



POLITECNICO
MILANO 1863

Opening the enclosure:

design strategies for new sport facilities for the De Montel Stable

Mara Fraticelli



San Siro and the development of a new neighborhood

from a village to a sports town



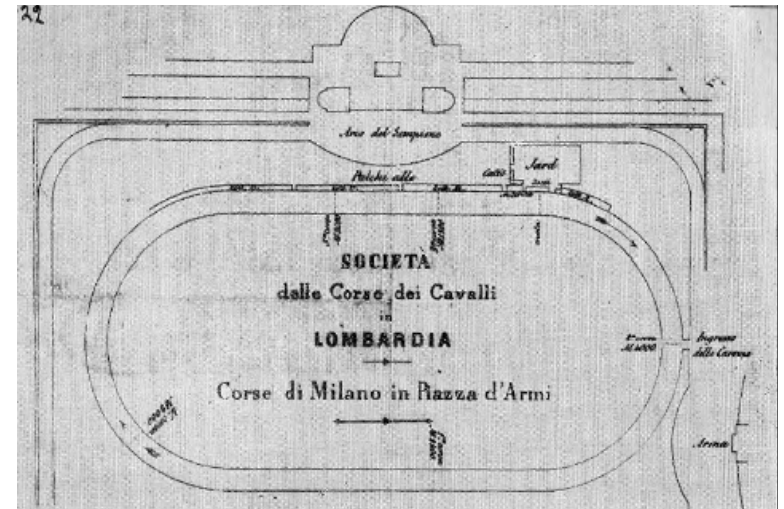
“In the nineteenth century San Siro was a small village around the church, surrounded by fields and lapped by the river Olona [...]”

Touring Club italiano,
Guida d'Italia, Milano,
1990.

Historical Map
Portion of Milan in 1850



Horse races in Piazza d'Armi (1830)



Map of the racing field in Piazza d'Armi (1862)



The first sport facility: the Gallop Hippodrome (1888)



Pavia – Masera urban plan (1910-1912)



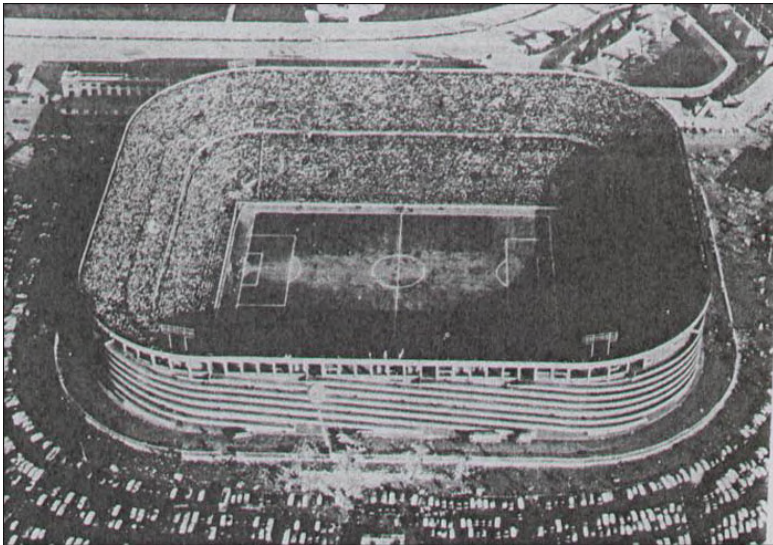
Albertini urban plan (1934)



First San Siro stadium layout (1935)

«We all went to San Siro in an open carriage, it was a delightful day and crossed the park we followed the tram tracks [...] There were villas, behind the gates, large gardens full of vegetation, ditches where the water ran with us and vegetable gardens covered with dust [...]»

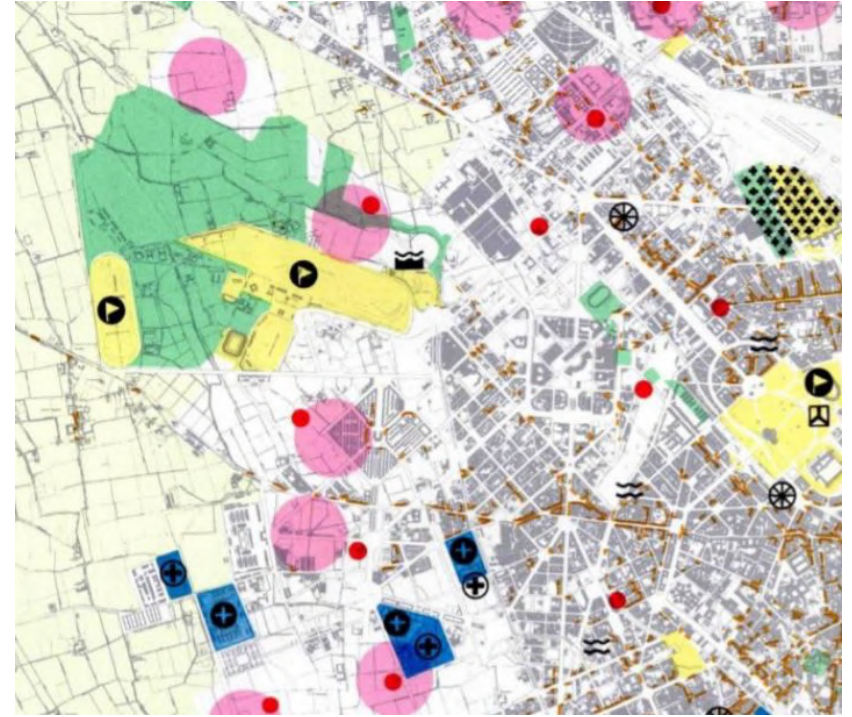
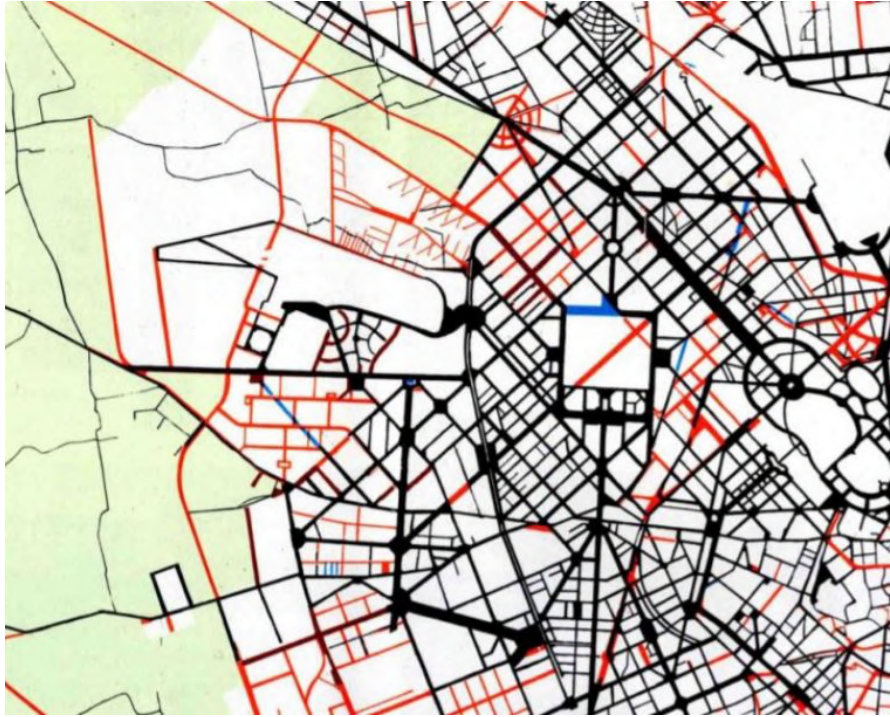
(E. Hemingway, 1946)
Edizioni Equestri,
Milano, 1991.



San Siro stadium (1953)



San Siro stadium (1990)



Milan urban plan (1953)



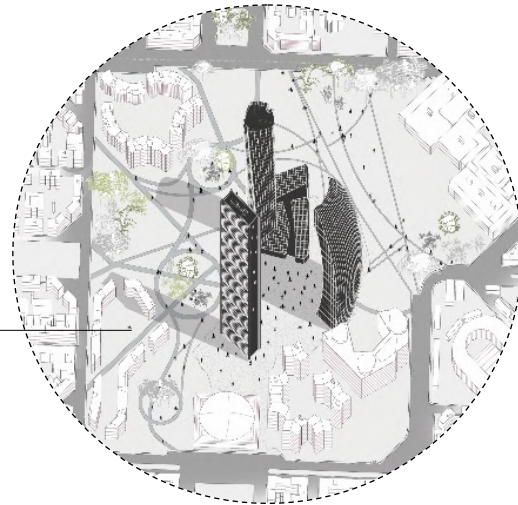
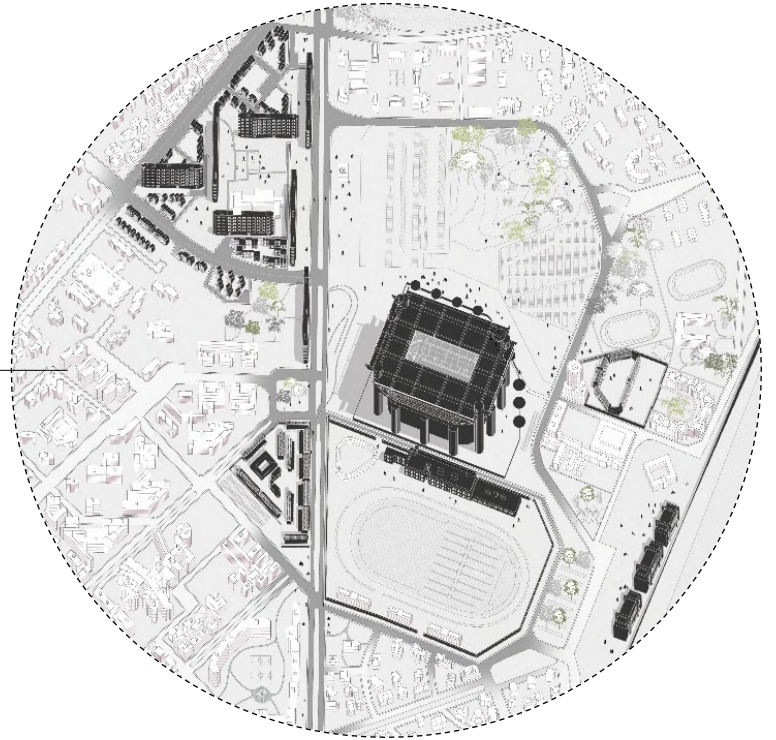
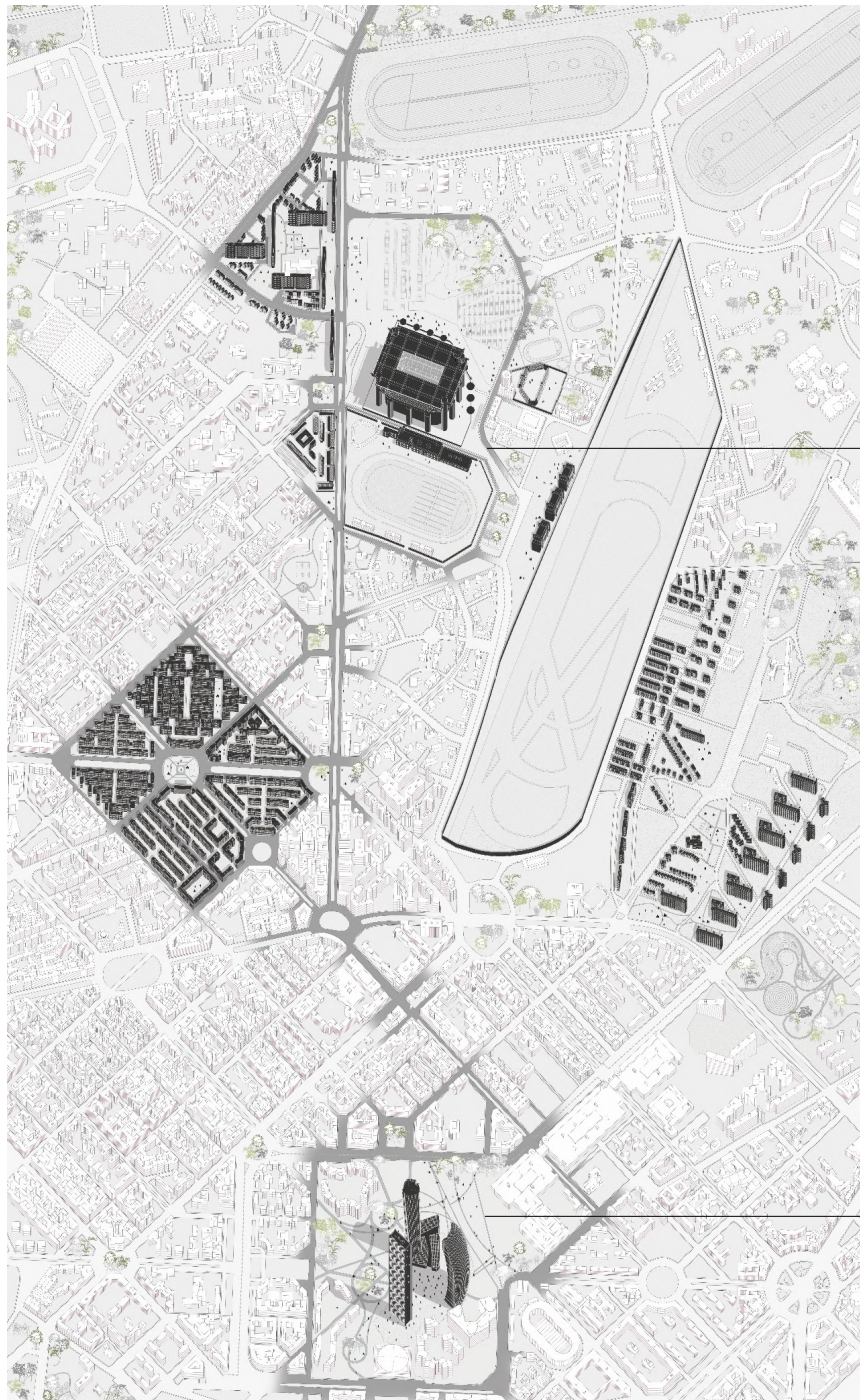
Manifesto:
the evolution of public spaces in western Milan



Manifesto:

the evolution of public spaces in western Milan

The area of San Siro presents moments of morphological diversity that testify to the evolution of a neighborhood that has developed over the decades, following criteria of urban design, orientation and constructive matrices often contrasting.





Section AA'



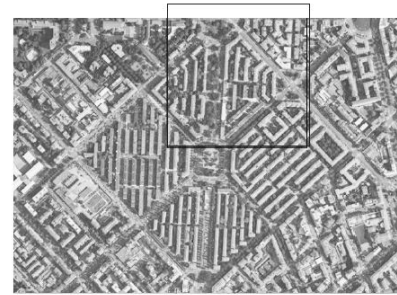
Section BB'

Open and built space

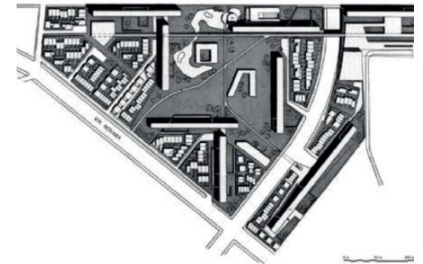


Open and built space

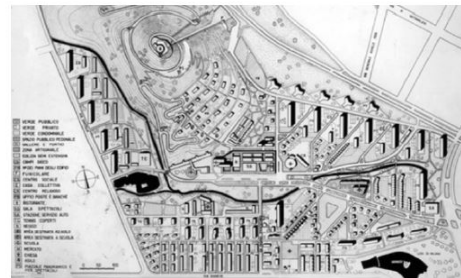
Transformational characteristics of the urban morphology of San Siro: fragmentation of the courtyard and relationship with the open space



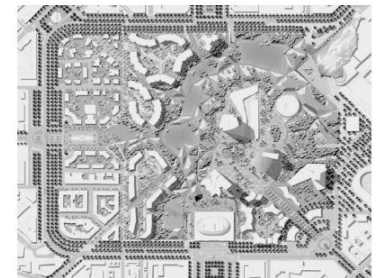
1- IFACP district



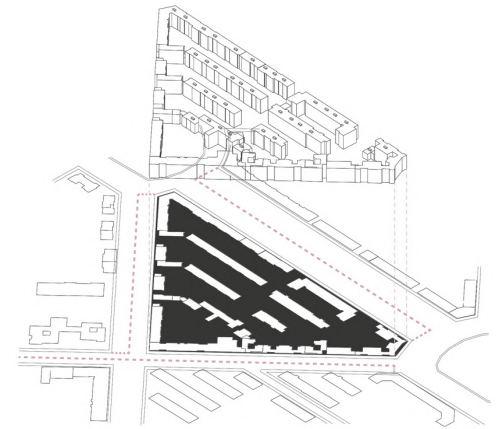
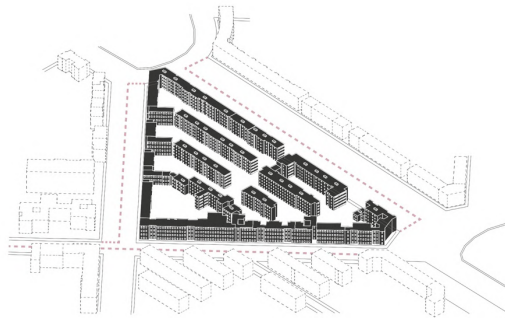
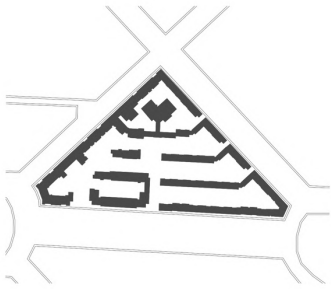
2 - INA Casa Harar district



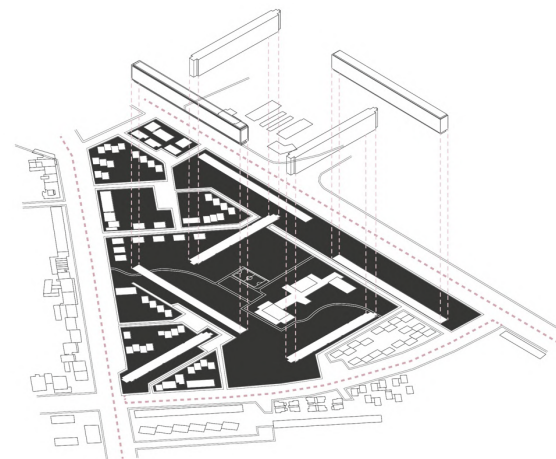
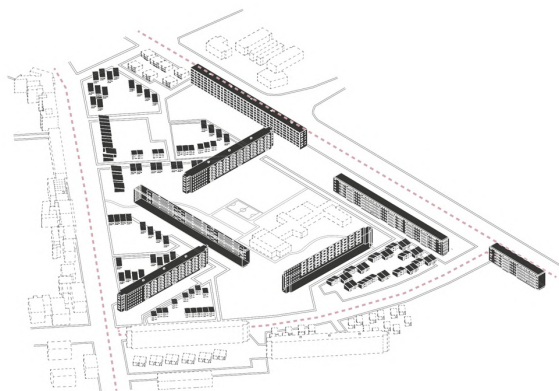
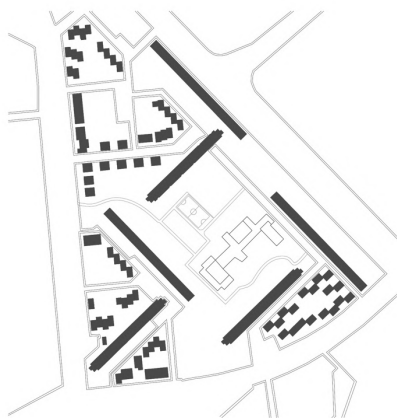
3- QT8 district



2 – City Life district



IFACP district (1934 – 1947)



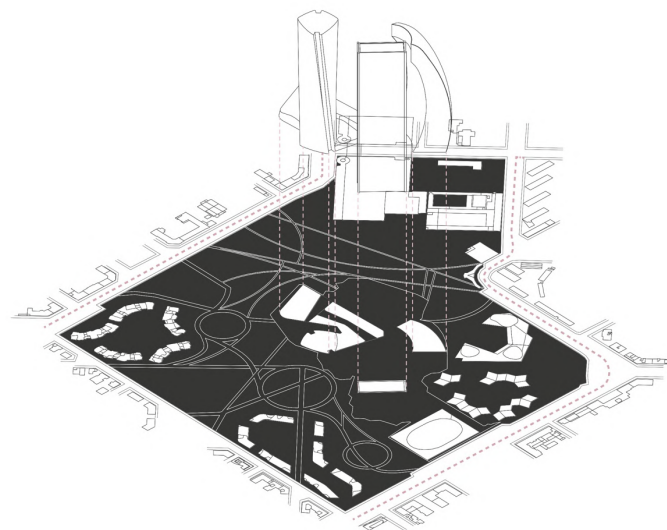
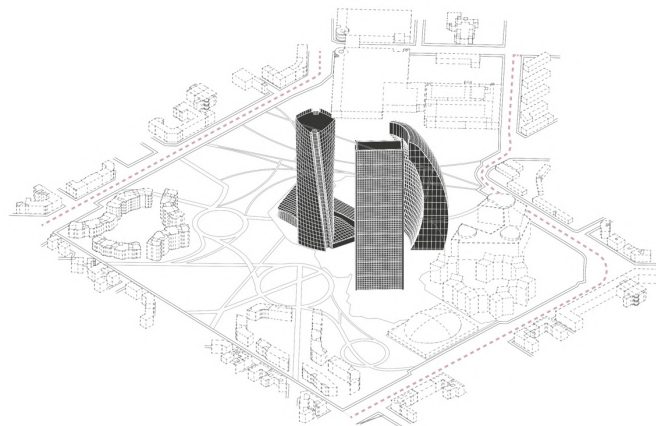
INA Casa Harar district (1951 – 1955)



QT8 district (1947 – 1954)

«The layout of the buildings not only avoids the continuous block, but also the alignment to the street level that had characterized the rationalist districts of the pre-war period, distinguishing itself as by the variety of types of buildings with two-storey terraced houses, medium four-storey houses and eleven-storey high houses. The park and garden design is, for the first time in Milan, an organic element of the composition, along which a nucleus of primary services develops and the two main axes intersect[...].»

(Piero Bottoni, 1946)



City Life district (2004 – 2018)



**The urban morphology of San Siro
as a result of an “enclosure patchwork”**



 To define the private property of a single or a complex of buildings



 To limit the access of a building basement



 To delimit abandoned or permanently disused spaces



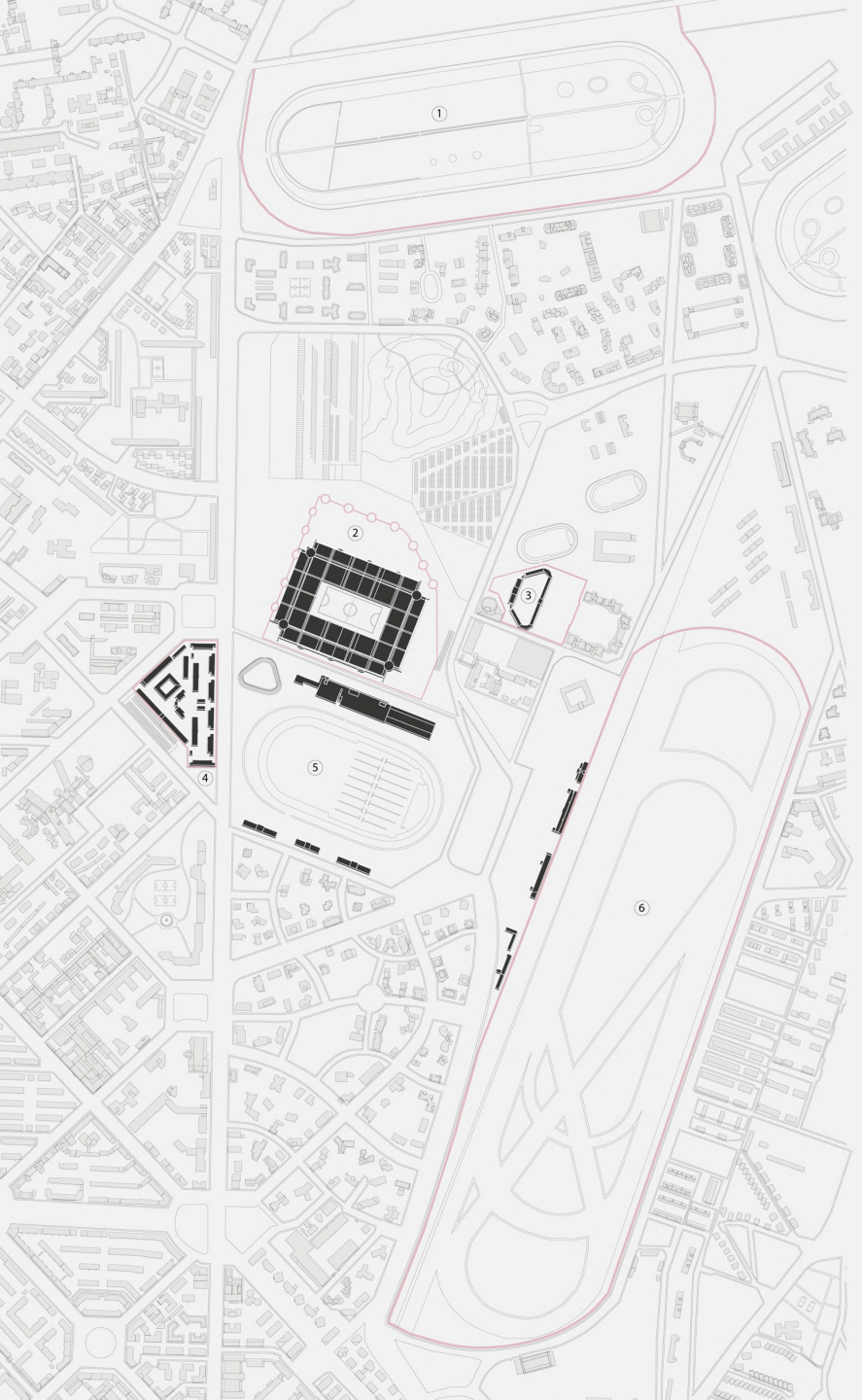
 To restrict access at specific times



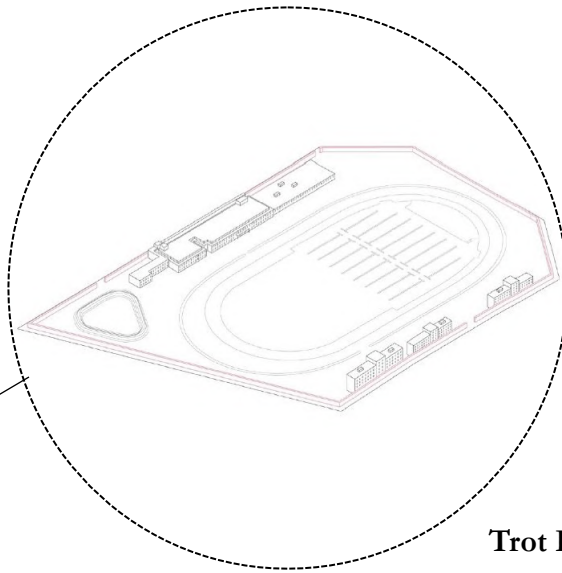
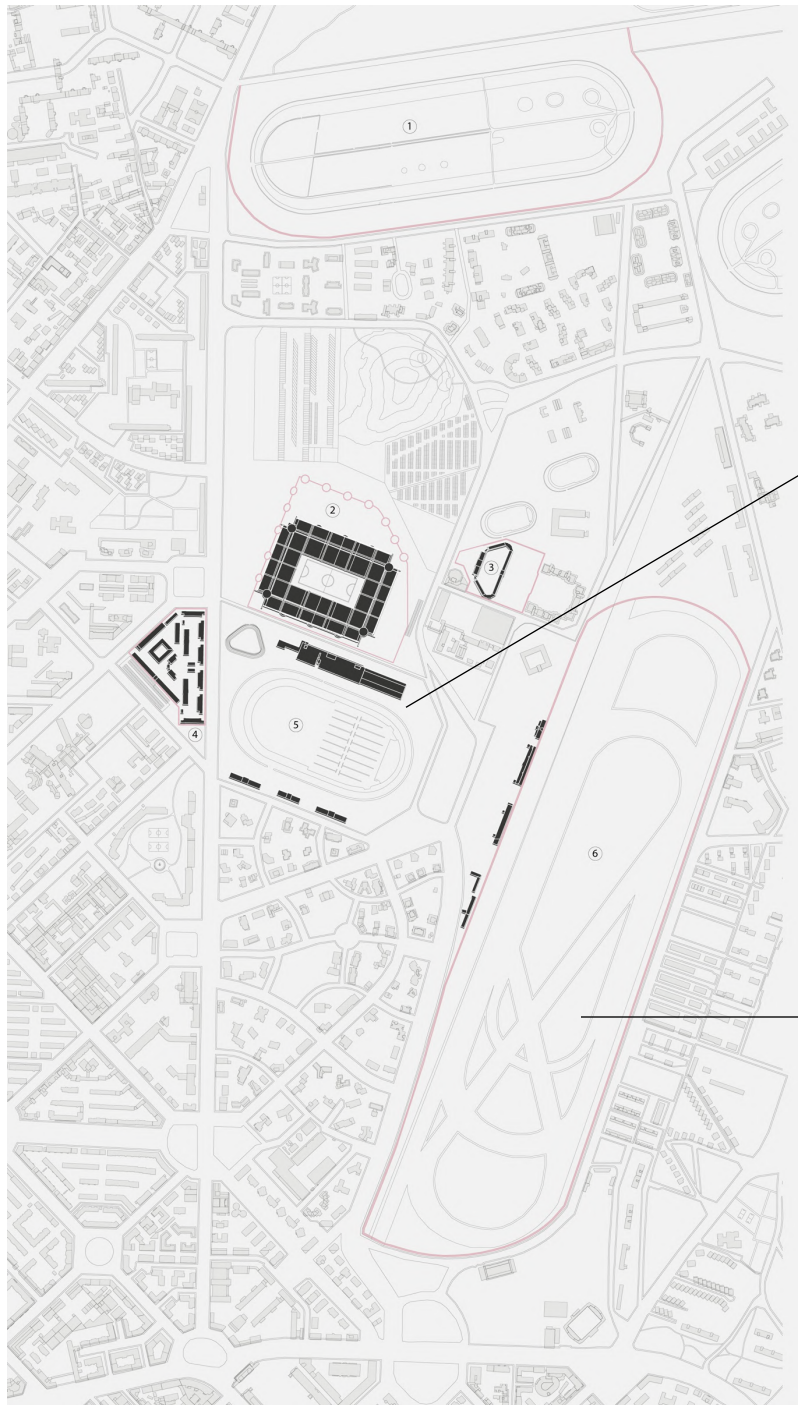
 To limit temporarily the access to roadworks areas



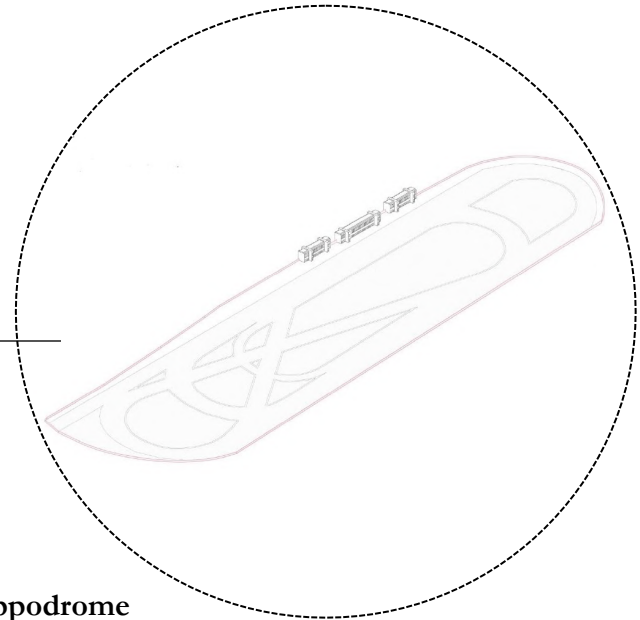
..|..... To define a pedestrian area



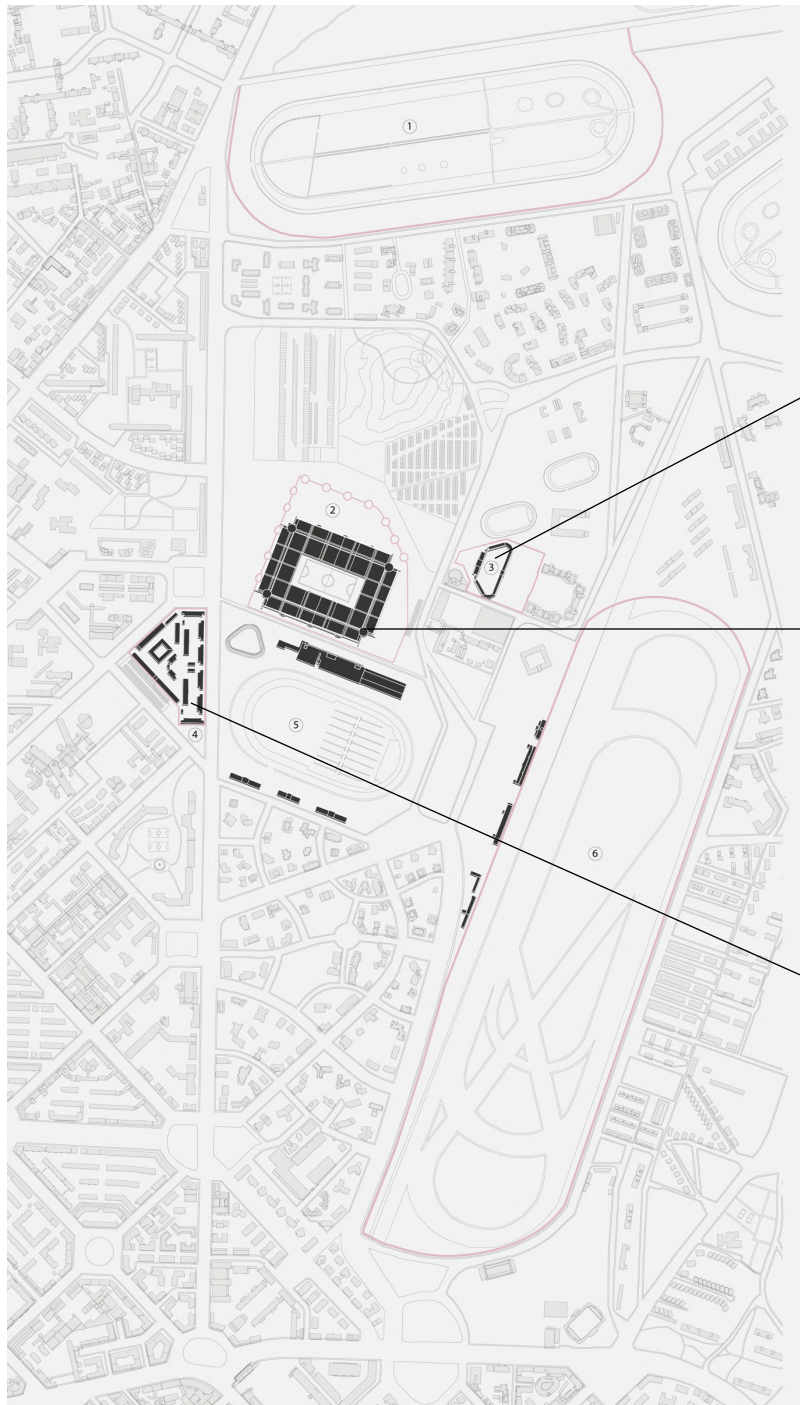
Interpretative reading of sports enclosures



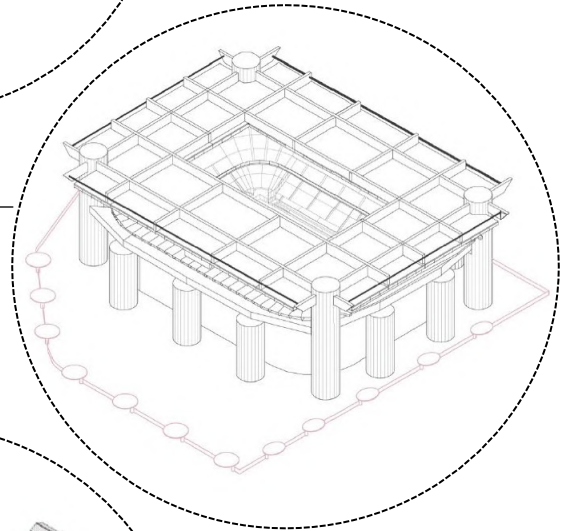
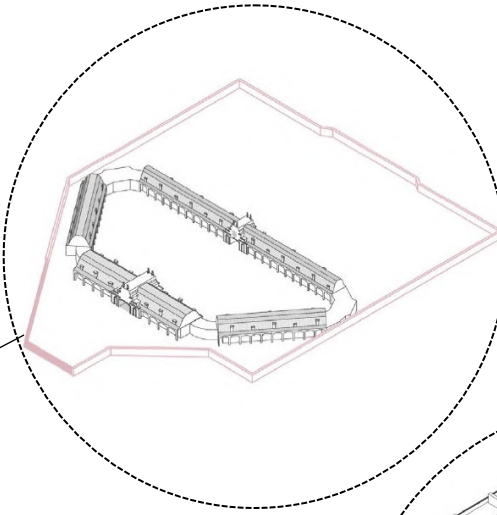
Trot Hippodrome



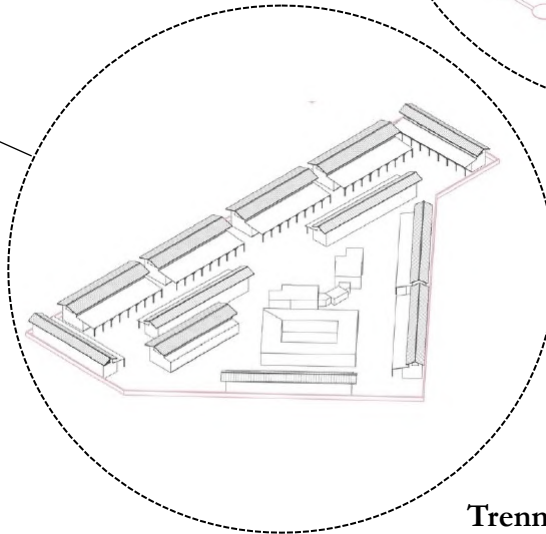
Gallop Hippodrome



De Montel Stables



San Siro stadium



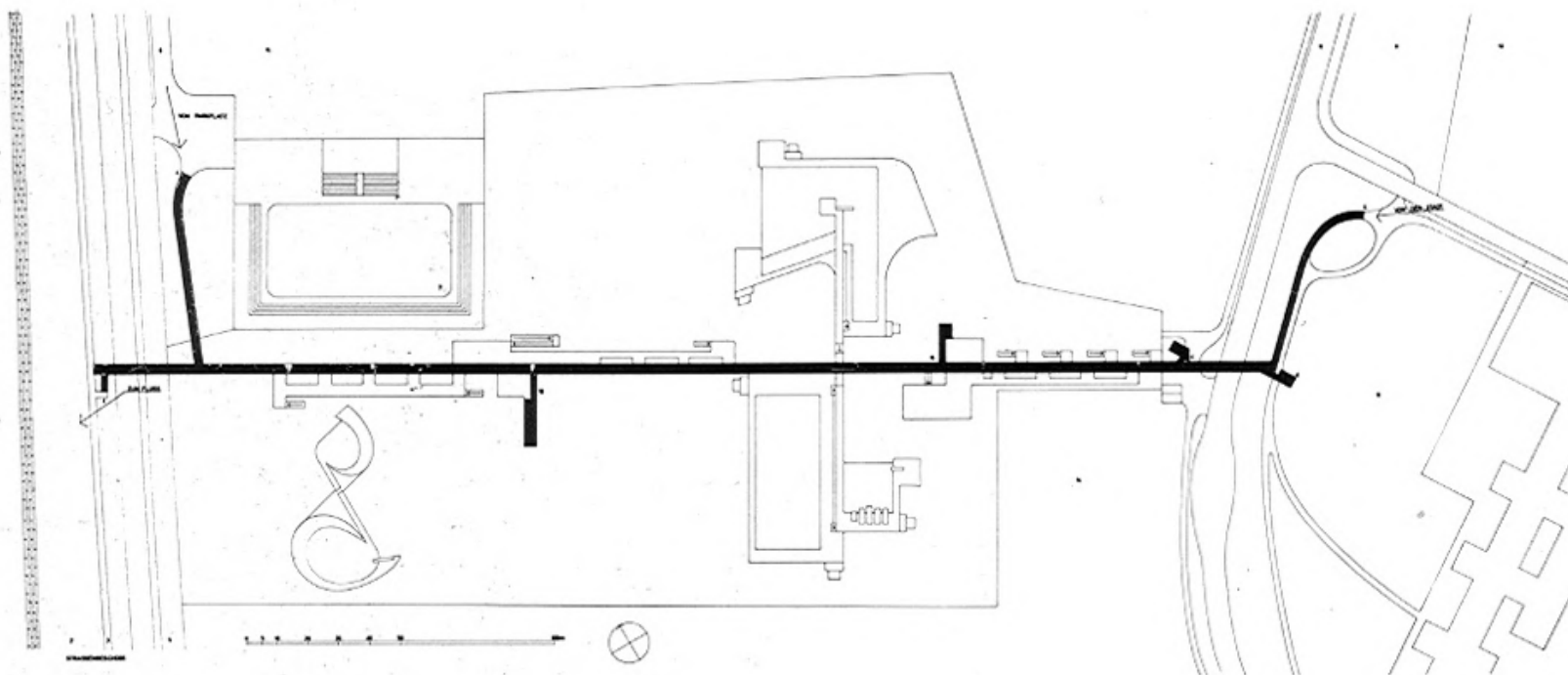
Trenno Stables



**The boundary as a material of urban composition
and an element of design strategy**



**Enclosure fabric: a pattern composed of lines and pieces
with different delimitation characteristics**



Bagno Pubblico di Bellinzona

Aurelio Galfetti, Flora Ruchat, Ivo Trümpy

Bellinzona (1967 - 1970)



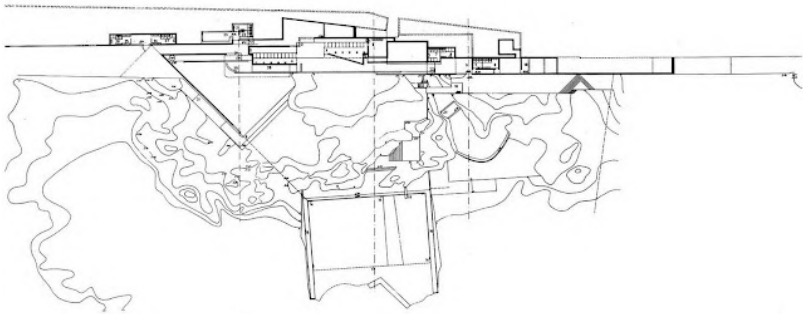
Bagno Pubblico di Bellinzona

Aurelio Galfetti, Flora Ruchat, Ivo Trümpy
Bellinzona (1967 - 1970)



Bagno Pubblico di Bellinzona

Aurelio Galfetti, Flora Ruchat, Ivo Trümpy
Bellinzona (1967 - 1970)



Pools in Leca da Palmeira

Alvaro Siza

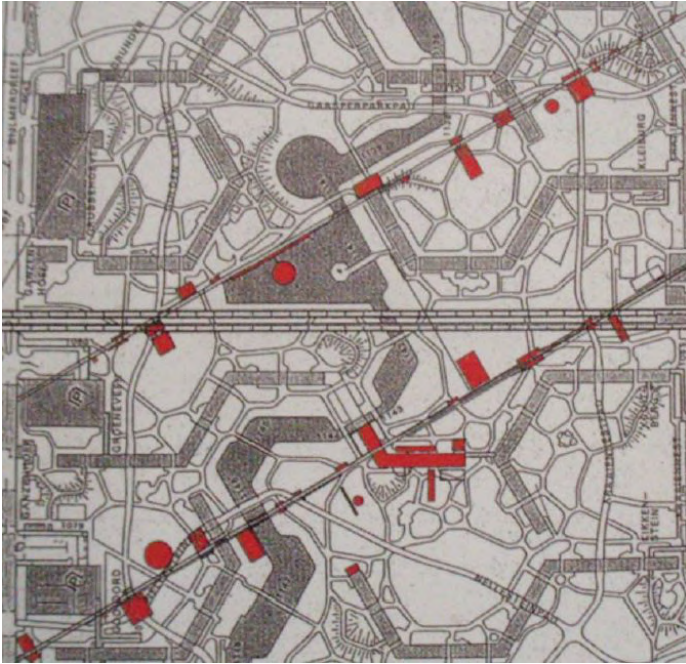
Matosinhos – Portugal (1966)



Pools in Leca da Palmeira

Alvaro Siza

Matosinhos – Portugal (1966)



Bijlmermeer Park

Descombes Architects
Amsterdam (1997 - 1998)

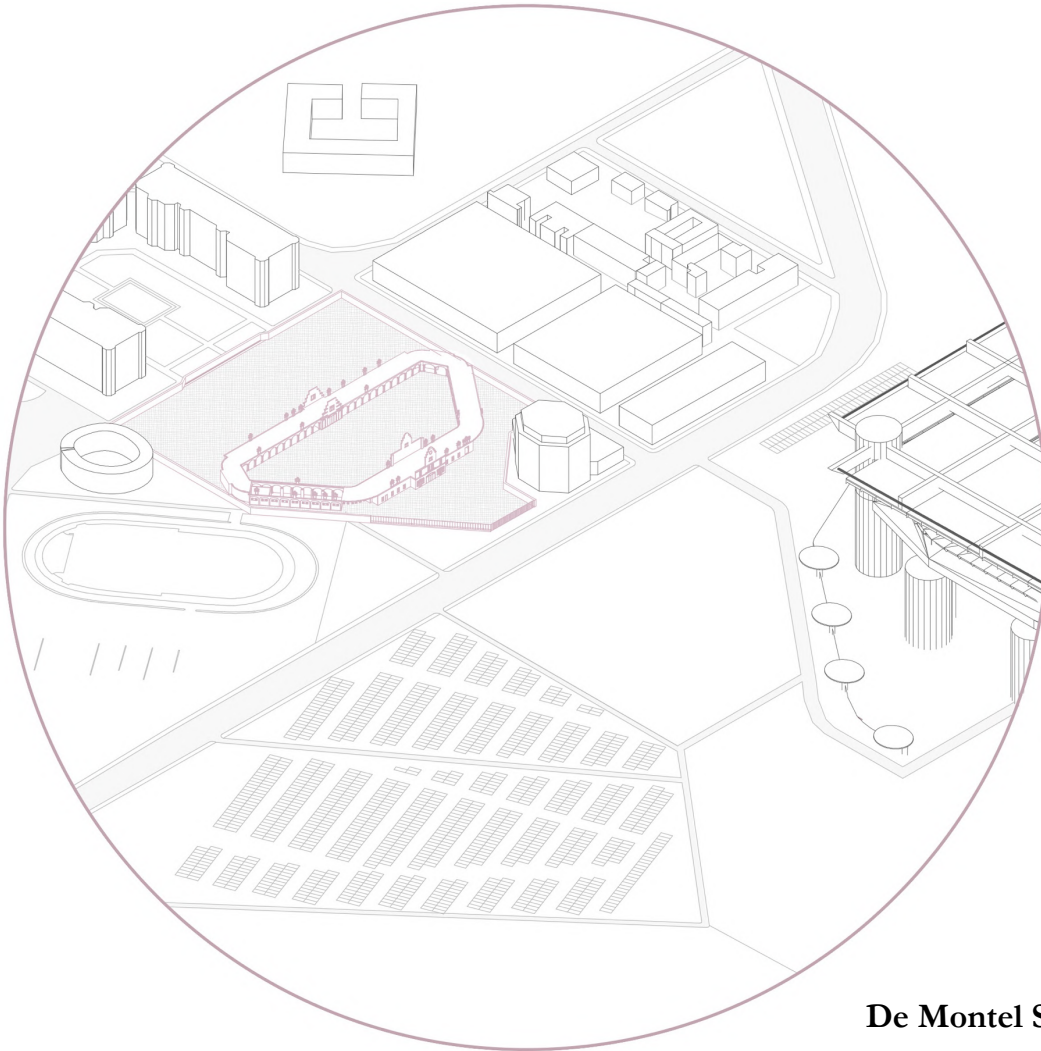


Bijlmermeer Park

Descombes Architects
Amsterdam (1997 - 1998)

Design strategies

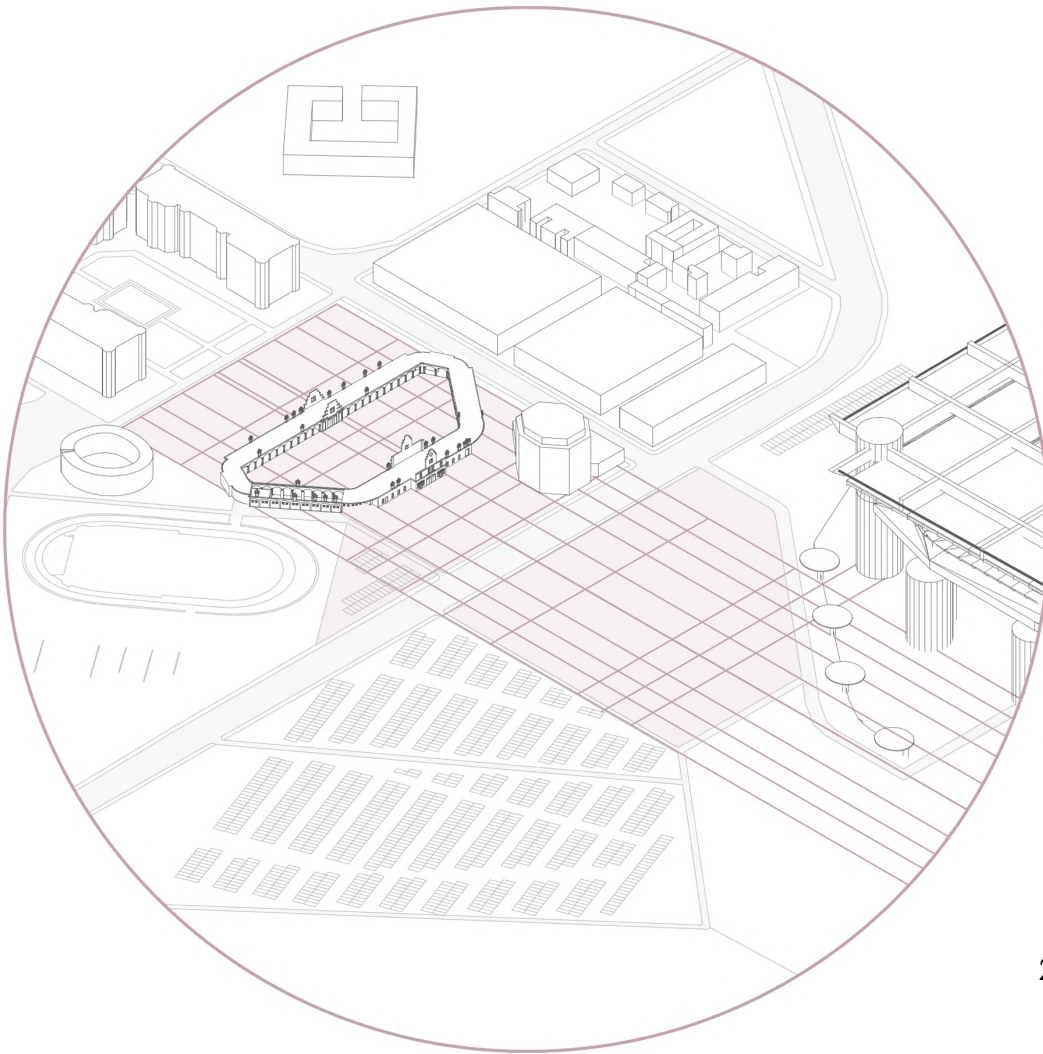
The “enclosures fabric” as a potential intervention proposal



1 – Reuse of the originary structure of the
De Montel Stable and demolition of the surrounding wall

Design strategies

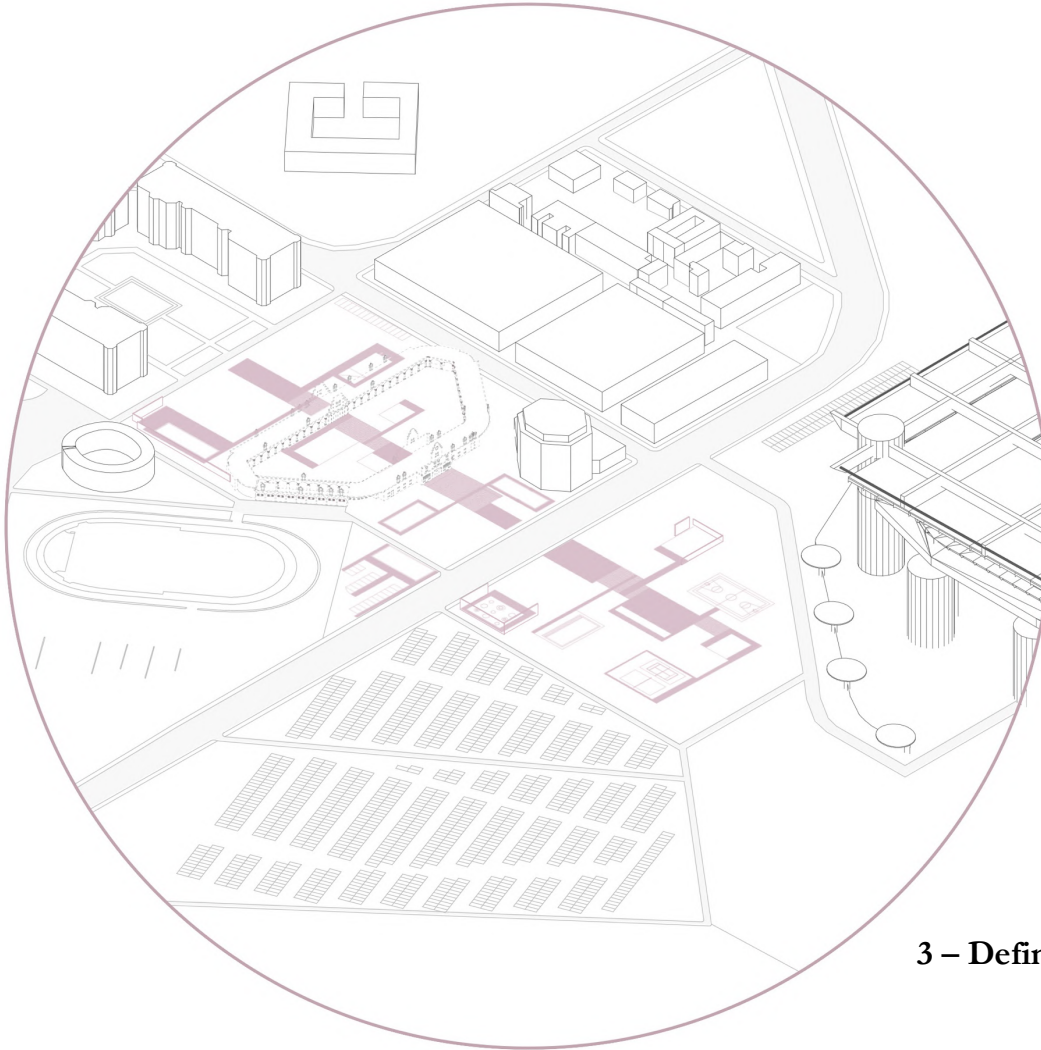
The “enclosures fabric” as a potential intervention proposal



2 – Integration of disused surrounding areas
and setting of the project generation axes

Design strategies

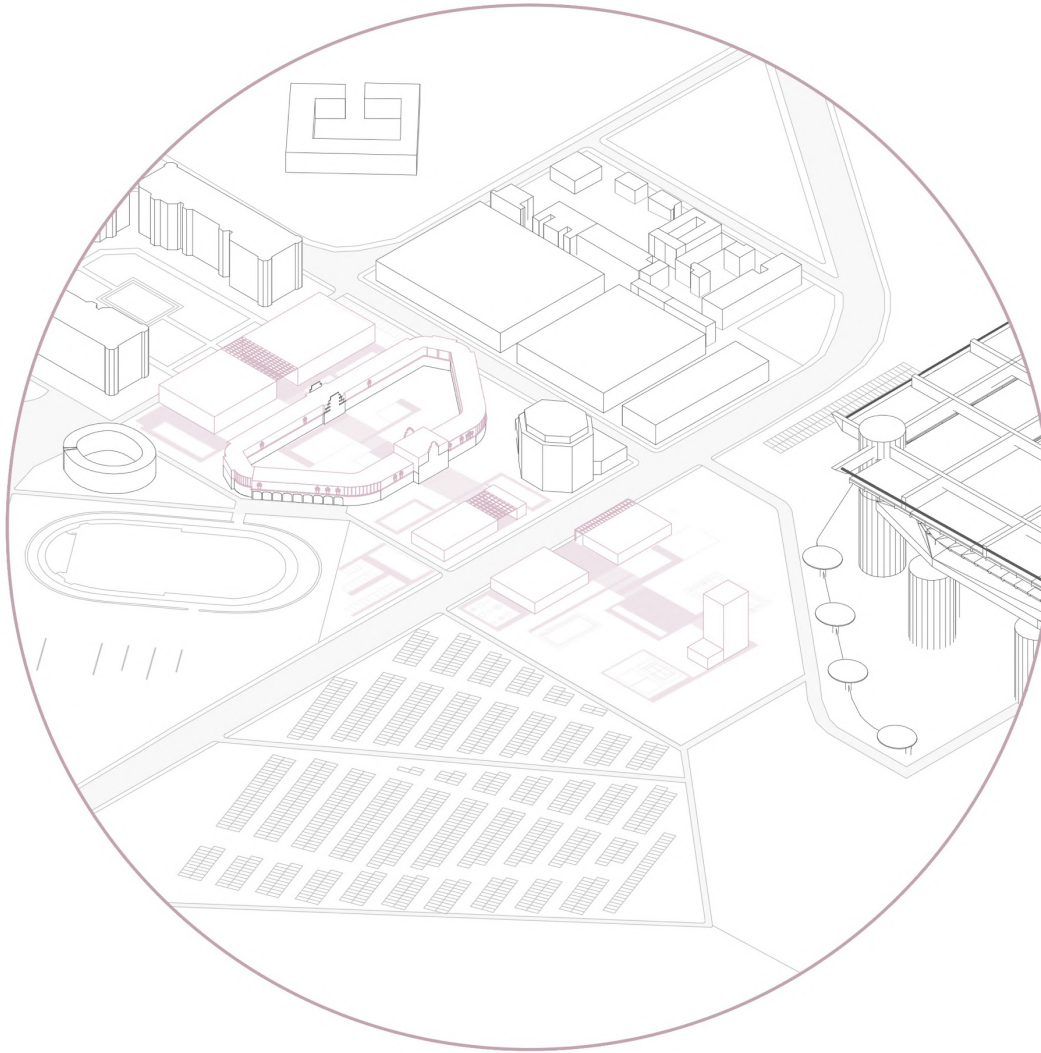
The “enclosures fabric” as a potential intervention proposal



3 – Definition of the *rooms* of the project and of the
new sport facilities

Design strategies

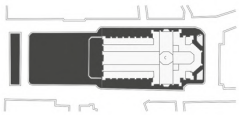
The “enclosures fabric” as a potential intervention proposal



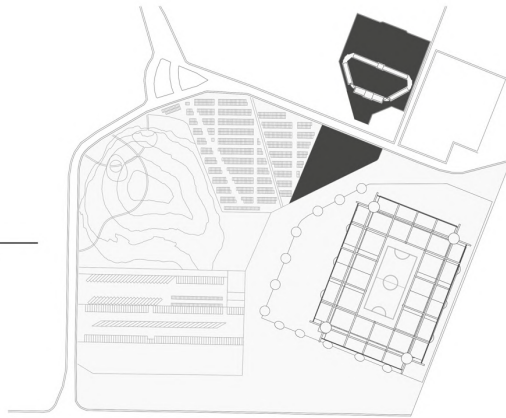
4 – Placement of the new volumes

How big is the project area?

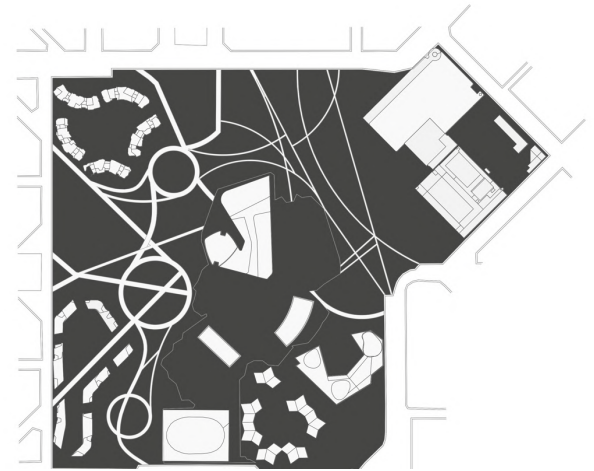
Piazza duomo surface = 16000 m²
Project area surface = 30000 m²
City Life surface = 350000 m²

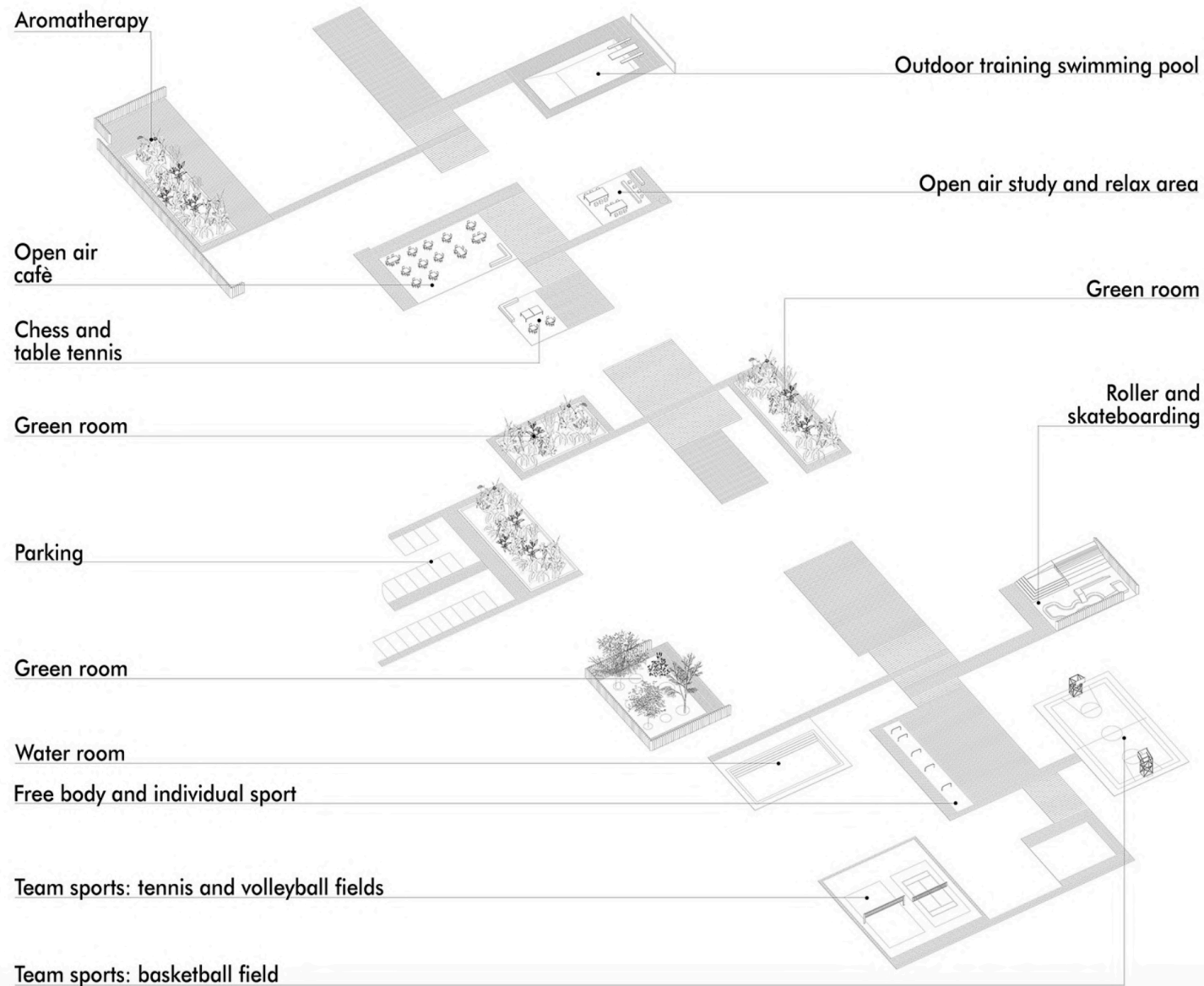


← 2 x

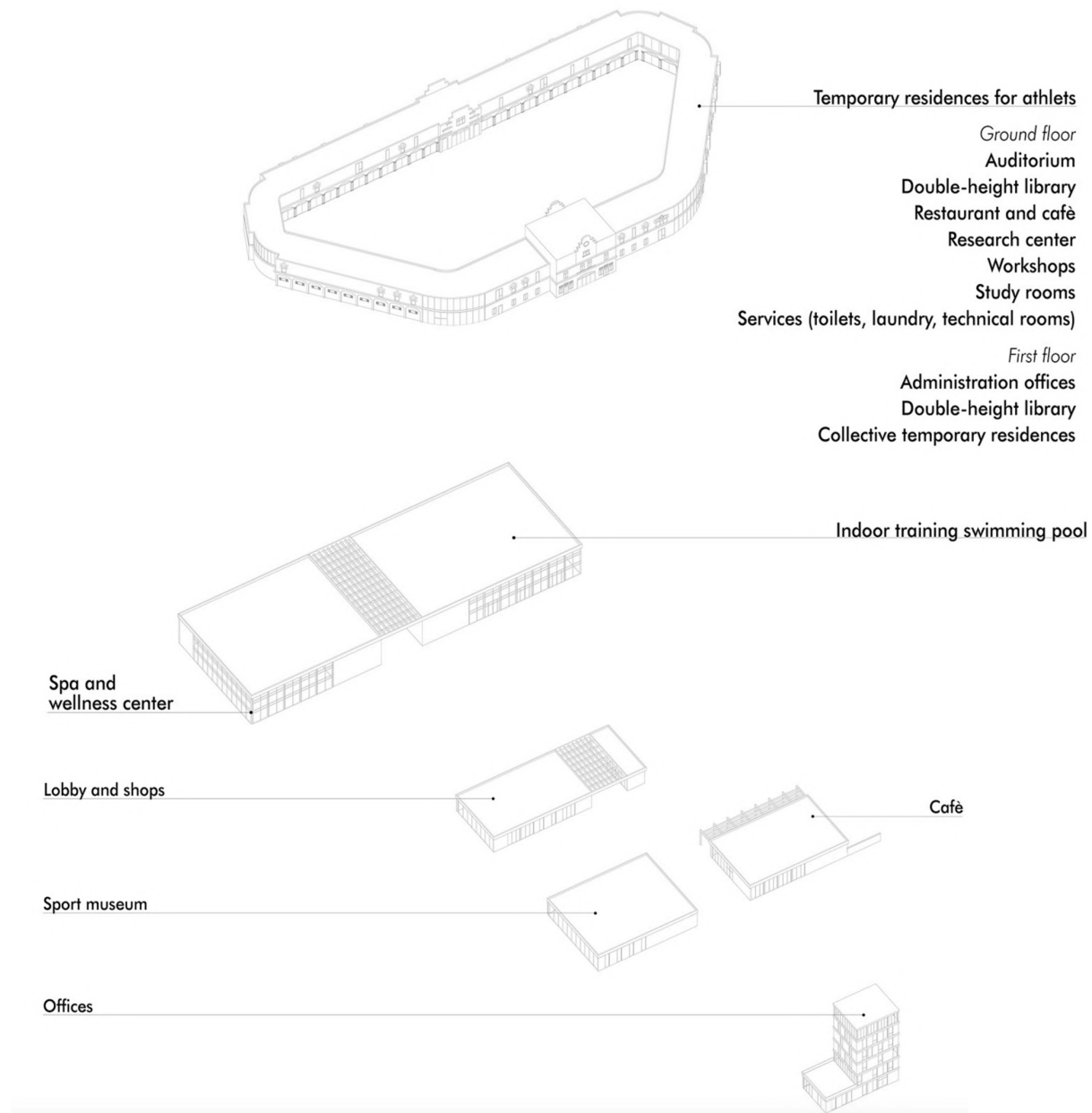


→ 1/10 x

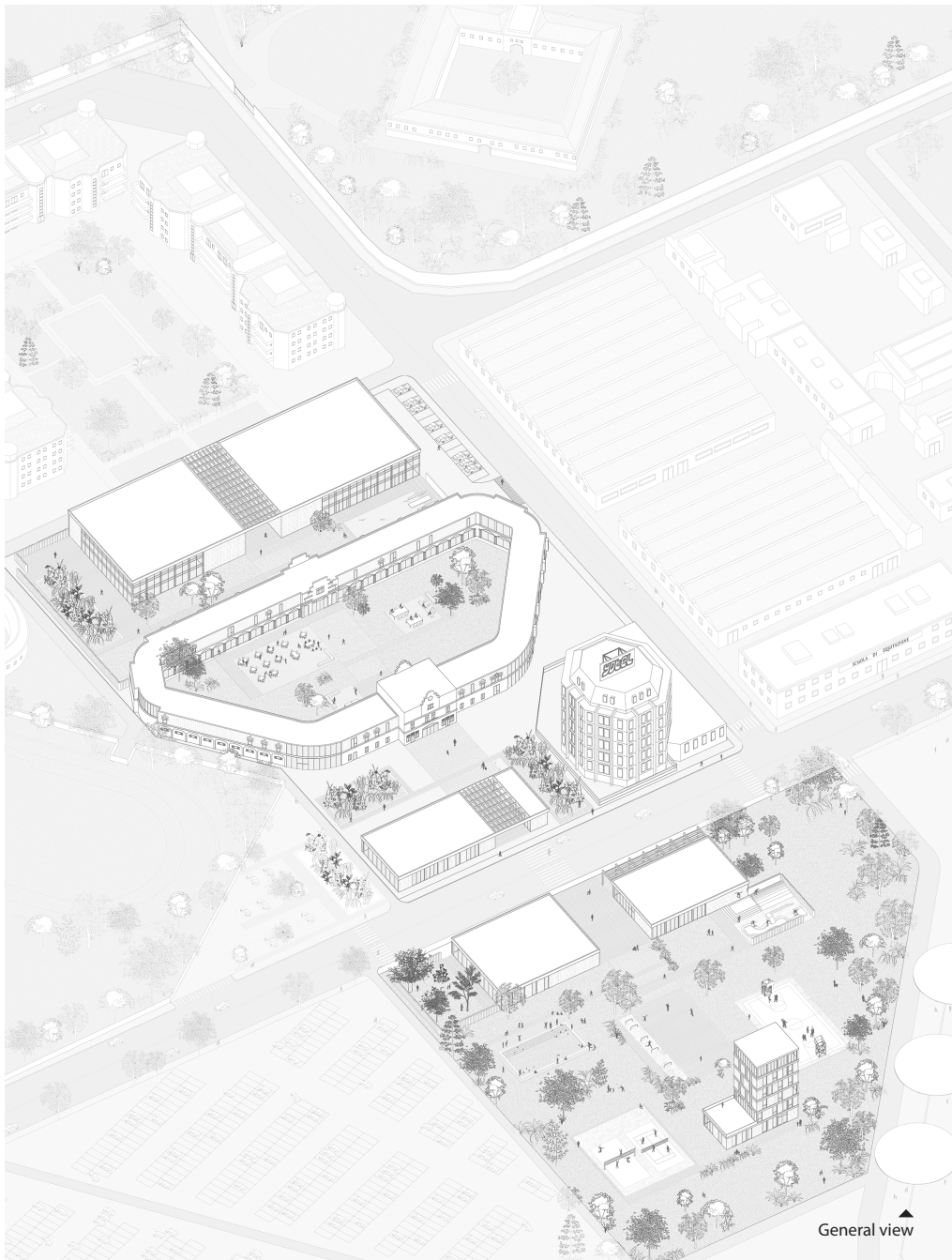




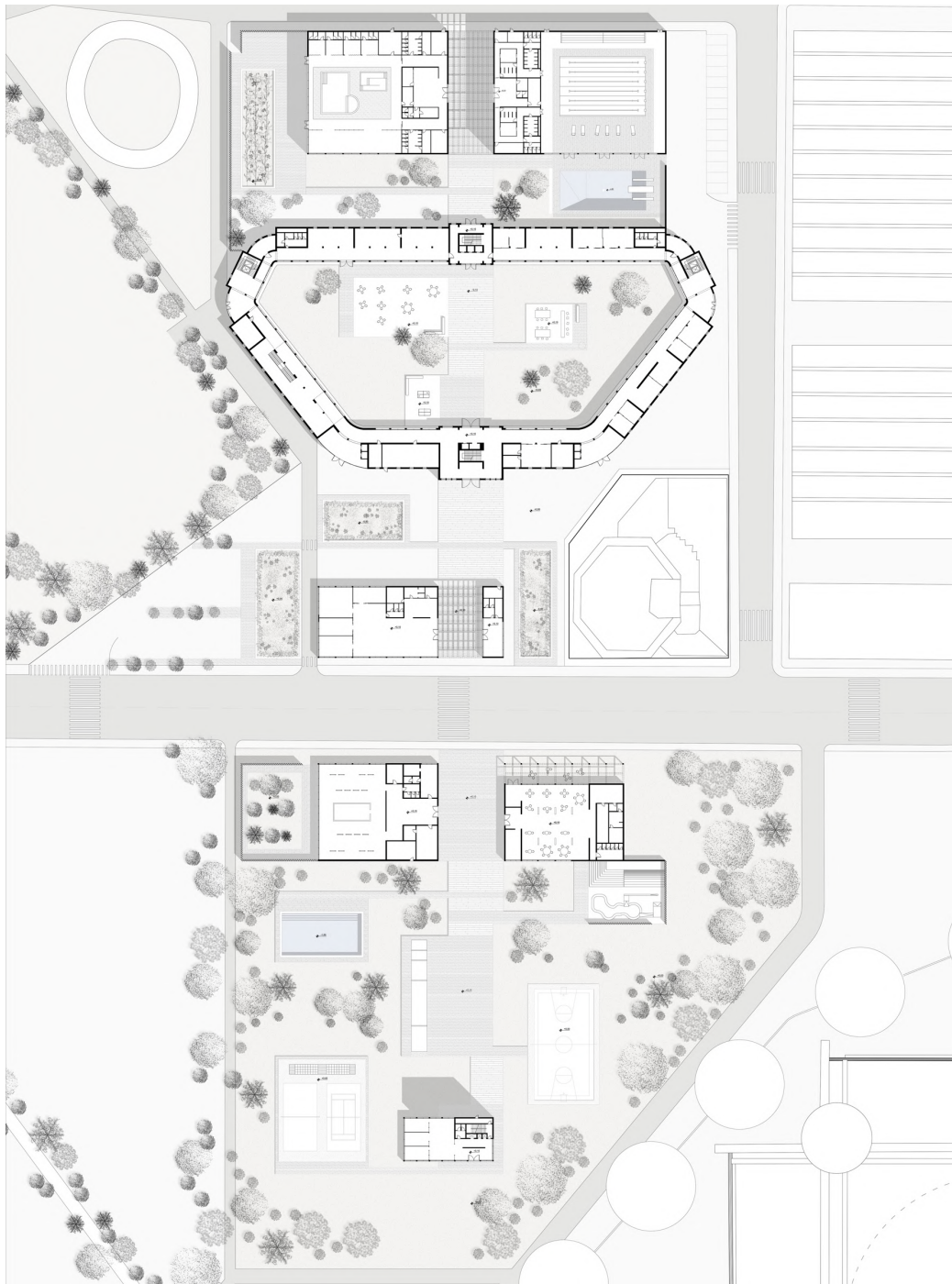
Functional diagram of facilities (open spaces)



Functional diagram of facilities



Overall view of the project



General plan

Architectural proposal for the reuse of the De Montel Stable

The temporary residence for athletes



De Montel stable: decay state

Decay state: collapsed parts

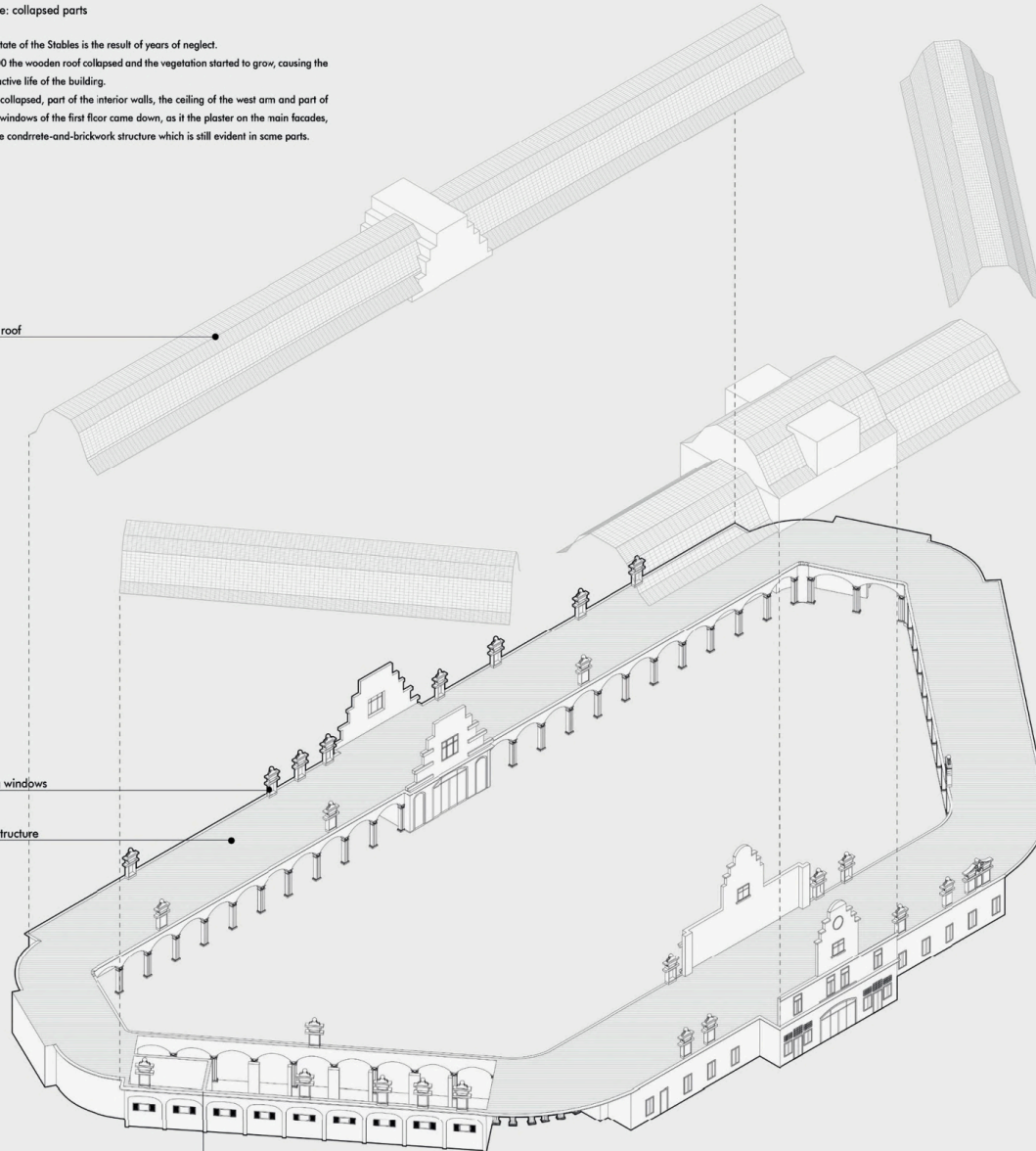
The decay state of the Stables is the result of years of neglect.
Around 2000 the wooden roof collapsed and the vegetation started to grow, causing the conclusive active life of the building.
As the roof collapsed, part of the interior walls, the ceiling of the west arm and part of the historic windows of the first floor came down, as it the plaster on the main facades, exposing the concrete-and-brickwork structure which is still evident in some parts.

Collapsed roof

Remaining windows

As found structure

Collapsed ceiling part





De Montel stable: decay state



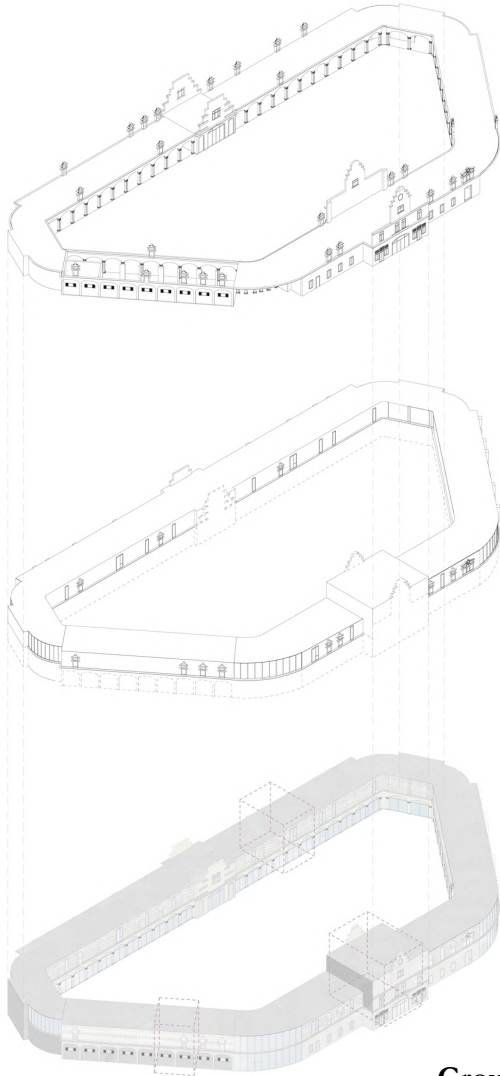
De Montel stable: decay state



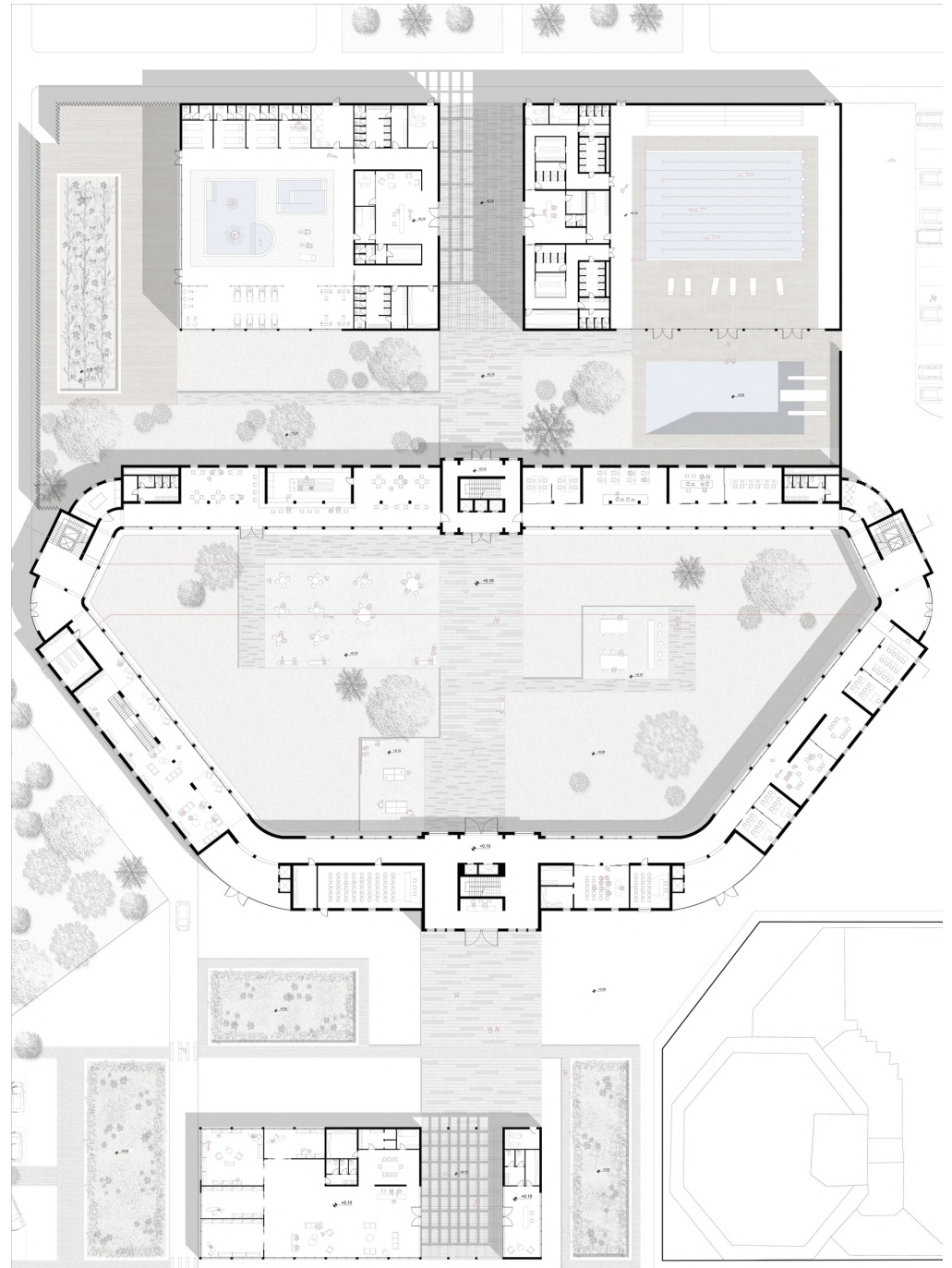
De Montel stable: decay state

Reuse strategy

- 1 - Reuse of the old structure
- 2 - Addition of a new steel structure to support the upper floor
- 3 - Consolidation of the new structure with four concrete volumes that support the circulation system
- 4 - Setting of the new floor volume
- 5 - Addition of materials of the new facades



Ground floor plan





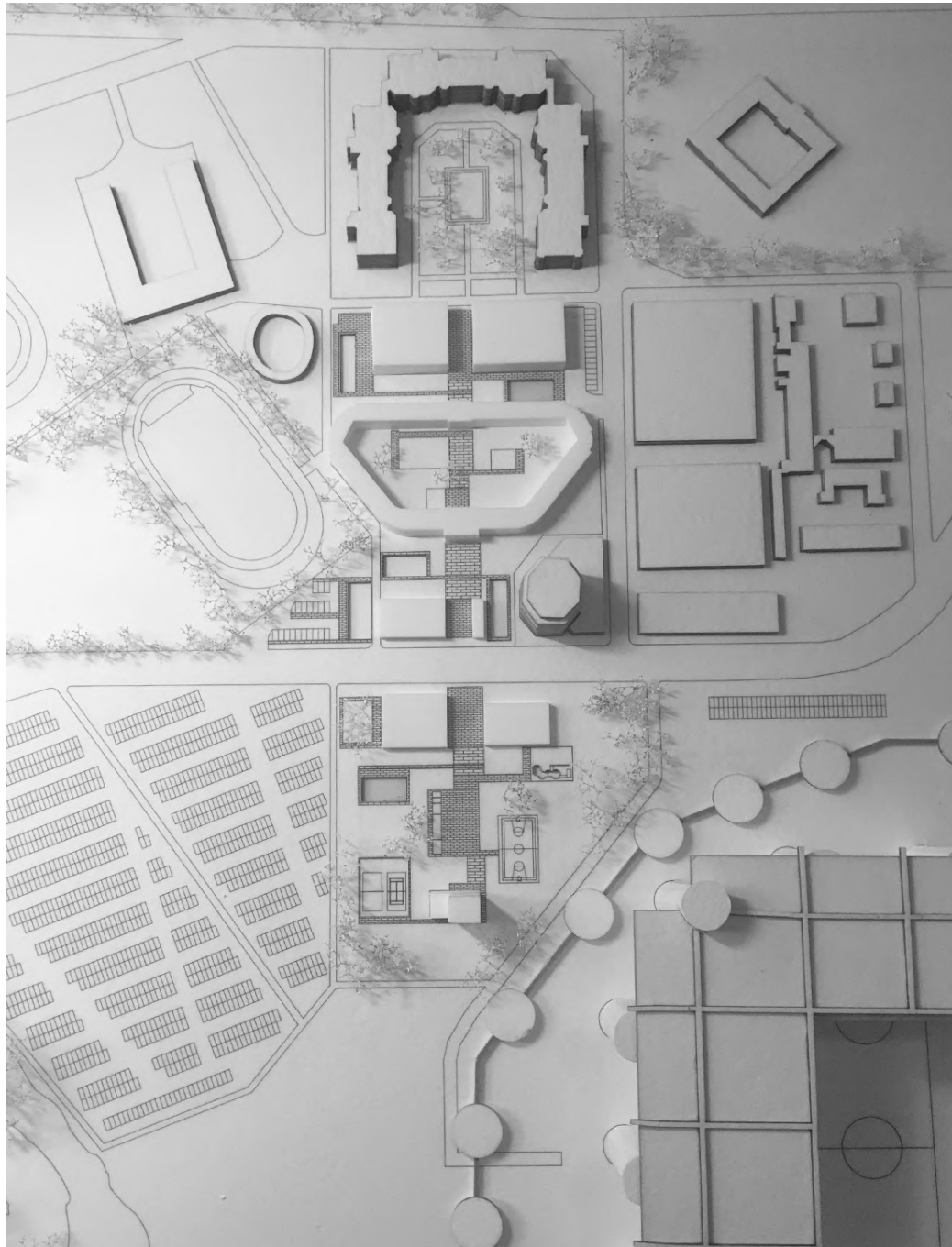
North and South elevations



Façade material system



Façade material system



Maquette

