

**STÄDTEBAU 3 - INTERNATIONAL WORKSHOP 2010**  
**21.-26. November 2010 - Stadtbauraum Gelsenkirchen**

# **KOKEREI ZOLLVEREIN ESSEN**

**PRESENTATION of the FINAL RESULTS**  
**FR. 26. November 2010, 16:00**  
**Stadtbauraum Gelsenkirchen**

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École nationale supérieure d'architecture Paris-Malaquais



UNIVERSITÄT  
**DUISBURG  
ESSEN**





Final Results Group

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# Healtherei

Healtherei

Our main aim is to bring health, movement and sound into the dead machine of the kokerei by designing the corresponding landscape. We do not believe that the site should be an island but see the future of the site as an organic part of the city of Essen and Gelsenkirchen.

With transformation of the topography we create sequences of sights designed to point out the world heritage in a catching scenery and achieve the connection with the surrounding cities. Therefore we redesign the accesses to the site, densify the traffic network and cross the existing limits.

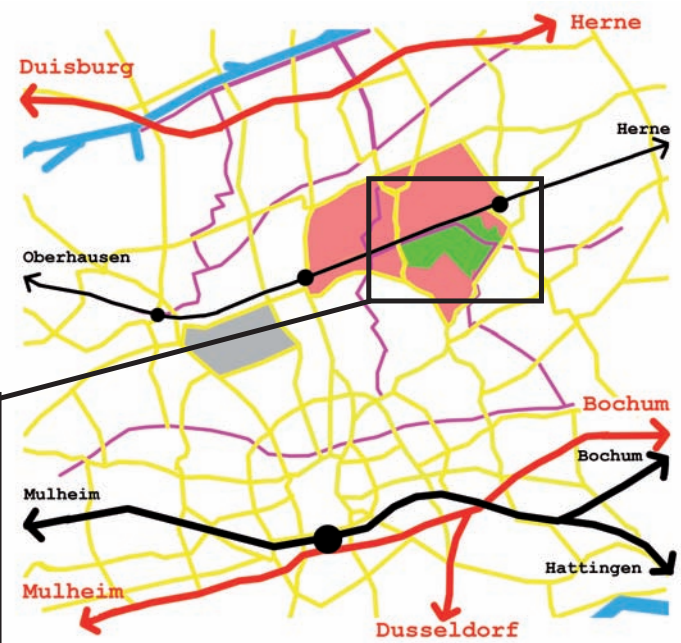
We propose to make kokerei a healthy place by including functions that contribute to human physical and mental health. Although we suggest sports, culture, office, science and education as the main functions for the whole area, we want to link and interconnect these functions with the centre-like commercial service (cafe, restaurant, shop, services, etc...) and sufficient amount of public space in order to give the public the reason to enter, stay and come again. We use greenery (natural network) to join urban patterns of the surrounding areas and to reach the natural continuity with other green areas in the neighbourhood. We understand the kokerei buildings as a topography too, therefore we suggest to use not only the interior but also the skin of them. In composition of new buildings we prefer simple tools of addition and multiplication. In the way of designing the pedestrian and cycle paths we want to encourage the visitors rather than drive cars. We believe that health as a network can finally heal the space and return it back to the city where the site always belonged to.





# Health network

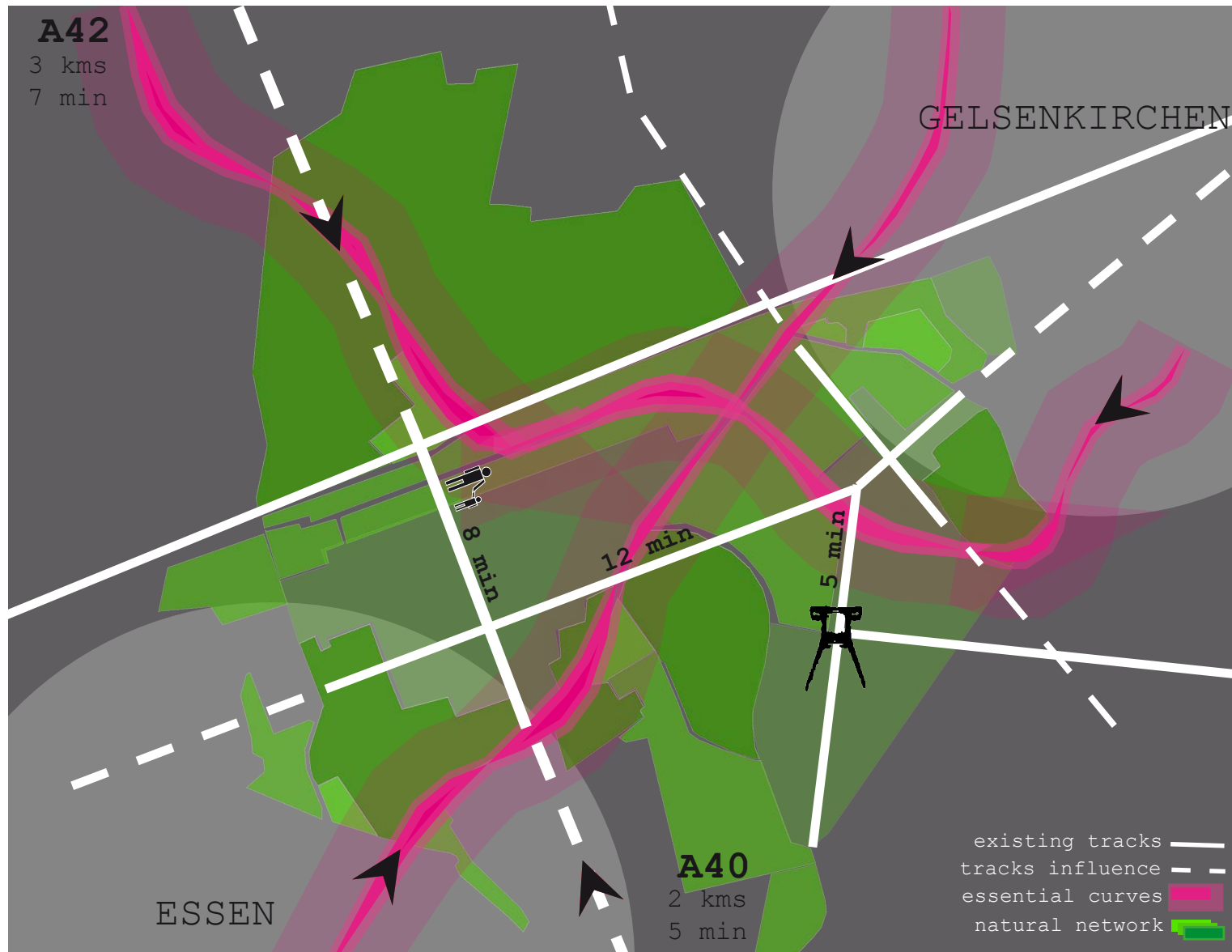




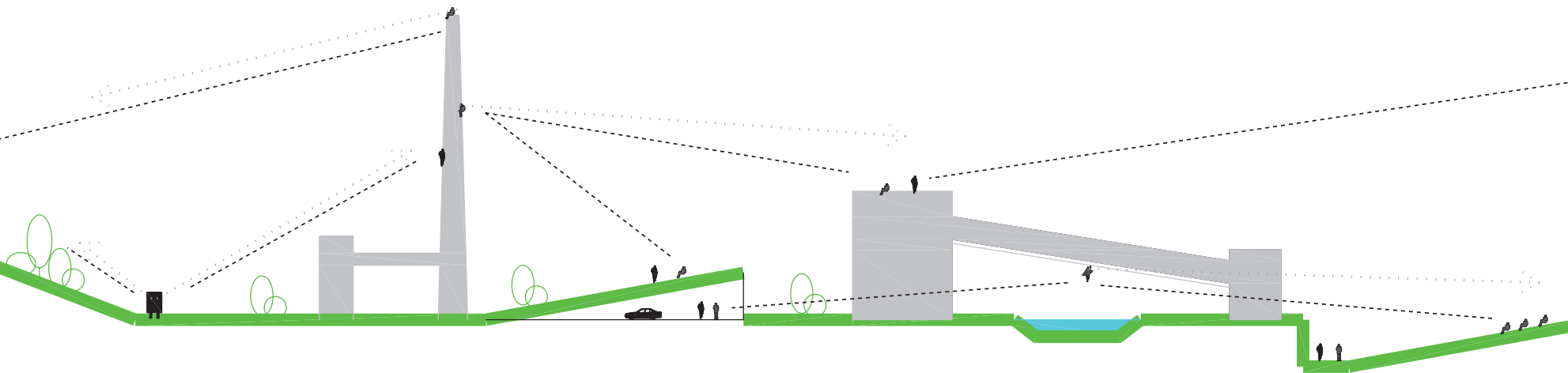
# Regional to urban analysis



-  Natural areas abandoned
-  Not using area
-  Unappreciate housing
-  Access



# Motto





restaurant

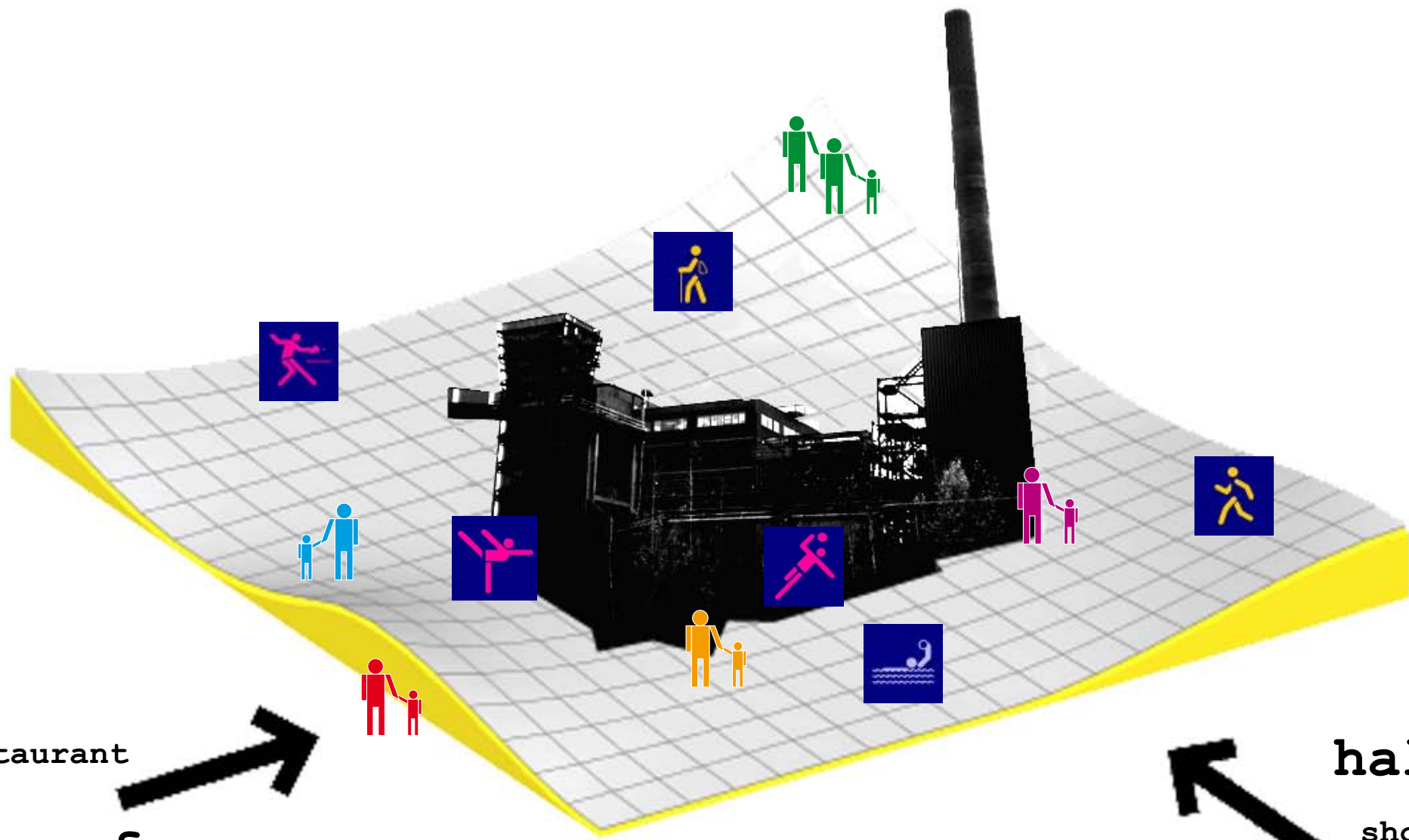
coffee



ha

sho

parking



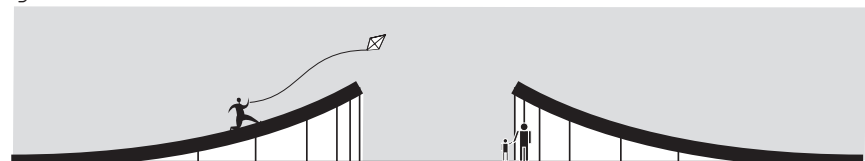




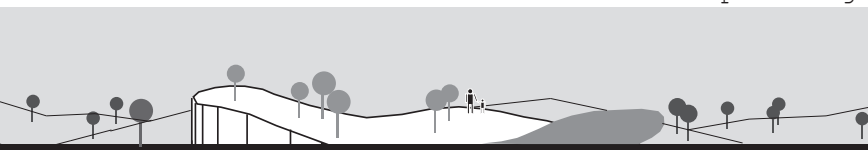
cesure & perspective



gate



landscape design











Castel lake garden\_USA




C. D. FRIEDRICH

A. GALFETTI (Bellinzona\_Switzerland)





A black and white photograph of an industrial facility, possibly a refinery or chemical plant. The scene features a large canal in the foreground, reflecting the sky. Above the canal, there is a complex network of metal structures, including pipes, walkways, and large cylindrical storage tanks. The background shows more industrial buildings and structures. The overall atmosphere is industrial and somewhat somber due to the monochrome palette.

Final Results Group

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# International workshop of architecture und urban design



Kathrin Urbanek  
Laura Dacken  
Julien Mirada  
Thomas Persyn  
Benjamin Ciardi

KOKEREI ZOLLVEREIN ESSEN –  
CONVERSION, REDEVELOPMENT, REARRANGEMENT

## History meets Innovation

Zeche Zollverein was an industrial and historical stronghold in the Ruhr-area, Germany. Now it has become a cultural heritage. The challenge of this project is to use the area's potential and at the same time keep its history. In dependence on the fact that Zeche Zollverein was one of the most modern and innovative coal mine in the world at its time of production, we see ourselves standing in front of the task to create new space for innovations. Furthermore, in order to preserve the heritage economical aspects are to be included. The aim is to combine the historical aspect with innovation so that a holistic image is shown. The Ruhr-area needs a redefined flagship.

The word innovation derived from the Latin term *novus* which means new, and *innovatio* which means to create something new. In order to follow this guiding image, we create new space for researchers and laboratories inside the existing buildings and also in new buildings. However, innovation does not only include new buildings, but also having researchers and scientist developing new research approaches and showcasing them to a diversified audience.

To reach the area directly the busline 183 leaves its original way and drives through the area. Additional to the new planned busline and for a better connection to the surroundings the coking plant gets a new train station in the north.

In order to keep the strong linear structure of the area the new buildings are fitted into the orthogonal structure. Since they will be partly underground the appearance of the coking plant will not be disturbed. In the historical buildings as well as in the newly built there are laboratories in which the researchers have enough space of action.

The public spaces and avenues act as liaison for both areas, the coal mine and the coking plant. At the same time they connect the history such as museums and innovation with its laboratories. Conference halls and parking places mark the hinge between these two areas.





streets



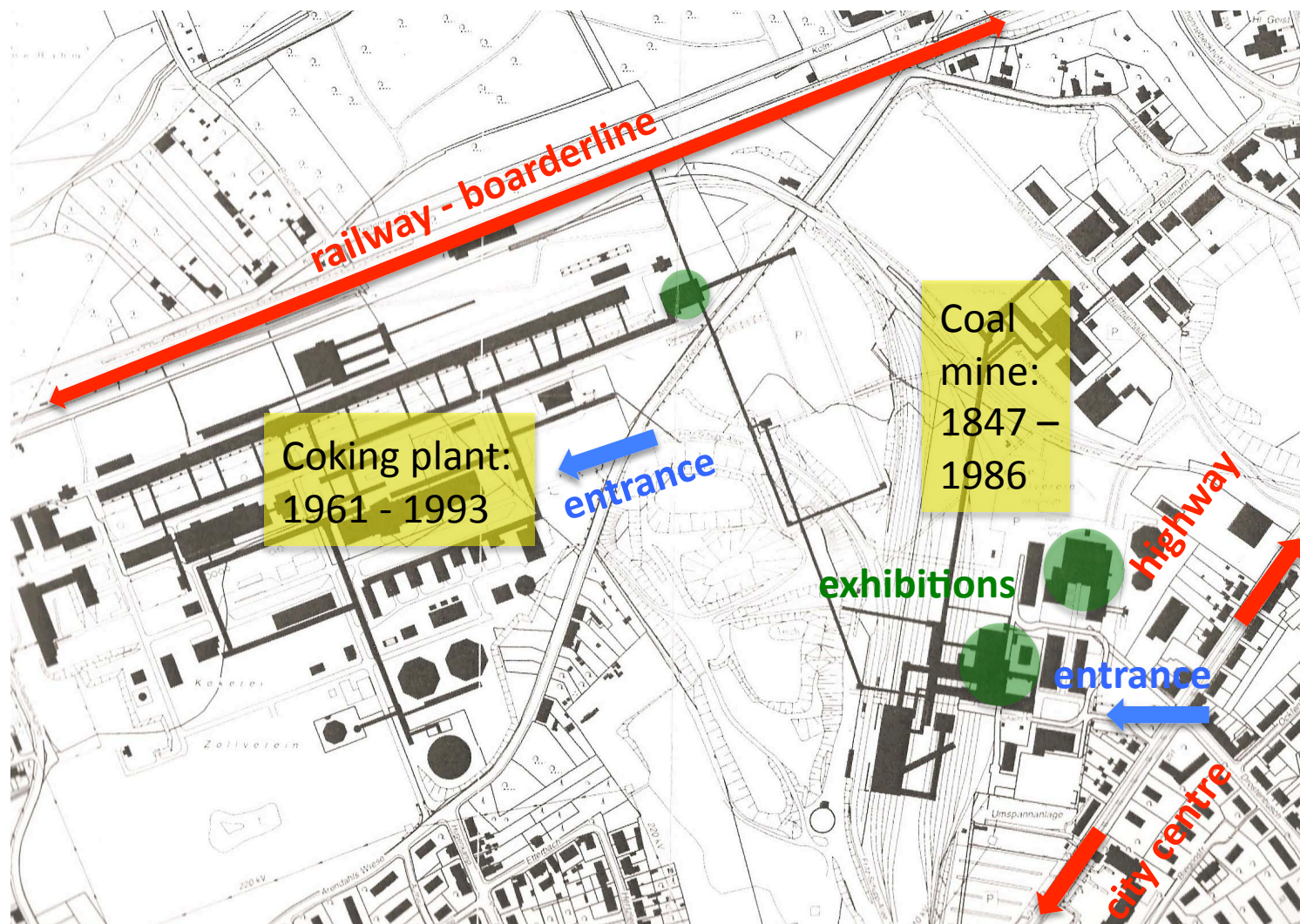
buildings



green areas



Zollverein

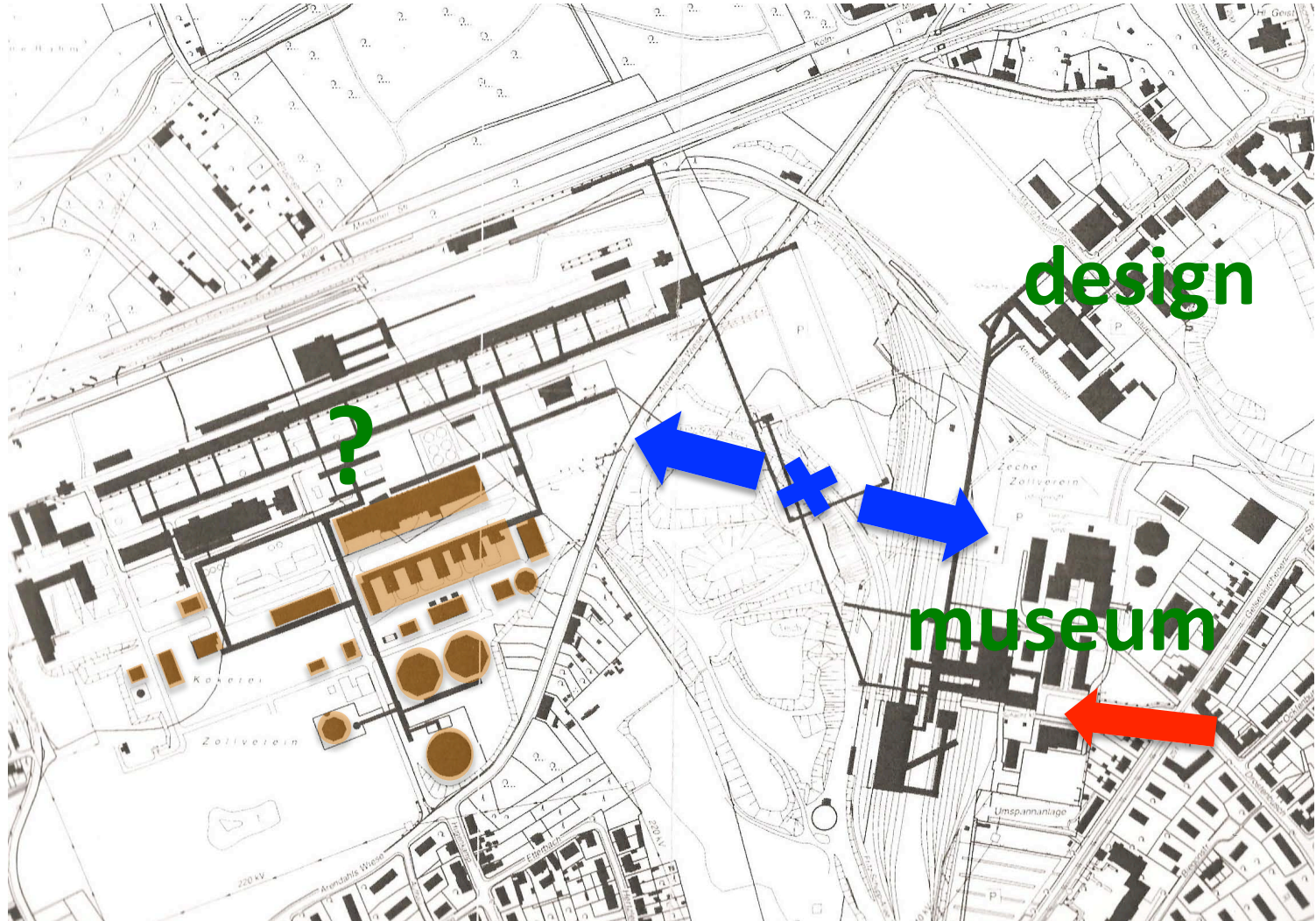


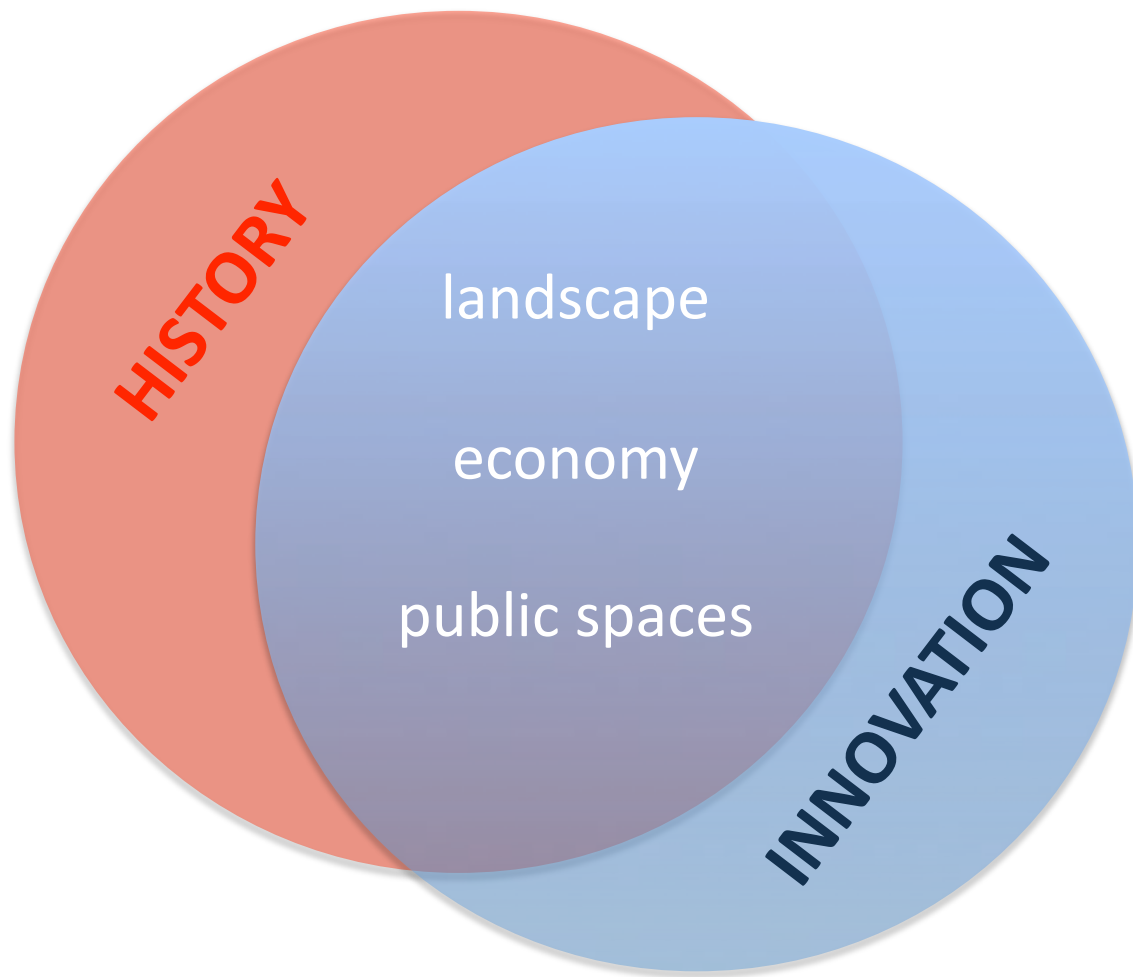


no connection/  
sight blockade

in need of  
renovation and  
unused buildings

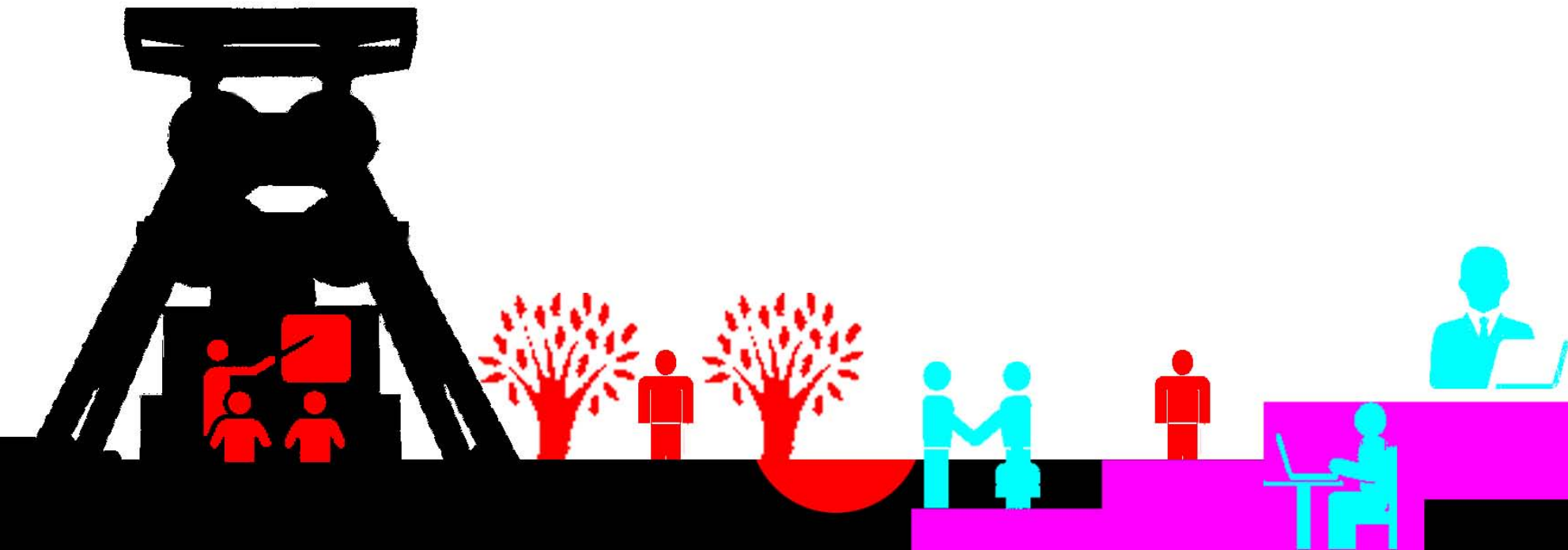
entrance

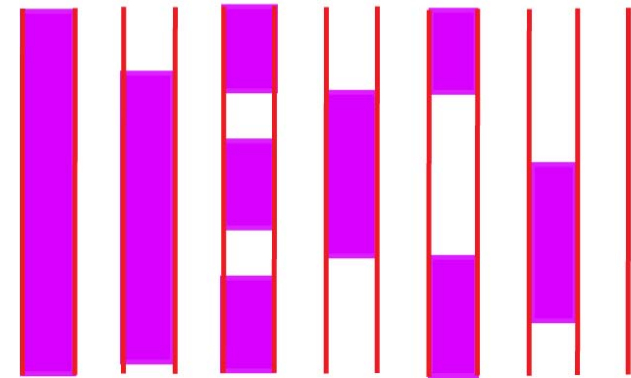
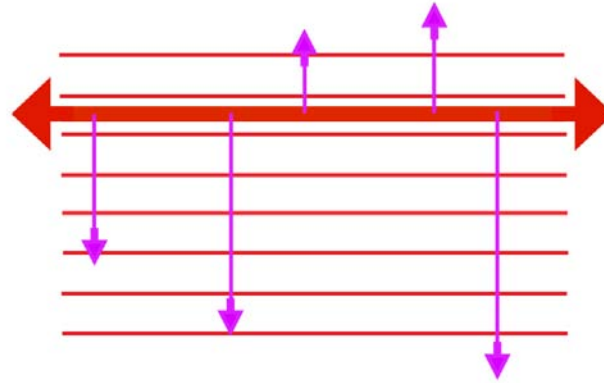




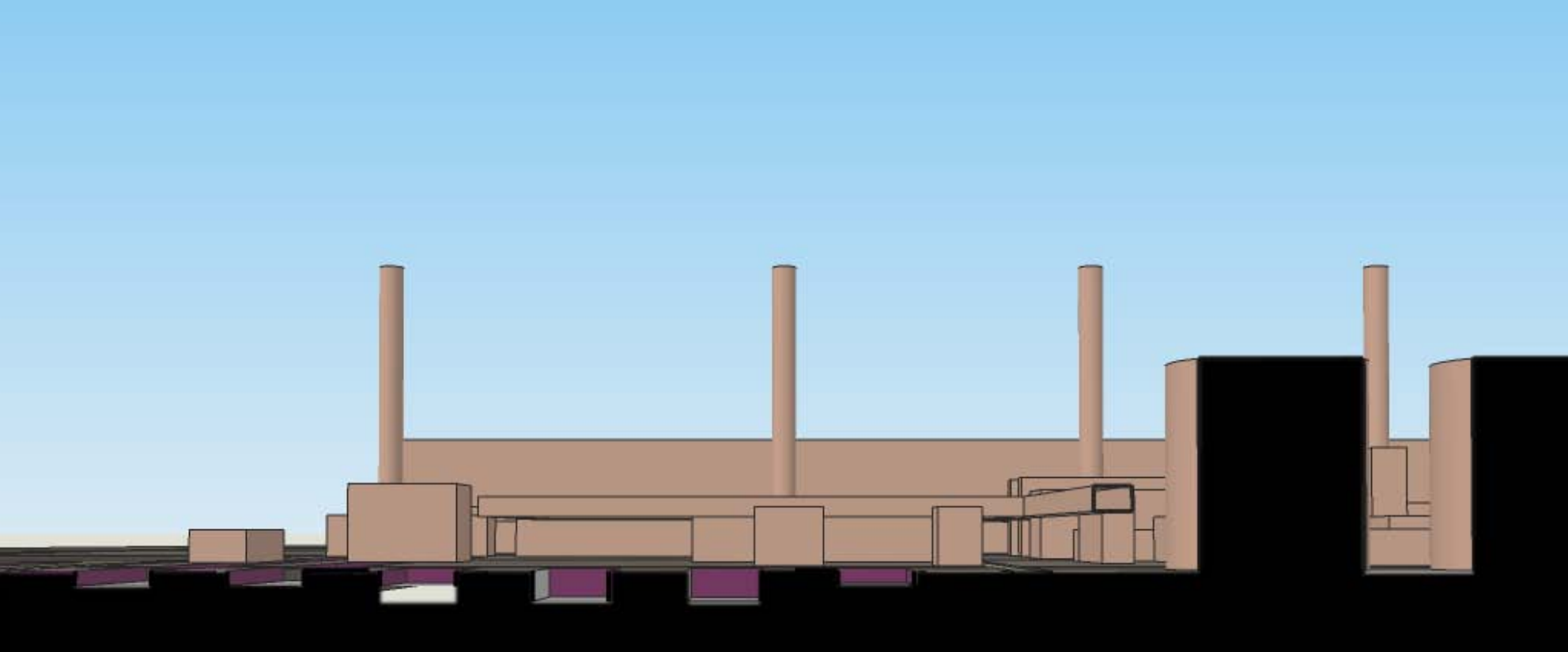


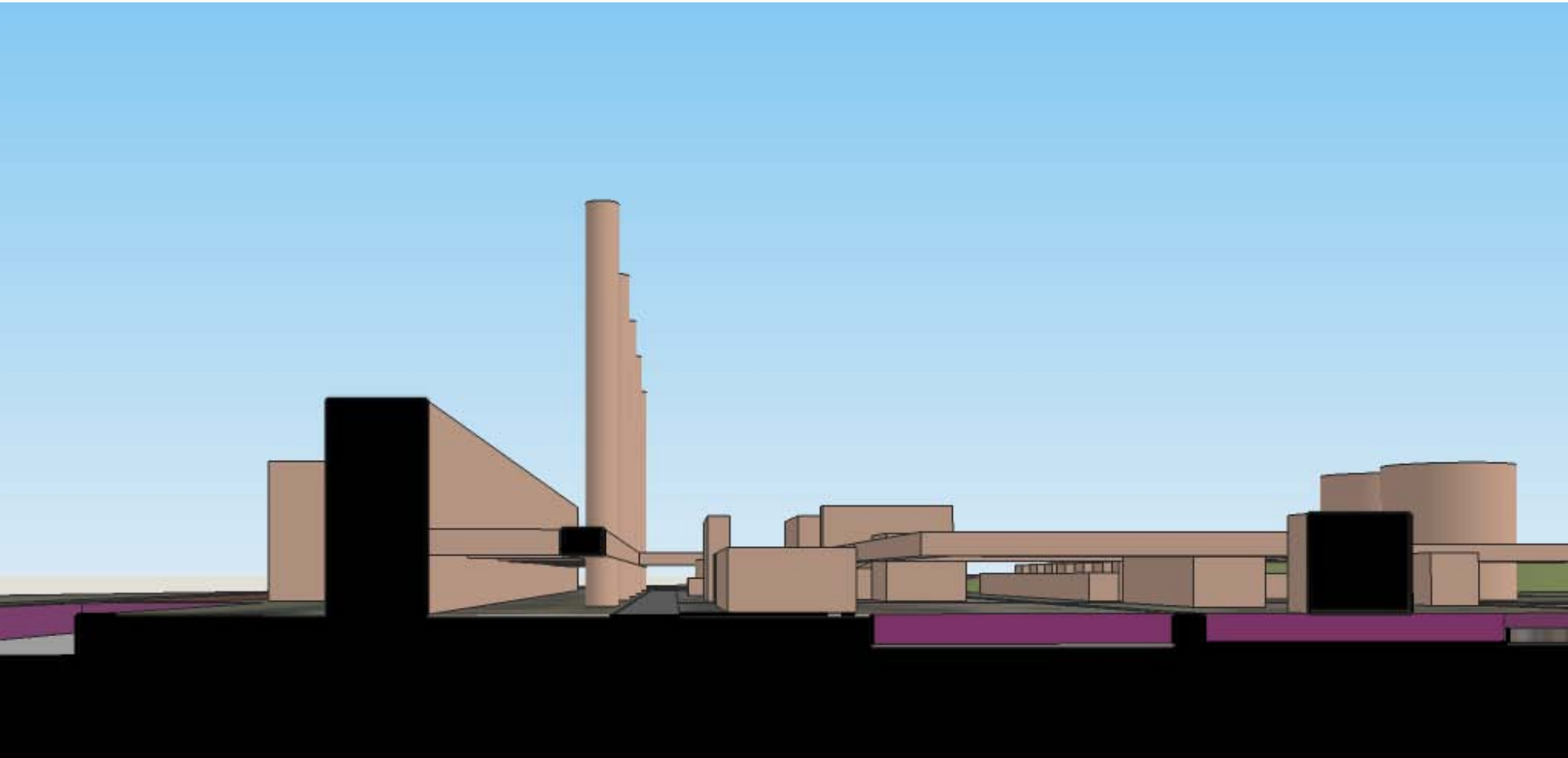
# HISTORY MEETS INNOVATION



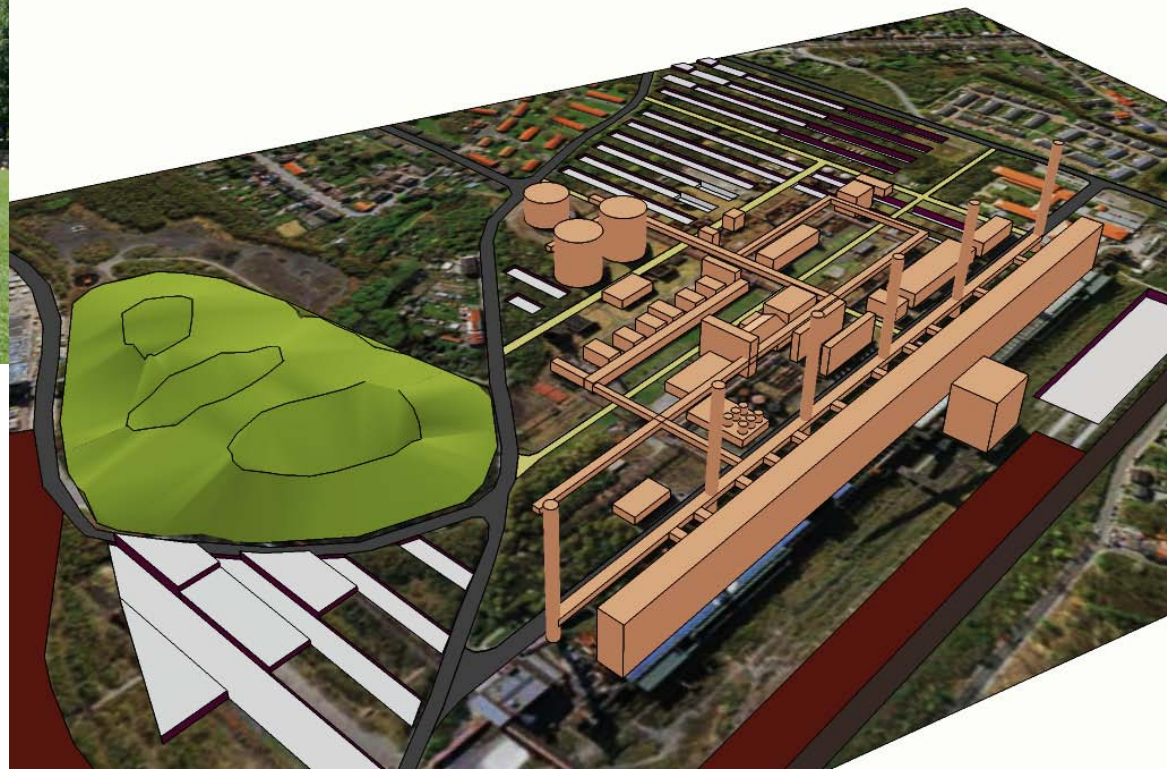
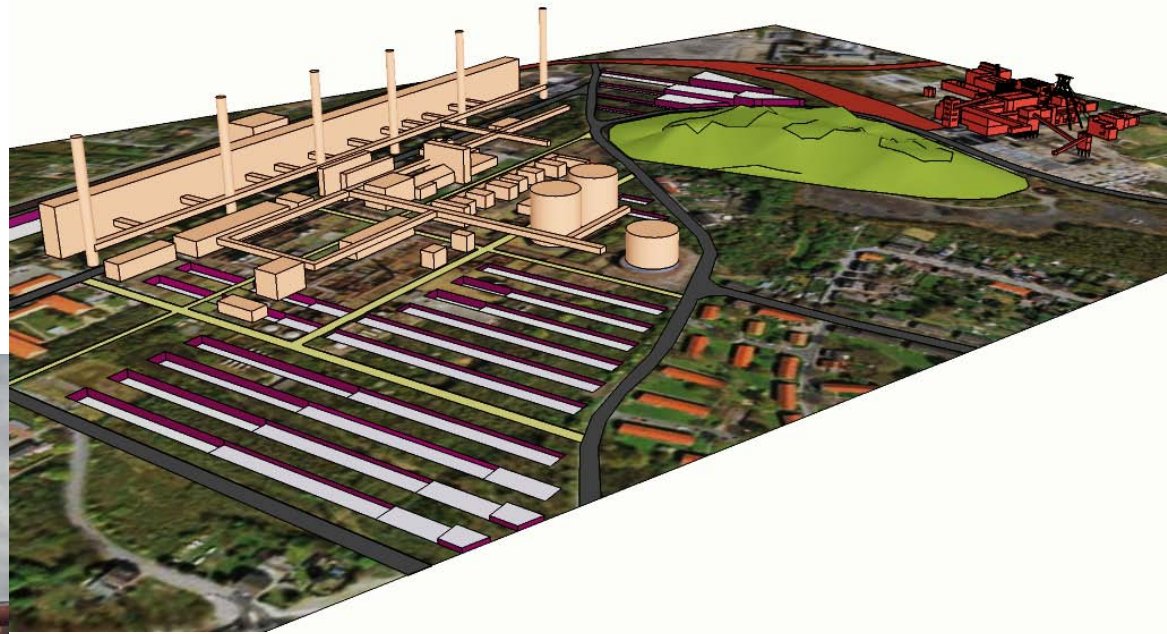
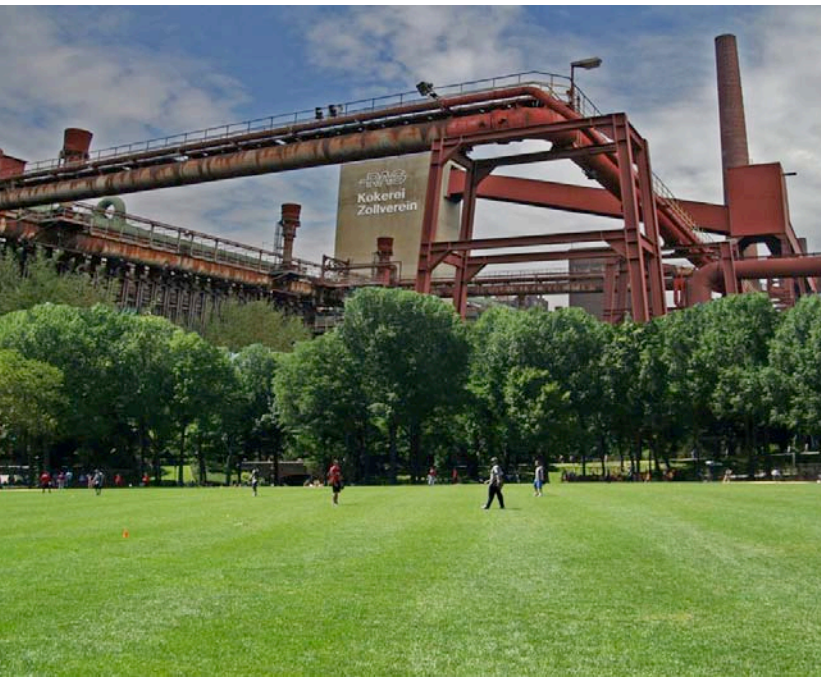


















A black and white photograph of a large industrial facility, possibly a refinery or chemical plant. The scene is dominated by a complex network of steel structures, including walkways, railings, and large cylindrical storage tanks. In the foreground, a narrow canal or waterway runs through the center, reflecting the light. The background shows more industrial buildings and structures under a clear sky. The overall atmosphere is one of a busy, large-scale industrial operation.

Group **3** merged with 5

A black and white photograph of an industrial facility, possibly a refinery or chemical plant. The scene features a large canal in the foreground, reflecting the sky. Above the canal, there are multiple levels of industrial structures, including pipes, walkways, and large cylindrical storage tanks. The background shows more industrial buildings and structures. The overall atmosphere is industrial and somewhat somber due to the monochrome palette.

Final Results Group

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# PROCESS OF CREATION



The industrial process is inspiration for the art creation process

Revitalization of Area of Coking plant Zollverein

The main idea is industrial process transformed to creation process. The linear industrial process serves as inspiration source for the process of art creation.

The project works in three different scales.

First and highest is regional scale. Area of Zollverein is located in Ruhrarea, between cities of Essen and Gelsenkirchen. In the north is tangented by railway route, in the south by tram and bus. Ruhrarea is area with many museums, which are creating cultural network.

Second scale is local, that means suburb and greenery surrounding area of Zollverein. The ground network of communications goes out of existing roads in suburb around. We want to connect green in the south with forest in the north.

Third scale is site scale of coking plant. In project we use existing aerial network, in past used for delivering material, now transformed to pedestrian walks. Art, as symbol of higher level of human being, is symbolised by using of aerial circulation system. Connection between two different levels is realized through landscape art at the beginning and in museums at the end of art process.

Application of idea of Creation process

The area in the south symbolises last phase of urban life, recreation and sports. Its although first phase of art creation process - inspiration.

The battery of ovens with storage towers is used as exhibition room. When visitor is forced to pass through one of ovens or towers, he can feel the spirit of the site, the genius loci of industrial area of Coking plant. Simple concrete walls, supported by steel constructions are creating unique scenography.

The brain of creation process, library, art school and studios, are situated in the center of the area.

When art works are ready, they go to phase of selection. Art will be showed in temporary exhibitions. These are realised in tunnels and chimneys in artificial topography. Artists will wait for response from public and critics, this is the way how public influences the art process.

After phase of selection is process divided into two parts. One way is exhibition in one of museums or galleries, second is sale and export. Consuming of art is a part of urban process.

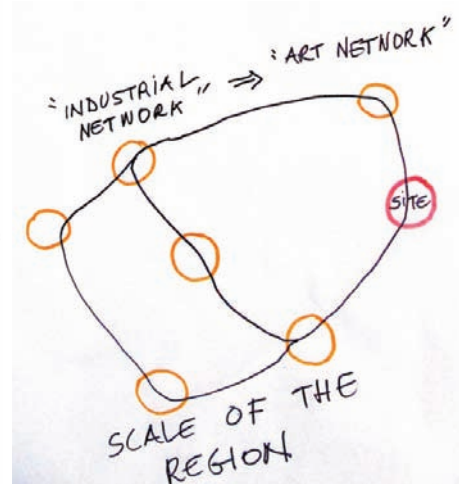
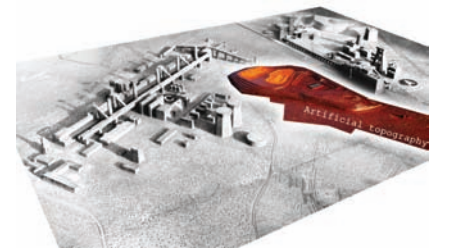
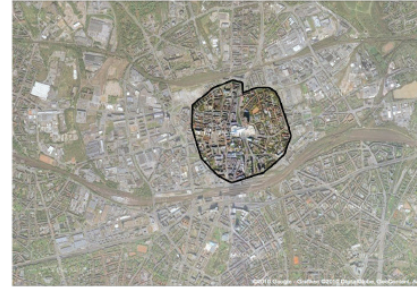
# ANALYSIS

## Creation process

### PROJECT AREA : Delimitation



Scale of the Zolverein site is in a similar scale of the old center of Essen





# PROBLEMS & FORCES

Creation process

## PROBLEMS



> LIMITS : a site closed



> URBAN CONTEXT : no connections



> CURRENT STATUS : undefined



> AUTONOMY : the object

## FORCES



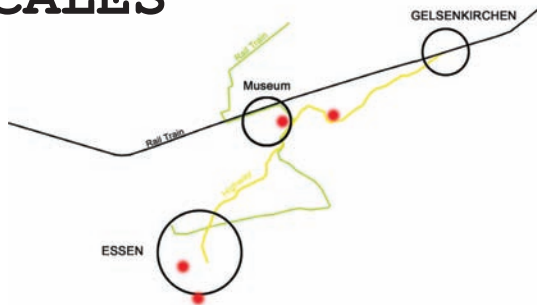
> INDUSTRY : structure of process



> ARCHITECTURE : a strong identity

# GENERATING IDEAS

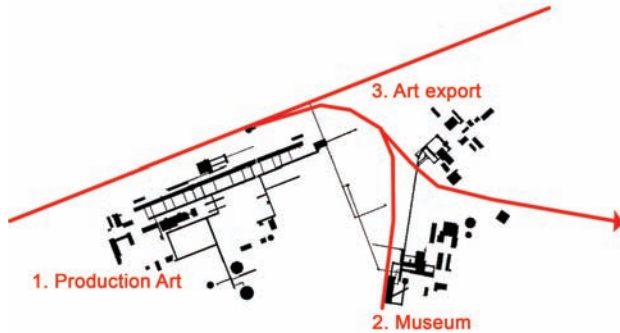
## 3 SCALES



Regional scale : Museum network

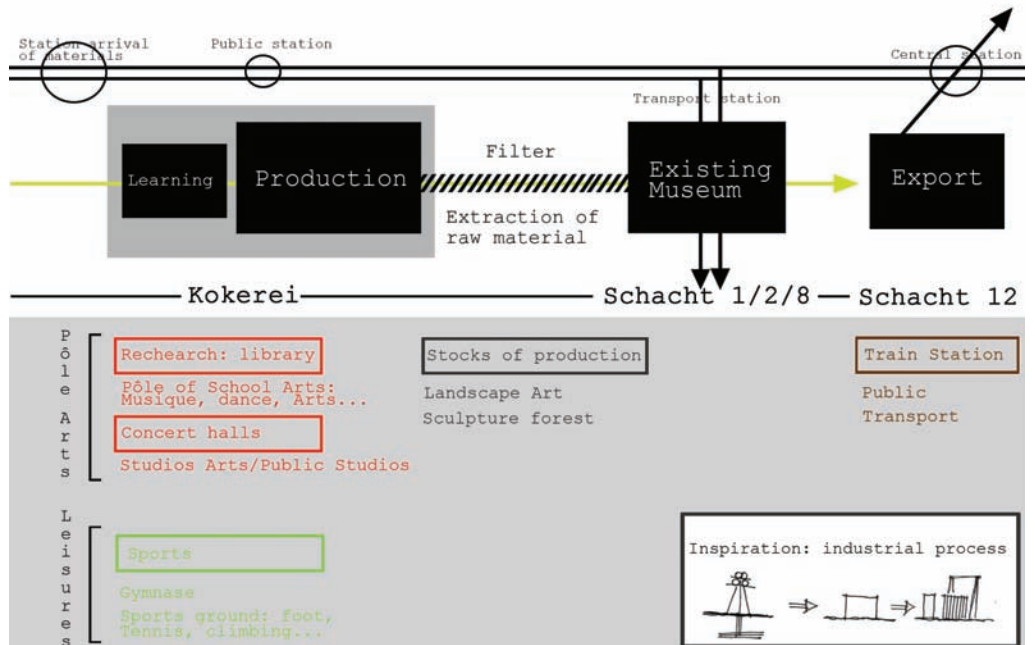
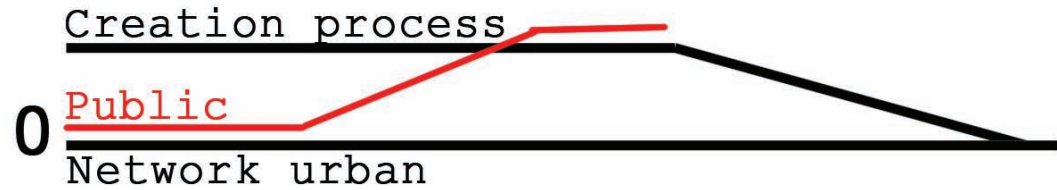


Local scale : Urban machine



Site scale : Art creation process

Creation process





# REFERENCES

Creation process

## TOPOGRAPHY



## MACHINE



Le centre Pompidou, Paris, R.Rogers and R.Piano

## BIG SCALE ART / Anselm Kiefer in Grand Palais



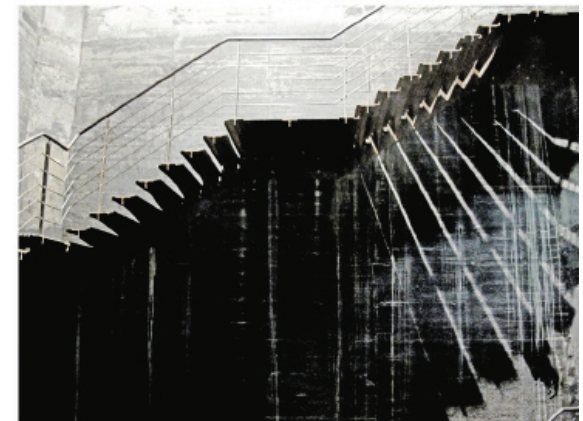
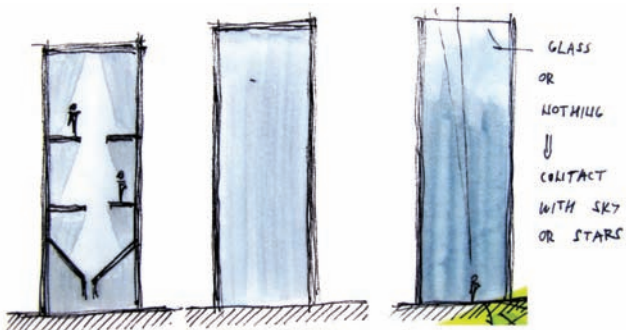
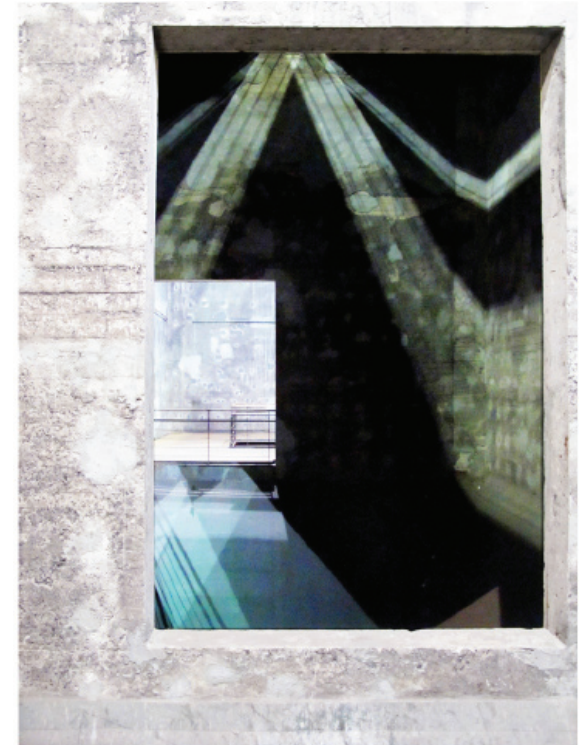
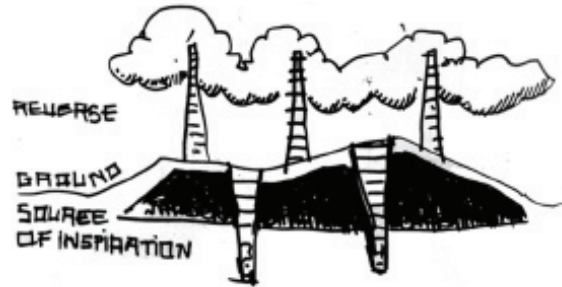
## « CITE DES ARTS » / De Chirico



# GUIDING IMAGES

Creation process

The back becomes the front



TOWERS : SPACES OF SCENOGRAPHY

CHIMNEYS : SOURCES OF INSPIRATION

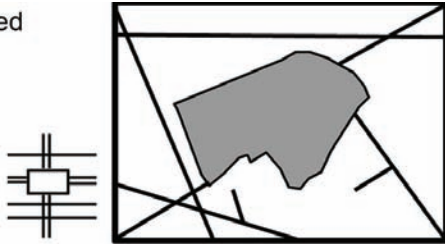
POTENTIAL OF EXISTING SPACES



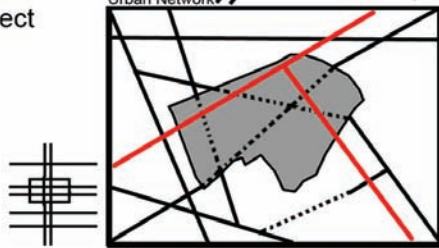
# DIAGRAMS

Creation process

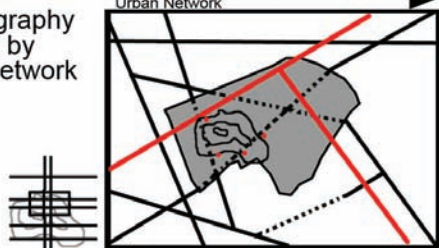
Closed



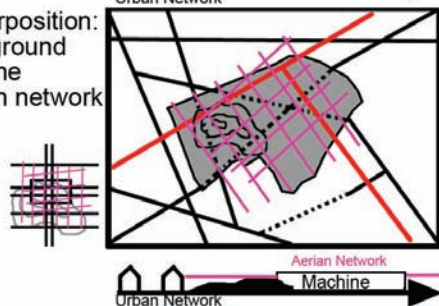
Connect



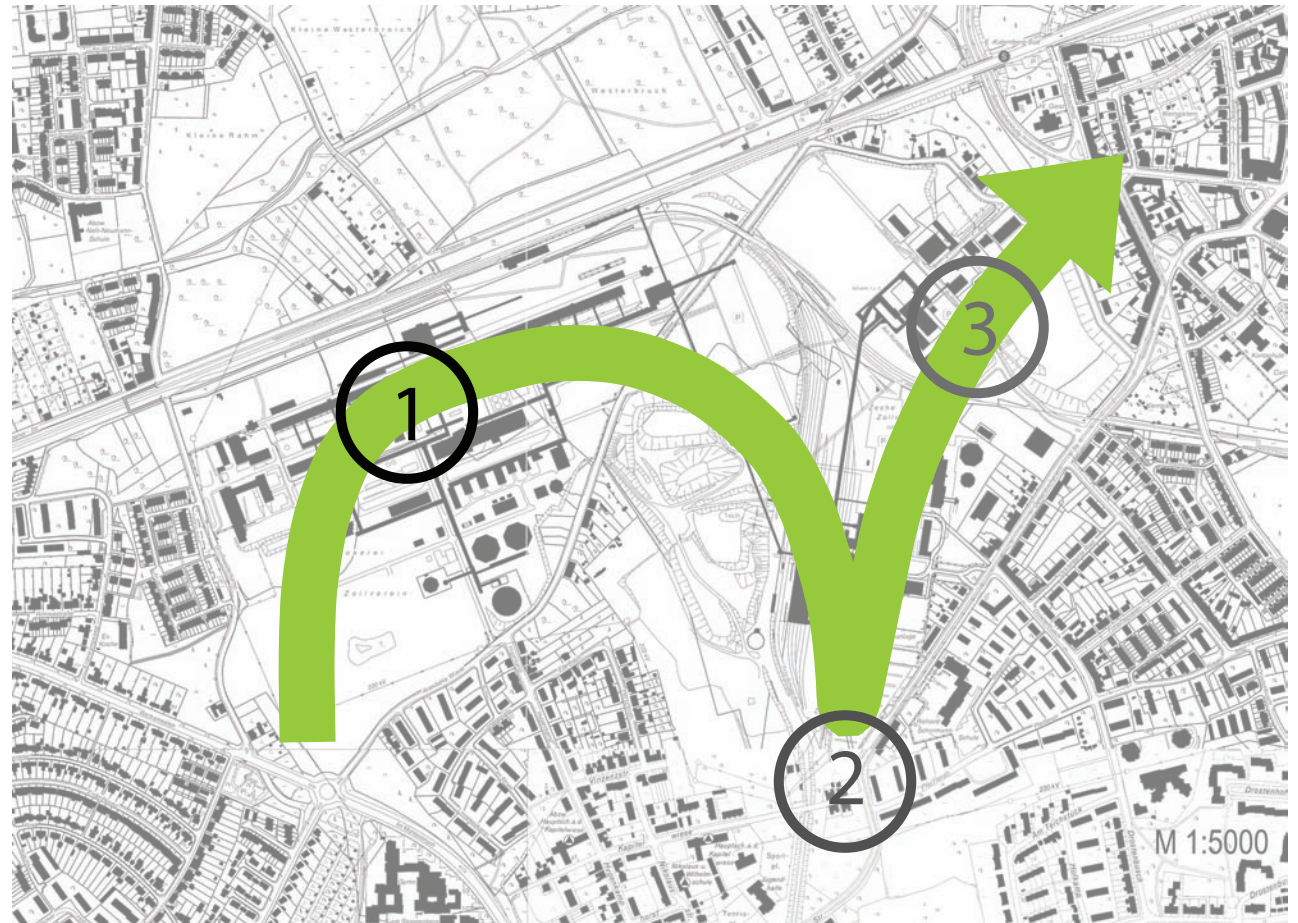
Topography  
cross by  
the Network



Superposition:  
The ground  
and the  
aerian network



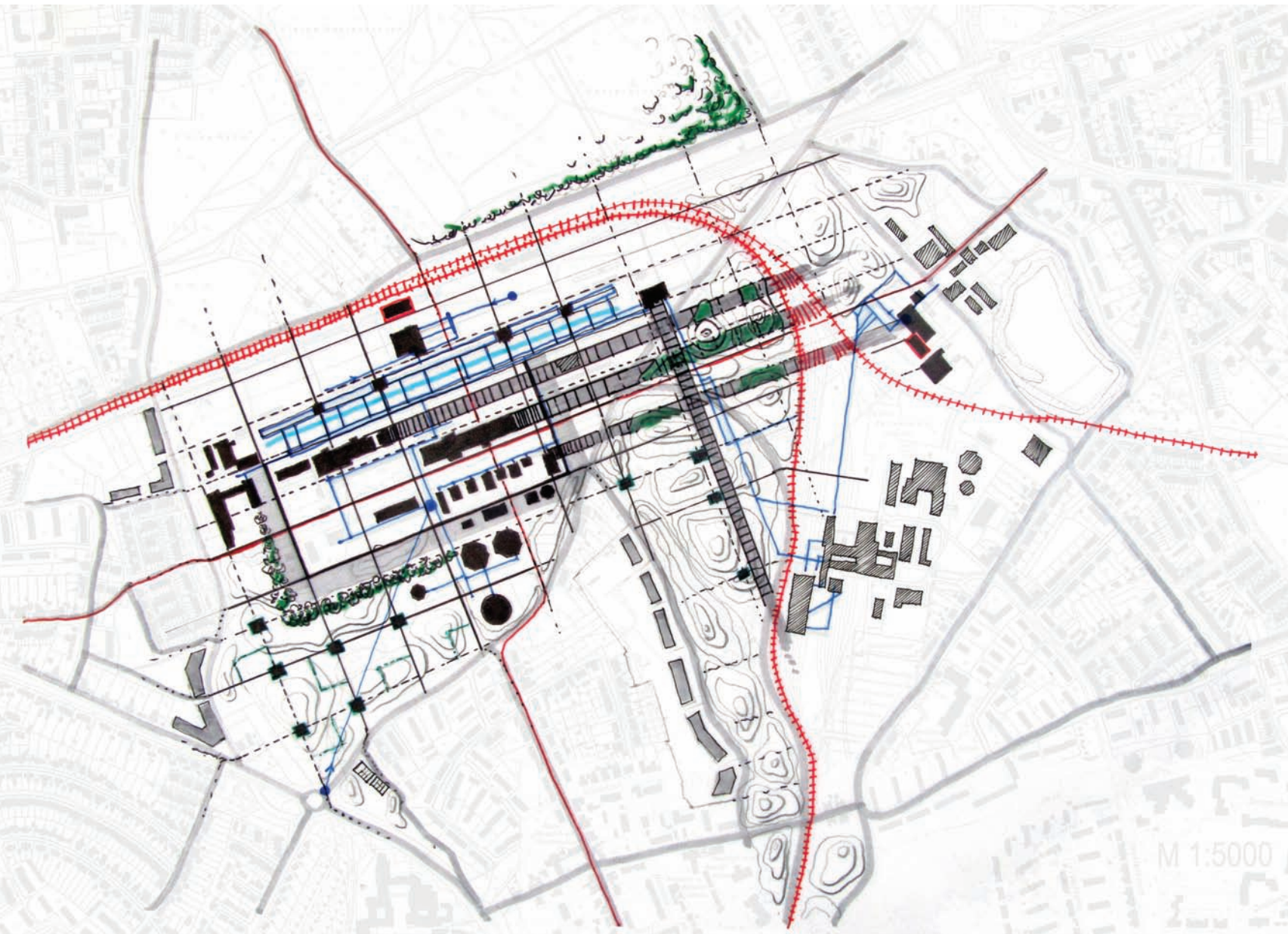
## PROCESS : STEPS & INTERMEDIATE SPACES





# MASTER PLAN

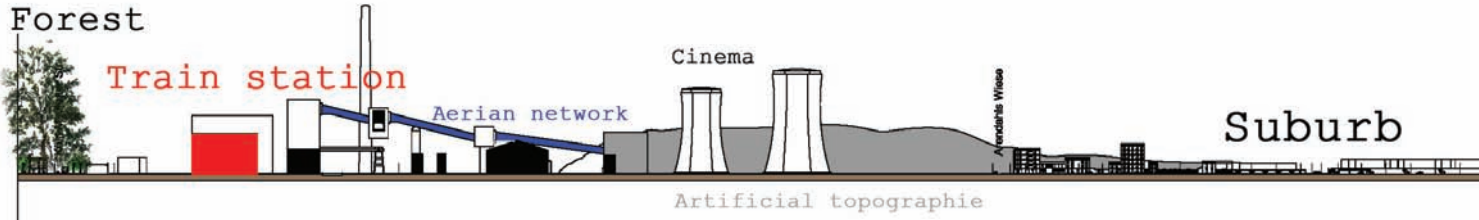
Creation process



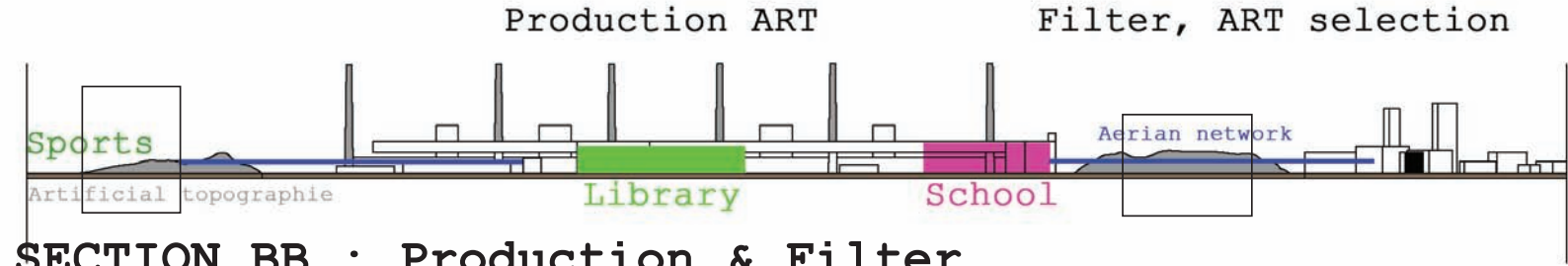
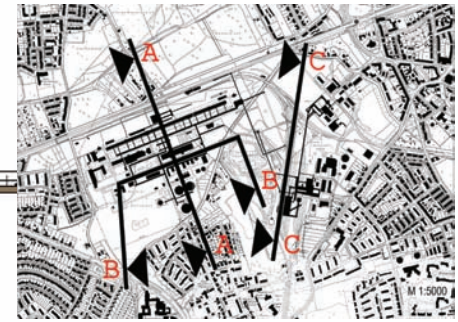


# SECTION 1 / The Process

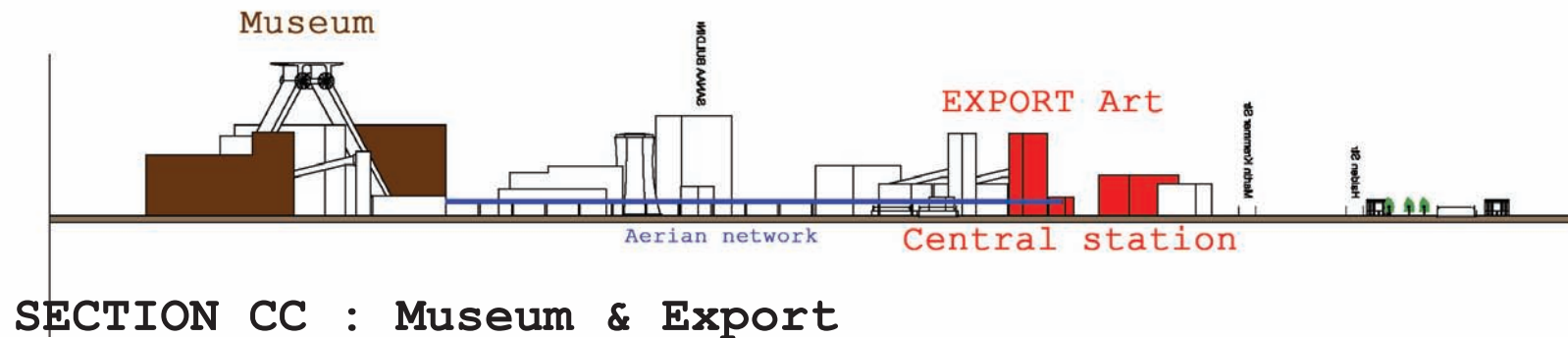
Creation process



CROSS SECTION AA



SECTION BB : Production & Filter



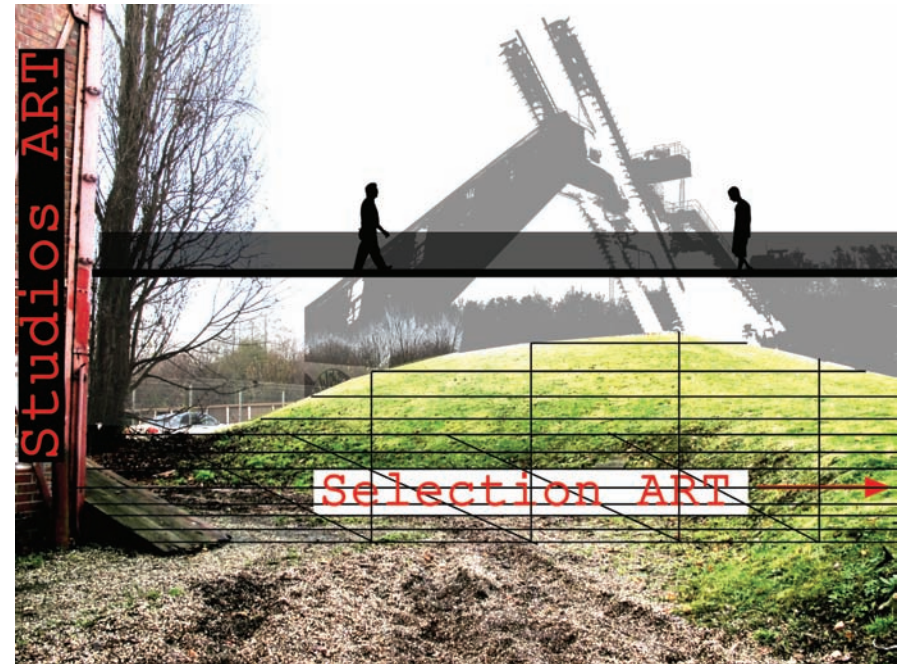
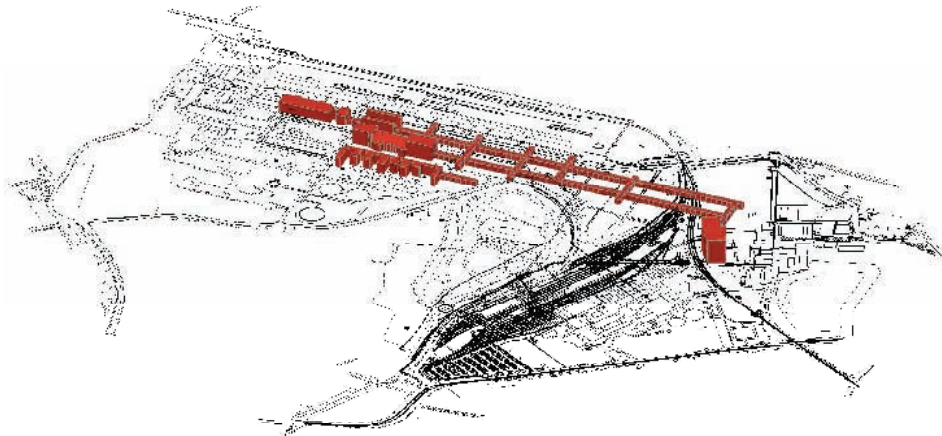
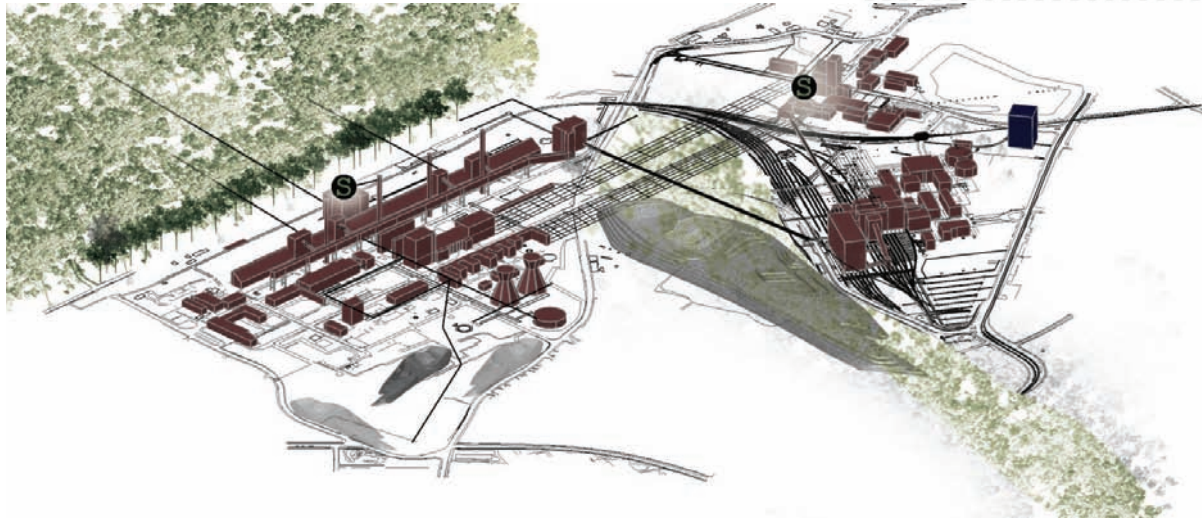
SECTION CC : Museum & Export




ZOOM : DISPOSITIF

# PERSPECTIVES

Creation process







Final Results Group

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## HOLD THE LINE

The project site is, by and large, characterized by imposing industrial elements of various kinds and sizes: pipes, beams, chimneys, railways for coal transportation, that altogether form a sort of grid pattern.

By purposefully defining this industrial linear complex as an “organic system”, reminding the historical growth impulse of heavy industry, the proposal is to allow them grow and extend into the surrounding landscape, as if the industrial process were still going on.

By doing so, the aim is: a. to trigger a lost dialogue between dispersed elements and the three, now isolated, production areas; b. anchor the whole into the region by multiplying the connections with the surrounding urban places and thus creating a wide range of use and movement possibilities.

This structural development will put the Kokerei buildings in a new “showcase”, framing it and spreading out its inner complexity.

This new extended grid will also follow the vertical tendency of the site (chimneys and pipes), so that the generated surfaces may offer new suspended surfaces, functionally organized according to the geographic orientation and the views.

The generating lines then hide, integrated into surfaces, but still persist in details, texture and ground accidents in order to keep them visible and thus suggest the generating grid pattern.

The proposed mega-structure will finally define a new urban unit of regional importance with functional, symbolic and aesthetic importance.



## ANALYSIS



INDUSTRY

URBAN

NATURE





## PROBLEMS



ISOLATED

ONE FONCTION





## POTENTIALS



EXISTANT NETWORKS

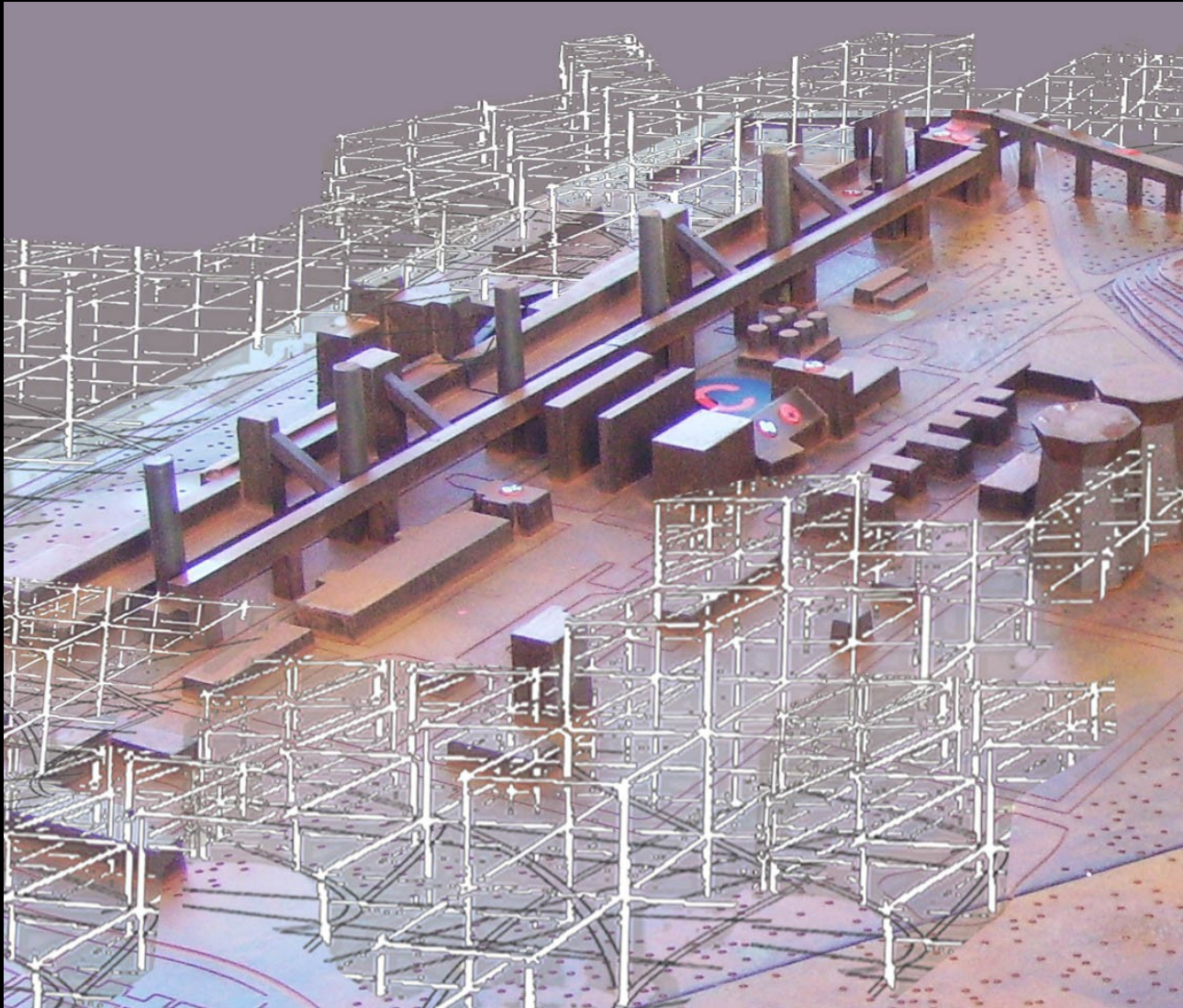
STRUCTURE

LINK SUROUNDINGS



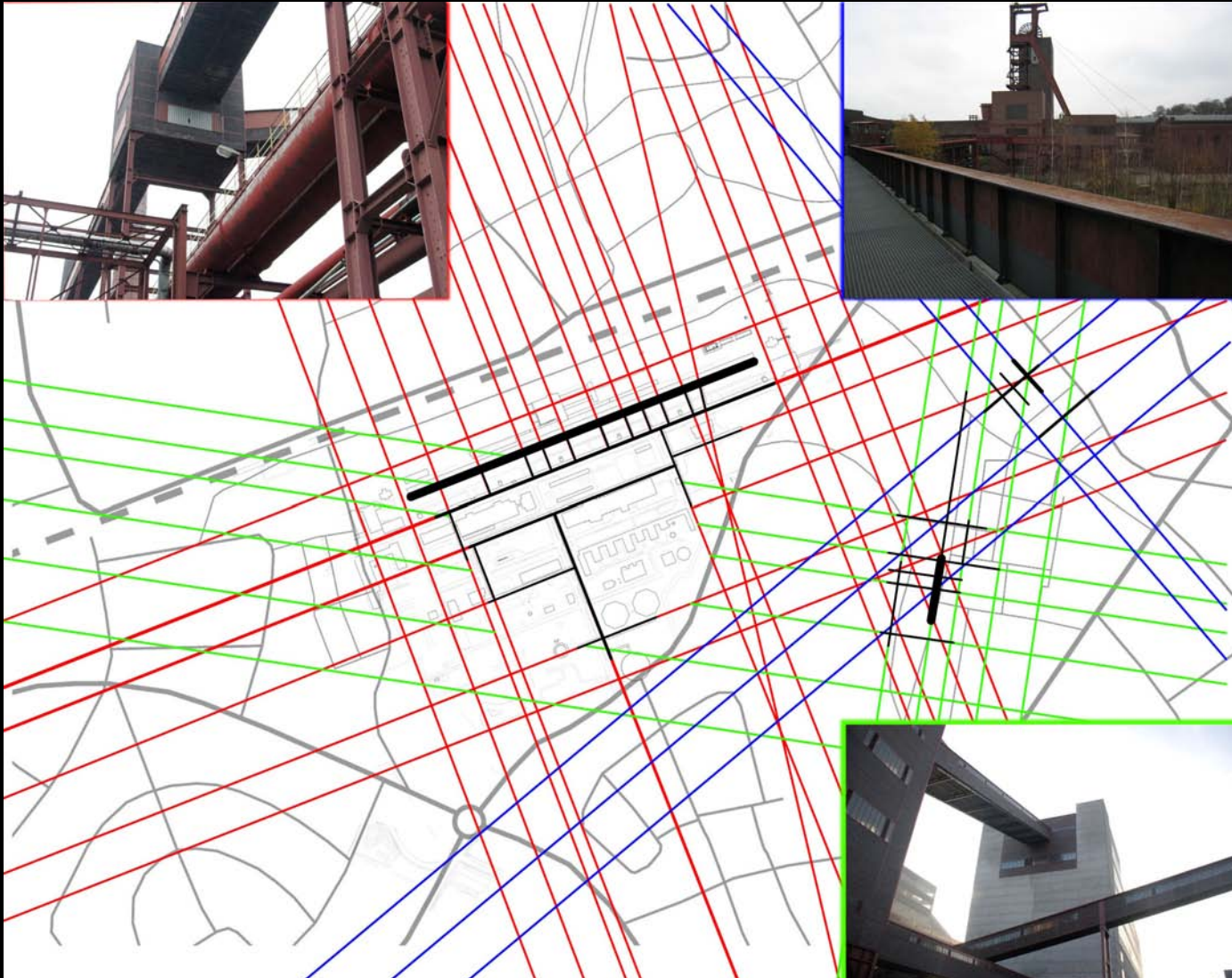


## IDEA





## PROJECT

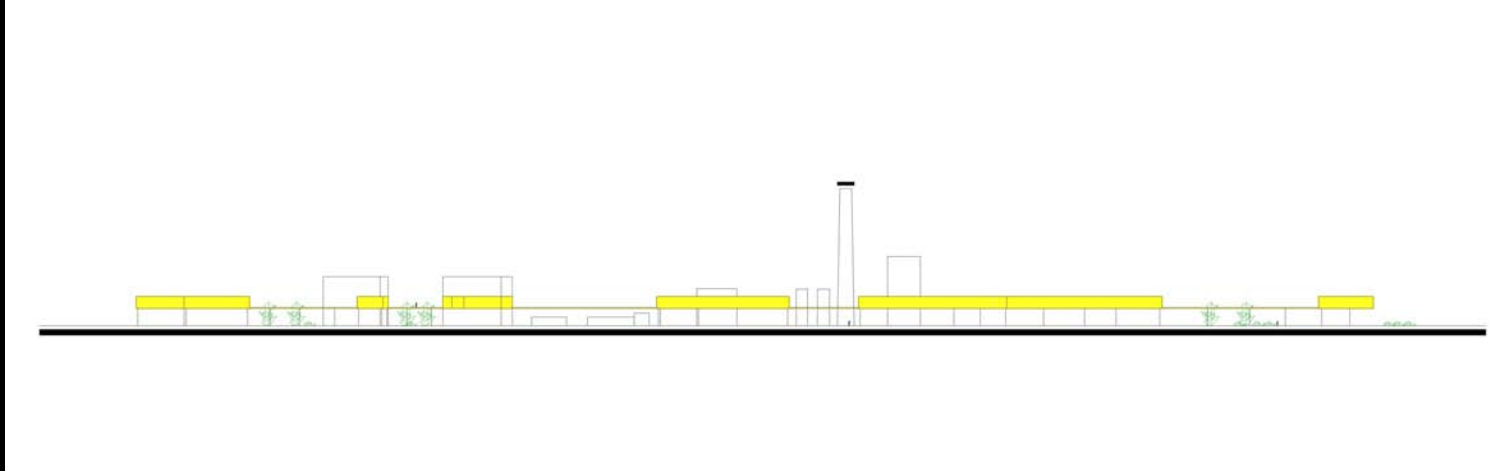


# MASTERPLAN

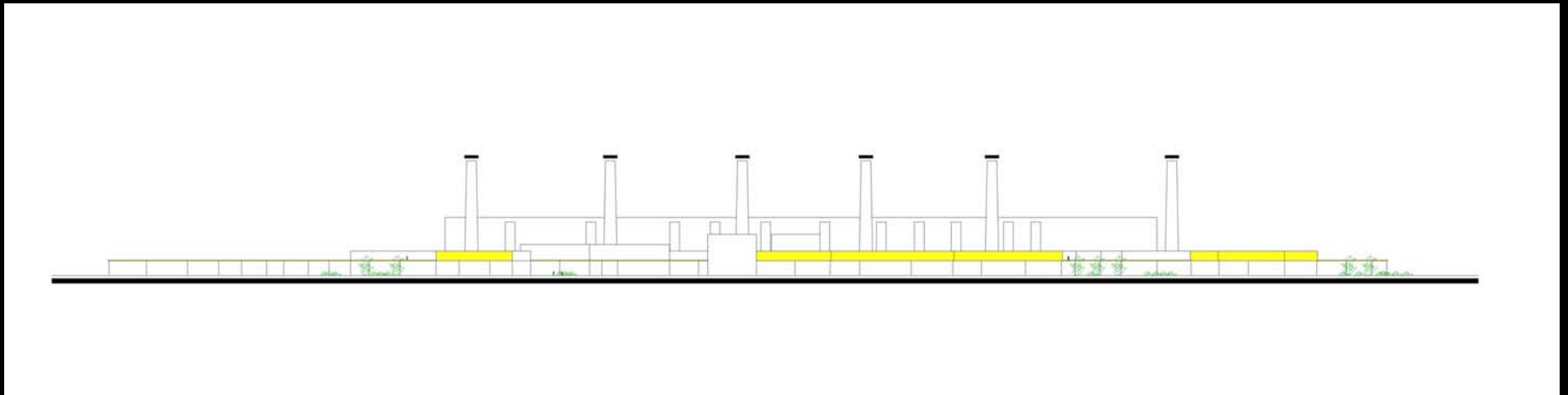




## SECTIONS

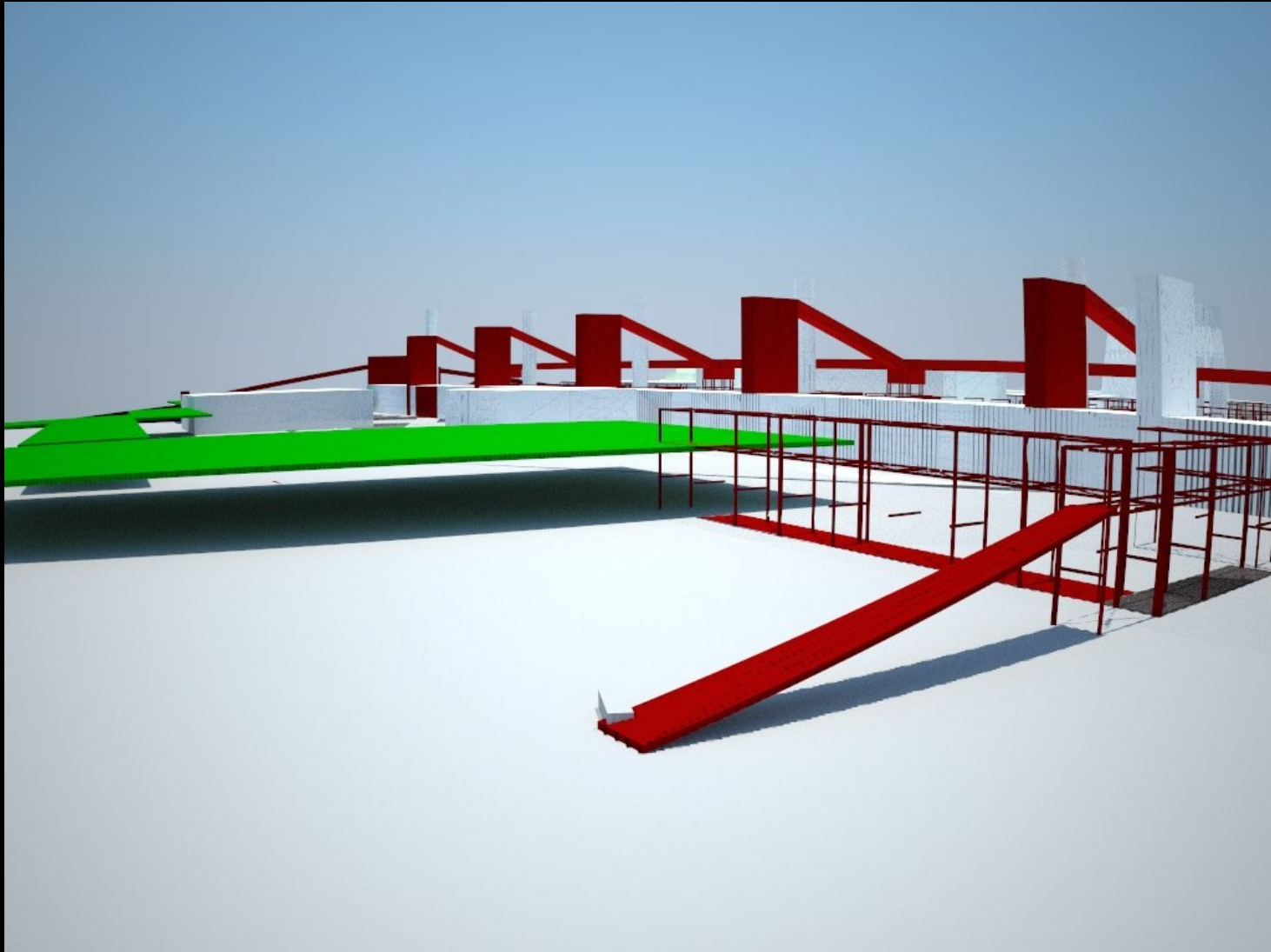


Section A



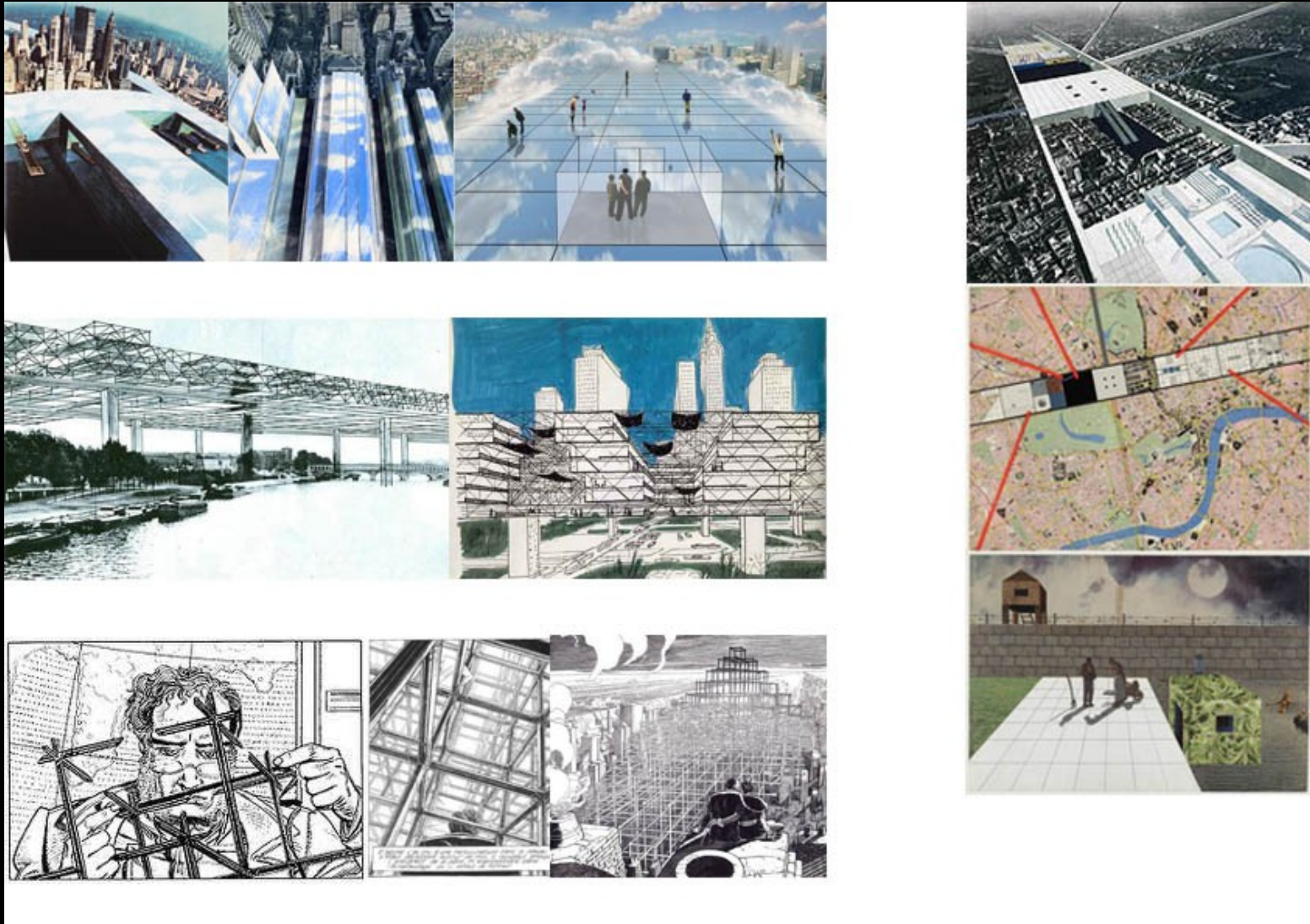
Section B


## VIEW





## REFERENCES



A black and white photograph of an industrial facility, possibly a refinery or chemical plant. The scene features a complex network of pipes, walkways, and structural steel. In the foreground, a canal or river flows through the facility, reflecting the sky. The background shows more industrial structures and a clear sky.

Final Results Group

6





INTERNATIONAL WORKSHOP OF ARCHITECTURE AND URBAN DESIGN

**KOKEREI – ZOLLVEREIN ESSEN**

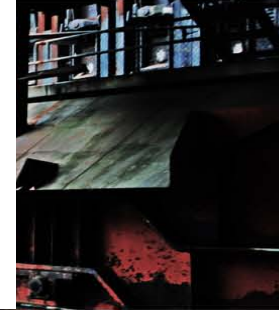
**6GROUP**

**Elise**

**Florelle**

**Zhang**

**Daniel**



**ENTHUSIAST**



# MAKE THE MACHINE ALIVE

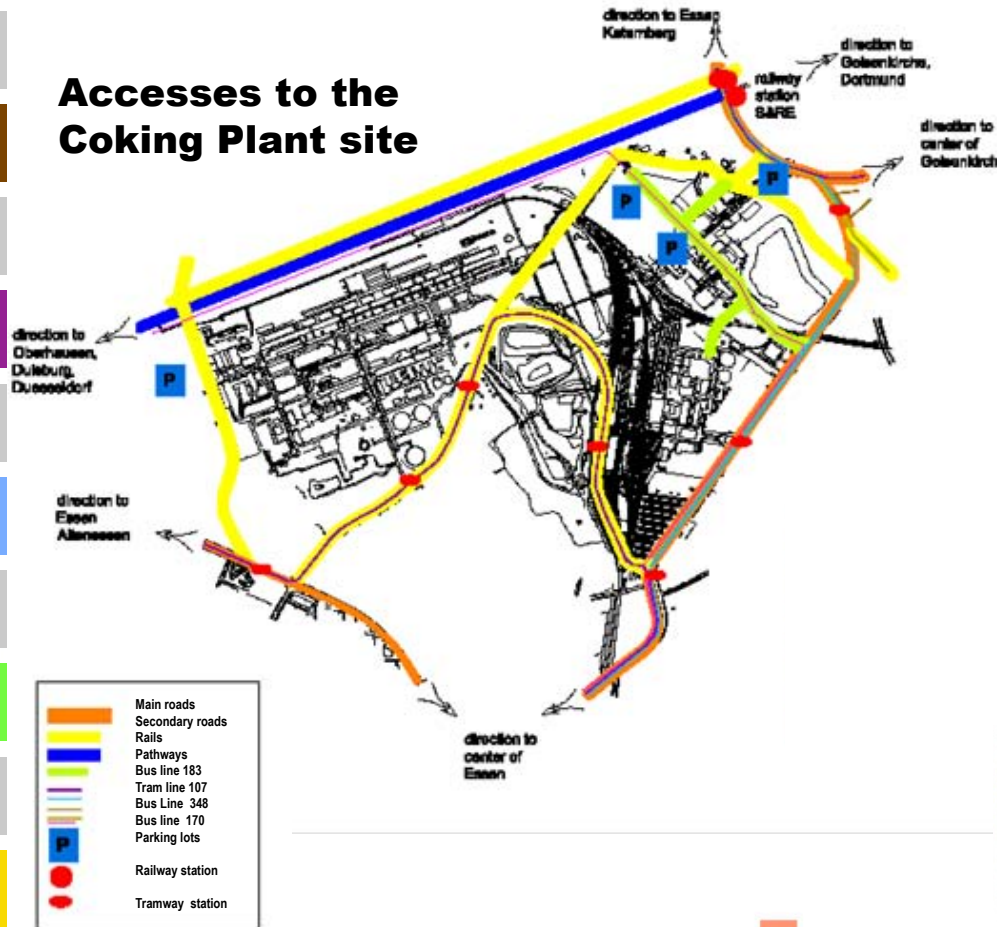
The Ruhr area is **an old factory area** located within the basin of three tributaries of the Rhine river. The buildings of the Coking plant were part of the old coal activity; their architecture was conceived for machines and especially for production.

When the activities broke down, **the site lost his original function but its structure remained within the urban space**. The beauty of this obsolete site hides also economic, social and urban issues. First of all, the site which was one of the main sources of development is not a profitable anymore; on the contrary it became something that the city has to look after. One of our aims is to make the site productive again. Then, the site is close to the city. This contributes to the force of the site that we could consider as an island which will be accessible only through some specific entrances. We don't want to dilute the Coking Plant into the city and we tried to maintain the enclosure which reinforces the identity of the site. However, the enclosure is a barrier for the urban process that we have to consider.

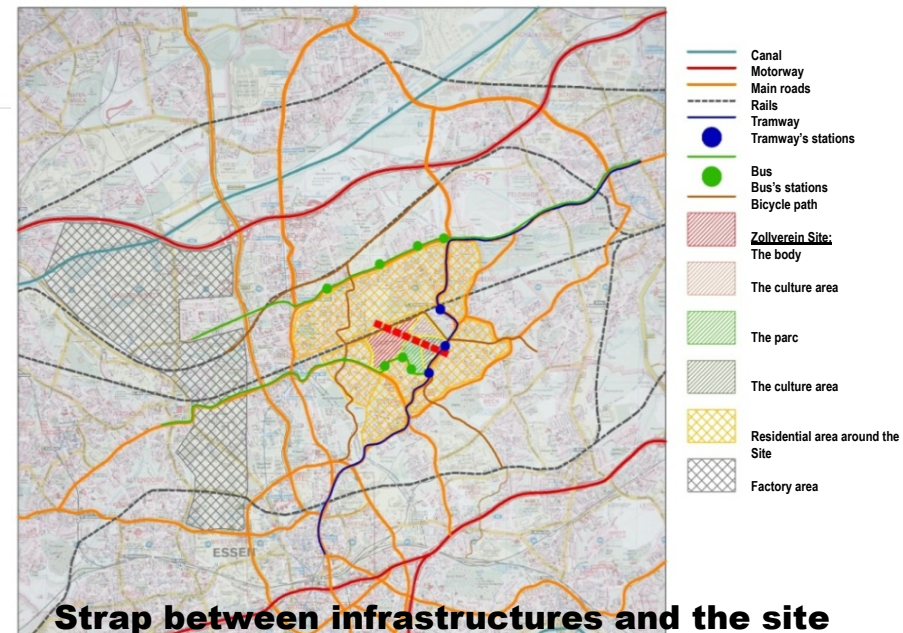
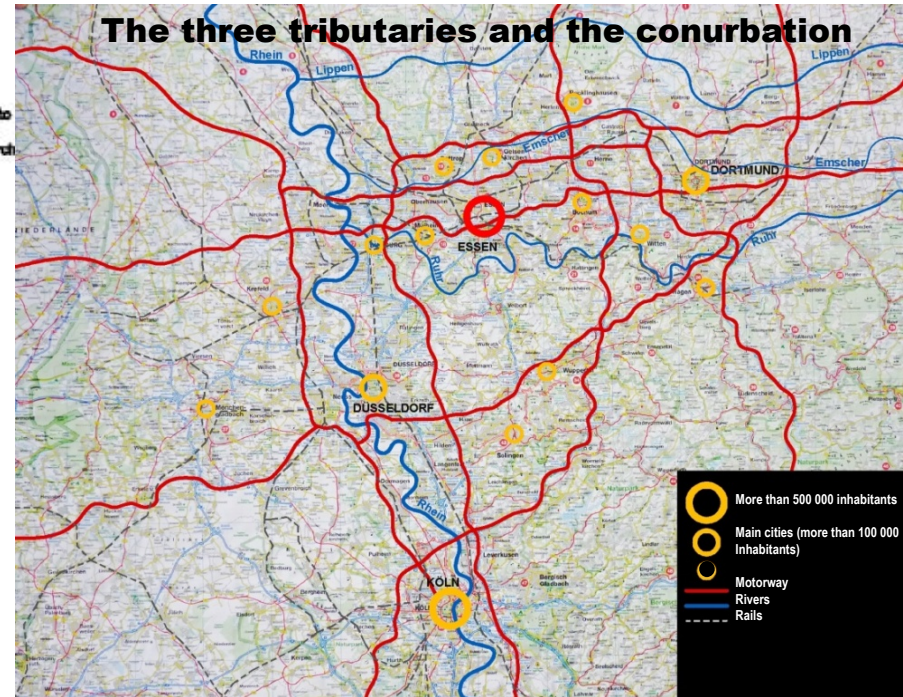
Our main objective is **to make the machine alive again but for the human beings**. We want to make the site attractive at the agglomeration scale but also for local people. To bring the life back into the machine we analyzed its structure and wondered how its mechanical logic could be used as a space for people. The space is a framework for circulation and distribution. We used it to propose a space to host different events. The space is adjustable according to the event's organizer. The circulations are on two levels to let the open space be relevant, and are connected to its surrounding through few straps. The events keep the machine productive and helpful for the city. Because the machine is too old to keep its original function but too young to be ancient the aim is to make the machine useful for the city before becoming a monument.



## Accesses to the Coking Plant site



## The three tributaries and the conurbation



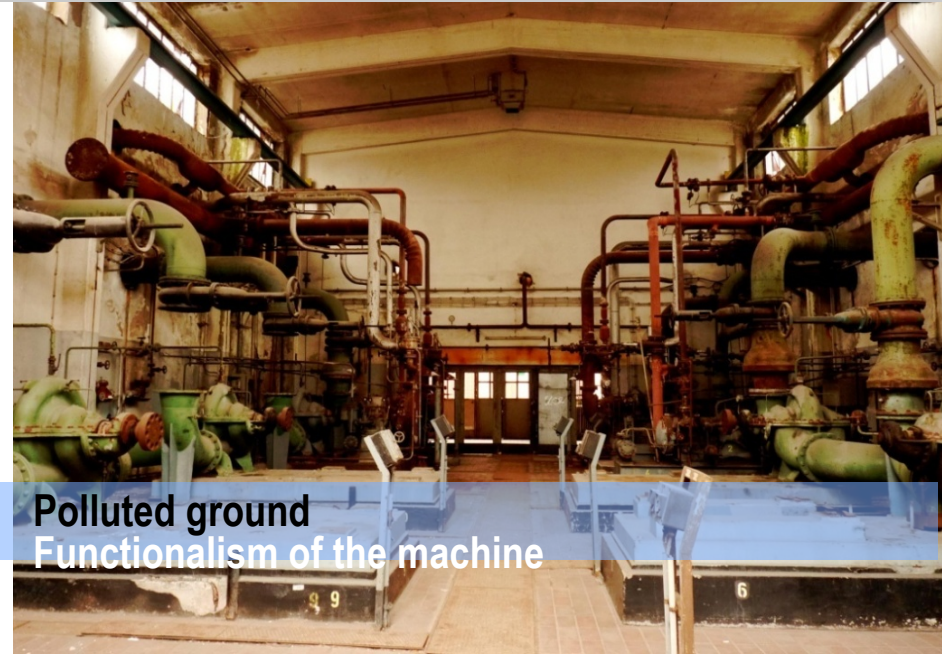
Strap between infrastructures and the site



# A deserted island



The force of the monument - An island in the city  
inreachable space



Polluted ground  
Functionalism of the machine



Deterioration  
Poetry of the obsolescence - Power relationship between industry and nature



**Porous structure without flux- Linearity – Continuity -Repetition**



**A non-Human scale - A significant colorA playground**





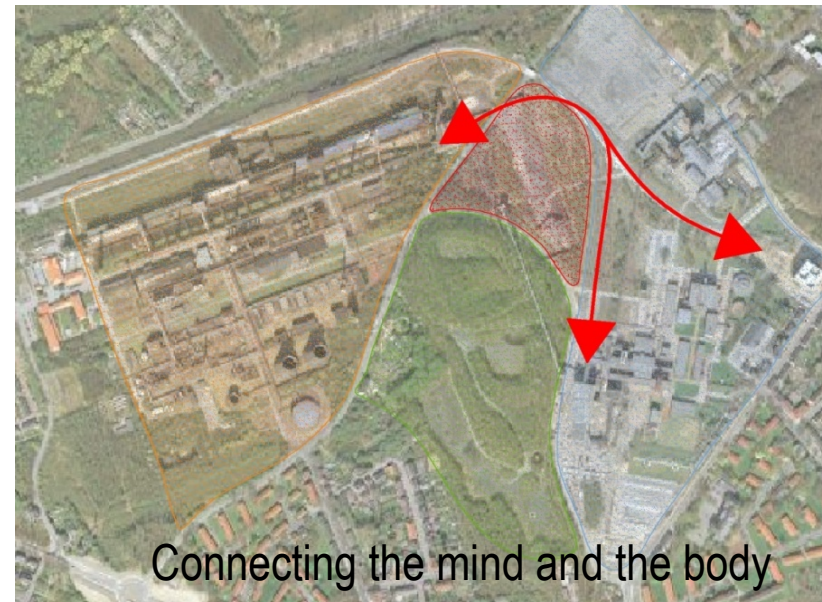
# Becoming attractive for the human body



Adapting the site to a human scale



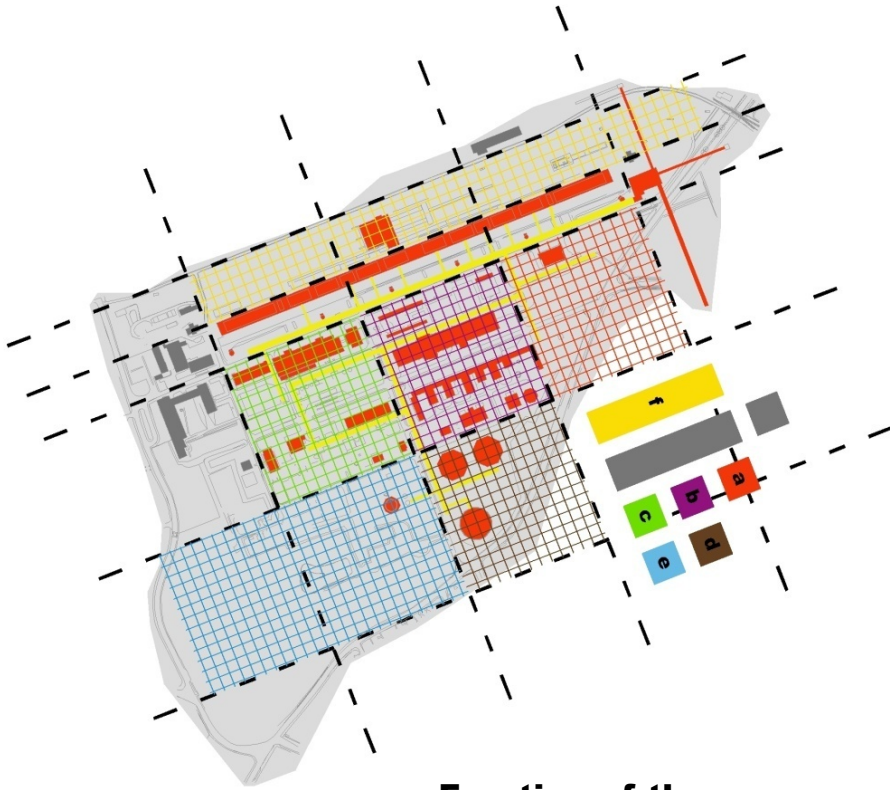
Reused buildings and circulations pattern



Connecting the mind and the body



# opening of the island to the cultural park and to the agglomeration



**Fraction of the spaces**



**Spatialisation of the activities and the accesses**

# Master plan

Housing area

Park

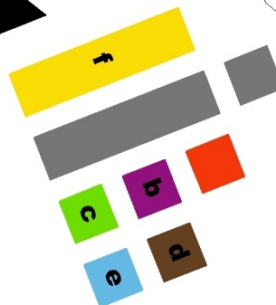
Housing area

Park

Park

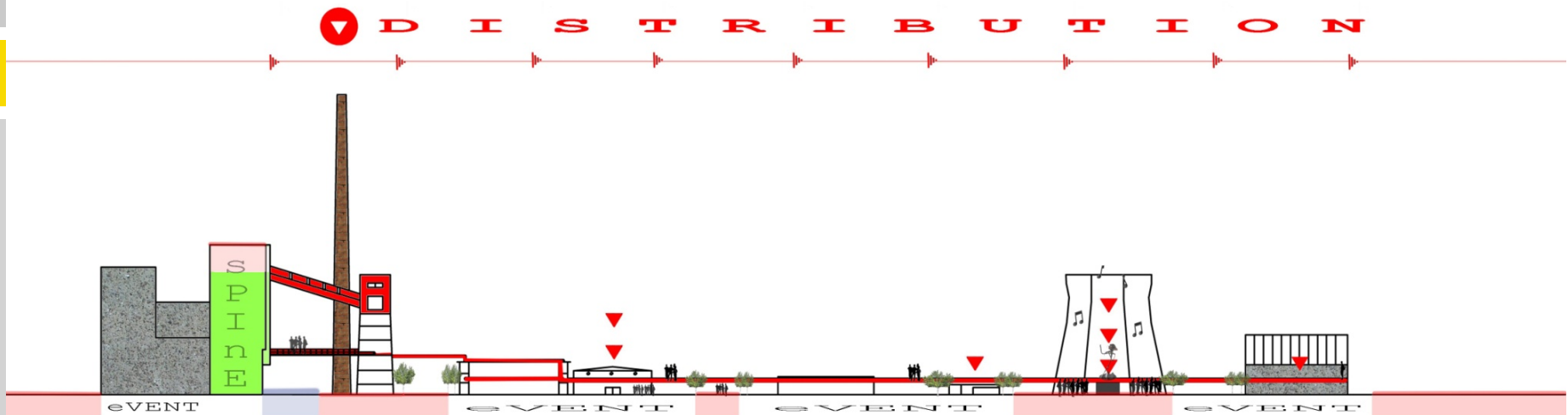
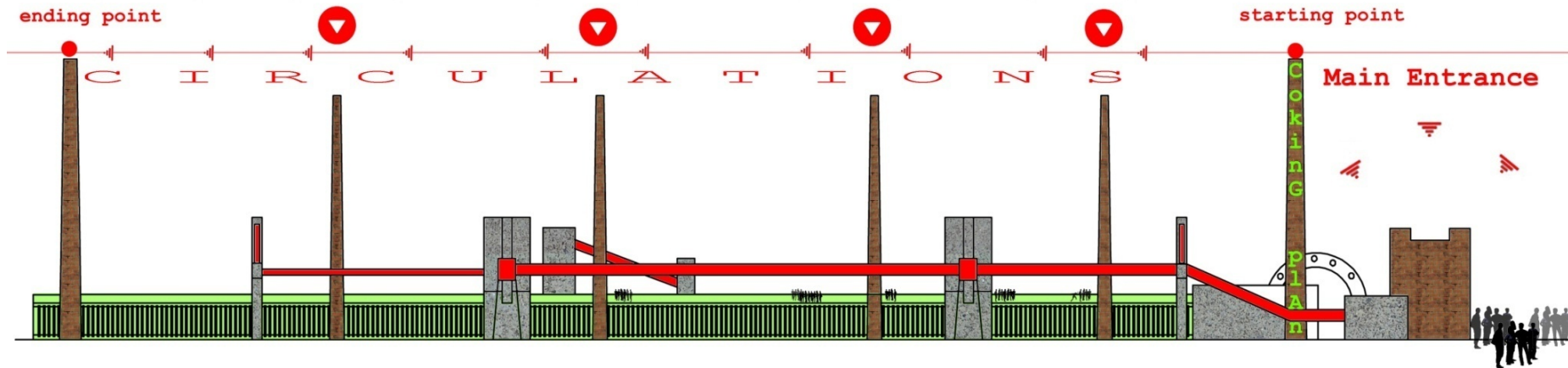
Park

Housing area

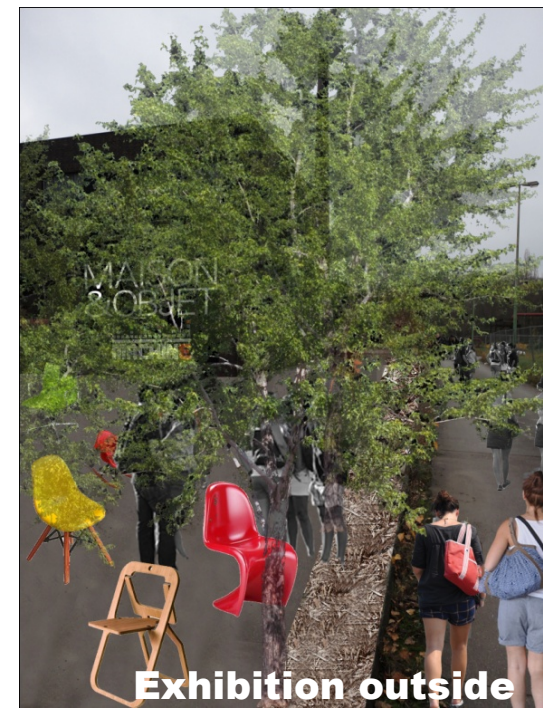




# Sections

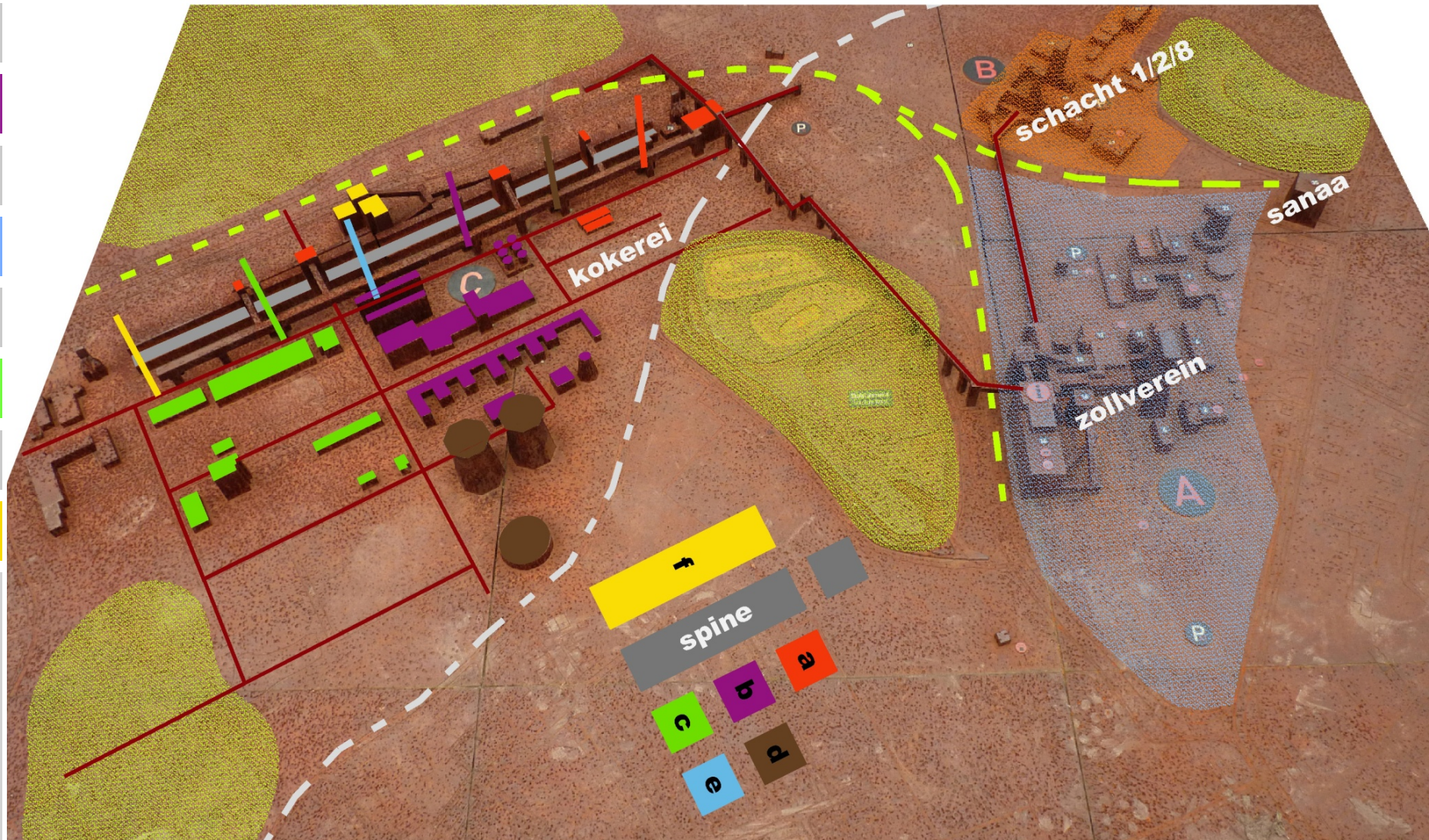


# Sections





# 3D image





# References

## Exhibitions Parks

Paris versailles → 220 000 m<sup>2</sup>

Nancy (416 000 inhabitants) → 70 000 m<sup>2</sup>

Strasbourg (416 000 inhabitants) → 22 000 m<sup>2</sup>



**Parc des expositions, Paris**



**The High Line, Chelsea, NYC**