

RESEARCH & DESIGN

The fusion of architecture and infrastructure in tomorrow's Megalopolis

THE LOBBY OF THE METROPOLE



1. RESEARCH SUMMARY

2. DESIGN

3. STATEMENT

PAST - PRESENT - FUTURE

1. RESEARCH SUMMARY

PAST: METABOLISTS

PRESENT: ICON

FUTURE: HABITABLE BRIDGE

METABOLISTS / MAKI: Congestion as paradigm itself



RESEARCH QUESTION

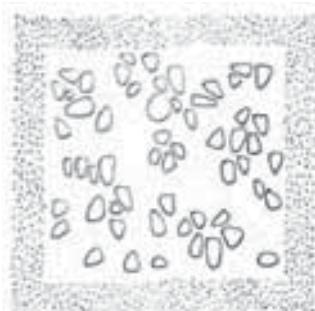
Is the notion of Collective Form compatible with the future of our cities and the production of its architecture?

LINKAGE

MEDIATION



DEFINITION



REPETITION



SEQUENCE



IMAGE FOR THE CITY, FUSING ARCHITECTURE WITH INFRASTRUCTURE



The Rialto Bridge



Ponte Luis, Porto

HISTORY 1600 - 1900 - 1930s



London Bridge, 16th century



Edgar Chambless, Road town, 1910



Le Corbusier, Plan Obus, 1933



Rotterdam 1665

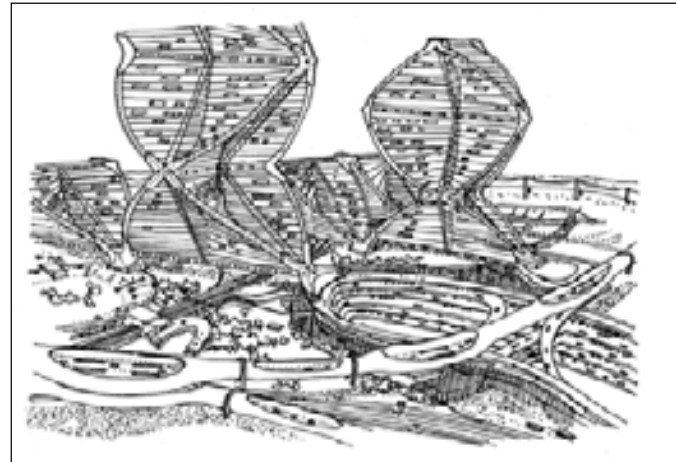


Rotterdam, Willemsbrug 1878



Rotterdam, Maastunnel 1937

ZENITH: GOLDEN AGE ROTTERDAM, 1960s JAPAN



INFRASTRUCTURAL HISTORY



BOOMPJES WAS A COLLECTIVE FORM



ROTTERDAM'S TURNING POINT: DISSATISFACTION, THE CAR & THE WAR



POST-WAR: THE END OF A FUSION BETWEEN ARCHITECTURE AND INFRASTRUCTURE



- A — woningen
- B — marktwezen
- C — spoorwegen, handel
- D — theaters, hotels en restaurants
- E — overheidsgebouwen
- F — winkels
- G — banken en kantoren
- H — binnenbeurtvaartgebieden
- I — sociale en culturele instellingen

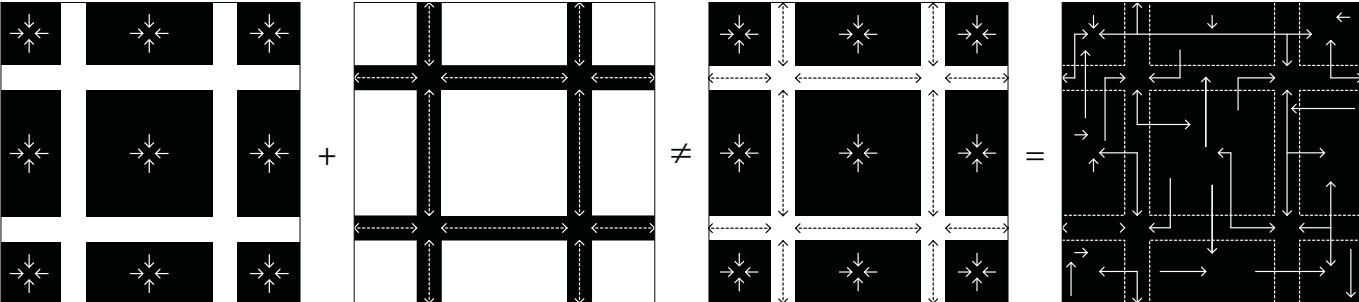
1995 ERASMUSBRUG



RESEARCH QUESTION

How can the interplay between architecture and infrastructure be exploited ?

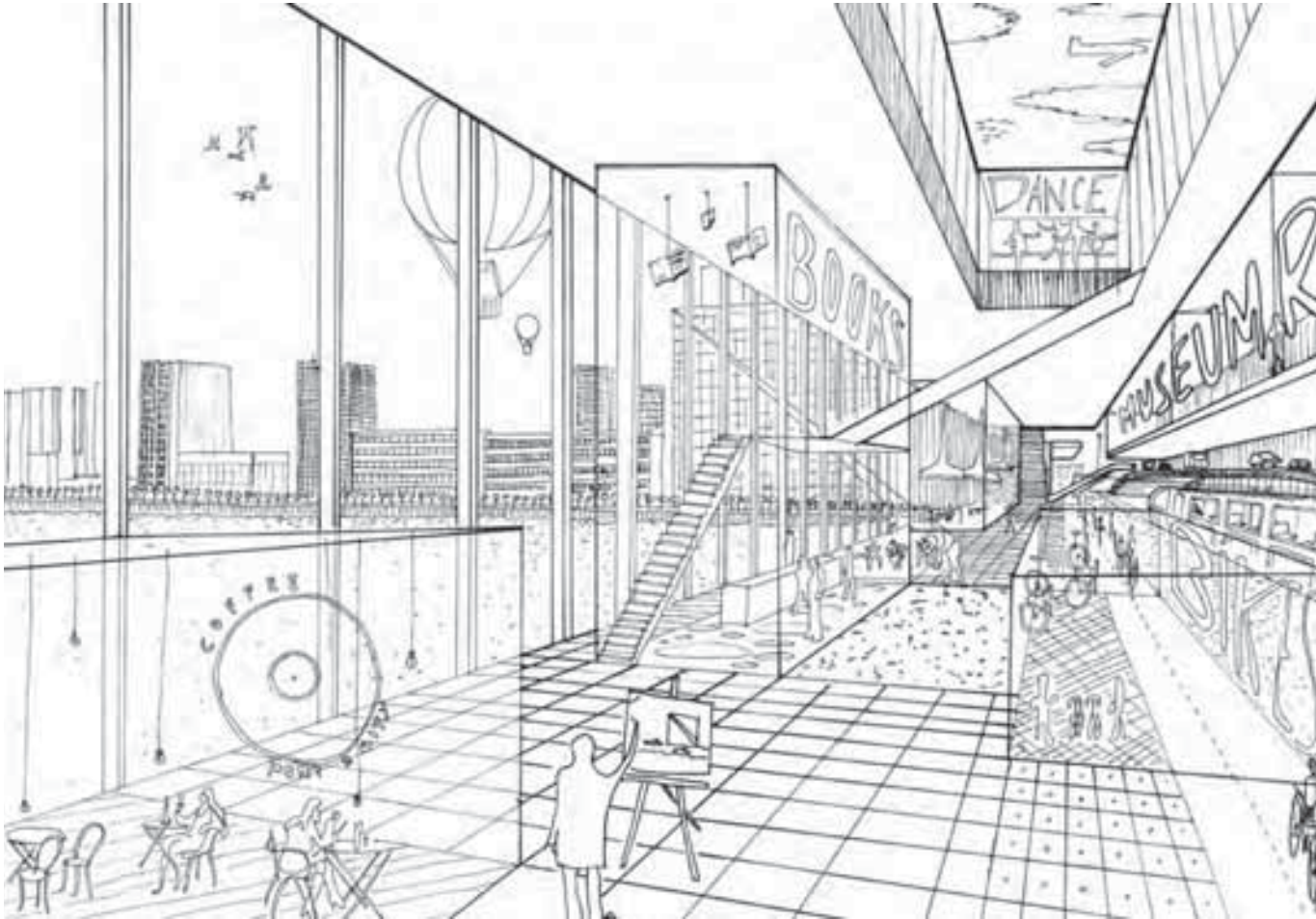
ARCHITECTURE AND INFRASTRUCTURE: EQUAL PLAYERS AS MEDIATORS IN THE CITY



URBAN DEVICES FOR THE ORCHESTRATION AND IMAGE OF OUR FUTURE CITIES

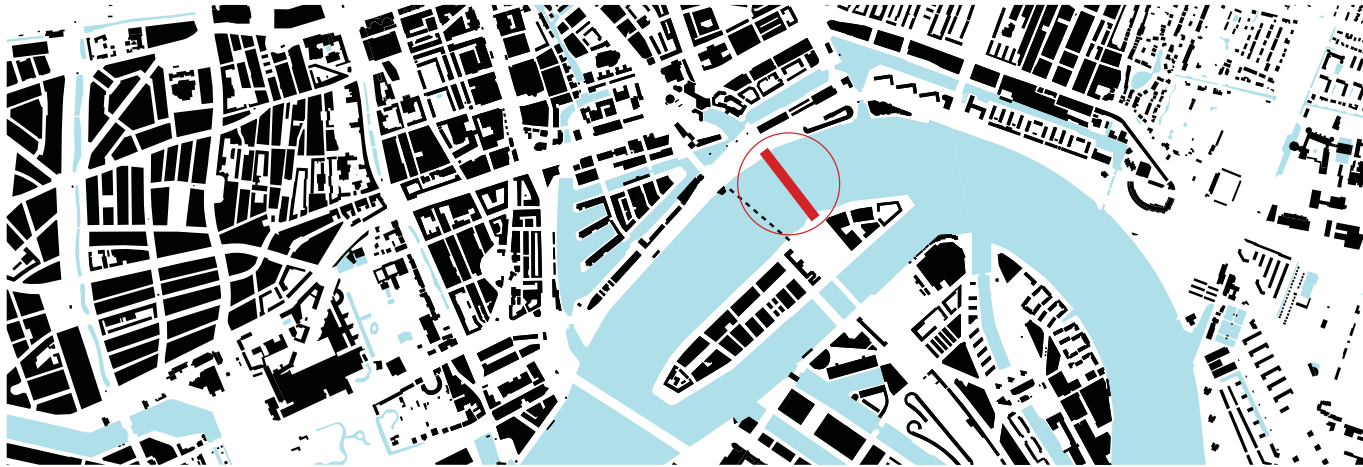


NEW HUBS WILL FUSE ARCHITECTURE AND INFRASTRUCTURE

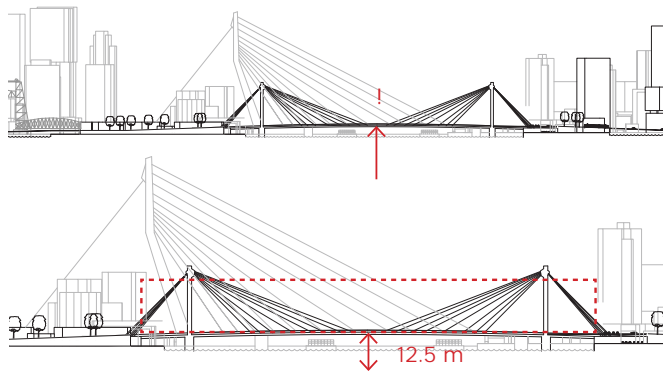


2. DESIGN

REPLACEMENT AND RELOCATION WILLEMSBRUG



WILLEMSBRUG MUST BE INCREASED, NEW TRAM LINE IS INTRODUCED



12.5 meter clearance



River orientation

CITY AT THE RIVER, LIFE-CYCLE COST INFRASTRUCTURE SHOULD BE REDUCED



PANTURA NEWSLETTER
MARCH 2012



CONTENTS

- The PANTURA Consortium
- Urban bridges need attention urgently
- Integrated process strategy at urban sites

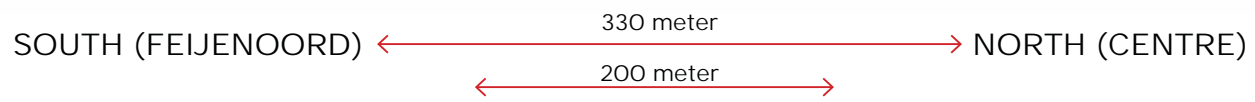
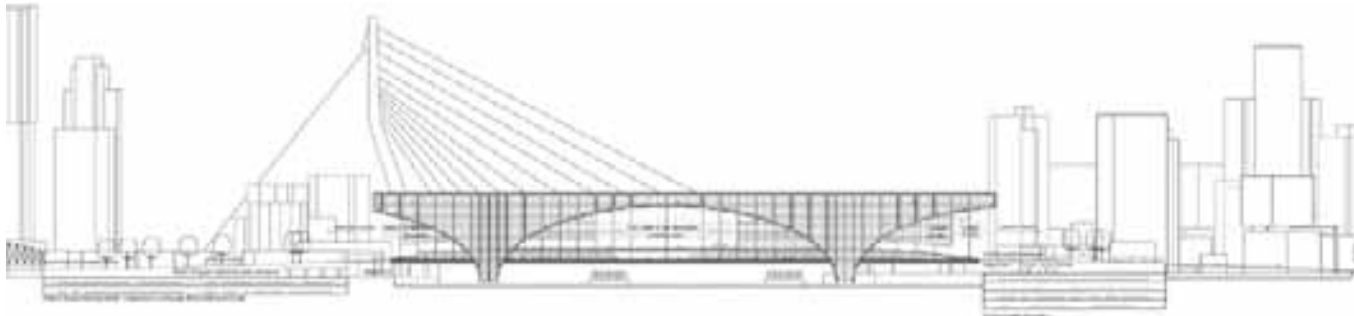


**URBAN BRIDGES
NEED ATTENTION**

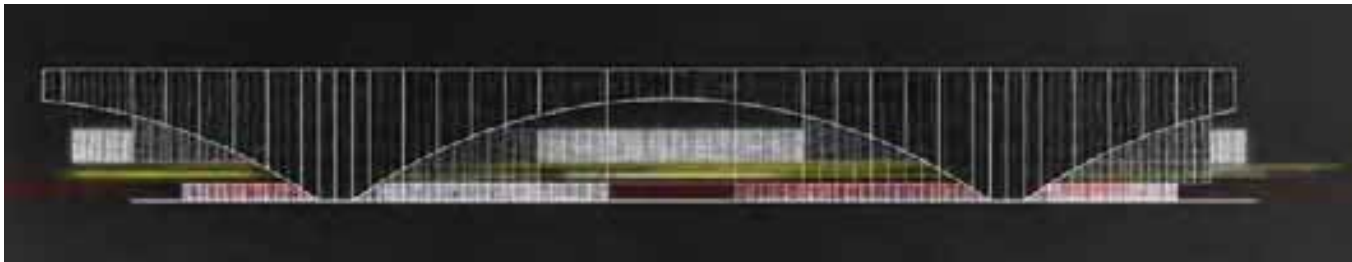
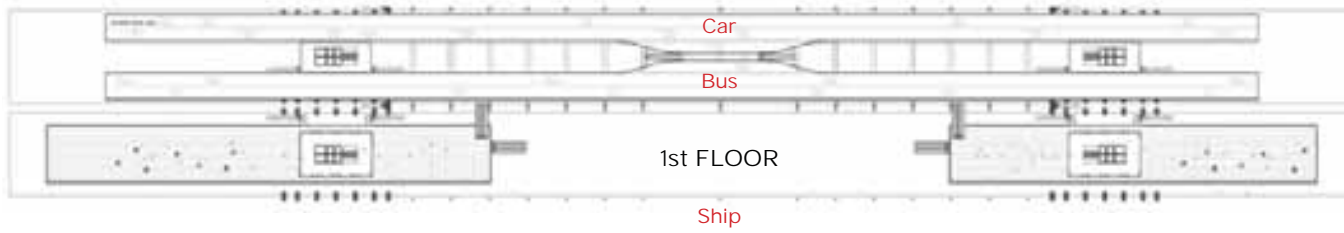
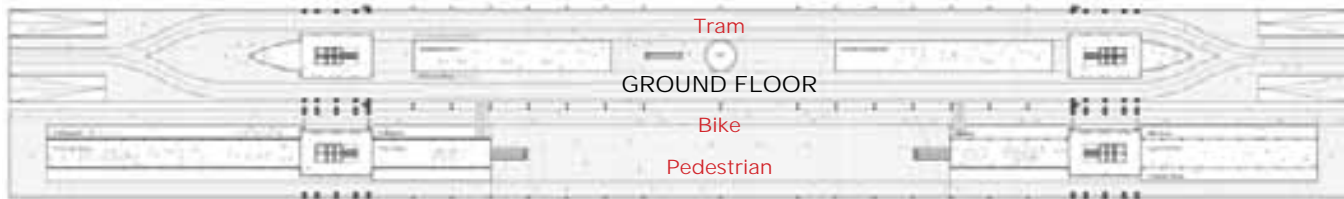
Gemeente Rotterdam **TNO** innovation for life



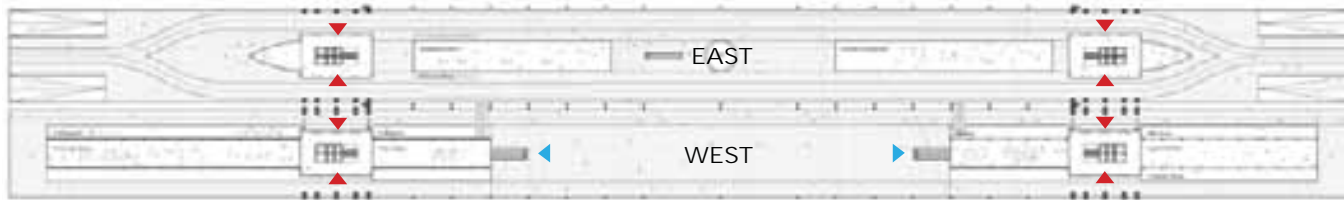
STRENGTHEN CONNECTION BETWEEN NORTH SOUTH



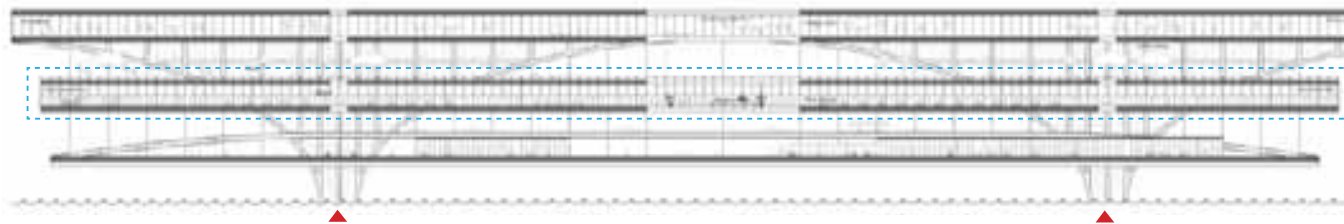
FLOWS OF THE CITY



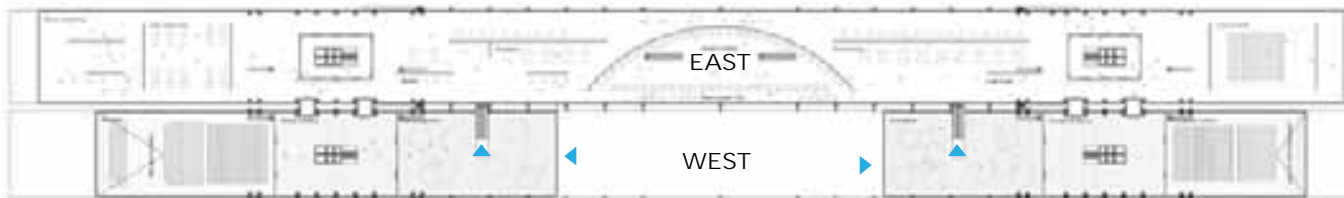
CORES, ESCALATORS | EAST AND WEST WING



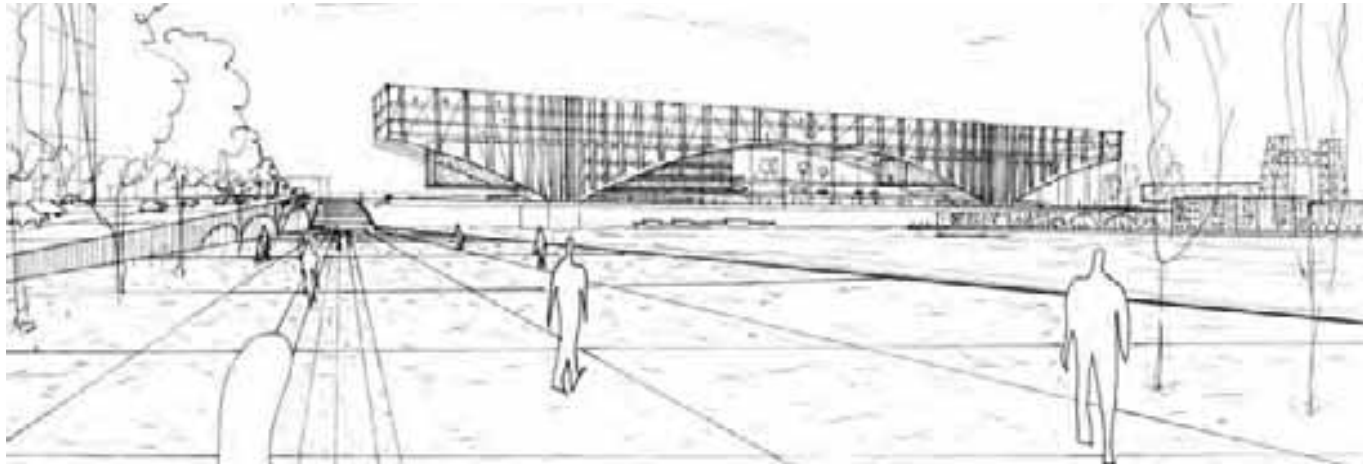
4 cores in 2 'trunks'



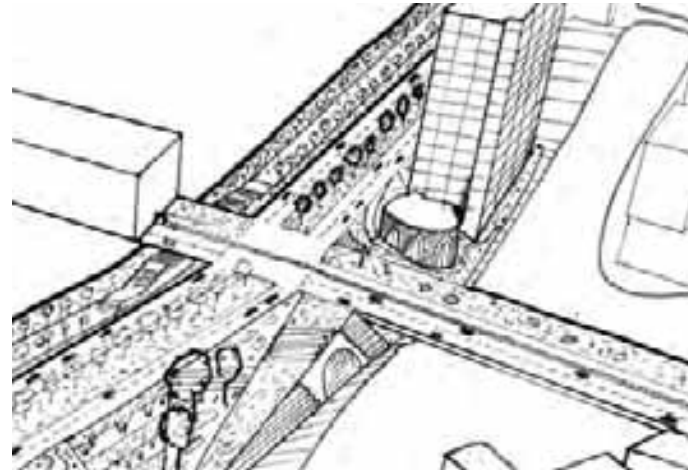
Lobbies reached through escalators



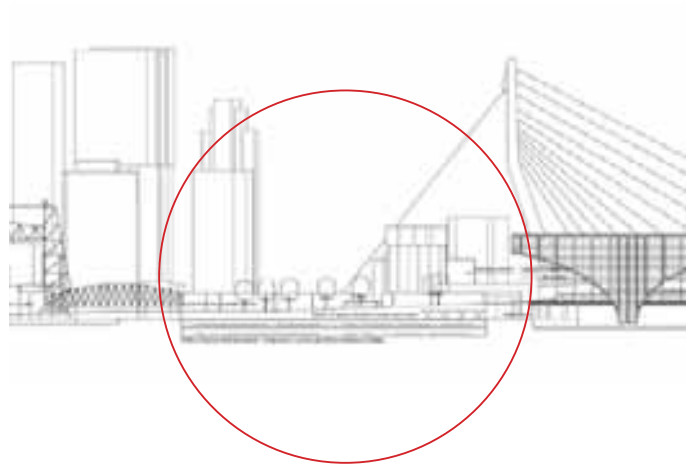
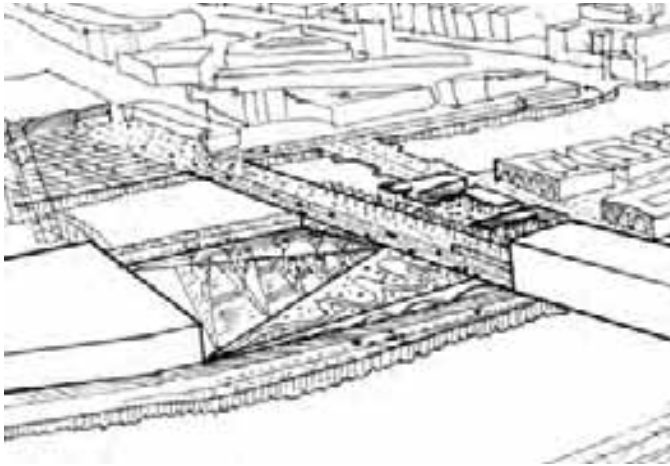
REVITALIZE THE WATERFRONT



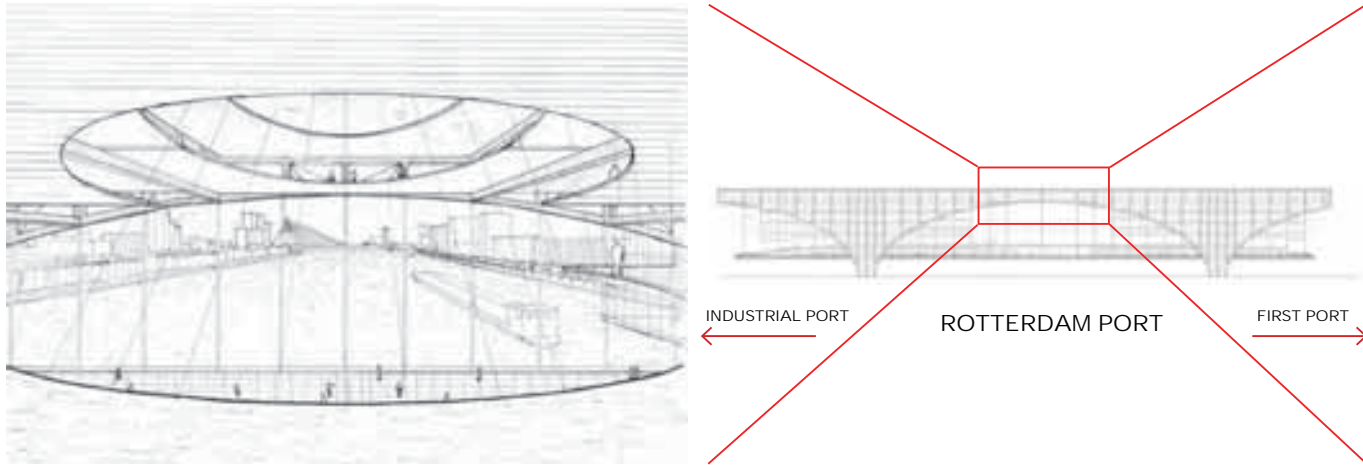
DIGNIFY THE ROAD



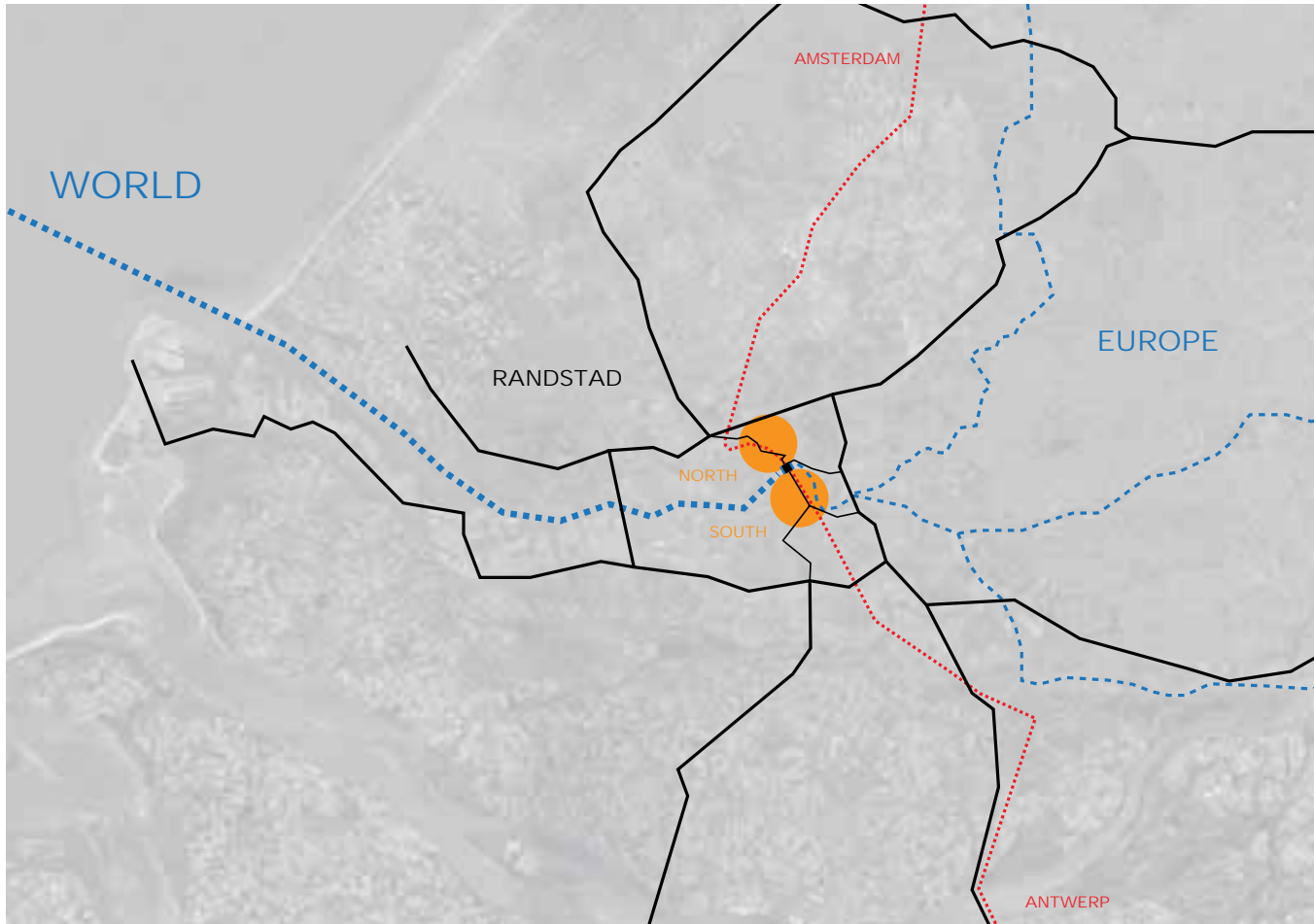
RETURN THE JAN ELEVATED PARK TO THE NOORDEREILAND



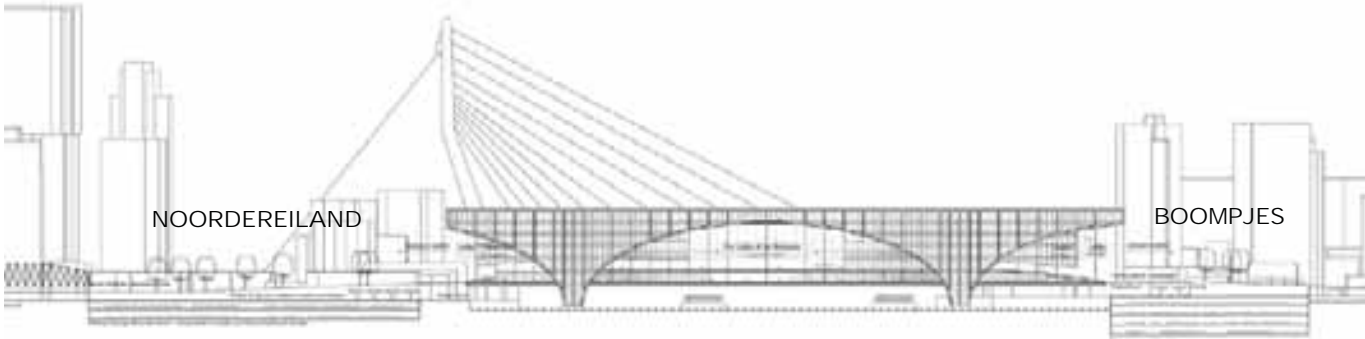
ACKNOWLEDGE THE IMPORTANCE OF THE HISTORIC LOCATION



CONNECTION TO CITY, METROPOLE, COUNTRY, WORLD



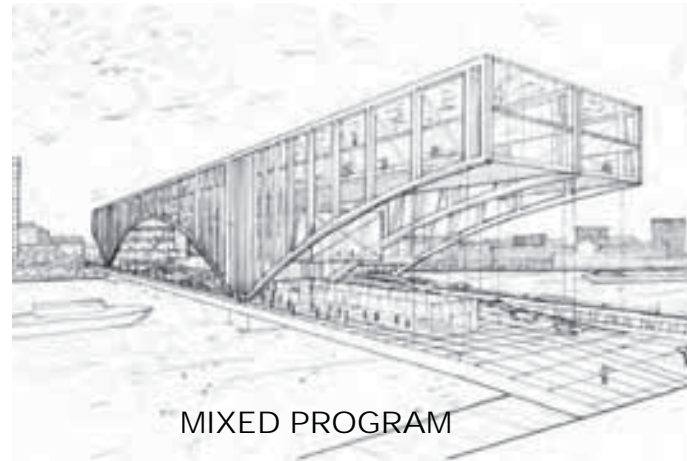
URBAN DEVELOPMENT: SPIN-OFFS FOR NOORDEREILAND AND BOOMPJES



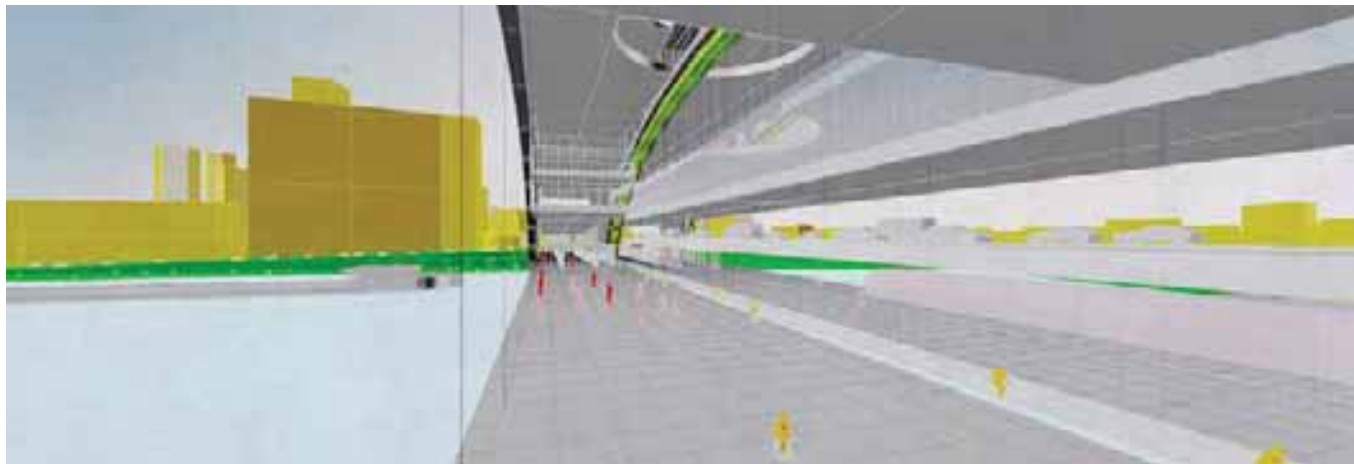
ALTERNATIVE FOR URBANISM BASED ON CLUSTERS



POST-WAR URBANISM

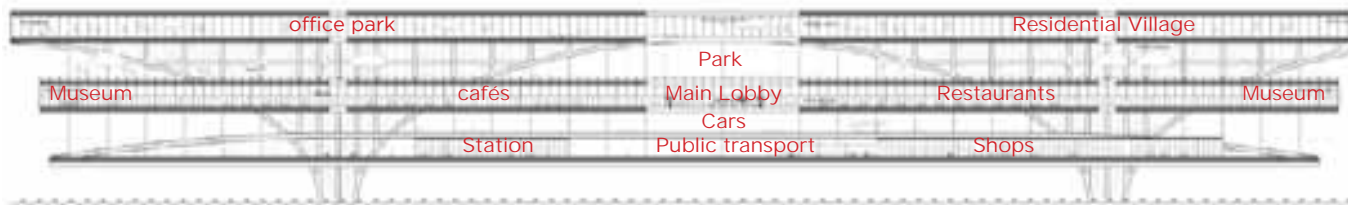


MIXED PROGRAM

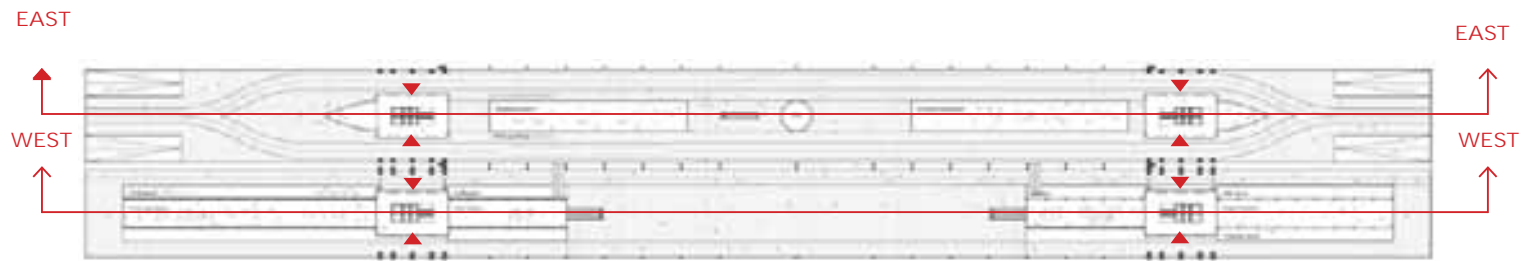
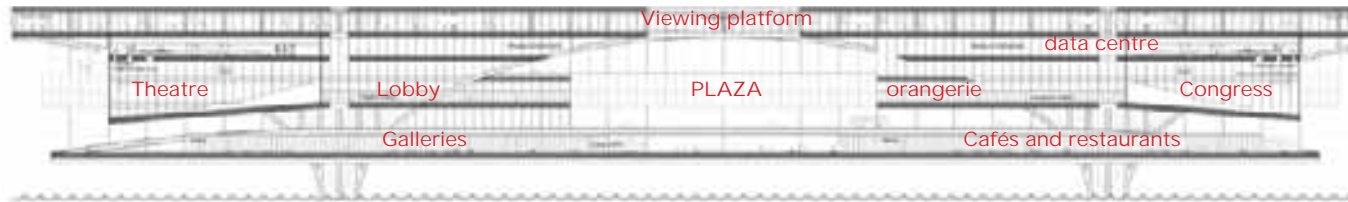


ALTERNATIVE FOR URBANISM BASED ON CLUSTERS

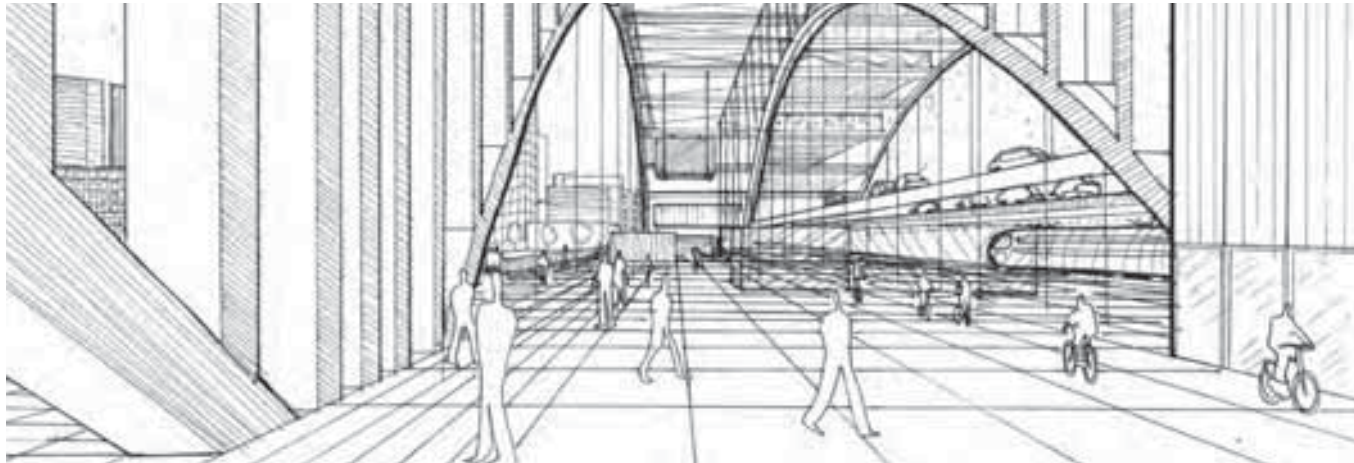
SECTION EAST



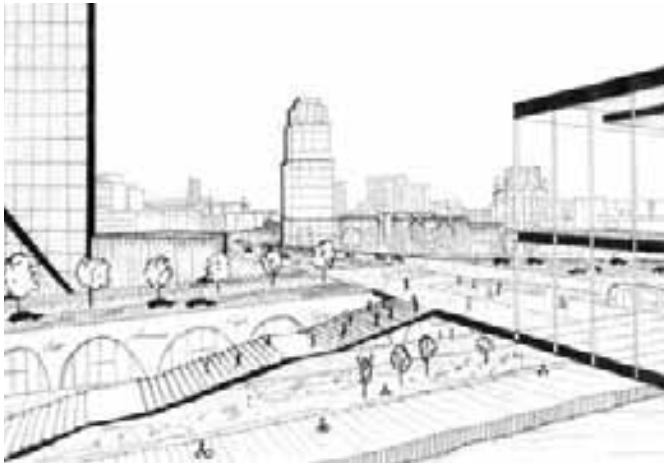
SECTION WEST



ALTERNATIVE FOR AN URBAN FABRIC DOMINATED BY HEAVY TRAFFIC

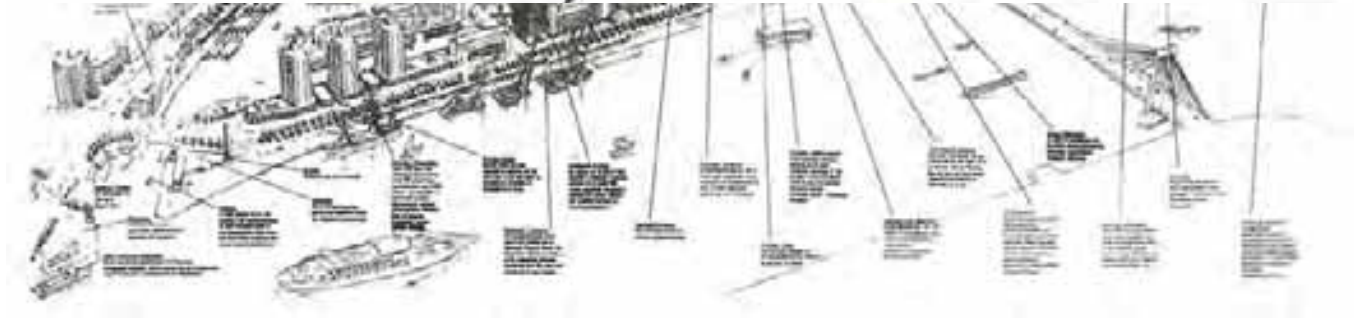


ALTERNATIVE FOR HIGH RISE (WITHOUT PLINTH)

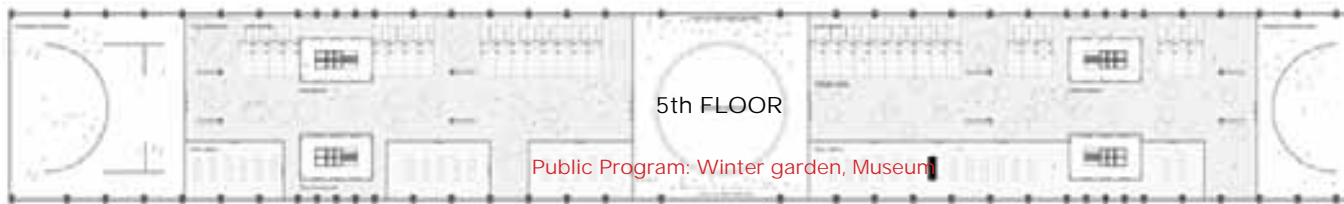
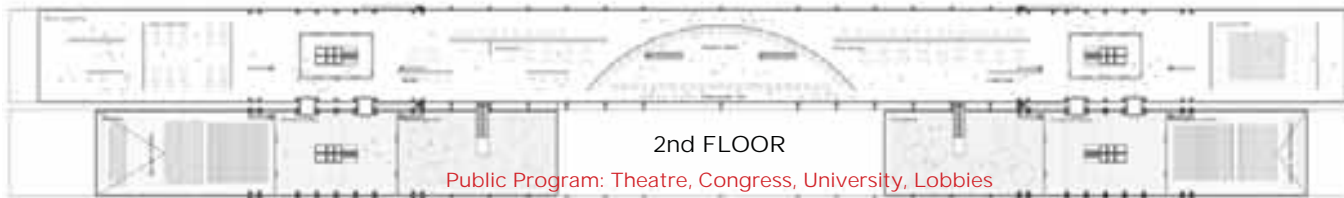
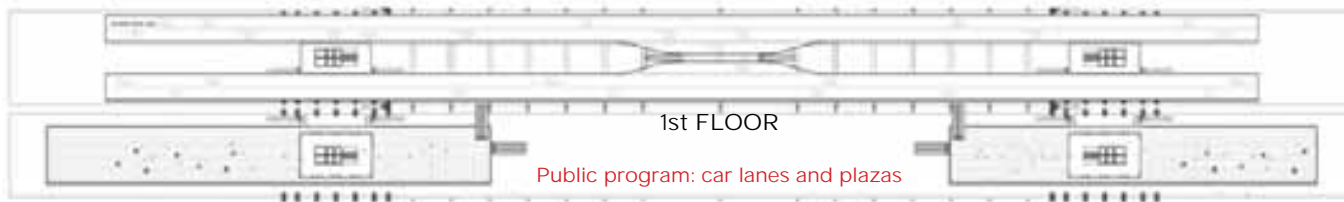


ALTERNATIVE FOR URBANISM RELYING ON EVENTS

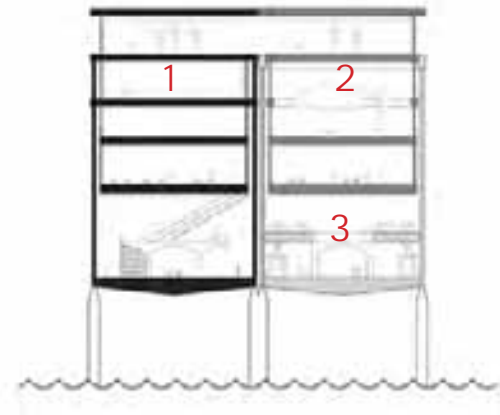
WATERSTAD, DAT WORDT WAT



PUBLIC PROGRAM ON ALL FLOORS



SPANNING THE RIVER, CONSTRUCTING THE BUILDING



3 SEPARATE CONSTRUCTIONS

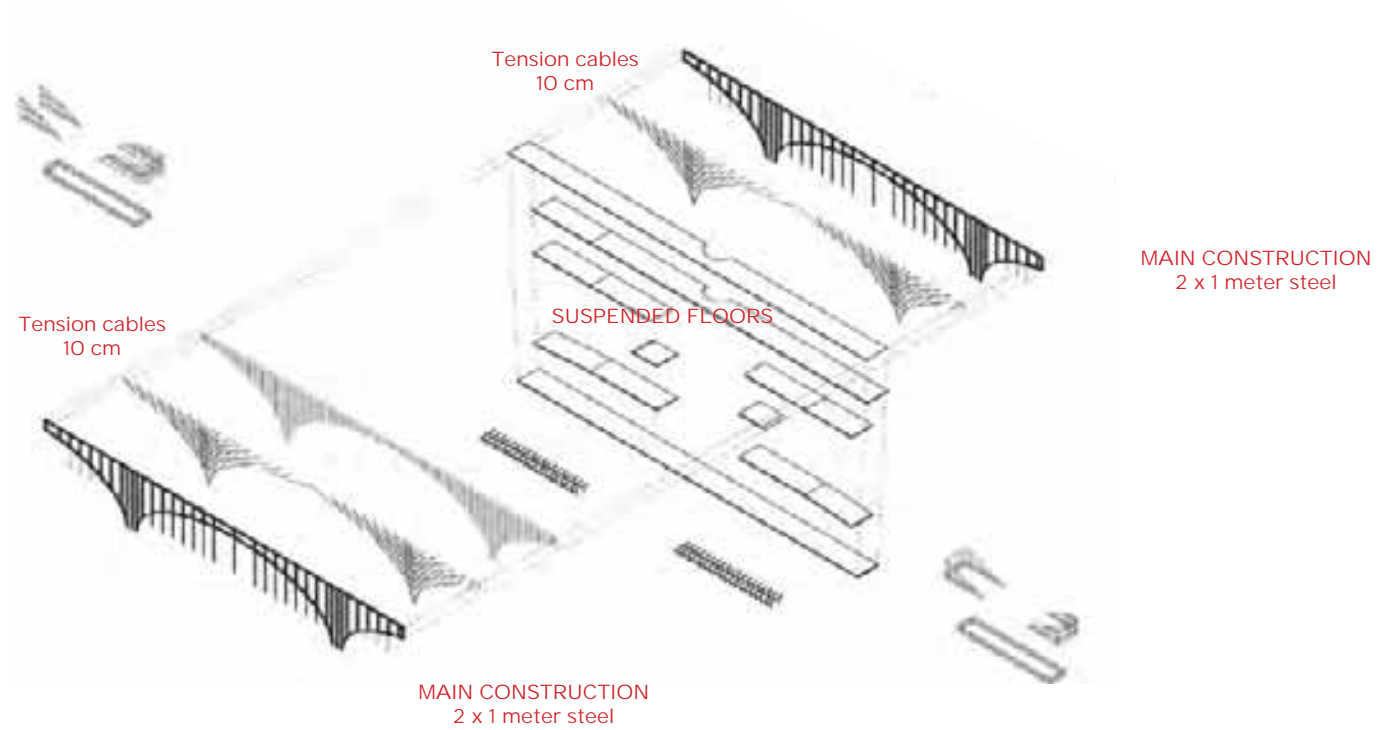
1 = Cantilever principle
= Public Building

2 = Cantilever principle
= Public Building

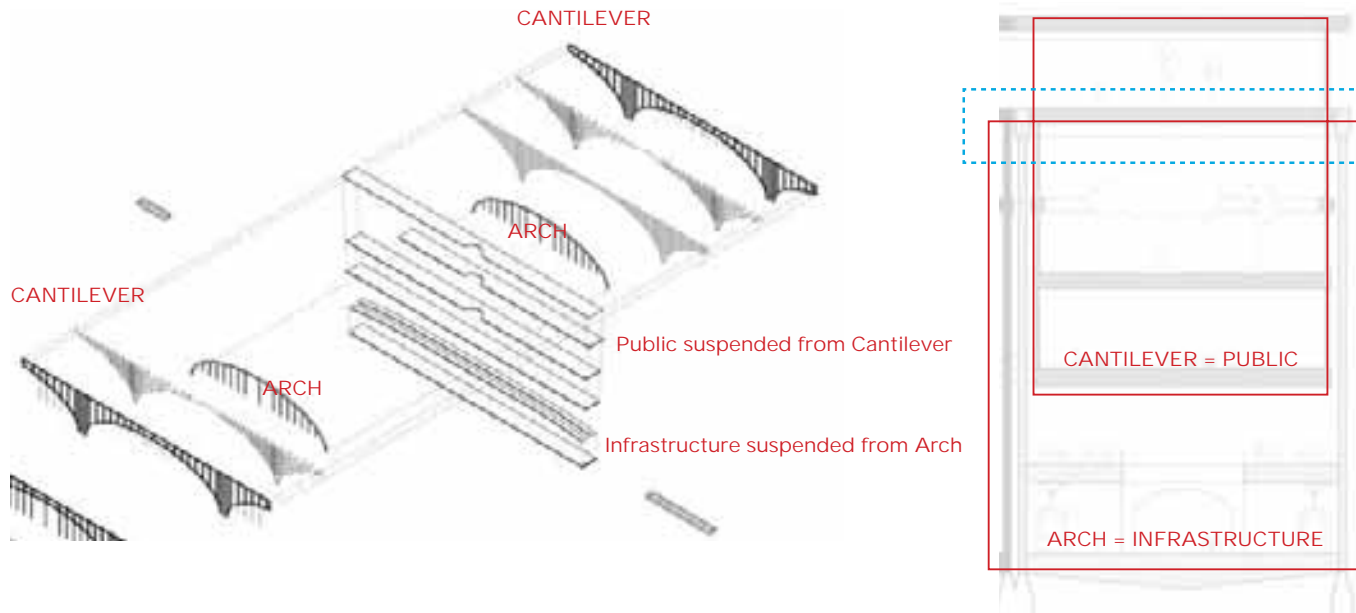


3 = Arch
= Infrastructure

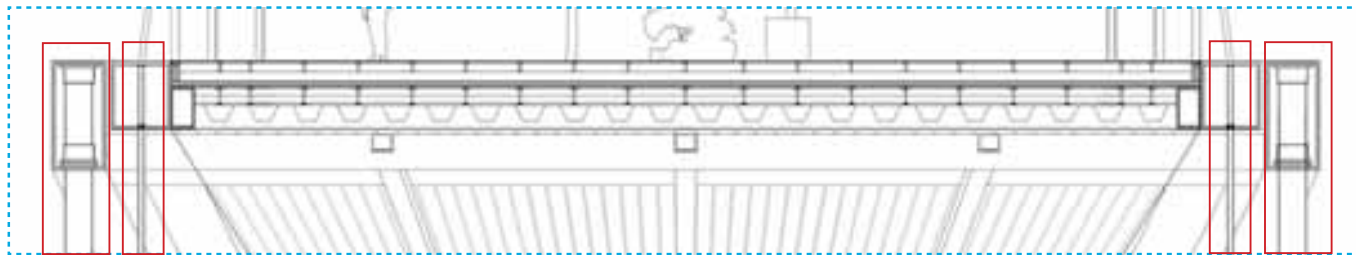
CANTILEVER PRINCIPLE (WEST)



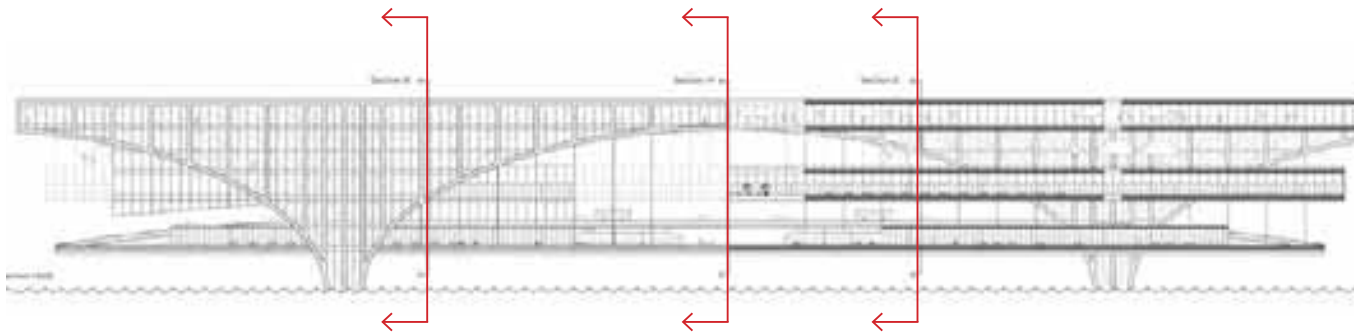
CANTILEVER + ARCH PRINCIPLE (EAST)



CANTILEVER + ARCH PRINCIPLE : DILATATION (15 cm)



CONSTRUCTION THEME: LEVITATION



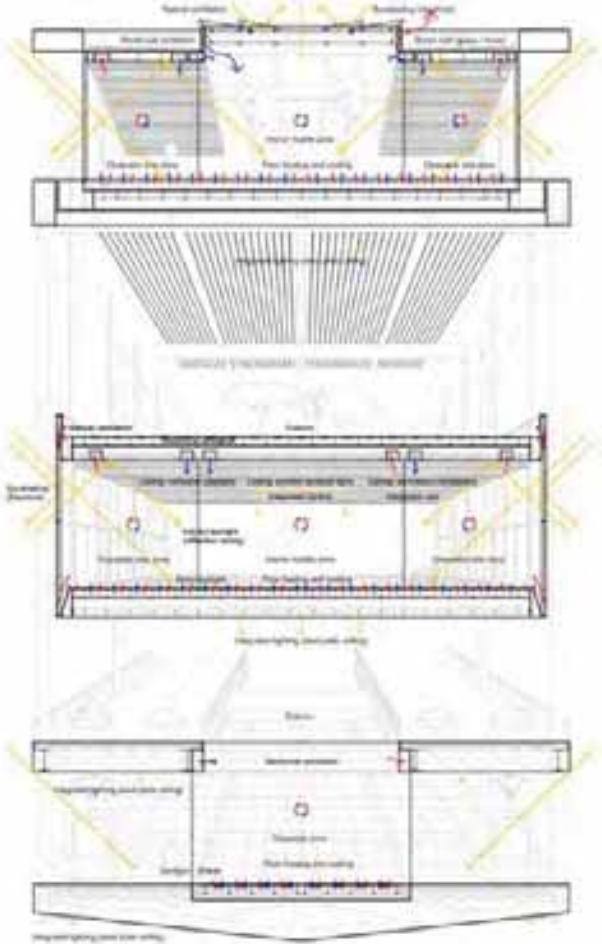
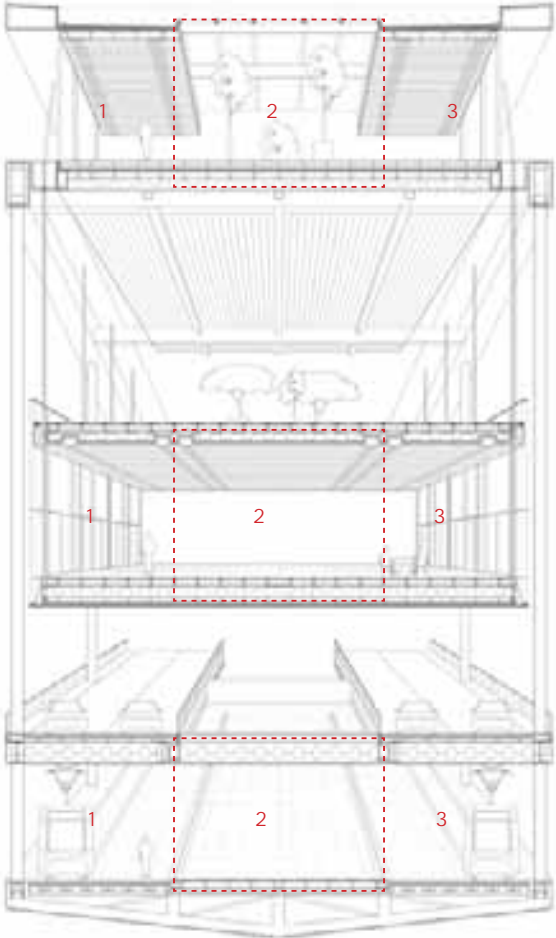
ELEVATION

SECTION

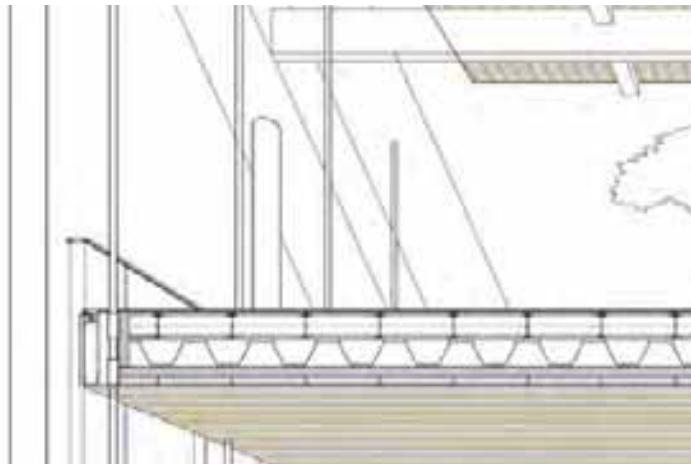
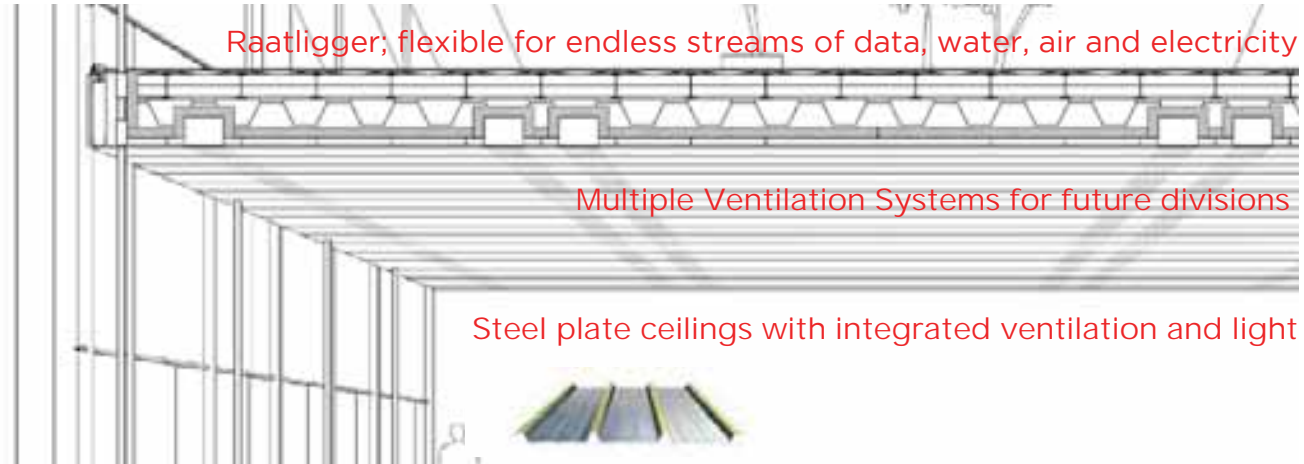
HEAVY VERSUS LIGHT: DAY VERSUS NIGHT



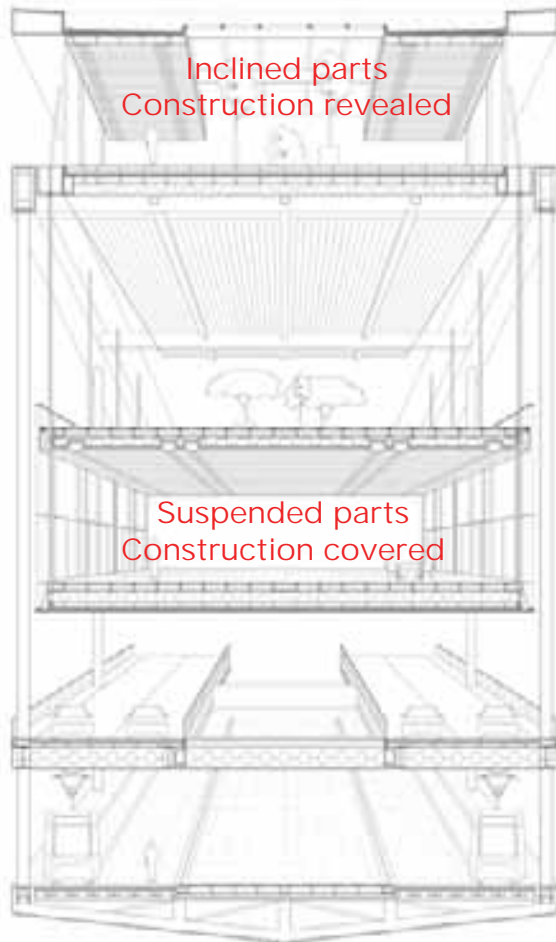
FLEXIBILITY: CHANGE, APPROPRIATION AND TRANSFORMATION OVER TIME



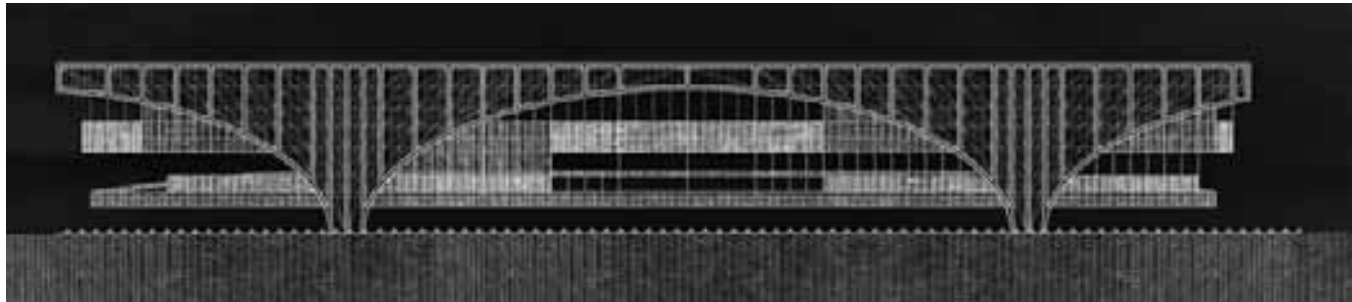
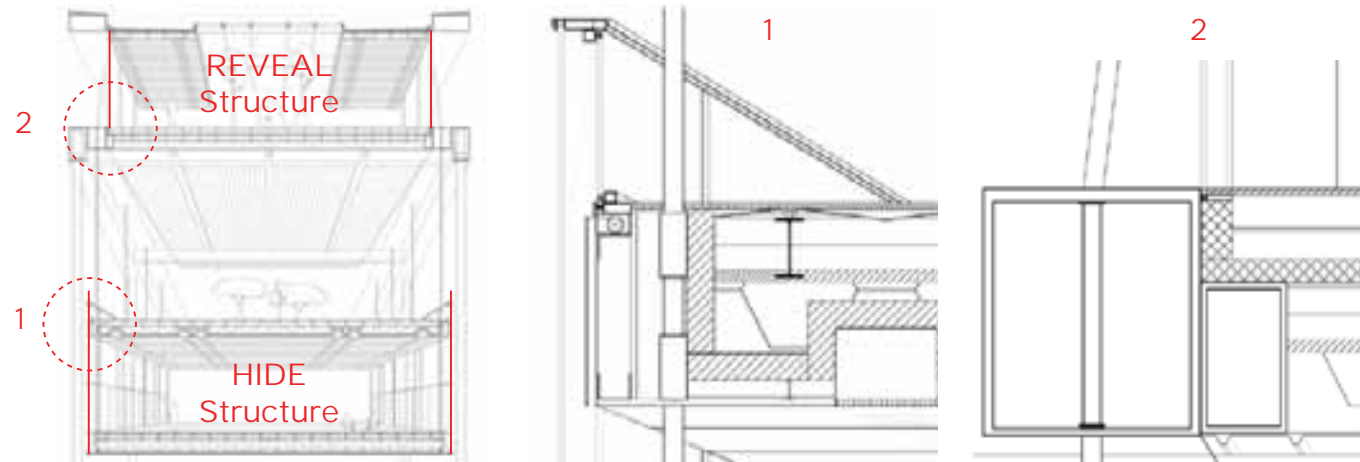
FLEXIBLE ELEMENTS: RAATLIGGER AND STEEL PLATE



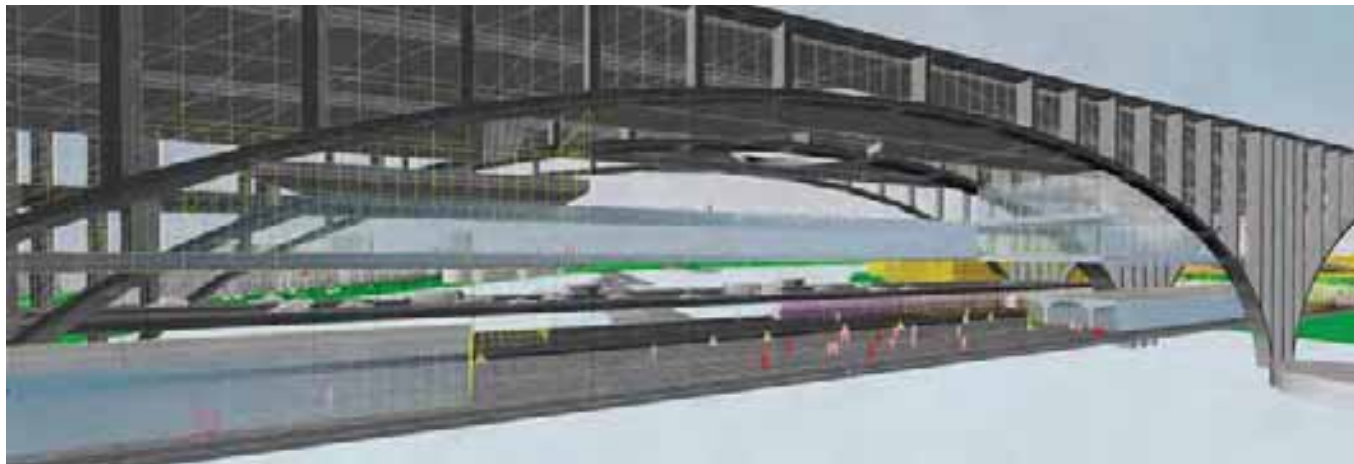
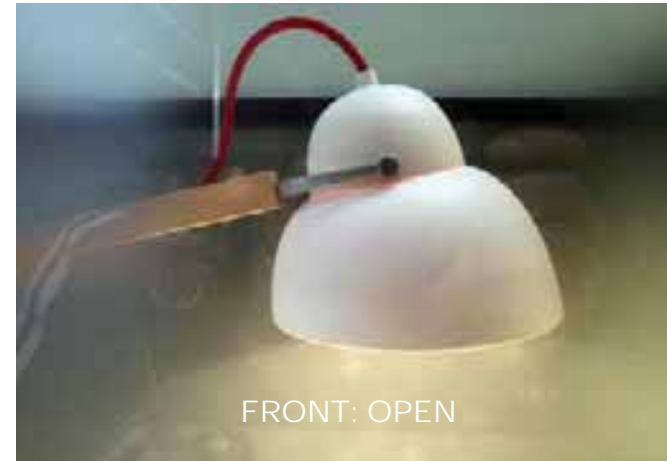
INTERPLAY OF HIDING AND REVEALING



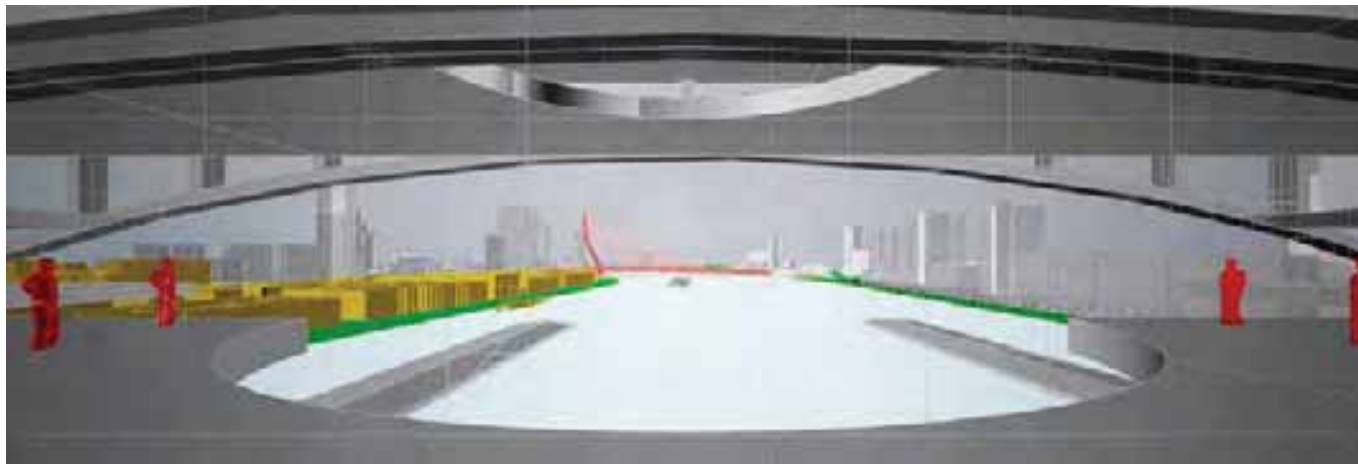
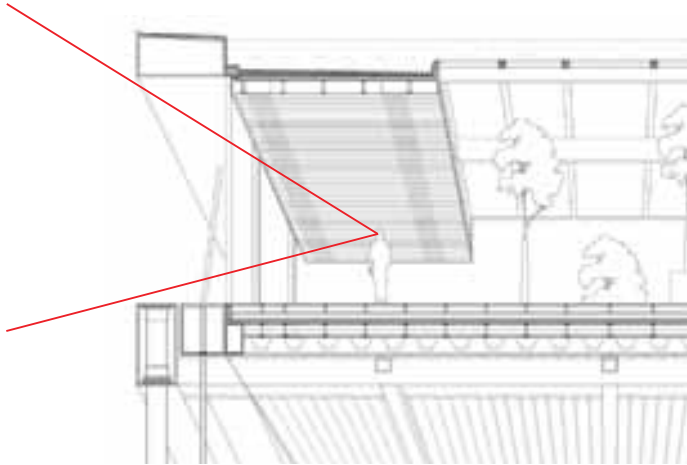
INTERPLAY OF CARRYING (HEAVY) AND HOVERING (LIGHT)



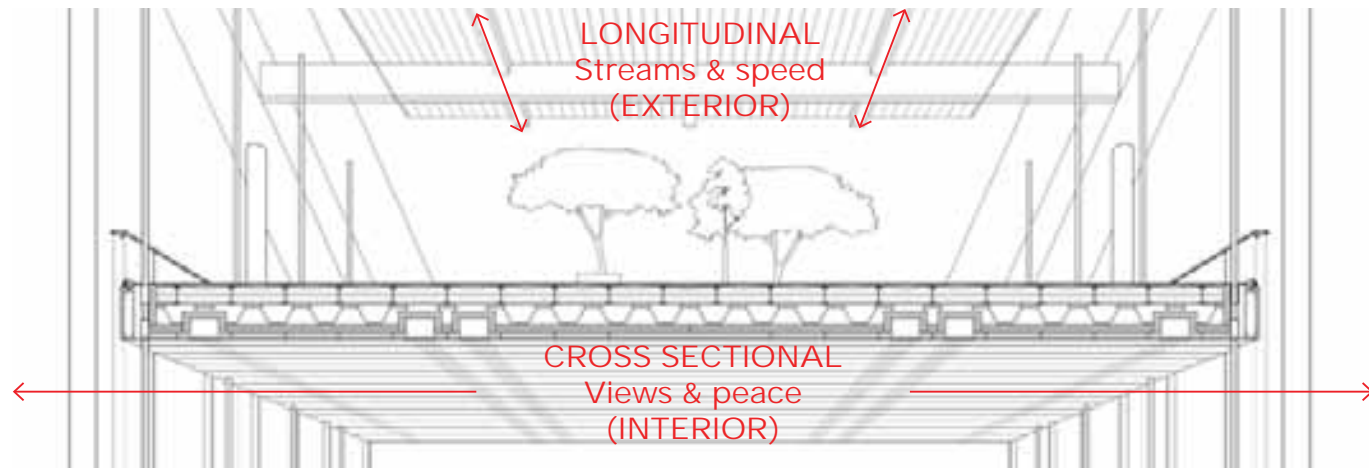
UNDER AN ANGLE: CLOSED, OPEN IN FRONT



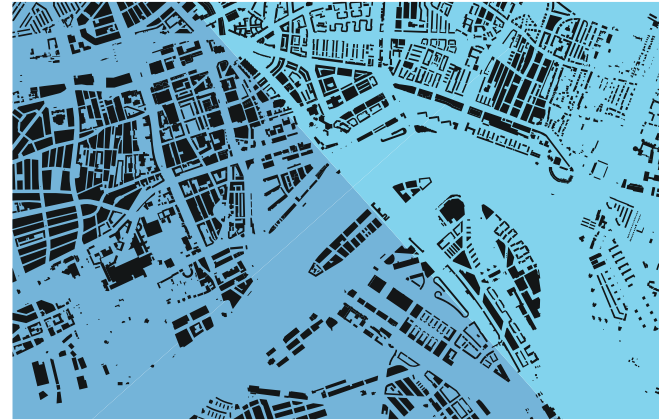
PANORAMA



DIRECTIONALITY



SPECIFICITY



PEAT / CLAY

SWEET/SOLD

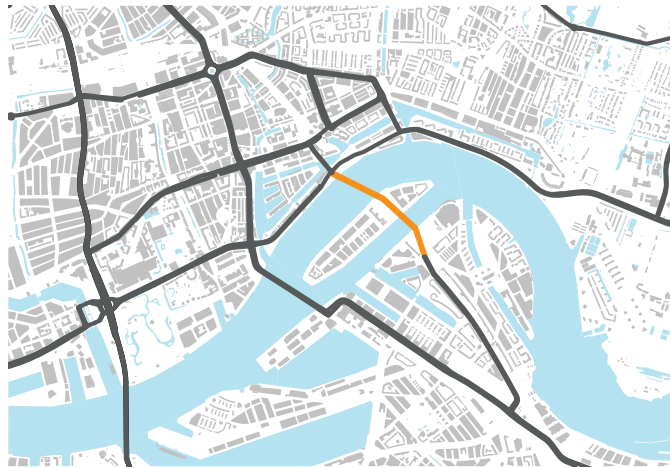
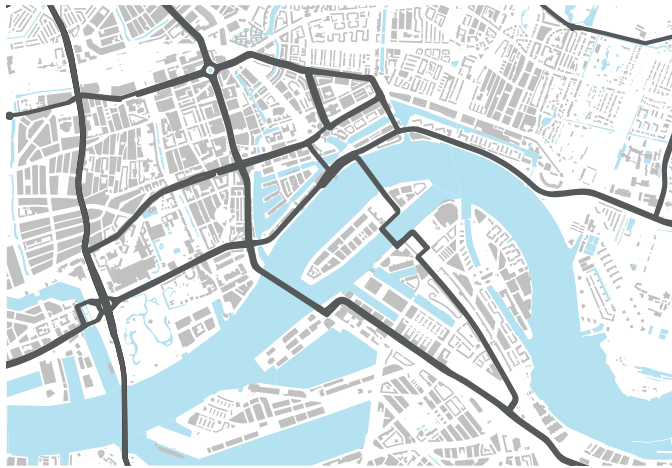
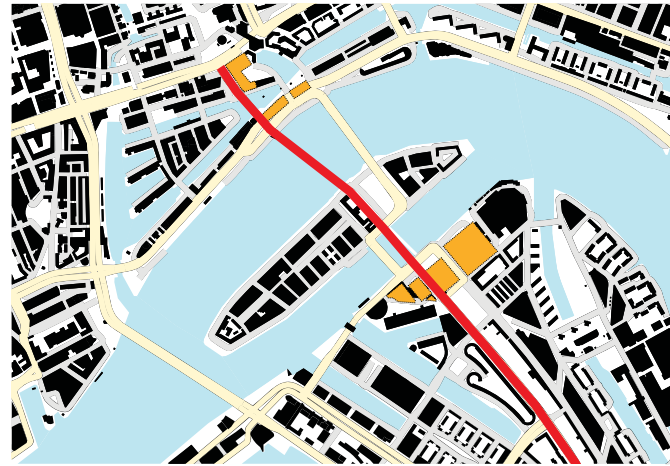
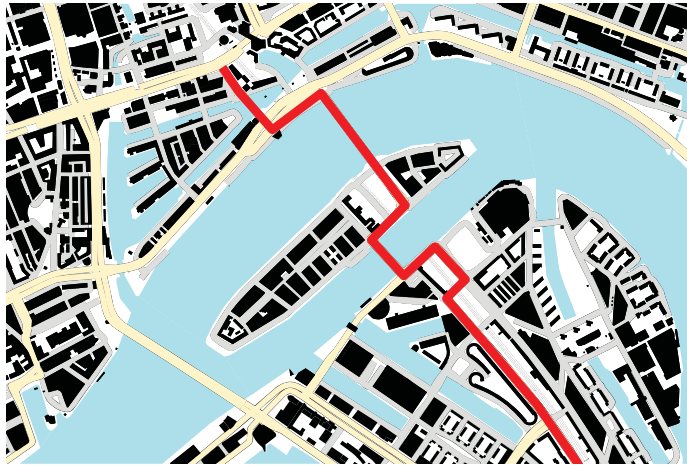


HISTORICAL LOCATION

FROM CENTRE, TO RIVER (PAST), ONCE AGAIN FROM CENTRE TO RIVER



FROM DETOUR TO STRAIGHT FORWARD



GENIUS LOCI - GENIUS LOGO - GENIUS LOCI



3. STATEMENT: WHY THE HUB?

PAST: THE HARBOUR

PRESENT: THE NETWORK ERA

FUTURE: THE HUB

PAST: THE HARBOUR

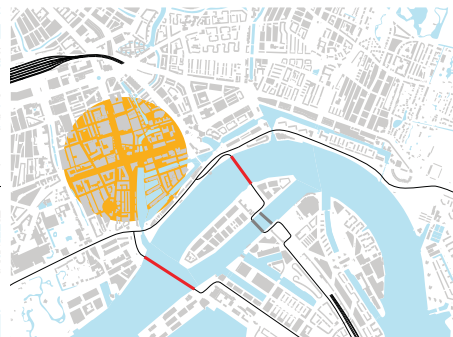
ROTTERDAM: INCESSANT GROWTH: EMBODIMENT OF A TRANSITORY WORLD



1300



1900



2013

ACTIVITIES TRANSCEND BEYOND THE SCALE OF THE CITY



ROTTERDAM CHARACTERISTIC: METROPOLIS IN TRANSIT



HISTORY OF PUBLIC PRIVATE PARTNERSHIPS



ONGOING NEED FOR PUBLIC PRIVATE PARTNERSHIPS

INKOOPBELEID

'Gemeenten doen te weinig om innovatie aan te jagen'

Hightechindustrie kritisch over overheid als 'eerste gebruiker'

Uans de Jongh
Innovatie

De overheid moet vaker het goede voorbeeld geven met de aanschaf van innovatieve producten en diensten. Dit is de boodschap van de hightechindustrie aan de overheid. De industrie wil dat de overheid als eerste gebruiker van innovatieve producten en diensten optreedt. Dit kan de overheid helpen om de innovatie te stimuleren en de overheid kan de eerste gebruiker van innovatieve producten en diensten zijn. Dit kan de overheid helpen om de innovatie te stimuleren en de overheid kan de eerste gebruiker van innovatieve producten en diensten zijn.



De overheid moet vaker het goede voorbeeld geven met de aanschaf van innovatieve



April 2013

Infrabeleid gemeente kan beter af zijn met een PPS

Kuno Buyze en Jelle Hannema

Veel gemeenten kampen met achterstallig onderhoud van hun openbare infrastructuur. TNO meldde recent nog dat alleen al 40.000 betonnen bruggen in ons land dringend onderhoud nodig hebben. Deze achterstanden opheffen is een uitdaging, zeker nu geld nauwelijks beschikbaar is. Daar komt bij dat nieuwe wetgeving ertoe leidt dat het voor gemeenten steeds moeilijker wordt te rekenen voor toekomstige

DESTRUCTIVE ROLE OF PRAGMATIC INFRASTRUCTURE



PRESENT: THE NETWORK ERA

FUNDAMENTAL NATURE OF OUR WORK



THE WILL OF AN EPOCH



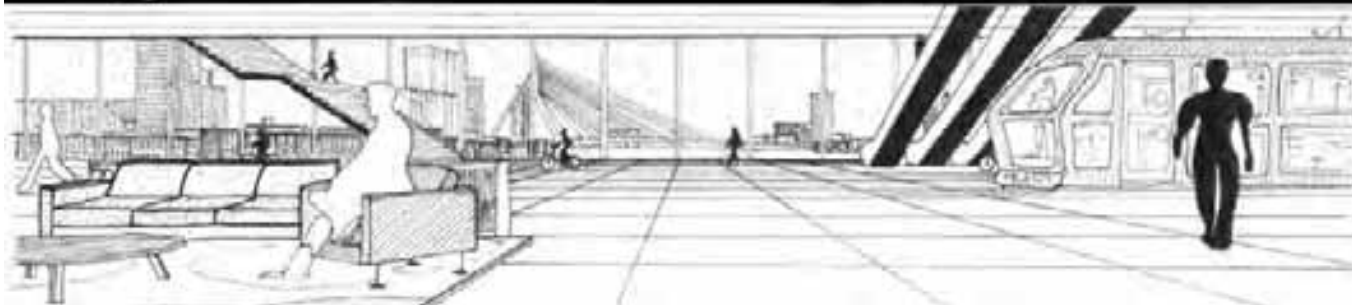
VILLAGER AND CITIZEN EQUALLY COSMOPOLITAN, THE WORLD OF THE COMMUTER



HOUSE STUDIED FOR CENTURIES, ARCHITECTURAL NODES UNTESTED



THE DOMESTICATION OF INFRASTRUCTURE



OPEN UP THE PUBLIC BUILDING, DIGNIFY THE ROAD



ROTTERDAM: TEST GROUND FOR THE HUMANIZATION OF INFRASTRUCTURE



FUTURE: THE HUB

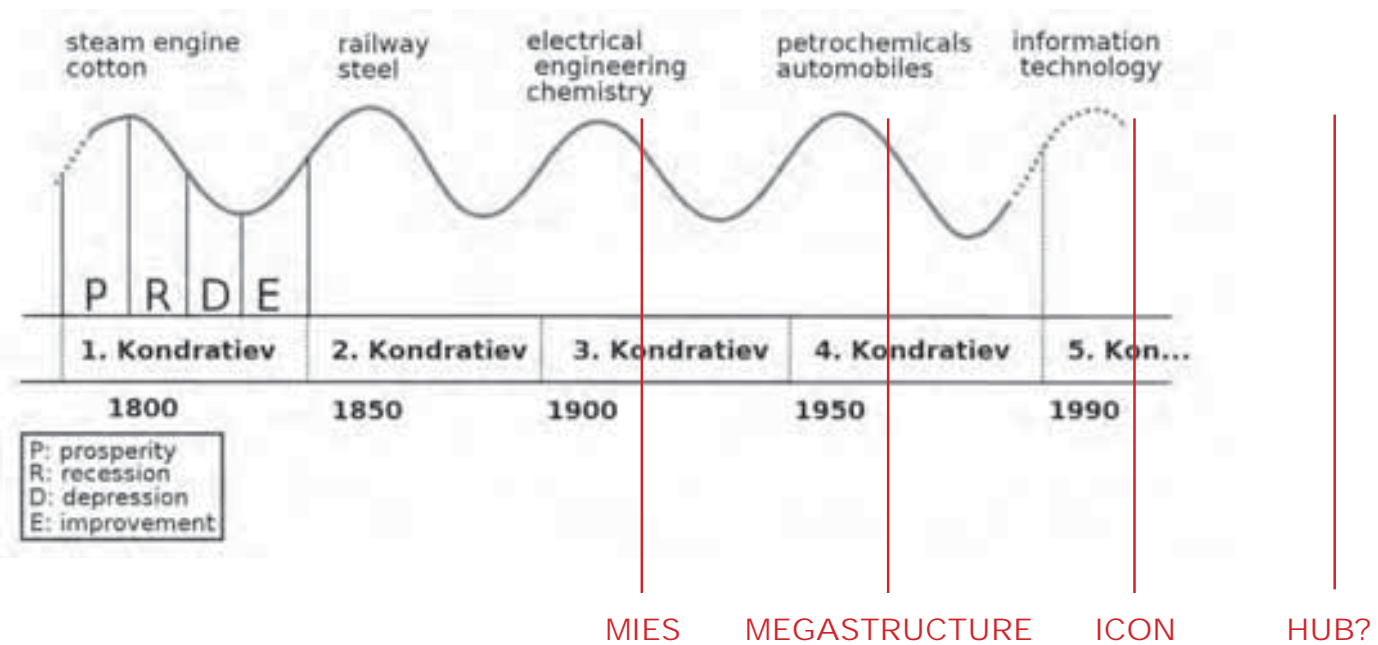
MEGASTRUCTURE AFTER MIES



WHAT WILL RESTORE THE ICON?



SUPER CYCLES IN ECONOMY (AND ARCHITECTURE)



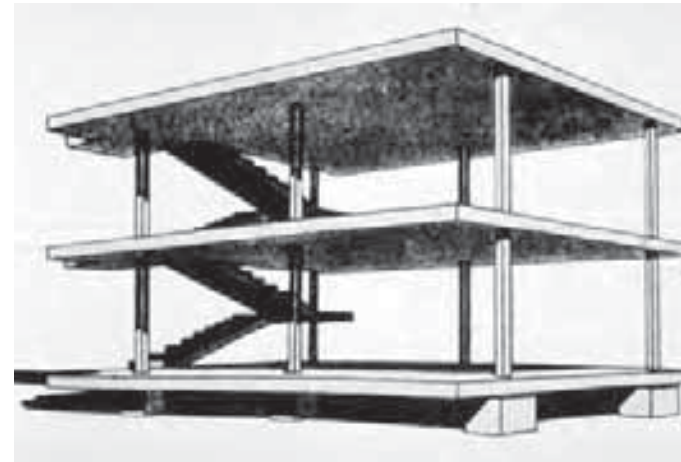
THE HUB, THE MULTIFUNCTIONAL PARKING GARAGE



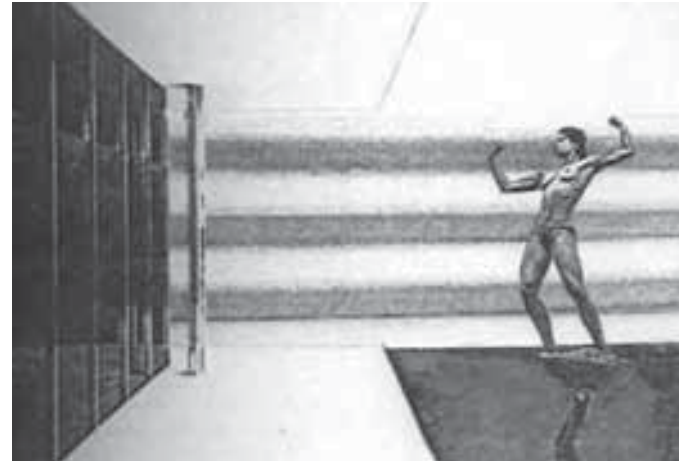
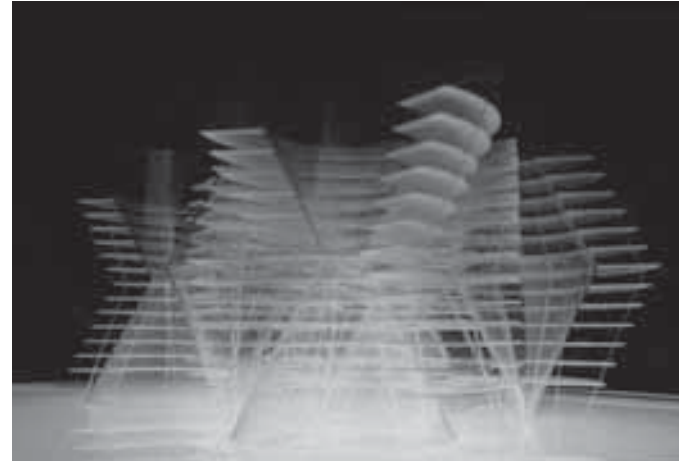
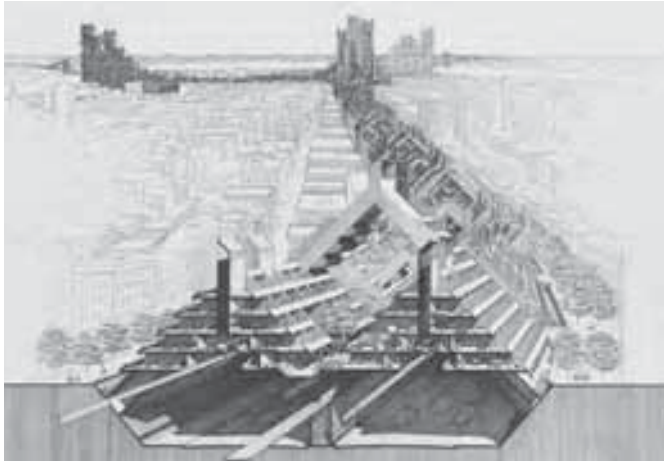
TECHNOLOGY, MOBILITY, ARCHITECTURE; INFRASTRUCTURE; GLOBALIZATION



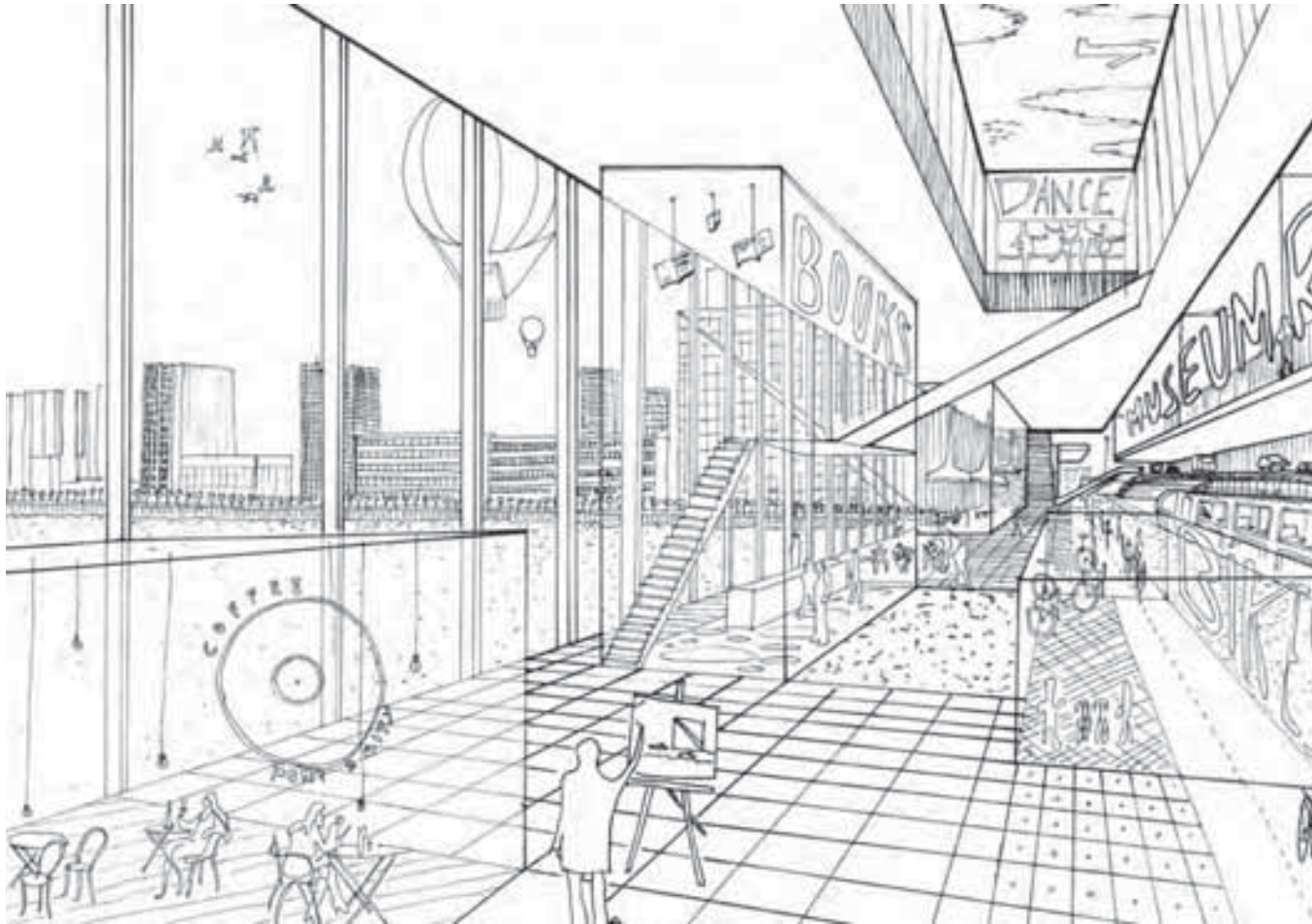
WHAT'S FLEXIBILITY BEYOND THE PLAN LIBRE



UTOPIAN, LIGHT, DELIRIOUS, PROFOUND



THE FUSION OF ARCHITECTURE AND INFRASTRUCTURE

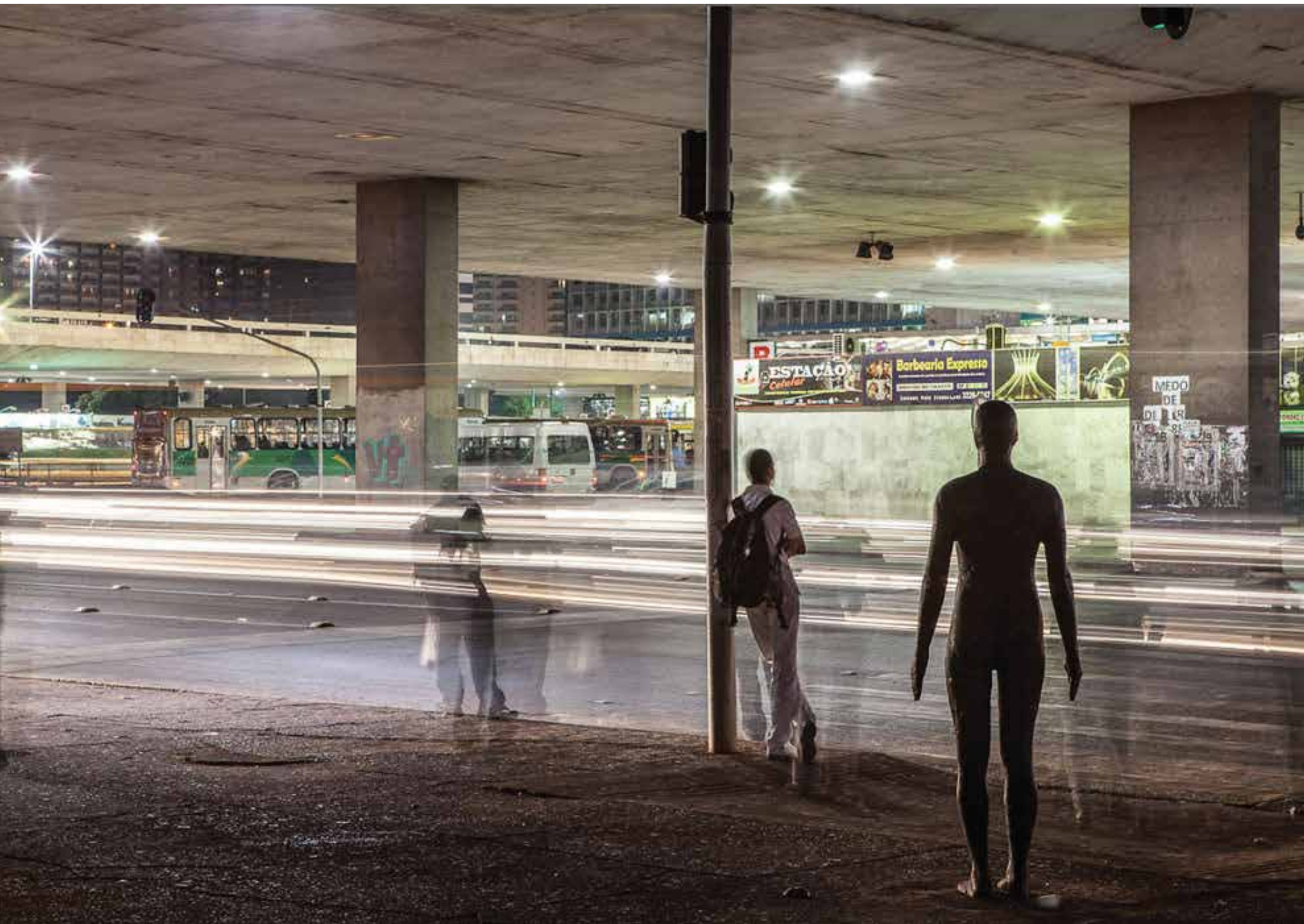


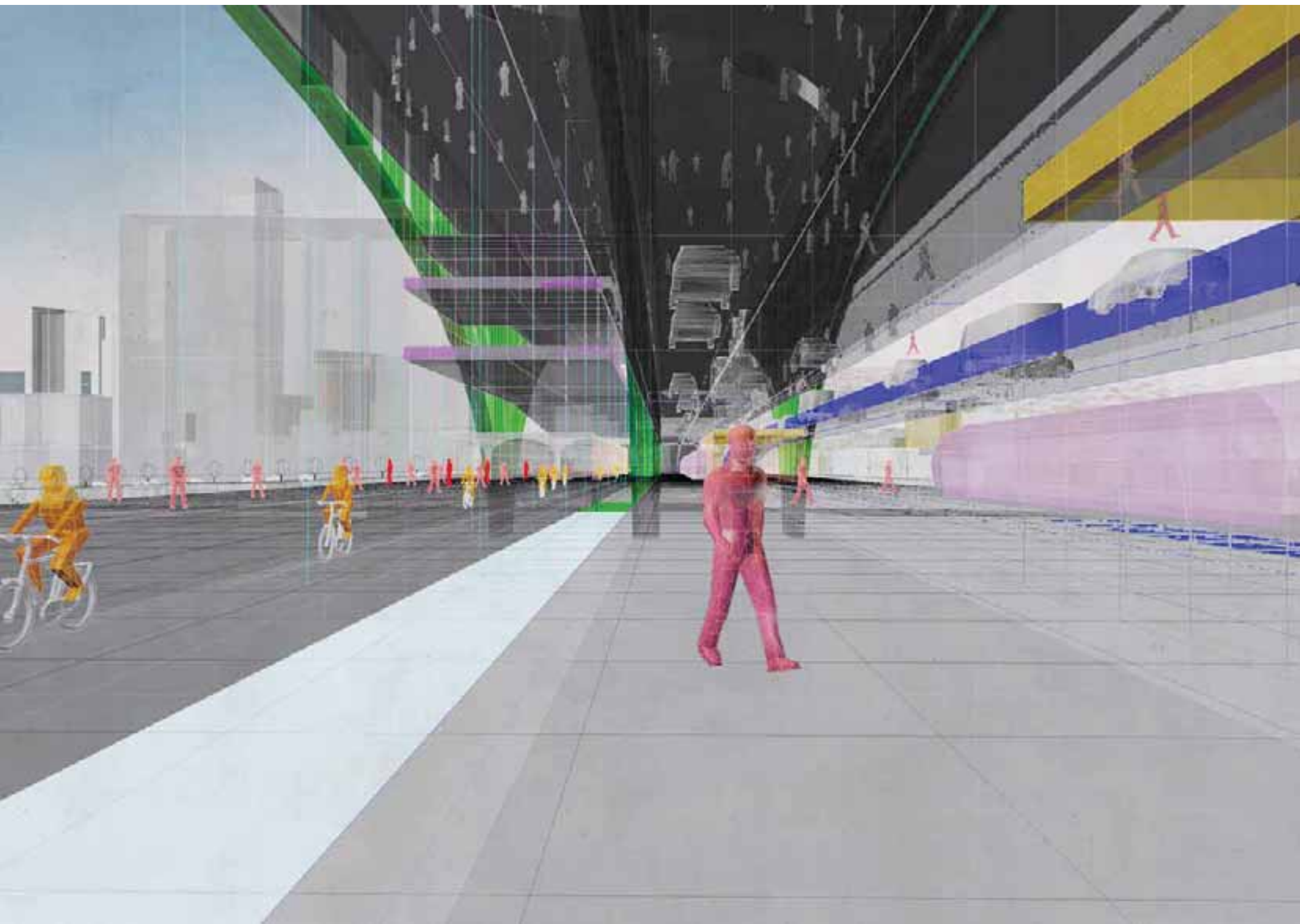








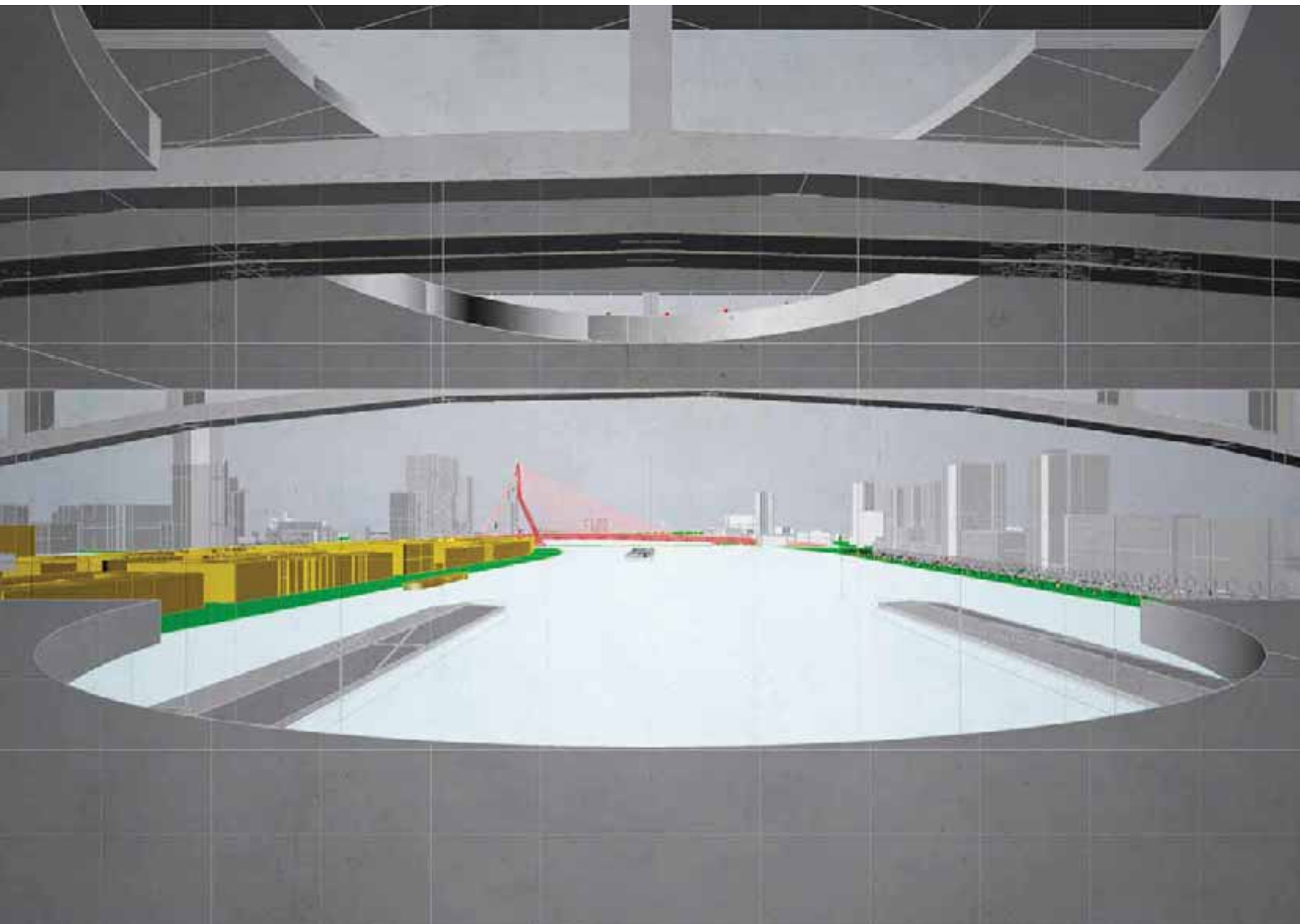




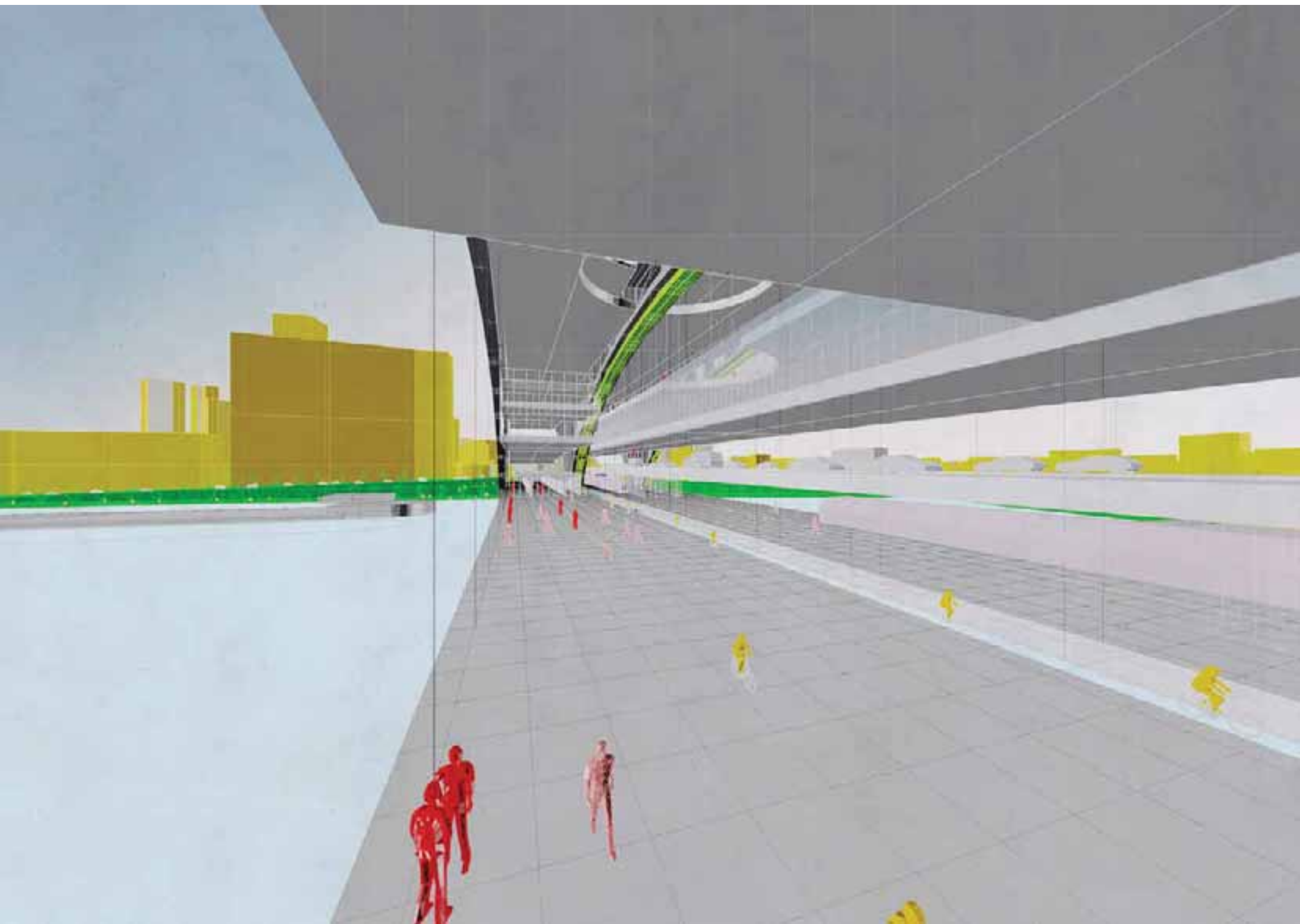




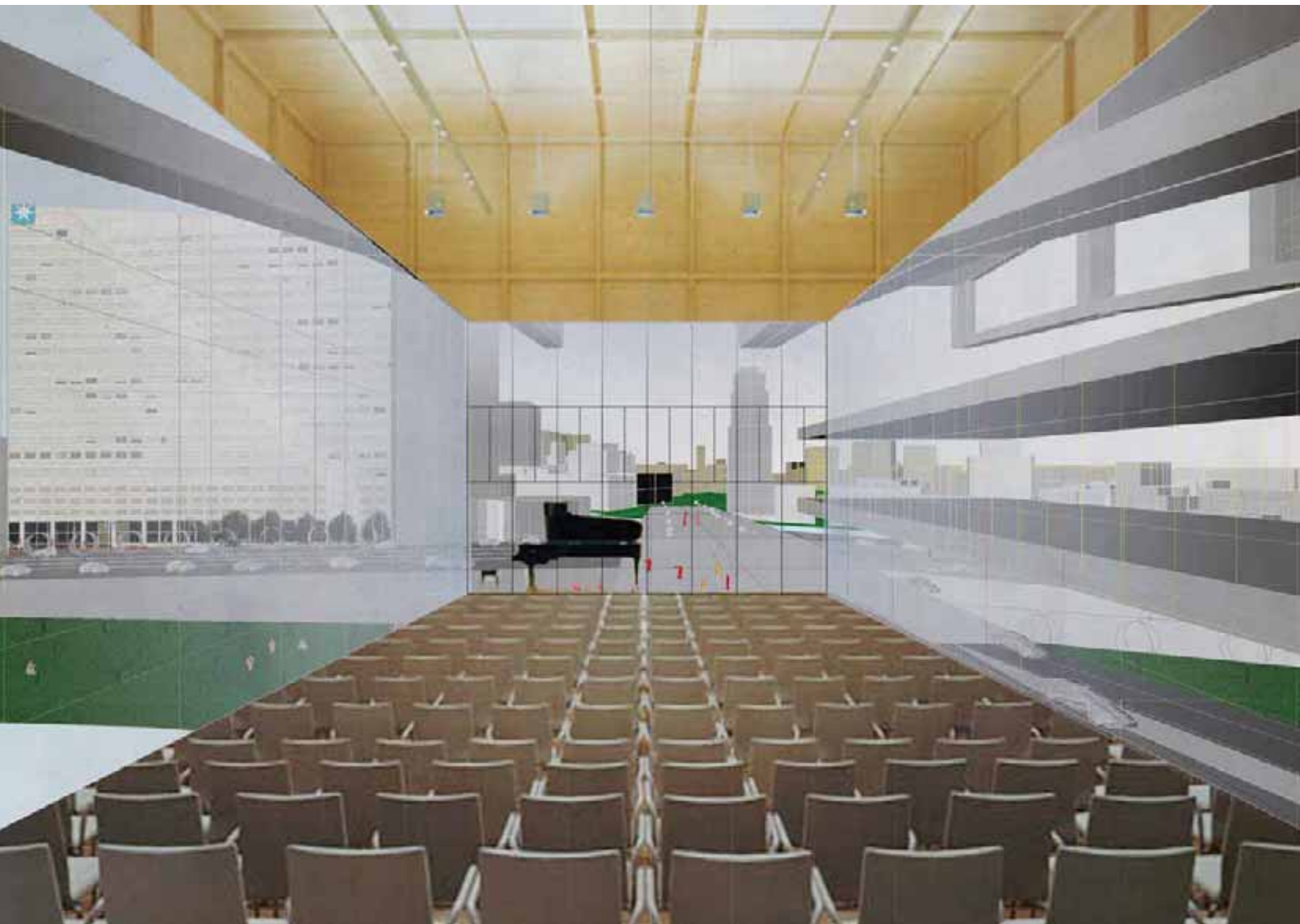




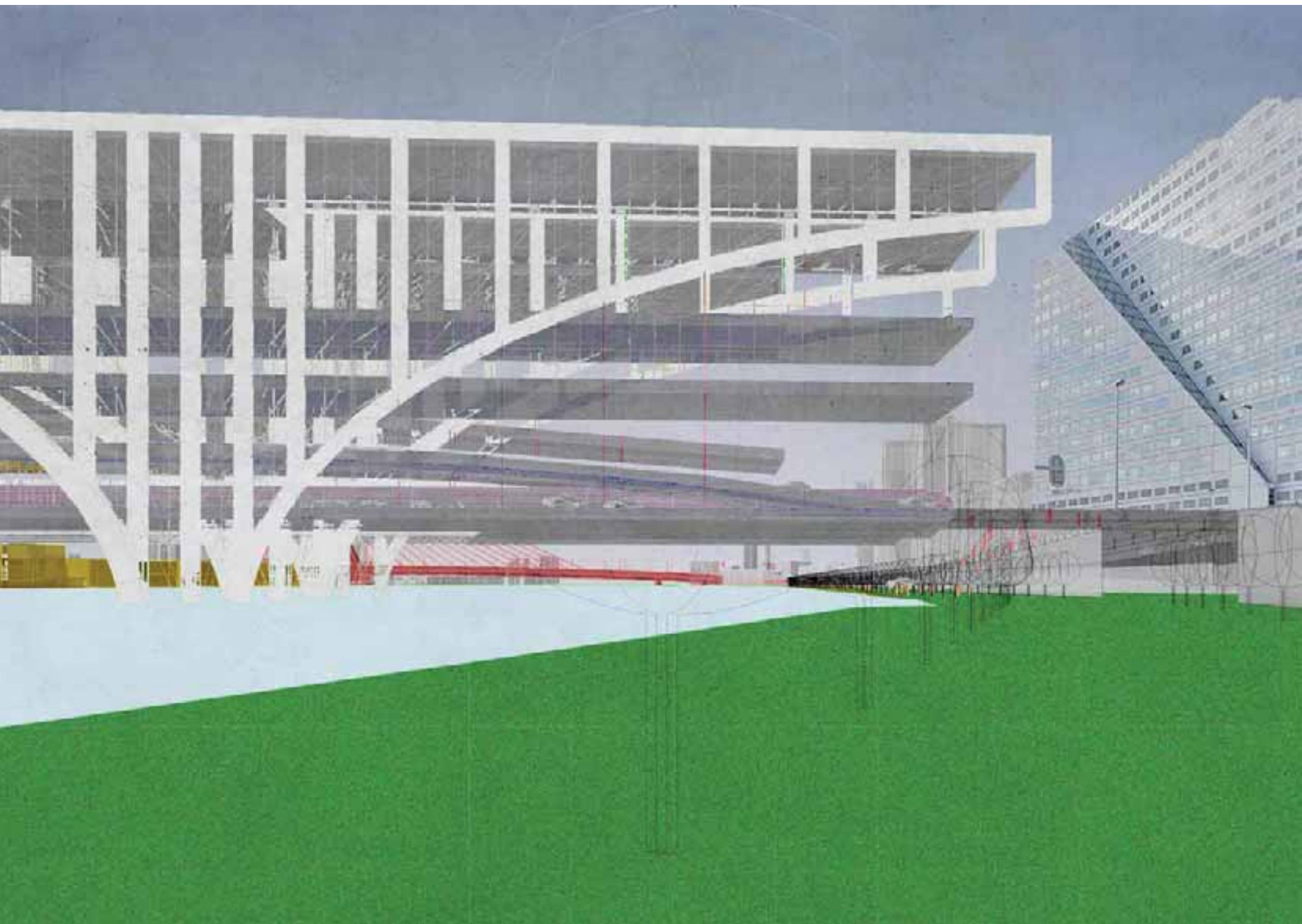


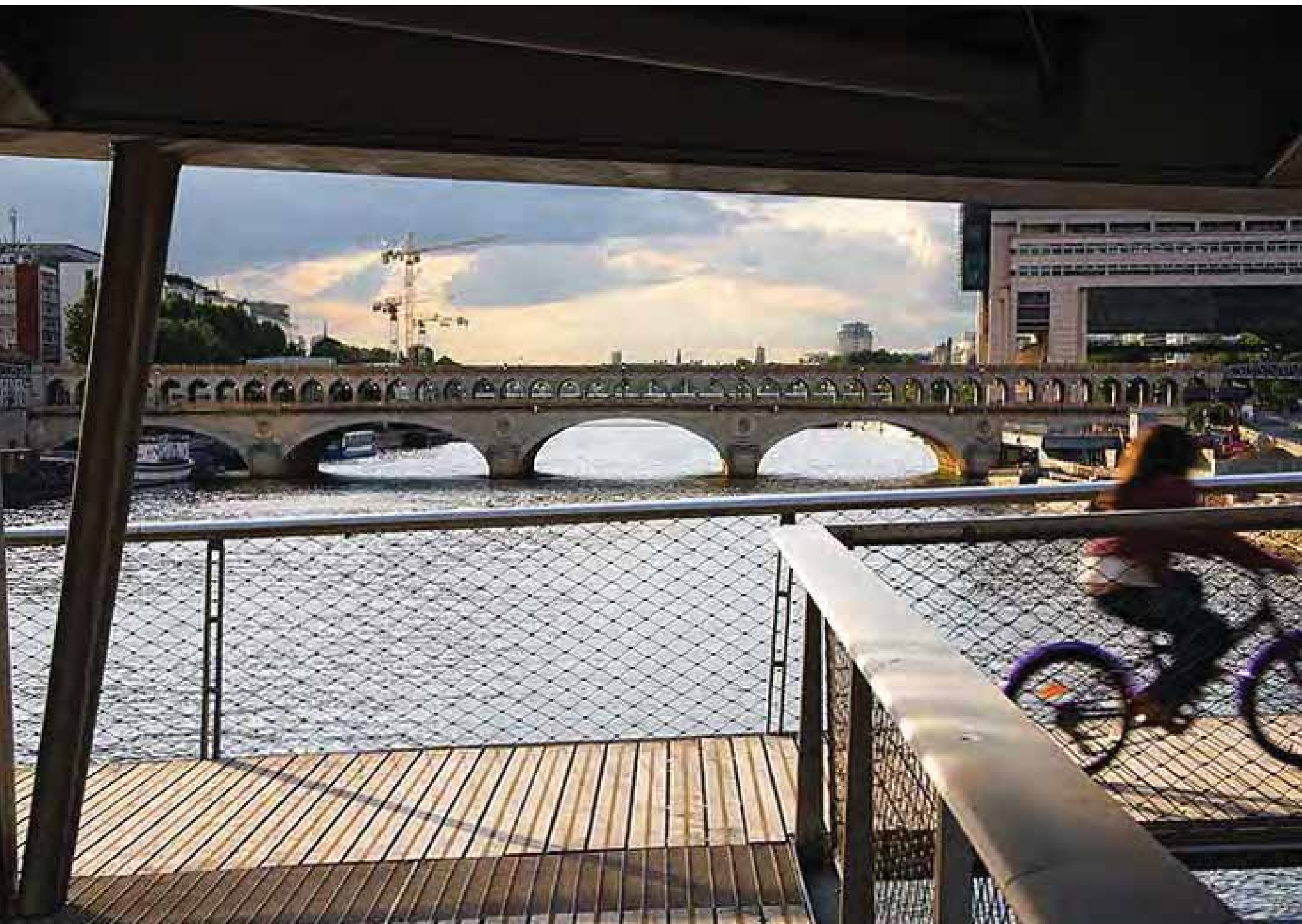


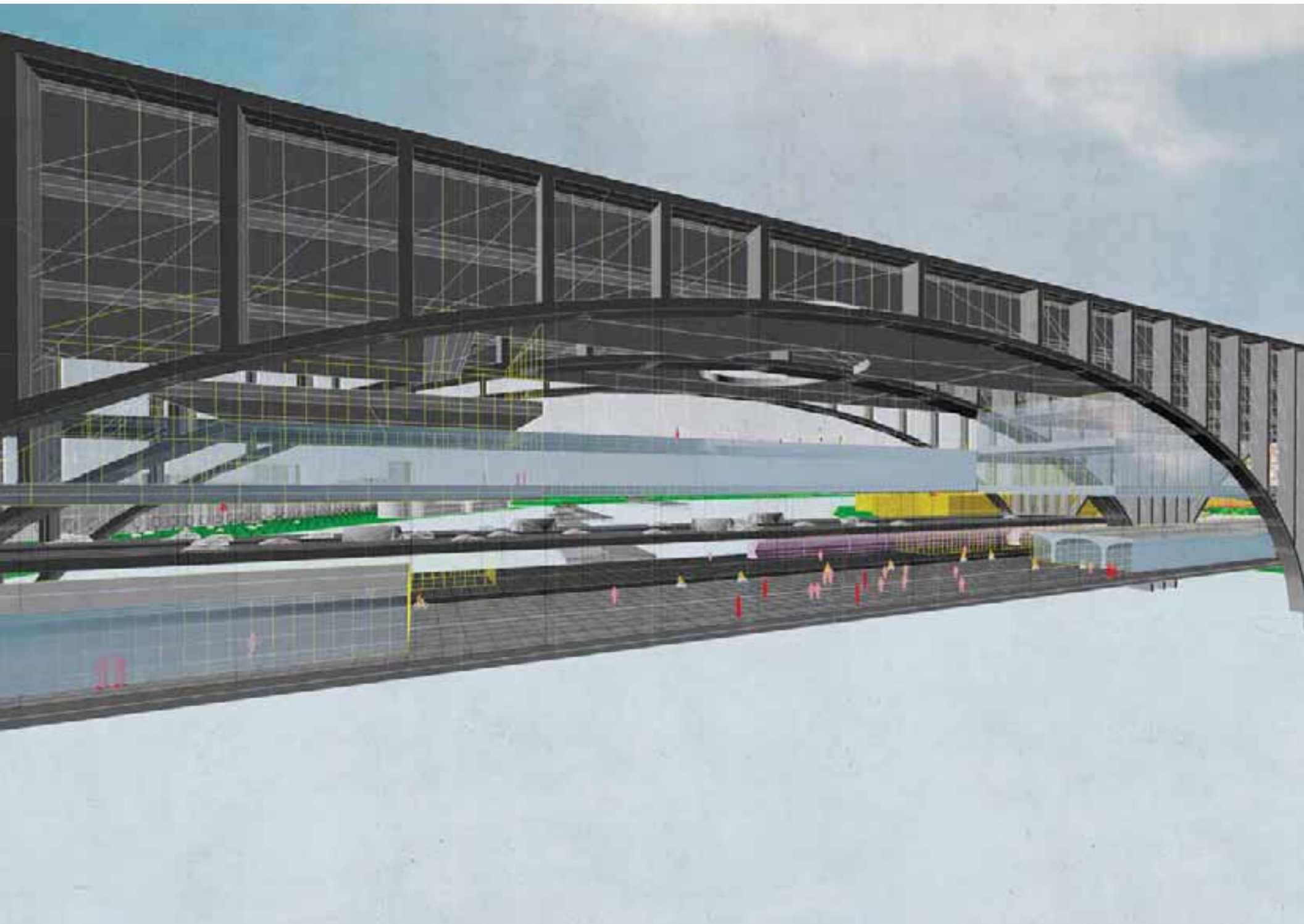












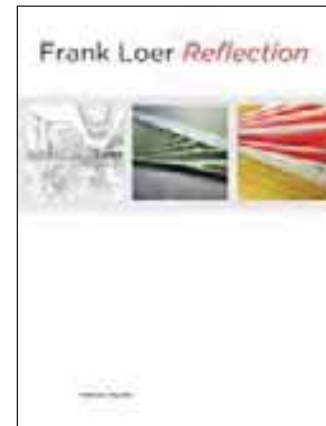
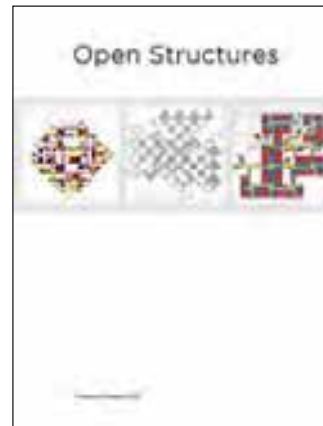
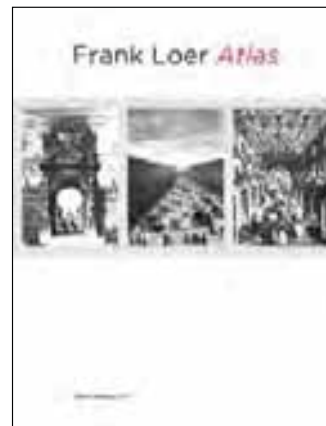
PLANNING



May 15 - June 21 - **MODEL 1:200**
(Last technical and design consults parallel)

22 - 29 June - Final Drawings & Images
30 June - 4 July Booklet binding & presentation rehearsals

P5 Final Presentation : Friday 5 July 2013



FIN

