2017

ŠKODA MUSEUM

architecture portfolio
by
ognjenbaćević

CONTENT

Curriculum Vitae | 1.0

This portfolio records the work I did for my final Diploma thesis. Subject of the portfolio is Škoda car museum in Prague district Michle. Portfolio contains the design process from the analysis to the concept design and final design proposition.

Book design is being done under inspiration fo the italian designer and book maker Massimo Vignelli.

personal information

name/surname: Ognjen Bacevic
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education

High school - Classical Gymnasium, Budva, Montenegro	2008-2012
Faculty of Architecture, Novi Pazar, Serbia	2012-2013
Faculty of Architecture, Belgrade, Serbia	2013-present

skills and competences

computer and software

Autocad 2D	●●●●●
Autocad 3D	●●●○○
SketchUp	●●●●○
Adobe Photoshop	●●●●●
Adobe Ilustrator	●●●○○
MS Office	●●●●●
Lightroom	●●●●○
Autodesk Revit	●●●●○
Autodesk 3ds Max + Vray	●●●●○
Windows	●●●●●
Mac OS	●●●●●

language

english	●●●●●
italian	●●●●○
spanish	●●●○○
russian	●●○○○
Serbian (native)	

interests

sports, traveling, photography, cars, playing the guitar

Architecture as Storytelling | 1.1

Architecture for me is, at the same time, complex and simple process of creating new, different and usefull things. It provides opportunity to change the world.The best thing is, that, there are no limits. We are free to make whatever we want. In the meantime, we create our unique style, which we are recognised by. I like the possibility of making architecture without great costs. Architecture that is usefull for everyone.For me architecture is divided in two parts: "my" and "the other" architecture. When I want to create something for myself, I create it in my own way.I like to create unusual architecture that is convinient maybe only for me.Making "the rest" architecture means that I create general usefull architecture that sometimes I don't like the most.The study of architecture involves an exploration of diverse disciplines that influence the built environment. Architectural education is by necessity the most comprehensive course of university studies. It not only prepares students for a future in the profession of architecture but provides an extraordinary foundation for a multitude of interdisciplinary and related design fields.

'The life of a designer is a life of fight. Fight against the ugliness. Just like a doctor fights against disease. For us, the visual disease is what we have around and what we try to do is cure it somehow with design. '

Massimo Vignelli
Film Helvetica

portfolio master thesis

subject/ Škoda museum
author/ Ognjen Bacevic
supervisor/ doc. Dr. Henri Hubertus Achten
Faculty of Architecture CTU
Czech Technical University
15116 Kabinet modelového projektování
Atelier 203/ Achten-Pavlicek
winter semester 2017/2018

I dedicate this Diploma project to my family. They're the reason I became what I am today. I would like to thank them for being my unconditional support through these years.

Special thanks goes to Doc. Dr. Henry Hubertus Achten and Ing. Arch. Jiri Pavlicek for guiding me throughout this project. I have learned lessons beyond this project. I hope to have more inspiring and valuable talks with them in the future.

CZECH TECHNICAL UNIVERSITY IN PRAGUE

FACULTY OF ARCHITECTURE

AUTHOR OF THE DIPLOMA WORK / DIPLOMA PROJECT : Ognjen Baćević

Academic Year 2017/2018, Winter Semester

TITLE OF THE DIPLOMA WORK / DIPLOMA PROJECT: ŠKODA CAR MUSEUM

LANGUAGE OF THE DIPLOMA WORK / DIPLOMA PROJECT: ENGLISH

Diploma Work / Diploma Project Supervisor **Diploma Work / Diploma Project Opponent**	**Ústav: Department 15116** Atelier Achten – Pavlíček doc. Dr. Henri Hubertus Achten **Ing. arch. Jakub Obůrka**
Key Words (Czech)	Muzeum ; Fasáda ; Škoda ; interiérů ; Šikmá ; flexibilitě ; zelení
Annotation (Czech)	Muzeum aut inspirované jednou z nejproslulejších českých značek, Škoda. Motivace vychází také z faktu, že Praha jako hlavní město nemá muzeum Škody. Tím, že Praha je jedním z nejnavštěvovanějších měst v Evropě, Škoda může být tímto způsobem viditelná a představena velkému počtu turistů, kteří do Prahy jezdí z celého světa. Designovaná lokace je v městské části Michle. Nachází se hned vedle magistrály, která je perfektním příležitostí pro svou frekventovanost a vysokou koncetraci lidí, kde představit auta. Dále díky vysoké urbanizaci se zde objeví stále více částí se zelení, která zvedá kvalitu života v přilehlém okolí. Tím na této lokaci vzniká přirozená spojnice mezi bloky. Šikmá místa v budově vedou k ušetření místa spojením komunikačního systému a výstavní plochy. Organizace interiérů vede k vysoké flexibilitě budoucího vývoje nebo změny funkční organizace. Fasáda slouží jako prezentační nástroj vozů v muzeu.
Annotation (English)	Car museum inspired by one of the most famous Czech brands, Škoda car company. Motivation is also fund in the fact that Prague does not have Škoda museum. By using the fact that Prague is one of the most visited cities in Europe, Czech brand Škoda can be promoted to the large number of the tourist all around the world. Design location is at Michle district. It is next to the highway, which is recognised as good opportunity for presenting the cars. This prediction is even more supported, if we know that, highway has a huge density of the people, in the traffic. Furthermore, urbanisation of the area brings green areas which will increase the quality of the life in the neighborhood areas. Area becomes communication promenade between blocks. Sloped plates in the building lead to space saving by becoming both communication system and exibition area. Interior organisation leads to high flexibility of the future development or change in the functional organisation. Facade acts as representation tool of the cars in the museum.

The Author´s Declaration
I declare that I have elaborated the submitted diploma work / diploma project independently and that I have stated all the used information sources in coherence with the "Methodological Instruction for Ethical Preparation of University Final Works".

In Prague on 12th of January 2017.....Signature of the Diploma Project Author

Czech Technical University in Prague, Faculty of Architecture

2/ ASSIGNMENT of the diploma project

Mgr. program navazující

Name and Surename: Ognjen Bačević

Date of Birth: 08/05/1993

Academic Year / Semester: 2017/2018 winter semester

Department Number / Name: Faculty of Architecture

Diploma Project Tutor: doc. Dr. Henri Hubertus Achten

Diploma Project Theme:
See the Application Form for DP
Škoda Museum, Prague

Assignment of the Diploma Project:
1/description of the project assignment and the expected solution objective
2/list of further agreed-upon parts of the project (model)
3/list of further attachments can be added according to necessity.
To this list further attachments can be added according to necessity.

1/ THE assignment focuses on creating a new contemporary conception for the Škoda museum building on exhibition area with one of the greatest potentials in Prague and its immediate surrounding. Location is on middle Prague's west to the highway.
Exhibition area is planned on 4800 m² in plan.
Design should provide - modern multipurpose building
- central museum management with design of direction
- historical car development timescape through exhibition
- visual connection to the building
- landscape solution (communication)
- clear approach from public transport lines.

Building outcome should bring: - up to 5000m² exhibition area
- cinema / projection room 300 m²
- multifunctional spaces (conference / meeting) 1500 m²
- cafe / restaurant / shops 4000 m²
- garage / parking 4500 m²

2/ 6p / graphic part: - floor plans 1:200
- site plans 1:200
- sections 1:200
- facade principle
- visualization (interior / exterior)

3/ scale model 1:250

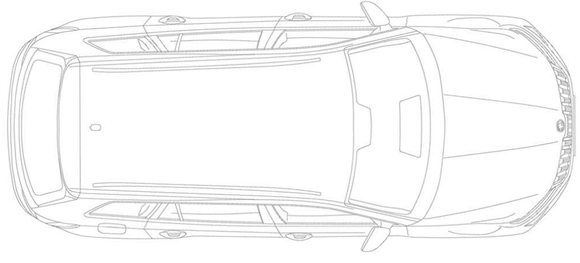
Date and Signature of the Student 11/10/2017

Date and Signature of the Diploma Project Tutor 16.10.2017

Date and Signature of the Dean of FA CTU

27-10-2017

In the following book content story is based on several design development steps. Attention has been payed not only on specific design, but also on the activities before, that lead to, hopefully good design. It's being presented from definition of the museum in the way that our attention is occupied in understanding what is the role of the 'museum'. What is its aim? What is being presented in those 'museums'? What do we get from presenting these things in 'museums'. Thesis subject is car museum so that analysis should bring closer all the necessary information such as: structure typology, presentation techniques, lighting conditions, facade principle. Definition of these tools was helpfull in decision making that are supposed to present the design in the proper way. Although, based on the research and the anaysis, design is of course fitting the surrounding environment. Outcome should've been compact and flexible design which brings advantages not only to the car exibition, but also to the public areas in and out of the building.



Škoda museum design is planned to be the mark up of the area. It is no concentrated just to represent the exellence of the cars. Its role is also to preserve the green areas and infiltrate the museum and park into one working system in the nodes type. That means that building is meant to be accessible, also, out of the working hours. These public parts of the museum should work as presentation/promotion units. Units are projected as amphiteatres, teaching rooms, conference rooms, galleries. Function of the building should result in separation from the landscape in the security direction, but in the same time should encounter and encourage people to use it daily. That way helps the museum to become place of people gathering from surrounding blocks in this green oasis. This should be particullary done in the essence of green eco concept that Škoda has with its electric and no polution cars.

History | 2.0

museums through the history are defined as institutions who present, preserve and interpret the material evidence of the human race, human activity and natural world. As such, museums have a long history, springing from what may be an innate human desire to collect and interpret and having discernible origins in large collections built up by individuals and groups before the modern era. The word museum has classical origins. In its Greek form, mouseion, it meant "seat of the Muses" and designated a philosophical institution or a place of contemplation. Use of the Latin derivation, museum, appears to have been restricted in Roman times mainly to places of philosophical discussion. Thus the great Museum at Alexandria, founded by Ptolemy I Soter early in the 3rd century BC, with its college of scholars and its library, was more a prototype university than an institution to preserve and interpret material aspects of the heritage. The word museum was revived in 15th-century Europe to describe the collection of Lorenzo de' Medici in Florence, but the term conveyed the concept of comprehensiveness rather than denoting a building. By the 17th century museum was being used in Europe to describe collections of curiosities.

Despite everything museums were not developed world wide. First museum boom through Europe was during second hald of 9th century. About 100 opened in Britain in the 15 years before 1887, while 50 museums were established in Germany in the five years from 1875 to 1880. This was also a period of innovation. The Liverpool Museums in England, for example, began circulating specimens to schools for educational purposes; panoramas and habitat groups were used to facilitate interpretation. As first gas lighting and then electric lighting became available, museums extended their hours into the evenings to provide service to those unable to visit during the day.

In this exampe from the very beggining we can see the significance of the lighting role, which will later be discussed in a more detailed way as relation between artificial and natural lighting. Important thing to understand is also that organisatio of the museums changed during years.

In the early 20th Century museums became political weapon. They were not following main museum ole to present the certain timeline of artefacts/activities, they became tool for presenting political movements.

Among other factors that have contributed to the development of museums since the mid-20th century is an increased awareness of the environment and the need to preserve it. Many museums became what they are today by preserving the nture also. We have examples of preserved parks and green areas which are protecte and consider as museum heritage of the country. This has led to the development of historic and natural landscapes as museums, such as the renovation of Mystic Seaport in Connecticut as a maritime museum, the use of Ironbridge Gorge as a museum to interpret the cradle of the Industrial Revolution in England, and the restoration of the walled medieval cities at Suzdal and Vladimir in Russia.

In Australia the heyday of the . gold rush has been re-created in the form of the Sovereign Hill Historical Park, at the gold-mining town of Ballarat.

Besides the museum buildings the most important part are the cars. The presence of the car museums is of course conectd to the years of car industry development. Year of 1886 is considered as birth date of the modern car. It is the year when Carl Benz, German inventor has produced Benz Patent-Motorwagen. Besides his invention, cars were not globaly available for people until early 20th Century.One of the first cars available for people is produced by Ford - model T.

Car engines have evoluted from steam engines to the internal combustion engines and cars with electric drive engines. Production is also increased rapidly since 20th century.

museum establishment timeline

Ennigaldi Nanna's museum

530 B.C

Capitoline museum

1471

Vaticani museum

1506

Royal armouries London museum

1592

Hermitage museum

1764

Belvedere museum

1781

Louvre museum

1793

1975

SAAB Museum

1978

Cite de l' Automobile

2000

Audi ingolstadt

2006

Mercedes Benz Stuttgart

2008

Simeone Philadelphia

2009

Porsche Stuttgart

Exact date of first car museum is not familiar, but we can assume by the production of the cars when are the first exibitions created. Ofcourse some period of the time was necessary to get the 'material'. That's why first shapes of car museums can be considered in different car showcases and exiitions through the history. On the other side development of the modern museum is growing rapidly, often without special limitations in the exibition .

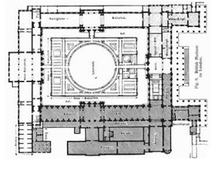
Typology development | 3.0

From te history indentification we can see the typical development of the museums. The development was conditined by several influences.

Very first ones that we saw in previous analysis were insired by classical architecture. Exibition was consisted of paintings and statues. Main intention of these exibitions was preservation. Typical examples are Pantheon or Glyptotek in Munich. Most of these museum copied portikus as an entrance gate.

.Target group of the museums were materials which can be used for educattion and research. Visit was permitted only after correspondence invitation. At the very beggining they were only available for middle and upper classes Usually used copies of artworks. Real ones were sealed. Development of the museum begins with establishing in almost every country in the Euope. Main aim is sense of national belonging and making knowledge a public resource.

Rijksmuseum library

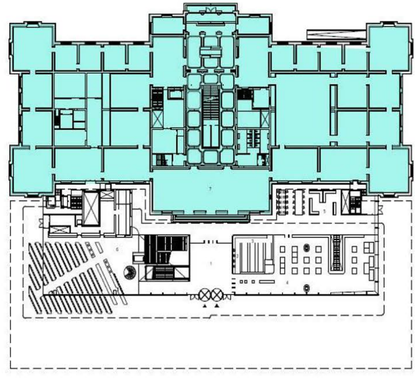


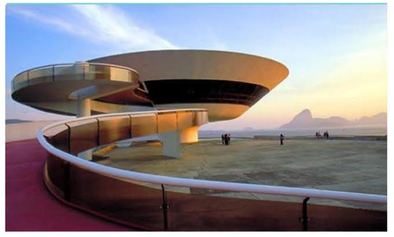
With the industrial revolution and presence of new materials such as steel, glass and concrete, began new era for museums. They started to experiment with the space. Also years of industrialisation and production affected the change of the exibition subjects. Mies Van Der Rohe made a step forward with the gallery in Berlin in direction of the use of artificial and natural light sources. Museum became Architectural icons. They didn't attract famous artists because of the organisation. Rounded walls are not suitable for exhibiting paintings. At first these changes were hard to accept due to the space unflexibility.

Gallery Berlin

Museums became not only research and preservatons centres. Now they aremeant to be architectural icons. They don't represent only the exibition subjects as heritage. They are now becoming also sign of recognistion of the architect, city and the state. They are simply landmarks of the area. They are creating the panorama of the certai city in global view.

Stedelijk museum





Dear George,

Your subcontractor for Gunite is or undoubtally [sic] should be bound to give you a job where no form-marks are visible to such an extent that they show through the fin- ished coating when applied.

I am sure your good conscience and pride in your work would tolerate nothing so derogatory to the work as a whole consequently to your future reputation as a builder – not to mention mine as an architect.

Therefore will you kindly go over the outer walls and properly prepare them for coating wherever this has not been done.

In Gunite work done for me in the past this has been insisted upon and no less should be done here.

I will go over the work with you and point out the defects if necessary.

But this should not be necessary as I believe your good conscience should take care of your own interest and that would be my own interest as well.

I will be in town next Monday to go over the building with you.

Sincerely,

Frank Lloyd Wright

Letter of the Mr Frank Lloyd Wright during construction of the Guggenheim museum. It's clearly showing the essence and importance of the building as recognition mark. It is visible how the architecture of the buildings became maybe even more important than the function. In some kind of the way they predicted creation of new caracteristic panoramic look of the cities and they undoubtly wanted to be perfect part of its new look. New built era has just started

Typology development | 3.0

Transport museums are developing , also with the industrialisation. The big industrial boom developed a lot of infrastructure and transport means. As they were being developed more and more need for showcasing it started to get bigger and bigger. In the way of construction it is developed into huge wide span areas which became also statics encouraging task. Palaces of knowledge and science kept its disposition but in much bigger scale.

Washington D.C. Space museum

Washington D.C. Space museum

Museum of Tomorrow Rio de Janeiro

National Technical Museum

Washington D.C. Space museum

Vasa Museum, Stockholm

Fram Museum, Oslo

Typology | 3.0 development

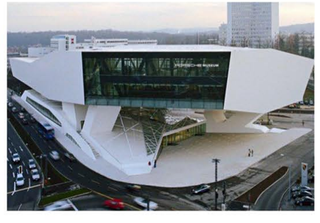
Future of the museums goes in several directions. Most of them are based on Profi based buildings, saving space by virtual reality,Service oriented More child-friendly, Can be research based, Exhibiting prototypes Promoting new ideas Funded by government or technology companies.

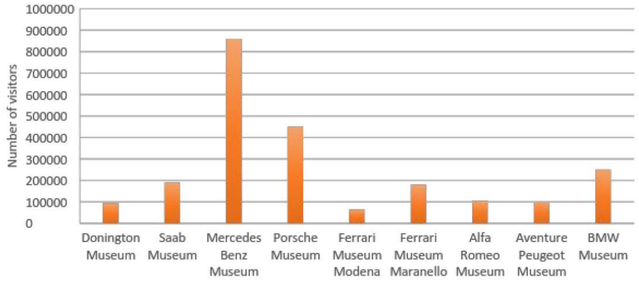
"Anonymous" museums buildings

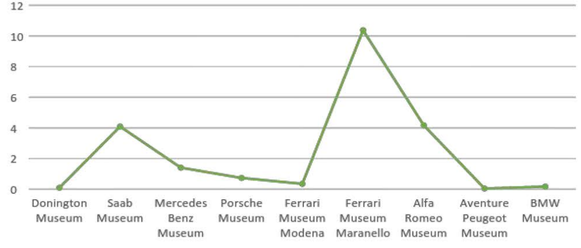
This type of museum doesn't display its real function, it seems a neutral box that contains the main character of the building: the inside exhibition. It puts to one side the aestethics of the building in order to highlight the contents. This typology is usually based on the reuse of previous buildings, that are restored and used with other purposes.

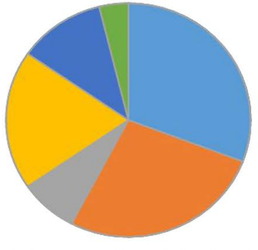
"Eye-catching" museums buildings

This examples show how the building becomes a work of art and a theatrical space that is more important than even the works on display. These big and scenographic buildings attact people not only for the exhibition itself but also for the construction. In many cases, they are built following sinuous lines, that reminded the aerodynamic shape of a car.









Typology | 3.0 development

What affected the number of the visitors?

• Dimension/relevance of the city

• Position, we can have:
- Isolated place
- Suburb
- City centre

• Museum name importance (brand...)

• Exhibition

• Means of transport (car, train, bus...)

• Other (exclusive visitors, facilities, enriched areas)

• Free admission

All of these conditions we can submit under motivation matter. All of these conditions affect visitors motivation. It is just the question if it's gonna bring it in the wright or wrong direction. Motivation throught some unordinary actions and happening can result in visit increase. On the other hand expenive tickets, or not good connectivity denies poeple. Every state above has two ways of exploatation. Bad and good one.

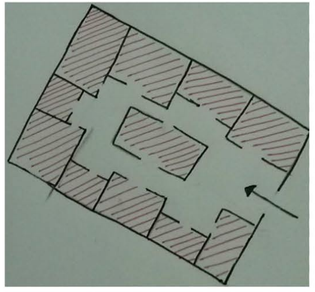
Typology | 3.0 development

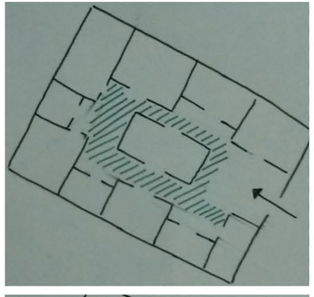
We have several types of exibition/museum organisation. Three types are dominant in today's museums.
First one is by the organisation of the exibition space. Tandem type, connecting all exhibition rooms,Radial type, all rooms arranged around an atrium Hall type, centralizing most exhibition spaces into a comprehensive hall.

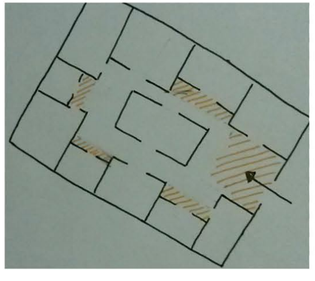
Second one is by traffic space. The bond that links other kinds ofspace.Usually, it makes full use of the space of atrium to organize transportation in order to enriche spatial perception.

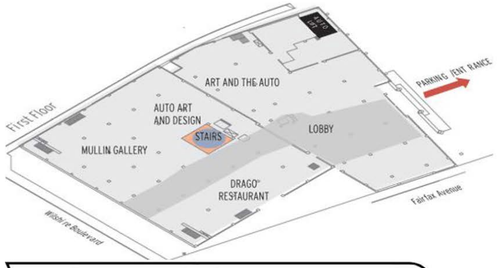
The third one is rest spce organisation. Specialized rest space, in area where there is concentrated steam of audiences and spacial overlap. Rest area along the aisle, intersection, close to exhibition rooms.

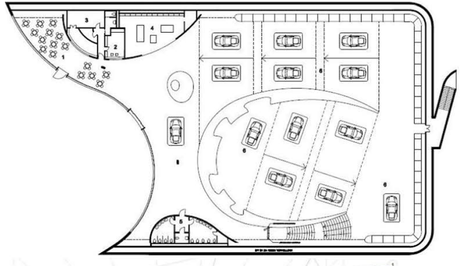
By the interior organisation we can define people movement through museums.
- free path: In this kind of museum there isn't a specific path to follow: visitors can do their own tour.This typology is more chaotic than the previous one but allows more flexibility.

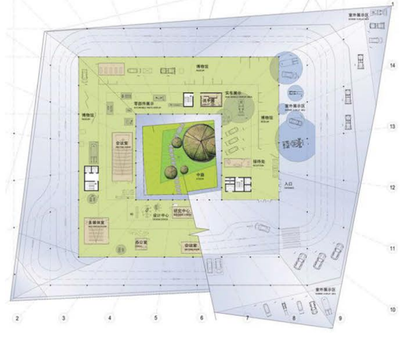


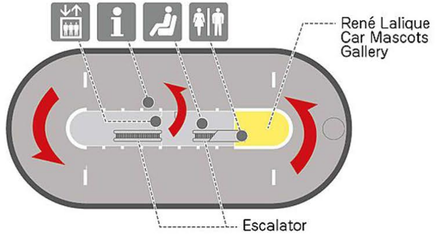


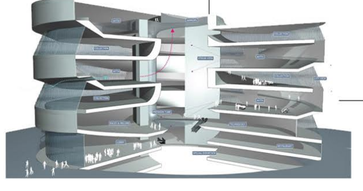


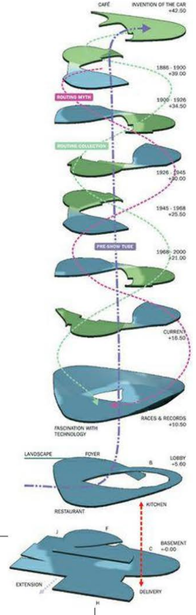


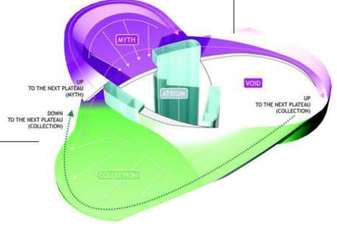












Typology | 3.0 development

Guided path is second option in determing moving concpt of museum. We can see that the path is predetermined and visitors can only follow it. This kind of museum allows to see each part of the exhibition with specific and coherent visiting circulation, but less flexibility. In many cases, the shape of the path remembers a car track.
Example is visible in short case study of Mercedes museum in Stuttgart.
The building is based on a clover-shaped footprint extruded upwards to create a bulbous. The leaves of the clover rotate around a central stem-like atrium that brings light into the deep plan. In section, things are more dynamic, with two continuous ramps spiralling around each other in a double helix, connecting single and double-height plateaus of exhibition space. Circulation is from the top downwards, with visitors transported up through the atrium in a bank of lifts to the starting point of the exhbition route on the topmost floor, the aim is to generate a changing and surprising promenade, with shortcuts, through views, enclosed and open spaces, all continuing to add incident and variety to the visitor experience.

Typology | 3.0 development

Important thing to define is also location of the museum. According to the location we decide about further facilities inside. One example is, if the museum is outside of the city center, it is definitelly recomended to have more relaxing/gastronomy/fun/unusual amenities which will make the difference between everyday museums that we can see nowdays. Simply, it needs to have something what will make you to spend a few hours there.

Location of museum:
- city center
- suburban sites
- behind borders of city

1. location in the city center
small sites leads to smaller buildings.
Reachable from city center by foot
Good infrastructure around (parking lots, restaurants)
Crowds people
Big amount of accidental visitors
Short visits (less than 2 hours)
facilities:
Exhibition area
Conference room
Small cafeteria due to lots of restaurants around an lack of place inside
Small parking space for visitors due to public transport reachability and parking lots around
Souvenir shop

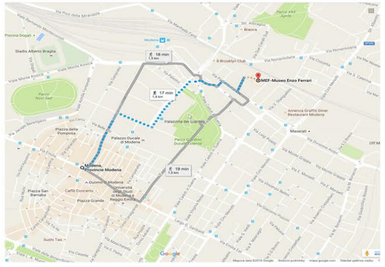
2. location in suburban areas
Much bigger sites for bigger building or complex of building
Reachable by public transport
Less civic amenities
Longer visits (half a day visit)
Visits are mostly planned
Larger exhibition area
Stages
Meeting rooms
Restaurant and cafeteria
Relax zone
Bigger stores
Spaces for events
Bigger parking space for visitors
Enriching facilities:
Different pavilions
Amusement schooling activities (small track, obstacle course, driving courses)
Amusement forkids
Casino
Hotel

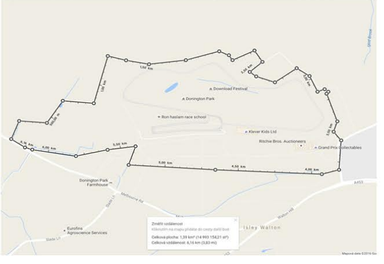
3. location is behind borders of the city
Very big sites
Reachable mainly by car
All civic amenity inside
One day visit or longer
Visits a planned
Facilities:
Tracks (main attraction)
exhibition areas
Good infrastructure for visitors
Big parking area
Spaces for kids
School for drivers
Spaces for events
Spaces for meetings and conferences
Shop

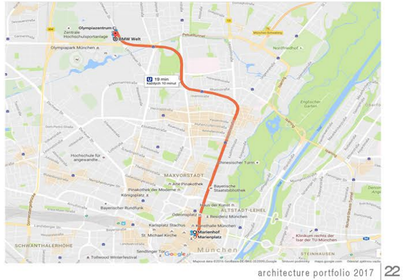
1. Ferrari museum, Modena Italy

2. BMW Welt, Munich Germany

3. Doningthon, Leicestershire, UK







Exibition techniques | 4.0

Museum are faced with the challenge of designing appealing exhibitions, handling large volumes of visitors, and conserving precious artwork. All of that sometimes demands mroe than just simple input of the artefacts.

We can divide techniques on:

-Passive: Physical value

1 Visual environment
2 Car placing
3 LED display
4 Projection mapping

-Interactive: Intellectual value

1 Structural models
2 Multi-touch screen
3 Transparent display
4 Augmented reality

-Active: Emotional value

1 Driving simulator
2 Virtual reality
Interactive projections
3 Creative games
4 Visitor system

2. location in suburban areas
Much bigger sites for bigger building or complex of building
Reachable by public transport
Less civic amenities
Longer visits (half a day visit)
Visits are mostly planned
Larger exhibition area
Stages
Meeting rooms
Restaurant and cafeteria
Relax zone
Bigger stores
Spaces for events
Bigger parking space for visitors
Enriching facilities:
Different pavilions
Amusement schooling activities (small track, obstacle course, driving courses)
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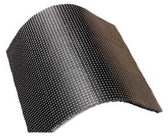
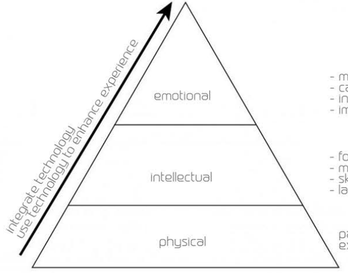
Spaces for meetings and conferences
Shop

Passive physical value



projection mapping



- motivate visitors: target an audience
- captivate curiosity: use storytelling techniques
- interaction: give visitors a fun experience
- immersion: engage visitors with a story

- focus content: avoid information overload
- modularity: use themes, avoid over-complexity
- skimmability: ease understanding f information
- layer content: hierarchical information

patterns: integrate circulation patterns
exhibit sequence patterns

visual enviornment

car placing

led display

Visual environment
Color
Text
Image
Texture
Light Staffage

Car placing
overhead
vertical
Rotating platform
Diameter: 5-meter
Height: (without top): 305mm
Speed: 0.2~1Rpm
Loading: 3,000Kg
Top Surface: 18mm thick MDF board / 19mm thick Plywood /
4mm thick diamond steel plate / 6mm thick diamond aluminum alloy

LED display
Brightness: 1100 NIT
Panel Size: 288x144mm / 11.34 x
7.56 In
Weight: .39kg/.86lbs
Avg. Power Consumption: 220 W/per Meter Sq

Projection mapping is a projection technology used to turn objects,
often irregularly shaped, into a display surface for
video projection.
Lamp life: 2,500 h
Native resolution: 1024x768 (XGA)
Dimensions: H:250 x W:675 x L:530 mm
Weight: 23 kg
Power consumption: AC 230 V ~ 50 Hz /
550 W

Exibition techniques | 4.0

Interactive: Intellectual value are tools for exploration of facts and context

1 Structural models
Acrylic transparent body Sections

2 Multi-touch screen
Available Sizes: 32 - 90" - Other sizes are available upon request
Overlay Thickness: 8.6 mm
PQ Labs SDK / Windows Native Touch / TUIO
USB Extension - 100 meters with Extender

3 Transparent display
The highly transparent HoloPro™ film is safely embedded between two panes of glass.
Horizontal visibility angle: +/-45°
Vertical visibility angle: +/-15°
Resolution:Only depends on projector
Standard sizes: 20" - 100" diagonal (4:3 format) up to 128" diagonal (16:9 format)
Max. glass dimension: 2.50 m x 6 m

4 Augmented reality
is a live direct or indirect view of a physical, real-world environment whose elements are augmented (or supplemented) by computer-generated sensory input such as sound, video, graphics or GPSdata.

structural model
transparent display

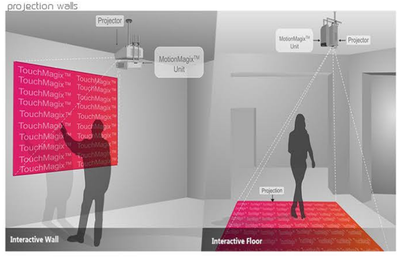
car simulator
VR reality

augmented reality

touch scren

structural model

projection walls



Exibition techniques | 2.4

Active: Emotional value Tools for experience, play

1 Driving simulator
Length: 1500mm
Height: 1100mm
Width: 1000 - 2500mm

2 Virtual reality
uses software to generate realistic images, sounds and other sensations that replicate a real or create an artificial environment

3 Interactive projections

4 Creative games

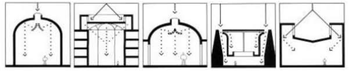
5 Visitor system
cloud of information
the learning objectives
selected favorite artwork
end goal: apply the knowledge gathered to create own gallery

Lighting | 5.0

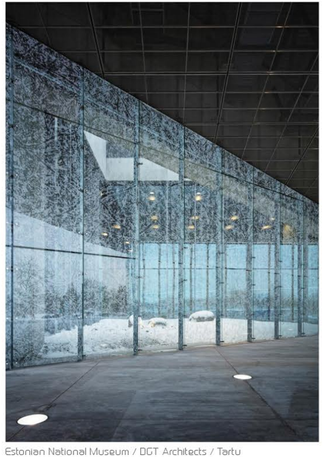
In the push towards sustainability and green design, daylighting is becoming critical to energy efficient design. In most situations daylight can be easily incorporated into building designs, however museum designs provide a special challenge. Unlike most building situations, where direct sunlight can occasionally grace a surface, museums require that the UV exposure from direct sunlight be completely controlled in order to protect the integrity of the art and artifacts on display.

Why daylight?

- Daylight provides better color rendering than electric lights, meaning that artifacts can be observed more closely to their actual resemblance.
- Daylighting additionally provides energy savings for the museum by minimizing the amount of electric lighting required during the day to illuminate the museum. Over a period of time, these savings can help pay back the potential additional cost of construction from daylighting.
- Daylighting improves the quality of experience of the visitor by providing a connection to the outside and showing the passage of time as the light changes throughout the day.
- The Illuminating Engineering Society of North America (IESNA) lighting guide entitled Museum and Art Gallery Lighting: A Recommended Practice comments that: Effective daylighting can provide psychological and economic benefits. Psychologically, daylight is everchanging and a constant source of visual interest. Although daylight is generally more expensive to control than electrical light, energy costs can be substantially reduced if daylight's use is well-planned. Poorly conceived use of daylight can result in high construction and energy osts, glare increased noise, condensation, leakage, and, most importantly, artifact degradation.
- "No space, architecturally, is a space unless it has natural light."— Louis I. Kahn
- "So this is a kind of invention that comes out of the desire to have natural light. Because it is the light the painter used to paint his painting. And artificiallight is a static light, where natural light is a light of mood . . . The painting must reveal itself in different aspects if the moods of light are included in its viewing, in its seeing. I think that's the nature, really, of a place where you see paintings." —Louis Kahn, Light is theTheme.

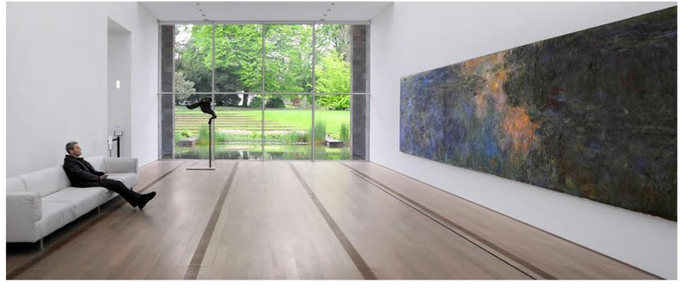


Kimbell Art Museum / Louis Kahn / Texas

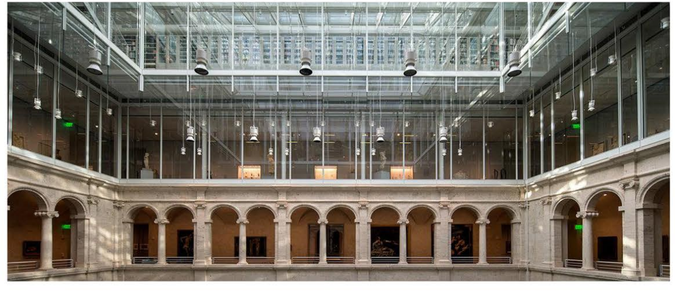


Estonian National Museum / DGT Architects / Tartu

Beyeler Foundation Museum / Renzo Piano Workshop / Riehen, Switzerland



Harvard Art Museums Renovation and Expansion / Renzo Piano + Payette



Objects	Maximum value recommended	Lux-hour per year
I. category	50 lux	54 000
II. category	150/200 lux	500 000
III. category	No limit (or 300 lux)	Depends of exposure conditions

Since the late 19th Century the destructive effect of light on colours and materials has been studied specifically in relation to works of art and museum exhibits. The full spectrum of daylight has been seen to be particularly damaging due to the Ultraviolet (UV) content and the high levels of light normally experienced. The colour quality of daylight is however not satisfactorily reproducible and this quality is highly desirable in the viewing of art and artifacts. A perceptual contact with the sky is also a strong and desirable contact between the displays and artifacts and the real world. without the museum building. these requirements of low level controlled lighting and the dynamic high level natural light are apparently in conflict and one of the principal challenges in designing the modern museum building is to develop a strategy to resolve these issues. Categories In respect of potential light damage museum objects can be considered in three broad categories:

I. Extremely susceptible to light damage: This category includes works on paper, textiles, naturally occurring dyes, Natural history exhibits including fur, feather, insect and plant material etc. This category of object requires strictly controlled lighting conditions.

Lighting | 5.0

II. Susceptible to light damage: This includes Oil paintings on canvas, most wood bone and Ivory and other materials painted or coloured.

III. Not susceptible to light damage: Metal most Stone , most ceramics and glass, wooden objects that have largely been used out doors or have otherwise lost their natural colouring through design or use

At a practical level objects that fall in the firstcategory above cannot be displayed under natural lighting. The levels for these need to be set to the narrow band before the eye loses the ability to fully appreciate colours. In nature this is the early morning when the sun is just below the horizon or the evening as the sun has set, controlling natural light to these levels creates a perpetual gloom, conditions not conducive to feelings of comfort and well being that you wish to enjoy in a museum environment.

- The second category of exhibits can be lit tolevels and with sufficient variation to accommodate changing natural light conditions in a much controlled way.
- The third categories of objects are easily displayed under natural lighting without substantial risk of damage.

Lighting | 5.0

Natural vs artificial light

On the one hand, the daylight defendants argue that most artworks were created with natural lighting conditions, and were also, during centuries, still exposed to them; opting for exclusive artificial lighting would result on visitor deprivation from observing the artworks subtlest qualities. On the other hand, daylight, with its variation and possibility for outside views, is more suitable to entertain the visitor than an artificial light system, which is more stable and monotonous. Furthermore, one must consider the inherent costs of using artificial light, which in some countries has to be imported. And finally, artificial lighting consumes electricity, which production has a negative environmental impact, with CO2 releases to the atmosphere.Artificial light defendants reply that daylight is the most damaging agent to pigments, textiles and other delicate art pieces. Also, that daylight is too variable, if compared with the constant and predictable artificial light; that artificial light is softer; that "white" artificial light can mimic the characteristics of daylight; that installing a daylight system adequate to climate conditions is considerably more expensive than an equivalent artificial lighting system; and finally, that windows suppression easily solves the issue of dust infiltration inside the buildings

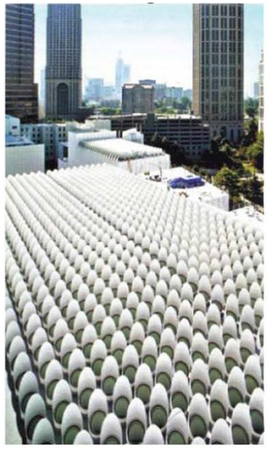
How to daylight museum?

Generally, there are some basic principles to follow and aspects to consider when daylighting a museum. The following list should help get you started:

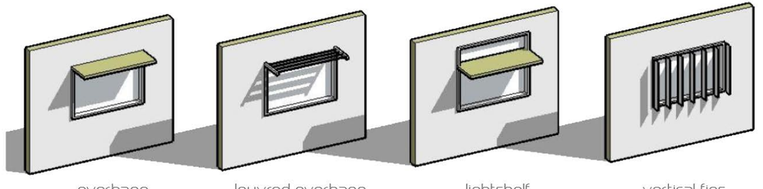
- Direct sunlight should be avoided completely in display spaces. The use of light shelves comes handy in such spaces
- UV exposure should be limited using UV filters. These filters can be built into the glazing and should be specified appropriately.
- Infrared should equally be avoided
- Daylight should be concentrated and directed to specific areas, and should, if possible incorporate artificial light

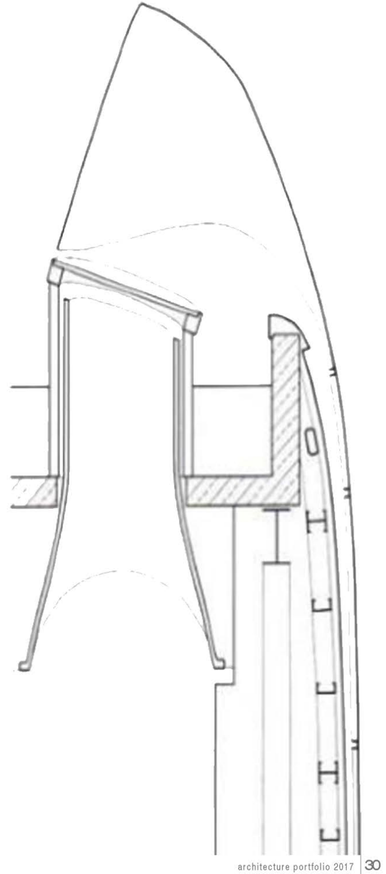
A range of components should be considered:

- side lighting (view windows),
- top lighting (clerestories and skylights),
- shading systems (interior and exterior),
- sensors (light and occupancy), etc.
- Reflected light technique—clerestories, lightshelves, etc.



High Museum of Art: Atlanta Atlanta, Georgia Renzo Piano Building Workshop

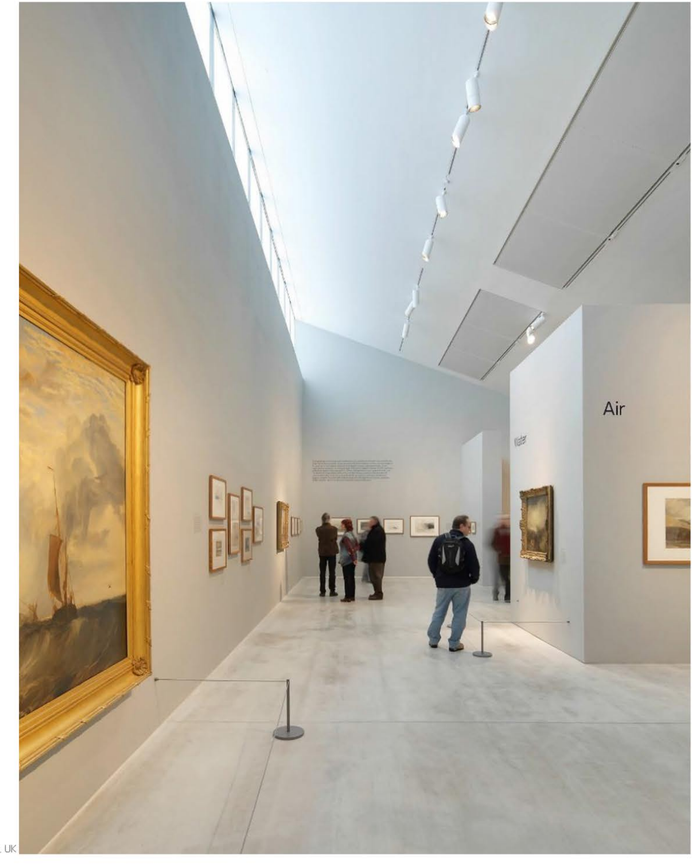




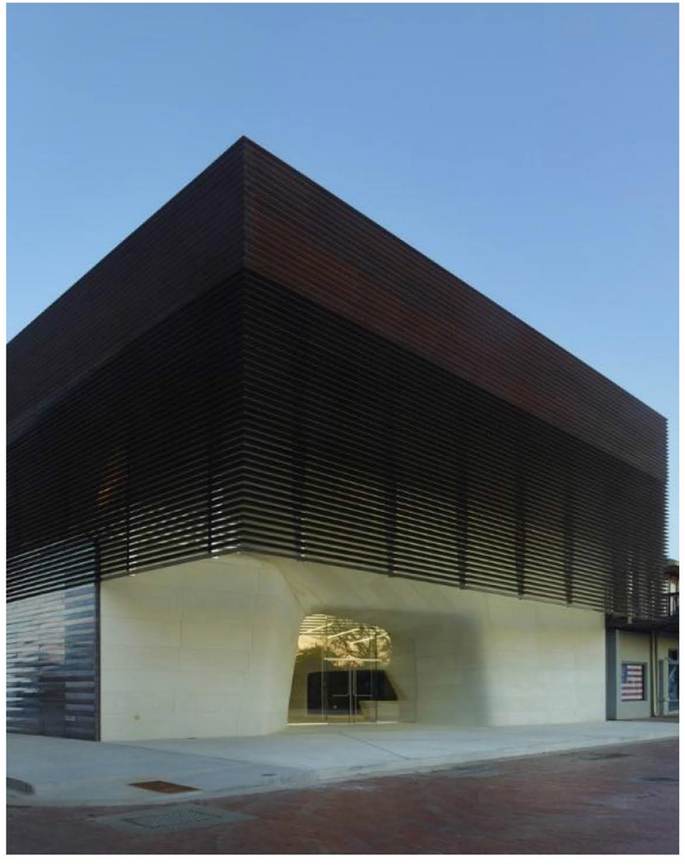
Wall and Roof Openings

Openings or apertures significantly allows much of light into a space base on the intention of what the space is meant for a museum design where much emphasis is place in day light absorption. Direction of window is critical, systematic approach of apertures vertically (windows) and horizontally (skylight), south-facing window (north-facing in the southern hemisphere) is easiest to protect. Figures show the approach of the museum, evidently, the window design which also intend to serve as shading device is poorly constructed and not suitable to bring in the desired light level thus causing dark areas on the displayed artifacts.

In as much painting suffers deterioration by directly light source (artificial or natural) glare has set in which cause poor appreciation of the artifacts on display. Artificial lighting elements as seen in figure above are not necessary in a situation where the day light is properly controlled into the display area. Light shelve introduced in areas as this will bring in day light covering a wider range of space in the display area. The forms of glare present in the display area can also be handled if the architect considers introducing from the design stage clerestory windows, making provision for enough head room to contain them. Clerestories (high windows) can provide 20 feet of daylight while horizontal sunshades above eye level provide good shade and less obstruction for light penetration.



Turner Contemporary Art Gallery, Margate, UK



Building orientation

The path of the sun as it rises and sets have great significance on a building's interior particularly with respect to lighting, literatures have reveal the orientation of building for optimal gain of day light, this orientation if well selected for display areas in museum considered will ease of any threat of poor visual appreciation of artifacts.

To maximize daylight advantage a building should have its longer end running east west and the shorter end southwards, it's also good to note that for maximal daylight use, display spaces should be in areas with the least daylight access, work areas in the west facing should be avoided due to late evening control of glare and overheating In a situation where there is need to control the amount of day light into the building, various options avails in design to include.

ii.Provision of double glazed window

ii. Light shelf

iii. Shading devices Louisiana

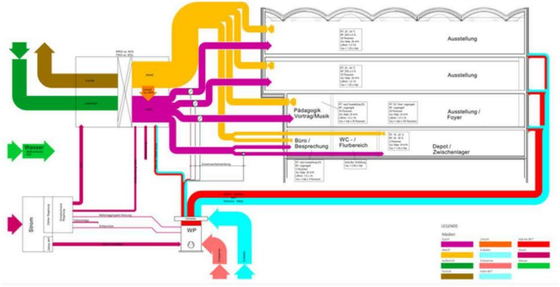
Technical systems | 2.4

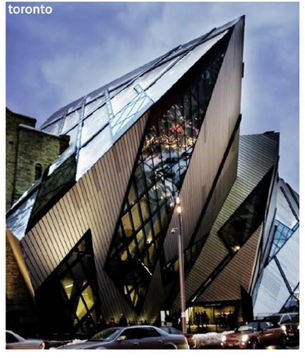
Important part of the museum building are heating/cooling/ventilation and fire safet systems.
There are a lot of the possible solutions. Some of them can be solved even with design, like it's the case with wind ventilated facades.

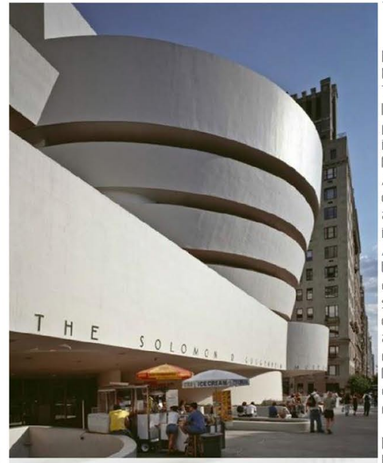
Fire safety an be also solved in several ways, depending of the situation. With active AFP fire protection and passive PFP fire protection systems.
Active ones are systems with pipes, sprinkles, extinguishers. Passive is prtection in the way such as building fire resistant walls, safety rooms and similar.

Means of evacuation and safety codes of the certain country are also clear direction in the safety question.

Ventilation systems/heating/cooling are in the most of the time set up as central systems with pipes and cables. It is necessary to have central technical/mechanical room from were it is possible to regulate these systems and units such as temperature







Technical systems | 2.4

Museums should have great buildings of public interest. They should be a landmark.
In order for building to work properly construction is very important, as for interior also for exterior.
After bad raster is chosen, it can ruin or limit some activities and amenities inside of the building.
Also important thing is the type of the museum and the exibition subject. It is not the same to create a construction system for airplane museum and car museum. Spans are different for airplane museums we definitelly know that we need much biger space.

Most of the old museum buildings are realised in already existing ones. Buildings wee not built at first to be museums. It can be a limitation in some cases. Nowdays museum building are mostly designed intentionaly for certain exibitiions.

Building tchnology also changed during years, so definitelly today we are not conditioned to have for exampe artificial ligh as dominant light source if we do not have the need.
Many construction systems are available that is impossible to specify all of them. Every separate case has the best solution for recent situation.

Škoda Auto, or in the World simply known as Škoda, is a car mnufacturer from Czech Republic It is headuartered in Mlada Boleslav in Czech Republic. It s founded in 1895 as Laurin & Klement. It has been, already 122 years ago. In 1925, from Laurin & Klement it became part of Škoda Works. During the Communist government it became state owned. After 1991 it is being gradually privatized and in 2000 it became fully owned by VW group as a subsidiary. Initially, the company was meant to serve the role of VW Group's entry brand. Over time, however, the Škoda brand has shifted progressively more upmarket, with most models overlapping with their Volkswagen counterparts on price and features, while eclipsing them on space.

The Škoda Works were established as an arms manufacturing plant in 1859. Škoda Auto (and its predecessors) is one of the five oldest companies producing cars and has an unbroken history alongside Daimler, Opel, Peugeot and Tatra.

In order to get to know Škoda origins, we need to go back in the 1890s. Back then many big car-establishing companies at the beggining started bicycle manufacturing. In 1894, 26-year-old Václav Klement, who was a bookseller in Mladá Boleslav, Kingdom of Bohemia, needed to have his German bicycle fixed. He needed spare parts. He sent the letter to the manufacturer in Czech language, asking them to carry out the repairs. Shortly after he got the answer in German language, saying that if he wants the anwer he should writte i language they understand. He was dissapointed with the answer and potential of the business. He decides to opet the bike repair shop, which he and Václav Laurin opened in 1896 in Mladá Boleslav. Before going into partnership with Klement, Laurin was an established bicycle manufacturer in the nearby town of Turnov. In 1898, after moving to their newly built factory, the pair bought a Werner "Motocyclette". Laurin & Klement's first motorcyclette, powered by an engine mounted on the handlebars driving the front wheels, proved dangerous and unreliable—an early accident on it cost Laurin a front tooth. To design a safer machine with its structure around the engine, the pair wrote to German ignition specialist Robert Bosch for advice on a different electromagnetic system. Their new Slavia motorcycle made its debut in 1899 and the company became the first motorcycle factory in Central Europe. In 1900, with a company workforce of 32, Slavia exports began and 150 machines were shipped to London for the Hewtson firm. Shortly afterwards, the press credited them as makers of the first motorcycle.

By 1905 the firm was manufacturing automobiles, making it the second-oldest car manufacturer in the Czech lands after Tatra. The company, with an area of 7800 m2, had a workforce of 320 and used 170 special machine-tools, power-driven by 100 hp of steam power. The first model, Voiturette A, was a success and the company was established both within Austria-Hungary and internationally.

After privatization and fusion with VW, in the following years, Škoda became the fourth brand of the German group, as the Volkswagen Group raised its equity share first on 19 December 1994, to 60.3%, followed on 11 December 1995, to 70%.

Václav Klement (16101868. - 10081938)

Václav Laurin (16101865-13081930)

1925 - 1934

This logo was used only on car radiators.
Cars produced during the L&K era bore the trademark Laurin & Klement on the radiator until 1929.

Emil Ritter von Škoda was a Czech engineer and industrialist, founder of Škoda Works, the predecessor of today's Skoda Auto and Skoda Transportation.

1913 - 1929

The word trademark Laurin & Klement first appeared in 1913.

1895 - 1905

The first logo of the L&K Company with lime tree elements symbolizing Slavic nations. It was used on bicycles and motorcycles of the Slavia brand.

1905 - 1911

This logo was used on the side of Slavia motorcycles fuel tanks.

1905 - 1925

This round logo with the L&K initials surrounded by a laurel wreath was inspired by art nouveau. It decorated the top of the Laurin & Klement automobile radiators.

1925 - 1995

The famous winged arrow has adorned the cars made in Mladá Boleslav for almost a century. Its origin is veiled in mystery and is a source of many legends.

1995 - 2011

The ŠKODA AUTO logo is perceived as one of the most original and stylistically pure in the world.

2011 - 2015

The winged arrow is much larger and more prominent in the latest version.

2016-now

One significant change concerns the wordmark, which moves underneath the picturemark with the winged arrow in a chrome ring.

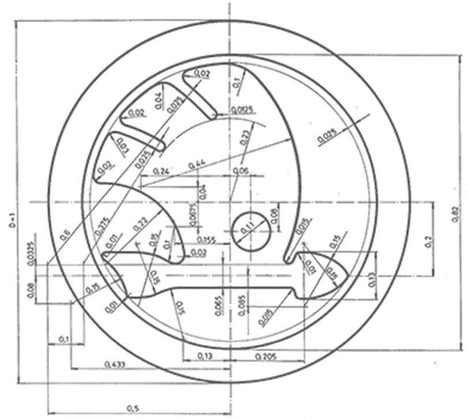
The commercial director of ŠKODA at the time,Tomáš Maglič, is considered the author of the idea.

A picture portraying a Native American decorating the ŠKODA Plzeň management office around the years 1918-1919 was likely his inspiration.

Two variants of the trademark were registered with the Office of Trademark and Design in Plzeň on December 15th, 1923.

The first variant, used in 1924 and 1925, was a winged arrow with a five-feathered stylized wing in a circle with the word ŠKODA.

The second variant showed a three-feathered winged arrow in a circle. The arrow in both variants pointed to the right. This stylistically perfect variant won and has not been significantly changed since.



ŠKODA

The Author

While it is clear that the design was not the work of an amateur, the author of the ŠKODA logo is not known. First class Czech sculptors Otto Gutfreund or Otakar Spaniel are rumoured to have been the authors.

Much of the historical evidence suggests, however, that the logo was probably the outcome of a competition called by the technical director of the ŠKODA headquarters in Prague, Dr. Ing. Sýkora, who also initiated the registration of the trademark.

The logo with the famous winged arrow first appeared on automobiles from Mlada Boleslav in 1926.

The logo was sometimes used in red in the 50s and 60s, also inverted if needed.

Models timeline

1895 - 1905

In 1895, Mr. Laurin and Mr. Klement found a factory for production of the Slavia bicycle. In 1905 the first car from the Laurin & Klement company is introduced. It is a small two-seat vehicle with 7 horsepower called the Voiturette A.


L&K Voiturette A
1905


L&K Slavia
1895


L&K B
1900


L&K CCD
1904


L&K CCCC
1904


L&K L
1904


L&K LW
1904

1906 - 1915

The manufacture of automobiles grows quickly. In 1907 the small factory becomes a joint-stock company. Thanks to good business connections, cars from Mladá Boleslav make their way, among other countries, to New Zealand, Russia, England and Japan.


L&K S
1911


L&K S6
1911


L&K S0-200
1911


L&K DN
1912


L&K O
1913


L&K T
1914

1916 - 1925

Car manufacturing is strongly affected by the World War I. The production of personal vehicles is almost stopped, and instead military vehicles are being made. In 1924 the factory was partially destroyed by a large fire, which led to the company merger with the engineering giant from Plzeň, ŠKODA.


L&K MF FIRE TRUCK
1917


L&K 450
1920


L&K 100
1920


L&K 350
1925


L&K 120
1925


L&K ŠKODA 110
1925

1926 - 1935

After the company merger, the factory is enlarged and equipped with modern line production. In 1930 the factory is struggling with the world-wide economic crisis and introduces to production a car with an entirely new concept - the ŠKODA 418 POPULAR becomes the basis for individual production lines.


L&K 360
1926


RAPID
1935


RAPID 1500 OHV
1935

1936 - 1945

In 1936 the car company is in first place among domestic automobile manufacturers and positive reactions are coming from other countries. With the coming of the World War II and occupation, production focuses on the needs of Germany. The factory is h[illegible] the end of the war.


SPORT CUPE
1937


SUPERB 3000 KFZ
1941


RSO
1942

1946 - 1955

After the war, Czechoslovakian economic activities are affected by the nationalization process. The branch factories in Kvasiny and Vrchlabí become a part of the company. The socialist era begins, which completely changes the direction of the Czechoslovakian automobile industry.
19481102 TUDOR1102 TUDOR


1102 TUDOR
1948


1101 FIGHT TUDOR
1946


SUPERSPORT 966
1950

1956 - 1965

The 1950s belong to the ŠKODA FELICIA, for which the demand was much higher than the production capacity. At the beginning of the 1960s, the factory undergoes an extensive modernization, and in 1964 the production line rolls out the all new ŠKODA 1000 MB.


1201 STW
1955


1100 OHC 968
1957


FORMULE F3
1964

1966 - 1975

Production of the leading model, the ŠKODA 1000 MB, and its derivatives, continues in full swing. This is the first model in the history of the company with more than one million pieces produced.


BUGGY
1971


SPIDER
1973


130 RS
1975

1976 - 1985

Production of the ŠKODA 110 R sport coupé is stopped in Kvasiny in 1980, and the next year production of the ŠKODA GARDE begins, which is later renamed to ŠKODA RAPID. Once again, the company is making a sporty two-door coupé.


105
1976


110 SUPER SPORT FERAT
1971


RAPID 135
1984

1986 - 1995

In 1987 the long-awaited and all-new model, the ŠKODA FAVORIT, goes to production. In March, 1991 the company begins a partnership with Volkswagen. Even the company name is new - ŠKODA, joint-stock automotive company.
1987FAVORIT 136LFAVORIT 136L


FAVORIT
1987


FELICIA
1994


FELICIA COMBI
1995

1996 - 2005

In April, 1996, the all-new model, the ŠKODA OCTAVIA is introduced. One year later comes the ŠKODA FABIA, and in 2001 a new luxury limousine in the upper-middle class is introduced, the ŠKODA SUPERB. Production facilities are built in Russia, China and India.

OCTAVIA I
1996

FABIA
1999

OCTAVIA II
2004

2006 - NOW

Within the last decade, ŠKODA has expanded and modernized its model range, including its first-ever SUV, and improved its overall design.

MISSION L
2011

YETI
2009

SUPERB III
2015

KODIAQ
2016

VISION E
2017

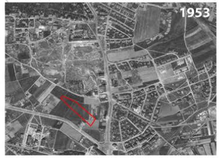
Location | 9.0

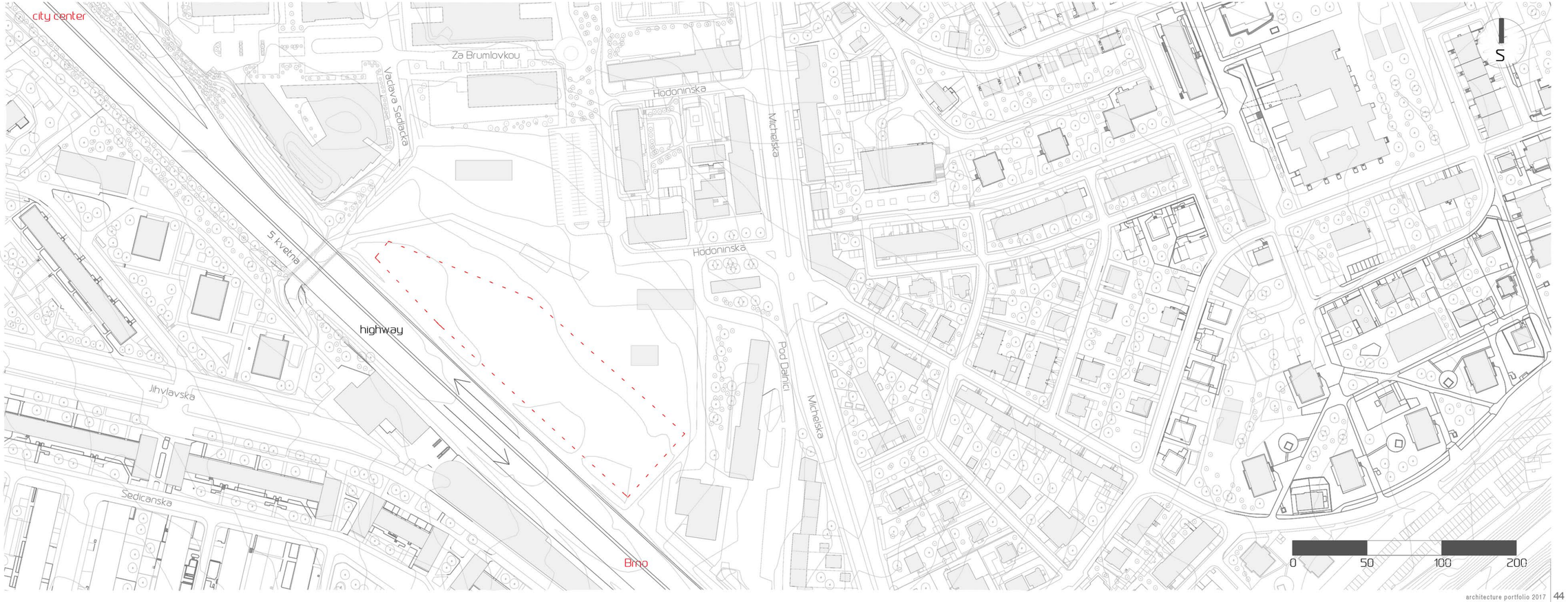
Proposed Škoda Car Museum site is located at Michle. Michle is a district of Prague city, part of Prague 4. It has been part of Prague since 1922. It is located in the South of Prague. Occupies 24.19 km². Population density is 130,287 from 2008.

location

Location | 9.0

Proposed Škoda Car Museum site has 11.000m². You can see the borders of the location marked in red. Wider location is indentified as greenery/park. It is placed nex to the park. It is next to the highway, which is recognised as good opportunity for presenting the cars. This prediction is even more supported, if we know that, highway has a huge density of the people, in the traffic.





Location | 9.0

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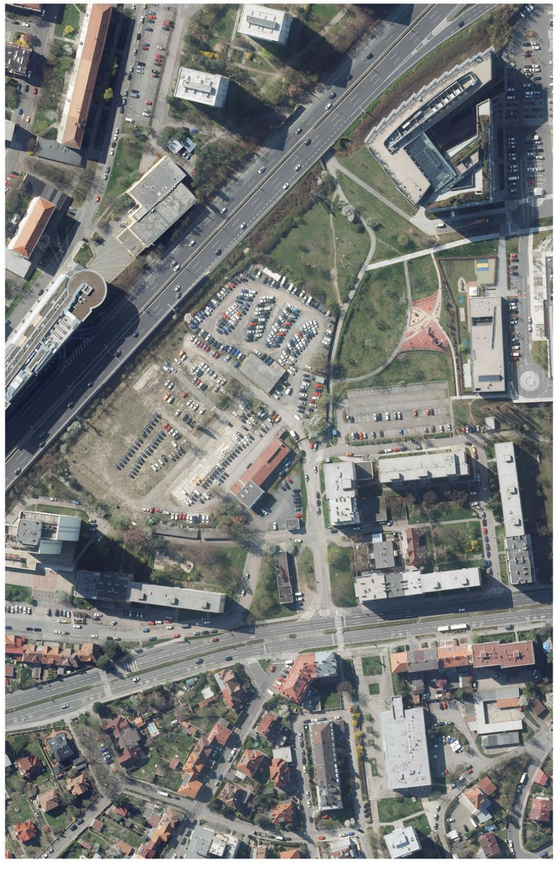
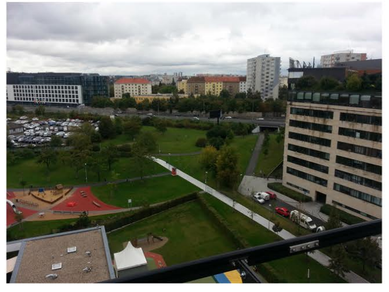
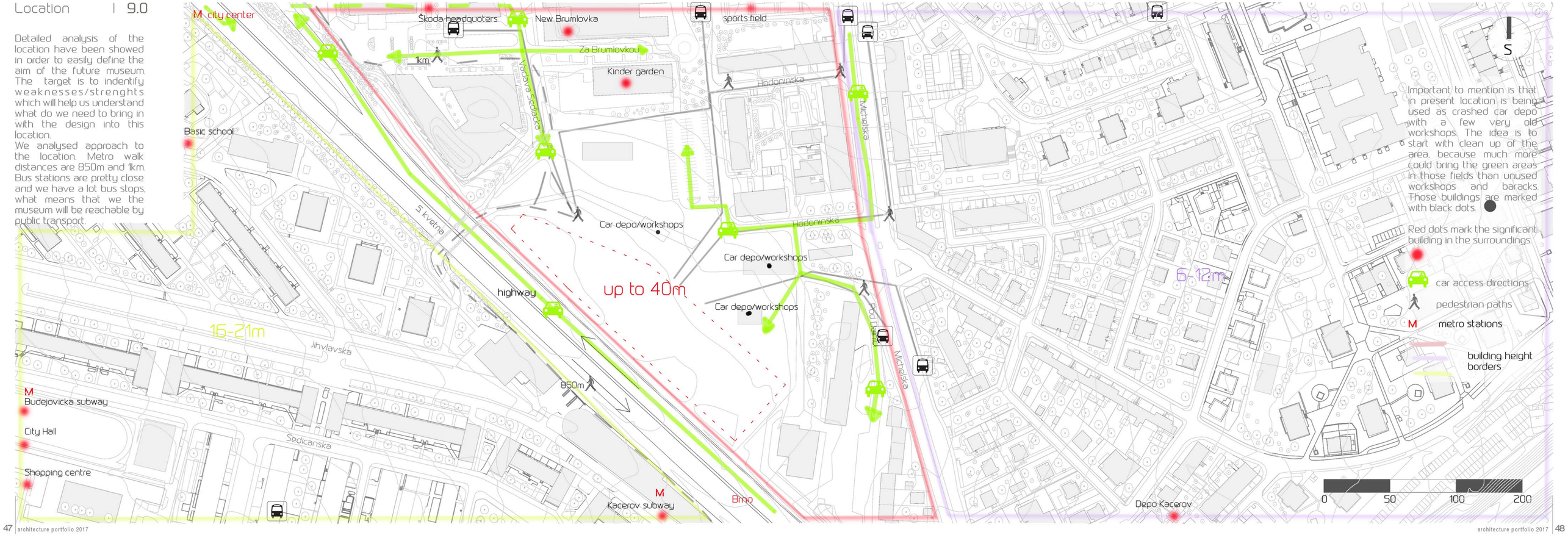




Location | 9.0

Detailed analysis of the location have been showed in order to easily define the aim of the future museum. The target is to indentify weaknesses/strenghts which will help us understand what do we need to bring in with the design into this location.
We analysed approach to the location. Metro walk distances are 850m and 1km. Bus stations are pretty close and we have a lot bus stops, what means that we the museum will be reachable by public transport.



Location | 9.0

Here are presented different maps that show the important analysis.

1/ shadow analysis show the shade grade at the location through different seasons, which help us define where should be main areas of the museum. Ofcourse, influence of direct/indirect natural light ,highly affects the design proposal.

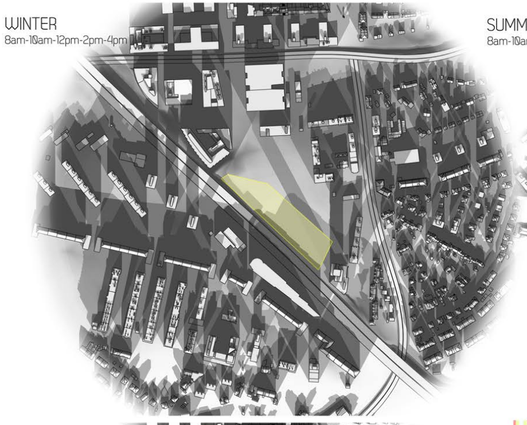
2/ map of the use of the land. It is visible that the area is projected to be landscape mark/park

3/ facilities map show the important location in the surrounding which can help us define the need that our museum should satisfy.

4/ noice map shows us the orientation to the highway and its huge impact of noice. The result should be definitelly orientation of the building towards the park, both because of polution from highway and huge noice value

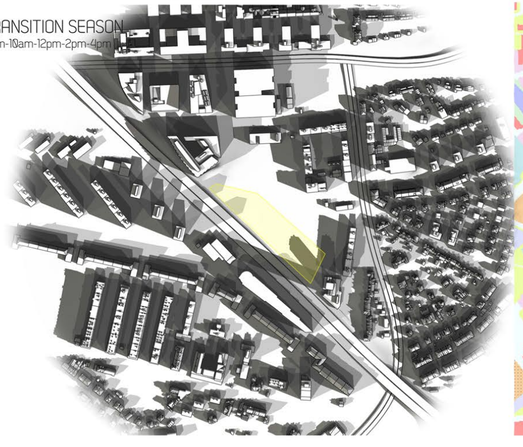
5/ on the other side bike/runners path together with, previously defined car access path, helps us define main approach direction to the location. It is important because mainly defines also potential entrance and other important connection between the building inside and outside

WINTER
8am-10am-12pm-2pm-4pm

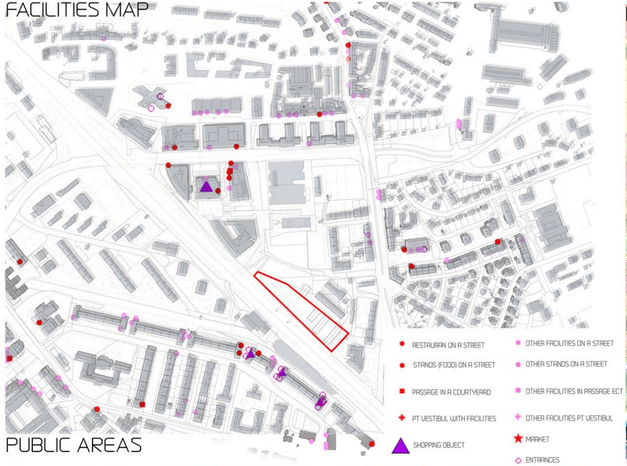


SUMMER
8am-10am-12pm-2pm-4pm

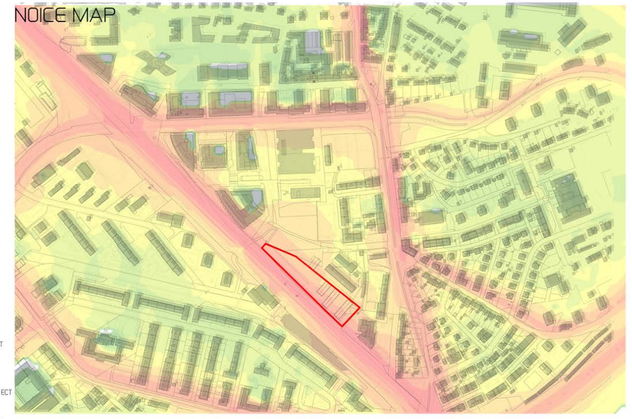
TRANSITION SEASON
8am-10am-12pm-2pm-4pm



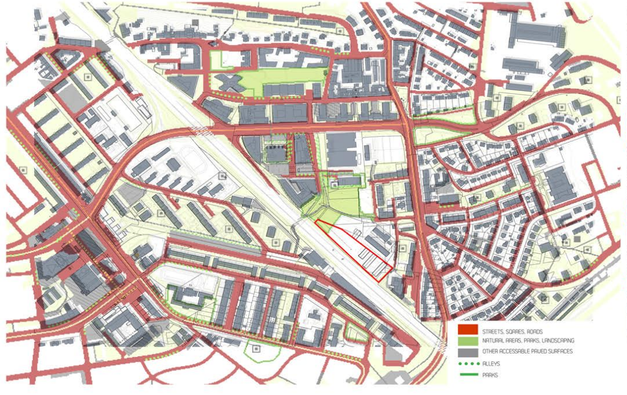
FACILITIES MAP



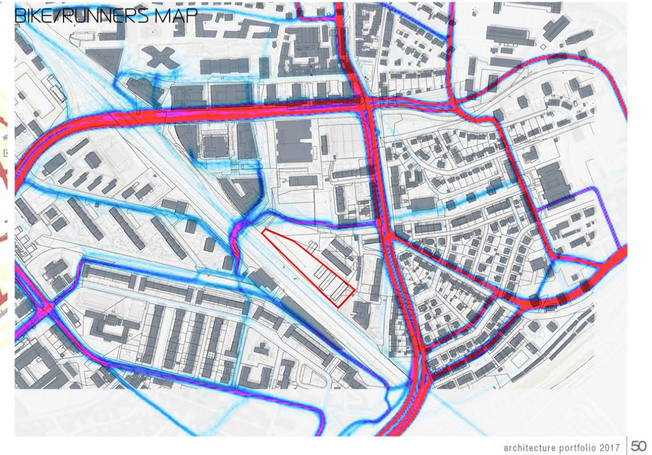
NOICE MAP



PUBLIC AREAS



BIKE/RUNNERS MAP



Inspiration | 9.1

Following pictures/projects are used as inspiration before and during design concept. The focus is on the simplicity both in facade and interior. Clear forms with clear materials that on exteriors show the inside function. Through the analysis important thing was indentification of the location. It is defined as potentially perfect landscape area. In land use map it is marked as green park and in the same time it is the biggest free piece of land in the wide area. That's why it is recognised as great future park and not only park but also meeting point of the poeple during the whole week.

Yinchuan Art museum

Pool Terrace House Urgnano Italy

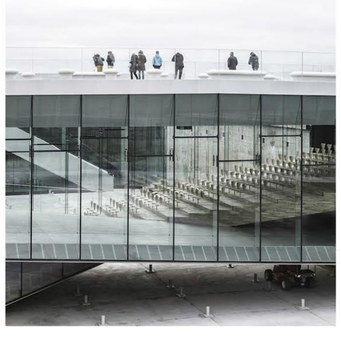
Pol Museum

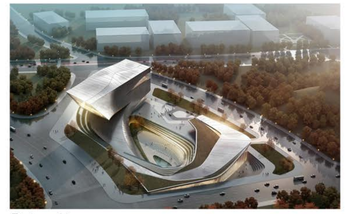
Isa Bauhaus

Enzo Ferrari Modena

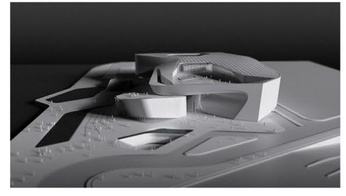
Palestinian Museum

render





Dalian library



Museum of Art Competition

render

muzeum of Tolerance

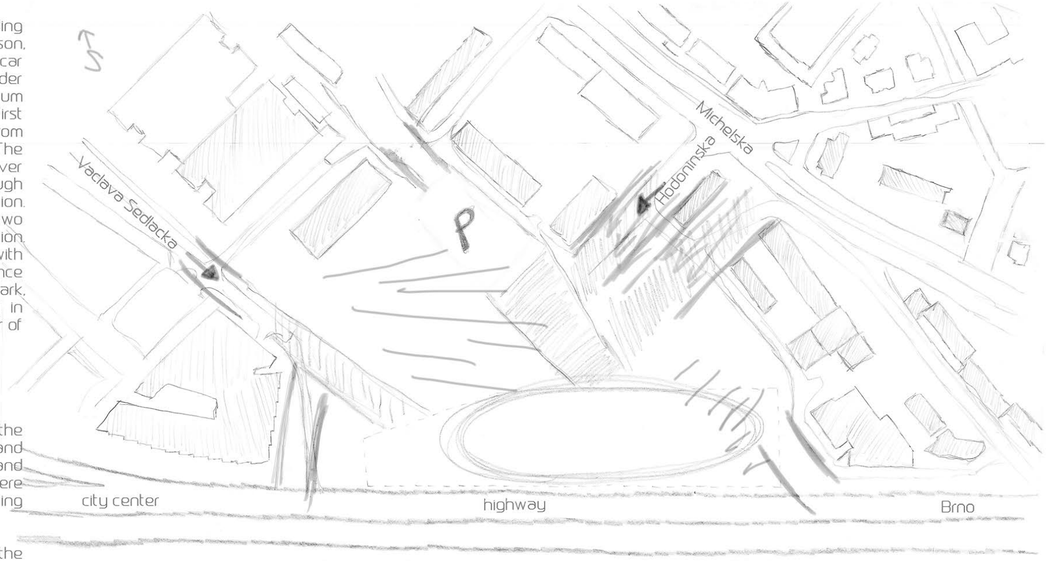
A1

According to the shading analysis during season, people movement, car movement and access, wider position of the museum building is determined. First approach point is from Vaclava Sedlacka. The second one is over Michelska, through Hodoninska to the location. Intersection of these two paths is the building location. Right in the center with future main entrance orientation towards the park, since we have highway in the South, which is emitter of polution and noice.

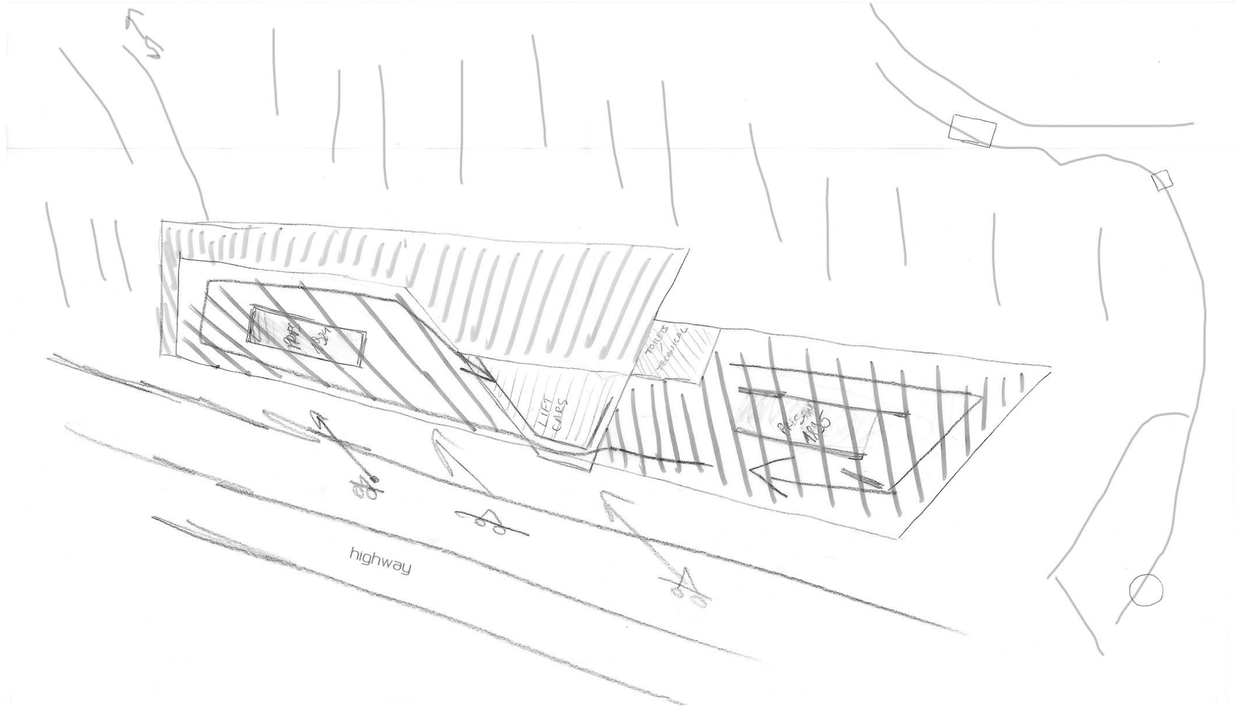
A2

Next step was cleaning the location of the old and unused storage and workshop rooms that were earlier used for repairing crashed cars.

Very first shape of the building came as a result of need to make some kind of obstacle between the highway and future nice green park area in front of the museum. From there comes long continual massing system. In the same time earlier central position of the entrance is defined as potential. Further development is based on making the entrance zone more inviting.



A1



A2

Concept | 9.2

A1

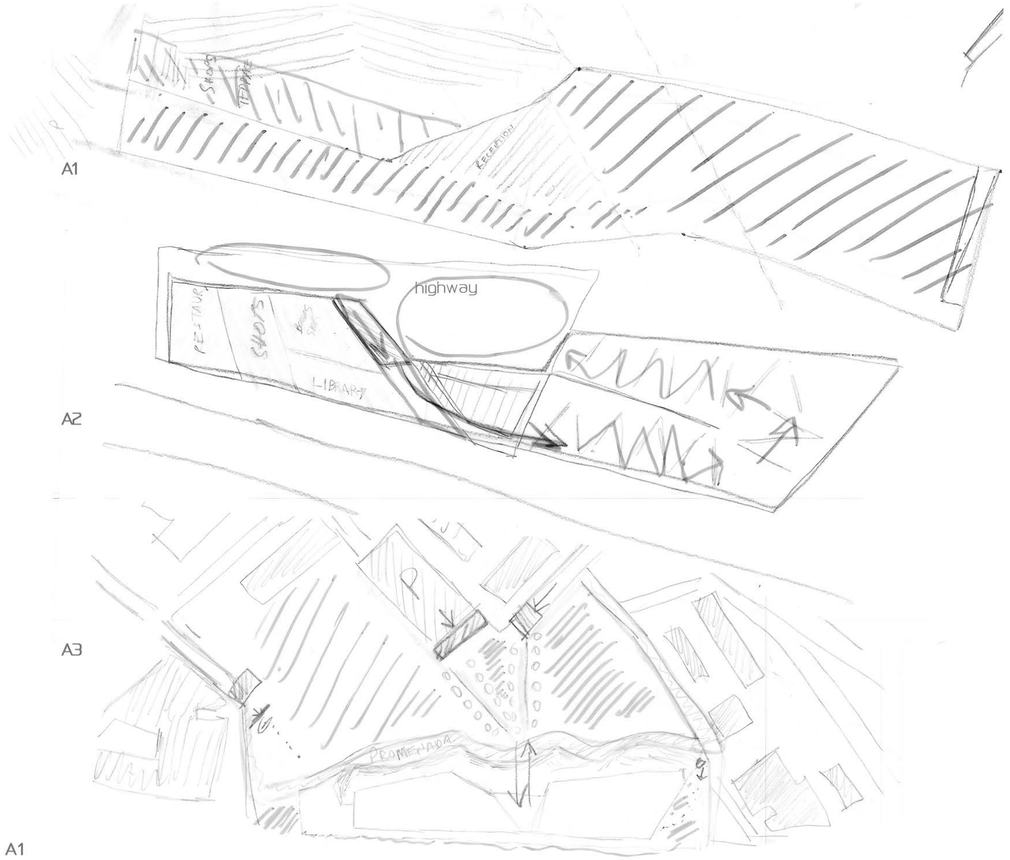
According to the analysis it is clear that due to the position of the location, which is not in the city center, we will have much more planned visits than accidental. Accidental visits are caracteristic for the places with a lot of people movement, especially tourists, which is not the case with our location. On the other side it is convenient for bus tours and public transport.

A2

If we consider that planned visits are most of the visits, we need to take in mind that people with particulary spend more than 2 hour average for a visti. In that way the intention is to create easy connection which will be continual with clear concept of movement. Entrance is proposed to be as kind of the hole in the centre of the building which will "invite people in". It is simply game of nervs.

A3

System of public stairs is proposed in front which will gather people also during not working hours. With previously defined approach paths, promenade is implemented into whole system that can work with museum as approach path, but also separatelly as public space with park and stairs,when museum is closed.

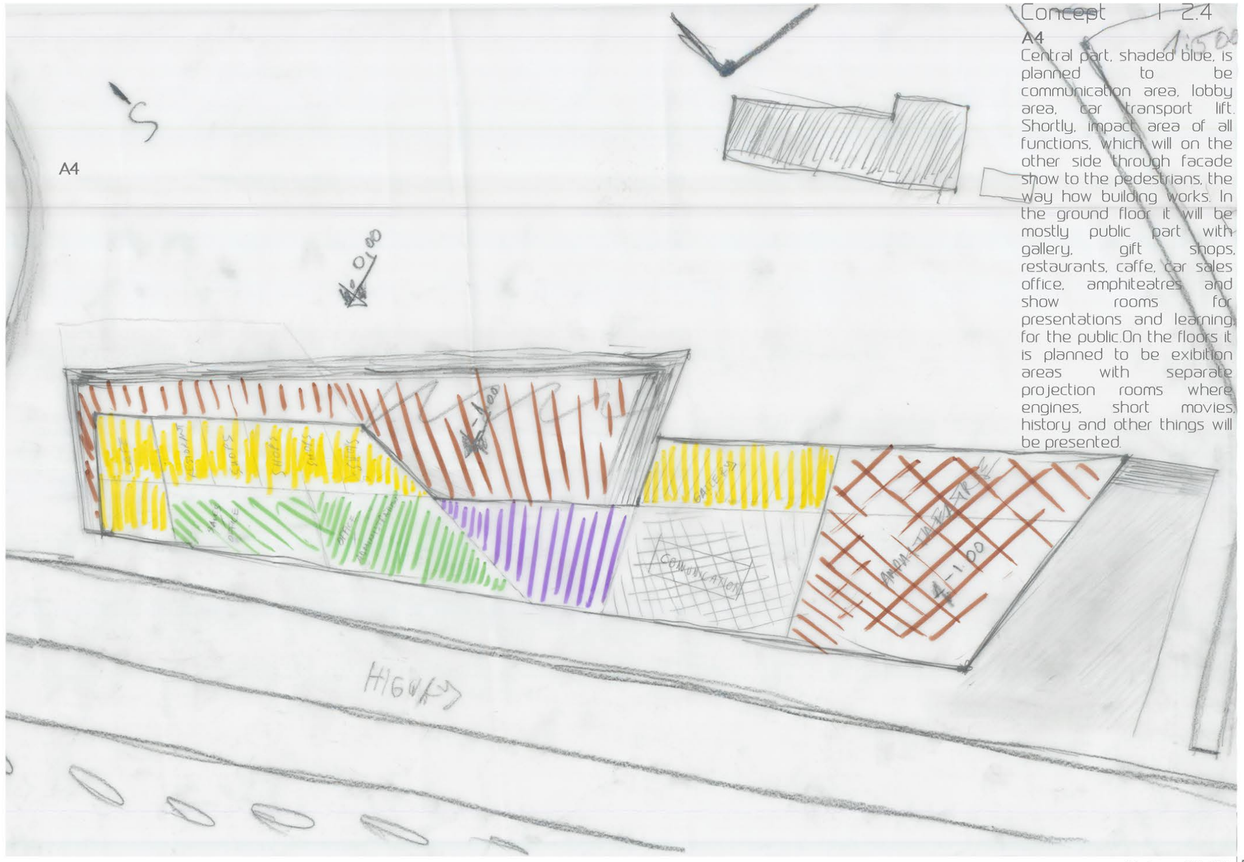


A1

Concept | 2.4

A4

Central part, shaded blue, is planned to be communication area, lobby area, car transport lift. Shortly, impact area of all functions, which will on the other side through facade show to the pedestrians, the way how building works. In the ground floor it will be mostly public part with gallery, gift shops, restaurants, caffe, car sales office, amphiteatres and show rooms for presentations and learning for the public.On the floors it is planned to be exibition areas with separate projection rooms where engines, short movies, history and other things will be presented.



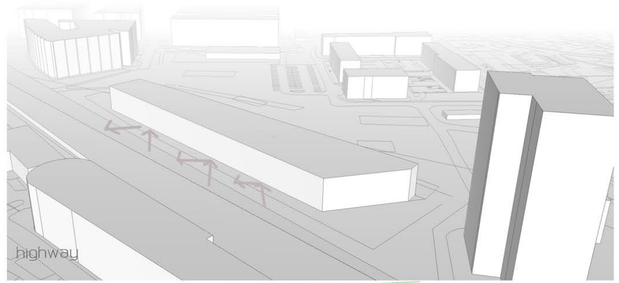
Concept | 9.2

A1
Graphic explanation of the obstacle principle. It is visible how they are correlated both higway and lcoation with future proposal form. Building shouldn't be also making area behind dead and hidden. It should also in small amount let the area be connected visually to the highway. Especially connection between museum building and highway

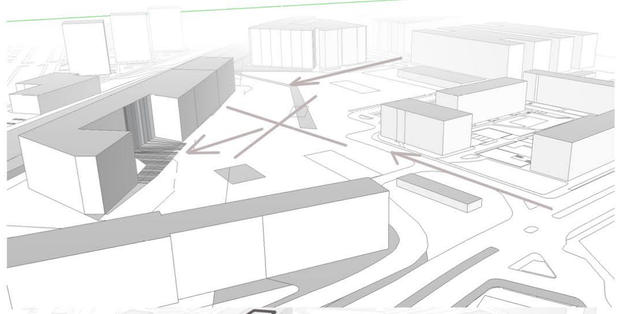
A2
Defined approach of the location and "impact zone" on the building where should be main communication area

A3
Continual movement concept can be prolonged on the green roof, where practicly even if the building is "obstacle" between highway and location, in the same time it merges with surrounding. Movement is continual in one clearly fixed direction.

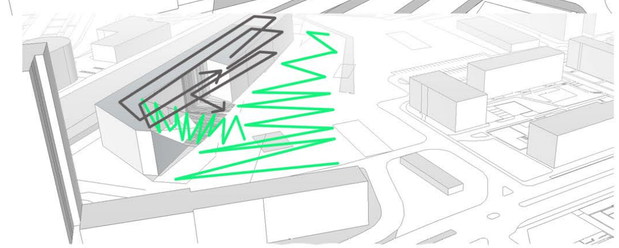
A1



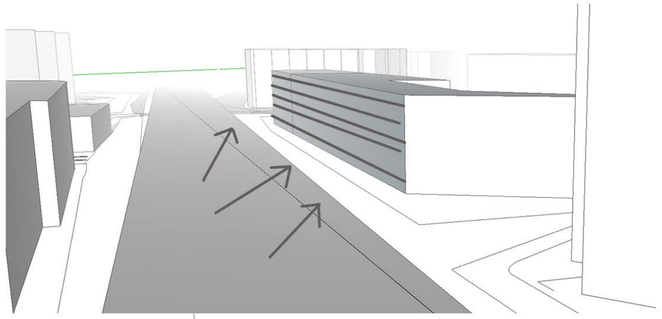
A2



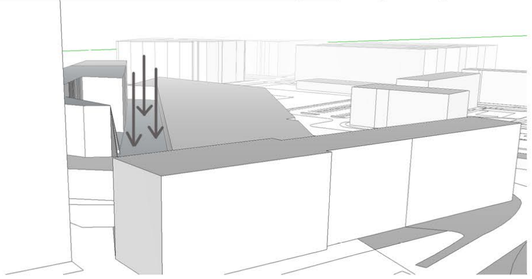
A3

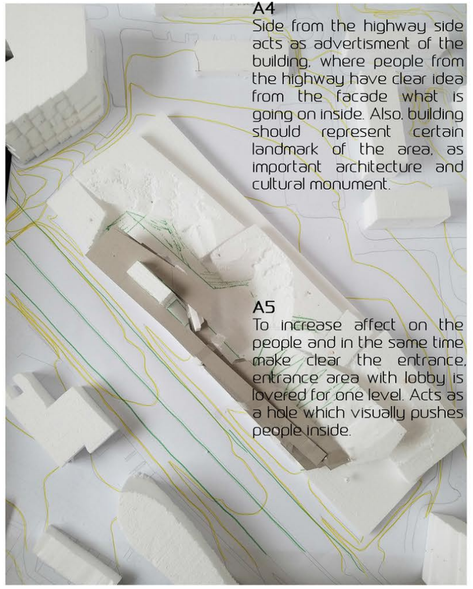


A4



A5

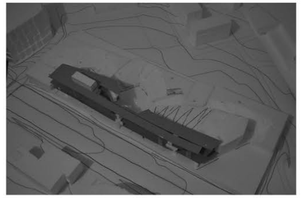


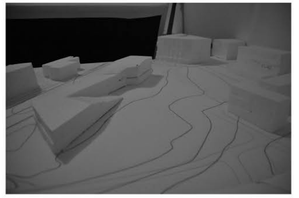


A4
Side from the highway side acts as advertisment of the building, where people from the highway have clear idea from the facade what is going on inside. Also, building should represent certain landmark of the area, as important architecture and cultural monument.

A5
To increase affect on the people and in the same time make clear the entrance, entrance area with lobby is lovered for one level. Acts as a hole which visually pushes people inside.

concept models



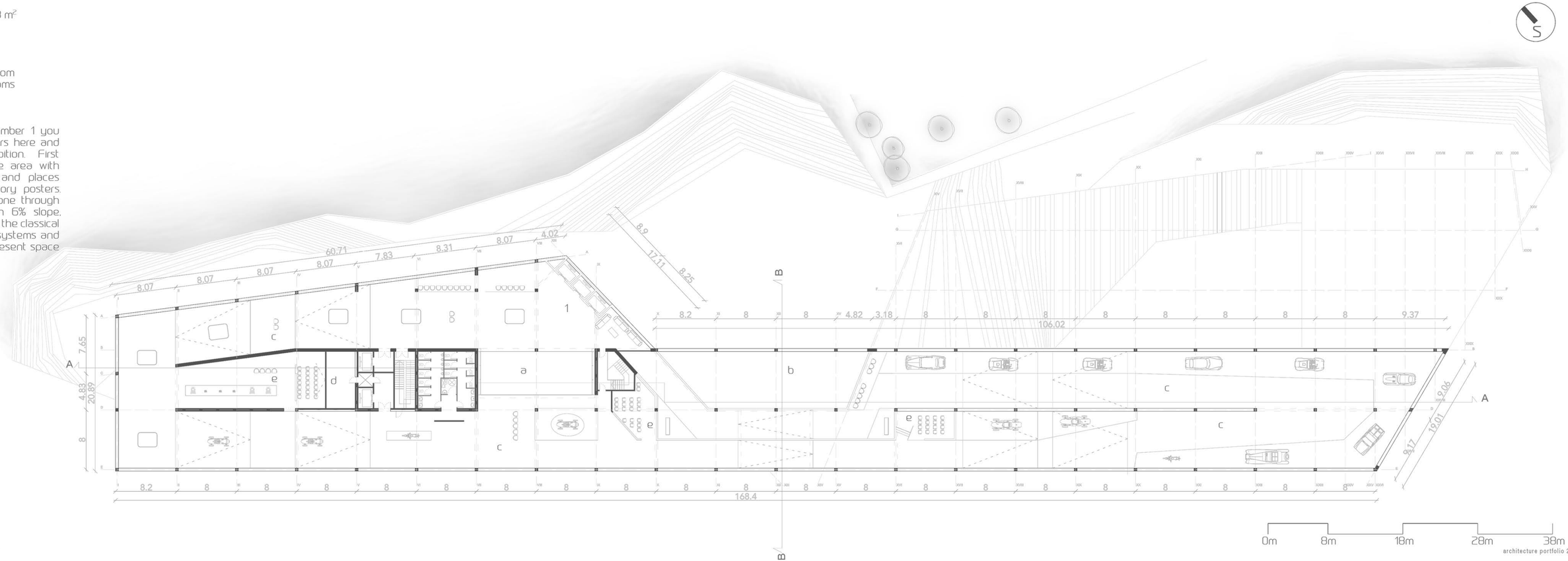


Design | 10.0 Third floor

Total area: 3 043 m²

a/ car elevator
b/ atrium
c/ exibition area
d/ mechanical room
e/ small showrooms
1/ start point

Marked with number 1 you exit the elevators here and start the exibition. First should be some area with digital screens and places with Škoda history posters. Visit is being done through sloped plates in 6% slope, which exchange the classical communication systems and in that way represent space saving.

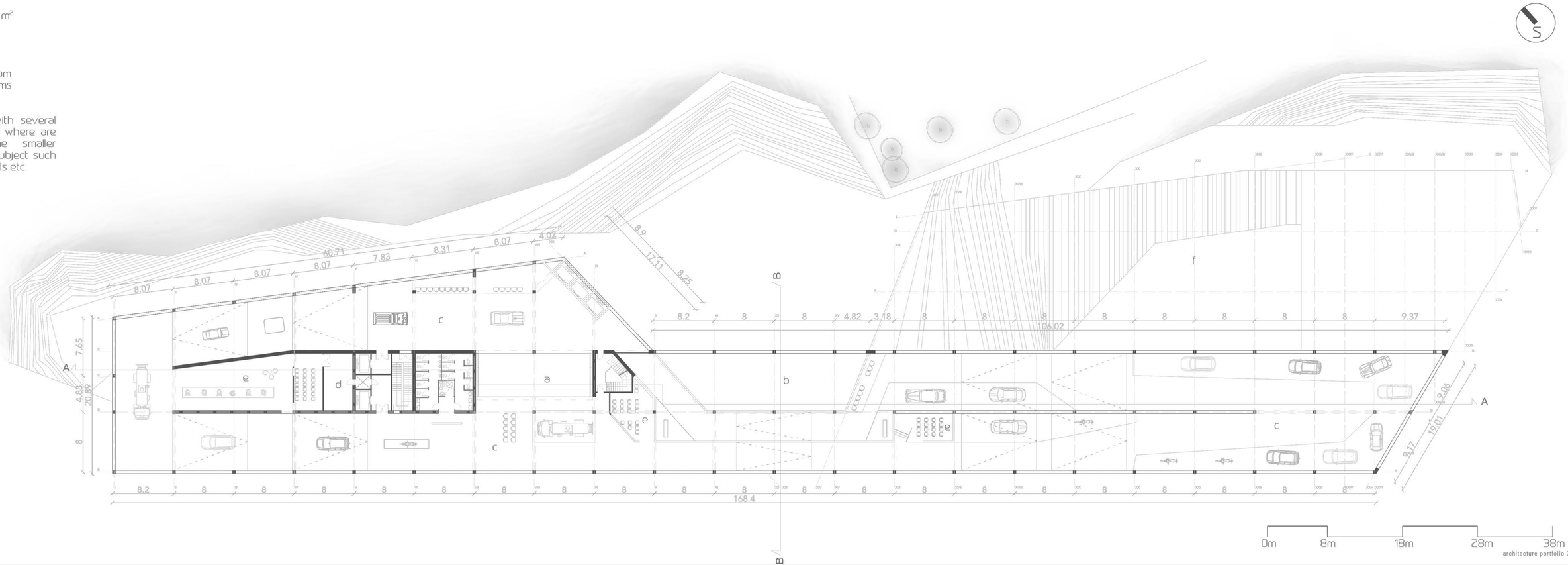


Design | 10.0 Second floor

Total area: 3 043 m²

a/ car elevator
b/ atrium
c/ exibition area
d/ mechanical room
e/ small showrooms
f/ green roof

Exibition area with several small showrooms where are presented some smaller projection and subject such as engines/wheels etc.

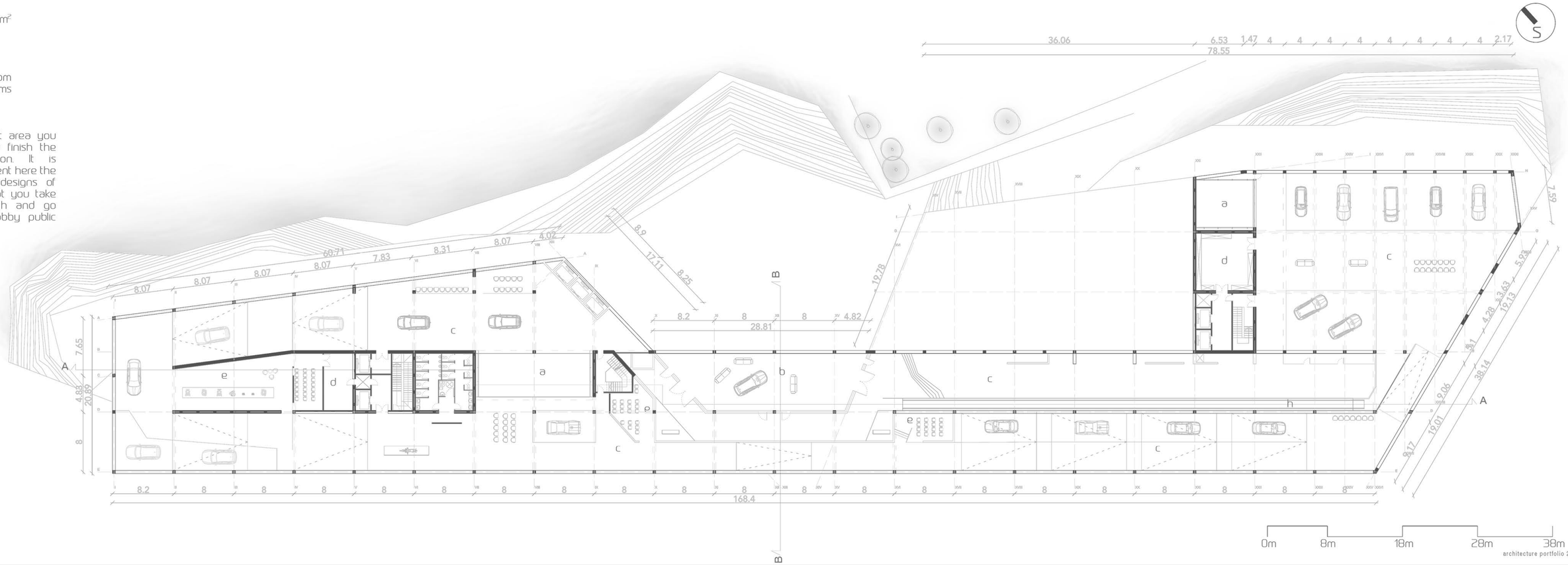


Design | 10.0 First floor

Total area: 3 985m²

a/ car elevator
b/ atrium
c/ exibition area
d/ mechanical room
e/ small showrooms
h/ electric path

This is very last area you visit before you finish the museum exibition. It is intended to present here the most accurate designs of Škoda. After that you take the electric path and go down to the lobby public area.



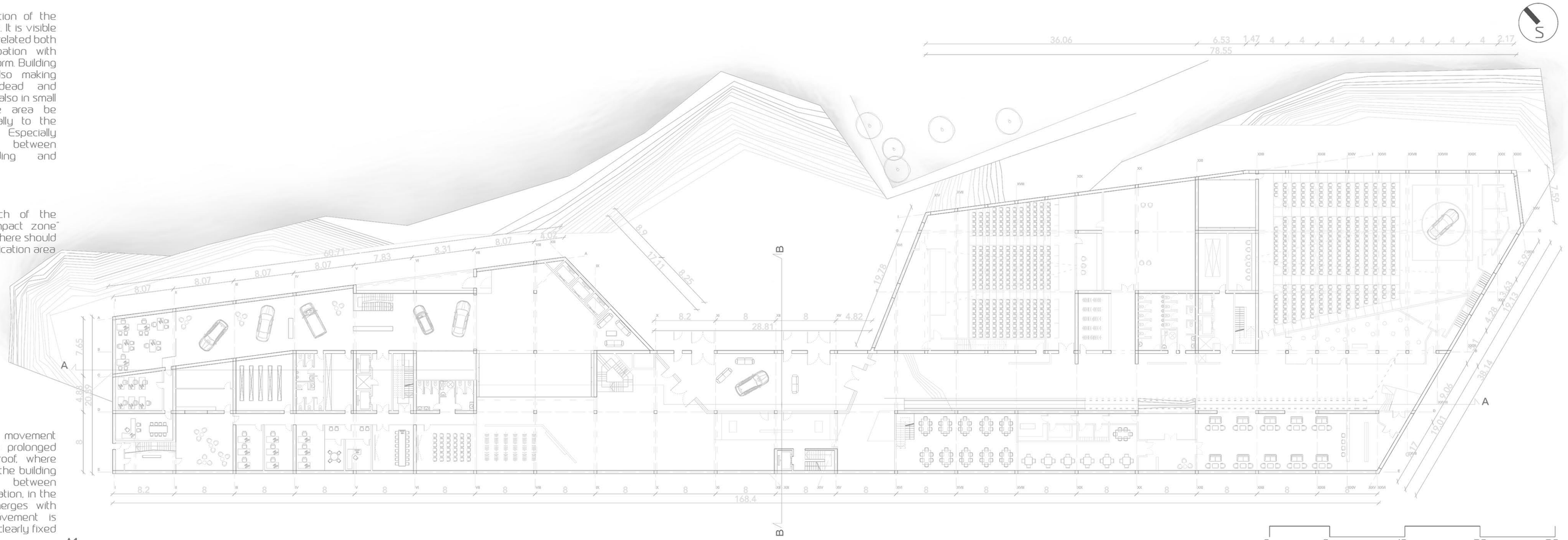
Design | 10.0

Ground floor gallery

A1
Graphic explanation of the obstacle principle. It is visible how they are correlated both higway and lcoation with future proposal form. Building shouldn't be also making area behind dead and hidden. It should also in small amount let the area be connected visually to the highway. Especially connection between museum building and highway

A2
Defined approach of the location and "impact zone" on the building where should be main communication area

A3
Continual movement concept can be prolonged on the green roof, where practicly even if the building is "obstacle" between highway and location, in the same time it merges with surrounding. Movement is continual in one clearly fixed direction.



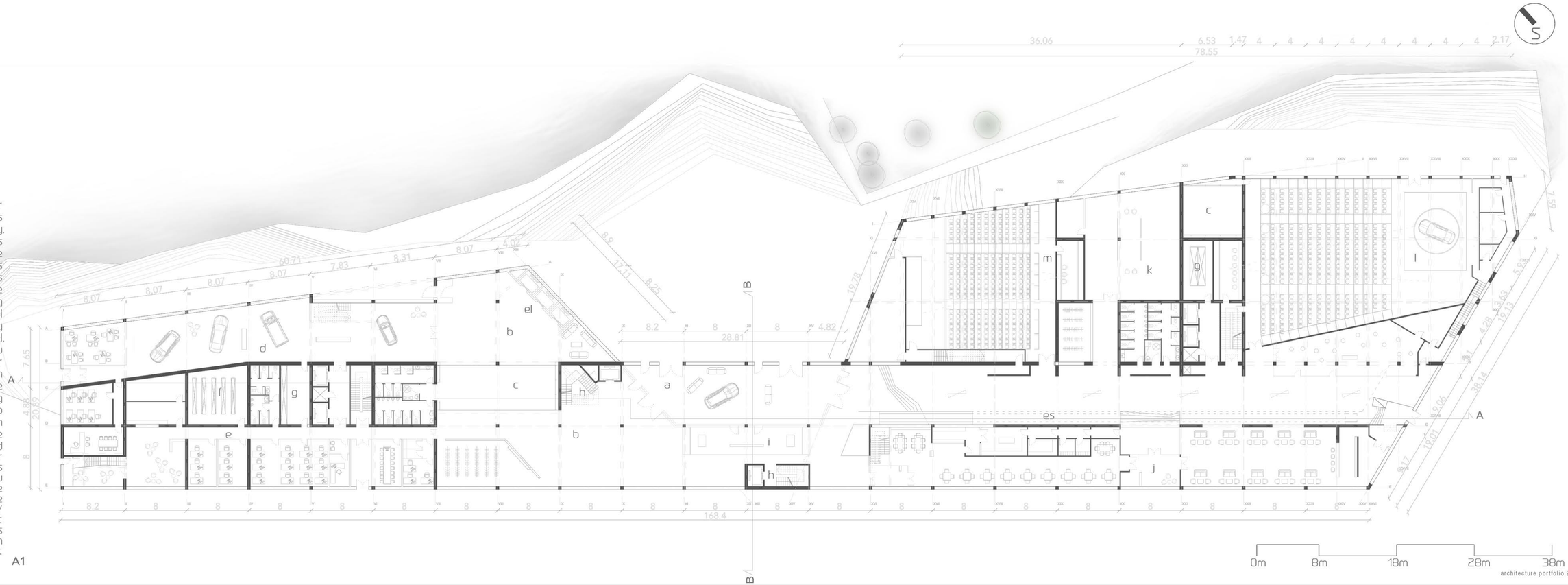
A1

Design | 10.0 Ground floor

Total area: 5 018m²

a/ entrance
b/ lobby
c/ car elevator
d/ sales office
e/ administration
f/ file room
g/ mechanical room
h/ garage access
i/ gift shops
j/ cafe/restaurant
k/ gallery
l/ car showroom
m/ amphiteatre

Ground floor is the main floor of the museum. There is entrance/exit, lobby, wardrobe. Administration has separate entrance in the west side facade. There is big sales office which has folding glass door that give the opportunity for enlarging the space in special situations. Visit starts by taking the elevator marked el, to the 3rd floor and then you continously go down over the sloped plates (exibition areas). That is the principle how saving space is being done, because there are no typical comunnication systems such as stair in the exibition areas. In the end you reach the ground floor with electric path which is marked as "es". When you come down and finish the visit, you have acces to the small gift shops/ caffe/ restaurant/showrooms/toilets/gallery. These areas workas public areas which anybody can visit without paying.



A1

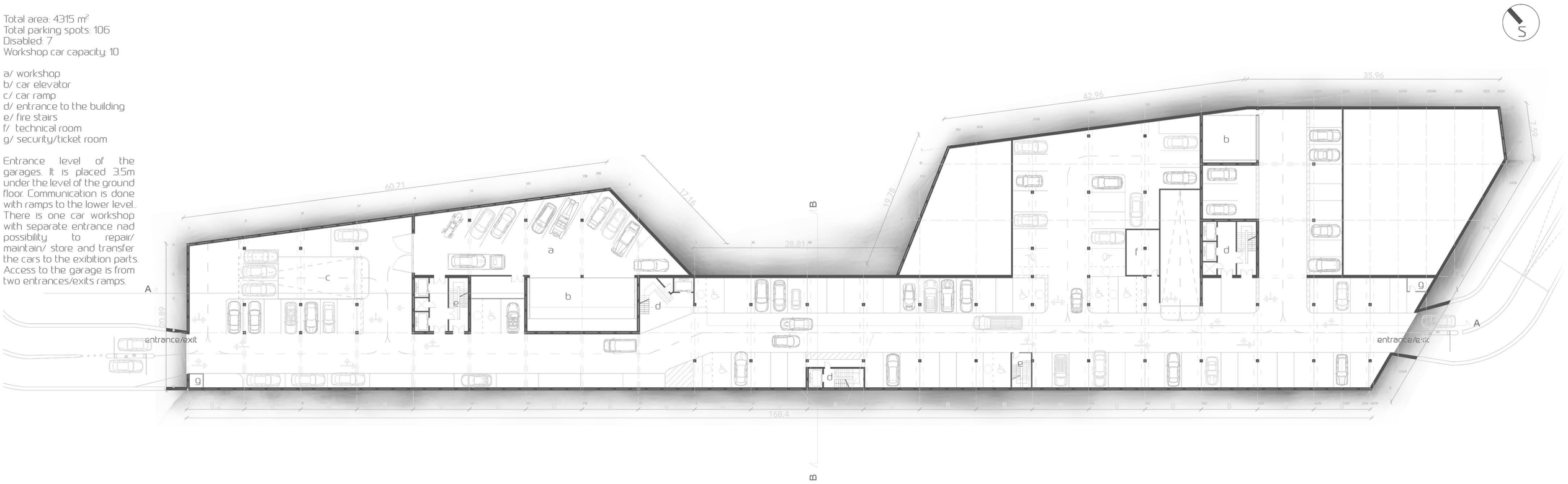
0m 8m 18m 28m 38m

Design | 10.0 Garage level 1

Total area: 4315 m²
Total parking spots: 106
Disabled: 7
Workshop car capacity: 10

a/ workshop
b/ car elevator
c/ car ramp
d/ entrance to the building
e/ fire stairs
f/ technical room
g/ security/ticket room

Entrance level of the garages. It is placed 3.5m under the level of the ground floor. Communication is done with ramps to the lower level.. There is one car workshop with separate entrance nad possibility to repair/ maintain/ store and transfer the cars to the exibition parts. Access to the garage is from two entrances/exits ramps.

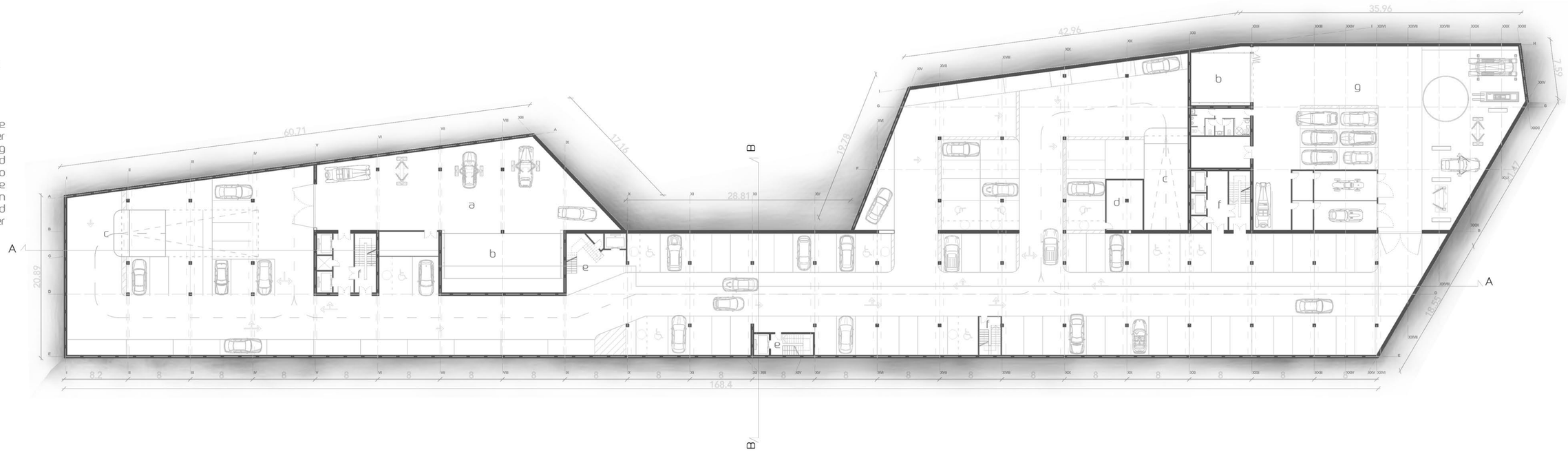


Garage level 2

Total area: 5018m²
Total parking spots: 100
Disabled: 8
Workshop 1 car capacity: 7
Workshop 2 car capacity: 10

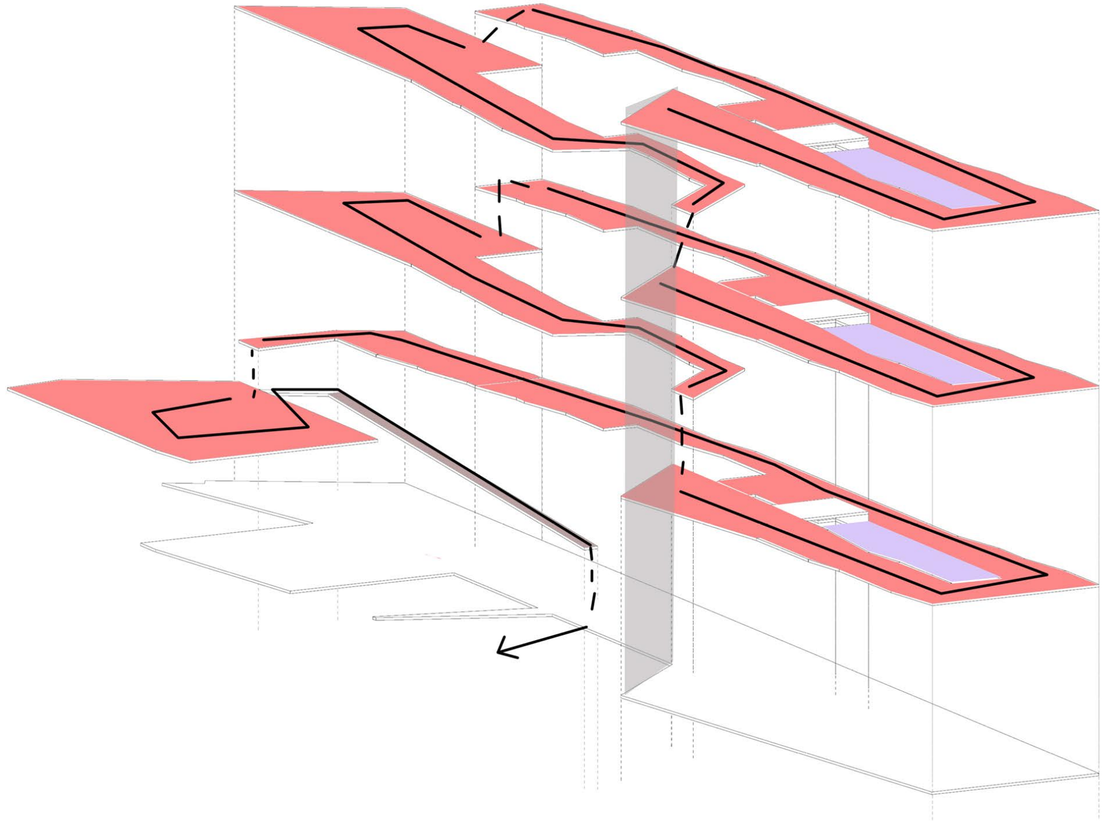
a/ workshop 1
b/ car elevator
c/ car ramp
d/ technical room
e/ entrance to the museum
f/ fire stairs
g/ workshop 2

The lowest level of the building. It is placed 7m under the ground level. Has parking spots for visitors and employes. There are also two workshops for cars that are subject of exibition. Cars can be repaired/stored/ prepared and transfered to the upper exibition areas.

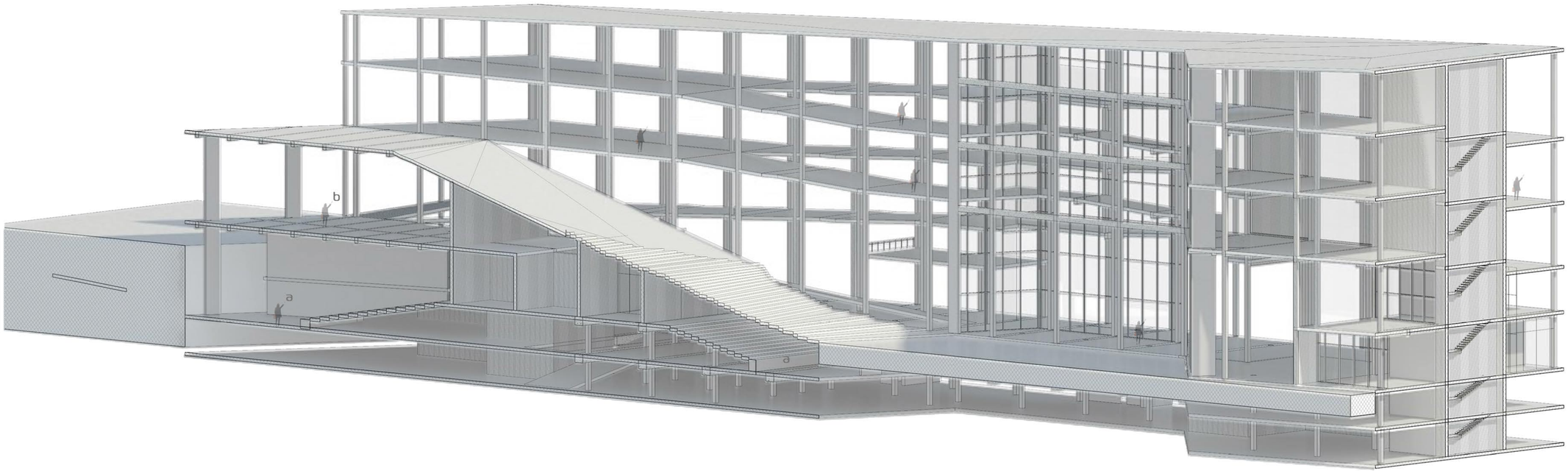


Building function diagram

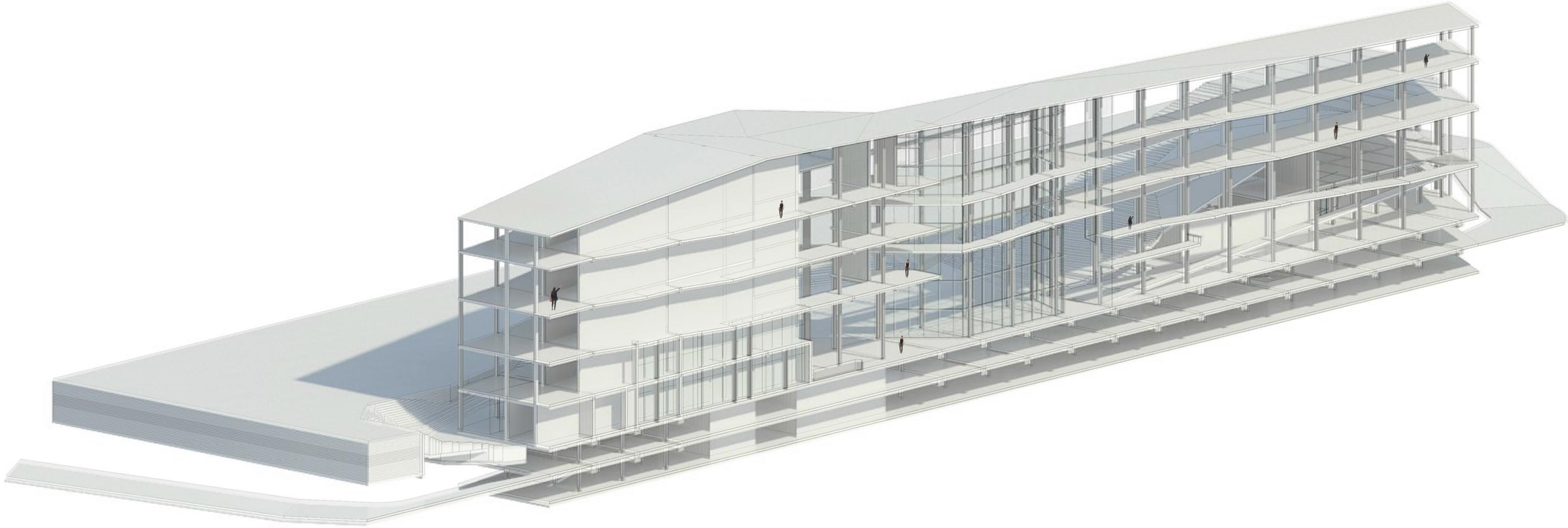
- exibition area
- showrooms
- electric path
- elevators



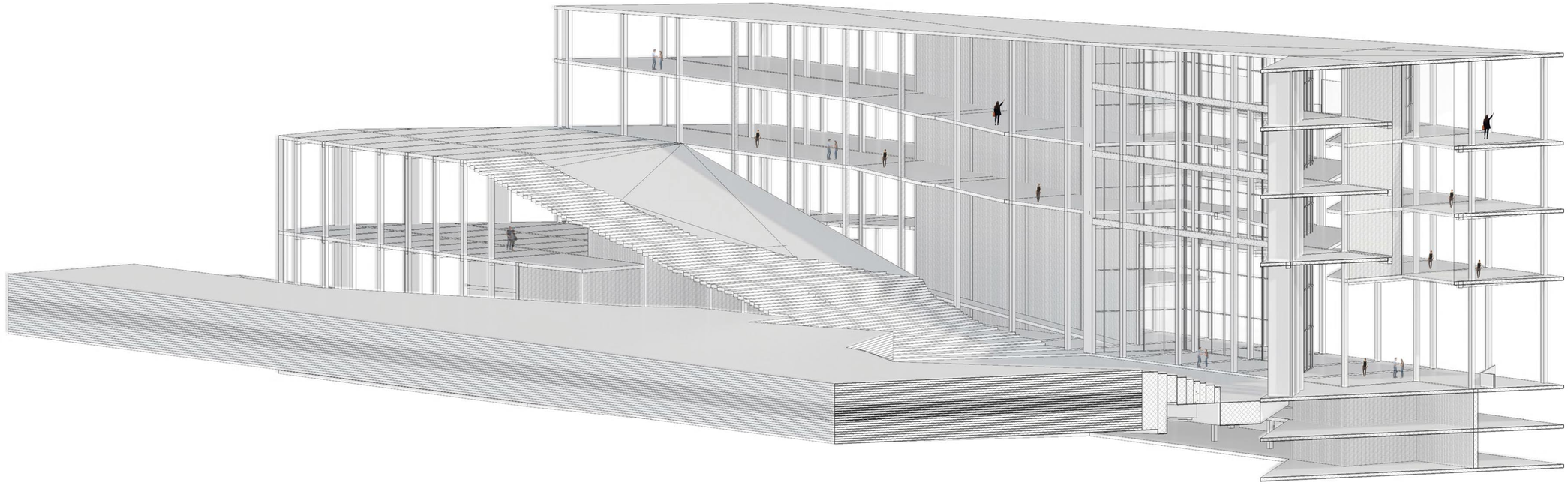
From this ambiental section you can see the placement of the two public amphiteatres (a), the way how ramps work (exibition area). Also big last exibition area above the car showroom is visible.(b)



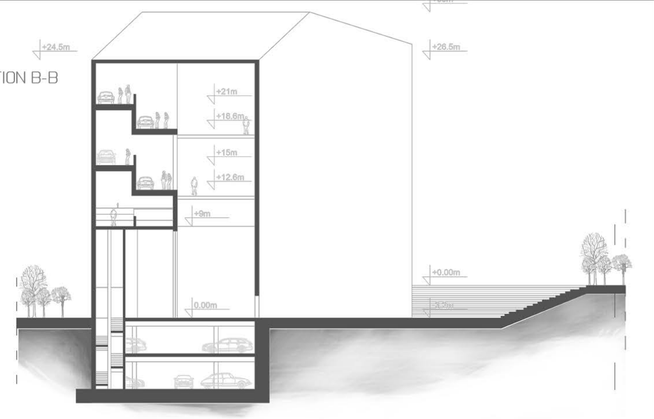
Ambiental section view is from south side, from highway.



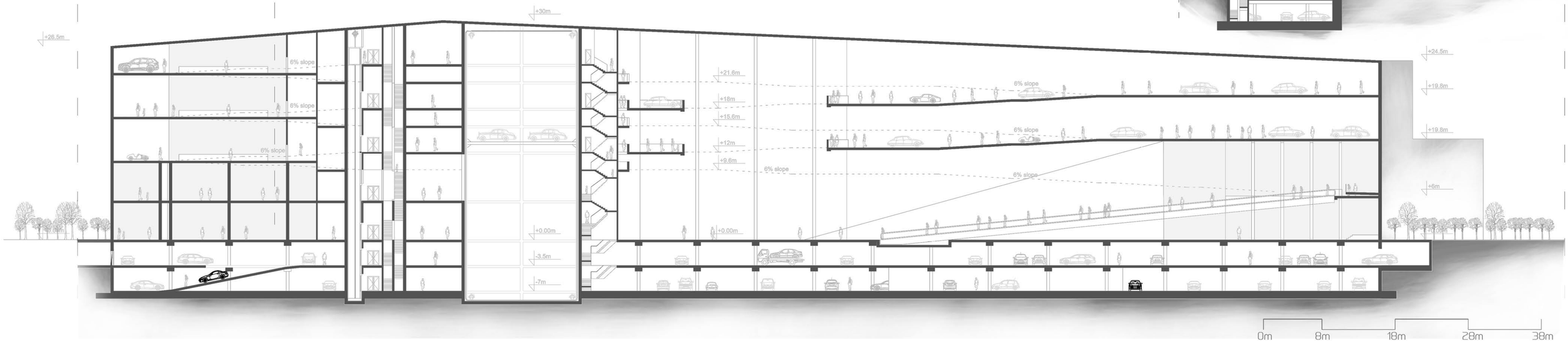
Ambiental section view is from south side, from highway.



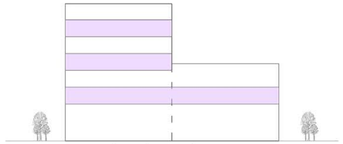
SECTION B-B



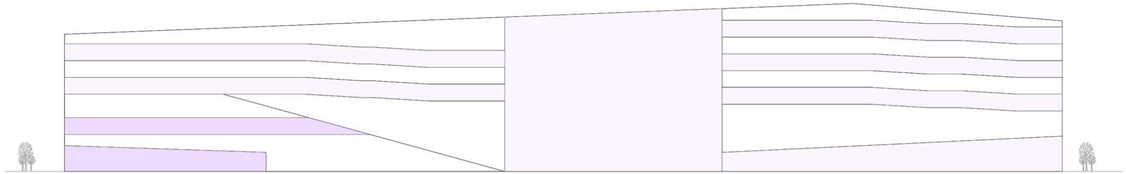
SECTION A-A



west elevation



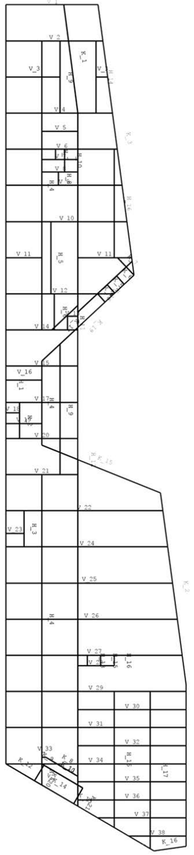
east elevation



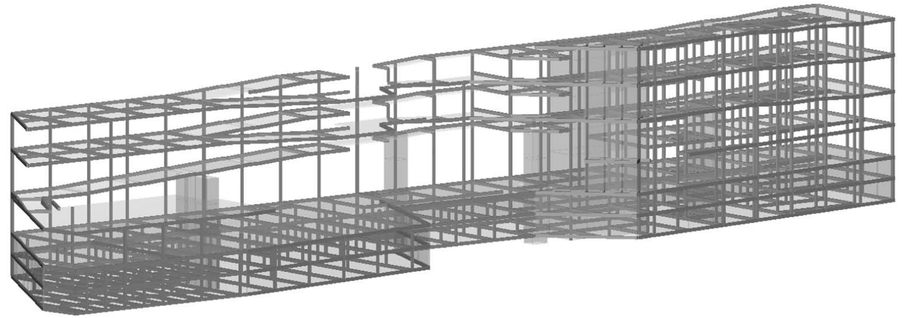
north elevation

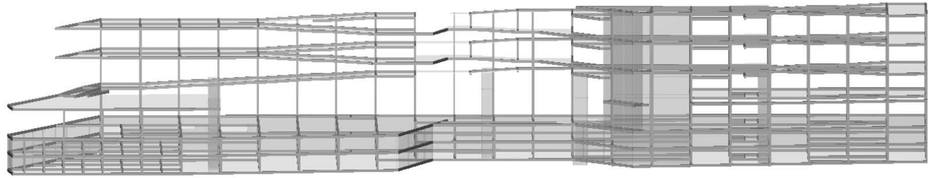
south elevation

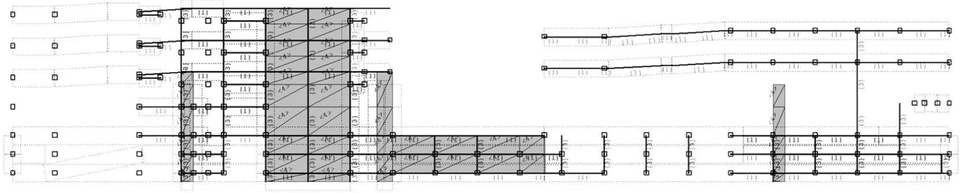
0m 25m 50m

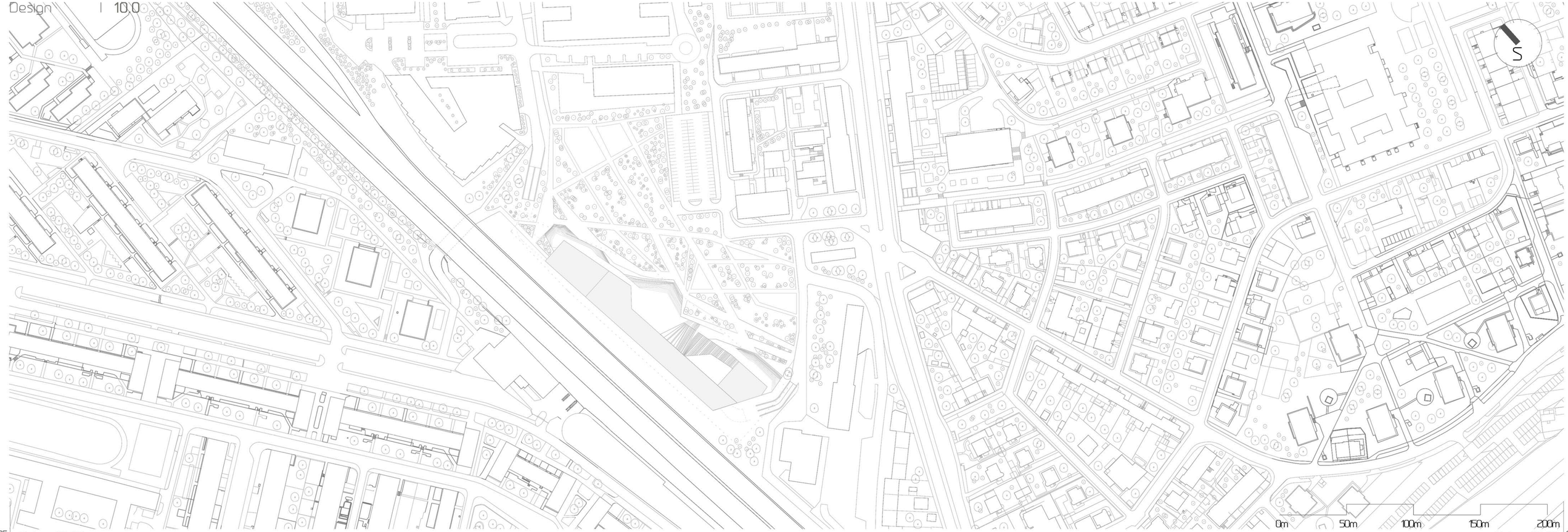


construction system

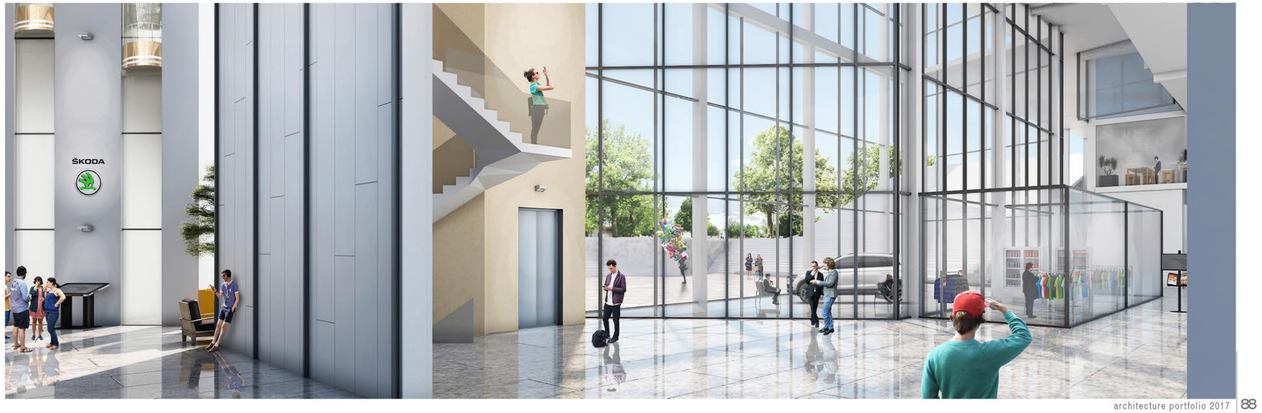







S
0m
50m
100m
150m
200m


ŠKODA
Connect to the Future
YETI


ŠKODA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Dekuji vám

Thank You!

Ognjen Bacevic