

The background of the entire page is a complex, dense architectural line drawing. It features a variety of geometric shapes, lines, and forms, suggesting a detailed urban plan or a series of interconnected architectural structures. The drawing is rendered in a light, sketchy style, with some elements highlighted in a darker shade of gray.

# Research

Explore Lab 15  
Msc3|Msc4 Kelly Verberne

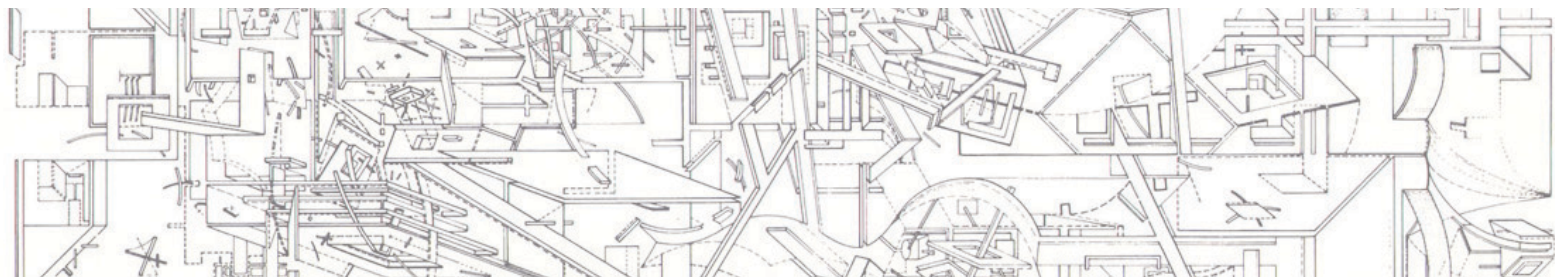
## From an **old** decommissioned building to a **New** architecture museum

A research on converting by analysing existing architecture museums  
and converted museums









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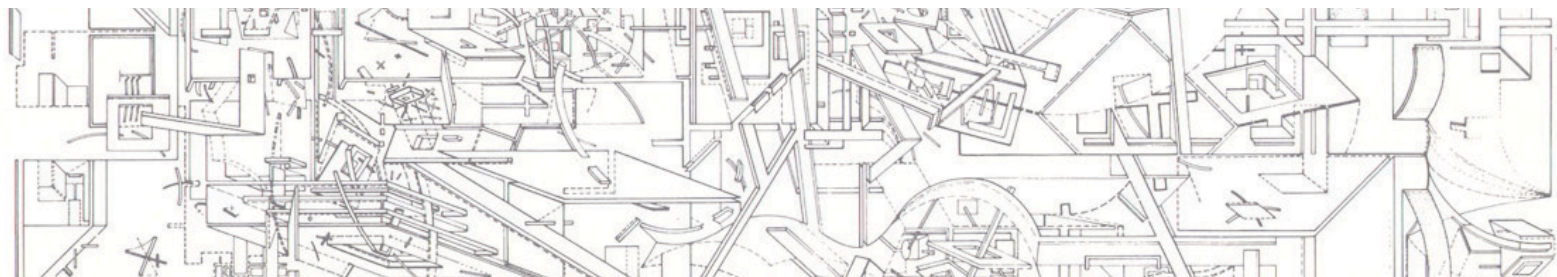
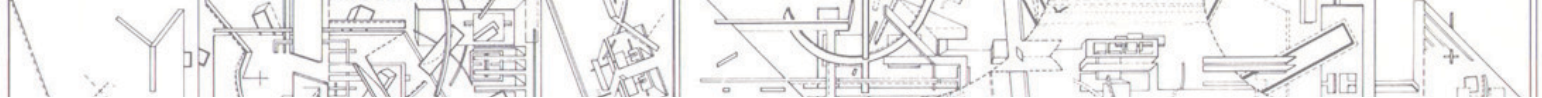
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ExploreLab is an exceptional thesis laboratory for students within the Architecture department of the University in Delft. It gives an opportunity for students to research their own fascination and interests, which cannot be explored in 'regular' labs and design a project substantiated by research. Therefore the research is an important component for the Explore Lab graduation studio. In this studio I will be tutored by my architecture mentor, Robert Nottrot, and research mentor, Marie-Therese van Thoor, whom will help me through the process. This research will be focused on the fascination for converted buildings and the function of an architecture museum within a converted building. Architecture is changing, the focus and attention to sustainability has become an important aspect. One of the aspects of sustainability is the re-use of old decommissioned buildings. Giving the old buildings a new function, a new life, so the building can be preserved. The functions which is given to the converted building is of importance depending on the sort of building. In this research you will find answers to several aspects of converting a building into a public function: a museum.

Kelly Verberne  
Architecture graduate TU Delft 2013





## *Aim of Thesis*

## *Significance of the Study*

Researching the fascination on re-use of a building and designing a public function within this building lead to a famous old Power Station in the city of London, the Battersea Power Station. The iconic Old Battersea Power Station, is a decommissioned coal-fired power station. It is the largest brick building in Europe. This disused Power Station stands on the largest undeveloped riverside site in central London. The power station structure comprises of two individual power stations, built in two stages in the form of a single building. Battersea Power Station A was built in the 1930s, with Battersea Power Station B to its east in the 1950s. The two stations were built to an identical design, providing the well-known four-chimney layout. The chimney distinguish the image of the station. The station ceased generating electricity in 1983, but over the past 50 years has become one of the best known landmarks in London and is Grade II listed.<sup>1</sup>

This well-known landmark was designed by Sir Giles Gilbert Scott, an English architect known for his work on structures as: Liverpool Cathedral, Waterloo Bridge, old Tate Power Station (now Tate Modern) and designing the iconic red telephone box. Scott came from a family of architects. He was noted for his blending of Gothic tradition with modernism, making what might have been functionally designed buildings into popular landmarks.

Since the station ceased generating electricity, there have been numerous proposals and attempts to redevelop the site. Non of these plans ever realised. In recent years the station has been used for various sporting, cultural and political events. At present day the old Power Station is sold to a Malaysian company called SP Setia, which pledged that the historic site will finally be redeveloped. The plans of architect Rafael Vinoly in 2006 are going to be a basis idea of this redevelopment.<sup>2</sup>

As this building is a well-known landmark for London, many concepts for the re-use of the station are developed. Still competitions are written to provide new ideas for the building. One of the competitions is from Archtriumph in the year 2012.<sup>3</sup> ArchTriumph is a platform for innovative design concepts. It offers architects, graduate architects or student architect the unique and vital platform to pitch for work and present ideas. The competition focused on a new function for the building, an Architecture museum. The thought behind the function ,an architecture museum, is the fact that the building is of such an architectural and historical value. In their words the Battersea Power Station is an 'Architectural Cathedral'. In my opinion this a very feasible idea, so it became the starting point for my design project. Both fascinations combined, an old decommissioned building with a new public function.

An architecture museum in a converted raises a lot of questions. What is an architecture museum? What is it supposed to be, and for whom? Is there a difference between a new museum or one in a converted building? How can you define the 'attraction - value' for a museum? Questions that have been asked before, by cities and other organisations answering to the needs of an architecture centre. With the result of several architecture centres being realised.

This research will aim to answer some of these questions by analysis of existing architecture museums and converted museums; in this way, I can achieve more insight into what the ultimate contemporary 'architecture' museum needs to achieve success. This knowledge gained in the literature research forms the foundation for my own graduation for a longer time and can be used as generic knowledge to others.

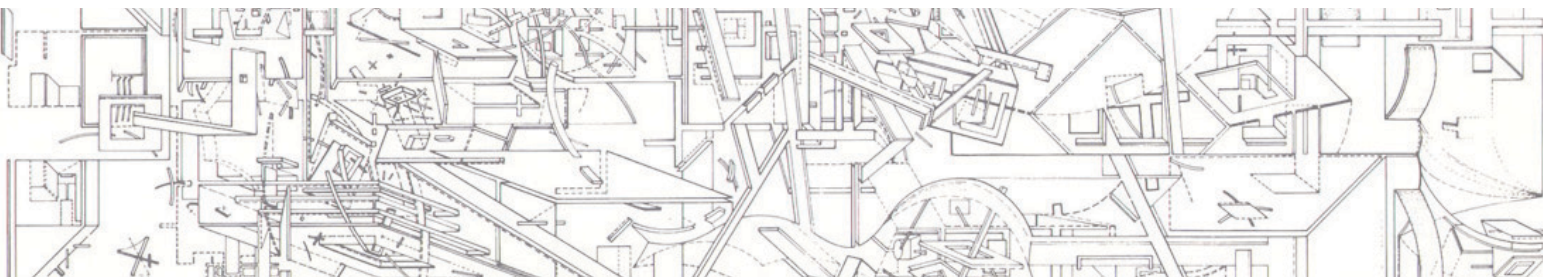


image1|Battersea Power Station

1. A-listed building in the United Kingdom is a building that has been placed on the Statutory List of Buildings of Special Architectural or Historic Interest. Structures with such listing may not be demolished, extended or altered without special permission from the local planning authority (Heritage department).

2. Rafael Vinoly see: <http://www.rvapl.com/works/777-battersea-power-station-master-plan>(date of visit 27-03-2013)

3. <http://www.archtriumph.com> (date of visit) 27-03-2013)



## 2.definitions & research goals

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### *Research goals* *Theoretical Framework* *Methodology*

During the research several definitions are used to explain the theoretical conclusions. Some definitions need to be explained to form the basis of the research. For this research it is important to have knowledge on the following definitions: Museum, architecture, an Architecture Museum, converted buildings and collection.

#### | **Museum**

The definition of a museum (mu~se~um) a building in which objects of historical, scientific, artistic, or cultural interest are stored and exhibited.<sup>4</sup> Its specific task is conservation and exposition. A museum is an institution that cares for conservation of a collection of artefacts and other objects of scientific, artistic, cultural, or historical importance and makes them available for public viewing through exhibits that may be permanent or temporary. According to Dr. Geoff Matthews, a museum specialist at the University of Lincoln Brayford, museums can vary enormously in form, size, types of collection and purpose, so it is difficult to talk of a 'normal' museum.<sup>5</sup> Most large museums are located in major cities throughout the world and more local ones exist in smaller cities, towns and even the countryside. The continuing acceleration in the digitisation of information, combined with the increasing capacity of digital information storage, is causing the traditional model of museums to expand to include virtual exhibits and high-resolution images of their collections for perusal, study, and exploration from any place with Internet.<sup>6</sup> The museums of today have become more an 'attraction' on its own. Big events have become an instrument to distinguish as a city, to become well known internationally and show investors to kneel towards them.<sup>7</sup> In Boekman 61, a magazine about art, culture and policy, the question is asked what the future will be for museums. It concludes that a museum of the future does not exist, if museums want to preserve their existence they will have to find a place in societies characterised by different cultural identities and changing technologies.<sup>8</sup>

#### | **Architecture**

The definition of architecture (ar~chi~tec~ture) is the art or practice of designing and constructing buildings. It could also be considered as the style of a building with regard to a specific period, place, or culture. Architecture is of existential need, without building structures there is no place for living, working, shopping and other basic needs. Over the years there have been several styles of building. The architect is the one practicing the art. Le Corbusier, a well-known architect and one of the pioneers of what is now called modern architecture, used to say 'The goal in architecture is to move us'. If the building does not generate and moves, it can not be architecture because it is missing something fundamental to our existence.<sup>9</sup> Another famous quote of Le Corbusier is 'A house is a machine for living in'. These "machines" are the most common built form of them all, and are the product of complex social, demographic, environmental and economic factors, reflecting their times and providing us with important human stories.

4. Van Dalen Dictionary on the word: Museum.

5. Email conversation with : Dr Geoff Matthews Course Leader MA Design for Exhibition & Museums Lincoln School of Architecture University of Lincoln Brayford Pool Lincoln

6. Edward Edward Porter Alexander and Mary Alexander, Museums in Motion: An Introduction to the History and Functions of Museums, Rowman Altamira, 2008, pages 2-11

7. Truus Gubbels, Jan Vaessen and Mariet Willinge, Museum-architectuur als spiegel van de samenleving, Uitgeverij Uniepers, Abcoude 2000 and Boekmanstudies, Amsterdam, 2000, Leon Deben, page 39

8. Magazine Boekman 61, jg.16, autumn 2004, title: Het museum van de toekomst. 184 pages

9. John Goodman, Le Corbusier - Toward an architecture, frances lincoln ltd, London, 2008

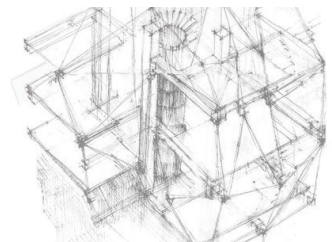


image2| images representing: museum and architecture

### | Architecture museum

The definition of an architecture museum could be a definition given from a dictionary. As such, an architecture museum is a building in which objects of architectural value and interest are stored and exhibited. This is a very basic definition of an architecture museum, it should be so much more as the questions it raises are wide spread. When the first ideas of an architecture museum in Germany were made, Walter Wallman, mayor of Frankfurt said 'How can architecture be presented in a museum? Architecture is our build world, we live in it, we live with it.'<sup>10</sup> This question is in my opinion very relevant. And brings up more questions as: What could an architecture museum represent more specifically to define itself as an architecture museum? Is this sort of museum not only made for a selected group of people who are specially interested in architecture? Architecture museum mostly attracts visitors with an interest in the art of this profession. The urge to visit a place to see architectural art is less than seeing paintings and sculptures, as we are all constantly aware of architecture, as it shapes our environment.

In the case of the German architecture museum, the designing team came to the conclusion that architecture was used as a fundamental tool for exploration, new building techniques and materials were developed and integrated in society it became a main foundation for growth and wealth. Architecture wasn't questioned during that period, it was just done. Every city or country used new building techniques to flourish without thinking or questioning the main purpose behind it; it was needed. Then architecture became a more moral and social issue; it was forced to solve more social problems in society and became more a reflection of how architecture must be used in order to support society. People became more rational about it.<sup>11</sup>

A building that should represent architecture in general can have different shapes and building techniques, but it should be important that the building is understood by the city its situated in. The cultural dimension should become clear, not the building technology or process.<sup>12</sup> An architecture museum should be a cultural institute. It has to be accessible for everybody in contact with architecture, as designer, researcher, client, manager or an interested layman. It should be stimulating to the architecture climate, encourage and strengthen the conversation about architecture. In an architecture museum it is not in the first place about the profession of an architect. As commented before a museum is about the art, not the profession.

It is important for an architecture museum to strengthen the contact between human on the one hand and their spatial experience on the other hand.<sup>13</sup>

### | Collection

A collection (co~l~lec~tion) is important for museums. Collecting is also called gathering, collecting knowledge and or artefacts of specific interest. A museum is the building around this collection. So it is important to consider what collection is present in an architecture museum. This is a question what can only be answered in a later phase. In order to attract different public to the museum, there needs to be a lot of attention to the exposition and routing of the building.

### | Converted building

Conversion stands for changing, transforming someone or something. In the fact of a converted building it stands for a change of use, function or purpose of the building.

### | Research goals

Having stated all these definitions the research goals can be set. As every definition brings up questions that need to be answered. The research goal is to try and answer these questions to use this knowledge as foundation of the design project. An analysis, on different examples of museums, can help in this process. In this case it is interesting to analyse architecture museums and museums in converted buildings. From the analyses clear conclusions can be drawn and a foundation set which is scientifically substantiated.

10. Schwarz, Hans-Peter, Deutsches Arkitektur Museum Frankfurt Am Main : Festschrift zur eröffnung, DAM, Frankfurt am Main, 1984, page 7

11. Schwarz, Hans-Peter, Deutsches Arkitektur Museum Frankfurt Am Main : Festschrift zur eröffnung, DAM, Frankfurt am Main, 1984, page 8

12. Adri Duivestijn, Het Nederlandse Architectuursinstituut, Nai uitgevers, Rotterdam, 1993, page 19

13. Zef Hemel, Welke kameel wordt daar gebouwd? Ideeën voor een museum over architectuur en ruimtelijke vormgeving in Nederland, Delftse Universitaire Pers, Delft 1987, page 17

### Analysis Principles

For the analysis in this research there will be a focus on several principles, which are helpful for the design. The principles can help with my ambition for this project, creating a successful design, for a successful architecture museum in the old Battersea Power Station. These principles could be considered as design principles: location, the architect, function, collection, experience and attraction. The following museums are interesting for this research: DAM Deutsches Architektur Museum Frankfurt Germany, NAI - Netherlands Architecture institute Rotterdam The Netherlands, Tate Modern London United Kingdom and ZKM Centre for Art & Media Technology Karlsruhe Germany. Two architecture museums and two museums in a converted building. These museums have been chosen carefully.

The principles of analysis will form the basis for the research questions.

#### | Research Questions

Each principle brings up several questions and therefore can be seen as research questions. For the *location* of a museum it is important to see what a location does to a building. The location will help in the attraction value of the museum. For a converted building the surroundings can be changed, but the building can't move. The question is whether something needs to be changed with the location, in order to attract more visitors to a building. **Which architectural interventions will help attract public, in order to make it a successful location?**

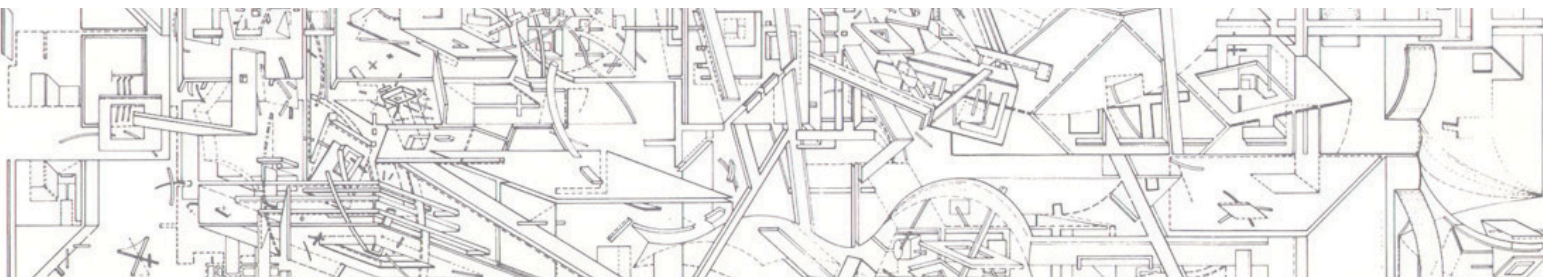
The *function* of an architecture museum is one of the principles which brings up a lot of different questions, as mentioned before. This is because it is a function for a select group, public who is interested in architecture. Is it the architectural design of the building that can make it an architecture museum? What is an architecture museum? **What is needed for an architecture museum to function successfully?**

An architecture museum has a collection as any museum would have. The *collection* is focused on architectural artefacts, like scale- models, drawings, sketches etc. How a collection is exhibited could help visitors in their exploration on architecture. **So in what way can the museum design and floor-plan contribute to the collection?**

The changing climate of museums asks for a different approach. The museum has become more an 'attraction' on its own. So focus should be on the *experience* of a museum. How does a visitor experience an architecture museum? **What architectural interventions can help stimulate an experience for the public of an architecture museum?**

This experience is important for the *attraction* of an architecture museum. How can the 'attraction - value' for a museum be defined? **How can the museum attract the public?** What does the visitor want to see in architecture museum. How can the museum and location approach the public to achieve an architectural experience. and how can you get them inside and keep them inside?







## 4.precedents Analysis

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On the next pages you can find the analysis of the following museums:

4.1		DAM Deutsche ArchitekturMuseum Frankfurt Germany
4.2		NAi – Netherlands Architecture institute Rotterdam The Netherlands
4.3		Tate Modern London United Kingdom
4.4		ZKM Centre for Art & Media Technology Karlsruhe Germany



## 4.1 Deutsches Architektur Museum(DAM) Frankfurt Germany

### German Architecture Museum

Architect	Villa by Fritz Geldmacher 1912 Conversion of villa by Oswald Mathias Ungers
Location	Schaumainkai 43, Frankfurt, Germany
Client	Hilmar Hoffmann
Date conversion	1979 - 1984
Size m2	12850m2 effective floorspace 1735m2
Function	From Villa to Architecture Museum to Exhibition Hall

Collection	200.000 architectural drawings and 1240 models, including works by modern and contemporary classics, library with 25.000 books
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image 3| front facade  
Deutsches Arkitektur Museum

### History

In 1906 the first idea of founding an architecture museum in Germany was made. In 1913, a final version of this idea was completed, but World War I prevented the plans ever being realised. The main concept of an architecture museum can be placed back to after World-War I, because of the industrialisation. New building technologies were developed in order to rebuild society. Such a museum had a political task to disseminate architecture as an art.<sup>14</sup> In the 1920s Ernst May, Frankfurt Municipal Councillor for Buildings, attempted to solicit international support in establishing a museum. This plan was also doomed for failure.

At the end of 1970s, Hilmar Hofmann, city's Director of Cultural Affairs and Lord Mayor Walter Wallmann took the idea of an architecture museum on again, and finally it began to take shape. It took both him and Hilmar Hoffmann a lot of working convincing the City Council before, in 1979, the City of Frankfurt signed a declaration of intent to build such a museum. Finally the discussion about having an architectural forum were finished and Frankfurt took this as an opportunity to play an important role in architecture for Germany.<sup>15</sup> Heinrich Klotz<sup>16</sup> was consulted, an expert in the history of art and architecture, who had already presented his concept for an architecture museum to several municipalities, but his plans had fallen on deaf ears.

The Deutsches Arkitektur Museum, DAM, is to be a place for discussion and exchange of knowledge and ideas. The realisation of such a museum is only possible when there is a collaboration with organisations and the ones responsible for housing in Germany, such as the department of Housing.<sup>17</sup>

The basic idea was to establish a row of museums along the Schaumainkai, to create a series of institutions from existing buildings. This was part of Heinrich Klotz' main ideas and missions.

The primary concept of this was to provide a new cultural centre, *Museumsufer*, for the city. This Museumsufer will form a museum riverbank. The existing buildings along the Main will be given a new and more appropriate

14. Schwarz, Hans-Peter, Deutsches Arkitektur Museum Frankfurt Am Main : Festschrift zur eröffnung, DAM, Frankfurt am Main, 1984, page 39

15. <http://www.dam-online.de> (date of visit 25-03-2013)

16. Heinrich Klotz, 1935-1999, wrote a lot of books on architecture and history of art. A list publications on: <http://eng.archinform.net/arch/4071.htm> (date of visit 25-03-2013)

17. Schwarz, 1984, page 40



image4,5| interior views Deutsches Arkitektur Museum



significance, reinforcing the notion that the buildings are historically determined by their location.<sup>18</sup>

One of the two century villas at the corner of Schweizerstrasse and Schaumainkai was chosen to be the location of the museum. It is considered that the villa itself is hardly of great historical and architectural value. But the value of the villa resides in the contribution it makes to the sense of collective memory which is embodied in the historical fabric of the area, a museum riverbank for the city of Frankfurt.

The conversion of the turn-of-the-century villa on Schaumainkai meant not only re-designing a building that until then had been used as residential accommodation such that it functioned as a museum, but also visualising architecture as the theme of the building.<sup>19</sup>

Heinrich Klotz suggested that Cologne-based architect Oswald Mathias Ungers would be commissioned to convert the historical villa into a museum.

### | Architect

Oswald Mathias Ungers was a German architect and architectural theorist, known for his rationalist designs and the use of cubic forms. In 1950 he set up an architectural practice in Cologne, and opened offices in Berlin 1964, in Frankfurt 1974 and in Karlsruhe 1983. Buildings of Ungers are the Deutsches Arkitektur Museum in Frankfurt, the Torhaus Gleisdreieck in Frankfurt and the Wallraf-Richartz Museum in Cologne.

He converted the villa on Schaumainkai into the new museum, the Deutsches Arkitektur Museum, DAM. Ungers had long been demanding that architecture revert to artistic traditions in building, a point on which Heinrich Klotz fully concurred. This explains why the conversion of the villa on the banks of the River Main did not result in a purely functional museum building, but in a building created programmatically for architecture.<sup>20</sup>

### | Location

Schaumainkai 43, Frankfurt, Germany



image 7 | Frankfurt

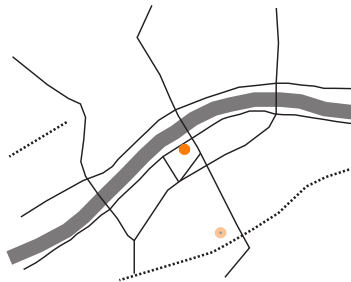


image 8 | location DAM



image 9 | Schaumainkai 43, Frankfurt



image 6 | Germany

- location
- location collection
- roads
- .... centre
- water

18. Gerrardo Brown-Manrique, Kenneth Frampton and Oswald Mathias Ungers, O.M. Ungers: Works in Progress 1976-1980, Rizzoli, New York, 1981, page 34

19. Schwarz, Hans-Peter, Deutsches Arkitektur Museum Frankfurt Am Main : Festschrift zur eröffnung, DAM, Frankfurt am Main, 1984, page 43

20. <http://www.dam-online.de> (date of visit 25-03-2013)

The embankment to the south of the Main River in Frankfurt, Germany, is called 'Museumsufer' or Museum Embankment because of the large concentration of museums there. As said earlier the DAM is part of the museums alongside the riverbank. Some of the other museums along the riverside are the Stadel Museum an art museum of Frankfurter trader Johann Friedrich Stadel, the Deutsche Filmmuseum (movie- museum), the Museum of Communication, Museum of Art and a Sculpture Museum Liebieghaus.<sup>21</sup>

### | Type of Building

Re- use    Converted Villa

### | Function

Museum

### | Collection

Heinrich Klotz laid the foundations for the collection of the DAM in the 1980s. It comprises of 200.000 architectural plans, drawings and sketches, 1240 models as well as pictures and items of furniture. The collection of the Museum is not housed in the museum itself since 1989 but on the Hedderichstrasse 108-110. The collection is presented at the DAM for exhibits and lend out to other museums.

The collection includes works by Giambattista Piranesi and Gottfried Semper, Louis I. Kahn, Ludwig Mies van der

21. Journal of Fürtwangler, Maria, Museumsufer Frankfurt am Main: Museums and exhibition sites, 2005, Frankfurt Department of Science and Art, page 7

Rohe, Hans Scharoun, Hans Poelzig and Ernst May, or for example Aldo Rossi, Rem Koolhaas, Frank O. Gehry and Norman Foster. Works of painters such as Ben Willkens, Martin Kippenberger and Christo are also part of the Collection.

The DAM currently holds more than 33 estates, including the archives of Hannes Meyer, Mart Stam and Heinz Bienefeld. Exhibits of the collection are presented at some of the DAM venues. The collections also lends to museums all around the world for exhibition purposes. For visiting the Collection at Hedderichstrasse a special arrangement is necessary.

#### Library

Next to the collection the museum also has a Library on the Hedderichstrasse since the 1989. It contains 20.000 volumes on architectural history from 1800 to the present day.

The library of the DAM is member of the network of Frankfurt museum libraries (Verbund Frankfurter Museumsbibliotheken), which provides on its website access to all associated museums' catalogues.

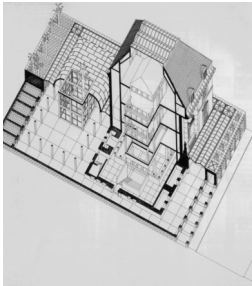


image 10 | axonometric drawing

#### Architectural

It would have been simpler and less expensive to build a new museum, but the commemorative value of the villa justifies the preservation.<sup>22</sup> For the preservation and conversion two basic strategies could be adopted: the first, the existing spatial subdivision of the building is simply adapted to new use, or the second, the building is reduced to an exterior shell and a new spatial organisation is constructed within. In the design of Ungers the second strategy was set into plan.

The DAM illustrates in exemplary fashion what Heinrich Klotz proclaimed to be the guiding principle in post-modern architecture, for it deliberately blends the design of a building with an interior that tells a story.<sup>23</sup>

#### Concept

The first move made in the case of the villa was to transform its basic context by surrounding the structure with a wall. With this gesture the villa itself became an object on exhibition and an exhibition hall. It is protected from the noise of traffic on Schaumainkai by a wall, which on the street side takes the form of an open loggia. The wall, over three meters high, which is made of cut rusticated, red sandstone blocks, references both the rusticated base of the old building, and the notion of "city walls".

The existing inner framework of the villa was incompatible with the programmatic requirements of the museum. Thus the villa was gutted, and only its exterior shell was preserved. A new construction was inserted into the void to provide the necessary exhibition space. The main source of illumination for this space was a light shaft incorporated into the centre of the house.<sup>24</sup>

From the basic approach came the architectural theme of a *house within a house*. The outer shell composed of thick wall of niches, bays and cavities, became comparable to a city wall. The next shell was the house itself, its walls provided by windows, columns, pilasters and other protrusions. Within this second shell a concrete scaffold erected and another space-form delineated by filigreed structure filled with glass.<sup>25</sup>

The museum in fact comprises a series of alternating *rooms within rooms* passing from the bounding wall, to the profiled wall, to the inner scaffold, and ultimately to the delicate filigree. This morphological progression of a series of rooms from exterior to interior becomes both the spatial concept and the architectonic theme of the entire museum.

The concept of the space as unending movement from exterior and interior allows the visitor to go from an outer to an inner room, which is in turn the outer room relative to the next room, and so on. It is a sequence which cannot be brought to an end and therefore expresses a real and an abstract continuity.<sup>26</sup>

The overall architectonic concept is also a paradigm for the city. It should be understood as a spatial system within the system of an urban structure.<sup>27</sup>

22. Gerrardo Brown-Manrique, Kenneth Frampton and Oswald Mathias Ungers, O.M. Ungers: Works in Progress 1976-1980, Rizzoli, New York, 1981, page 34

23. <http://www.dam-online.de> (date of visit 25-03-2013)

24. Gerrardo Brown-Manrique e.o., 1981, page 34

25. Gerrardo Brown-Manrique e.o., 1981, page 34

26. Gerrardo Brown-Manrique e.o., 1981, page 34

27. Gerrardo Brown-Manrique e.o., 1981, page 36

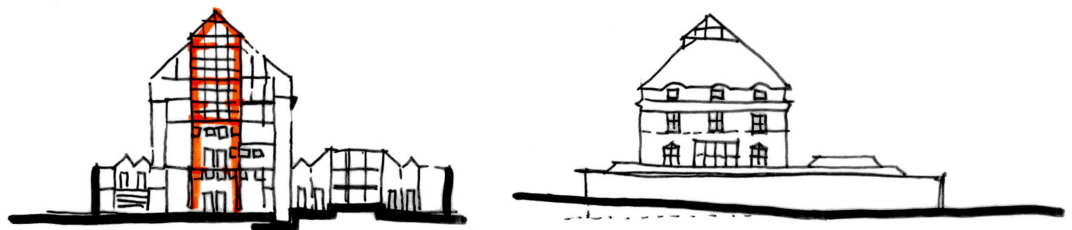


image 11 | section of the scaffolding and facade

In the auditorium Ungers references one of the oldest motifs in the history of architecture, the 'canopy'. Four pillars support a protective roof or canopy. In ancient palaces the 'canopy' marked the central location, and it leant greater height to the thrones of popes, emperors and kings, even today it is still evidence above the high altar in churches.

#### Routing

The entrance is through the wall created around the villa. Entering the building is at the front of the villa. The wall around the building, not only protects it from noise but also creates a new roofed alleyway alongside the building, making it possible to enter the villa and walk around the villa to the auditorium hall.

Inside the villa you experience the *house within the house* concept, by the several layers/ shells visible. Stairs on the side of the scaffold house lead the visitors upstairs to the different floors.

At the back of the house a patio/loggia is created for extra light entering the building and auditorium. The villa has 5 floors of exhibition space, with a clear visible grid. The drawings of the floor-plans and sections on the right show the routing within the building.

#### Experience

The exhibition hall on the ground floor features a square inner courtyard at its centre, it is enclosed in glass walls divided into squares, showing the entire new building is based on a grid of squares.

There is evidence of this throughout the building – in the spaces between the pillars, in the pattern of the flooring, even in the design of the chairs in the auditorium.

The hall is again sub-divided into small squares. This was a deliberate reference on Ungers' part to one of the pioneering interiors in Modernist architecture, namely the famous tellers' hall in Otto Wagner's 1906 Postsparkasse building in Vienna, and its architectural inspiration, Andrea Palladio's basilica in Vicenza.<sup>28</sup>

An additional exhibition hall divided by supports into three aisles, referencing a basilica, is situated in the first floor of the museum. In the middle, the space once again concentrated around the four pillars that support the 'house within a house' concept.

The concept behind the entire building is 'house within a house' – the concentrated core. Around the 'core' there is a broad shell in the zone between the inserted edifice and the outer wall of the old building. This intermediate area houses both the stairwells as well as the heavy-duty elevator. The stairwells are of necessity narrow and hence not particularly illustrious. Horizontally speaking, the building is a multi-shell structure, whereas the vertical illustrates the transformation from the four-pillar base in the basement to the house on the fourth floor.

#### Visitors per year

The visitor amount fluctuates per year, there are around 90.000 visitors per year according to Frankfurt's cultural and leisure facilities half year 2012 report.<sup>29</sup>

#### Floorplan and section

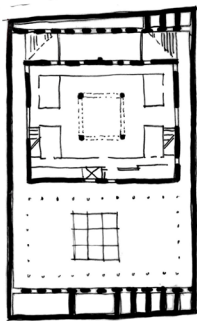


image 12 | lower ground level

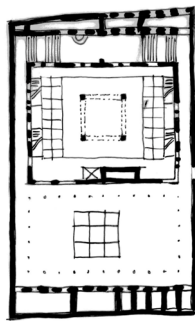


image 13 | ground level

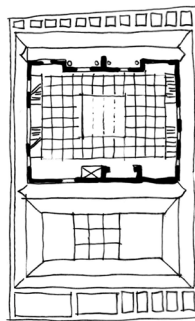


image 14 | second floor

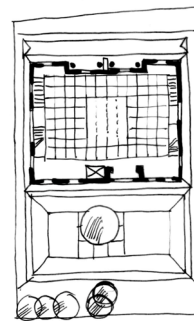


image 15 | fourth floor

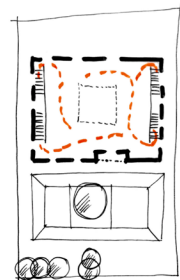
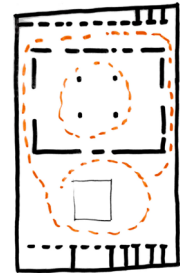


image 12 | routing ground floor and upper floors

28. <http://www.dam-online.de>  
(date of visit 25-03-2013)

29. [http://www.frankfurt.de/sixcms/media.php/678/23\\_Dob\\_Kulturund\\_Freizeiteinrichtungen\\_Halbjahr2012.pdf](http://www.frankfurt.de/sixcms/media.php/678/23_Dob_Kulturund_Freizeiteinrichtungen_Halbjahr2012.pdf) (date of visit 25-03-2013)



### | The building as public attraction

Oswald M. Ungers created a museum within the shell of a double villa, based on the idea of making a 'house within a house'. A comparison that comes up in mind could be of a 'Matryoshka doll' also known as Russian nesting/nested doll, it refers to a set of wooden dolls of decreasing size placed one inside the other. It is an ingenious solution, but it does not appear to work particularly well. When the building is empty it is beautiful, says Romana Schneider, one of DAM curators in 1993. But the spaces are inflexible, making it difficult to avoid the imposing sense of hierarchy on exhibited material.<sup>30</sup>

The building's circulation is confusing; visitors tended to miss the upper floors, thinking that the stairs looked private. The auditorium's acoustics are poor and in the summer it is uncomfortable hot.

Despite the limitations of its building, the DAM is making a big contribution to the architectural scene in Germany, without any pretensions to being a popular institution. 'Originally the DAM tended to favour Post-modern Classicism, which was attractive, colourful and easy to understand,' says Schneider. 'Now we are established we are taking up themes that can only be understood in a historic context'.<sup>31</sup> The director Vittorio Magnago Lampugnani in 1990, shifts the emphasis and focusing the museum from contemporary architecture to the whole history of German Architecture and town planning.

Peter Cachola Schmal, the current director since 2006 has promoted the DAM to the premier league of Europe's architectural museums, according to Prof. Dr. Felix Semmelroth, head of Frankfurt's Cultural Department.<sup>32</sup> Peter Cachola Schmal is internationally very well connected and has created a forum for young contemporary architecture from all over the world, yet he never loses sight of developments in Frankfurt's architectural practices, whose work is given similarly comprehensive exposure.



image 16| interior DAM

30. Cowan Rob, 'Architecture Centres', *Architectural Review*, jg.192, no.1154, 1993, page 73

31. Cowan Rob, 1993, page 73

32. <http://dam-online.de/portal/en/News/Archive-News/1941/0/0/0/1842.aspx> (date of visit 25-03-2013)



## 4.2 NAI Netherlands Architecture institute, Rotterdam, Netherlands

### *Dutch Architecture institute*

Architect	Jo Coenen
Location	Museumpark 25 3015 CB Rotterdam, The Netherlands
Client	Dutch Architecture Institute - Nai Nederlands Architectuursinstituut
Date	1988 -1993
Size m2	10000 m2
Function	Museum, archive, library, cafe
Collection	18km archive material, 500 drawings of dutch architects, 60.000 international books and documents



image 17| front facade Netherlands Architecture institute

### History

The idea for an architecture museum already started in 1912, when the Architecture group Architecturo et Amicitia from Amsterdam had to rent an extra room in Hotel Parkzicht for archives, drawings and models. Architect and publicist J.H.W. Leliman wrote about it: 'be it a man or woman, exhibiting jubilant exhibits, there might be a vote coming from the architects, if necessary in the extent of their modest forces, establishing a permanent foundation: the core of a museum of architecture.'<sup>33</sup> But this idea was never realised until 1988.

In that year three cultural institutions together formed the Nederlandse Architectuursinstituut, the NAI. The three groups were Dutch Architecture Documentation (NDB), the Foundation Architecture Museum (SAM) and the Housing Foundation.<sup>34</sup> Creating this institution didn't mean it could function from the beginning. Because housing the institute was a problem. To research the possibilities for such a place a committee was assembled consisting of the members J. Ingenohl, J. H. de Groot and W.A.E. van der Pluym. At the same time discussion started on what an architecture museum/ institute should be. Meanwhile an example was presented of the recently (1984) converted villa to the Deutsche Architektur Museum.

Elco Brinkman, Minister of Welfare, Health and Culture, examined how the government could contribute to the creation of a museum of architecture. The 1984 'new' institute came together with representatives of the ministry of Housing and the ministry of Culture at a conference. The outcome of that conference was a brief and concept behind the NAI as an organisation. It would be a private institution subsidised by the government. As the founders of the NAI were situated in Amsterdam, they saw the new institute accommodated in 'their' city. The municipality then appointed the Beurs van Berlage. The architects Benthem & Crouwel studied the possibilities using this building.<sup>35</sup>

The City of Rotterdam offered to place the NAI in the vacant Library Botersloot in Rotterdam, but these plans were not worked out. The library was a building from 1923 by architect DB Logeman.

A conflict arose between Amsterdam and Rotterdam to the place where an Architectural Museum / institute

33. Adri Duivestijn, *Het Nederlandse Architectuursinstituut, Nai uitgevers*, Rotterdam, 1993, page 9

34. Adri Duivestijn, 1993, page 9 | Housing foundation = stichting huisvesting

35. [http://www.nai.nl/over\\_het\\_nai/het\\_gebouw/item/\\_pid/kolom2-1/\\_rp\\_kolom2-1\\_elementId/1\\_10279](http://www.nai.nl/over_het_nai/het_gebouw/item/_pid/kolom2-1/_rp_kolom2-1_elementId/1_10279) (date of visit 25-03-2013)



image 18,19| exterior and interior views NAI

should be established.

Minister Elco Brinkman made the final decision in 1984, and chose for Rotterdam, spreading the cultural facilities in the Netherlands, and funding the city with a cultural fund.<sup>36</sup>

Prior to the construction of a new building the NAI for some time had been housed in a building on the Westersingel in Amsterdam.<sup>37</sup>

After the decision of Brinkman the plans for an architecture museum were accelerated.

A competition was written in order to find a new design for the Architecture museum; six architects participated: Jo Coenen, Rem Koolhaas, Benthem Crouwel Architects, Wim Quist, Luigi Snozzi and Ralph Erskine.

Rem Koolhaas' design was most popular among the Architecture press and the Director of City Development Rotterdam Riek Bakker had preferred Rem Koolhaas. But the institute NAI gave the project to Jo Coenen.<sup>38</sup>

### | Architect

Jo Coenen, is an architect and urban planner. His architecture is what he calls 'friendly monumentality'. He started his own architecture firm in 1979 in Eindhoven, the Netherlands. Well-known buildings in his portfolio are the Public Library in Amsterdam, Centre Ceramic Library in Maastricht and the master-plan of the KNSM Island in Amsterdam.<sup>39</sup> Jo Coenen is now one of the professors at the technical university of Delft, TU Delft, at the department of Research & Education of Modification, Intervention and Transformation, RMIT. In all his projects the attention to the context of the plan is as important as the design itself, which ensures a unique approach of the tensioned space between public and private. The design of Jo Coenen in 1988- 1993 for the new building of Nederlands Architectuursintstute NAI, is a good illustration of the multiple functions architecture can play.<sup>40</sup>

### | Location

Museumpark 25, 3015 CB Rotterdam, The Netherlands



image 21 | Rotterdam

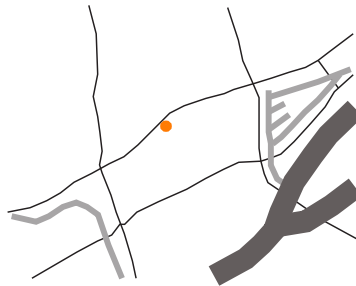


image 22 | location NAI



image 23 | Museumpark 25, Rotterdam



image 20 | Netherlands

location  
location collection  
roads  
centre  
water

36. Truus Gubbels, Jan Vaessen and Mariet Willinge, *Museumarchitectuur als spiegel van de samenleving*, Uitgeverij Uniepers, Abcoude 2000 and *Boekmanstudies*, Amsterdam, 2000, Leon Deben, page 25

37. [http://www.nai.nl/over\\_het\\_nai/het\\_gebouw/item/\\_pid/kolom2-1/\\_rp\\_kolom2-1\\_elementId/1\\_10279](http://www.nai.nl/over_het_nai/het_gebouw/item/_pid/kolom2-1/_rp_kolom2-1_elementId/1_10279) (date of visit 25-03-2013)

38. Adri Duivestijn, *Het Nederlandse Architectuursinstituut*, Nai uitgevers, Rotterdam, 1993, page 22

39. Book Jo Coenen: Hilde de Haan, Jo Coenen *From Urban Design to Architectural Detail*, Birkhäuser, 2005

40. Adri Duivestijn, 1993, page 22

41. Gerda ten Cate, 'Nederland Architectuursinstituut, zoeken tot alle maten onwrikbaar zijn', *Bouw*, Nr 23. 19 November 1993, page 9

The NAI is part of one of the museums in the museum-park of Rotterdam. The idea behind this museum-park was to attract more visitors to all of the museums.<sup>41</sup> The well-known Boijmans van Beuningen is located on the left side across the street Museumpark. Other museums in the park are the Chabot Museum, House of Sonneveld, Kunsthal from Rem Koolhaas, and Natural Historical Museum.

### | Type of Building

New building, Modern

### | Function

The Nai-building contains an institution with several functions:

- Architecture Museum
- Archives
- Education, Library and Lectures
- Cafe and Bookshop

### Collection

The collection contains 18km archive material, 500 drawings of dutch architects, 60.000 international books and documents. This collection is held in the archive part of the building. During exhibitions this archive is used for exhibition material.

### Architectural

At the opening of the building Jo Coenen stated he wanted to create a place where in the next hundred years reflection on architecture can be stimulated.<sup>42</sup> Every visitor should expect a building where the architecture itself is a manifestation.

The building design with its sculptural shape, forms its own autonomous meaning. At the same time it brings a new organisation established in a battered urban structure, it 'fixes' the place by creating something new. It responds to the diversity of architectural forms in his surroundings. It separates and connects park and city and creates a new place for meetings.

The design has several layers of meaning, clearly visible in the building. It has meaning to people walking or cycling by the NAI, the museum-park or the city.

In Duivestijns opinion it is this ambiguity that is the most important quality of the design. It is an autonomous power and interdependence and respects the world around it: this characterisation of the building can also serve as a characterisation of the ideal architecture institute.<sup>43</sup>

### Concept

The NAI is conceived as an ensemble of several autonomous architectural elements. They form a form together as a whole and find a way to transform what used to be an amorphous gap in the city into a piece of compact, significant urban design.

The institute comprises four main components with different functions:<sup>44</sup>

- A. the banana-shaped concrete arch building as a new wall for the south side of Rochussenstraat
- B. a 'socle' (concrete in combination with glass and glass bricks) that accommodates a cafe and lecture room as well as placing the NAI on a pedestal. The moat and bridge, entrance, over it make an essential contribution to the monumental quality of this complex.
- C. a transparent (glass and steel) block on a series of columns for the library and administration, overhung by an enormous steel canopy that turns it into a landmark
- D. a box-shaped, brick-covered exhibition hall as a pendant to the Museum Boijmans Van Beuningen opposite

In 2010- 2011 the NAI renovated and expanded. Instead of having the entrance over the bridge, the entrance is now accessible from ground floor, entering the bookshop and cafe. This does not change the monumental quality but strengthens the connection to the museum-park.



image 24| Study hall, library

42. Angelique Spaninks, Het Nieuwsblad Brabant Pers, 16 September 1993

43. Adri Duivestijn, Het Nederlandse Architectuursinstituut, Nai uitgevers, Rotterdam, 1993, page 22

44. Jo Coenen, project info <http://www.jocoenen.com/jcau/index5.html#> (date of visit 25-03-2013)

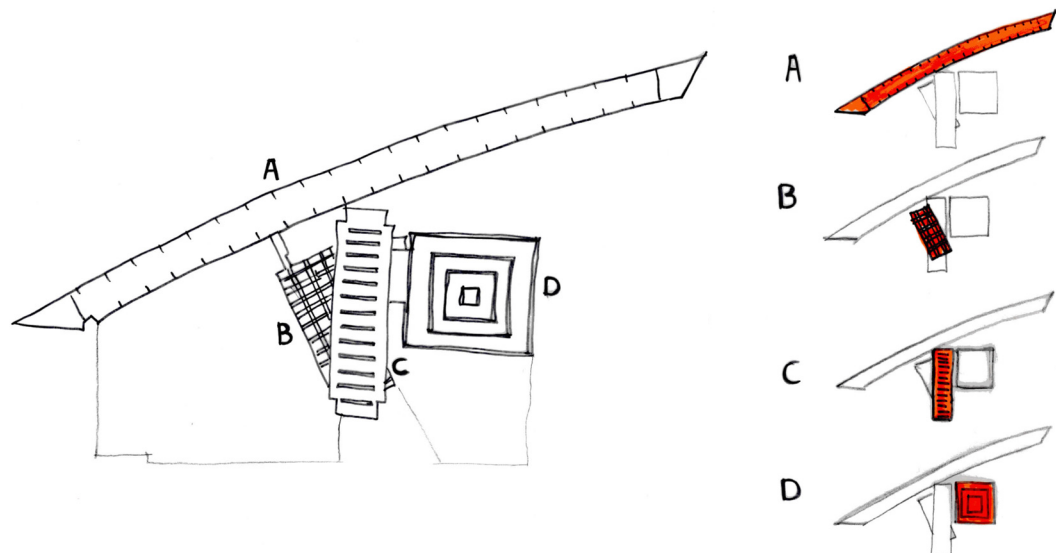


image 25| the four different functions in the four different shapes of building

### Routing

Until the renovation in 2011 the visitors entered through the bridge crossing the water. At the entrance a small bookshop was placed and a ticket office formed the barrier to the collection. A staircase down lead to the cafe. The Routing has changed whilst the renovation and expansion. The entrance over the bridge has made its way to the ground floor, entering the building now in the cafe and bookshop.

At the beginning of the new function/shape of the building the ticket office is placed, where visitors then enter the exhibitions. The exhibition 'box' as a circular routing, leading to the top floor. From all the floors the elevator is accessible. This core forms the barrier to the other functions, library, auditorium and offices. Entering the library is only aloud with a membership card. Within the library the bridge to the archives is situated. The archives are not accessible for visitors at all, it is a private function, with special climate treatments for the preserved collection.

### Experience

The four different components offer the visitor different functions, and a logical result it offers different experiences. So far the Architecture institute shows a diversity of activities, exhibitions, manifestations, debate nights, lectures and educational sessions. The library with its enormous archive, a study centre and an auditorium; everything has its own place. The building is very usable.<sup>45</sup>

### Durability

During the building process the budget of the building was a constant struggle. The budget was low, so Jo Coenen had to make decision about certain materials, trying to keep it as cheap as possible. This could also go to far, as already in the beginning the toilet groups had to be renovated, and the walls covered with grey plate material. Three years ago 2010- 2011 the renovation started on the building, changes needed to be made.

### Materials

The material use is very sober. The concrete structure dominates the picture, supplemented by steel, glass, wood and masonry. The limited budget necessitated a clear structure, which could maybe change in the future using more expensive materials.

### Visitors per year

The Nai has over 140.000 visitors per year. That is 35,000 more than in 2009, the year for major renovation. The NAI was in 2012 decor for an exhibition on Louis Kahn. From the first of January the Nai as independent institute combined its powers with Premisela, Dutch institute for design and Fashion and the Virtual Platform, forming the New Institute (Het Nieuw Instituut).<sup>46</sup> In 2014, under the theme Creativity Consequence the connecting and innovative power of design creativity are highlighted in the activities of the New Institute.<sup>47</sup>

### Floorplans

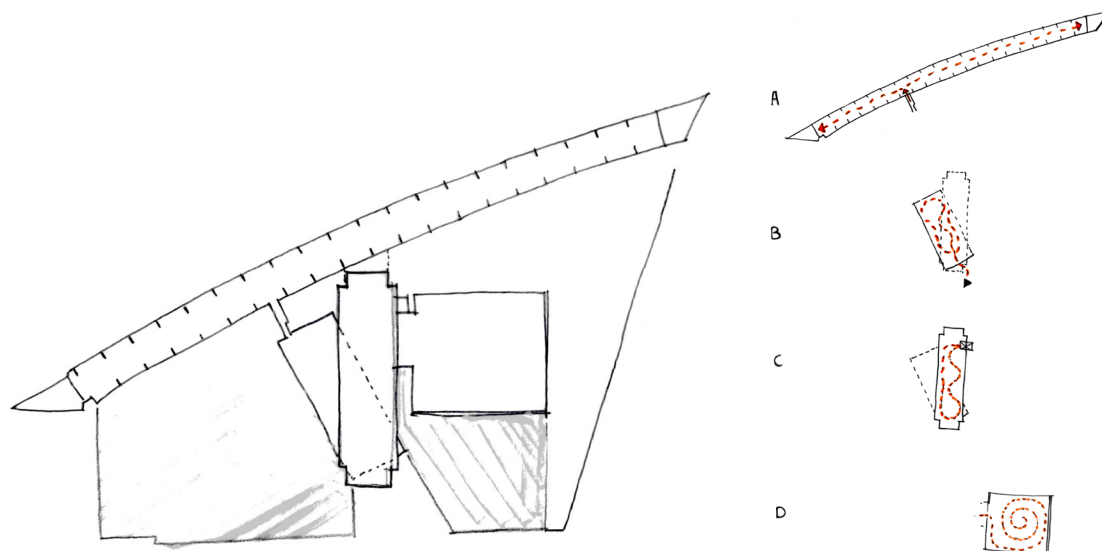


image 27| the four different shapes of building with routing

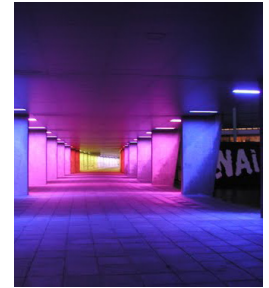


image 26| lighting design  
madelon brouwer

45. Truus Gubbels, Jan Vaessen and Mariet Willinge, *Museumarchitectuur als spiegel van de samenleving*, Uitgeverij Uniepers, Abcoude 2000 and Boekmanstudies, Amsterdam, 2000, Leon Deben, page 32

46. [http://www.architectenweb.nl/aweb/redactie/redactie\\_detail.asp?iNID=30613](http://www.architectenweb.nl/aweb/redactie/redactie_detail.asp?iNID=30613) (date of visit 25-03-2013)

47. <http://www.dearchitect.nl/nieuws/2012/11/01/nai-prensela-en-virtueel-platform-worden-het-nieuwe-instituut.html> (date of visit 25-03-2013)



### | The building as public attraction

As mentioned before the NAI is placed in the museum-park of Rotterdam. This was part of a plan for the city to strengthen the feasibility of the cultural facilities in Rotterdam. The Museum-park is part of an urban transformation in the area. Strolling from the different museums could attract more visitors to the different museum.

The triangle shape location where the NAI is situated was a difficult piece of ground in the urban plan. It did not seem to be part of the surroundings and needed to be addressed to finish the idea behind the museum-park.

Jo Coenen's design did react on its surroundings. The chosen proportions, the game of horizontal and vertical lines, colour and materials were related to the Boijmans van Beuningen museum.<sup>48</sup>

The institute is the biggest architecture museum of the world.<sup>49</sup> This is because of the size of the archives and the size of the building. This is not because of the amount of visitors per year.

The separation of the functions in four buildings was a choice of the architect to make a clear floor-plan for an institution with several functions within. But the buildings circulation before renovation was not very clear to the visitors. The fact that the cafe was not easily reached and visible to visitors was a weak link in the building. Separating the functions does make the building clear for the function. When someone wants to visit the exhibition, you cannot really go wrong.

The renovation of the building seemed necessary after 17 years, this means the building had to change in order to keep it attracting visitors. Entering the building on the ground floor opens the access to the cafe and the bookshop, and as logical result also the exhibition halls.



image 28| cafe NAI

48. Ruud Brouwers, Zes ontwerpen voor het Nederlands Architectuurinstituut, Nederlands Architectuurinstituut, Amsterdam, 1988, page 8

49. <http://www.rotterdam.nl/wederopbouwenmodernearchitectuur> (date of visit 25-03-2013)



4.3 Tate Modern, London, United Kingdom

Tate Modern

Architect	Power Station by Sir Giles Gilbert Scott 1952, Conversion of Power station by Herzog & de Meuron Bankside, London SE1 9TG, United Kingdom
Location	
Client	Tate Gallery Projects Ltd
Date Conversion	1994- 2000
Size m2	34.500m2 total floorspace   12.402m2 exhibition space
Function	Museum
Collection	National collection British Art, International and Contemporary art

History

Tate modern is an art gallery located in London, based in the former Bankside Power Station, in the Bankside area of Central London. It is Britain’s national gallery of international modern art and forms part of the Tate Group (Tate Britain, Tate Liverpool, Tate St.Ives and Tate Online). It is the most-visited modern art gallery in the world, with around 4,7 million visitors per year.<sup>50</sup>

The former Bankside Power Station, built in two phases 1952 and 1963, which was originally designed by Sir Giles Gilbert Scott<sup>51</sup>, the architect of Battersea Power Station further on the Thames (1930-1950). The power station closed in 1981.

Tate modern is the first institution of international stature to adapt an existing industrial structure.<sup>52</sup> The building was converted by architects Herzog & de Meuron and contractors Carillion.

In 1993 the Tate started to assemble the views of artists and curators. Conferences were held to discuss the nature and needs of major art galleries in the 20st century. Meanwhile a search was launched for suitable sites, which ended with the selection of the Bankside Power Station. Despite of its size and prominent position, and in contrast with the same Battersea Power Station, many Londoners were unaware of its existence.<sup>53</sup>

Once the site had been chosen the Tate held an international architectural competition. Thirteen firms were asked to propose initial design strategies, with six of them proceeding to a more detailed second round.

The architects who presented more detailed schemes were:

Tadao Ando Architect and Associates, David Chipperfield Architects, Rafael Moneo, Rem Koolhaas with Richard Gluckman, Renzo Piano and Herzog & de Meuron.

The winning team of architects of the competition were announced to be Herzog & de Meuron in January 1995.



image 29| front Tate Modern

50. [http://www.nationalmuseum.org.uk/media/documents/what\\_we\\_do\\_documents/museum\\_tourism\\_briefing\\_jul10.pdf](http://www.nationalmuseum.org.uk/media/documents/what_we_do_documents/museum_tourism_briefing_jul10.pdf) (date of visit 23-03-2013)

51. Sir Giles Gilbert Scott (9 November 1880 – 8 February 1960) is an English architect known for his work on: Liverpool Cathedral, Battersea Power Station and designing the iconic red telephone box.

52. Rowan Moore and Raymund Ryan, Building Tate Modern – Herzog & de Meuron transforming Giles Gilbert Scott, Tate Gallery Publishing, London, 2000, page 15

53. Rowan Moore e.o, 2000, page 17



image 30,31| exterior and interior views Tate Modern

### | Architect

Herzog & de Meuron is a Swiss architecture firm with its head office in Basel, Switzerland. The founders are senior partners Jacques Herzog, and Pierre de Meuron. The firm was founded in Basel in 1978. The office uses its skills in revealing unfamiliar or unknown relationships by utilising innovative materials. Herzog & de Meuron were chosen as winners of the competition, because they proposed the least drastic changes to the fabric of Bankside itself.<sup>54</sup> Rather than obliterate the qualities of the industrial building, they would heighten them. The Herzog & de Meuron scheme has never been about making strange complicated shapes or obliterating the past, londoners will still be able to recognise Gilbert Scott's Power station. The transformation of Bankside from Power Station to art gallery has produced its own way of handling a fusion of old and new. The abandoned monument has found an exciting role.

### | Location

Bankside London, United Kingdom



image 32| United Kingdom

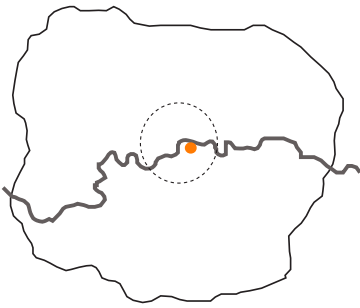


image 33| London

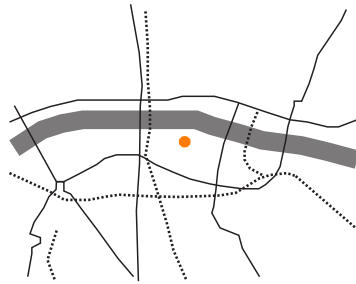


image 34| location Tate Modern



image 35| Bankside London

Given the architectural strategy of transforming the Bankside Power Station into a landscape accessible and open to the public from all four directions, the gardens are important topographical sites that mediate between the space of the city and the building. The gardens blur the distinction between inside and outside. Thus the ramp on the west side is a salient feature of both the gardens in the West court as well as the turbine hall. The plaza that spreads out between the riverside promenade and the chimney extends into the turbine hall where it becomes the platform.

The accessibility from the water is strengthened with the new built Millennium bridge from the famous London architect Norman Foster. The bridge is a superb example of high-tech urban equipment, described as 'blade of light'. It is for pedestrians only, and is the first new river bridge since 1894. It connects Tate Modern with the City, axes with the St.Paul's Cathedral.

### | Type of Building

Converted Power Station, Brick building

### | Function

Modern Art Gallery, open for public.

### | Collection

Tate holds the National collection of British Art from 1500 to the present day. And International and contemporary art.

### | Architectural

#### Concept

Jacques Herzog: 'It is exciting for us to deal with existing structures because the attendant constraints demand a very different kind of creative energy. In the future this will be an increasingly important issue in European cities. You cannot always start from scratch.'<sup>55</sup>

The Gilbert Scott building has been transformed in such a way one cannot distinguish between old and new. The ramp is one of the main architectural modifications involved in converting this industrial building, once closed to the public, into a museum that daily attracts thousands of visitors. Already outside the building the

54. Rowan Moore and Raymund Ryan, *Building Tate Modern – Herzog & de Meuron transforming Giles Gilbert Scott, Tate Gallery Publishing, London, 2000, page 19*

55. <http://www.herzogdemeuron.com/index/projects/complete-works/126-150/126-tate-modern.html> date of visit (23-03-2013)

ramp begins to descend into the ground so that visitors immediately recognise it as the west-side entrance. The turbine hall is the area that establishes the link between inside and outside. The hall runs like a street through the entire length and height of the building. The new facade of the museum rises to the left, revealing its interior structure at a single glance: entrance, shop, cafeteria, educational facilities, auditorium, concourses and exhibition spaces.

An addition to the building is the glass penthouse on top of the building. This penthouse serves the restaurant and great views over the city of London. The idea behind this glass penthouse started from the very beginning of the competition in 1994. Herzog & de Meuron had the idea of a huge body of light hovering above the heavy brick structure of the former power station. This body of light was to pour daylight into the galleries on the top floor of the museum and, at night, the direction of the artificial illumination would be reversed and magically shine into the London skies.<sup>56</sup>

The idea of the light beam proved to be a key element for the development of the other parts of the complex within the overall architectural and urban concept of the Tate Modern.

In terms of city planning, the conspicuously horizontal shape of the light beam forms a distinctive equipoise to the vertical thrust of the brick tower, designed by Giles Gilbert Scott as a counterpoint to St. Paul's Cathedral just across the river. Scott's intention of explicitly responding to Christopher Wren's building has been accentuated and updated by the luminous beam of light. Like the cathedral, Bankside has now become a public site accessible to all of the people in this city.

There are three floors of exhibition spaces, none of which is privileged. There is no main level with large, high rooms for monumental works, and a different storey for smaller formats, like photographs or drawings. All of the spaces are at least five meters high and some are significantly higher, like the top-lit galleries on the fifth floor and the double-height gallery on level 3, which raises the entire 12-metre length of the former cathedral window in Scott's brick shell. This vertical room with its dramatic dimensions is not only an exciting experience for tired visitors; it also offers undreamt and unprecedented installation potential in a museum context.<sup>57</sup>



image 36| Turbine Hall

56. <http://www.herzogdemeuron.com/index/projects/complete-works/126-150/126-tate-modern.html> date of visit (23-03-2013)

57. <http://www.herzogdemeuron.com/index/projects/complete-works/126-150/126-tate-modern.html> date of visit (23-03-2013)

58. Rowan Moore and Raymund Ryan, Building Tate Modern – Herzog & de Meuron transforming Giles Gilbert Scott, Tate Gallery Publishing, London, 2000, page 25

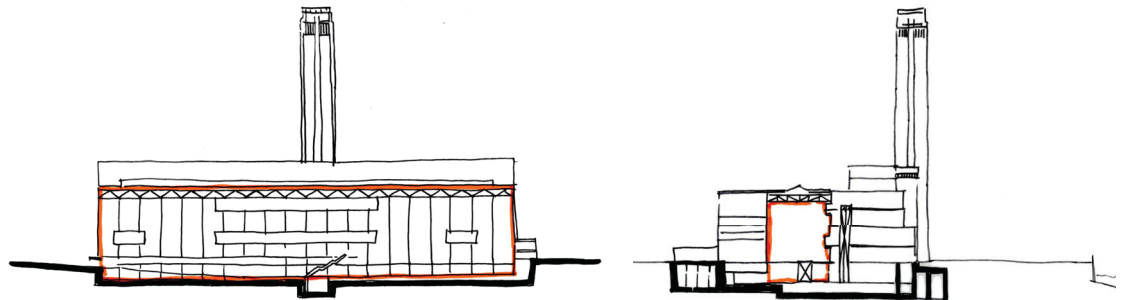


image 37|sections

### Routing

The success of a large public building depends upon the smooth flow of visitors and personnel. Museums need to funnel crowds efficiently but also allow the visitors intimacy or moment of direct experience before individual works of artistic or historical interest.<sup>58</sup>

The architects have placed vertical circulation deep inside the building mass, threading escalators, perpendicular banks of lifts, service ducts and a sculptural staircase through the former boiler house.

Creating a three division of the floor-plan, one both sides the collections/exhibition space and in the middle the public functions and vertical transport.

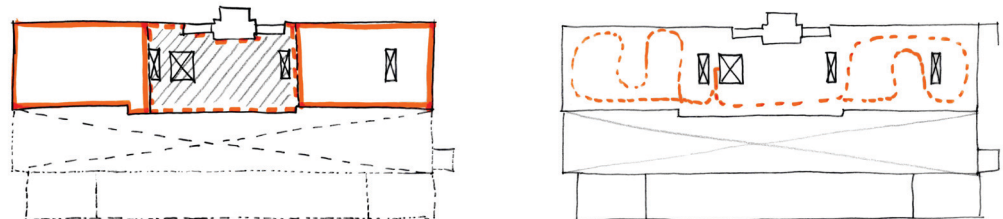


image 38,39|the three division and routing

Starting at the lower ground level, these arteries of vertical circulation bypass the public concourse at the street level (level 2) and access the galleries (level 3, 4 and 5) before emerging into the penthouse with its restaurant. The lifts provide the quickest means of transportation, the escalators the most spectacular; the open stairway is important for more leisurely and engaging circulation.

At each level, the gallery sequence is reached through large foyers that look back into the turbine hall through bay windows. These are intended by the architects as sites for informal events and art installations.<sup>59</sup>

#### Experience

The north entrance is a space that is more than simply a zone of passage. Instead of plans and documents, the building itself is on view. The exhibition is designed as a stroll in and around the building with fourteen stations and one base camp. The stations in and around the building are located in places that typify a specific characteristic or feature of the architecture.

The ramp is not only an entrance but a prominent meeting point. The location acts as a meeting point due to an architectural strategy which does not treat the gigantic complex, originally built by Giles Gilbert Scott, as a closed shell, but has instead transformed it into a landscape with different topographies that visitors can approach and use from all four directions. The ramp, as one of these topographies, takes visitors down to the base level of the building, the floor of the turbine hall, situated below the water level of the Thames.

From the platform, visitors look out over the vast space of the turbine hall. Like a covered plaza or galleria, it is open to everyone – to people who have come in order to visit the galleries or to take a look at the semi-annual installations created by artists specifically for this space or to simply share in the lively atmosphere.

#### Visitors per year

It is the most visited modern art gallery in the world, with 4,7 million visitors per year.

#### Floorplans

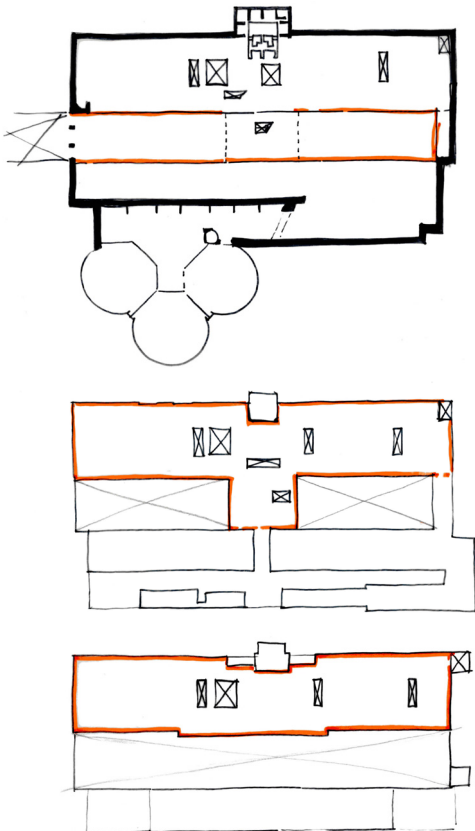


image 41|Floorplans: ground, second floor and top floors

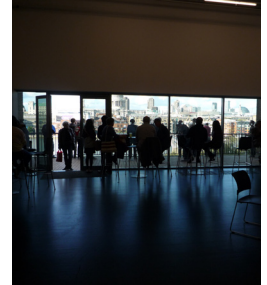


image 40| cafe with view to the city

59. Rowan Moore and Raymund Ryan, *Building Tate Modern – Herzog & de Meuron transforming Giles Gilbert Scott*, Tate Gallery Publishing, London, 2000, page 25



### **The building as public attraction**

Tate modern is a public phenomenon. The fact that it is an art gallery makes the building a public building, the location and building itself play a big role in being a public event for the City.

The location plays such a big role, as it is in a 'circle' of a lot of other attractions in London. 'The choice of Bank-side was almost an act of urbanism to which we as architects didn't contribute anything.'<sup>60</sup> The architects role was then to try and understand what the location is and try to develop it very logically according to connecting paths and lines.

The architects conceived the building as a public plaza, a buildings that is permeable, something you could walk through and literally attracts people. Visitors can approach the building from two sides, from the ramp on the side entering the Turbine Hall and from the waterside underneath the 99m tall chimney. The Turbine Hall became this place of attraction. It became the connection between the outside and the inside.

From the Turbine Hall visitors can have a look into the building and see the escalators go up to the upper levels. This attracts the visitors to the inside. The three division that is clear in the floor-plan, makes the building understandable to the visitor. It is easy, the middle section is for the public functions: escalators, lifts, stairs, cafe and others. The two outside section are for the exhibitions, some can be 'closed' of when a ticket is necessary. On the top of the building a restaurant stretches over the riverside, and provide amazing views on the city, another reason people would want to go inside the building.



image 42| the meeting hall between the two collection halls on both sides

60. Jacques Herzog: Rowan Moore and Raymund Ryan, Building Tate Modern – Herzog & de Meuron transforming Giles Gilbert Scott, Tate Gallery Publishing, London, 2000, page 37



#### 4.4 ZKM Zentrum Kunst und Mediatechnologie, Karlsruhe, Germany

##### *Centre of Art and Media Technology*

Architect	Factory Phillip Jakob Manz 1914 Conversion by Peter P Schweger
Location	Lorenzstrasse 19, 76135 Karlsruhe, Germany
Client	Kommunalbau Karlsruhe
Date Conversion	1993-1997
Size m2	51.700m2
Function	Museum
Collection	Contemporary Art 7000 m2 and Media museum 7000 m2

##### **History**

The Center for Art and media was founded in the early 1980s. Because of the expanding media landscape and transformation in the art world, representatives from local government, the University of Karlsruhe, the University of Music Karlsruhe, the Kernforschungszentrum Karlsruhe (Center for Nuclear Research Karlsruhe) and other institutes, as well as organisations and representatives of the Karlsruhe art scene formed the “Projekt-gruppe ZKM” [ZKM Project Group] in 1986.

In 1989 the concept of a fusion of the arts in a building ZKM became concrete. When founded, the ZKM was located in various buildings around the city. Then for a time an area to the south of the Karlsruhe Central Station had been designated for a new building.<sup>61</sup> To this end, an international architect’s competition for the new building was announced on March 1989, from which the visionary design by Dutch architect Rem Koolhaas was to result. However, the construction of the so-called Koolhaas- Cube was abandoned in 1992 for reasons of costs and space in favour of the conversion of a disused factory building.

From the area south of Karlsruhe South Station and the plan of Koolhaas, the city opted for the conversion of the so-called “Hallenbau A” (Hall A), an industrial ruin erected between 1914 and 1918 by architect Philipp Jakob Manz as a weapons and munitions factory.

The former Hall A is 312 m long, and thus a building of considerable size and extraordinary volume. Its interior is most impressive; it consists of a continuous sequence of ten glazed atriums.<sup>62</sup>

The conversion, based on plans drafted by the Hamburg office of Schweger + Partners<sup>63</sup>, as well as the extension of the Media Cube which takes account of the Koolhaas design, started in 1993. With the move to Hall A in 1997, the ZKM disposed over a media theatre, over concert and events spaces, studios and institutes for research and production as well as a media museum. In a second stage of construction, the spaces for the Museum of Contemporary Art (moved in 1999) and the Karlsruhe University of Arts and Design (moved in 2001) were finalised. From 2004 to 2005 the Museum of Contemporary Art was integrated into the ZKM.



image 43| front ZKM

61. Andrea Gleiniger, Architekten Schweger +Partner Zentrum für Kunst und Medien-technologie Karlsruhe, Edition Axel Menges, Stuttgart, 1999, page 7

62 Andrea Gleiniger, 1999, page 7

63 <http://www.schweger-architects.com/en/architecture/museum-fuer-neue-kunst> (date of visit 23-03-2013)



image 44,45| exterior and interior views ZKM

### | Architect

Peter P Schweger and Heinz Graaf started an architectural partnership in 1964. In 2011 the office renamed to Schweger & Partner Architekten. They are located in Hamburg, Berlin, Munich and in Dubai.<sup>64</sup> In the architecture of Schweger an important and central part is movement and spatial perception, independently of the architectural functions.<sup>65</sup>

### | Location

Lorenzstrasse 19, 76135 Karlsruhe, Germany



image 47 | Karlsruhe

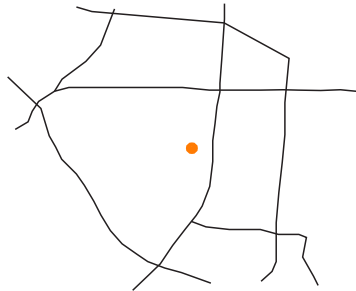


image 48 | location ZKM



image 46 | Germany

The open north-south thoroughway was extended to projectile motion, with stairs and bridges, clarifying the interdisciplinary work between artists, scientists and technicians on the one hand and the various branches of the art production on the other.<sup>66</sup>

To open it to the public the big recording studio was connected to the historical monument. This element links the city and provides the Centre for Art and Media diverse possibilities of media self-promotion and staging. It also preserved the internal openness of the building.

To strengthen the link with the city the public transport network created a stop near the ZKM in 1999.

### | Type of Building

Conversion Industrial Building, housed munitions factory

### | Function

Converted Factory to Museum, Industrial architecture.

### | Collection

The ZKM is a location for all forms of contemporary art. It is a platform for cross-border experiments between the fine arts and the performative arts. Research, production and presentation comprise all medial forms and methods, from oil painting through to App, from classical composition through to sampling.

### | Architectural

#### Concept

The architectural concept was about preserving the 1918 RC skeleton structure of an old factory, and inserting new elements and required complex high-tech installations as well as restructuring other areas. In front of the facade of the old hall a large electronic sound studio was placed as a separate acoustically insulated shock-proof, anti-vibration building. The appearance of the facade grid constantly alters by light projections. It shows the immaterial architecture construction that has to be further developed experimentally.

The proposed concept of the architects Schweger + Partner is based on the intersection and overlapping of the inner axis of communication with the public transverse axes, based on the Karlsruhe city grid, inserted into the urban context.<sup>67</sup>

The 'culture factory' is 312 metres long and not only a fascinating piece of industrial architecture, but also the starting point for the redevelopment of an entire urban district. The blue 'media cube' of the ZKM encloses the hermetic recording studio in a membrane of light which filters through movable glass slats into the urban surroundings.

64. <http://www.schweger-architects.com/en/profile/services/> (date of visit 25-03-2013)

65. Andrea Gleiniger, Architekten Schweger +Partner Zentrum für Kunst und Medientechnologie Karlsruhe, Edition Axel Menges, Stuttgart, 1999, page 15

66. [http://on1.zkm.de/zkm/SchwegerPartner\\_Umbauphase](http://on1.zkm.de/zkm/SchwegerPartner_Umbauphase) (date of visit 25-03-2013)

67. Andrea Gleiniger, 1999, page 15

In 1997 Heinrich Klotz wrote about the ZKM; 'The project is one of the large cultural buildings of the Federal Republic and, on account of its linking of old structure with the functional requirements of the new media technologies, may claim to be a model for others.'<sup>68</sup>



Image 50 | Sections ZKM

### Climate

The large-scale solar panel system produces direct-current energy and feeds it into the municipal network which powers the Karlsruhe tramways.

### Routing

The entrance of the museum is situated in the old factory building, right next to the new 'media cube'. When entering the visitor steps right into one of the big atriums, the foyer takes up one entire atrium. One thing is clear with this, a statement is made, monumental and wide open it seems to be the starting point of the conversion. The transitory and sequential character of the spaces is investigated in depth and related to the imaginative spaces of the modern image world.<sup>69</sup>

The abundance of space and light in the atriums with their glazed roofs, revealed the conversion and the various uses.

The arcade like interior, corresponding with the urban square outside forms a lively place to meet. From the foyer, the atrium, the access via steps, bridges and open galleries to the museums, library and media centre. The institutes and offices are concentrated in the middle of the building.

The other museums and functions are all placed in atriums, and the walkway around it. This makes the routing very clear and accessible to the visitors. Stairs in the atriums allow visitors nice views over the atrium and the openness of the long building.

### Experience

The architects of Schweger & Partners have succeeded in preserving the 1918 RC skeleton structure while inserting new elements and the required complex high-tech installations as well as restructuring other areas. A large electronic sound studio was placed in front of the facade of the old hall as a separate acoustically insulated, shock-proof, anti-vibration building. Light projections constantly alter the appearance of the facade grid and convey a first impression of the construction task of a seemingly immaterial architecture that has to be further developed experimentally.<sup>7</sup>

The 'culture factory' is 320 metres long and not only a fascinating piece of industrial architecture, but also the starting point for the redevelopment of an entire urban district. The blue 'media cube' of the ZKM encloses the hermetic recording studio in a membrane of light which filters through movable glass slats into the urban surroundings.

The large-scale solar panel system produces direct-current energy and feeds it into the municipal network which powers the Karlsruhe tramways.

### Visitors per year

12.000 visitors per month, so estimation of 150.000 visitors per year.

### Floorplans

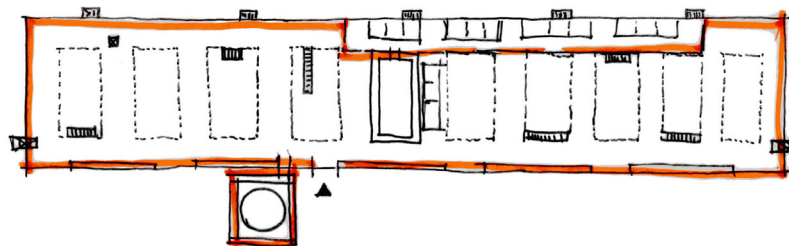


Image 52 | floor-plan ZKM



Image 51 | interior view ZKM

68. <http://www.schweger-architects.com/en/architecture/museum-fuer-neue-kunst> (date of visit 25-03-2013)

69. Andrea Gleiniger, Architekten Schweger +Partner Zentrum für Kunst und Medientechnologie Karlsruhe, Edition Axel Menges, Stuttgart, 1999, page 15

### The building as public attraction

This museum was to be more than a museum, also a place of production and research, and especially opened for new media. So this means the building has more to look after, not just exhibitions and collecting sculptures and photography. Next to the museological function it has to take care of the new kind of media, from film to computer and research and production.<sup>70</sup> Because the building is more a centre it attracts more than just visitors to the museum. It attracts people that want to take part in interactive art.<sup>71</sup>

All in all the limitations of the old building and the comparatively modest amount of money available for such a complex and demanding brief did limit the creative possibilities for realisation and use, but at the same time, the meeting of historical industrial architecture and forward looking media technology produced productive areas that can be used very well.<sup>72</sup> The combination of external and internal urban quality above all makes the ZKM into a place that does not just hold its own everyday events, but also secures it a place of a late 20th century museum architecture.



image 53| mediatheque ZKM

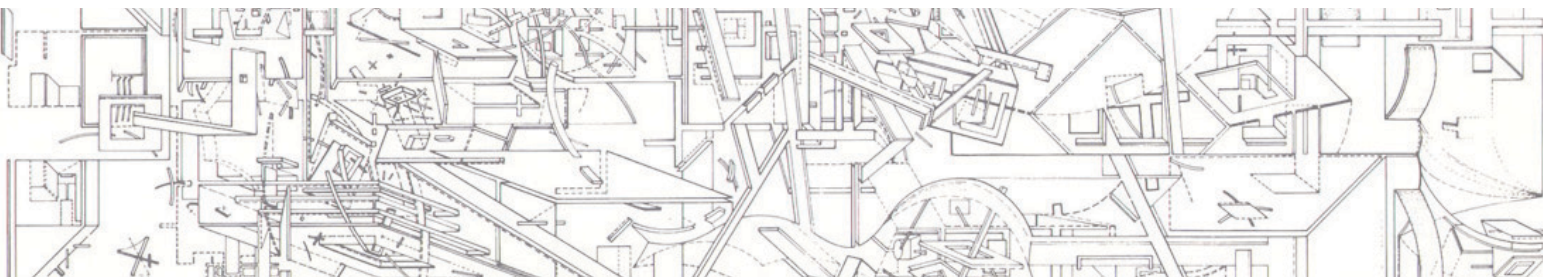
70. [http://spatialaesthetics.unimelb.edu.au/projects/the-spatial-impact-of-digital-technology-on-contemporary-art-and-new-art-institutions/interviews/zkm-an-interview-with-peter-weibel\(date of visit 25-03-2013\)](http://spatialaesthetics.unimelb.edu.au/projects/the-spatial-impact-of-digital-technology-on-contemporary-art-and-new-art-institutions/interviews/zkm-an-interview-with-peter-weibel(date%20of%20visit%2025-03-2013))

71. [http://spatialaesthetics.unimelb.edu.au/projects/the-spatial-impact-of-digital-technology-on-contemporary-art-and-new-art-institutions/interviews/zkm-an-interview-with-peter-weibel\(date of visit 25-03-2013\)](http://spatialaesthetics.unimelb.edu.au/projects/the-spatial-impact-of-digital-technology-on-contemporary-art-and-new-art-institutions/interviews/zkm-an-interview-with-peter-weibel(date%20of%20visit%2025-03-2013))

72. Andrea Gleiniger, Architekten Schweger +Partner Zentrum für Kunst und Medien-technologie Karlsruhe, Edition Axel Menges, Stuttgart, 1999, page 19







*What can be concluded from the analysis?*

Analysing the four different buildings has lead to several conclusions on the aspects I questioned. The conclusions given from the analysis will be very helpful and interesting to use for my design project. It will help me make decisions in the process. I have analysed the buildings on the aspects: history, architect, location, type of building, function, collection, architectural, floor plans and the museum as public attraction. The conclusions are divided in the aspects with interesting conclusions.

### | Location

For an architecture museum, a very specific topic, it is very important were it is situated as the public it attracts is limited to architecture 'lovers' and interested. It seems that this realisation was the reason that both the architecture museums Netherlands Architecture institute, NAI and the Deutsches Arkitektur Museum, DAM are situated in a 'communal' area. The NAI is situated in the museum-park of Rotterdam, and the DAM is part of several museums along the Main, a museum riverbank. While going to a National museum or Contemporary Art Museum, visitors can walk past the Architecture museum and might pay a visit. Whether it really helps attracting more people is to be researched on a different level.

Another museum with a specific topic is the ZKM, Zentrum Kunst und Mediatechnologie. This museum is located on the edge of the city centre. It is close to several university and educational buildings. The accessibility has been strengthened with a bus-line direct to the museum. And other functions have been added to the building such as educational centre, studio's and offices.

Tate Modern is an example of a museum in the city- centre. It is close to several highlights of London, and is part of the walk along the water side, from London Eye to the London Tower Bridge. This fact makes the museum a public attraction. The architects Herzog en de Meuron have taken this aspect and strengthen it to create a public walking route through the building. And strengthen the accessibility from all four directions. The gardens around are important topographical sites that mediate between the space of the city and the building. The gardens blur the distinction between inside and outside. Accessibility has been strengthened not only on the riverbank, but also from the other side of the river, with the new built Millennium bridge from the famous London architect Norman Foster. It connects Tate Modern with the City, and is creates an axes with the St.Paul's Cathedral.

Concluding, the location for a museum in general is of important value. A museum can be situated in the middle of a city centre or can be situated in the outskirts of a city. The museum can be placed next to other museums or could be solitaire. The amount of people it attracts will definitely be different.

It also depends on what the museum has to show: what the museum is about. A museum on the outskirts of the city could still attract a lot of people because of the subject of the museum.

When building and designing a new museum the location is of great importance and a location with easy accessibility can be chosen. With a converted building the location is set, you have to do with what you are given. In this situation it is essential to add functions to the location, and strengthen the surroundings in order to attract public.

### | Function

Although all the analysed buildings have the same function, museum, they are still different from each other. Even the two architecture museums are different from each other. The DAM was one of the first architecture museums and is located in a converted building. This brings limitations to the function. It can only house the museum, and maybe a few offices for the employees. The concept of a 'house within a house' seems to be a very good design decision. It reduces the fact that the building has limitations, it makes the building look like more than just a museum, the building has become a museum piece by itself.

With the NAI this was a total different point. The NAI could take every shape possible. A new building with a vision on what an architecture museum should be. Jo Coenen wanted to create a place where reflection on architecture could be stimulated. Because the NAI is more than an architecture museum, but an institute, the requirements for the building were to become a centre for the institute. More functions had to be added for this building. The institutes offices had to be situated here, the building should have educational purposes and preservation and storing archives was a specific aspect needed in the building. In the design of Jo Coenen these functions all got their own 'building' shape. The building was divided in four different buildings; the banana-shape for archives, the box for exhibitions, the transparent block for library and administration, and the 'socle' with the cafe. The division of the functions is an architectural interference, it creates an architectural barrier, but also creates a connection between the different functions, and between *public* and *private*. Whether this is a good decision will be looked at from a different aspect, the public attraction.

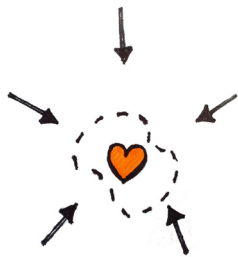


image 54| strengthening access to attract public to the location

In the case of the ZKM other functions are added to attract more public. Within the very long building (312m) the atriums divide the building in different parts. The architects have used this to place all the different functions with giving it an atrium. The functions added are of educational use and therefore attract students. Workshops and lectures are given focused on the new media technologies.

The NAI and ZKM both add functions to their museum, whether this is for the 'institute' or for attracting more visitors. They can be compared with each other based on their function, but the design decisions are different because the ZKM is a conversion and the NAI is a new built building.

When designing an architecture museum, the building is very important, because of the specific topic and the specific public it attracts. Functions should be added, the surroundings of the building should offer more and connections to the city centre should be strengthened.

### Collection

The collection could be called the 'heart' of the museum. It is where the museum is for: exhibiting Art, Modern art, history artefacts, etc. Museums mostly have their own collection; the permanent collection and 'guest' collections. With architecture museum this is not different. The architecture museums do have a specific topic to exhibit, focused on architects, urbanism, city-planning and building technology. The NAI has a big archive collection with all sorts of information, (old) architectural drawings, books and models. The archive is not accessible to the public only when a specific topic arises the archive material is seen in the exhibition hall. From the study centre it is possible to look into a book or drawing from the archives on request. Most of the time, to attract more people other exhibits from over the world are exhibited, this differs over the year. It is important to place interesting exhibitions, such as the one of Louis Kahn just after renovation 2012, to attract public. An interesting fact on the NAI is that this building houses the biggest architectural archives in the world.

The DAM is a relatively small building. And therefore the collection is not housed in the building. It is placed in another building, as space is limited. The space brings another limitation. The building has been found not suited for all kinds of collections. Therefore the museum houses very specialised collections.

Designing a space for the collection of an architecture museum requires a lot of space and flexible spaces to provide for the special collections. It not only requires space for exhibiting, but also space for conserving/archiving seen in the NAI building. In case of the architecture museum in London there is a possibility to collaborate with the RIBA, Royal Institute of British Architects.<sup>73</sup> They can use the space in the Battersea Power Station for exhibitions. Their functions are spread out over several buildings, they could be placed all together. But nothing can be said about whether the institute would want to. This needs a total separate research. Another collaboration could be with the school of architecture, the Architectural Association School of Architecture. Their educational functions could be added to the Architecture museum, creating an architecture centre. Again nothing could be said about whether they would want to. It is only a suggestion.

### Experience

Experience is an involvement or exposure of a thing or event.<sup>74</sup> Different museums, different buildings and all with different experiences. Whether this experience is based on feeling or knowledge: an experience is different for every individual. The experience of a building can be perceived the same way: thought out by the architect and their design ideas, or coincidental. Designing a specific experience is difficult.

With Tate Modern, the museum can be perceived as a 'public' experience. The museum is not only a building but it is a meeting point. A landscape with different topographies that visitors can approach and use from all four directions of the building. A place where visitors can meet each other, exchange knowledge and educate. The experience in this building is based on its publicness and lively atmosphere. The buildings design contributes to this experience, along with amazing exhibition halls, the Tribune hall and beautiful rooftop views over the city. The historical value also contributes to this experience. Experiencing the old structures in present time and functions brings the visitor back to the time the building was in his old function.

The ZKM is another example of this experience, as the old structure is preserved, visitors find themselves in the old factory halls and roof-lights while wondering around looking at new media technologies and art exhibitions. When the visitor approaches the museum, the glass and steel cube, with its light projections give an amazing first impression. The museum is a starting point for redevelopment of the district.

Experiencing a converted building in another way is seen at the DAM. The converted villa serves as a shell for a total new refurbishment. The 'house within a house' gets an architectural interpretation. The visitors experience the villa from the outside as an old structure, while inside they have a feeling of modernity and 'enclosure' of shells.

Experiencing a new built building is another story. Especially with the NAI, where the building is divided in four different functions/ shapes. From the outside the visitor experiences the four different functions by view, as they



image 55| strengthening function by housing several functions under one roof

73. <http://www.architecture.com/LibraryDrawingsAndPhotographs/RIBALibrary/History.aspx> (date of visit 27-03-2013)

74. Van Dalen dictionary: ex-pe-ri-ence – a particular instance of personally encountering or undergoing something

have their own distinctive shape. It shows a certain diversity in the building, as though everything has its own place. From the inside the same could be experienced, as the functions are very well separated. With the NAI there is a clear division between public functions and private functions.

It is clear that experience is of important value in a building. The experience can differ from being a very public space to being a very architectural interception. Meaning, experience could be everything in a building. It can be concluded that the fact the architecture museum will be located in an old building will contribute in its experience. But that is not enough. Architectural interference has to strengthen the openness/ publicness of the building.

### Attraction

When visiting a city as a tourist the first thing you do is find a list of attractions to the city, museums are part of that attraction list. An attraction is the action or power of evoking interest, liking or desire.<sup>75</sup> A museum is interesting to the visitor of the city. Whether you like this attraction or not is a decision the visitor can make by himself. Architecturally it is interesting to look at this point, because being an attraction could mean bringing more visitors to the 'architecture'/ building. But what makes it an attraction, what kind of architectural interventions can be made to make it an attraction? Looking with an architectural point of view thinking about *attraction*, a thin line can be made with *experience*. Experience is an exposure of a thing or event, attraction is whether this experience evokes an interest on this 'thing'.

The analysed museums each have their own interventions, making the museum an attraction and an experience. These interventions can be an example of what to do or not to do designing an architecture museum. Tate modern is the most visited modern art gallery in the world, with 4,7 million visitors per year. This means it is an important attraction to the city. But what is the reason why it attracts so many visitors? The fact that museums are free in London will be a great factor. But for Tate it is also the publicness of the building as mentioned before, Tate is a 'public' experience. Tate is not only a museum but a meeting point. The way that the floor-plans are divided makes the building very clear to the visitor. One part is for the vertical transport and other public functions such as cafe's etc. And at the other parts, the both sides of the building, the exhibition is accessible. There is a clear division between public and private areas.

The ZKM is comparable to Tate modern on the 'clear' floor-plan and accessibility. The long floor-plan going from atrium into atrium, makes it very accessible and clear. Also the fact that it is a conversion of a factory makes it an attraction. Visitors can experience this attraction in different ways, wondering around in the old setting of a factory while wondering around and looking at new media technologies.

Tate modern and the ZKM both attract public in a different way looking at the collection. At Tate modern the collection is based on british art and contemporary art. The ZKM is specialised in Media technologies and shows some contemporary art as well. Media technology is not a subject every-one is interested in, therefore the museum is less attractive to visit than Tate.

In the case of the NAI were the different functions are all placed in the different building shapes the accessibility is clear and the lay out is clear. As mentioned before the different shapes create a barrier and a connection between the different functions. But the attraction of the building is the fact that it is the biggest architecture museum in the world because of the archives. It is interesting to see that this function is not accessible to the public, literally because of the architecture, but also because of the fact it needs to be preserved a certain way. This barrier could make the building less of an attraction, because it is less of an experience.

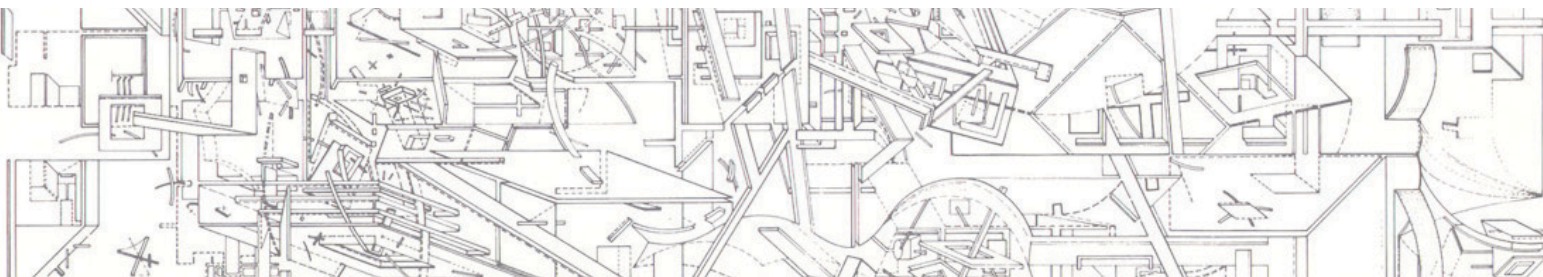
The DAM is an attraction on a different level. The museum attracts because it is converted by a famous architect in the history of architecture. His concept of the 'house within a house' is an attraction on itself because it transforms an old historical structure into a new and adaptive function for the city. It could be compared to a Matryoshka doll, a Russian doll decreasing size placed one inside the other. Every time you open/enter a new shell a new doll/ experience appears.

The attraction value is important for a (new) building. It is important to consider the experience of the building and surroundings, whether its experience is interesting enough to attract the visitors to this specific building. Architectural interventions could strengthen or weaken the attraction value. In this case the conclusions of the analysis could be of great help and could be considered as an under-layer for the design project, to ensure the new building design will attract enough visitors.



image 56| strengthening a design by attracting public

75. Van Dalen dictionary: at·trac·tion -A quality or feature of something or someone that evokes interest, liking, or desire.





## 6.conclusion statement

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*What does the conclusion of the analysis mean for my design project?*

Having said that attraction value is important for the new design, and that the conclusions of the analysis could help with these decisions. A few guidelines can be made for the design project, strengthening the design and ensuring its feasibility. This could be called the conclusion statement.

The fact is there: a design has to be made for an architecture museum in the old decommissioned Battersea Power station. In order to make it an attraction to the city of London the following interventions will help strengthen the design. Again this is divided in the different principles given.

### | Location

The Battersea Power Station is located on the South river bank along the Thames. It is an 8 min drive away from the Palace of Westminster, about 4 km. Walking would take 40 min from the centre. The setting alongside of the water is an impressive site, but it is clear the Battersea power station is not well connected to the city centre. The closest metro station is Vauxhall station, a 5 minute walk away. A design goal should be to re- connect the building and area to London city centre. In the new development plans of the area another metro station will be added close to the power station. It is clear something has to be done on the accessibility to the building. The access can be strengthened in different ways. The waterway can be used for a ferry stop next to the building. Making a combination with the Tate-boat, a boat that departs from Tate modern to Tate Britain, an extra stop to the Battersea would be great. Car parking should be added to the area. The water boulevard should be more attractive to walk on. But another thing can be done and that is adding a bicycle route to the area. From Tate modern you can follow the river down, passing the London Eye, all the way to the Battersea Power Station, only a 20 minutes ride. From the Palace of Westminster it is a 16 min cycling ride. In 2010 the Mayor Boris Johnson, introduced a bicycle hire plan. He placed over 8000 bikes and 570 locations across London to offer the public a bike sharing system for shorter journeys in the city. The "Boris bikes" are available to casual users and members.<sup>76</sup> There are a lot of hire stations close to the Battersea Power station. Adding more of these stations and adding a cycle bridge to the other side of the Thames could improve the accessibility for the public. With only strengthening the accessibility it is not finished. Now the public can get there the surroundings should be strengthened in order to attract the public. The location should have a good working urban plan, adding all the new different infrastructure and adding attractive collective space.

### | Architecture

To design an architecture museum in this building the value of the building needs to be determined. The Battersea Power Station is an important statue for the architectural history. The architects vision of this building and the state of the building at present day, still makes the building an important building for the city, and therefore is worth saving and re-using. In my opinion the most important architectural elements are the chimneys structures. The four chimneys define the building, and distinguishes it from the surroundings. The chimneys should be the most important features of the building. The top of the chimneys are made from concrete and seem to be falling a part, as scaffolds hold them together at the moment. To maintain the chimney image the top parts needs to be rebuilt. This could be an interesting opportunity for a sustainable solution. Between the chimneys the facades seem very damaged, this is because of the steel beams that have been starting to corrode by weather influences. These facade elements need to be replaced.

The brick facades all around have been damaged a lot, but in my opinion most facades are worth preserving. To make a clear distinction between old and new, it should appear as if 'cuts' are made into the brick facade and new facade ties it together again.

### | Function

As was concluded several other functions should be added to attract the public to an architecture museum. In my opinion the architecture museum can be part of something bigger it could become an Architecture Centre. A centre were you can visit the museum and then visit the restaurant/ cafe and shops. A centre were you can work and learn in an innovative and creative surrounding. A place were big events can take place like conferences, a music festival or even a yearly architectural event as the Biennale in Venice. It is even interesting to add the function of a hotel, to stay in the well-known landmark of London. The comparison can be made to the NAI, an architecture institute with added functions. The NAI has functions added which contribute to the institute, the public functions are separated from the private functions, the building is clearly divided by the barriers and connection of the different building shapes. The architecture centre should be a place were this distinction is made between public and private, but where the barriers are not that big. It should be more public than private. The



image | Location Battersea Power station

76. <http://www.tfl.gov.uk/road-users/cycling/11598.aspx> (date of visit 27-03-2013)

surroundings of the building should be strengthened by the addition of apartments.

### | **Collection**

Attracting the public to the architecture museum with the other functions is not enough. The collection should be worth a visit. Exciting exhibitions should be taken place in the museum. To promote the collection to the public it should have a wide ambition, attracting not only those interested in architecture but also the 'normal' public, visitors from young to old. Zef Hemel speaks in his book of three groups of visitors; 'do-ers', 'thinkers' and users. Do-ers are people that are not so much interested in theory, they just 'do'. Thinkers are people that are interested in theory and debate, and think about it. The Users are just there. In his opinion the task of an architecture museum go beyond bringing the collection to the 'thinkers'. It is about the contact between the 'thinkers' and 'do-ers' that are of utmost importance for the useful operation of an architecture museum.<sup>77</sup>

### | **Experience and Attraction**

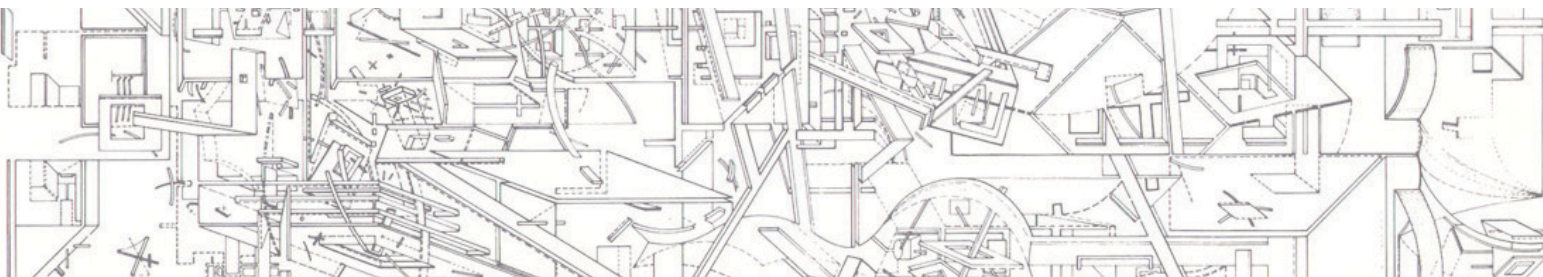
The architecture museum should become an experience and attraction. This is stimulated by the adding of the functions, strengthening the accessibility and the addition of an interesting collection. To make it an experience and attraction some architectural interventions need to be done. The focus should be on public space. The openness and publicness of the building will transform this landmark into a 'place to be' and a place to meet. A conclusion from the NAI was that the archives should be more accessible. This is in my opinion a strategy that can be used to educate the public on architecture. Concluded from all of the buildings is that a clear floor-plan helps visitors to understand the building, which makes it attractive. So there should be a clear division between public and private space, a clear distinction between open and closed space. The concept that Ungers used in the DAM could maybe help giving the open and closed space a definition.



image | Battersea Power station an Experience

77. Zef Hemel, Welke kameel wordt daar gebouwd? Ideeën voor een museum over architectuur en ruimtelijke vormgeving in Nederland, Delftse Universitaire Pers, Delft 1987, pages 20-21





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### | NAI

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# | Attachments

I Dr Geoff Matthews Course Leader MA Design for Exhibition & Museums Lincoln School of Architecture University of Lincoln Brayford Pool Lincoln LN6 7TS UK

II Summary of the piece Rem Koolhaas wrote in the book: Zes ontwerpen..

III Summary of the speech Walter Wallman gave at the opening op the DAM in Frankfurt 1984.  
From the book: Schwarz, Hans-Peter, Deutsches Arkitektur Museum Frankfurt Am Main : Festschrift zur eroffnung, Juni 1984, DAM



*Attachment I*

Dear Kelly,

I looked at this topic about two years ago and at that time there were about 100 members of the International Confederation of Architectural Museums. Not all of them are full-blown architecture museums, but it gives a good indication of the spread globally.

To address your first question: architecture museums vary quite a lot in their collections and missions. The oldest is the Shchusev State Museum of Architecture in Moscow where the collection includes architectural models and an extensive archive of mid-20th century architect's practice records and project drawings - they tell a story of building from prehistory to present day and put on a programme of lectures and temporary exhibitions. Arkitera Mimarlik Merkezi (Architecture Centre in Istanbul) is a good example of the more contemporary type of architecture museum. It also has extensive archives but its mission has much more to do with engaging the public in debate on urban development and in sustaining better quality architectural design. The Netherlands Architecture Institute in Rotterdam is a very large, and therefore quite an unusual, architecture museum with a much broader remit.

Museums vary enormously in form, size, types of collection and purpose, so it is very difficult to talk of a 'normal' museum. Consider the difference between an eco-museum such as Iron Bridge Gorge - particularly the Blists Hill museum - and the Architecture gallery of the Victoria and Albert Museum in London. The former collects real buildings, wherever they are found in the region: it documents, dismantles, and relocates them to form part of the outdoor museum park. The V&A, on the other hand, collects historic architectural models, photographs and drawings, but can also draw on the collections of the Royal Institute of British Architects (RIBA). The gallery is about 300m<sup>2</sup> and a very small part of the museum, which is the national museum of design and decorative arts.

So to answer your second question: unless the museum will collect actual buildings there are no necessary differences between an architecture museum and many other kinds of museum. Aside from the obvious practical and contextual questions, the most important starting questions are: What kind of organization does the client represent and what are its objectives? What does/will the museum collect? Who are the target audiences? What approach will the museum take to research and interpretation, i.e. which academic discipline(s): e.g. science, technology, industrial archaeology, social history, art and design history? What range of museum functions will be accommodated in the 'building': collecting, documenting, conservation, storage, research, education, exhibition, events? Think about what will make the project sustainable in economic and cultural, not just environmental/technological terms.

I hope this helps.

Regards

Geoff

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## *Attachment II*

Summary of the piece Rem Koolhaas wrote in the book: *Zes ontwerpen*..

Rem Koolhaas, Introduction concept Dutch Architecture Institute.

The materials that the architect produces and leaves are often not in itself impressive. Yellowed paper, faded drawings, clumsy doodles, rickety models, while the ambition of this 'modest' vestiges often turns megalomaniac.

Unlike "real" paintings and sculptures, which often benefit from a lot of space, architectural products often benefit from intimacy and isolation - the intimacy of the brain that these ideas first on paper dares to put.

Most architectural relics remain relative to real artworks introverted, because the intermediate forms are, for messengers, reflections, extracts of the final product.

The correctness of this statement was not long ago when Mies van de Rohe exhibited himself in his own design the National Gallery in Berlin: the large undefined space did not provide the optimal context for his sketches, even if they go over large undefined areas.

It therefore appears that compared to the ordinary museum where the building is the bearer of the exhibit, a typical architecture museum normally houses a number of consecutive installations each exhibit creating a unique context. The ability of the museum can be increased by a separation of content and envelope, pavilions and buildings.

### *Attachment III*

Summary of the speech Walter Wallman gave at the opening of the DAM in Frankfurt 1984.

From the book: Schwarz, Hans-Peter, Deutsches Architektur Museum Frankfurt Am Main : Festschrift zur Eröffnung, Juni 1984, DAM

There were several reasons to define and reconsider what architecture was and how it could be presented in a museum. And what is the value of this sort of museum in Frankfurt?

First was reminded that this assignment with several questions to answer had his terms and conditions. For instance the budget made the designing team think differently to the task of realizing a new form of an architecture museum. The Mayor reminded that the total budget of all the museums combined in Frankfurt was just a fraction of what Munich could spend on one single museum.

Therefore the vision stayed durable and reasonable; the main character of Frankfurt according to the Mayor. The main intention of this project was to design a museum that would fit in the city. Knowing that the budget was limited, the vision started with re-using an old historical building, giving it a new function that would represent a new era; this way an old building would still carry his historical value and could be used in a new concept for developing the city. 'Why would we develop a whole new building for architecture if we already have all the ingredients as a city?' [Dr. Walter Wallmann, (year)]

Giving a new soul and purpose to an existing building was the concept and vision to eventually establish the final design for a new architecture museum in Frankfurt; according to the Mayor this was the way to flourish as a city like Frankfurt.

How can architecture be presented in a museum? 'Architecture is our build world. We live in it, we live with it' [Dr. Walter Wallmann, 1984]

Different questions occurred during the main brainstorm sessions with the designing team. What could an architecture museum represent more specifically to define itself as an architecture museum? And is this sort of museums not only made for a marginal group of people who are specially interested in architecture?

The designing team started with the history of architecture and came to the conclusion that architecture was used as a fundamental tool for exploration; new building techniques and materials were developed and integrated in society that became a main foundation in growth and wealth. Architecture wasn't questioned during that period, it was just done. Every city or country used new building techniques to flourish without thinking or questioning the main purpose behind it; it was needed.

Then architecture became a more moral and social issue; it was forced to solve more social problems in society and became more a reflection of how architecture must be used in order to support society. People became more rational about it; rationalism was introduced.

In the present time it's more difficult to establish why we should build in a sort of way; every building technique is known to everyone, the historical background of designing nowadays is based on arguments of the architect; there is no main foundation in growth and wealth in the present day.

Everything is possible; the architect can design with different techniques or values as long as he has his arguments well balanced. In the present time designing projects show us different values and become a more plural design; based on different opinions and values, the values that came out of a democratic way of architecture.

The Mayor is convinced that democratic architecture isn't the way to achieve a good architectural design; there are too many opinions to take into account and makes the design plural and unstable.

The museum must be in interest of the people who will live and use the building; there isn't any political answer behind this design.

The architectural decisions developed according to the terms and conditions that Frankfurt provided in this period of time; a low budget, an existing building with a good location and a building that is memorable to the society of Frankfurt.

The building that should represent architecture in general can have different shapes and building techniques, 'as long as it is understood by the society of Frankfurt and their city is still felt as 'home' with the new architecture museum' [Dr. Walter Wallmann, 1984]

Therefore the final design of the new architecture museum is a feeling of the architects during this period of time and hopefully stays reserved for the future and becomes a new historical issue for the developing society.

'Hereby I announce the new German Architecture museum has opened' [Dr. Walter Wallmann, 1984]









## Explore Lab 15

Msc3|Msc4 Kelly Verberne

Robert Nottrot (architecture mentor)  
Marie- Therese van Thoor (research mentor)

