exhibition areas and depots under the Maria-Theresien-Platz in front of the Museumsquartier *(Wehdorn architekten, 2012)*

Museum Forum Vienna

For a long time, there has been the idea of an underground connection between the *Kunsthistorisches* Museum and the *Naturhistorisches* Museum at the Museumsquartier in Vienna. This is required to eliminate the lack of space in the two buildings.

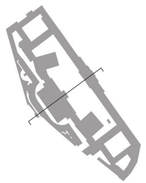
The idea of a Museum Forum below the *Maria-Theresien-Platz* is based on an idea developed by Wehdorn Architekten back in 1992, which received new relevance in 2012. Following the Parisian example of the Louvre, this project aims to merge the *Kunsthistorisches*-, the *Naturhistorisches* Museum and the Museumsquartier into one large museum island.

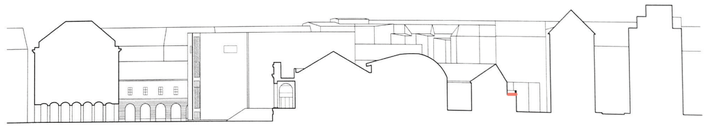
The visitors can enter the Forum via the *Ringstraße*. They arrive at the gallery level for special exhibitions and additional depot areas, via lifts or via the stairs. A transverse axis leads directly to the newly created foyers of the *Kunsthistorisches* Museum and the *Naturhistorisches* Museum, from where one enters the basement of these historic buildings. Glass walls give an insight into the exhibition rooms and invite the people to visit the museums (Wehdorn Architekten, 2018).

There will potentially be an underground entrance to the courtyard of the Museumsquartier. In addtion, connections to the two subway stations are being considered. Of course, the historic gardens will be preserved in this project.

*This plan has not yet been approved by the municipality, and it is not yet known if and when this will be built.

ELEVATED PATH



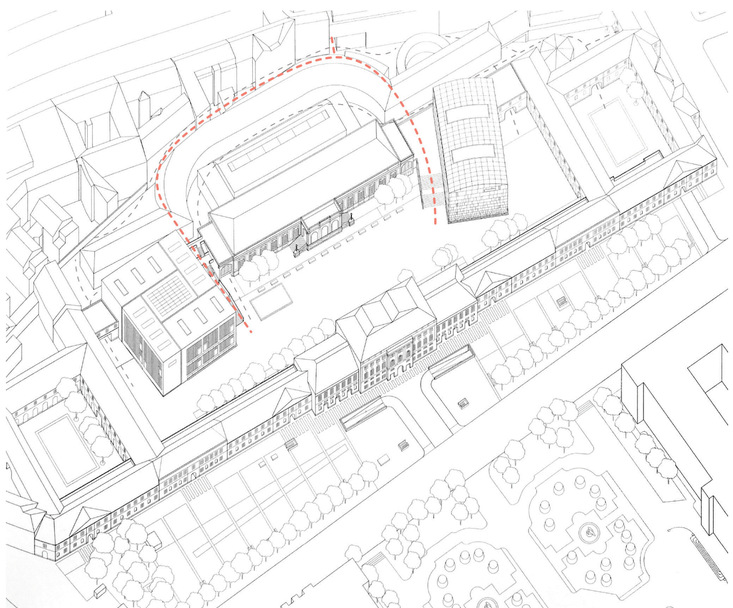


There is something special about the route in the Museumsquartier in Vienna. The Museumsquartier is a concentration of different existing and newly founded cultural institution in one quarter. There is a relationship between the large square and the surrounding buildings: the centre is kept open, the square is enclosed by dense facades (Lootsma, 2008).

As seen in the picture, in certain places the pedestrian route perforates through this dense facade. The path (indicated in color) is special, because this path is (partly) situated on an elevated level. This elevated path can be seen on the cross-section. Because it is such a large complex, it is difficult to see that this path is on a level higher than the ground floor. The path takes the visitor 'behind' the facades of the cultural institutes, and there are also two exits to the public streets. Pedestrians can reach this elevated path by, for example, taking the stairs next to the Leopold Museum or the MUMOK.

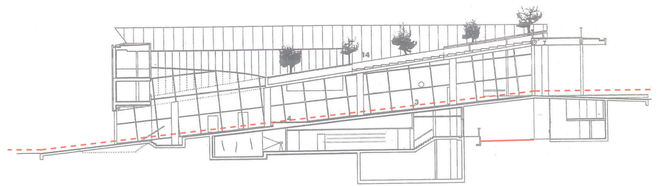
- - - - route

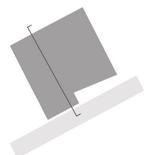
- - - - elevated route

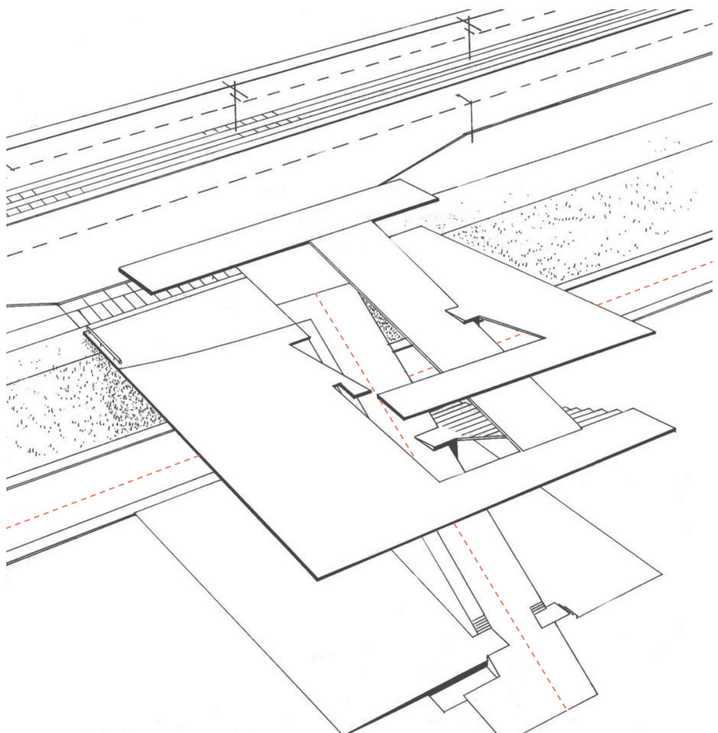


Museumsquartier Vienna with the elevated route behind the cultural institutions. **SCALE 1:1000** *(Sophie Wolfrum, 2014. Edited by Sophie Kugel, 2018)*

BRIDGING RAMP







The Kunsthal is a modern building that looks like a large flat square box. The location of the Kunsthal is divided over two levels. On the north side it borders the Museumpark Rotterdam and on the south side the Kunsthal is situated against a dike. This side borders (on a higher level) the traffic on the Westzeedijk.

To bridge this difference in height, a ramp runs straight through the building. This ramp connects the museum-park with the promenade on the dike. Parallel to this ramp, a second ramp runs in the opposite direction and where the two intersect the main entrance is situated (Lootsma & Graaf, 1993).

For this reason, this ramp is part of the circulation in the building itself, and on the other hand it is also an entrance to the museum-park, and therefore part of the total circulation-flow of the Museumpark Rotterdam. The Kunsthal can be described as a building that is simultaneously a traffic junction: it bridges the height difference of six meters for passers-by, also for the ones who do not enter the building itself (Koolhaas, Mau, & Sigler, 1995).

Museumpark Rotterdam with the ramp inside/through the building that connects the two levels. **SCALE 1:500** *(Section by Cabanes, 1996. Axonometric projection by Koolhaas, Mau, & Sigler, 1995. Edited by Sophie Kugel, 2018)*

Conclustion **Routes**

In this chapter the different routes in the museum-parks were investigated and everything that relates to this subject, such as; the location of the entrances, the type of entrances, whether we are dealing with public space or semi-public spaces, and the history behind these designs. The horizontal circulation of the different museum-parks were also compared, and how the visitors experience the different spaces and locations of the museum-parks. Architecturally not very fascinating, but important for the access of the museum-parks are the public transport stations in the vicinity of the museum-parks and the underground parking garages. Finally, a number of specific vertical circulation features of the museum-parks have been discussed; the 'underworlds' and the vertical circulation that is important for, or related to, the circulation-flow of the entire museum-park.

For for this chapter, some general principles can be formulated that apply to all four museum-parks, or to a part of these museum-parks.

The *degree of accessibility* of the museum-parks is a direct consequence of the design of the entrances. The way the museum-parks present themselves to the public space in the city can be divided into two types: closed, monumental and repetitive facedes (like the Louvre Paris and the Museumsquartier Vienna) and loose elements of different types of architecture (like the Museumplein Amsterdam and the Museumpark Rotterdam).

This division in the elevation views of the museum-parks is also strongly reflected in the way the entrances to the museum-parks are regulated. At some museum-parks there is an obvious **main entrance**, while at other museum-parks there are several important **(side) entrances**.

Based on the four researched museum-parks, we can conclude that the parks with a **closed, monumental and repetitive façade** often have a clear main entrance. These museum-parks consists (for the most part) of **one large block**. Furthermore, it can be concluded that at these four museum-parks, the museum-parks that consist of **loose elements or different types of architecture** have **multiple entrances** and it is not (exactly) clear what the main entrance is. In Rotterdam, for example, all entrances seem to represent the same degree of importance. In Amsterdam there are also different entrances, but the entrance that runs through the Rijksmuseum seems to be slightly more striking and therefore more important for this museum-park. However, it is not a main entrance similar to the main-entrances of the museum-parks with the closed and monumental facades.

In addition, there is a distinction between entrances with a **'hard', physical boundary** and entrances with a **'soft', open (abstract)** and much more **gradual boundary.** These clear and hard boundaries are often formed by architecture and the more gradual boundaries consist often of a public space in the city that slowly changes into the museum park, without an **architectural element** being involved.

In this chapter it could be seen that the museum-parks with the closed, monumental and repetitive facade often have entrances with 'hard' physical boundaries and the museum-parks that consists of loose elements have much less clear entrances. This appearance of the boundary between public space and museum-park is often a direct consequence of the **original function** of the buildings in the museum-park.

Museum-parks can also be classified into **public spaces** (in other words as full public domain) and **semi-public domain**. It is striking that the museum-parks with a clear former function often changed into a semi-public domain (this means that the original private character can still be found in its current architecture) and that the museum-parks that had public functions from the beginning can be classified as public space.

- Closed, monumental and repetitive facades
  (Louvre Paris & Museumsquartier Vienna)
- Loose elements of different types of architecture
  (Museumplein Amsterdam & Museumpark Rotterdam)

- Main entrance
- Side entrances

- 'Hard', physical boundaries with architectural element
- 'Soft', open, gradual boundaries

By combining all this information about the **different types of entrances**, we can conclude that there are two types of museum-parks with specific types of entrances with the following characteristics:

1. Closed, monumental and repetitive facades ➔ 1 building block ➔ main entrance ➔ 'hard' physical boundary ➔ architectural element ➔ former royal buildings ➔ semi-public domain
2. Different types of architecture ➔ loose elements ➔ side entrances ➔ 'soft', gradual boundaries ➔ open: no architectural elements ➔ developed more gradually: buildings added over time ➔ public domain

While researching the circulation within the museum-parks, it can be learned that the pedestrian routes in the museum-parks have a direct connection with the designs of the gardens. These routes can be divided into **formal** and **informal routes**: routes that are laid out tightly and hierarchically (through, for example, sightlines) and routes that do not seem to comply with a set of 'rules', but simply follow the shape of the park. Within one museum-park several types of routes can occur. These types of routes (formal or informal) affect how visitors experience the museum-park and what the museum-park is used for (see the diagram opposite).

All four of the museum-parks have public transport in their neighborhood and an underground car park. It can be concluded that **different types of transport are important for the accessibility of the museum-parks**. It logically follows that **the larger the museum-park, the more public transport stations are needed in the area and the more parking spaces are needed** (the calculations are on the side-page). It is clearly noticeable that at the Louvre, there are relatively fewer parking spaces and less public transport than in the other museum-parks. According to the calculations, the Louvre should have 1784 parking places (there are only 670 right now) and 8.9 stations of public transport (only 4), and this has caused problems for years. Rotterdam is overrepresented in terms of parking places, but this can be explained by the adjacent hospital and the fact that there are only two tram stations.

Regarding the vertical circulation, there are a number of special features. The Louvre has an entire **'underworld'**, that you enter via the main entrance (the pyramid) or via the tunnel connections with the underground metro or the underground shopping center. This underground circulation is the connection between the different wings of the Louvre. The Museumsquartier in Vienna made a similar design for an underground forum but it is not yet clear whether this will be implemented.
You can conclude that museum-parks that are very large, crowded, or have many different functions: will sooner or later get problems with their circulation or the lack of space. Because the four museum-parks are all located in the middle of a large city, there is often no possibility of expansion, and therefore the ground beneath the museum-parks can be used to regulate all visitors and to expand the functions.

Height differences in the museum-park can also be solved by architecture. In the Museumpark in Rotterdam, the height difference of 6 meters between park and dike was solved by designing a building with a ramp (Kunsthal). In Vienna the buildings are built so close together in the courtyard that it became difficult to interrupt this dense facade with a route. This was solved by designing the route on an elevated path, that you can reach via stairs next to the museums.

'Formal' routes



Corso



Scene



Ceremonial



Void



Meeting

'Informal' routes



Strolling



Relaxation



Being inside



Gathering



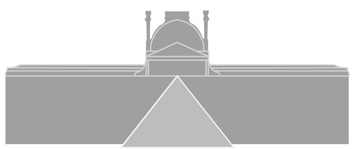
Meeting

	Size	**parking spaces**	**transport stations** (within 50 m)
Museumsquartier Vienna	122.500 m2	961	7
Louvre Paris	405.000 m2	670	4
Museumplein Amsterdam	105.000 m2	600	4
Museumpark Rotterdam	135.000 m2	1150	2

Conclusion (average):

per **237 m2** = 1 parking spot
per **45147 m2** = 1 station









Four icon-building in the **museum-parks:** Museumsquartier in Vienna, Louvre in Paris, Museumplein in Amsterdam and the Museumpark in Rotterdam *(Sophie Kugel, 2018)*

5. ARCHITECTURAL REPRESENTATION



Different styles of architecture in the Museumsquartier Vienna *(Architekturbüro Ortner & Ortner BAUKUNST, 2016)*

In the previous four chapters, the museum-park was investigated as an *urban element*: the position in the urban fabric, the spatial composition, and the way the route enters the museum-park. This chapter looks from a different angle to the four museum-parks: the *architectural representation*.

The architectural representation of the museum-park can not be seen separately from the development that architecture itself has undergone over the centuries (Wilms Floet, 2015, p. 144). The buildings of museums (or other functions) were often built according to the taste and style of that particular time. The architecture of the museum-parks is a reflection of social visions on culture through the course of many different eras. In addition, part of the buildings of the museum-parks had a different function at the time of their construction and this is of course still reflected in the current architecture.

In this chapter, an architectural distinction can be made in advance, between buildings that were specifically built as a museum (or other cultural public functions), and buildings that were originally built as a private function, for example (part of) a city palace.

The interesting developments the museum-parks have experienced themselves in terms of its architecture will also be looked at. The locations of the museum-parks have often undergone an (architectural) redevelopment once or several times. The reason for a redevelopment in architecture could be a change in function, to make the museum-park more accessible, or to make one clear cultural cluster of the museum-park. With these renovation, the museum-parks can be reinvented: they adapt to a new century.

For each museum-park an overview has been made of the different types and styles of architecture that can be found in the museum-parks. Subsequently those buildings are described more extensively: which style is this exactly, why has this been chosen, and how does this style fit in with the other architectural styles in the park?



The architectural layering: Museumsquartier Vienna, Louvre Paris, Museumplein Amsterdam and Museumpark Rotterdam. **SCALE 1:25.000** *(Sophie Kugel, 2017)*

16th century

17th century

18th century

19th century

20th century

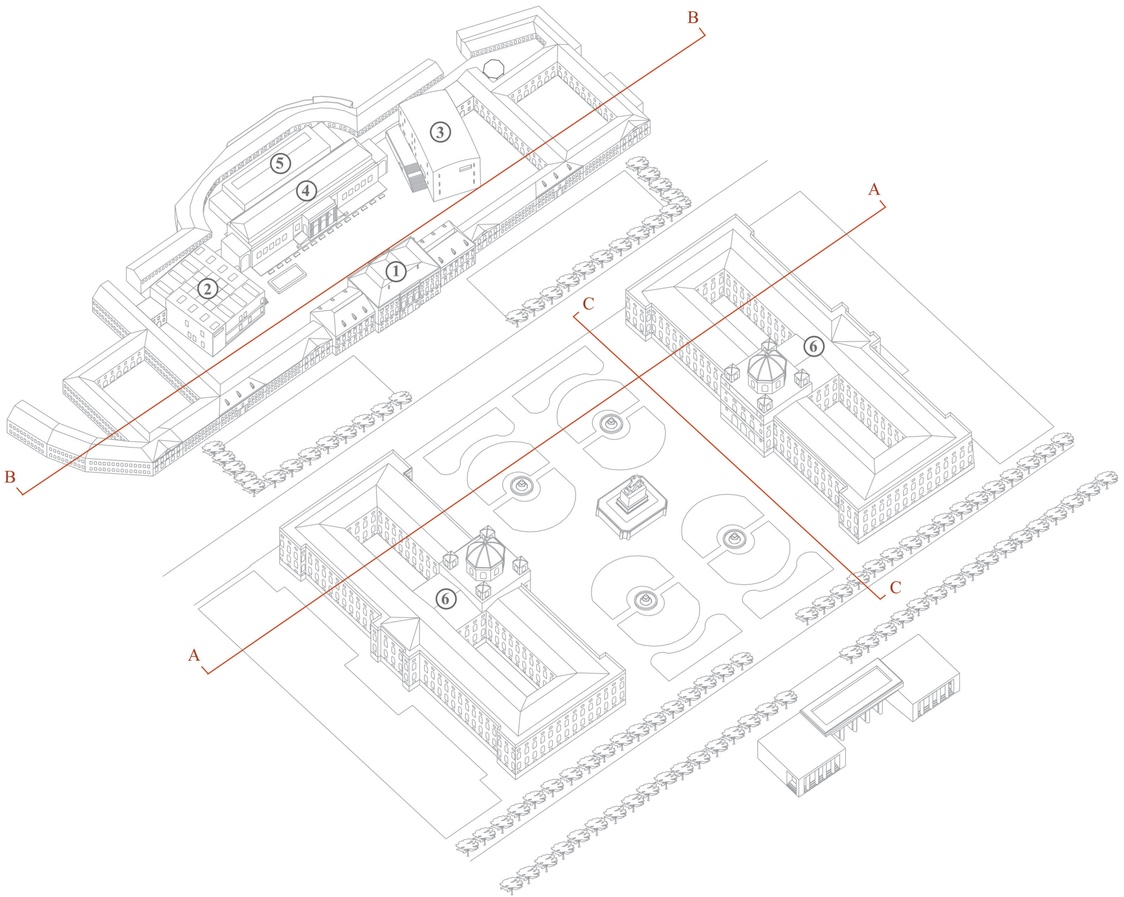
21th century

Building-historical value

On the maps on the right, the age of the buildings and the century they were built in, can be observed. The Louvre contains the oldest building-parts and the Museumpark Rotterdam is relatively the youngest museum-park.

It can be concluded that the museum-parks are often composed of building parts originating from different times. This is due to the architectural redevelopments of the museum-parks; an architectural intervention in the existing architecture was often done, for example to create a new main entrance, or to change and improve the organization of the museum-park.

Different historical buildings and elements give a museum-park value. The buildings tell a story and this gives the place meaning. This readability of the building-history is also called the *historical layering*. The historical layering is almost always an added value for a museum-park. Renovations tell a story about the development of (cultural) architecture.



Axonometric projection Museumsquartier Vienna *(Sophie Kugel, 2017)*

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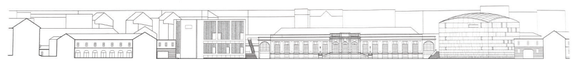

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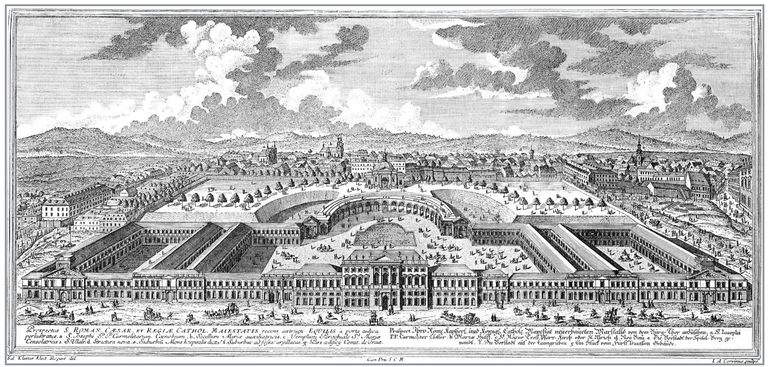
Sections / elevation views - **SCALE 1:2500**, *(Sophie Wolfrum, 2014)*





The facade and entrance of the Imperial Horse Stables - the later Museumsquartier - in aquarelle *(Balthasar Wigand, 1825)*
The facade and entrance of the Museumsquartier in Vienna - the former Imperial horse stables *(Hertha Hurnaus, 2015)*

The former Royal Stables: a 400-meter Baroque facade (1)

In 1713 emperor Karl VI commissioned the construction of a large building for his imperial court stables in the area of the Vienna Glacis in front of the *Äußeres Burgtor*. The *Vienna Glacis* (1529-1858) was an open space existing between the Viennese city walls and the suburbs. Building master **Joseph Emanuel Fischer von Erlach** built this sprawling complex of **Baroque** buildings that should accommodate 600 horses and 200 royal carriages. The building was completed in 1725 by the son of the master builder. The stonemason works were taken care of by the master stonemason Elias Hügel from the imperial quarry .

The original ideal plan was not fully realized. Fischer von Erlach had also planned a monumental amphitheater for horse- and carriages racing. Nevertheless, the court stables were one of the largest and most magnificent buildings in Europe.

The Baroque is an architecture style that still uses Roman and Renaissance concepts, but breaks with the limitations of classical building, taking more freedom to use curved and sculpted forms. A characteristic of the Baroque style is that the architecture had to make an impression on the visitor. This is certainly reflected in the curved façade of the former royal stables.

During the Napoleonic wars and the Revolution of 1848 there were some significant destructions. Therefore, court-architect **Leopold Mayer**, built in 1650 a large riding hall in **neo-Baroque** style (Haller, 2002).

As a building material it was common in this area (and for Fischer von Erlach) to use the famous Kaiserstein. The *Kaiserstein* is a particularly dense and resistant Leithakalk (rock) from the quarries called the *Kaisersteinbruch*. The *Leithakalk* is a limestone named after the *Leithagebirge* in eastern Austria. These quarries lay on Hungarian soil until 1921. There is a hard and a softer variant. These rocks were especially for Vienna of great cultural and historical importance in the Renaissance and Baroque periods (Haupt, 2007).

Ortner & Ortner Baukunst: Leopold Museum, MUMOK & Kunsthalle (2,3,4,5)

Shortly after the Ortner & Ortner Baukunst was founded, this architecture company won the competition for the new MuseumsQuartier in Vienna. They designed the three new museums on the courtyard: the Leopold Museum, the Museum of Modern Art Foundation Ludwig (MOMA) and the Kunsthalle Wien.

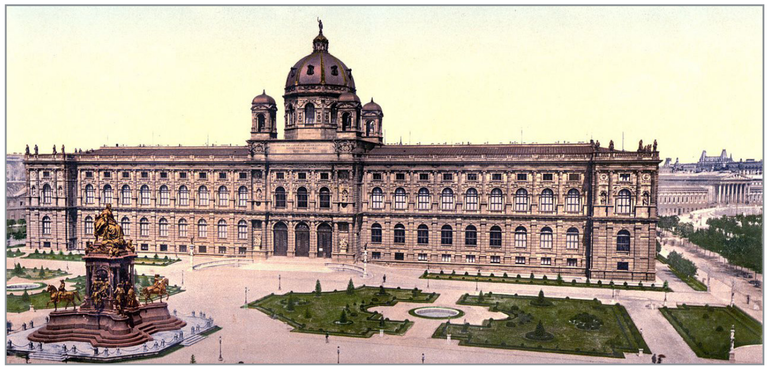
For years there was a lot of commotion and public controversy about this project. People from all kinds of professional groups started to get involved. In the end the design has been adapted 3 times in more than ten years (Palme et al., 2008, p. 200).

The Leopold Museum is a compact block with a façade from *white shell limestone* (covering the whole exterior). The main courtyard is also paved with large light stone slabs, and therefore this building perfectly synchronizes with its surroundings.

This compact cube measures 40 by 46 meters and it is 24 meter high and goes 13 meters deep into the ground. The building has side-lighting: this reveals that the supposedly smooth cube has variously structured surfaces. The surface of the façade and the roof is broken up by modular openings. The spaces behind seem to shimmer through the façade. From a distance the buildings looks a bit like a large white villa. On the side is a 10-meter wide outdoor stairway that lead to the entrance of the museum (Palme et al., 2008, p. 212) (Ortner & Ortner, 2017).

The building that houses the MUMOK is, in terms of appearance, deliberately the opposite of the Leopold Museum. It is a *dark and closed* cube with a curved roof and completely clad with *basalt lava*. Other than some elongated openings (slits) for daylight, the façade of this heavy building is entirely closed. This museum has, just like the contrasting Leopold museum, a few floors underground. It is therefore even bigger than it seems at first. Just like the Leopold museum the entrance is situated on the side that you can reach with a wide staircase. On the one hand, the two museums contrast each other (dark/heavy and light), and on the other hand they mirror each other (Palme et al., 2008) (Ortner, Waechter-Böhm, & Zohlen, 2001, p. 205).

The new Kunsthalle is added on lengthwise, and to the backside of the Halle E+G (the former winter riding hall an now used as an event hall). The new building is a sober red/brownish *clinker-brick*-encased rectangular block with cantilever plates that jut out from the opposite ends (Palme et al., 2008, p. 206). The new contemporary structure in a modest (minimal) and modern style is in contrast with the historic and richly decorated art hall in neo-Baroque style. Yet the two different buildings with their rear connection form a single unit on the courtyard of the Museumsquartier.



The facade of the Naturhistorisches Museum in Vienna *(Unknown, between 1890-1905), (J. Royan 2010)*

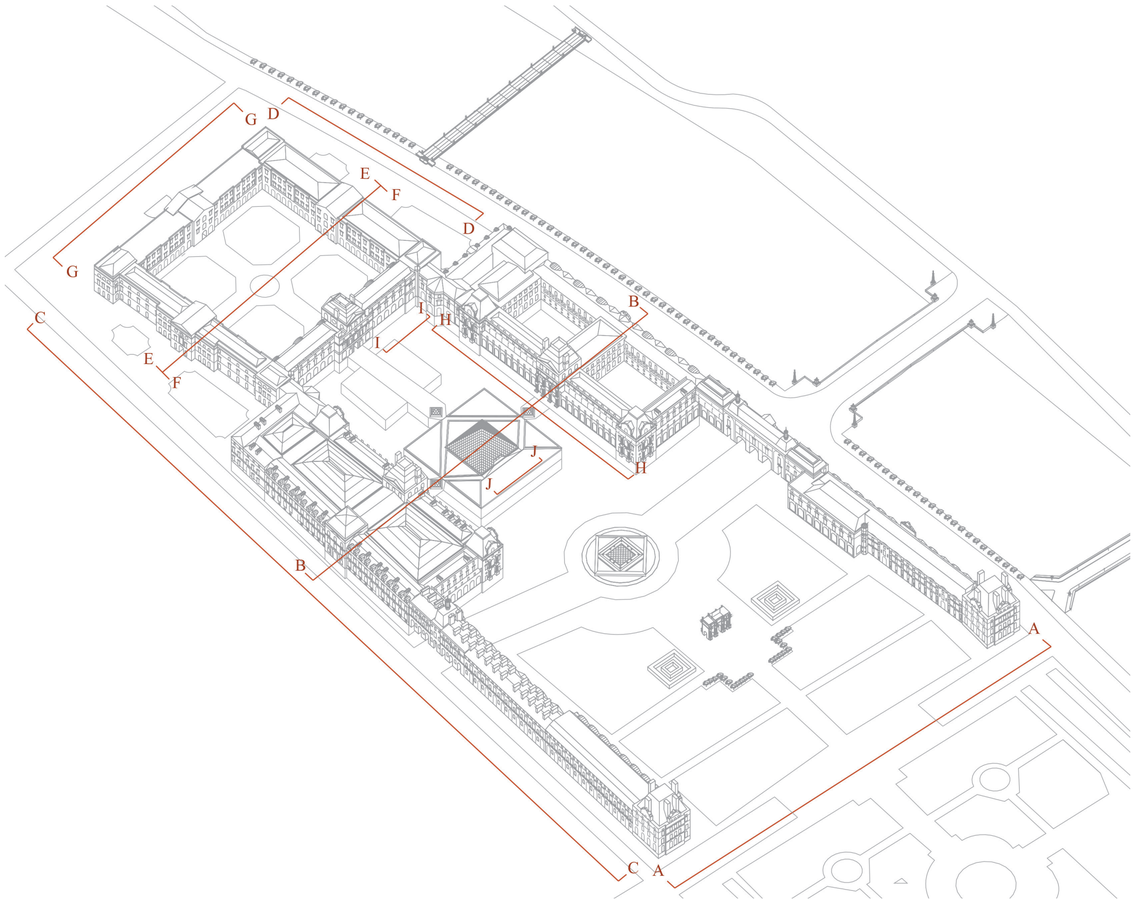
Kunsthistorisches Museum & Naturhistorisches Museum: Historicism along the Ringstraße (6)

In 1872 the construction of two monumental museum buildings began along the Ringstraße - one for the Museum of Art History (*Kunsthistorisches Museum*) and the other for the Natural History museum (*Naturhistorisches Museum*). These two imposing buildings were designed especially for the many works of art and (natural) objects that the Habsburg rulers gathered over the centuries, and the structures never changed their functions (Gottfried, 2001; MuseumsQuartier, 2017; Telesko, 2012).

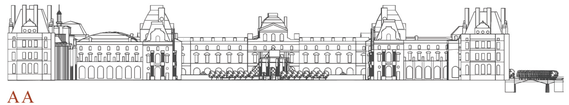
The twin buildings mirror each other and were built on either side of a new square, the *Maria-Theresia-Platz.* The design was made by architect Karl von Hasenauer and architect Gottfried Semper, who was also responsible for the design of the *Neue Burg*, the last extension of the *Hofburg* (the palace and residence of the Habsburg rulers). The new museums were built opposite of the Hofburg on one side, and the Imperial horse stables on the other side. Semper made this plan as part of a great imperial forum, the *Kaiserforum*, flanked by two great wings reaching out towards the two museums. The intention was to connect the new wing of the palace to the new museums across the Ringstrasse through large triumphal arches, but the outbreak of World War I and the subsequent fall of the Habsburg Empire put an end to these plans (Mallgrave, 1996).

The façades of the buildings face each other and they have almost identical shapes and exteriors (except for the narrative decorations). The facades are made of sandstone. Both buildings are rectangular in shape and have a 60-meter-high dome on top.

The two museums are examples of Viennese architecture in the city's historicism tradition. **Historicism** is the architectural style of the Ringstraße, also called the *Ringstraßenstil* (Ring Road style). This movement existed mainly in the 19th century because at that time there was no dominant architecture-style, and it derives its inspiration and decorations from various earlier style periods. This resulted in **several neo-styles**, like these two buildings that are a mix of everything (neo-renaissance, neo-baroque), but above all tell a story through their façades.



Axonometric projection Louvre Paris *(Sophie Kugel, 2017)*



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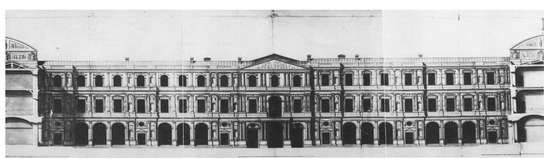

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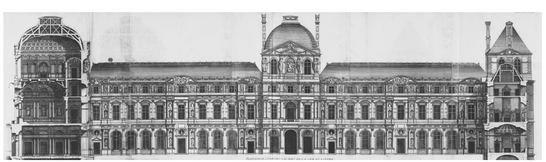

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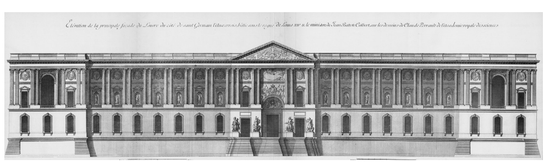

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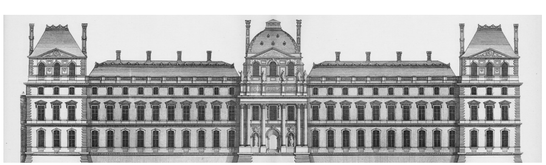

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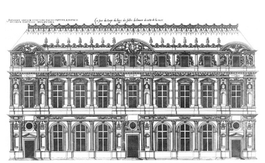

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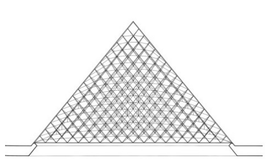

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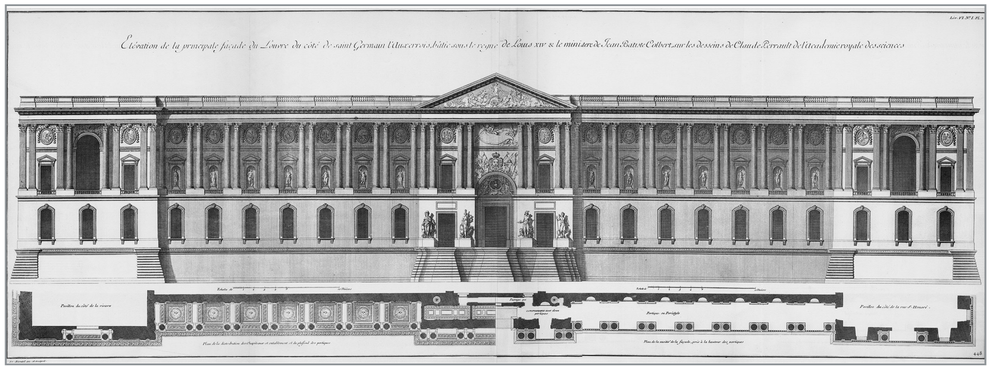
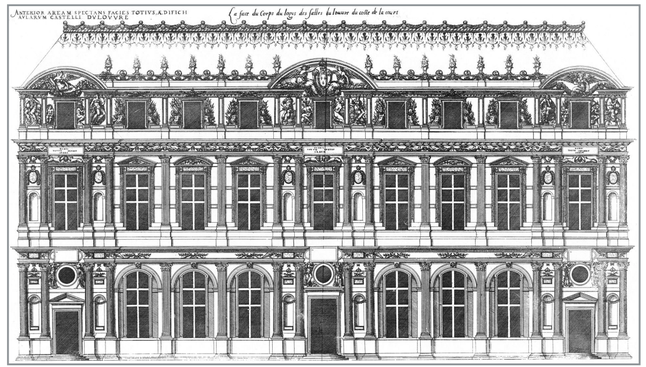
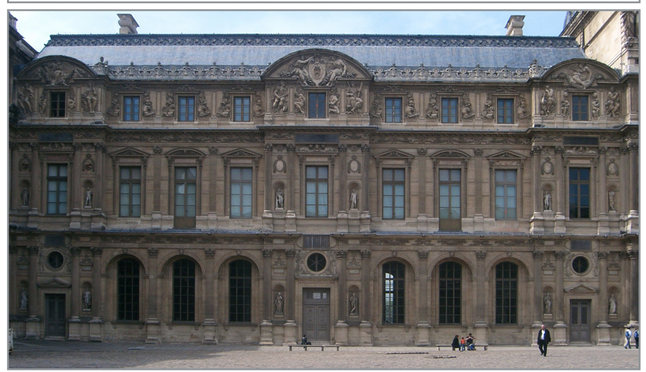
Sections/elevation views, **SCALE 1:2500**, *(**AA** & **CC** Sophie Kugel, 2018), (**BB** Emile Biasini, 1990), (**DD-HH** Jacques-François Blondel, 1752-1756), (**II** Jacques Androuet du Cerceau, 1576), (**JJ** Pei Cobb Freed & Partners, 1989)*





Elevation of the east facade of the Louvre facing Saint-Germain l'Auxerrois, by architect C. Perrault, elevation GG *(drawing by Jacques-François Blondel, 1756), (photo by J.P Dalbéra, 2007)*





Court facade of the P. Lescot Wing, elevation II (*engraved by Jacques Androuet du Cerceau, 1576) (photo Wikipedia, 2005)*



A large photographic piece wraps the iconic glass pyramid outside the Musée du Louvre causing it to disappear against the palace facade *(artwork by the French artist JR, 2016), (photo by S. Ahirwar, 2015)*

Louvre Palace: French Renaissance (A t/m I)

The oldest part of the Louvre that still exists, is the Lescot Wing (*Aile Lescot*), that can be seen on the elevation II on pages 260-261, and on the diagrams on page 252.

This corner-section was designed and constructed in the 16th century by **Pierre Lescot**, the architect who helped replacing the medieval-Louvre (nothing has been preserved of this). The building-parts Pierre Lescot designed were in the style of the **French Renaissance**: during this time people had a renewed interest in the visual language of the ancient Greek and Roman architecture with its symmetry and proportion. The style of Pierre Lescot shows similarities with the Italian Mannerism, and later his style became also known as the **French architectural classicism**. The façade exhibits symmetry and order with, among other things, pilasters, but is also richly decorated with architectural ornaments.

At the end of the 16th century, the long façade along the river Seine was rebuilt. This part is also called the *Grande Galerie*. The Lescot wing was extended in the north direction and the east-façade of these wings can be seen on the elevation FF.

Around 1650 the wings with the elevation-numbers GG, DD and EE were constructed, but it took until the 19th century (under Napoleon) before these facades were totally completed. Napoleon added also parts of the north wing (elevation CC, east-part) along the *rue de Rivoli*, and around 1850 it was Napoleon III who connected the north and south wings on the east side with the buildings surrounding the Square Court (elevation CC, west-part).

During this time-span of more than 300 years, with all its different types of style-periods (with varrying influences from the Italian Renaissance and Baroque periods), the different architects and rulers remained true to the style of Pierre Lescot: the **French Renaissance** (Biasini, 1990; Louvre, 2017, p. Chronological plan of the construction of the Louvre; Wikipedia, 2018).

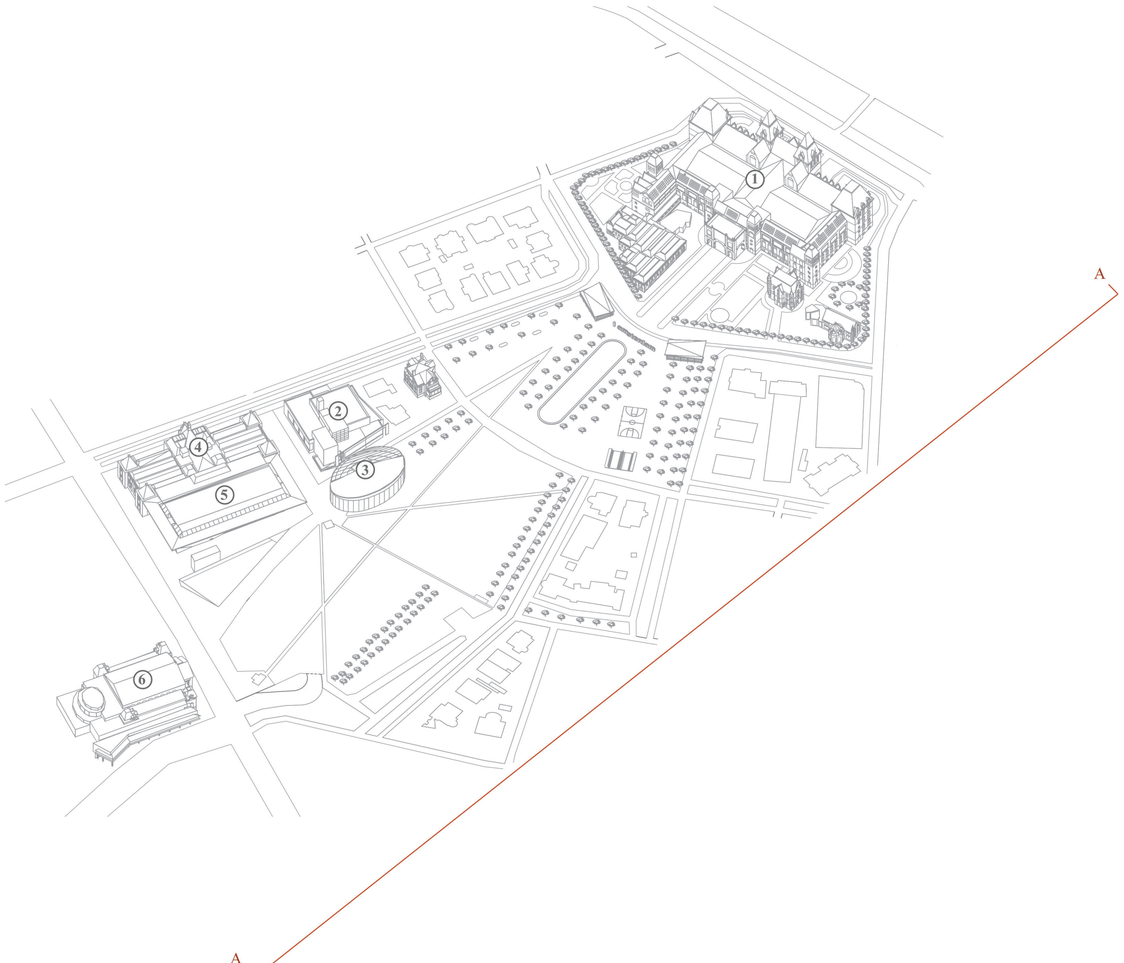
Louvre Pyramid: contemporary architecture (J)

The *Pyramide du Louvre* is a modern large glass and metal pyramid in the middle of the courtyard (*Cour Napoléon*) of the Louvre in Paris. It is almost 22 meter high, and the base of the pyramid has sides of 34 meters. This building serves as the main entrance to the museum. Through this main entrance you arrive in an underground lobby, from where you can take different routes. This pyramid is surrounded by three smaller triangles that provide light into the underground spaces.

The building was designed by the Chinese-American architect **Ieoh Ming Pei**. President François Mitterrand unveiled the pyramid on March 29, 1989. After this, the museum-complex was further expanded. Pei's design introduced a new underground organization for the museum, containing galleries, storage and preservation laboratories. Because of these new spaces that were placed under the ground, the museum could also expand its exhibitions. The underground system provides a connection between the different wings of the Louvre (Souza, 2010)

Pei chose for this very **modern glass pyramid** as a 'light' contrast with the 'heavy' Renaissance architecture of the old Louvre. Yet he stayed true to the Louvre's hierarchy because the pyramid is completely symmetrical.

There have been years of debates and discussion about the construction of this glass pyramid. The people who criticized the contemporary design found the modern style of the building cursing with the old architecture of the Louvre. They felt that Pei did not respect the French Renaissance style. Despite all the protests and resistance, the Louvre Pyramid grew into a French symbol and a Parisian landmark (Bernstein, 1985).



Axonometric projection Museumplein Amsterdam *(Sophie Kugel, 2017)*



AA



1



2



3



4



5



6

Section / elevation view - **SCALE 1:2500**, *(Sophie Kugel, 2018)*





North-Facade of the Rijksmuseum in Amsterdam *(Unknown, ca. 1895) , (photo by J. Duboi, 2015)*

Rijksmuseum & Stedelijk Museum: Historicism (neo-Gothic & neo-Renaissance) (1,4,5)

The Museumplein in Amsterdam consists of a collection of separate buildings in different styles.

The cultural function of the Museumplein began when the new building for the Rijksmuseum was opened in 1885. The architect, **Pierre Cuypers**, had made a design in a **Historicism** architecture style, a mixture of **neo-Gothic and neo-Renaissance**.. The building was soon called the *Cathedral of Cuypers*. There was a lot of controversy about this building: people thought it was too medieval and not modern enough for that time.

Ten years later, in 1895, the Stedelijk Museum was opened at the *Paulus Potterstraat*. This building was designed by architect **Adriaan Willem Weissman** and is built in the same architectural style as the Rijksmuseum.

Both museums were thoroughly renovated in the 21st century. The Spanish architectural firm **Cruz y Ortiz Architectos** has spectacularly rebuilt the 19th-century Rijksmuseum with a grand, light entrance hall, and designed a new Asian Pavilion.

At the Stedelijk Museum the ‘old’ and contemporary architecture merge into a whole. In 2012, this new wing (a white modern ‘bathtub’) was opened and designed by architects **Benthem Crouwel**. Because of this intervention, the main entrance is now located on the park-side.

Van Gogh Museum: ‘the New Building’ (2,3)

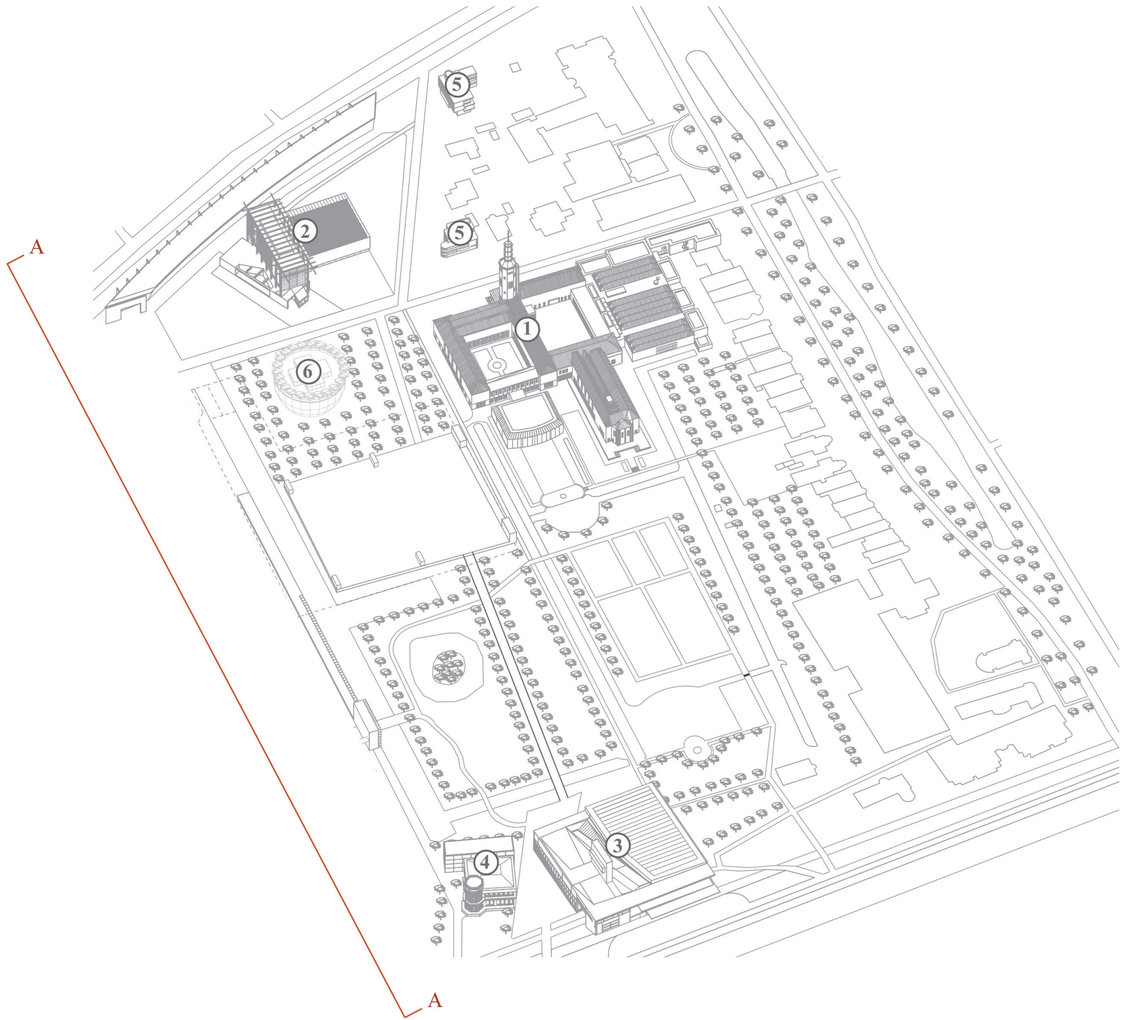
The Van Gogh Museum consists of two buildings. The main building was opened in 1973 and was designed by architect **Gerrit Rietveld**. It is a building made of concrete-stone and glass. It is a minimalist building designed on a five-meter grid with a façade consisting of imitation concrete-bricks. Gerrit Rietveld had joined the New Building (**het Nieuwe Bouwen**): architecture based on functionality and the lack of decorations.

The new wing from 1999 was designed by **Kisho Kurokawa**. It is a concrete elliptical building with a façade of natural stone and titanium. Via an underground passage, which also serves as the main entrance, it is connected to the main building.

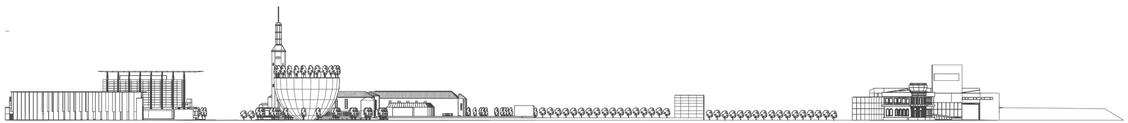
Koninklijk Concertgebouw: Viennese Classicism (6)

The Royal Concertgebouw was opened in 1888. The architect of the building is **Adolf Leonard van Gendt**. The building was built according to the style of **Viennese Classicism (Historicism)**. To give the building more status: the façade is vividly decorated with neo-Renaissance ornamentations.

During a major renovation from 1985 to 1988, a new main entrance with a modern glass foyer, was built on the side of the building, designed by **Pi de Bruijn.**
(Online movie: De Verdwenen Stad Amsterdam, 2015).



Axonometric projection Museumpark Rotterdam *(Sophie Kugel, 2017)*





Section / elevation view - **SCALE 1:2500**, *(Sophie Kugel, 2018)*





Old photo of the south-facade of the Boijmans Museum *(Unknown, around 1938), (photo by Boijmans.nl, 2018)*

The buildings of the Museumpark in Rotterdam consists of different types of architecture, although this museum-park is the one with the most 'modern' architecture, partly because it is also the 'youngest' museum-park.

Villa Dijkzigt: Neoclassicism (4)

In the first chapter of this book, during the introduction of the museum-parks, extensive information was given about the very first building that appeared in the Museumpark Rotterdam. In the middle of the 19th century the family Van Hoboken built a new outdoor residence along the Westzeedijk. Commisioned by the family, architect **Johan Frederik Metzelaar** designed this residential Villa Dijkzigt in 1849-1852. During this time in the nineteenth century, architect Metzelaar played an important role in the debate on the renewal of architecture by means of new building materials, techniques and styles (Floor, 2003).

The design is built in **Neoclassicism** with eclectic elements. The building walls and the facades are masonry with crown moldings. On the left side of the original entrance is an octagonal tower with a cantilevered arch frieze, in dutch called a *boogfries* (Natuurhistorisch Museum, 2017).

Since 1987, the Natuurhistorisch Museum Rotterdam has been located in Villa Dijkzigt. In 1990 the building was converted; the roof was slightly raised to realize a second floor with a depot. The attached film hall from the 1930's, in front of the museum, was replaced in 1992 by a glass pavilion in a **contemporary modern** style. The design for this was made by Erick van Egeraat of the architectural firm Mecanoo (Van Egeraat, 1996).

Boijmans van Beuningen: inbetween Modernism & Traditionalism (1,6)

The urban design of city-planner Witteveen was the beginning of the current Museumpark Rotterdam. In his plan he reserved a spot for a museum, and here the new Museum Boijmans was built between 1928 and 1935.

Urban architect **Adrianus van der Steur** was appointed as the most suitable person for this assignment. During the Interbellum he had a big influence on the architecture of Rotterdam. He considers Museum Boijmans his most important work. At that time there was a rivalry between the **innovative modernists** and the **conservative traditionalists**. Van der Steur takes a position between both camps. He is inspired by different styles and chose a suitable variant for every job (Gielen, 2016). The new Boijmans Museum is a light building with natural light that must counterbalance the heavy spiritual effort of a museum visit (Boijmans van Beuningen, 2017).

The new Boijmans Museum was a success, and plans were made for an expansion in the 40s. Flexibility and transparency were the criteria for the expansion made by architect **Alexander Bodon**. This Bodon Wing (Bodonvleugel) was ready in 1972 (Claassen, 2016).

In the early 80s, architect **Hubert Jan Henket** designs a pavilion on the garden-side of the Van der Steur building. It is a large transparent construction -pavilion- above a half sunken basement (Boijmans van Beuningen, 2017).

Belgian architects **Robbrecht and Daem** redeveloped and expanded the museum in 2003. Robbrecht and Daem built a U-shape of concrete and glass around Bodon's building. Due to this renovation, De Bodon wing and the Van der Steur building were connected and became more like one unit (Boijmans van Beuningen, 2017).

In 2005, the first plans were made to create a new depot next to the Boijmans Van Beuningen Museum in the Museumpark. This will be the first depot in the world that will be open to the public. The Depot will become the new 'treasure room' of Rotterdam, and a striking piece of **contemporary architecture**; a 'giant reflective flowerpot' (Boijmans van Beuningen, 2017).



Land van Hoboken, the later location of the Museumpark Rotterdam seen from above (*Unknown, old photo around 1910-1920*), (*photo, Rotterdam Xpanded, 2017*)

Huis Sonneveld & Chabot Museum: 'the New Objectivity' (5)

Within Witteveen urban-plan for the Museumpark Rotterdam, architect Van der Vlugt designed the Villapark Dijkzigt, where Huis Sonneveld (1929-1933) and the Chabot Museum are situated. With its largely white-colored houses with steel frames and large balconies, Villapark Dijkzigt was the most modern residential area of Rotterdam (Huis Sonneveld, 2017). Rotterdam has several important examples of **functionalism**, but the most famous residential houses are these white villas in the Museumpark, former homes of the board members of the Van Nelle Factory (Adriaansz & Feenstra, 2001).

Huis Sonneveld was designed by architects **Brinkman and Van der Vlugt**, commissioned by Albertus Sonneveld, one of the directors of the Van Nelle Factory. The architects designed a total concept in which architecture, interior and decoration are meticulously matched and reinforce each other (Huis Sonneveld, 2017).

Villa Kraaijeveld was designed by architect **Gerrit Willem Baas**, a former employee of Brinkman and Van der Vlugt. Since 1993 this villa has served as the Chabot Museum (Het Chabot Museum, 2017).

Both villas are built in the style of the **Nieuwe Zakelijkheid**. This can be translated as **New Objectivity** or **New Pragmatism**. This is part of the architectural style called the **New Building** (*het Nieuwe Bouwen*): architecture based on functionality and the lack of decorations. The Nieuwe Zakelijkheid is a Dutch period of modernist architecture that started in the 1920s and continued into the 1930s. It is characterized by angular shapes and designs that are generally free of ornamentation and decoration (Van der Voordt & Wegen, 2005, p. 56).

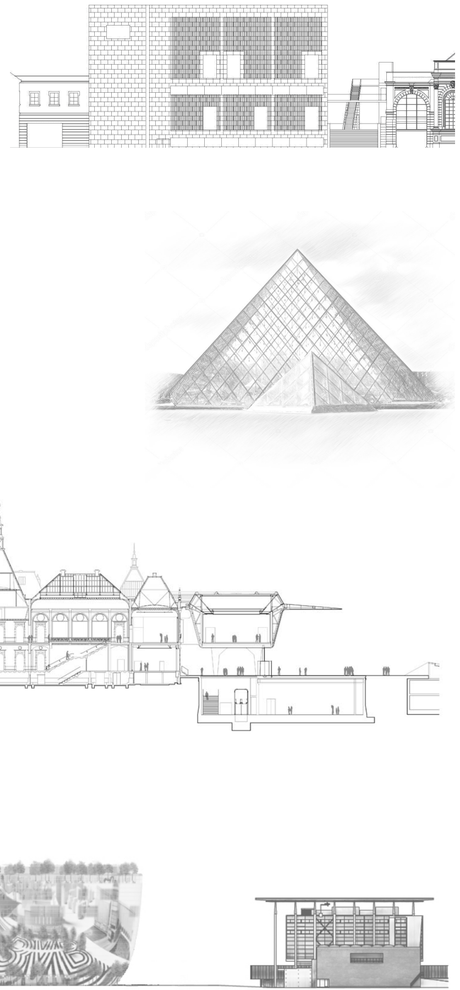
Kunsthal & Nieuwe Instituut: Contemporary architecture (2,3)

The Kunsthal is a striking **modern contemporary** building, designed by architect **Rem Koolhaas**. The building looks like a large, flat, square box, with a narrow high tower as vertical accent. All facades are different. With its location between the Westzeedijk and the Museumpark, the Kunsthal, next to an exhibition space, is also a traffic junction. A sloping ramp runs through the building and bridges the different in height of six meters, also for passengers that do not enter. The architecture of the Kunsthal attracts international attention because of the innovative use of materials. Rem Koolhaas used valuable classical building materials next to cheap, 'ordinary' materials such as plastic, corrugated sheets and bare concrete. Each façade has its own character (Koolhaas & Schwartz, 1995).

The Nederlands Architectuur Instituut (NAI, Dutch Architecture Institute), currently called *Het Nieuwe Instituut* (NI, The New Institute) opened in 1993. In his design for the (at that time called) NAI, architect **Jo Coenen** housed the various functions of the institute in different building-parts. The NAI had formulated three core tasks to create a program of requirements for the building. Collecting, managing and making the archives and collections accessible - including a library -, studying this material and follow current developments, and the dissemination of this knowledge in the form of exhibitions, publications and events. Coenen designed a separate building part for each of these tasks, adding a fourth building part intended for public functions, with a café, bookstore, and auditorium. The archive is housed in an elongated, slightly curve 200 meters long building. The exhibition space is a square closed box of brown-purple brick. The core of the building is a high glass building, where the study hall and the offices are located. Under the main building is a flat box containing the public spaces. The building components are positioned to secure and reinforce the main directions and sight lines of the Museumpark. The archive building follows the curve of the Rochussenstraat, forming the boundary of the Museumpark (Brouwers & Linders, 1998).



Museum-park pictograms, showing: ■ monumental buildings □ iconic buildings
SCALE 1:15.000, *(Sophie Kugel, 2018)*



North-east elevation of the Leopold museum (*Ortner & Ortner Baukunst, 2016*), Pyramid du Louvre (*Stock illustrations, 2018*)
Cross section Stedelijk Museum, (*Benthem Crouwel architects, 2012*), Depot BvB & Nieuw Instituut Rotterdam *(MVRDV, 2014)*

Identity of the Museumpark

Monumental versus contemporary: icons on a historical setting

In all four museum-parks there have been architectural interventions: new constructions at a historical setting. In addition, all parks have one or more iconic buildings (landmarks). These kind of architectural interventions can be seen in all four museum-parks. The new building is often in sharp contrast with the existing historic monumental buildings. The iconic architecture evokes *controversy* but can also provide a lot of *publicity* for an area. People only have to see the contours of the building and they already know which city and place it is. The contemporary architecture gives meaning and fame to the museum-park: this is often the goal.

Value of stay: binding themes

All four case-studies in this book are **museum**-parks. In the first chapter these four museum-parks with their different functions have been introduced. The museum-parks primarily consist of **museums** for art or other objects, but often these museums are combined with *other cultural institutions.*

The Museumsquartier in Vienna is a **cultural quarter** where dance- and music-theaters are situated. Music-, and fashion shows can be held in the courtyard. In Amsterdam, the Concertgebouw is also located at the Museumplein. In Rotterdam, performances and music-festivals take place on the elevated event-area and music-, and film-festivals such as the *Paris Summer Festival* take place at the courtyards of the Louvre.

In other words, in addition to the art museums, the museum-parks also provide a **platform** for all kinds of festivals and other cultural gatherings. All four are therefore an important *cultural meeting place in the middle of the city.*

At some of the redesigns of the museum-parks this additional function of cultural meeting place is clearly included in the design. For example in Vienna, the large courtyard is designed as a kind of urban interior. It is an outside space and public space, but it also feels like an inside space and is shielded from the rest of the city. In addition, the pavement on the courtyard with the light type of stone (which merges into the surrounding buildings) ensures a sheltered appearance.

The courtyards of the Louvre and the Jardin des Tuileries have not changed much in terms of architecture, after the architectural intervention (the Pyramid). The layout of the Jardin des Tuileries is already suitable for festivals or music performances.

In Amsterdam, thanks to the modern architectural interventions, the entrances to the museums were all moved to the square-side. This ensures that this square is better defined. For decades, many festivals and meetings were already held here.

In Rotterdam the architecture office OMA has specially designed an elevated event-area above the parking garage. Here, among other things, film festivals take place, such as *Pleinbioscoop*. This event-area continues to exist after the construction of the Depot of the Boijmans van Beuningen.

Conclustion Architectural Representation

Having looked at the architectural representation of the buildings in the museum-parks, there are a number of conclusions that can be drawn.

Mixed architecture: historical layering
It is difficult to point out one style for each museum-park, since they are all mixes of different types of architecture. This is logical for places that were not built at once, but sometimes existed for centuries like the Louvre and the Museumsquartier, or for decades like the Museumpark Rotterdam. This can be different for each building in the museum-parks. The bottom line is that all museum-parks have buildings from *different times and with different types of architecture.* This creates a **historical layering** in the museum-parks

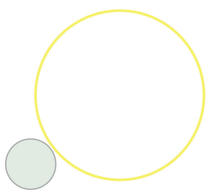
We can divide the four museum-parks into two types:

1. *The museum-parks that were built for a different function*. The original function can still be seen in the current architecture (form). This includes the Louvre in Paris and the Museumsquartier in Vienna. It is visible that these museum-parks are very old, hundreds of years ago their construction started. The buildings had a **royal function**: they were (parts of) **city palaces.**
   In terms of the architecture (form), it is notable that the original buildings often have a **monumental and closed appearance**. This is of course due to their previous function, the building was the border between the private domain of the king or emperor and the public space in the city. It is also striking that these parks have recently undergone a very large and rigorous **architectural intervention.** Here the old monumental architecture was mixed with modern architecture. This can be seen as a provoking intervention: the contemporary architecture contrasted with the monumental historical architecture. This modern architec ture ensures that the closed monumental wall of the old function is opened up.

2. *The museum-parks that have been built as a cultural function*. In Rotterdam and Amsterdam there was an empty area on the outskirts of the city. These almost empty locations were designated as cultural quarters during the new 19th cent urban developments just outside the old city borders. Rotterdam started with the construction of the Boijmans Museum and Amsterdam started with the construction of the Rijksmuseum.
   Both museum-parks were not built at once: little-by -little, year-by-year, new museums were added. There are **many different types and styles of architecture from different times mixed together**.
   In these parks, it is noticeable that a number of contemporary **architectural interventions** have been made. These were entirely new modern museums or newly designed entrances to these museums.

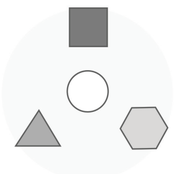
Controversy over Icons
All four museum-parks have one or more iconic buildings: landmarks. *The new building is often in sharp contrast with the existing historic monumental buildings*. All museum-parks are an important element of the city and this ensures that a lot of people have an opinion about these new designs. It therefore took many years before most of these projects were approved, and a lot of concessions had to be made. Nevertheless, the projects with the greatest aversion and *controversy* were ultimately also the projects that became the most popular. *The iconic buildings give the place a new meaning, provide publicity and can help to develop a whole city district.*

Change in appearance and organisation
New architecture can change the **organization** of a museum-park completely. The most famous example is of course the Louvre. After an architectural intervention a new main entrance was created on the courtyard, with an underground world of shopping malls and parking garages.
In Vienna, the construction of the contemporary museums on the large courtyard created a closed cultural world within the walls of the old court-stables. A kind of **urban interior**. This feeling was reinforced by the choice of light stone as ground tiling, the same color as the surrounding buildings. Moreover, the modern Leopold museum and the MUMOK also have a (large) villa-like appearance.
In Amsterdam, the new architectural interventions brought a change in **orientation**. The entrances of the three largest museums (the Rijksmuseum, van Gogh museum and Stedelijk museum) were situated on the street-sides. After the construction of the new contemporary main entrances, they are now located on the square-side. This ensures that the Museumplein is more clearly defined. The entrances to these museums were, following the example of the Louvre, partially built underground.
The Museumpark in Rotterdam is the youngest of the four, and part of the museums were built in the past decennia. The architecture ensures a **better connection** with the environment (such as the Kunsthal with the *Westzeedijk*, the parking garage with the Erasmus MC and the NAI with the *Rochussenstraat*) and at the same time this new architecture provides a **clearer definition** and **demarcation** of the Museumpark.









Four research-questions icons *(Sophie Kugel, 2018)*

FINAL CONCLUSIONS

Solving the case-study questions

Answers sub questions

This chapter will answer the research-queston on the basis of the conclusions of this case-study. In order to answer the overall question properly, this question is divided into sub questions. The answers of these sub questions will help to solve the bigger question; the research question.

A **summarized** answer of the sub questions will be given in this chapter. An in-depth explanation for these answers can be found in the corresponding chapters in this book.

How are the museum-parks embedded/rooted in the urban fabric? (Chapter 2)
The four museum-parks are all located on the **outskirts (edge) of the historic city**. Based on these four museum-parks, it could be said that this is a typical location for a museum-park.

Large cities needed green spaces and parks. In Europe the cities themselves were full and there was no place for these large green public areas. On the outskirts of the city the municipality had the opportunity to organize a large square or park without much sacrifice. After removing the city walls, and often even before, the (local) government built along the old historic edges of the city.

What is the relationship between the park and the city? (Chapter 2)
The museum-parks are located in places that are of great significance or importance to the city. There was often no place left in the historic city centre for the original functions of these museum-parks (palaces, a family estate or a Rijksmuseum). That is why these important buildings were often located just outside the historic city, so outside the original city wall.

Three of the four museum-parks originally had a different function in the urban fabric. The Museumsquartier Vienna and the Louvre in Paris were first (part of) imperial buildings, a residence or function for the former emperors. The Museumpark in Rotterdam was first part of a rich family estate. The Museumplein in Amsterdam was designated as a cultural square from the beginning. These differences influenced the appearance and situations of the museum-parks and therefore their elevation views in the city.

What is the role of the park in the relationship between the city and the museum (cluster)? (Chapter 2)
The park provides a connection between the museum buildings and the public space in the city. At the stately buildings of the Museumsquartier Vienna and the Louvre in Paris, the gardens create a **soothing border** between the museum building and the rest of the city. At the Museumplein Amsterdam and the Museumpark Rotterdam, with their separate and freestanding elements, the park ensures that the buildings in these museum-parks **form a whole**.

What is the optimal spatial structure and composition of (the buildings and the park of) a museum-park? (Chapter 3)
It can be concluded that the spatial structure and composition of the museum-parks are different and therefore we cannot come up with one guideline for this question. Many different forms of museum-parks work well. All four museum-parks are successful and yet the shapes, sizes and proportions of the parks and buildings are different.

Nevertheless, there are roughly two types to discover:

1. The Louvre Paris and the Museumsquartier Vienna consists of **large building-blocks with a hierarchical, symmetrical spatial setup and a strong orientation**.
2. The Museumplein Amsterdam and the Museumpark Rotterdam are mostly **asymmetrical and consists of free arranged buildings that create relations between each other and stretch out the park**.

The gardens (the park-parts) were classified separately. The stylistic elements have everything to do with the history of the museum-parks and vary from **formal** (Jardin de Tuileries, Louvre) to **informal** (Museumpark Rotterdam).

Roughly speaking, the parks can be divided into formal parks that are inspired or based on the **French Formal Gardens**. And more informal parks that are inspired or based on **English Landscape Gardens**. In addition, there are some **contemporary garden-variants** that cannot be classified historically (see the overview on page 195).

As with the spatial composition of the buildings, it can be deduced that there is not one correct way of building a park togheter with the museums. **Different park-styles can work in different ways**. We do see that a hierarchical garden is often connected to a hierarchical building.

It can ultimately be concluded that there are **no rules regarding the size, dimensions, proportions, expressions, and compositions of the museum-parks**. The spatial structures and the classification of gardens/parks are different in all four museum-parks. They have their own structure in the urban fabric, that ‘works’ for all four of them in a different way.

There are however some general principles that apply for a part of these museum-parks:

- The museum-parks are built up from completely different buildings and they are configured in a completely different way: yet they all **form a unity**. Whether the museum-parks consists of separate buildings or one large building block; the most important thing is that they form a whole together with the park, that it can been seen as one unit or at least as different parts that belong together.
- The museum-parks that are built up in a hierarchical way, also have the clearest orientation and the clearest boundaries.
- Three of the four museum-parks **changed their orientation** (the Museumsquartier, the Louvre and the Museumplein) after a number of architectural interventions. Contemporary buildings were created on the ‘courtyards’ of these museum-parks. This caused a total turnaround in the orientation of the complexes. The back sides became also front sides.

How is the entrance of the park (or multiple entrances) staged in the urban fabric? And what are the boundaries of the building(s), the clusters and the park (what is private, public, etc.)? (Chapter 4)
The **degree of accessibility** of the museum-parks is a direct consequence of the design of the entrances. The way the museum-parks present themselves to the public space in the city can be divided into two types: **closed, monumental and repetitive facades** (like the Louvre Paris and the Museumsquartier Vienna) and **loose elements of different types of architecture** (like the Museumplein Amsterdam and the Museumpark Rotterdam).

This division in the elevation views of the museum-parks in the city is also strongly reflected in the way the entrances to the museum-parks are regulated. At some museum-parks there is an obvious main entrance, while at other museum-parks there are several important (side) entrances.

Based on the four researched museum-parks, it can be concluded that the parks with a **closed, monumental, and repetitive façade** often have an **obvious main entrance**. These museum-parks consists (for the most part) of **one large block**. Furthermore, it can be concluded that at these four museum-parks, the museum-parks that consist of **loose elements or different types of architecture** have **multiple entrances** and it is not immediately obvious what the main entrance is.

In addition, there is a distinction between entrances with a **'hard', physical boundary** and entrances with a **'soft', open (abstract) and much more gradual boundary**. These clear and hard boundaries are often formed by architecture and the more gradual boundaries consist often of a public space in the city that slowly changes into the museum park, without an architectural element being involved. The museum-parks with the closed, monumental and repetitive facade often have entrances with 'hard' physical boundaries and the museum-parks that consists of loose elements have less clear entrances. This appearance of the boundary between public space and museum-park is often a direct consequence of the original function of the buildings in the museum-park.

Museum-parks can also be classified into **public spaces** (in other words as full public domain) and **semi-public domain**. It is notable that the museum-parks with a clear former function often changed into a semi-public domain (this means that the original private character can still be found in its current architecture) and that the museum-parks that had public functions from the beginning can be classified as public space.

What is the route in the museum-park: the interaction (connection) between the park and the museums? (Chapter 4)
While researching the circulation within the museum-parks, it can be concluded that the pedestrian routes in the museum-parks have a direct connection with the designs of the gardens. These routes can be divided into **formal** and **informal routes**: routes that are laid out tightly and hierarchically (through, for example, sightlines) and routes that do not seem to comply with a set of 'rules', but simply follow the shape of the park. Within one museum-park several types of routes can occur. These types of routes (formal or informal) affect how visitors experience the museum-park and what the museum-park is used for.

The traffic settlements: how is the public transport / parking issue resolved? (Chapter 4)
All four of the museum-parks have public transport in their vicinity (tram- and/or metro-lines) and an underground car park. It can be concluded that different types of transport are important for the accessibility of the museum-parks. It logically follows that **the larger the museum-park, the more public transport stations are needed in the area and the more parking spaces are needed.**

What was the original function of this area? And can you still see this in the current architecture or design of the museum-park? (Chapter 1 & 5)
The four museum-parks can be divided into two types:

1. The museum-parks that once had a different function and where the original function can still be seen in the current architecture (form). This includes the Louvre in Paris and the Museumsquartier in Vienna. It is clearly visible that these museum-parks are very old, hundreds of years ago their construction started. The buildings had a **royal function**; they were (parts of) city palaces.
   In terms of the architecture (form), it is notable that the original buildings often have a **monumental and closed appearance**. This is of course due to their previous function, the building was the border between the private domain of the king or emperor and the public space in the city.
2. The museum-parks that have been built as a **cultural function**. In Rotterdam and Amsterdam there was an empty area on the outskirts of the city. These almost empty locations were designated as cultural quarters during the new 19th cent urban developments just outside the old city borders. Rotterdam started with the construction of the Boijmans Museum and Amsterdam started with the construction of the Rijksmuseum. Both museum-parks were not built at once: little-by-little, year-by-year, new museums were added. In these parks there are many **different styles of architecture from different times mixed together**.

What are the different architectural types and styles inside the museum-parks? Was this area developed with one major intervention, or were the additions built in several stages? (Chapter 1 & 5)
All museum-parks have buildings from different times and with different types of architecture. This creates a **historical layering** in the museum-parks.

The two oldest museum-parks, the Museumsquartier in Vienna and the Louvre in Paris, have experienced **several architectural developments over the centuries**. Adjustments were made, or buildings were added, under the influence of the then prevailing architectural styles.

The buildings at the Museumplein Amsterdam and Museumpark Rotterdam are (for the most part) slightly younger. In these parks there is also a **wide variety of architectural styles** to discover.
There are two things that stand out when looking at the architectural developments:

- In the 19th century, a lot of buildings were built in so-called **historicizing styles**, also known as **neo-styles**.
- All four museumpark have **recently undergone a large and rigorous contemporary architectural intervention**. Here the old monumental architecture was mixed with modern architecture. This can be seen as a provoking intervention: the contemporary architecture contrasted with the monumental historical architecture. In the Museumsquartier in Vienna en het Louvre in Paris these modern architecture ensures that the closed monumental walls of the old functions were opened up. At the Museumplein in Amsterdam and the Museumpark in Rotterdam these architectural interventions changed the organisation or orientation of the museum-parks.

Building typology: how is the relationship between the historic buildings (the existing urban fabric) and the newly built (sometimes iconic) architecture? (Chapter 5)
All four museum-parks have one or more iconic buildings: **landmarks**. The new building is often in **sharp contrast** with the existing (historic monumental) buildings. The projects with the greatest aversion and controversy were ultimately also the projects that became most famous. The iconic buildings give the place a new **meaning**, provide **publicity** and can help to develop a whole city district. This is also known as the **Bilbao-effect**, a phenomenon in which a city through the construction of a distinctive building, designed by a well-known architect, grows into a more important or richer city (Beck, 2002; Rybczynski, 2002).

Museum-clusters must be able to provide an added value to the park (strengthen the identiy of the place). How is this done in these museum-parks, and how do you increase the 'value of stay' in a museum-park? (Chapter 5)
In addition to the art-museums, the museum-parks also provide a **platform** for all kinds of festivals and other cultural gatherings. Museum-parks that offer this cultural platform make optimal use of the cultural clustering and strengthen the identity of the place. People who usually don't visit several museums will do so now, because the museums and other cultural institutions are located close to each other.

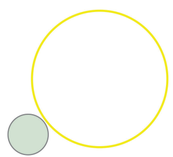
All four museum-parks are therefore an **important cultural meeting place in the middle of the city**. Museums for art are combined with other cultural institutions. In every museum-park there is a location where (outdoor) activities can take place or where cultural objects can be found that strengthen the cultural position of the park in the city: like markets, festivals, artworks, playgrounds, etc.

Museum-clusters are often an important link in a city center, and as a spatial phenomenon they are present in contemporary cities. Particularly the space within and in between the museums is important. This is the place 'in between disciplines' where all the activities take place and where the ideas of spatial design are manifested (M. Nikolić, 2008).

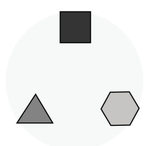
Partnerships between museums and cultural institutions can lead to opportunities to reach new audiences (Tien, 2010). In addition, there are also the benefits of networking, consumption benefits, timesaving benefits, and sometimes economic benefits (Santagata, 2002).

Answer research question

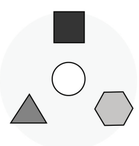
What is the interaction between the museum-park and the public space in the city and in what architectural way makes the museum-park use of the advantages of museum-clustering?



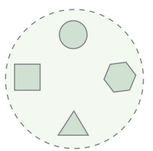
The four museum-parks are all located on the **outskirts (edge) of the historic city centre**. These places that are of great significance or importance to the city.



Historical layering: (part of) the museum-parks originally had a different function. These differences influenced their appearances. The museum-parks underwent several architectural developments over time causing a wide variety of architectural styles.



The four museum-parks **recently underwent a large and rigorous contemporary architectural intervention.** These architectural interventions changed the organisation or orientation of the museum-parks. Iconic buildings - landmark - give the place a new meaning, and provide publicity.



The park provides a **connection between the museum buildings and the public space in the city.** Sometimes the gardens create a soothing border between the museum buildings and the rest of the city. Other times the park ensures that the separate and freestanding buildings in the museum-parks form a whole.



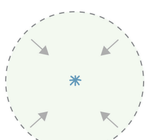
Formal spatial structure and composition: large building-blocks with a hierarchical, symmetrical spatial setup/route and a strong orientation. Closed, monumental and repetitive facades. Clear main entrance: 'hard', physical boundary. Semi-public domain. Former royal function.



Informal spatial structure and composition: asymmetrical museum-park that consists of free arranged buildings that create relations between each other with the park in between. Loose elements of different types of architecture. Multiple entrances: 'soft', open (abstract) and gradual boundaries. Public space. Built as a cultural function.



The larger the museum-park; the more **public transport stations** are needed in the area. All museum-parks have **underground parking garages.**



The museum-parks are **important cultural meeting places in the middle of the city.** They strengthen the cultural position of a city and provide a platform for all kinds of festivals and other cultural gatherings. Partnerships between museums and cultural institutions can lead to opportunities to reach new audiences.

Epiloque

Research as a tool for design

The final part of this book discusses how the **research-part can be used as a tool for the design**.
As explained in the first chapter of the book, the plan is to transform the Oosterpark into a **new museum-park**. The results of this research can be used as a sort of toolbox in the new design for this museum-park.

The Tropenmusem (Tropical Museum) in Amsterdam is struggling to attract sufficient visitors as they do not naturally find their way to the museum. From the façade it is impossible to predict what is established inside the building and the entrance is difficult to find. Moreover, the large building blocks the connection between the city center and the Oosterpark. To save the museum it must become part of, and meaningful for, the city of Amsterdam. When looking at the location of this area in the city and draw the most important axes, it can be seen that the museum-park is an important pivot in the city. The aim for this area, which is now a mixture of different random functions, is to make a new architectural and spatial design for it and transform it into a museum-park with a specific theme.

The research-part in this book focused on a special **type** of museum-clusters. This was defined in the first chapter, because the research should have relevance for the design of the new museum-park. Therefore all four museum-parks in this research met the following properties:

- The museum-parks contains a **building or museum with a rich history**
- Located in a **Western-European city**
- Situated in a **park-like setting**; like a large public garden
- Surrounded by **urban fabric**

The design ideas for the Oosterpark will depend on the information and ideas gained out of the comparisons of the case studies with each other. This final part of the book will give an overview of the potential ideas and architectural 'solutions' obtained from this research and how they can possibly be used in the final design.

It will be attempted to translate the learnings from this research into tools and apply these in the design of the new museum-park. The goal of the design is to improve the (cultural) role of the museum within the city of Amsterdam. The final chapter will not provide detail on the new design, but will attempt to clarify the tools that can be used within the new design.

History and former functions - a Public park with a Colonial museum

Around 1800 the Oosterpark was a rural meadow area, and a popular scenic route just outside the city walls. The polder structure that dates back to that time, can still be seen in the structure and orientation of the buildings today ('fossilised landscape', see bottom-left map on page 294).

Fifty years later the *Oosterbegraafplaats* (cemetery) was built on this location. Several plans followed for the rest of the area, and after a competition the park-design of landscape architect Springer was chosen. The northern part of this park was not implemented, since the Oosterbegraafplaats was still situated there.

The park has a typical **English Landscape style** that was fashionable at the end of the 19th century: romantic, park-like landscapes with elegant routes and ponds without symmetry. At the same time it was also a typical **public park** (*volkspark*), where the industrial workers could recreate as shown on the photos on page 305. Over the years, a number of things changed in Springer's park design, but the concept remained the same (Meurs & Voerman, 2010).

The buildings in the Oosterpark were all built around the same time, with the exception of a hotel tower from the late sixties. The monumental buildings are mainly situated on the northern edge of the park, literally with their backs turned towards the park-side. The functions of the buildings can be seen on the map on pages 292-293. In 1914 the **Colonial Institute** was designed, and the striking shape of the building was due to the the cemetery that was still situated in the north-east of the Oosterpark. Later the cemetery was moved to *de Nieuwe Ooster*.

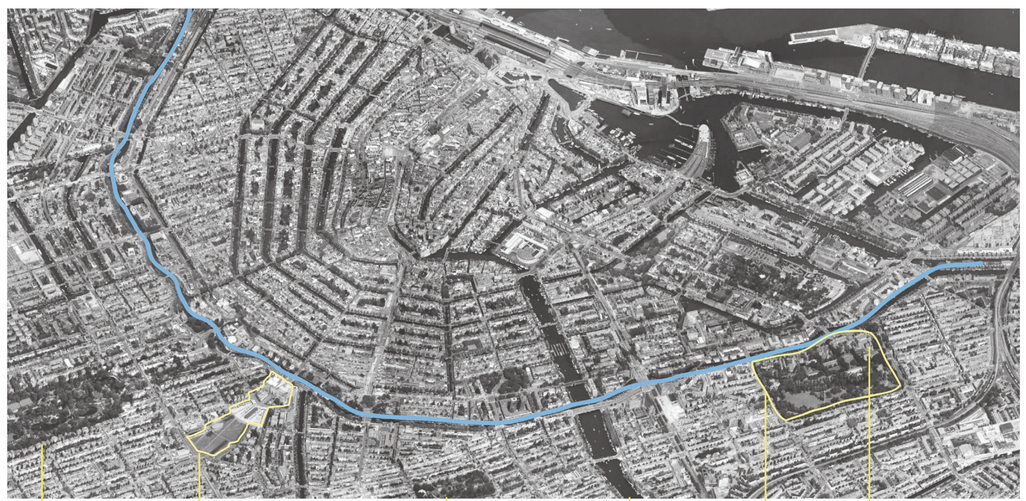
The Colonial Institute is an imposing bulding along the *Singel* and immediately became a landmark in Amsterdam. Today, both the Tropenmuseum and the Royal Tropical Institute are located inside this building. These two different institutions also share a large part of their history. The Tropenmuseum is a museum of **Ethnography** with a large collection of ethnographic art or artifacts from the former Dutch overseas territories. Nowadays, the museum also organizes public exhibitions such as: '*Doorbreek de stilte*' (about the historical involvement of the Netherlands in slavery). The museum is located around a large indoor atrium, which is designed specifically for this function. The Royal Tropical Institute is a knowledge institute for international cooperation, focusing on developing countries (Lucassen, 2016).

The Tropenmuseum originated from an interesting, but also a hugely charged history of the Dutch colonies and trading posts around the world. In 1864, Frederick van Eeden started collecting objects in his attic from the Netherlands Antilles, Aruba, Surinam, the Dutch East Indies, and the gold coast in Ghana. Soon the collection moved to the present provincial house in Haarlem under the name Colonial Museum. On the one hand, the collection was for research on trade, and on the other hand for the entertainment of the public (Hall & Hasselman, 1941).

It became such a success that a special building was designed for it; in 1926 the **Koloniaal Museum Amsterdam** was opened by Queen Wilhelmina. At that time, this neo-Renaissance style museum was Amsterdam's largest building, but also the most controversial (Woudstra, 2004).

The Decolonization since the 1950s changed the name of the Colonial Institute to the Royal Tropical Institute. The organization was no longer concerned with trade, but with advice to developing countries. Numerous decorations in the building still refer to different cultures and the Dutch colonial history. This is reflected in the facade-ornaments, sculptures and wall paintings (Lohmann, 2016; van Nieukerken, 1924).

With this background-information it is possible to link the conclusions that were made in the research-part of this book to the design of the Oosterpark.



Amsterdam bird-eye view *(Marco van Middelkoop / Aerophoto-Schiphol, 2012)*





Koloniaal Instituut (the later: Koninklijk Instituut voor de Tropen), the side of the Mauritskade from the Muiderpoort *(Beeldbank Stadsarchief Amsterdam, unknown, 1930 & www.kit.nl, 2010)*

Original Functions:

- Koninklijk Instituut Tropen, 1911-1926
- Anatomical laboratory, 1908
- Hogere Burgerschool, 1904
- Laboratory of Health Sciences Tropical Hygiene of the KIT, 1917
- International Centre of the KIT, 1965
- Stable building with horse box Amstel brewery, 1912
- Oosterpark-school, 1931
- Dubbeltjeswoningen (houses) 1875
- Sint Elisabeth Gasthuis (girls-school) with separate director's residence, 1890
- Music-building, 1908

Institutions & Programmic Structures Today:

- Koninklijk Instituut Tropen
- University of Amsterdam
- Lyceum
- Hostel and catering
- Tropen Hotel
- Companies (partly new buildings)
- Private education
- Houses
- Hotel Arena
- Music-building
- Entrance underground depot

Oosterpark Amsterdam: former functions and the institutions & programme structures today *(Sophie Kugel, 2018)*



The Oosterpark in Amsterdam, **SCALE 1:2500**, *(Sophie Kugel, 2018)*



1. **Amsterdam's Canal District**: the historical urban fabric.
2. **19e-eeuwse-gordel:** the first city extension outside the Singelgracht
3. **Gordel '20 -'40**, part of the **Algemeen Uitbreidings Plan**

Top-left: location in the urban fabric
Top-right: axis and sightlines
Bottom-left: Urban Morphology
Bottom-right: the 'green lung' of Amsterdam
SCALE 1:15.000, *(Sophie Kugel, 2018)*

1. Position in the urban fabric

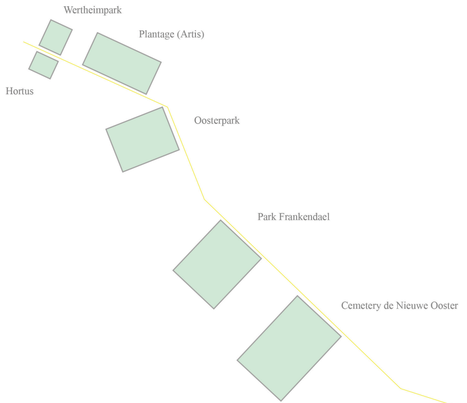
The Oosterpark is located on the edge of the historic city center (the canals) of Amsterdam and is part of the so-called 'green lung' in the east of the city (see image on the right). The park is situated structurally within the urban fabric. Historically the location of the Oosterpark and the Tropenmuseum was chosen for this reason; it is an **important pivot** in the city and can potentially have a significant added value to the city. As discussed, this is is a commonality between the Oosterpark and the four museum-parks within this research.

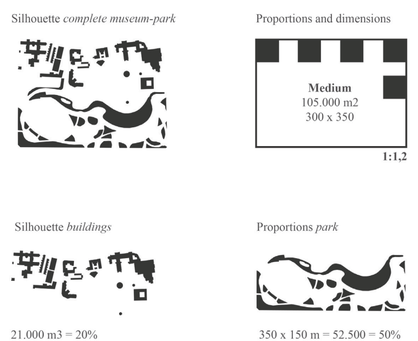
The history of this location has strong similarities with that of Museumplein in Amsterdam. Both parks are located along the **old city border** of Amsterdam (see top-left map on page 294), also called the *Singelgracht*, and they are both in line with the bridge crossing this canal. The area of the Oosterpark was also part of the expansion plan of Jan Kalff from 1877. You can read more about this history on page 149. The difference is that the Oosterpark was not further developed by architect Cuypers but by landscape architect Springer.

2. Spatial Composition

The building of the Tropenmuseum was, just like the Rijksmuseum, especially designed for its museum-function. Therefore, it would be logical that the museum has a good connection with the public space of the park. Unfortunately, this is not the case; the façade of the Tropenmuseum forms a **closed and distant wall.**

The spatial-design icons on the left show that the Oosterpark, just like the Museumplein in Amsterdam and the Museumpark in Rotterdam, is made out of separate buildings. Although the park consists of separate elements, the constructions on the north side of the park form a closed serie of buildings that barely connects with the more southern park-part. It would be an added value when these monumental buildings, just like the buildings in the Museumpark Rotterdam and the Museumplein Amsterdam, form a **whole** together with the park.





Top: the 'green lung' of Amsterdam
Bottom: proportions and dimensions
(Sophie Kugel, 2018)



The 900-meter-long original cast-iron fence around the Oosterpark was renewed in the same style, as the park was renovated, *(beebop.nl, 2015)*

3. Connection city and park: the entrances

To achieve that the park becomes an added value within the city the location must be optimally used in the design. In the four museum-parks this is done by connecting the museum-parks to the public spaces in the city, for example by evident locations of main entrances and sometimes by several (side) entrances that gradually change from public space to museum-park (see chapter 4).

As mentioned before, the Oosterpark borders on the edge of the historic city of Amsterdam. The Tropenmuseum was built on this border. The Tropenmuseum resembles the Rijksmuseum in many aspects. Both museums were built in a neo-Renaissance style at the end of the 19th century, and were built on the edge of the historic city of Amsterdam. At both museums, a **sightline** (or axis) runs from this historic city to the main entrances of the museums (see top-right map on page 294). Originally the sightline towards the Tropenmuseum ran even further into the historic center, because at that time the route was laid out through the *Muiderpoort* (an old city gate of Amsterdam, as is shown on the map).

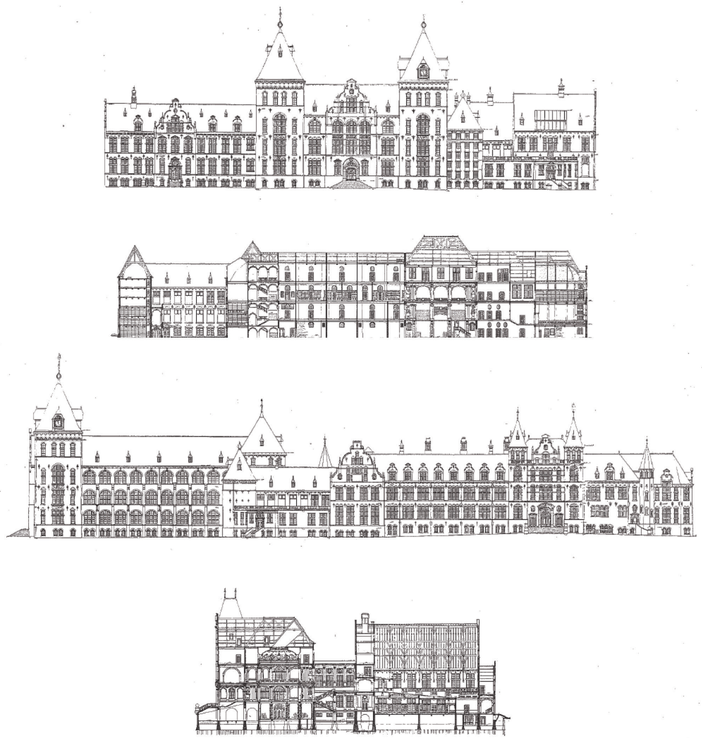
However, the difference is that at the Museumplein Amsterdam this sightline runs through the Rijksmuseum to the park-section (Museumplein) and therefore also forms the **main entrance** to the **entire** park. At the Oosterpark, this sightline runs dead against the (non-public) entrance of the Royal Tropical Institute. Therefore this is a building with **closed, monumental and repetitive facades** (see elevation views on page 298), just like the Louvre in Paris and the Museumsquartier in Vienna.

In these last two mentioned museum-parks, clear entrances have been made in the closed facades. These ensures that these parks have obvious connections with the rest of the city. Unfortunately, this link is missing at the Oostpark. The reason is that the Tropenmuseum-building forms a **closing blockade**. The main entrance was once situated towards the historic city, but now it is on the side of the building and has **no connection or relation with the rest of the park**. This entrance on the *Linnaeusstraat* is so small that visitors may feel like stepping into the basement; it does not present itself .

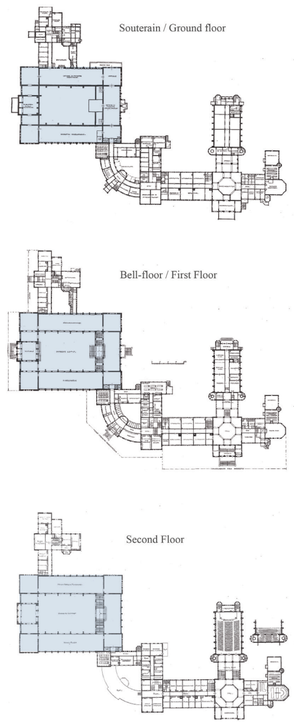
A new design should take this aspect into account. For example, through new architecture (elements) that will **change the orientation and organization** of the museum-park.

On page 299 the floor plans of the Tropen-building can be seen. The part of the building marked in light-blue is the (publicly accessible) Tropenmuseum with the entrance on the *Linnaeusstraat* and the rest of the building houses the Royal Tropical Institute (that is not publicly accessible) with the entrance on the *Mauritskade*.

Because there are fences around the Oosterpark, there is no natural transition (no ‘soft edge’) from the city to the park (see the top-right map on page 300). This fence has the park in common with the *Jardin des Tuileries*, although the fence-work of the Oosterpark is a lot less monumental than the ones in Paris. The construction of the original fence of the Oosterpark is recognizable from the English Landscape style and was also designed by Springer (see pictures on the left). It is not possible to walk into the park at all points, but only through premeditated entrances. Therefore the missing connection between the park and the Tropenmuseum is extra important.



North-east facade -Linnaeusstraat- with the former monumental entrance Tropenmuseum (now on basement level) and the north-west facade with entrance KIT -Mauritskade- in neo-Renaissance style and two sections -longitudinal section and cross section- *(M. A. van Nieukerken, 1924)*



Plans entire Tropical Institute *(M. A. van Nieukerken, 1924)* Tropenmuseum



Side Entrance - hard (clear) border
Side Entrance - soft (gradual) border
Independent entrace (freestanding museum)
P Parking entrance for **cars**
T Boarding point tram-line

Top-left: borders of the plot
Top-right: entrances to the Oosterpark
Bottom-left: route in English landscape style
Bottom-right: transportation
SCALE 1:5.000, *(Sophie Kugel, 2018)*

4. The park: link between public space and museums

In the four museum-parks in this research, the **park provides a connection** between the museum buildings and the public space in the city. At the stately buildings of the Museumsquartier Vienna and the Louvre in Paris, the gardens create a **soothing border** between the museum building and the rest of the town. At the Museumplein Amsterdam and the Museumpark Rotterdam, with their separate and freestanding elements, the park ensures that the buildings in these museum-parks **form a whole**.

In the Oosterpark, the Tropenmuseum has no (or barely any) connection with the park. Firstly, this is because the entrance is not situated on the park-side, secondly because the facade on the park-side is **closed and distant**, and thirdly because a **blocking building** (the *Tropenhotel*) is built between the park and the museum. A requirement would be to remove the Tropenhotel to ensure a connection between the park and the museum. An architectural element or intervention can then be added to bring the park and museum closer together. This architecture can form the **transition between the open park and the closed facade of the museum.**

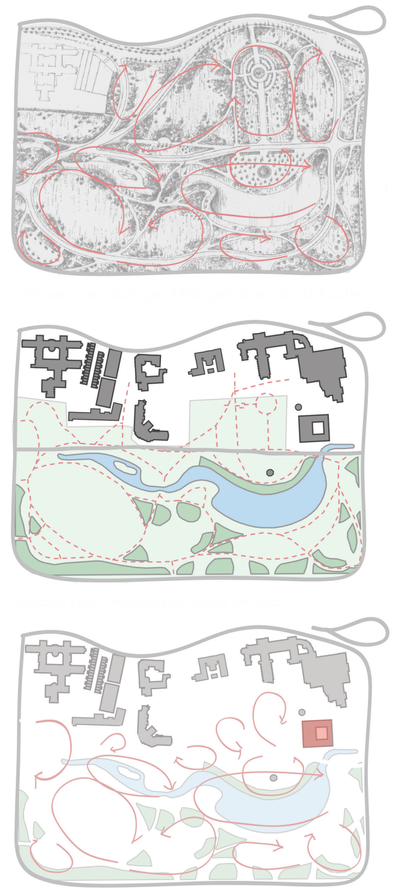
5. Classification of the garden and the route

The possible reason that the building of the Tropenmuseum and the Oosterpark do not connect is that the **formal** building does not match with the **informal** park.

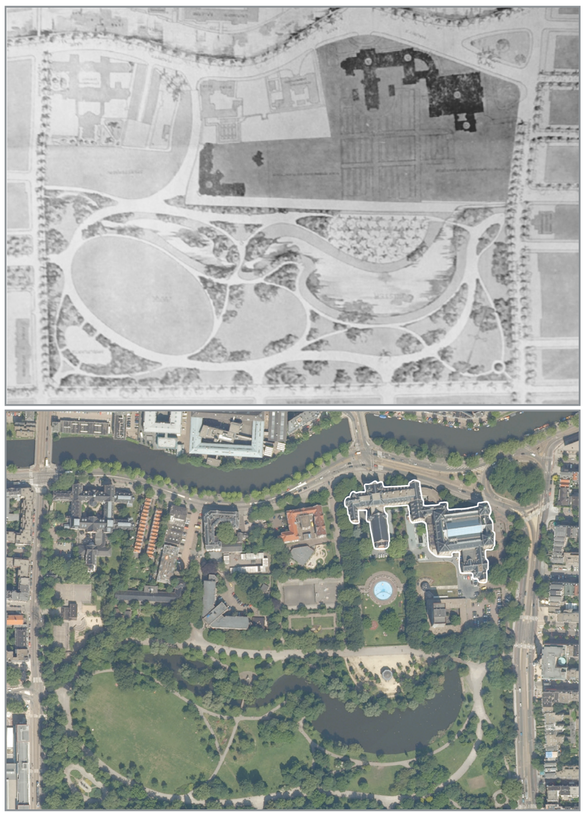
During the research of the four museum-parks it was seen that the Louvre Paris and the Museumsquartier Vienna consists of large building blocks with a hierarchical, symmetrical spatial setup, and a strong orientation. It is striking that these giant buildings connect to formal parks that were inspired or based on the French Formal Gardens. These parks and their routes, like the buildings, are symmetrical and hierargic. The Museumplein Amsterdam and the Museumpark Rotterdam on the other hand, are mostly asymmetrical and composed of free arranged buildings and are often connected to parks that are inspired or based on English Landscape Gardens or contemporary garden-designs.

This means that the Oosterpark in Amsterdam is a bit of an exception, the building and the park do not seem to be completely in line with each other. This can be explained by the history of the park. This park is designed in the **English Landscape style** by landscape architect Springer (see images on pages 301-302). The park has a meandering, non-symmetrical route that fits this garden-style.The drawings on the left shows that the park has an informal (seemingly random) route. Eventually, the park-part in the north-east was not developed because on this location a cemetery was situated. A few years later the Tropenmuseum was built on this exact spot, and the shape of the museum-building was determined by a number of graves, not by the connection with the park.

In the new design for the Oosterpark it is the challenge to add a **architectural element** to this park, that creates a **transition (a connection) between the informal park in English Landscape style and the hierarchical and closed facade of the Tropenmuseum.**



Park-design by landscape architect Springer. The park is divided into buildings and park. The route gets blocked and the Tropenhotel (in red) ensures that no connection is possible between the Tropemuseum and the Park. **SCALE 1:5.000**, *(Sophie Kugel, 2018)*



Design Oosterpark in English landscape style *(Springer, 1893)*
Satelite photo Oosterpark amsterdam *(Google Earth, 2015)*



Top: meadow area without buildings (*Gemeente Amsterdam & Landschapsarchitectenbureau DS, 1832 / 2009*)
Mid-left: the Oosterpark-area outside the fortification walls (*Beeldbank Amsterdam, Historische Atlas, 1851-1855)*
Mid-right: design for a cemetery and parade grounds just outside the city-walls (*J. van Niftrik, 1866*)
Bottom-left: the first buildings on the area (*Gemeente Amsterdam & Landschapsarchitectenbureau DS, 1890 / 2009*)
Bottom-right: design for Oosterpark in English landscape style; north-east part was not implemented (*Springer, 1893*)



19th century | border 19th -20th | 20th century



Top: architectural layering Oosterpark Amsterdam
Bottom: the red lines are the monumental fronts of the building towards the city centre - the green lines are the messy back-sides directed towards the park-side.
SCALE 1:5.000 *(Sophie Kugel, 2018)*

6. Transportation

Different types of transport are important for the **accessibility** of the museum-parks. The bigger the museum-park, the more public transport stations are needed in the area and the more underground parking spaces are needed. There is a significant number of public transportation options (tram and bus) in the vicinity of the Oosterpark (see the transportation map on the bottom-right of page 300).

It is an option to add an underground parking garage to facilitate visitors to the future museum-park (the need for these parking places will be determined and calculated in the future detailed design). Under the Oosterpark there is already an underground depot of the Tropenmuseum situated. An underground parking garage could possibly be connected to this depot and create an underworld with **underground connections**, similiar to the underground designs of the Louvre and the Museumsquartier in Vienna.

7. Architectural Representation

All four of the musem-parks in the research have had a **drastic architectural intervention** in the past few years. **Modern and iconic architecture** was added to the existing architecture in the park. This was a completely new building (with a new function) or an extension of a current building (e.g. a new entrance). An example of a new construction is the Leopold Museum, the MUMOK and the *Kunsthalle* on the courtyard of the Museumsquartier in Vienna and the Depot of the Boijmans van Beuningen (to be opened in 2019). Examples of the extension of existing buildings are the *Pyramid du Louvre* and the new entrances to the Stedelijk Museum and the Van Gogh Museum in Amsterdam.

This implementation of new architecture is certainly something that can be applied at the Oosterpark and the Tropenmuseum. Almost all buildings in the park date from the end of the 19th century or the beginning of the 20th century. The Tropenmuseum is built in a **neo-Renaissance style**. As mentioned earlier, most of the buildings in the Oosterpark are distant and monumental without a clear connection with the park (their backs are facing the park-side).

Contemporary architecture often ensured that the museum-park worked better organisationally and architecturally. It can **create a connection** between the monumental building and the public park, and at the same time contemporary architecture generates a lot of **publicity**. New **landmark-architecture** can have the power to develop a complete area in a city. Moreover, the **historic layering** in a city can create a pleasant atmosphere. The place is modern, and at the same time the location tells a story (history); this gives the place **meaning**.

8. Cultural meeting place

All four museum parks provide a **platform** for festivals and other **cultural gatherings**. The Oosterpark already fulfills this function with i.a. non-western (food) festivals, theater festivals, etc. The design should ideally enhance the function of the park as a cultural meeting place and thereby take on a more important role in the city.

Design Goal

The eight points mentioned will be used as **input for the design-phase**. The goal of the design is to make a **high-level master plan for the Oosterpark** and zoom in on the corner of the Tropenmuseum and design a **new building as a 'binding' spatial element** that will be implemented on an architectural level. This architectural intervention can have a function on its own, but it can also be an addition to the existing museum, or another architectural intervention in contemporary architecture that will potentially turn this 'ordinary' public park into a new museum-park.



Strolling
Without needing a fixed destination, the stroller moves through the museum-park aimlessly.

Relaxation
A cosy atmosphere and a sensation of comfort entice the visitor to linger, without a fixed intention.



Meeting
One drops in, meets acquaintances, loiters for a while, and leaves again - a continuous coming and going.



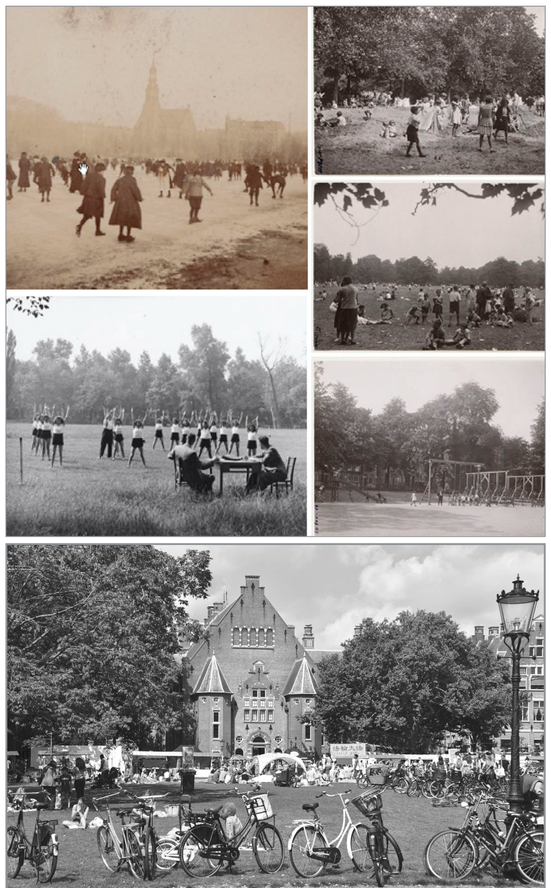
Gathering
The museum-park is (sometimes) the scene of political and social activities, demonstrations, rallies, protests, etc., and gives them significance / meaning.



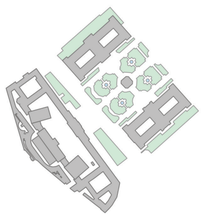
Field
Just as freely arranged objects on a game board create relations between each other, freely distributed buildings stretch out the museum-park between them.

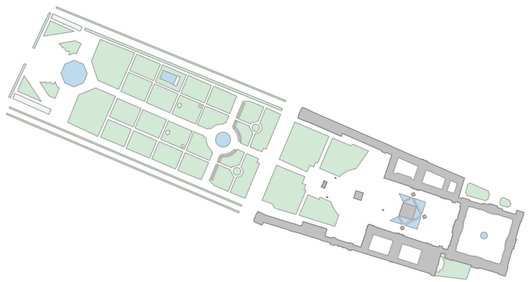


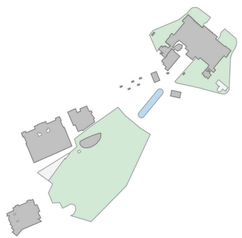
Garden
The character of the museum-park is essentially shaped by vegetation.

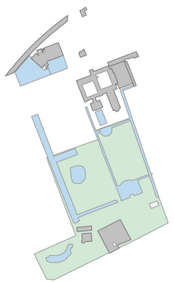


Left: performative potential and morphological qualities of the Oosterpark. The four top icons in black are currently qualities that must be retained in the new design. The two bottom icons in gray are qualities that the park partly possesses but can be further strengthened in the new design *(Sophie Kugel, 2018 & inspired by the book* Squares *by S. Wolfrum, 2014)*
Top-right: the performative potential in the Oosterpark (*Volkspark*): ice skating, gymnastics, sandbox, cricket field, and a large playground around 1932-1942 *(SteenhuisMeurs & Gemeente Amsterdam Oost, 2010)*
Bottom-right: nowadays the Oosterpark is often used for different kinds of open air festivals *(Buro Sant en Co, 2010)*











Four typologies of **museum-clusters** and one typologie of a **public-park**: Museumsquartier in Vienna, Louvre in Paris, Museumplein in Amsterdam, the Museumpark in Rotterdam, and the Oosterpark in Amsterdam *(Sophie Kugel, 2018)*

AFTERWORD

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List of Illustrations

All **maps**, **drawings**, **axonometric projections**, **diagrams**, and **icons** were made by **Sophie Kugel**, unless stated otherwise.

Aerophotostock.com Schiphol 114, 290
Ahirwar, S. 264
Allom, T. 91
Alt, F. 138
Andersson, I.S. 108
Androuet du Cerceau, J. 261,263
Aviodrome Aerial photography 123

Beebop.nl 296
Beeldbank Amsterdam (Archief) 22,23,98,105,291,303
Bellangé, H. 89
Benthem Crouwel architects 276
Bertaux, J. 89
Berty, A. 82
Beun, B. 147
Beyer, L. 71
Biasini, E. 238,239,261
Bingmaps, www.bing.com/maps 40,69,81,184,185,186
Blondel, J.F. 261,262
Boijmans.nl 123,272
Breeman, E. 101
Buro Sant en Co 305,318,319,320,321,322,323

Cabanes 243
Copijn Tuin- en Landschapsarchitecten 196
Cruz y Ortiz Arquitectos 222
Culturecommunication.gouv.fr 78
Cuypers, P.J.H. & Ankersmit, J. 153,196

Daily Travel Photos 32
Dalbéra, J.P. 62, 262
David, M. 220
DS Landschapsarchitectenbureau 303
Duboi, J. 268
Durán, X. 139

Easygoingrotterdam.nl 224

Fichot, C. 16,17,88,89,144
Framepool 229
Frank, P. 8,9

Gemeente Amsterdam Oost-Watergraafsmeer 303,305 316,317
Gemeentearchief Rotterdam 116,117
Gemeentewerken Rotterdam 157
Getty images 220
Google earth 302
Google maps 187,218
Greive, J.C. 100
Gugel, E. 153

Habsburger.net 139
Hasenauer, C. 138
Historisch Genootschap Roterodamum 116,120
Hoffbauer, F. 83, 142
Hurnaus, H. 66,72,218,256
Hürriyet Daily New 14,15Kabel, M. 12,13,80

Kalff, J. by Loman, J.C. & Smulders, J. in Atlas Kok 151
Kirkham, M. 220
Kleiner, S. 10,11
KLM Carto 109
Koninklijk Instituut Tropen, www.kit.nl 291
Koolhaas, Mau & Sigler 243
Korrak, P. 68
Kovylina, E. 94
Kugel, S. 38,39,44,45,46,54,55,61,64,74,75,92,93,110,111 128,129,130,131,132,134,140,148,154,158,164,169,170,171,172 173,174,175,176,177,178,179,182,183,188,189,190,198,200,201 204,208,209,211,212,213,214,215,216,217,226,227,228,230,231 232,238,239,242,243,248,249,252,253,254,255,260,261,266,267 270,271,276,280,281,287,292,293,294,295,300,301,304,305,306 307

Landgoedenbuitenplaats.nl 117
Le Clerc S. 84
Legrand, H. 82
Louvre 76
Lucas, C. 87

Mapio.net 20,21,26,27,210,224
Metzelaar, J.F. 28,29
Middelkoop, M. 290
Miltoun, Mansfield & McManus 192
Mulder, M. 18,19
Mull, ter B. 224
Muller, K. & Ingenohl, J. 153
Museumsquartier Vienna, www.mqw.at 229,233
MVRDV 126,210,276

NAI collection 118,122
Nieukerken, J.J. & M.A. 42,43,298,299
Niftrik, J.C. 150,303
Nikolić, M. 36

Obonparis.com 233
Oma oma.eu/pojects 112,124
Ortner & Ortner Baukunst Architekturbüro 1,6,7,32,250,276,328
Oud Amsterdam fotos.serc.nl 105

Parijs10.nl 210
Parismalanders 229
Parkme.com 233
Parool, 222
Pei Cobb Freed and partners, 220,236,237, 261
Porter, G. & Bowman 229
Pouhier, E. 234

Q-park.com 233

Randen, van der W. 117
Ree, van der 233
Reza 234
Rijksmuseum.nl 33
Ritournelleblog.com 52
Robert, H. 91
Rombauer, J. 192
Rotterdam.nl 233
Rotterdam Xpanded 24,25,224,274
Royan, J. 258

Schaewen, D. 234
Semper, G. 138
Shutterstock, 218
Silvestre, I. 85,89,142,146
Simanek, I. 229
Specht, L. 210
Spijkers, P. 102
Springer, L. 302,303
Stadsarchief Amsterdam 102, 291
Stadsarchief Rotterdam 120,156,157
SteenhuisMeurs 305,314,316,317
Stock illustrations 276
Studio Wieki Somers 33
Swart, S. 97,115

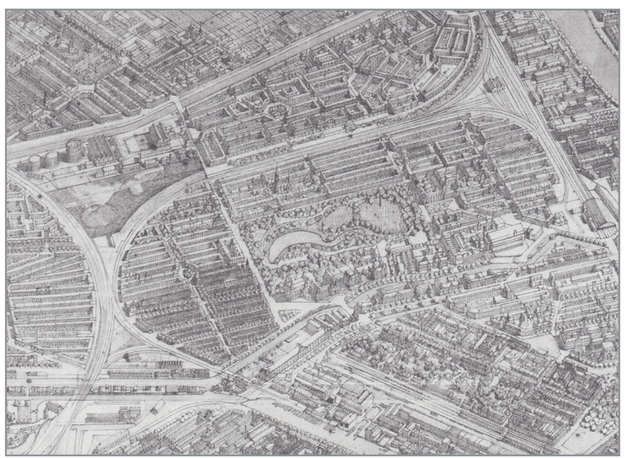
Temminck, L.F. 156
Tripadvisor 112,224

United Architects 116,120

Vellut, G. 229
Vrijhoff, J.A. 122,123

Wagner, O. 137
Walker Sailp, J&C 136,137
Wehdorn architecten, 240
Werf, van der 104,153
Werner, M. 70
Wigand, B. 72,256
Wikipedia 229,263
Witteveen, W.G. 118,120
Wolfrum, S. 56,166,168,200,201,218,228,242,255,305
Wüthrich, L.H. 86

123rf.com 222
4en5meiamsterdam.nl 96



Bird's eye view of Amsterdam Oost with the Oosterpark and the Colonial Institute *(Unkown artist, SteenhuisMeurs, 2010)*

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The Tropen Institute and the Oosterpark in the 1930s with the Plantage-Middenlaan and the Muiderpoort in a straight line with the entrance of the KIT *(SteenhuisMeurs & Gemeente Amsterdam/Oost, 2010)*



Paddling pool - pierenbadje - in the Oosterpark *(Buro Sant en Co, 2010)*



Water playground with boulders in the Oosterpark *(Buro Sant en Co, 2010)*



Bridge>Hakkenbrug< in the Oosterpark *(Buro Sant en Co, 2010)*


OOSTERPARK AMSTERDAM
MUSEUMPLEIN AMSTERDAM
MUSEUMPARK ROTTERDAM
LOUVRE PARIS
MUSEUMSQUARTIER VIENNA



Sophie Kugel (1988) attended the art academy *Minerva* in Groningen and the bachelor program *Bouwkunde* at the *Delft University of Technology*. She wrote this research book for her final year of the master program *Architecture, Urbanism and Building Science* at the *TU Delft*.

