Eindhoven University of Technology

MASTER

Köln: a new theater at an old roman gate
filling a gap in historical context by using urban morphology

Atanasova, S.R.

Award date:
2013

Disclaimer
This document contains a student thesis (bachelor's or master's), as authored by a student at Eindhoven University of Technology. Student theses are made available in the TU/e repository upon obtaining the required degree. The grade received is not published on the document as presented in the repository. The required complexity or quality of research of student theses may vary by program, and the required minimum study period may vary in duration.

General rights
Copyright and moral rights for the publications made accessible in the public portal are retained by the authors and/or other copyright owners and it is a condition of accessing publications that users recognise and abide by the legal requirements associated with these rights.

• Users may download and print one copy of any publication from the public portal for the purpose of private study or research.
• You may not further distribute the material or use it for any profit-making activity or commercial gain.

Take down policy
If you believe that this document breaches copyright please contact us providing details, and we will remove access to the work immediately and investigate your claim.
KÖLN
A NEW THEATER AT AN OLD ROMAN GATE

Filling a gap in historical context by using urban morphology
Slaveya Atanasova 0785564

Technical University of Eindhoven
august 2013

Graduation report
Architecture, Building and Planning

Graduation committee
prof.dr.ir Jos Bosman
ir. Daan Lammers
ir. Sjef van Hoof
# TABLE OF CONTENT

1. Preface 4  
2. Abstract 8  
3. Parallel streets to Rhine. Relation between streets and buildings 10  
  3.1 Introduction 12  
  3.2 NSF 14  
  3.3 Hohestrasse 16  
  3.4 Unter Goldschmied /Via Culturalis/ 18  
4. Defining an area for the project and specific location 19  
5. Analysis of the area 20  
  5.1 Historical 20  
    5.1.1 Roman remnants 20  
    5.1.2 Medieval influence 22  
    5.1.3 Rathaus square and Marsplatz 23  
    5.1.4 Wallraf Richartz Museum building block 24  
  5.2 Programmatic analysis 28  
  5.3 Traffic flows 29  
  5.4 Morphological analysis 30  
6. Future development plans 34  
  6.1 Speer’s master plan 34  
  6.2 New Jewish museum 36  
  6.3 Gürzenich Headquarters 38  
7. Concept. Research question and method 39  
8. Theater research 42  
  8.1 Theaters in Cologne 42  
  8.2 Zoning, dimensions 43  
  8.3 Theater buildings 44  
9. Design 46  
  9.1 Experience of a visitor 46  
  9.2 Experience of an actor 52  
  9.3 Illustrative material 56  
  9.4 Conclusion 76  
10. References 77
1. PREFACE

The graduation studio Inner City Highway Cologne explores the strong interrelation and influence between buildings and streets, how they react to each other and what the urban outcome is. Streets and cars have an important role in the layout of the German city. Two perpendicular busy traffic streets - Nord-Süd-Fahrt and East West Axis combined with the ring create the base of the transport infrastructure of the city. These streets, because of their large dimensions ‘cut’ the inner city of Cologne and trouble the pedestrian flow, programmatic interaction and accessibility in the different zones of the city center. Cologne is a city in favor of cars - another proof of the ‘car-friendliness’ of the city are the numerous parking garage buildings and parking squares, which are located in the city center. In the 50s and 60s even more squares were occupied by cars, but later on, with the appearance of parking garage buildings, these spaces left as either clear squares or they were used for construction terrain for new buildings.

The current urban structure of Cologne is an outcome of historical grid stratification, master plans created in 19th and 20th century, postwar reconstruction after WWII and modern interventions. Cologne was found by the Romans in 1th century AC. The layout of the city was based on Roman city military traditions applied on and taking into account the specific characteristics of the area. Cardo Maximus and Decumanus Maximus defined the ‘spine’ of the main infrastructure, the location of the Forum and city gates. The topography of the terrain and the river south from the city affected on the shape of the city walls, which adapted to those characteristics and avoided the typical, rectangular layout. Later on, in medieval ages, the city expanded a couple of times and the street pattern became irregular. Streets were not more parallel to each other; building blocks acquired irregular shapes and in between public spaces were not outlined clearly. Contrary from the Roman period, where the street structure defined the dimensions and shape of building blocks, in medieval time building blocks defined the space between them as streets and small squares. Another important factor for shaping the city was Christianity, which affected not only the social and religious life of people, but also the urban structure of the city. A lot of churches occurred in Cologne, most of them with adjacent squares, where the public life took place. The huge common space for social and economic life – the Forum, was replaced by numerous smaller scattered squares.

At the end of 19th and in 20th century a couple of master planers had an important influence on the urban structure of Cologne with their designs. Josef Stübben was one of the first city planners of Cologne – he introduced the idea of a city transportation ring, which would frame and protect the old city. The city’s medieval walls had to be demolished in order this plan to be executed. Also, he added a system of diagonals and radials, which together with the ring formed the main transportation system of the city. Stübben was concerned about health environment within a city, so he defined parameters related with proportions between height of buildings, width and length of streets and presence of vegetation. The following city planner, Fritz Schumacher developed further the idea of a healthy and green city and designed a green belt with a sequence of park spaces along it. The green belt envelops Stübben’s street ring and connects to an outer green ring through green radials, which provide fresh air to the inner city. Schumacher first introduced the idea that a main street with north-south direction should be built in Cologne. After the WWII almost 95% of the city center was demolished by air raids. Rudolf Schwarz was the appointed architect, who was in charge of the city’s reconstruction. He insisted on keeping the medieval street pattern and protecting the fragments of the old city. He believed that Cologne should be reconstructed in a modern way with respect to its historical buildings. There are a lot of positive examples from this period, which establish a harmonious dialogue between old and new – Gürzenich, MAKK, Museum Schnütgen and etc. Schwarz divided Cologne in ‘autonomous

Maps:
1. - Roman map of Cologne
2. - Medieval map
3. - Josef Stübben master plan
4. - Rudolf Schwarz master plan
5. - Current map
cells’, each one of which with its own residential, educational, cultural and spiritual area. He warned that Nord-Süd-Fahrt would split the inner city in two parts, but his considerations were not taken into account.

As a result of its historical development and master planners’ interaction, Cologne is a varied city, composed of different historical areas with specific atmosphere. It is a city of fragments and layers. The mixture of spaces with contrast character is what makes Cologne vital and dynamic to experience. For example, Nord-Süd-Fahrt with its severe, ‘highway’ character is in deep contrast with the intimate environment of the old city, with its paved, narrow, meandering streets around Heumarkt. The busy, touristic atmosphere of the Dome area and Hohestrasse are totally different from the peaceful and calm environment along the Rhine promenade. All these places determine the image of the city as one unit, combining contrast and contradiction. For these reasons we can call Cologne a collage city. The urban environment is heterogeneous - new buildings attach to historic examples in modest and explicit way. After the war reconstruction projects involved numerous renovations of historic buildings combined with modern architecture. Most of the buildings, which were not totally demolished or had strong aesthetic values, were reconstructed in a way that conserved their architecture. The gaps (completely demolished buildings) were filled with new buildings and this collage of old and new is typical feature of Cologne.

Photos:
1. - Rhine promenade, source: http://www.bilderbuch-koeln.de/Fotos/12457#27766
2. - Nord-Süd-Fahrt
3. - Hühnergasse, next to Altermarkt
In this report I will describe the work process for my graduation project - I will explain the consecutive steps and choices I have made, which accompanied my work and led to my final design proposal.

In my project the starting point of Nord-Süd-Fahrt expanded to similar analyses of parallel streets to it. For me it is fascinating how these streets, really close to each other possess completely different character and atmosphere. They have programmatic, spatial and architectonic differences, which reflect in a compound city structure. I compared their qualities and characteristics in order to see the different ways buildings and streets relate with each other. In some cases the streets influenced the buildings or spaces around them (Nord-Süd-Fahrt and the Opera square), while in others, the existing buildings shape the character and dimensions of the streets (Spanish Bau and its belonging squares). Later on, I focused on a specific area in Cologne, near one of these streets (via Culturals), where the dialogue between buildings and streets is defined by irregularity and complexity. Most of the buildings in this area have their own urban attitude in forming the city. There are no 'regularly' shaped building blocks – they all create spaces either in their interior – as courtyards or at their exterior as squares. The reason for this specific morphology of the area is rooted in the historical process of layering elements. No matter if it is a street or a building, the older element defines the newer one. The final result of this process is an urban pattern, which is regular in its irregularity. For this selected area I made a research about the history, programmatic zoning, traffic flows and morphology. As a result of the research I drew some conclusions and directions for the development of my project. These analyses helped me to get a better understanding of the inner city of Cologne, to note its problems and disadvantages and to clarify its potential and strong features.

Albert Speer Jr., who designed a master plan for the future development of Cologne, suggests three new buildings in the area, which I focused my attention on. All of his designs are located on a free, inbuilt space. Among these three Speer’s proposals I chose one of them as a starting point for my project. My aim was to explore his proposal, to test numerous alternatives and to conclude which one is a suitable solution for this specific location and why. Primary aims of this process were to reach a design, which fits in Cologne’s identity and brings high quality to the urban environment.

The idea that a contextual design should be made and the fact that this area is a complex structure of different elements led to my research question: How to use urban morphology when filling a gap in historical context? As part of my concept I decided to continue with this research, through design. I made different physical models to investigate how they react in the existing urban environment. I examined whether they add value and identity to the location.

With my project I aim to address both past and future of Cologne. For this reason I chose a location, which is in the historical zone of the city and is part of the future plans for urban development.

The final part of this report is a description of the concept and design of my project. It contains my motivation for the proposed function, main thoughts of what my design tries to achieve and the final design product.

Photos:
1. - Opera and Nord-Süd-Fahrt, source: http://www.bilderbuch-koeln.de/Fotos/96305#54533
2. - Spanish Bau, source: http://www.bilderbuch-koeln.de/Fotos/38761#12679
Rhine has always been an element of great importance for the creation, development and transformation of Cologne. Initially, when the city emerged, Rhine marked its east border and laid the foundations of Cologne’s primer layout. The strategic location of Cologne, on the west bank of the river, facilitated water supply, sewing system, transportation, trade and defense. As this section of the river follows north-south direction, the roman street Cardo Maximus (nowadays Hohestrasse) is parallel to the river and consequently Decumanus is perpendicular to the river bank. Therefore, because of the strict regularity of the Roman grid all of the streets were either parallel or perpendicular to Rhine. Matching the human-made urban infrastructure with the existing natural element created a coherent base for the overall function of the city. Clear pedestrian routes, undisturbed eye views and equal accessibility to Rhine were main aspects of this urban structure of the city.

West from Rhine and east from Hohestrasse, Unter Goldschmied (part of via Culturalis) developed as a cultural route, connecting the Dome with church st. Maria im Kapitol. The term via Culturalis was introduced by O.M. Ungers to define a route between these churches, which accommodates also additional cultural buildings and museums. The street exists since Middle Ages, when numerous religious buildings occurred in Cologne’s tissue, which were connected with routes in between.

Nowadays, west from Hohestrasse, Nord-Süd-Fahrt performs the function of the old Cardo street to ensure fast, facilitated traffic flow through the city. Similar function is switched with two blocks further west from its origin. Nord-Süd-Fahrt is the most important infrastructural element parallel to Rhine in Cologne.

These three streets - Nord-Süd-Fahrt, Hohestrasse and Unter Goldschmied, which are parallel to each other and the Rhine, have completely different
functions, logics of formation, importance in city’s fabric and relation to the bordering buildings. It is an interesting observation if a person follows a perpendicular route to these streets (for example from Heumarkt to the Opera) and sees the transformation of streets and the metamorphosis which happens on every crossing.

Photos:
1. - Unter Godschmied
2. - Hohestrasse, source: http://ksta.stadtmenschen.de
3. - Nord-Süd-Fahrt

Photos:
4. - Obenmarspforten crossing Unter Godschmied
5. - Brückenstrasse crossing Hohestrasse
6. - Brückenstrasse crossing Nord-Süd-Fahrt, source: maps.google.com
3.2 Nord-Süd-Fahrt

Initially the plans for a north – south traffic axis were developed in the 20s by Fritz Schumacher, a town planner of Cologne at this period. East west axis and Nord-Süd-Fahrt would create the main traffic spine of the city. In Nazi’s period those plans were even more exaggerated – the streets were designed even bigger and almost the whole city was planned to be rebuilt to get again an orthogonal urban structure. The master plan of the Nazis, designed by Klemens Klotz, embodied the roman regularity in urban pattern with huge, dramatic spaces between buildings. The master plan did not show respect to the existing buildings – they were proposed to be demolished, except for the churches, Gürzenich and the big gallery building on Zepelinstrasse. Even the bridges were redesigned so that they ‘fit’ the urban order. A reminder of the roman past was designed on the east bank of the river as a mirrored image of the Forum. Because of the beginning of the war these plans left unrealized. Though, the idea of Nord-Süd-Fahrt was conserved and the street was completed in the 60s as an icon of the car-friendly city. Its design and construction process were facilitated by the demolition of building blocks in WWII. The street was intended to provide fast movement through the city and to decrease the car traffic on the ring and the Rhine promenade. Schwartz believed that the street would harshly separate the inner city and for this reason was skeptical about these plans. His opinion was not taken into account, though.

The street with its considerable width separates the inner site in a firm way. The relation between the east and west part of Altstadt is troubled both for pedestrians and cars, as the street has 4-6 lanes in each direction. Only on Schildergasse the pedestrian flow is not interrupted, because NSF goes below the shopping street. The homogeneity of the inner city changes and transforms, because Nord-Süd-Fahrt introduces not only a direction and unobstructed car flow, but it also introduces a new scale within the central city area. Along and above Nord-Süd-Fahrt buildings of a larger scale become to existence. WDR complex expands around the street and occupies significant area with its massive, office, monumental buildings. The profile section of the street has a landscape character as it flows below the main level of the city on some places.

‘Iconic’ buildings are placed above the ‘highway’ on these specific locations. WDR archive is such an example, which declares explicitly its importance by forming a gate above Nord-Süd-Fahrt. The building combined with the road beneath state rough monumentality. Another example of an iconic building above the street is Renzo Piano’s shopping center, although the way it emerged is completely different. While the WDR archive was designed as a building above the street, Piano’s building is designed on a street above Nord-Süd-Fahrt. The monumental expression is attenuated, because distance is created between the shopping center and observers, travelling on NSF. Also, an interesting aspect is that the building can be observed only when travelling from south to north (when passing in the opposite direction it cannot be seen), which is a nice example of a building’s duality in an urban environment. It changes the perception of relation between building, street and observer.

Most of the buildings along Nord-Süd-Fahrt form a ‘wall’ towards it, they create facades (sometimes blind walls) like an insulation layer or a barrier. An exception is the Opera, which faces the road with a square in between.

Nord-Süd-Fahrt acted as a generator for large-scale buildings and squares to be completed in the 60s and 70s in the inner city. Also, it influenced the construction of large numbers of autonomous buildings, which is not typical for city center, especially when high building density is searched for.

Photos:
1. Master plan for Cologne by NSDAP
Photos:
1. - Nord-Süd-Fahrt
2. - Nord-Süd-Fahrt
3. - Nord-Süd-Fahrt, source: www.panoramio.com
3.3 Hohestrasse

Hohestrasse is also a dynamic street like Nord-Süd-Fahrt, but in a completely different way. It is the main pedestrian shopping street of Cologne and it has existed since the formation of the city. The location of the street is where Cardo Decumanus used to be in Roman times. Back then it provided traffic flow, connection of the city with the outside fields and acted as a main axis parallel to Rhine. Even back then it accommodated busy social life and trade functions. Even though the street is the oldest one in Cologne, there are no historical buildings along it — all of them are built after the demolition of the war.

Nowadays the street has a width of around 9 m, defined by stiff, flat building facades, with no cantilevers or colonnades. Hohestrasse has continues, undisturbed U-shaped profile. It doesn’t have dynamic parallel sections — the width and building heights are almost constant. There are no squares or extra spaces in between buildings. The buildings have open, extrovert plinths in order to attract visitors, while the upper floors have rhythmic window openings on the facades, which are frequently accentuated in architectonic or sculptural way. Lack of autonomous building is probably due to the small fragmented plots, land price and high density demand. All building blocks along the street are compound of smaller scale attached structures, which creates a heterogeneous environment.

There is a connection between the Dome square and Hohestrasse, although it is not that clear and intuitive. The connection is realized through Wallrafplatz, which is related with the Dome square with a ‘left-over’ space between free-standing buildings. On south Hohestrasse continues after the East-West Axis, but the wide street acts as a traffic barrier, which is difficult to cross and the road performs as a natural end of Hohestrasse.
Photos:
1. - Hohestrasse, source: www.bilderbuch-koeln.de
The Dome is the building in Cologne with strongest touristic potential. For this reason Oswald Matthias Ungers introduces an idea about a cultural route, which begins from the Dome and leads to the Romanesque church St. Maria im Kapitol. Main purpose is to link cultural buildings through a sequence of squares from different historical ages. Along Via Culturalis are located – the Dome, city Hall, Praetorium, st. Alban church, Wallraf-Richartz Museum, Gürzenich. Also, construction of a new Jewish museum above the archaeology zone has been approved and should start soon.

A typical element of the route is the sequence of squares along it, known as platzfolge. Each square shows different historical period of Cologne. A constant flow from intimate streets to open spaces is created. The route has a functional and spatial link, which is determined from the urban pattern of the area. This part of the city looks more spontaneous and free in comparison to NSF and Hohestrasse, where the buildings form ‘walls’ towards them. The street meanders and changes its width along the way, because of set-backs of buildings, cantilevers and colonnades. According to O. M. Ungers the urban planning should seem like object – space - sequence. He describes in his book ‘The dialectic city’ that ‘Rather than being a unified concept, the city is now a structure made up of ‘complementary spaces’ with a loose urban association. Therefore an appropriate method must be found of identifying the character of these very disparate places, defining it, and developing its specific features, either by adding the functions that are lacking or by perfecting existing ones.’

Although the via has a theoretical and programmatic coherence, in reality it doesn’t have enough readable character, it is not perceived intuitively as a route. For example, when exploring the street from south to north the Dome acts as a strong landmark and visitors can spontaneously follow the route’s end point. In this case the definition of a route is quite clear, but when the street is experienced in the opposite direction the lack of (visible, reachable) end point makes the route quite loose.

Similar to Hohestrasse, an obstacle for via Culturalis is the East-West axis, which separates the church St. Maria im Kapitol and its adjacent squares from the north part of the route. The busy traffic street is not pedestrian friendly, it fragments the overall layout of Via Culturalis and changes the experience. It isolates the Romanesque church and makes it not easily reachable and inviting to visit.

Via Culturalis embodies the complexity of the inner city of Cologne with the organization of elements and spaces among them. It is an intriguing way to represent a city both with its structures and squares, but still the route needs a pinch of attractiveness and stronger visual and logical link to better define the notion of a clear route.

Pictures:
1. End of via Culturalis, st. Maria im Kapitol at the back, source: maps.google.com
4. DEFINING AN AREA FOR THE PROJECT

Relation between streets and buildings led me to the area around the Rathaus, an area of a high complexity and stratified historical layers. The area is comprised of both free-standing buildings and attached buildings in a cluster. They developed a different attitude towards the streets and express it in specific ways - the buildings have sudden set-backs, they create squares or inner courtyards, they cover spaces through cantilevers. The overall structure of the area creates an act of anticipation, described by Gordon Cullen in his book Townscape. The part of the city reveals gradually, through exploration and approach – it offers surprise elements and unexpected spaces. For example street ends cannot be seen, because of visual obstacles, specific elements can be observed only from determined position and etc.

The reason for the complexity of this part of the inner city is based on a couple of important factors. First, the area comprises of buildings with different functions (residential, office, cultural and etc.) which affects in different built scale and typology (from large buildings filling plots to small narrow residential elements). Consequently, the established relationship between the buildings and streets is different – most of the public/civic buildings create adjacent squares, while the residential buildings follow the trajectory and keep parallel to the infrastructural elements and even frame big public spaces – such as Altermarkt and Heumarkt. The structure of these squares and their defining elements (narrow residential buildings) has been kept for hundreds of years. Also, the buildings are from different time periods, which reflect in a heterogeneous urban environment with collage principles. It is an area of dramatic scale change, in which small residential buildings are attached or neighbor with big structures such as the Rathaus, for example. To summarize, this specific area of Cologne consists of all historical layer of Cologne – Roman remnants, Romanesque churches, medieval squares, postwar reconstruction architecture, modern interventions – it is like a representative puzzle piece of the city, containing its history, atmosphere and transformation through time.

Also, I decided to focus on this area because as a transitional zone it has not developed fully its potential to become an inner city vibrant area. It has a spatial and strategic potential, but what lacks is probably programmatic densification, which would support and enrich the programmatic context.

Within this area, Speer proposed a couple of buildings to fill in the inner city, as part of his master plan for Cologne. He proposes buildings located on Quatermarkt, west from Haus Neuerburg and south from the Rathaus. As a concrete location for my project I chose one of his proposals in order to investigate and explore it – the location south from the Rathaus, across Marsplatz. My intention was to test his proposal, to develop and transform it, if needed, so that it fits Cologne’s identity, tradition and atmosphere. Speer’s proposal for the location will be later on described in this report.
5. ANALYSIS OF THE AREA

5.1 Historical research

The area around the Rathaus has always been part of Cologne, since the city became to existence in 1st century. This location still keeps traces of this historical development of the city – either as part of buildings, walls, structures, squares or streets. I will introduce a short analysis of the transformation of the urban tissue through years with specific focus on some important buildings and squares, which have a greater impact on the surrounding area.

Building timeline
1172 - st. Alban church
1350 - Rathaus
1447 - Gürzenich
1610 - Spanish Bau
1920 - Kaufhof, Haus Neurburg
1960 - postwar reconstruction
2010 - current map of Cologne
5.1.1 Roman remnants

In Roman times the area had orthogonal street structure, which divided similar-sized rectangular insulas. The Praetorium, which served the function of governor’s residence, was located under the Rathaus and nowadays it can be visited below the city hall. It is an attractive touristic point and the most impressive remain of the roman past. On the map on the right can be seen overlapped layers of Cologne in the 70’s and the Roman grid. It can be noted clearly that the east Roman wall is located beneath the Rathaus. On the south it continues beneath the west border of the building block. Historical and built layers are stratified vertically. In fact, some of these layers were found because of the demolitions in WWII – they revealed part of the archaeological zone of Cologne in front of the Rathaus. The zone will be described later on in this report.

The Roman past left mainly fragments, pieces of buildings and structures. From its urban pattern not a lot can be recognized today – only some streets keep their location since then, or new streets appeared on the location of the old city walls. For example, Martinstrasse follows the same trajectory of the roman wall beneath. The overlapped maps also show that the central east roman gate was located beneath the plot I chose for my project and the neighboring plot on the north. Cologne had 9 roman gates – 3 on east and west wall, 2 at the south wall and 1 north gate. Of all those 9 gates 2 are discovered until today – the north one near the Dome, and the north-east gate, called Nero’s gate between Ludwig and Roman-German museum, which was discovered in 2008 by construction works of the new metro line.

The central east gate was called Marspforte, after a temple located nearby, in honor of god Mars. Cologne as a city, which appreciates and is proud of its traditions and history extends this name inheritance. In middle ages, when the square south from the Rathaus was defined it was named Marsplatz, after the gate beneath. In addition the street in front of the square was called Obenmarspforten, which means above Mars gate. Unfortunately no illustrative or descriptive material can be found today about the gate – how it looked like or what were its dimensions, but most probably it looked similar to the north gate, reconstruction of which can be seen on the picture on the right. Marspforte was demolished in 15th century because of a decision taken by the city councilor (rather) Hermann von Weinsberg.

Pictures:
1. Praetorium model, source: http://www.floerken.de/praeutorium/bilder/modell_ost.jpg
Pictures:
1. Praetorium model, source: http://www.floerken.de/praetorium/bilder/modell_ost.jpg
2. Perspective Praetorium remains and Rathaus, source: http://www.floerken.de/praetorium/bilder/praet003.jpg
3. Overlapped maps, source: Das Römisch-Germanische Köln
5.1.2 Medieval influence

In medieval ages the city expanded and its street pattern became irregular – churches were main objects in the structural organization, religious and social life of the city. In the beginning of the medieval ages Rhine changed its borders – its west arm disappeared and the city expanded eastwards. Two important squares - Altermarkt and Heumarkt were defined in the urban structure at that time and became central spaces for food trade and social life. Also, Marsplatz, the small square south from the town hall implemented similar functions. Numerous squares, irregularly shaped, found their place in the city’s structure. The medieval pattern created a sequence between narrow streets and big square spaces. The organizational framing of Heumarkt and Altermarkt with narrow, deep residential buildings is kept until today.

In front of the Rathaus a Jewish quarter was created, which contained housing, Mikwe baths, Synagogue, hospital and also, the first drugstores in Cologne. Although in 15th century Jewish were expelled from Cologne and the district was partly demolished, some of the streets in the area still have their Jewish names – Judengasse (the street exactly in front of the Rathaus), Salomongasse and etc. After the air raids in the war a big part of this quarter has been revealed, which is known today as archaeological zone of Cologne. As a result, decision was taken a new Jewish museum to be built exactly on this area. Again, Cologne demonstrates that is sensitive to its history and makes use of all possibilities to expose it in contemporary conditions.

The middle ages had a strong impact on the urban structure of the Rathaus, which reflected in the current pattern of the built environment. A lot of fragments and urban elements exist until today – squares (Heumarkt, Altermarkt, and Marsplatz), streets (Judengasse, Martinstrasse) and buildings (Rathaus, Gürzenich). This period also influenced certain urban logics, like change of building blocks density, transition between small streets and open spaces and irregularity of building block shapes.

Pictures:
1. Medieval map of Cologne source: http://www.geschichteinchronologie.ch
2. Jewish district in front of Rathaus, source: http://www.geschichteinchronologie.ch
5.1.3 Rathausplatz and Marsplatz

Cologne has been constantly rebuilt, not only after the war, but in previous periods as well. The building of the Rathaus is a clear example of that process. The oldest part of the city hall was built around 1330, replacing an old Romanesque city council structure. The Gothic tower was added in 1414 and the Renaissance loggia was completed in 1573. The building of the Rathaus is an illustrative example of how historical layers are attached together in an overall composition, which works together. It shows that history of Cologne is not only apparent in vertical layers, but also in horizontal ones. Collage principles originate from that time and are still practiced today. For example, if a person sees the east and west façade of the Rathaus hardly could imagine that they do belong to the same building.

After the Jewish quarter was demolished the space in front of the Rathaus acquired clear boundaries and character. Rathausplatz has not change that much through years. It has been for a long time enclosed rectangular symmetrical space, accessible through small alleys from the north, south and west. In 18th century the Spanish Bau did not occupy the whole plot and the square was defined by different small scale buildings. Until the war the square had clear boundaries and provided an intermediate space between the urban infrastructure and the buildings’ entrances. After the war and with the work in the archaeological zone Rathausplatz is only defined by the Spanish Bau on the northwest. It does not feel like a square anymore, because of the big distances between the buildings – it feels more like a left over space between building blocks. With the construction of new Jewish museum the square will restore its quality and intimate, transitional character.

In 16th century two houses were attached on the south façade of the Rathaus. With their plaster façade, steep roofs and cross windows they were typical example of Cologne’s merchant houses of that period. In the basement of Winehouse Brungs (one of these houses) can be seen a masonry, which is a remnant of the Roman city wall. This example of a building block in Cologne explicitly shows the interaction between architectural layers combined together. Although, it seems quite strange so small buildings to attach to a massive building, such as the Rathaus, the result is quite positive for Marsplatz. The buildings frame the square to the west and introduce appropriate human scale. The building block of the Rathaus and its surrounding squares did not transformed that much since 17th century. After WWII Marsplatz became more pedestrian friendly (a traffic lane and parking spaces were removed) and it followed Cologne’s tradition to transform parts of the city, in order to give them more historical character.

Pictures:
1. Rathaus square 1798, source: http://www.bilderbuch-koeln.de
2. Rathaus square 1912, source: http://www.bilderbuch-koeln.de
4. Rathausplatz plan, source: http://museenkoeln.de/archaeologische-zone
The building block of Wallraf-Richartz Museum is a similar example of a collage structure within the inner city of Cologne. The buildings date back from different ages and keep the specific character of their time. The building block of Wallraf-Richartz Museum, by its historical stratification and way of filling the plot introduces an expressive and unique collage in the modern urban fabric of Cologne. Different built elements, strictly attached to one another, every one of them with its specific architectonic language and influence are arranged in a strong, rich composition with interrelated program. This urban phenomenon is the outcome of the long history of Cologne – its historical and contemporary buildings, and the logic of relating different urban elements.

St. Alban church, which was completed in 1172, is the oldest building in this plot, which exists until today. It has been rebuilt a few times, but after it was almost fully demolished in WWII, it was decided to remain as a memorial to all people, who lost their life during this time. Only the west façade was renovated - behind it a silent, semi-demolished, tranquil courtyard arises. The Gürzenich, built between 1441-1447, is a late Gothic work, which was used originally for a civic ballroom and a market hall. After WWII, it was semi-demolished and a competition was held, organized by the city hall, for its rebuilding process. Both winners, Rudolf Schwarz & Karl Band, had to cooperate in order to accomplish the final design, which would enlarge the building. The design filled the gap between St. Alban and Gürzenich and created a collage ensemble of those three different architectonic structures. Smooth brick facades, articulated with concrete slabs and columns form the architectural expression of the Gürzenich’s extension. It is a rich example of how a local architecture can be contemporary reintroduced.

The location of the entrance of Gürzenich is what seems a bit confusing, because the building is surrounded by two squares (Gürzenich square and Quatermarkt) and the main entrance faces a narrow street on the east with an alley feeling. The welcoming gesture of the building does not quite make use of the urban space around and neglects the surrounding squares.

The last building, added to this historical plot is Wallraf – Richartz Museum, built in 2001 and designed by Oswald Mathias Ungers. Before the massive construction of parking garages in Cologne the plot of the building was used as parking space. It is a clear, introvert, postmodern building, which relates with respect to the existing surrounding. A cursory hint on the façades suggests what it behind – ‘a basalt frieze with the
engraved names of artists whose works are included in the collection can be seen on the outside. The building attaches to st.Alban church and Gürzenich in an honest and clear way. It does not step back or detach from the historic buildings, but ‘touches’ them in state of equality. A theme in Cologne, already noted in Rathaus building block. The volume works as an extruded floor plan, a cube with three parallelepipeds attached to it. Observing the west façade these three tall volumes work as extra towers right next to the one of st.Alban church. When approaching the building from north these three solid volumes fragment the scale of the building, by breaking it into pieces – at looks as a row of equal buildings.
Entrances of Wallraf-Richartz museum and Gürzenich. The museum faces via Culturalis in a monumental manner. With curtain glass walls on the stairs it provides a visual connection between its east and west neighboring streets. Unger’s design is very clear and honest –the spaces inside could be read from outside. He uses regular forms (mainly squares) for both his floor plans and facades. The north façade can be divided in rows of 6x4 squares (6x6 meters), a rhythm which is suggested by the windows and basalt friezes. The windows have the same proportions as the outlines of the facades and window frames are also subordinate to these dimensions.
Pictures:
1. Gürzenich anssemble, source: O.M. Ungers, ‘Dialectic city’
5.2 Programmatic analysis

The area I focused on for my project is a transitional area between the intensive shopping and leisure activities in Cologne. It acts, more or less, as a buffer and tranquil zone between two dynamics. Hohestrasse and Schildergasse accommodate the intensive daily life of citizens and tourists in Cologne. The night life is concentrated around Altermarkt and Heumarkt, where a lot of restaurants and pubs are located. The area around via Culturalis, although accommodating impressive number of cultural buildings does not have the same vitality and dynamics as the surrounding area – it almost does not feel like a city center. The ground floors facades of the buildings are quite introvert and do not communicate with the pedestrians. Also, the area lacks attractive point, which can take profit of the strategic location in the city center. The programmatic context of via Culturalis serves mainly for tourists and not for citizens of Cologne. Although it accommodates cultural functions, their nature is not to be visited every week or month. Museums and churches are attractive points for visitors of the city, but for an ordinary Cologne citizen they are just part of the city, which they may go to once or twice per year. I believe that cultural functions for citizens of Cologne with daily or weekly attendances can have positive affect on the vibrancy of the area. For example functions, such as theater, cinema, dance center and etc. In this way the idea of via Culturalis will get a broader aspect among users and the area will switch from a passive one to an active one.
5.2 Traffic flows

The car traffic in the central area is quite chaotic – almost all of the streets are one-direction streets and the accessibility is frequently troubled. For example, there is not a clear access provided to the area from Nord-Süd-Fahrt. If a car wants to get to the Rathaus quarter it should go north to the Dome make a tour around it and continue south through an underground passage. The area is easier accessible from the East-West Axis, but only when a car is moving to the west. Besides the big quantity of parking buildings in the area there are also some squares, which are occupied by open parking spaces (west from Haus Neuerburg, Karl-Küpper-Platz). Public transport is facilitated, since the beginning of 2013, when a new metro station, located on Altermarkt was created. Bus line passes through Quatermarkt.
5.4 Morphological analysis

The current urban pattern of Cologne is a reflection of 2000 years of development. All historical periods left urban traces (buildings, squares and streets), which have strong impact on the contemporary built environment. The area around the Rathaus nowadays is a porous framework with differently shaped streets and spaces between buildings. The strongest impact is caused by the Medieval street pattern, which stimulated creation of Heumarkt, Altermarkt, Rathausplatz, Judengasse and Portalsgasse. The created rhythm of small curved streets leading to big squares is an introduced logic, which become important feature of the city. Later on, this sequence is further developed in a platzfolge concept – network of linked squares, which shapes the character of the inner city until today.

The most influential infrastructural changes in the area in 20th century are the newly designed roads - Gürzenichstrasse (built around 1910), and the East-West axis in the 20s. Gürzenichstrasse was cut through building blocks in order to connect Heumarkt with Schildergasse. As a result, building blocks decreased their size, the pattern became more fragmented and autonomous buildings arose in the area (for example, the building north from galleria Kaufhof). It is not common modern free standing buildings to become part of historical inner city, because of the constant high built density. Though, making a new street is a process, which leads to this particular outcome. The building built in 1913 fills the space between both streets (Gürzenichstrasse and Schildergasse) and divides the pedestrian flow around it. Schildergasse did not have such a dividing influence on the plot of Quatermarkt, which the street leads to, but the building itself reacts to the guiding element by creating a pedestrian passage. In this way the human flow can continue in a straight line to Gürzenich ensemble. The East-West axis formed a clear boundary of the area on the south – in a spatial, programmatic and transport way. South from the street the dimensions of the building blocks are bigger, because there’s no need for fine/frequent access network.

Although large areas of the city were destroyed during World War II, big part of the street pattern and important structures of the city were restored, as part of the post-war master plan, designed by Schwarz.

In the area can be differentiated a couple of building typologies among two main groups – freestanding buildings and attached buildings. It is typical for this specific area all autonomous buildings to express an attitude towards the public domain. They fill the plot (Rathaus), form a courtyard (Spanish Bau) or create a square (Haus Neuerburg). Also, specific spaces are defined by a combination of only freestanding buildings (Rathausplatz). This quality of a square generates a lot of access points and different visual perspectives towards the same space. The Spanish Bau, although organized around its courtyards, opens the building block towards Rathausplatz and exposes its interior. It is an indicative example how an interior of a building block becomes part of a square. It shows a nice way to affect the perceptive dimension of a space and to layer fronts and backs of a building.

Attached buildings are narrow residential buildings ‘glued’ in rows (framing Heumarkt and Altermarkt) or post-war buildings combined together. The narrow buildings keep the historical character of this part of the city – they preserve old housing typology of high buildings with steep, gable roofs facing the square and reduced footprint. Post war buildings often are irregularly attached, which reflects in created spaces between building and street lines.

As mentioned before, the area is full of squares, some of them planned while others occurred spontaneously in the urban tissue. Squares, such as Marsplatz, Güllichplatz and Theo-Burauen Platz are planned squares part of the design of the building. Intentionally part of the building is cut so that a space between the mass and the street is created. Other planned squares are formed by a compositional organization of buildings, which frame certain space (Medieval squares). Heumarkt and Altermarkt were formed intentionally, because of the proximity of the river port and demand of space for food trade and social activities. Until today they are defined by building blocks compound of small structures. Another type of squares act like street’s widening - they developed parallel to the street and are being defined only by one building. Such square is Gürzenichplatz.

Other squares are spontaneous and unplanned – they evolved as an outcome of the process of adding elements to each other. The attached buildings do not always define a clear boundary, which fragments the impression of united space. Sometimes they lack the intuitive recognition of a square. Such squares are Quatermarkt and Jupp-Schmitz-Plätzchen. It is not important only the presence of squares in the area, but also their organization. For example along Obenmarspforten there is a sequence of squares, which creates a repetitive pulse of space. The position of these squares and their definition is made so that they are observed in specific direction (from Heumarkt to the Opera).
Types of buildings

Freestanding buildings
- filling plots
- creating courtyards

Attached buildings
- creating squares
- composed objects of post-war period
- narrow residential buildings

Types of squares

Depending on origin
- planned
- spontaneous

By way of definition
- defined by freestanding buildings
- defined by attached buildings
- defined by one building

Gülichplatz
Laurenzplatz
Rathausplatz
Quatermarkt
Gürzenichplatz

Photos:
1. Gülichplatz, source: http://www.bilderbuch-koeln.de/Fotos/altstadt_nord_haus_neuerburg_17309
2. Rathausplatz source: http://galerie.chip.de/k/architektur/architektur/rathausplatz_koeln/698629/
3. Quatermarkt source: http://www.bilderbuch-koeln.de
6.1 Speer’s master plan

In 2003 AS & P - Albert Speer & Partner GmbH designed a master plan for the city of Cologne. This urban master plan had to outline the most important themes and objectives for the future development of the city in the next 20 years. It considered variety of aspects – economic, social, touristic, infrastructure and etc. in order to propose a conceptual framework which would fulfill the current visions of both citizens and authorities. The plan searched for balance between public contractors and private investors.

Speer developed a design for specific areas in the city of Cologne – along the inner ring, green ring, NSF, EWA, inner city, on the right bank of Rhine. For the Altstadt area around via Culturalis he proposed buildings, located on Quatermarkt, west from Haus Neuerburg and across Marsplatz. The building west from Haus Neuerburg follows the contour of the building block and creates equal distance to the existing building. Speer suggests a puzzle piece, which in combination with the existing building fills the plot, except for a narrow space between both structures. In his proposal he uses same building height and roof slopes as the ones of the existing building.

Generally, Quatermarkt is not really clear and well-defined square, as it lacks distinct defining boundaries – it is experienced more as a widening of the street, than as a square. The existing building pulls back from the east border of the plot in order to create space in front of the Gürzenich and st.Alban church. It reacts in a spatial way to the importance of the urban ensemble. In Schwarz’s plan the square is much smaller and is located only in front of Gürzenich. For Quatermarkt Speer proposes a rectangular free-standing building parallel to the street. By doing this intervention he separates the square in two parts. The south square is exposed to the street, while the other square acts as an interior square of a building block. A narrow space between the existing building and the proposed one provides the connection between both squares. In Speer’s proposal these squares are better defined as spaces, although their connection is quite fragmented and unclear. Also, the interior square is not easily and intuitively ac-
cessible, which may affect in empty, unutilized
public space. Another important aspect of this
design is that it blocks a straight pedestrian di-
rection created from Schildergasse to Quater-
markt, through a passage in the existing building.
The third Speer’s proposal for the area around
via Culturalis is located east from Wallraf-Rich-
artz Museum, between Martinstrasse, Steinweg
and Obenmarspforten. This location I chose to
further develop in my project. Speer proposes
a residential function, by completing the build-
ing block. He plans of destroying three of the
existing buildings (one is currently abandoned)
of the west wing of the building row, so that the
east and west wings have equal lengths. He
attaches to the party walls of the existing struc-
tures, continues the already established heights
and roof slopes. He creates a thin ‘cut’ between
the buildings in his design, which corresponds
to the niches in Wallraf-Richartz museum. In the
museum these niches have glass walls, in order
to create a visual connection between Quater-
markt and Martinstrasse. His proposal suggests
that Speer pays more attention to Martinstrasse
and Steinweg, than to Obenmarspforten, al-
though the last one has more urban importance,
because of the link between Heumarkt and Op-
era/Kolumba museum. The cut, which he cre-
ates, does not provide any specific path or a
movement direction. He shows correspondence
to the existing museum in a formal and partly on
a conceptual level, although not on a mobility
level. All buildings combined make Speer’s idea
a bit controversial - he blocks an existing pedes-
trian passage west from WRM and creates a
new one on the east of the museum. He creates
a conceptual line on a master plan level, but this
line does not provide nor a clear flow, neither a
visual connection between blocks.
Speer’s approach is based on completing build-
ing blocks in a formal way and extending the es-
tablished logic in a building block. In a plot with
a freestanding building he adds another one, in
a row of houses – he continues the row. He fol-
lows old practices in these blocks, simply by add-
ing identical elements. But is that what Cologne
needs? He does not show strong engagement
with the public space within the area.
Cologne had a huge Jewish community in the 4th century. It was located in the area west from the Rathaus, while some of the streets still keep their Jewish names – Judengasse, Salomongasse and etc. The area comprised of small merchant residential buildings, medieval synagogue, hospital and a mikvah bath. After the air raids in WWII these layers have been exposed. Among Cologne’s community there were long discussions whether and where a Jewish museum should be built in city, as the Jewish society was the largest one in Europe north from the Alps. In 2006 a decision was made a Jewish museum to be built in front of the Rathaus, on the location of the old Jewish quarter. In 2007 archaeological activities occurred in the area – A design competition was held and the winning proposal was produced by Lorsch & Hirsch architects.

Their design of a new museum relates with the urban space and morphology on ground and relates with archaeology underground. The shapes of the building, together with the surrounding buildings, clearly define the urban space. On the north the design of the museum together with the Spanish Bau create almost a symmetrical square in front of the Rathaus. The space in front of the Rathaus experienced numerous...
transformations and nowadays it does not have a square character and feel like a leftover piece of city. The proposal brings intimate character and heterogeneity in the inner city. On south the building setbacks from the street and creates a rectangular landscape square (because of the topography). The space feels more like a street widening, than as a defined square. In a way it repeats the qualities of Gürzenich square, which is located one block further south. The museum creates narrow streets (with alley qualities) to the Rathaus and Spanish Bau, which brings dynamics within the space flow between buildings. A narrow street, followed by intimately closed square, followed by another narrow street is a theme strongly implemented in the design of the museum and intensifies this existing quality in the area. A density of small scale squares and streets is achieved, which reflects the local character of the inner city area.

In conclusion, the project managed to challenge the complexity of the inner city and to transform the fragmented space into a uniform and dynamic space flow. It exposes Cologne’s history in a clear way and proposes urban solutions, which improve the qualities of the area.
Speer’s master plan includes also a winning proposal for new design of a building, created by Astoc architects. The plan suggests demolition of existing buildings and construction of a new, multifunctional building – Gürzenich Headquarters. The building will comprise of office and commercial spaces with parking garage. The outer contour of the building follows the form of the plot, while inside it creates a pentagonal inner courtyard. The building distance itself from the small scale adopted in the plot – it works as a unified massive volume. It fulfills the character of a building next to the East-west axis, than to a building in the inner city. It has clear, stone rhythmic façade, expressed in a sober modernistic way.

Pictures:
2. Current condition, source: maps.google.com
Starting point of my project was a careful choice of area within the inner city of Cologne and zooming into this area for a specific location. Result of this process is a choice of location which is part of the master plan of Speer, described in the previous chapter. The site embodies rich historical context and future plans for development. It is an important element of the past and future of Cologne. After the choice of location, its relevant analysis and research on future plans I continued with formulating a design concept and aims I would like to achieve with my project.

Contextualism
The morphology of the area is rich on building patterns and interdependence of volumes. Almost all of the buildings express their own unique statement as being part of the city. In Speer’s proposal this complexity was not taken into account and the completion of the building block is made in a trivial way. Though, what is indeed typical for the area is that no one of the building blocks just completes the plot. The relation between building and plot is based on exceptions and uniqueness, which can be seen on the diagram on the right. For this reason I assume that a design, which creates a different logic from following the plot’s outlines, will produce more contextual solution and would inherit the character of the area.

Another important aspect for this particular location is that the building is in a ‘conflict’ zone between two different scales. From a pedestrian point of view along Steinweg and Martinstrasse is introduced small scale comprised of housing, while along Obenmarspforten big scale volumes shape the character of the street. The structure of the building block with its fine grain developed organically by attaching elements to existing ones, while the surrounding buildings have more strong and rigid expression. A building is part of a building block, but also is an urban shaping element linked with its surroundings. To relate to these two different conditions I decided to make a scale transformation, so that a smooth transition between scales is achieved. As a result the surrounding streets will keep their character and balance between mass volumes will be achieved.

To intervene in this sensitive urban area I decided to create a building, which evolves from the morphology of the location. A design, which would formally react to the existing buildings, spaces and streets’ qualities. For example, Obenmarspforten with its short sequence of squares gives specific identity of the street, which I find quite a charming idea to develop further. The street is also main axis, which links Heumarkt and Opera/Kolumba museum and can benefit from a guiding element or an element, which communicates with Wallraf-Richartz museum and the new Jewish museum. The context, besides its current form, contains rich historical memory. Cologne has demonstrated in numerous examples that it appreciates and reminds of its historical significance. These examples influenced the atmosphere of the city and set standarts in the urban environment. Cologne exploits every opportunity to present its history and this aspect become part of the identity of the city. For this reason I believe that a reference to the history of the location is quite important. After all, the location is above the roman wall and gate. The plot defined city’s boundaries at that time and provided the central east access point of the urban area.

In a programmatic aspect I based my ideas on the results from the programmatic analysis and the analysis of via Culturalis. My conclusion was related with the idea of a public program, which can affect positively on the vibrancy of the area and the readability of the via, because the route still needs attractive focal points in order to become more lively and creative part of the city. My aim became a definition of a program, which would engage citizens of Cologne (not only tourists) and a program that would establish building-users relation on a regular basis. With these considerations about the existing context originated my research question: How to use urban morphology in filling a gap in the inner city of Cologne?

In order to explore the different spatial possibilities I decided to continue with research through design. I made different options for buildings placed in the location and tested how they react into the environment. In the process of volume testing there are two important questions: How the building connects to the existing buildings in the plot? (Whether the design attaches to both rows of buildings, to one of them or becomes an autonomous building). How the building relates to the surrounding buildings and squares? (Does it generate a direction/alternative views to specific elements? How it reacts to Marsplatz? Does it create a wall to the square, a mirror square or chess square).
Form studies

The first example is Speer's proposal for the location. As described previously in his design he demolishes three of the existing buildings in order to make the length of both rows of attached buildings equal. He attaches to them with two small volumes, leaves a gap and completes the block with a Π-shaped volume. On the perspective picture can be noted that he extends the small scale of the plot, which causes disproportion in the area in front of Marsplatz. Also, it does not correspond to the volume of Wallraf-Richartz museum and the building is overwhelmed by Unger's building.

The next proposal is a complete fill of the plot with attaching to the existing buildings. This causes dramatic transformation of the building block – the existing ‘organic’ pattern collides with the new smooth, rigid volume. Along Obenmarspforten the mass piece is like a repetition of Unger’s museum. The volume has the character of the surrounding buildings, but is in a conflict with the logic of the building block and its organic nature.

The third proposal attaches to the existing buildings and creates a corresponding square to Marsplatz. The square disturbs the ongoing consistence along Steinweg; it disrupts the meandering wall of buildings. In combination, the Rathaus and the design form almost symmetrical space along Obenmarspforten. Approaching from Altermarkt the square can act as an open welcoming gesture.

The next model comprises a freestanding building, which again creates a corresponding square of Marsplatz. Both volumes, the Rathaus with the building proposal, create symmetrical fronts towards Obenmarspforten, which can be experienced as a monumental gesture. In reality, two squares separated by a street do not feel as a united space. The new square will only disturb the quality of Marsplatz. Also, the space between the existing buildings in the plot and the design proposal affects the privacy of the inner yards. Design of a freestanding building will affect the quality of the streets because some of the back facades of the existing residential
buildings will be transformed into front facades (facing the streets).

The fifth proposal is an attached building which creates a ‘chess’ front to the Rathaus – across the square there is a wall, across the wall a square is created. This design corresponds to the sequence of squares along Obenmarspforten. The designed square establishes visual connection with Marsplatz and the new square of the Jewish museum. The shape creates transition in sections – it starts with a small scale section and transforms into a bigger one.

The last proposal has a similar footprint as the 5th design, but creates a different volume. It forms a cantilever, which covers the square below. The proposal copies the existing typology of the small scale housing, and then it transforms and amplifies its dimensions.

Conclusion

A building, which evolves from the morphology of an area, becomes a strong contextual part of it. It cannot be relocated, because it works only on a specific place. From all of the generated models the last proposal reacts to the qualities of the surroundings and states logic on its own. It completes the block using the contextual morphology of mass and space. It adopts the small scale, transforms it and reaches a balance with the big volumes around the plot. The square inherits the character of Obenmarspforten and brings a new meaning of the sequence of spaces. The architectural gesture of the cantilever acts as a reminder of the historical importance of the plot. Also, it opens the building block at the corner and creates a welcoming gesture. Applying specific program on the design led me to the idea of a theater building, because a theater can benefit from the volume definition of the proposal.

Theater as an element of changing reality with imaginary life – can be an abstract reference to a city gate, which also divided urban reality from field/landscape.
In order to explore the relevance of the proposed theater program on this location I made a research on the locations of theaters in Cologne. They are mapped on the diagram on the left. Almost all of them are located north from the East-West axis, which indicates that the street acts as a border – not only in spatial way, but also in a programmatic one. There are a few small cultural centers south from the axis, which combine variety of activities, theatrical performances as well. Though, not a specific building, which accommodates only this kind of performances, is present. Most of the theaters in the inner city are located west from Nord-Süd-Fahrt. Only two of them are located east from the street, one of them – Hännescchen Theater is a small puppet children theater. The other one – Senftöpfchen Theater combines theatrical performances, musical concerts, cabaret. Generally, the area between Rhine and Nord-Süd-Fahrt has a strong potential for a cultural program, such as a theater. It has convenient location, possibility for combining activities (before and after a performance) and currently does not have many alternative places implementing this function.

1. Hännescchen theater
2. Senftöpfchen theater
3. Tiefrot theater
4. Theater am Dom
5. Theatergemeinde
6. Klüngelpütz Kabarett Theater
7. Scala theater
8. Gloria theater
8.2 Zoning, dimensions

Types of stages

Composite audience flow chart

Actors flow chart

Elevation of seating

Ceiling shape and sound reflection

Pictures:
1. Theaters and auditoriums, Edward C. Cole
2. Theaters and auditoriums, Edward C. Cole
3. Architects’ data, Neufert
4. Architects’ data, Neufert
8.3 Theater buildings

Theater & Jazz center, 3XN

Zafra theater, Enrique Krahe

Pictures:
website: http://www.architecturenewsplus.com/projects/2632
http://www.archdaily.com/120538/municipal-theater-of-zafra-enrique-krahe/
Ampion theater, Mecanoo

Pictures:
website: http://www.archdaily.com/79845/schouwburg-amphion-mecanoo/plan-02-70/
9. DESIGN

The basic architectonic language of the design derives from the formal morphological research. When applying the function within the form the design experiences some more changes, transformations and readjustments.

Typically zoning in theaters of audience and performing artists is very strict and clearly defined. The auditorium hall is the intersection point of these two groups. Three main zones comprise a functional organization of a theater front stage – stage – back stage. In my design this separation is not that strict – the flows of audience and actors are functionally separated, but there is a frequent visual connection between them. In this way more dynamic relation between audience and performers is created. I will describe my design through these two main types of users.

9.1 Theater experienced from a visitor's point of view

The basic ways for a visitor to reach the theater are by car, public transport or a walk. Because of the difficult traffic in the area and the large amount of parking buildings I did not include parking spaces in my design. Another concern is the desire for reduce of car use in the inner city. Nevertheless, if people attend the theater by car they can use the parking on Quatermarkt, which is one block away. There are different options for public transport – there is a metro station on Altermarkt, bus stop on Quatermarkt and tram stop at Heumarkt. All of them are within two minutes of walking distance. Pedestrians are expected to approach the building mostly either from Heumarkt or west from the area around Hohestrasse. The north bordering street, Obenmarspforten, accommodates a lot of pedestrian traffic in comparison to the east and west streets of the plot. This fact determines the location of the main entrance of the building – facing north. Also, the covered square acts as a welcoming and waiting space. It is common that people meet before a performance, so the location provides this possibility. The theater’s workshop is open to the square curtain glass façade – is gives an opportunity even for passing people to take a look into the process of decor making. This creates more active façade, which is engaged with bringing extra atmosphere in the street. The building defines three main types of spaces – the welcoming square, interior space and an inner courtyard. Even from the square the courtyard can be seen, because of the curtain glass façades. This transparency and openness enables the courtyard to become part of the square and expose its inner quality. Gradually revealing the building, when approaching to it, was an intentional objective of my design. These three types of spaces /in front, in middle, at the back/ generate dynamic relation between the flow of the street and tranquil quality of the courtyard.
Approaching from Hohestrasse

Welcoming space
When a visitor enters in the theater building he’s welcomed by a bright open space of the foyer, which faces the courtyard. Next to the entrance are located the ticket office and wardrobe. On the ground floor a conference hall is located, which serves for presentations, meetings, and symposiums. A big staircase leads to the first floor, where the main entrances of both auditoriums are located.
The east part of the ground floor is where the coffee-bar is located. It is open to the courtyard and in summer days it can take advantage of it. An important aspect of the place of a theater in the city is related with the user value at the time when there is not a performance. The courtyard and the coffee-bar of the theater can be used apart from a theatrical event. They can offer an intimate, peaceful atmosphere in the inner city. The courtyard is separated with the private yards of the existing buildings with a perforated steel fence with vegetation. The interior of the building block contains these both types of courtyards, while they are clearly separated and do not obstruct each other’s functionality.
The lobby on the first floor is a large open distribution space with visual connection to the ground floor, second floor and the zone of the artists. It provides the main entrance to the big auditorium (right after the stairs) and an entrance to a smaller hall. Both halls are respectively designed for 200 and 80 people, which give an opportunity depending on the performance and visitor’s interest a suitable location to be chosen. The lobby itself is a dynamic space, which communicates visually with the whole building. Its character is defined by the light concrete structure and the wooden volumes of the auditoriums. Parallel stairs to the main hall provide the access to the next level.
The second floor has two more access points to the main auditorium. They lead to a lobby area with a nice view to Wallraf – Richartz museum and Rathausplatz. The area has a temporary bar, which can be used during a pause or after a performance. An open terrace ‘fills’ the space between the building and the existing building on the south, while its character combines both architectonic qualities. The whole composition of the theater accommodates a sequence of lobby spaces on different levels.
9.1 Theater experienced from an actor’s point of view

The entrance of actors, supporting and administrative stuff is located on the east side of the building – facing Steinweg. A welcoming bright foyer is located behind the closed stone wall. The building is an example of exposing different identities – on the outside it is closed, with small perforations and few big openings only on specific places, while the inside part of the building is completely open to the block’s interior. I intended to challenge the notion of theater as ambiguous element and to confront a passive outer façade against an open internal one.

Because of the slope of the terrain the second entrance is 1.80m below the main level, which generates a possibility for an extra level of this part of the building. The foyer is connected with a meeting room and a library.

Approaching from Steinweg
The extra level I mentioned earlier is used for rest space with a small kitchen. It has a terrace, facing the courtyard. The composition of levels enable when actors or administrative staff is using the stairs to have a view towards the coffee-bar below.

The main level of the actor’s tract is located above the coffee-bar and accommodates all the necessary spaces for a performance and its preparations – clock rooms, make up rooms, rehearsal and etc. Behind the scene is located waiting space for actors - green room, which has big window openings with a nice view towards Marsplatz and Altermarkt. The spaces are arranged in a row and the access is provided by an open passage.

As mentioned before the design of the building experience transformation in height and I used this opportunity to design stepping back floors, which leads to more dynamic vertical communication between levels and variety of spaces. For example, the rehearsal room can be watched from above and presence of loft office space is important objective of this part of the building.
1. lobby
2. ticket office
3. garderobe
4. conference space
5. cleaning office
6. workshop
7. scenery storage
8. loading dock
9. cafe
10. storage
11. kitchen
12. actor’s reception
13. administrative office
14. meeting room
15. library
16. resting space
17. kitchen
18. inner balcony
19. terrace
20. rehearsal room
21. changing room
22. makeup room
23. quick changing room
24. green room
25. stage
26. lobby
27. administration
28. theater manager
29. stage manager
30. photo & video studio
open office space
31. scenic designer
32. director
33. costume designer
34. costume room
35. control booth
36. gallery
37. catwalk
38. ventilation system
39. installations
Bird perspective from north-west
Structural design

The structure of the building is executed by concrete. The auditorium is structurally independant element - its stability is provided by the two longitudinal walls, which are connected by massive beams. Because of the big spans of the main auditorium the floor plates are made of prestressed hollow concrete panels. For the rest part of the building monolith concrete is used.
limestone tiles 3 cm
hydro insulation
concrete 8 cm
thermal insulation 10 cm
thermal insulation 25 cm
concrete frames 55 cm
vapor layer
plaster/board

cement beams 13x25

cement frames 25x40

gallery
limestone cladding cavity
thermal insulation
vertical profile
concrete frame 25x55 cm

limestone tiles 3 cm
hydro insulation
concrete 8 cm
thermal insulation 10 cm
thermal insulation 25 cm
vapor layer
plasterboard

concrete beam 13x25

gutter

costume room
photo & video studio

- wooden floor
- adhesive
- damp resistant primer
- concrete top 8cm
- hollow prestressed panels 20cm
- suspended ceiling
- wooden panels

hidden lighting

green room

Detail 2

scenery store

- limestone cladding
- cavity
- thermal insulation 7cm
- vertical profile
- brick wall

- polished concrete 10 cm
- concrete foundation
- cement base
- thermal insulation 10 cm
- 2 layers of hydro insulation
- gravel

Detail 3
East street front

West street front
Conclusion

The project aims to achieve a coherent urban intervention into a complex city environment. It reacts to the historical past of the plot, the current morphology of the area and new plans for urban development. The design method is based on a sculptural approach, by extracting relevant pieces both in the volume shaping and the façade organization. It introduces a new way of completing a building block, within an area of exceptions and irregularities. The result is a contextual design, which can function only because of its surroundings. The program application seeks to improve the social and public life in an area, which has a strong potential, but has not fully developed yet.
10. REFERENCES

books:
Rowe, C. – Collage city, MIT press, 1984
Cullen, G. – Townscape, Routledge, 1995
Diefendorf, J. - In the wake of war: The reconstruction of German cities after WWII, Oxford University Press, 1993
Rosenfeld, G.D; Jaskot, P. – Beyond Berlin: 12 German cities confront the Nazi past, University of Michigan Press, 2008
Lepic, A., O.M.Ungers-Cosmos of Architecture, Berlin, Hatje Cantz Verlag, 2006
Wollf, G. - Das römisch-germanische Köln, München : Callwey, 1977
Lorsch, W. & Hirsch – Material Time, Verlag der Buchhandlung Walther Konig, 2010
Panerai, Ph., - Urban forms. The death and life of the urban block, Architectural Press, 2004

articles:
Curdes, G. - Urban form and innovation: the case of Cologne, Aachen 1997
Speer, A. - STÄDTEBAULICHER MASTERPLAN INNENSTADT

websites:
http://www.bilderbuch-koeln.de/
http://www.as-p.de/office/profile.html
http://www.museenkoeln.de/archaeologische-zone/default.asp?schrift=&lang=