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INSTITUTE OF URBANISM
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URBAN STRIPES

WEAVING CONTINUITIES IN THE CITY



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INTRODUCTION

The strong **separation of Paris and its suburb** is a major issue for the Parisian metropolis. The city fails to offer affordable and qualitative living conditions because of the **huge demand and the lack of space**. Simultaneously, the “banlieue” is not **desired and has a negative image**.

The challenge is to **reconnect the city with its suburbs** in order to liberate Paris of its limits and to enable good development of the suburb.

Our project site, which is just a **part of the interface** between Paris and its suburbs, shows very well **how difficult it is to remove these limits**.

Our methodology to deal with this area will be to explore at first **from where comes this separation**. Secondly, we will study the **different issues combined in this area**. It will also be an occasion to analyse **the development opportunities**. Finally, we will present our **proposition to improve this area**.

The scale of the intervention may seem too small to meet the metropolitan issues, but we believe that it **can't be solved by a single gesture**. This territory is already urbanized, and therefore there are many different situations.

Paris Intra-muros (1)

Bois de Boulogne (2)
Bois de Vincennes (3)

Project location (4)

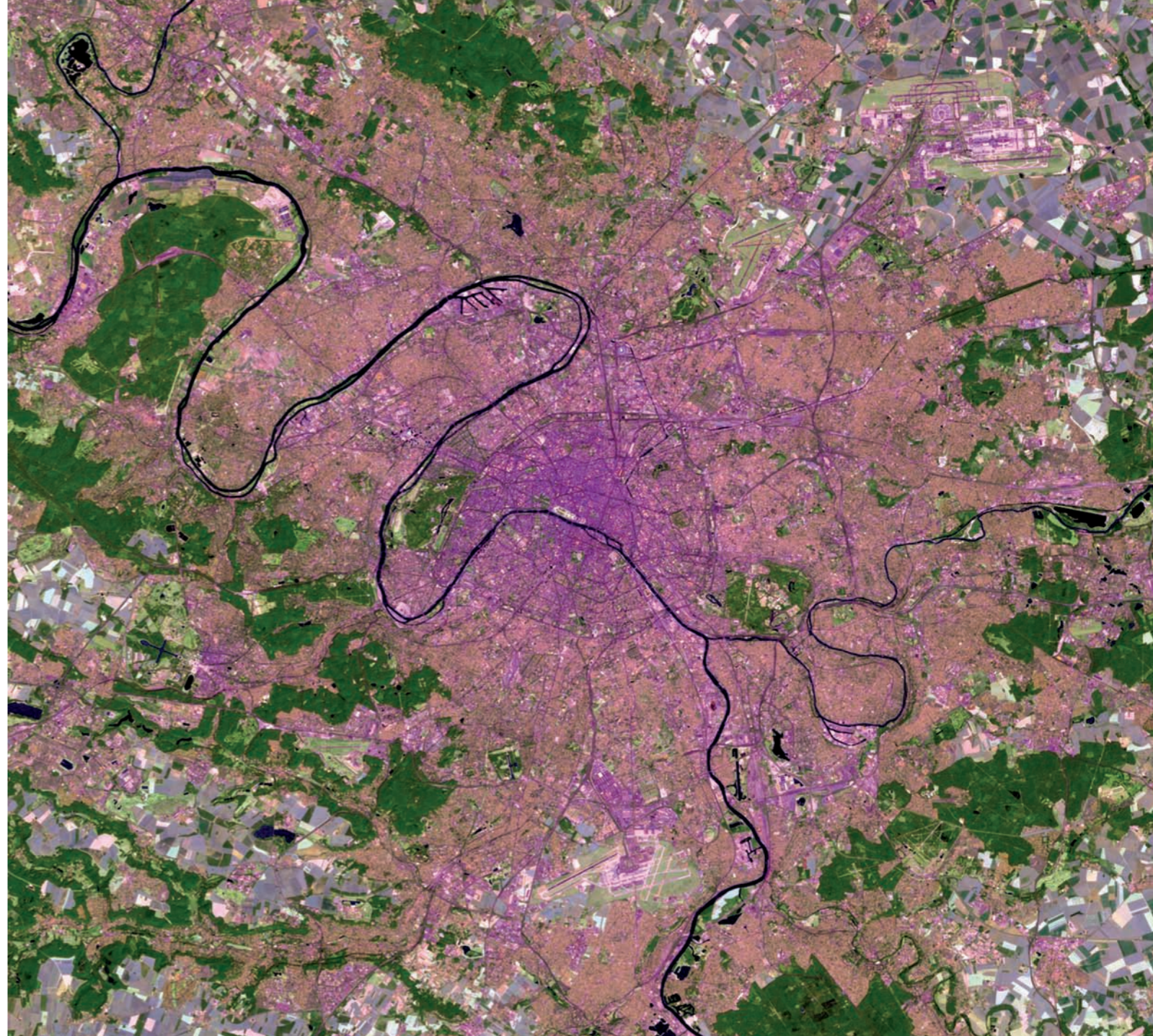
Right
False color satellite image of Paris, 2006
Landsat 5, NASA

PARIS URBAN AREA	
Population	12,089,098
Area	17,175km ²
Density	Density 704/km ²

PARIS CITY	
Population	2,243,833
Area	105km ²
Density	20,169/km ²

*Source INSEE 2012





INTRODUCTION

In this first part, we will explore the different historical events that have affected our area. Paris is a city full of history, and we had to **select what is useful** to understand the issues of our project. In order to stay focused on our subject, many important parts of the history of Paris were excluded from this analysis. However, this part of Paris is interesting to study because **it concentrated many little known or unpopular historical events**. This other history is very important in order to understand the challenges of the metropolis.

01 HISTORICAL BACKGROUND OF NORTHERN PARIS

CHAPTER

AGRICULTURAL LANDS IN NORTHERN PARIS

Until the extension of Paris in 1860 under Napoleon III, the site was **located outside city's limits**. Paris was surrounded in the northeast region by two hills. In the north, the summit of Montmartre hill was 131 meters high. In the east, the city was limited by the hill of Belleville, which was 128 meters high. These two hills **formed a natural entry to Paris from the north**. The site, which was between these two hills, was

an important transit place. Almost all goods arriving from northern France were transiting there. The fishmonger road, which was crossing our site, was used before the Industrial Revolution to transport fish and seafood from the English Channel¹ to *Les Halles de Paris*². It was possible to transport fish to Paris with horse-drawn carts in less than 24h.



Right
Carte de Cassini, 1756

Bottom left
View of Montmartre
Michel Georges, early XIXth

Montmartre hill (1)
Belleville hill (2)

Fishmonger road (3)
Pilgrimage road (4)
Royal Road RN1 (5)

Wall of the Farmers-General (6)
Paris (7)
Project location (8)







Montmartre

R. de Seine

S^t. OUEN

Saint-Ouen

Montmartre

Pilgrimage road

D

Clignancourt

Fishmonger road

Saint Denis

parc de s^t. lazare

Project location

Pilgrimage road

Fishmonger road

S^t. DENIS

La Chapelle

Royal Road RN1

E^s S. Lazare

Barriere

E^s S^t. Laurent

Barriere

The site was also between two major religious cities. Montmartre, which **became in 1960 a borough of Paris**, was an important religious place. Although the Montmartre Abbey was destroyed during the French Revolution, it still remains many religious buildings. Montmartre's hill, which was free of taxes, was also a popular area to drink the wine produced by the nuns. This is probably why it **became a famous place in Paris for art and festivities**. The city of Saint Denis was also a very important religious place. The Basilica of Saint Denis was **the burial place of the French Kings**. Nearly every king from the 10th to the 18th



centuries, as well as many others from previous centuries, was buried there.³ The city of Saint Denis was directly connected to Montmartre by a **pilgrimage road**. Every 7 years, there was a procession from Saint Denis to Montmartre. This pilgrimage was in memory of Saint Denis, who was **the first bishop of Paris**. There are still many religious buildings along this way.

The fishmonger road and the pilgrimage road were no longer useful after the **construction in the middle of the 18th century of the Royal Road RN1** (Louis XV) connecting Paris to Calais through Saint Denis. It is probably why these two historic roads are today broken in many parts. However, **their path remains visible** in the urban structure.

The lands along these roads were agricultural areas, characterized by **large rectangular cadastral parcels**. "Slightly elevated, and safe from flooding, it was a well-defined dry and open area where

the soil was good for agriculture. It was a land to produce wheat. There was no habitations, no trees, and the land was flat. The peasants, who worked there, were living in the surrounding villages: Saint-Ouen, Clignancourt, La Chapelle, Aubervilliers."⁴

Previous page
Atlas de Trudaine, 1743-1776

Bottom left
View of Saint-Denis from Montmartre
Michel Georges, early XIXth

Bottom right
View of the pilgrimage in 1750



INDUSTRIALIZATION OF THE LAND

After the French Revolution, in the early nineteenth century, began in France the industrialization. In northern Paris, the plain of Saint Denis quickly became **one of the largest industrial zone of the city**. The cities of St. Ouen, St. Denis and Montmartre grew up very fast at this time. The plain of Saint Denis was **the crossing point of many infrastructure and the land was inexpensive**.

“The plain provides the needed space to redeploy the old Parisian workshops with the new technologies, which were essential to ensure that the company remains competitive. It was the time of relocation, fusion, and modernization. The space allows reorganization, and permit new work organization.”⁵

It was easy to pump water from the groundwater to supply steam engine.

Industries also profited of **inexpensive manpower coming from the countryside** to find work in the city. Numerous industries were created in the plain and some, as the buses workshop directly on our project site, still remains.

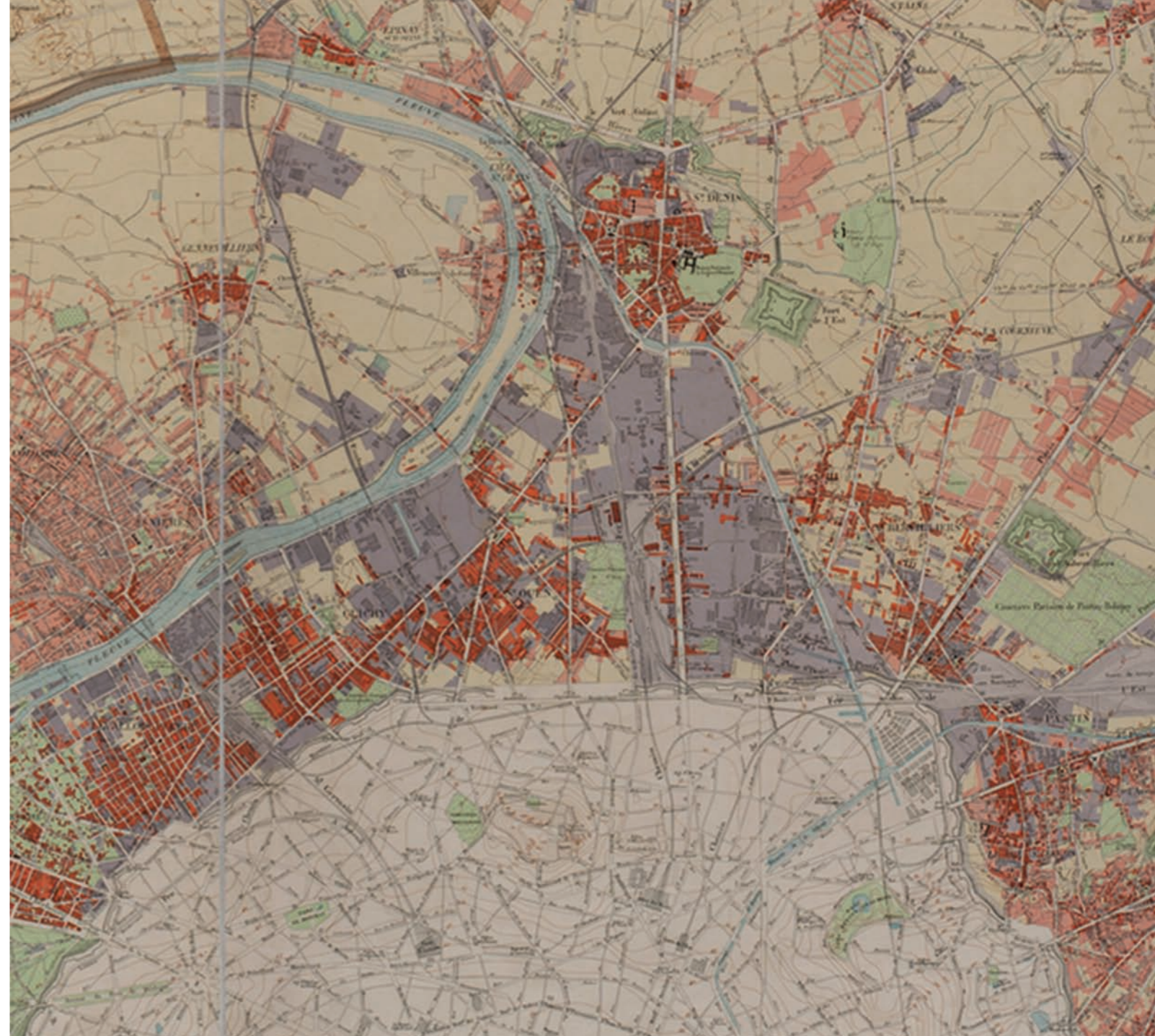
Improvement of the Canal Network

As explained earlier, the site was the main access from northern Paris. The Royal Road N°1 (Imperial Road N°1 under Napoleon Bonaparte) was going through the plain of Saint Denis and was used to transport goods from the

Right
Carte du Département de la Seine, 1921
The industrial area in northern Paris was called the “Industrial-triangle” or the “French Manchester”

- Canal Saint-Denis (1)
- Canal Saint-Martin (2)
- Gare Saint-Lazare (3)
- Gare du Nord (4)
- Gare de l’Est (5)
- Thiers Wall (6)
- La Petite Ceinture (7)
- Industrial Triangle (8)
- Project location (9)





northern France. This road was the first major infrastructure of the plain.

There was already in the early nineteenth century a good canal network in France, and Napoleon decided to improve it. In 1802, Napoleon ordered by decree⁶ the construction of two canals in order to bypass Paris by the northeast. The navigation was difficult in the centre of Paris and there was too much traffic on the Seine. The construction of the canal Saint Denis and the canal Saint Martin began in 1805, and they were opened to the navigation in 1821. These new infrastructures have speed up the industrial development of the plain. Many new industries were created along the canal.

Right
Carte de l'état major, 1818-1824

- (1) North Station
- (2) East Station
- (3) Classification yard from La Chapelle
- (4) Canal Saint-Denis
- (5) Project location



Development of the Railways

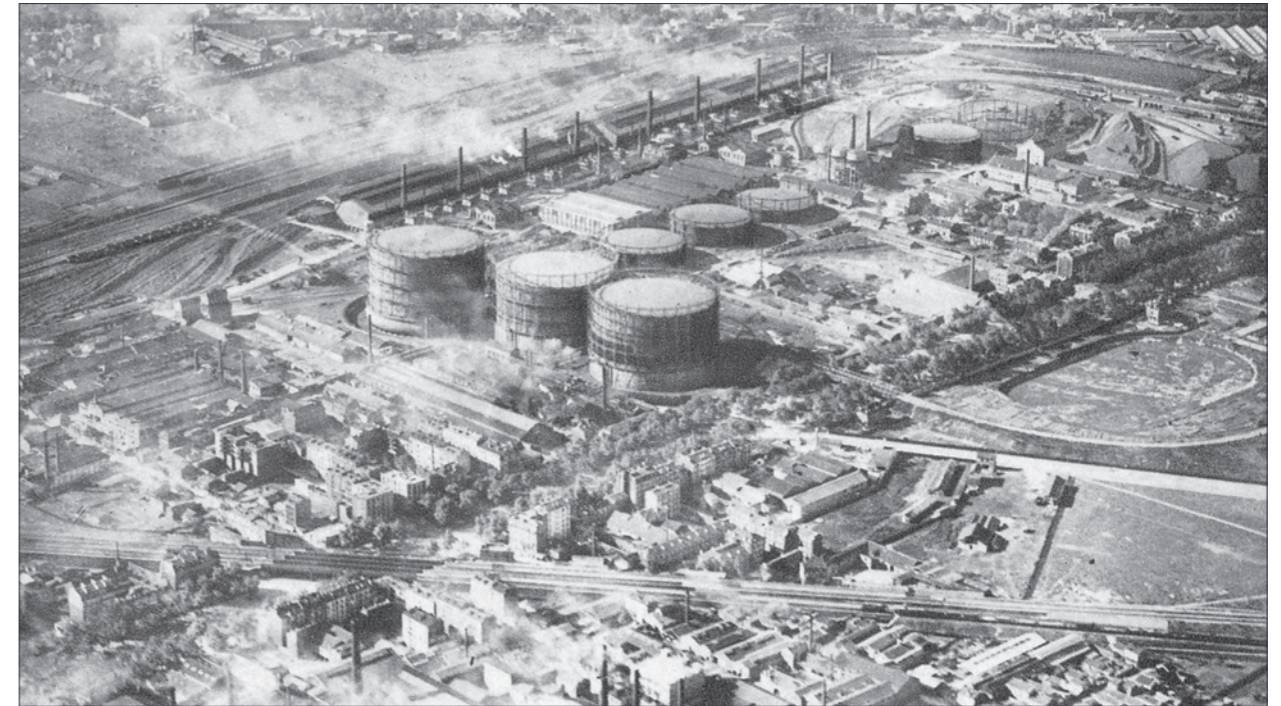
France began to build railways a bit later as United Kingdom, Germany, Belgium, or Switzerland because **the reconstruction after the Napoleonic Wars (1803-1815) used most of the available resources**. The law of 11 June 1842, concerning the construction of major railways in France, defines the structure of the new network as follows:

in France had to pass through Paris. After the vote of the law, the number of railways increased quickly. The line from Paris to the north was completed in 1846. The railway was built parallel to the Imperial Road No. 1 in the plain of Saint Denis. A few steps from our site, was set the classification yard from *La Chapelle*⁹. All goods coming from the northern France were unloaded there.

“There will be a system of railways from Paris to:

- *The border of Belgium, passing through Lille and Valenciennes;*
- *England, by one or more points along the coast that will be determinate later;*
- *The border of Germany, through Nancy and Strasbourg;*
- *The Mediterranean, through Lyon, Marseilles, and Sète;*
- *The border of Spain, through Tours, Poitiers, Angouleme, Bordeaux, and Bayonne;*
- *The Ocean, through Tours and Nantes*
- *The centre of France, through Bourges”⁷*

This law confirms the selection of **the Star-Shaped Plan⁸** centred on Paris. This system, which was already used for the national roads, implies that **all transit**



Upper right
Gas plant in the plain, located between the north railway and the canal Saint-Denis
Aerial photography, 1920

Bottom right
Development of the railway network in France



CONSTRUCTION OF THIERS WALL

After the defeat of Napoleon Bonaparte at the Battle of Waterloo in 1815, Prussian general Gebhard Leberecht von Blücher entered in Paris. He perpetrated numerous acts of vandalism, and he asked to pay a huge war contribution. This event deeply affected the population and so came the idea to create a new fortification wall around Paris. An intense debate began in between peoples for and against the project. Lamartine, who considers the wall as a “counter-revolution”, led the



opposition. It was for him **an instrument to oppress the people**. “The fortifications [...] are the most obvious reaction against the French Revolution which was ever tried and which ever succeeded. I reject this insane project. The strength of France is not in the walls of Paris: the strength is in its people, in its soldier. We cannot feed and contain a city of 1.5 million inhabitants. If Paris were besieged, the government would be overthrown and the France would be hit in the heart. 500 Million for this? This is too stupid to be a truth, and it is too expensive to be a lie. I reject the project on behalf of common sense, of dignity, of mankind, and of freedom of my country.”¹⁰

The people, who were for the construction of the fortification, also did not agreed together. One group was defending the project of a **continuous**



Project Location (1)

Upper
Paris before the war, 1870

Bottom left
Caricature in the newspaper, 1855
Shows how the army could use the wall to control Paris

wall around Paris while the others were proposing a system of **independent forts around the city**. There were also peoples who wanted a **mix of the two systems**. The situation was blocked, and nothing changed until the Oriental Crisis in 1840. United Kingdom, Austria Prussia, and Russia decided to support the Ottoman Empire against Egypt. On the other hand, France was supporting Muhammad Ali from Egypt. France was excluded from the Convention of London, and **peoples began to fear a European war**. Thiers government was concerned about the safety of Paris, and decided to build quickly a wall around the city. **The construction began in 1841, and the wall was finished in 1844**. The 33 kilometers long enclosure consisted of 94 bastions, 17 gates (major road crossings), 26 minor road crossings, eight posterns, eight railway-crossing points, and five crossing points of rivers or canals.¹¹

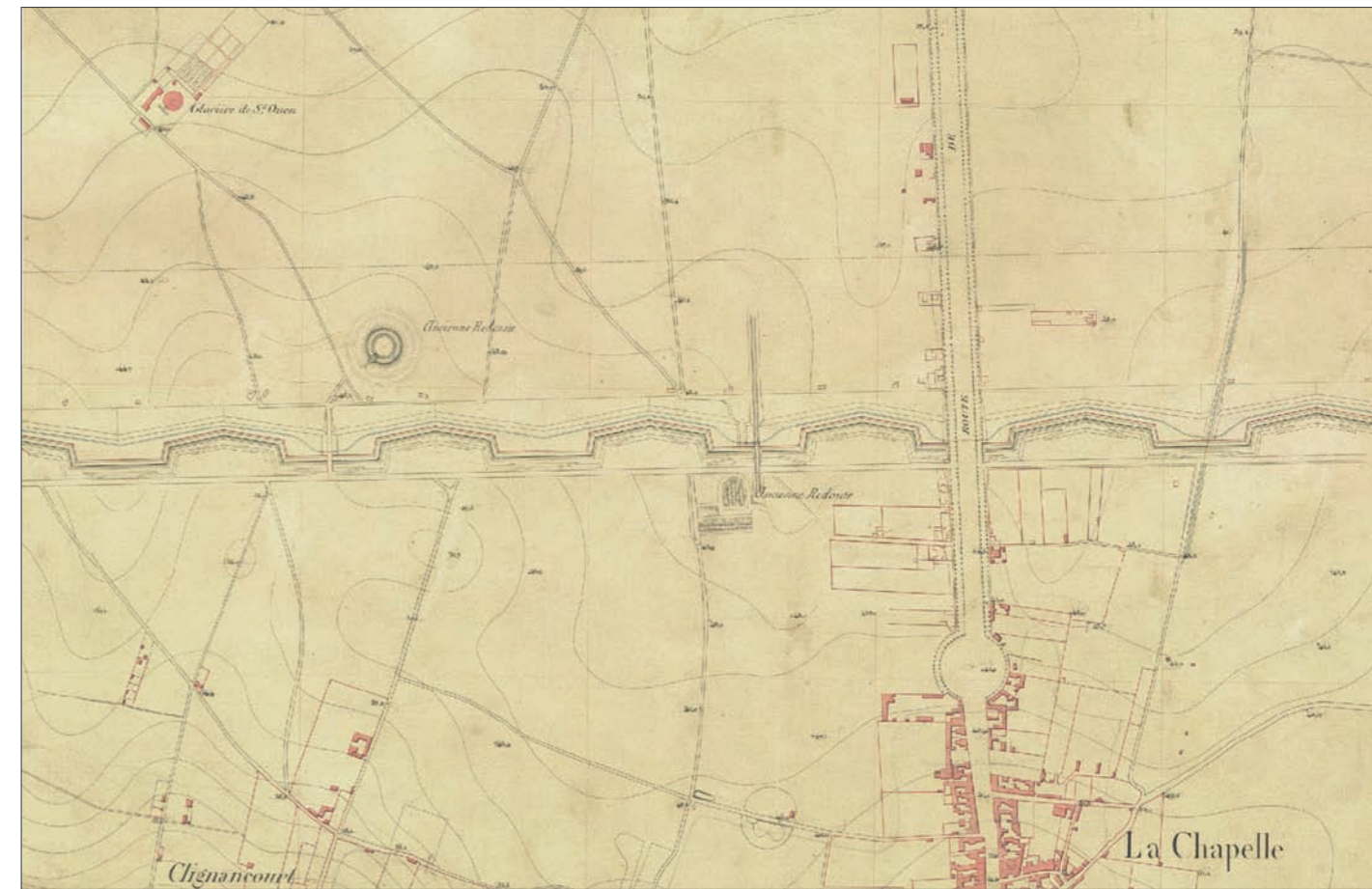
"The wall was composed of:

- *An internal military street*
 - *A parapet (6 meters wide)*
 - *A steep wall (10 meters high)*
 - *A dry moat (40 meters wide)*
 - *A counterscarp*
 - *A glacis (250 meters wide)"¹²*
-

Despite the large number of passages, the wall cut several roads. Moreover, a lot of Haussmann's boulevards were created directly according to the openings of the enclosure.

Thiers wall has been widely criticized because it became **quickly obsolete in military terms**. Furthermore, the construction was completed only fifteen years before that Germany and Austria began the destruction of fortifications. The only other city in this situation was Cologne, where the Prussian built fortifications after 1815. Vienna launched a competition for the transformation of

the wall in 1858, and began to destroy its fortification after 1861. Barcelona also adopted in 1859 the Cerda plan for the extension of the city.



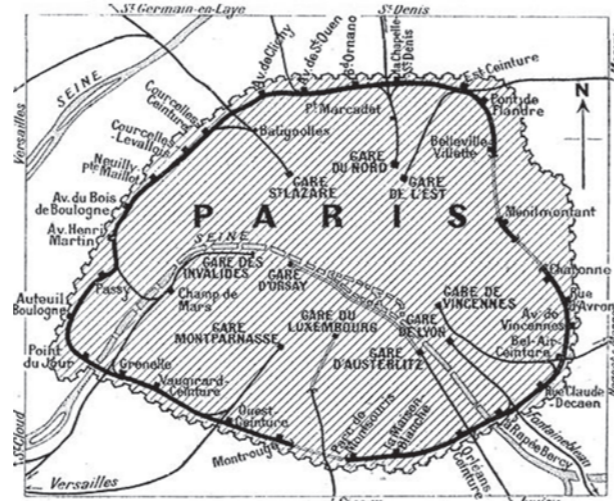
Bottom
The wall at the Porte de La Chapelle
Atlas de la Seine, 1831

TRANSFORMATIONS UNDER THE SECOND EMPIRE

In 1852, Napoleon III became Emperor of France. He realized considerable work to modernize France. He did a lot for the development of the railways network, which was still underdeveloped in comparison with other European countries. He also radically transformed Paris with his prefect Haussmann.

Construction of the Circular Railway

One of the major problems of the centralized rail system was that **the railways were not connected in Paris**. All railways were ending at the limits of Paris with a terminal station. To switch from one network to another, people had to unload the train and transport all the goods through Paris. **The interchanges were long and onerous**. Several different companies owned the railways, and they were all persuaded that direct connection to another network would



endanger their regional monopolies. Napoleon III solved the issue in 1852. He ordered **the construction of a circular railway** around Paris called *La petite ceinture*.

Project location (1)
Extension of the limits of Paris (2)

Left
Map of "La petite ceinture"

Right
Haussmann's Renovation of Paris
Andriveau-Goujon, 1851-1868



Haussmann's Renovation of Paris

In the mid-nineteenth century, when Haussmann became prefect of Seine, Paris was still a medieval city with small streets and narrows. The city was dangerous, dirty, and unhealthy. For the first time, the city was perceived as a whole from a birds-eye view. It was no more a sum of neighborhoods, blocks, and buildings. It was no longer enough to renovate a few areas or to create new districts. Haussmann wanted to clean up the city (hygienic aspect), to make it



1620 PARIS (XVIII^e). — Le Boulevard Ornano. — LL.

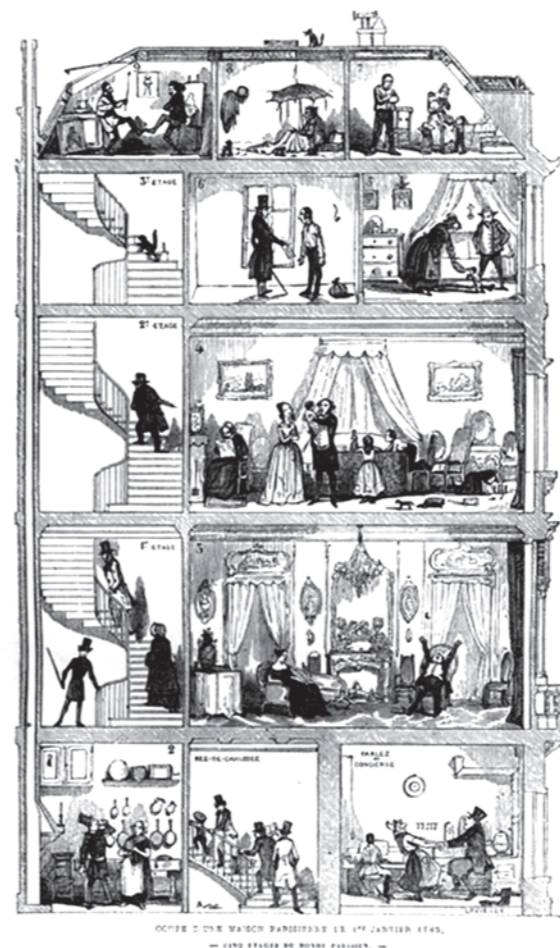
safe (military aspect), and to embellish it (aesthetic aspect). It is estimated that he transformed 60% of Paris's buildings.¹³

Haussmann was inspired by the "Lumières" to clean up the city. The question of flow management was central. He wanted to improve the flow of people with wide and straight avenues to decongest the city. The air quality was also very important, and these new openings were also used to ventilate the city. To achieve this goal, he also planned several new green spaces as the Parc Montsouris or the Parc des Buttes Chaumont. He also worked to create a modern sewerage system to collect wastewater. The network, which was 157km long in 1852, had a length of 600km after Haussmann's works.

One other goal was to be able to control popular uprisings. Napoleon had for sure in mind the revolution of July 1830, which ended the Bourbon Restoration,

Bottom right
"The five floors of Parisian world"
Bertall, 1845

Bottom left
View of the Boulevard Ornano near to our site



and the revolution of June 1848, which ended the July Monarchy. Haussmann's urbanism allows better military control. The wide boulevard allows shooting with barrels against rioters and makes the utilisation of the cavalry possible. Open urban spaces can be easily surveilled and placed under the control of the army in moments of crisis. The use of triangular-shape housing blocks allows minimizing the central courtyard, which was difficult to control. The last aspect of the project was to embellish the city. The goal was to bring back the upper classes in the city centre and to push the poor people in the periphery. Haussmann wrote to Napoleon:

*"We have to accept high rents and high food price [...] as a way to defend Paris against the invasion of the workers from the province."*¹⁴



Hausmann used a system of axes with really **strong alignments rules to achieve perspective effects.**

The new buildings were mostly planned to accommodate the bourgeois, but there was also a **vertical social-mix in the housing.** Indeed, without lift the upper floors did not have the same value as the main floor.

Between 1852 and 1870, more as 300km of new streets were created and 600,000 trees were planted. More than 19,000

unhealthy buildings were destroyed and replaced by 30,000 new buildings. The Opera Garnier, the new courthouse, the halls of Baltard, the Hôtel-Dieu (hospital), a lot of theatre and schools, and also many Churches were built at this time.¹⁵ Hausmann designed the Boulevard Ornano, which is close to our site, in 1863. The Albert Kahn place has a typical star-shaped plan.

Extension of the Limits of Paris

Despite the construction of Thiers wall in 1844, **the administrative boundary of Paris did not changed.** The city was still defined by the wall of Farmers-General, where was collected the Octroi¹⁶. This area on the edge of Paris **became really fast urbanized.** In 1806, there were only 13,227 people living there. In 1841, when the construction of the wall began, there were already 114,315 inhabitants. In 1856, there were 351,596 people living in between the two walls.¹⁷ It was not

negligible, when we know that Paris had 1,174,346 habitants in 1859. The main problem for Napoleon was that there was **no global planning for the development** of this area. Napoleon was also afraid of the **lack of control** in this area. The population was mostly composed of labourer and handicraft. In Paris there was a police officer for 360 people and in this area only one for 5,165 inhabitants.¹⁸

The law of 16 June 1859 has established **the integration of the cities located between the two walls.** The city of Paris was then divided into 20 districts, which are still the same today. In 1861, Paris has a population of 1,667,841 within the new city limits.

Failure of Thiers Wall During the Siege

After the Siege of Paris, lasting from September 19, 1870 to January 28, 1871, Prussian army captured the city.

Thiers wall was ineffective against German modern artillery. The 1 mars 1871, a popular assembly deposed Napoleon III. He was declared "responsible for the destruction, the invasion and the dismemberment of France". After the reign of Napoleon III, the enclosure **has gradually lost its military role.** The wall became a promenade for Paris. Many artists painted this unusual atmosphere.

Bottom right
Thiers Wall, Henry Cheffer, 1925

Upper left
"The city of Paris trying to encompass the suburb"
Charles Vernier, (1831-1887)



THE DEVELOPMENT OF "LA ZONE"

After 1871, the wall began to lose its military role. However, the army did not want to give these lands without getting something in exchange. **Many people began to settle on the Glacis** (Zone de non aedificandi) to avoid the tax of Paris. There were plenty of bars where prices were much lower than in Paris. It is hard to know how many people exactly lived there. A survey of the prefect of Seine **counted 30,000 inhabitants in 1913**¹⁹. But other estimates

indicate 50,000 to 200,000 inhabitants. It was **forbidden by the law to build any durable construction**, and therefore people were living in a kind of slum. J. Flourens wrote about this place: "The population of this place consists mainly of Rag-and-bone man, vagabond living on top of one another. They live in shacks or in cars without concern of hygiene. These people are obviously not the owners. [...] There is more thefts and

muggings in this area than anywhere else. Police surveillance and criminals research is very difficult there. These people are living in really bad sanitary condition. They are for the neighboring cities a unhealthy and dangerous neighborhood. It his a perpetual subject of concerns and complaints."²⁰ During the First World War, Thiers wall was not more usefull because the **Germans used very long-range artillery** to bomb Paris. The army finally agreed to sell the land to the city in 1919. **The destruction of the wall began directly**

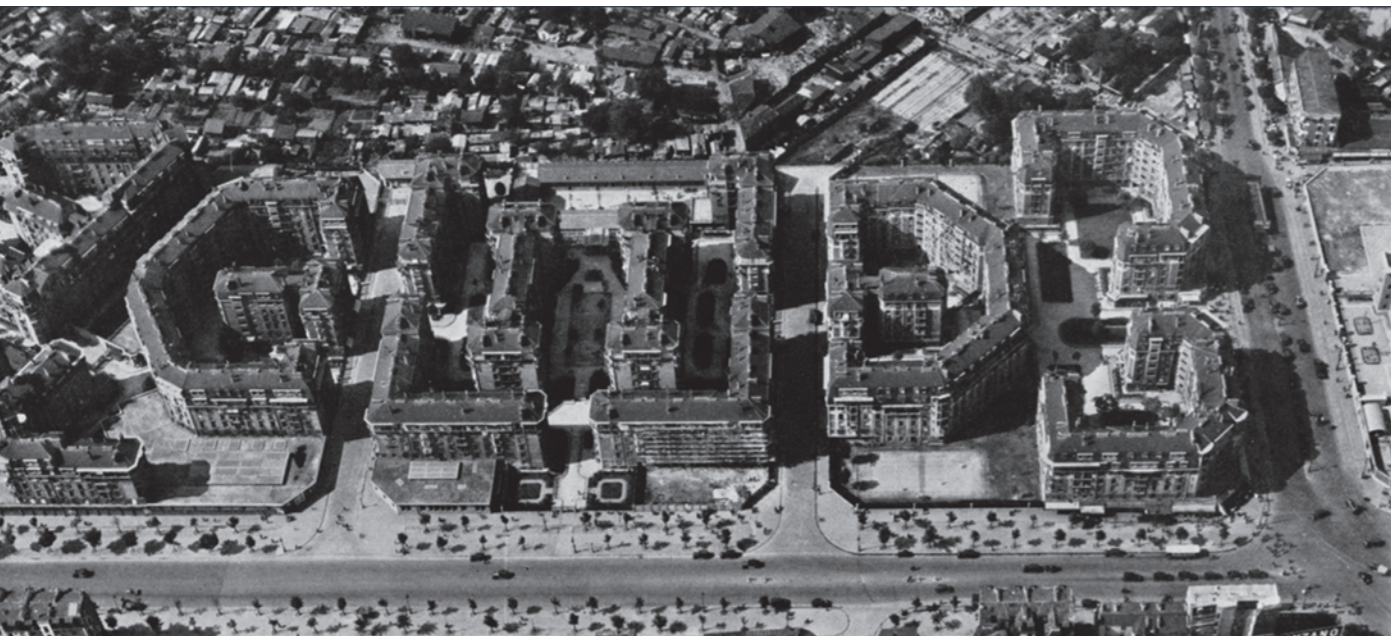
in 1919 and was finished in 1930. It was much more complicated with the Glacis. The city had to negotiate with **more as 5000 owner** to clear the land. The city expropriate slowly, plot by plot, the whole land. This process lasted until the 1970s. Only owners, who could prove that they were already there before the construction of the wall, got indemnification.



Left to right
Section between Clignancourt and Montmartre, 1944
Garden in Thiers Wall, 1920
Construction of the HBM, 1930
La Zone 19th arrondissement, 1920

PROJECTS OF THE INTERWAR PERIOD

After the First World War, there was a considerable need for public housing in Paris. The city grows very fast in the second half of the 19th century. In 1861, just after the extension of the city, there were 1,696,141 inhabitants. At the end of the First World War, 2,906,472 people lived in Paris.²¹ In less than 50 years, the population of Paris has nearly doubled. It was decided to launch a major housing construction program. Plenty of space was now available on the land of the old wall. But many people also wanted to create a green belt around the city. The model of German and Austrian cities was very important



in the debate. It was finally decided to build housing on the strip where was the wall (50 meters wide) and to build a long park on the Glacis (250 meters wide). It was obviously easier to build on the land of the wall, because there was not the issue of the expropriations. The housing blocks were completed very quickly, but the project of a green belt has never really been achieved. Our site

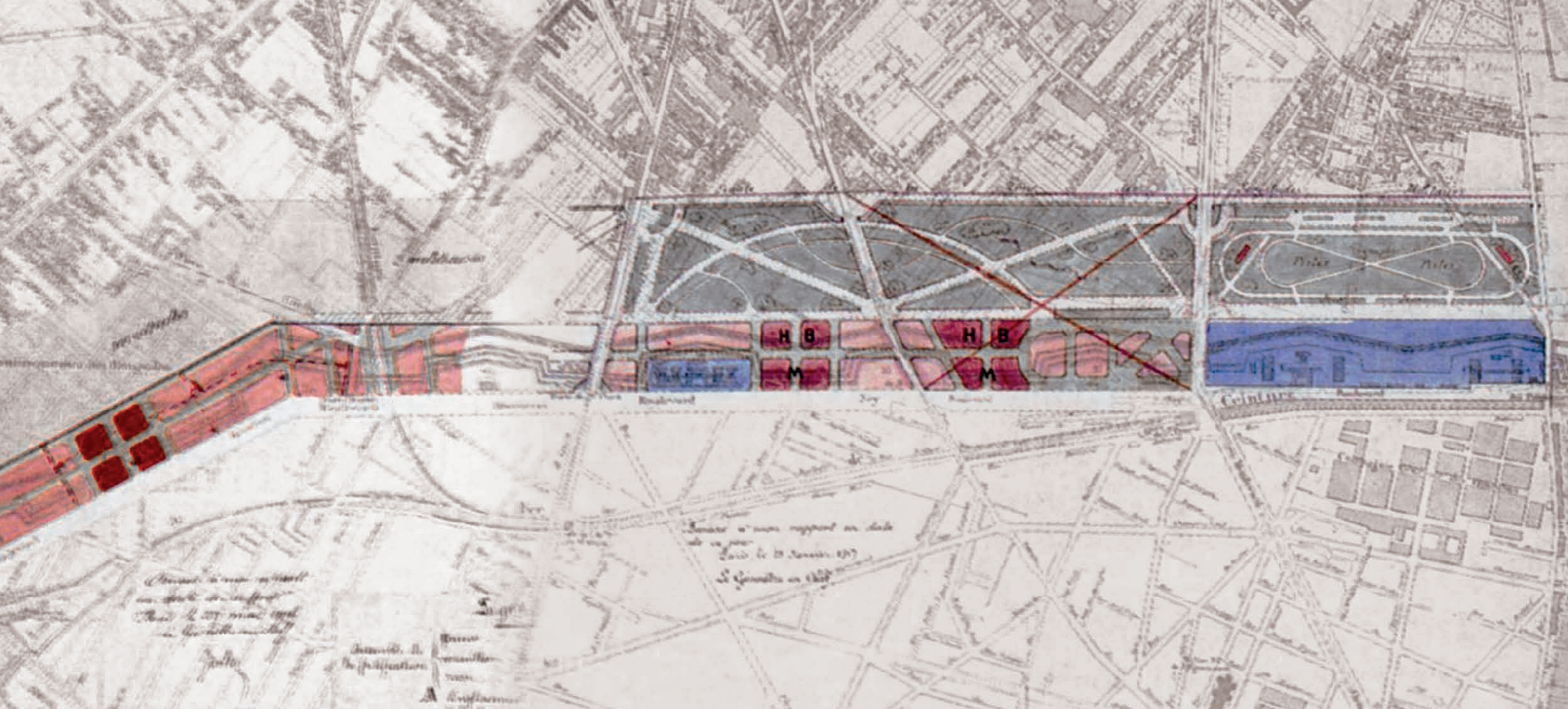
is one of the few around Paris where no housing units have been built at that time. There was on this land a barracks (Caserne de Clignancourt) and the state wanted to maintain this building.

Left
Aerial view of the new public housing, 1938

Right
View of the Ney barracks, 1926

Next page
Project for the construction of new housing, 1917





sublime

sublime

HB
M

Plan

Plan

Contour

Le 27 mai 1777

C'est à dire en tout un bloc de six rues

Le 27 mai 1777

GERMAN OCCUPATION DURING WORLD WAR II

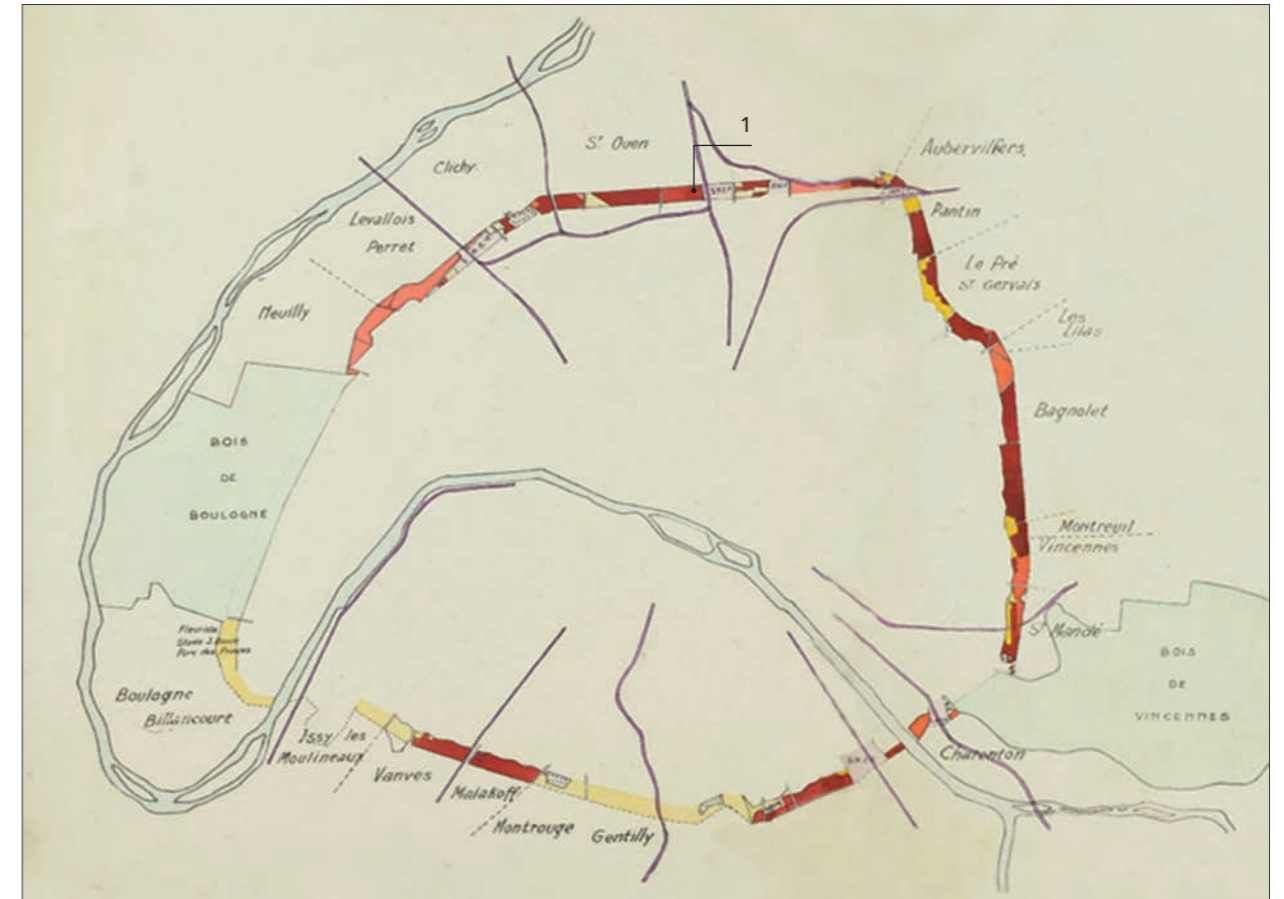
During World War II, Marshal Pétain possessed almost all legislative, executive, and judicial power in Vichy France. One of his advisors commented that he had more power than any French leader since Louis XIV.²² The new administration decided to realize the green belt around Paris. The project did not advanced a lot since the First World War due to the problem of expropriation. The Vichy regime used the tripartite motto "Work, Family, Fatherland"²³ instead of "Liberty, Equality, Fraternity". They considered sport as a good way to teach young people how to serve their fatherland. The idea was based on the motto "A sound mind in a healthy



body". Marshal Petain reinterpreted the green belt project, which was thought as a long park, and decided to create sports center all around Paris. With his extreme authority, he was able to clear the Glacis pretty fast.

*"In order to develop the land of the old wall [...] the city is authorized to take ownership of the land and of all construction on this land. The demolition may begin immediately after the evacuation of the selected buildings."*²⁴

This legislative framework gave the city an unrestricted freedom to act. The city used this law to destroy a lot of buildings at this time, including those on our project site. Despite this, the projects were not finished at the end of the war and it remained mostly undeveloped lands.

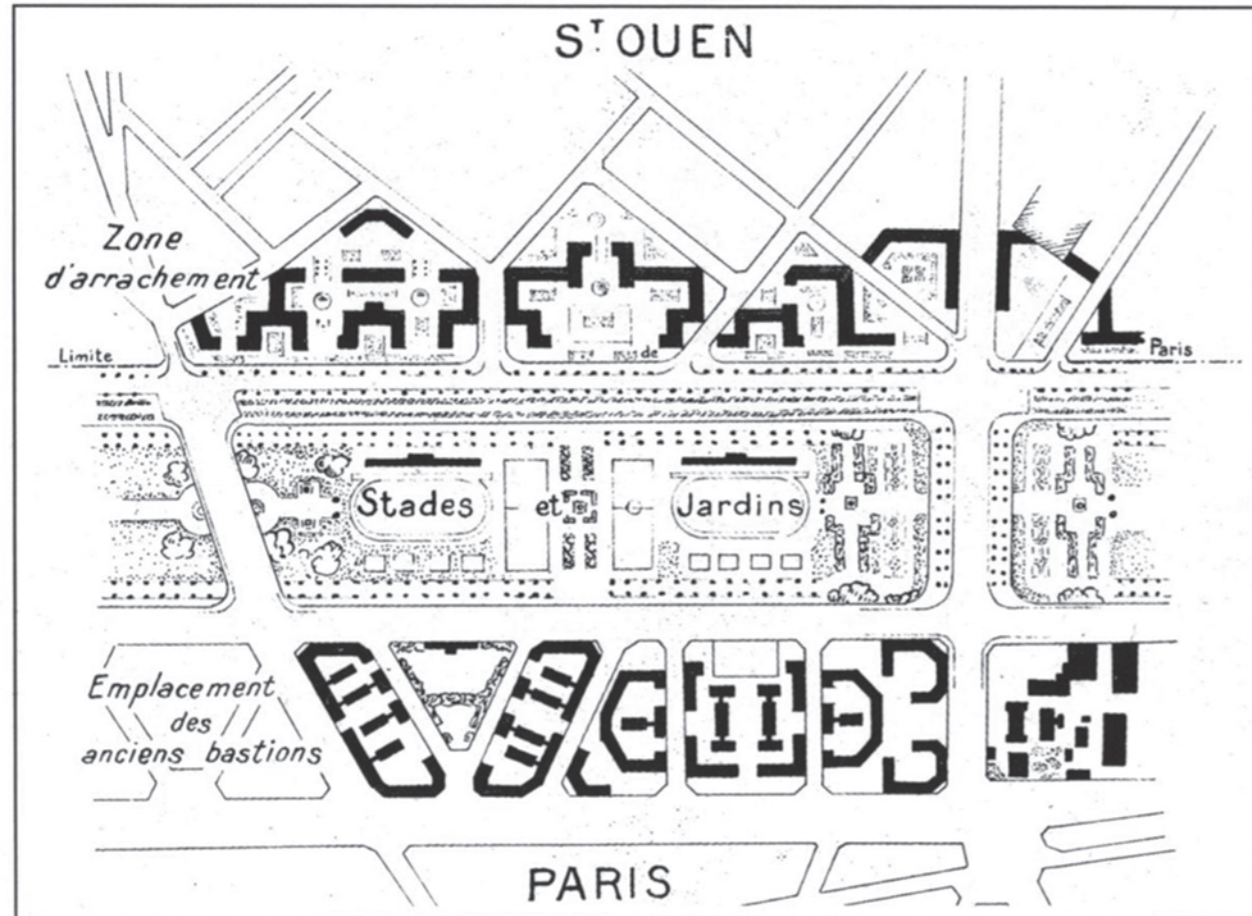


Project location (1)

Upper right
Map of the expropriated lands, 1944

Bottom left
Photography used to control the destruction of "La zone"
Between Porte des Poissonniers et Porte de Clignancourt, 1944

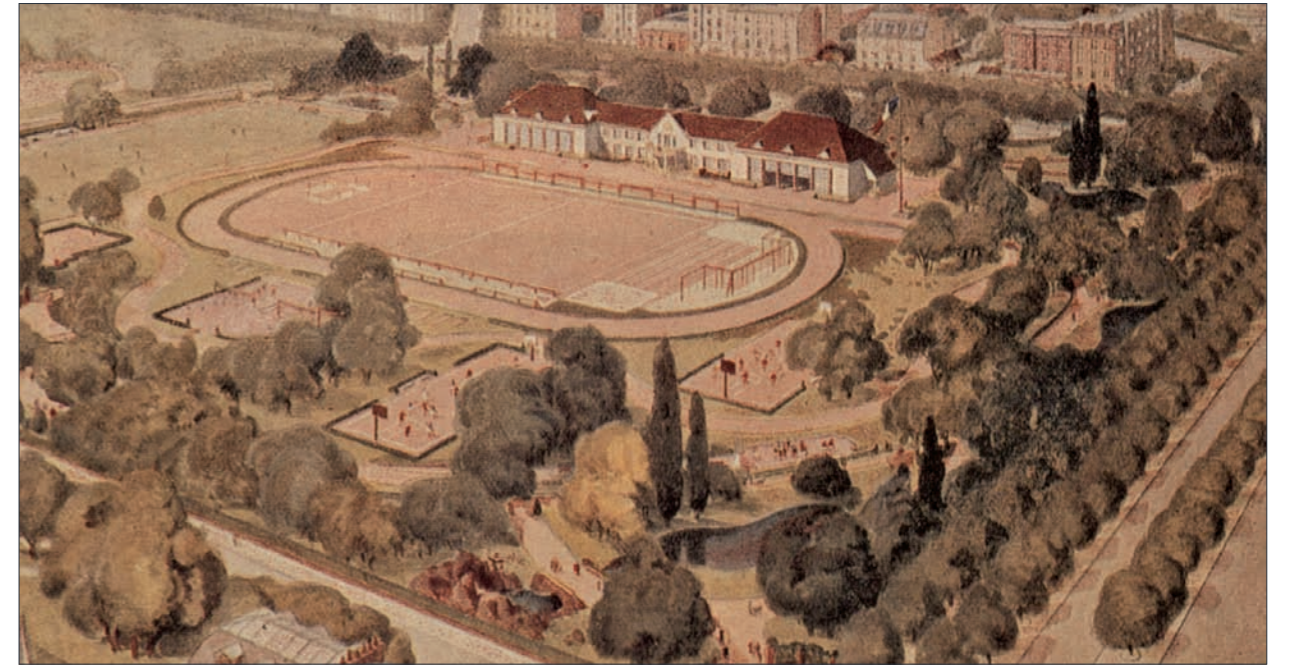
- Still remaining in 1944
- Destroyed before 1940
- Destroyed after 1940



Upper left
Masterplan for the Porte de Clignancourt, 1943

Upper right
Project for the Sport Center Porte de Clignancourt, 1943

Bottom right
View of the site at the end of the war



LES TRENTE GLORIEUSES²⁵ (1945-1973)

After the Second World War, France had a period of **continuous growth and full employment**. These decades of economic prosperity combined high productivity with high average wages and high consumption, and were also characterised by a highly developed system of social benefits.²⁶ In our case we are mostly interested by the **strong**



urbanization at this time and by the **significant increase of road traffic**.

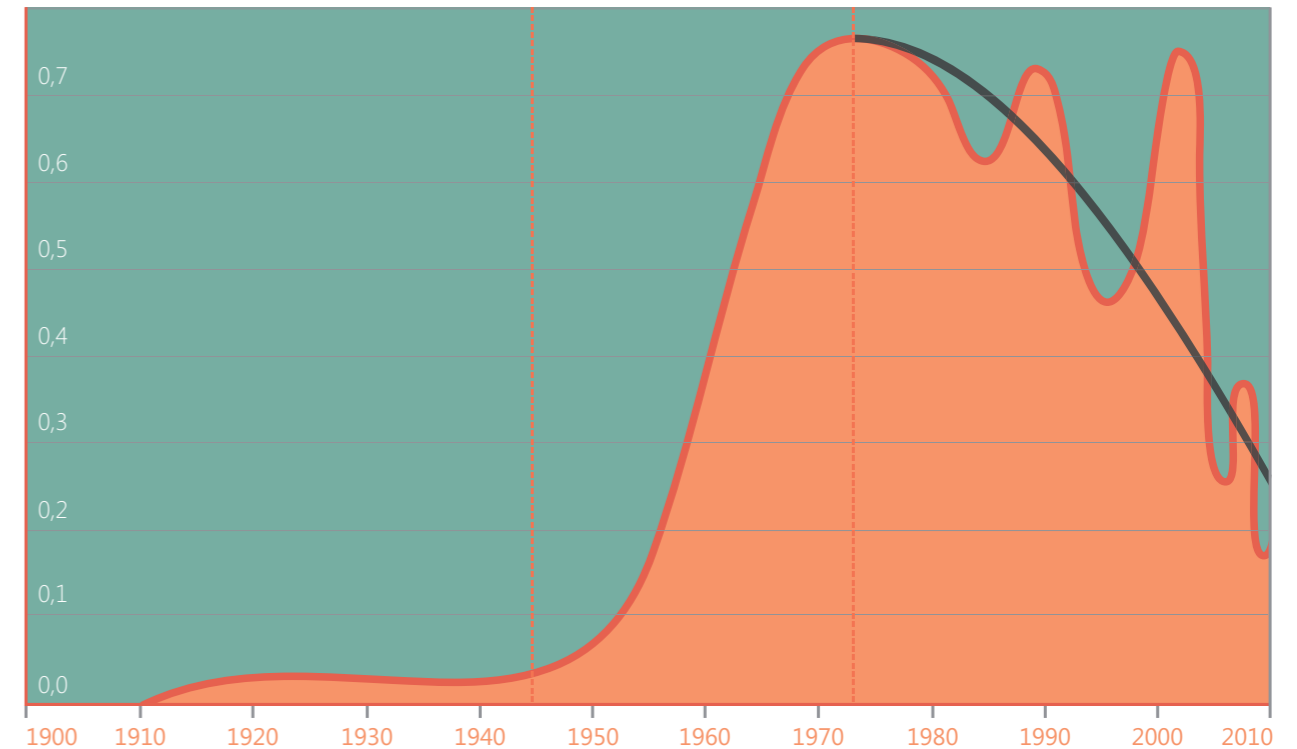
During this period, modernist ideas were very present in the debate. Many planners used theories of Le Corbusier (Athens Charter) to justify their projects. The trend was to **divide living, working, recreation, and circulation areas** in order to achieve a functional city. In 1954, the city of Paris decides to build a highway around Paris to meet the increase in traffic. The project was a 35km long highway with 4-lane in each direction. This mega infrastructure was planned directly on the Glacis of the old wall. The construction began in 1956 and was completed in 1973. As soon as it was finished, the highway was already crowded.

During this period, the city also completed the development of the rest of the Glacis. There was still a lot of space,

because the highway used about 40 meters from the 250 meters available. The city decided to **use the remaining land to build public housing**. These new tower blocks were poorly built to meet quickly a huge housing demand.

Bottom left
View of the interchange of La Chapelle near to our site

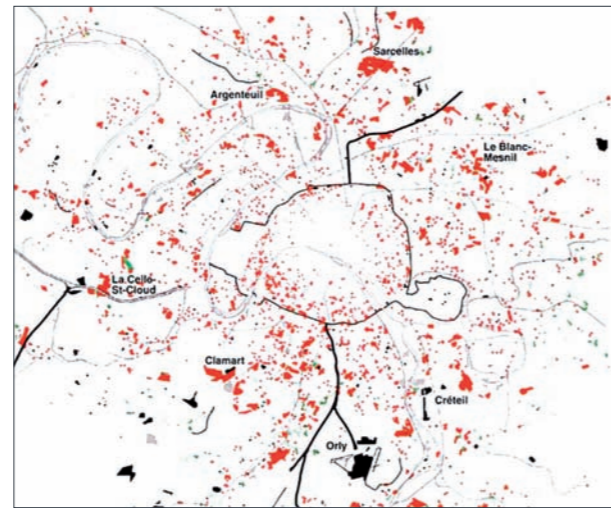
Yearly Growth Rate of Vehicule Population in France (million/year)



URBAN SPRAWL AND ADMINISTRATIVE ORGANIZATION

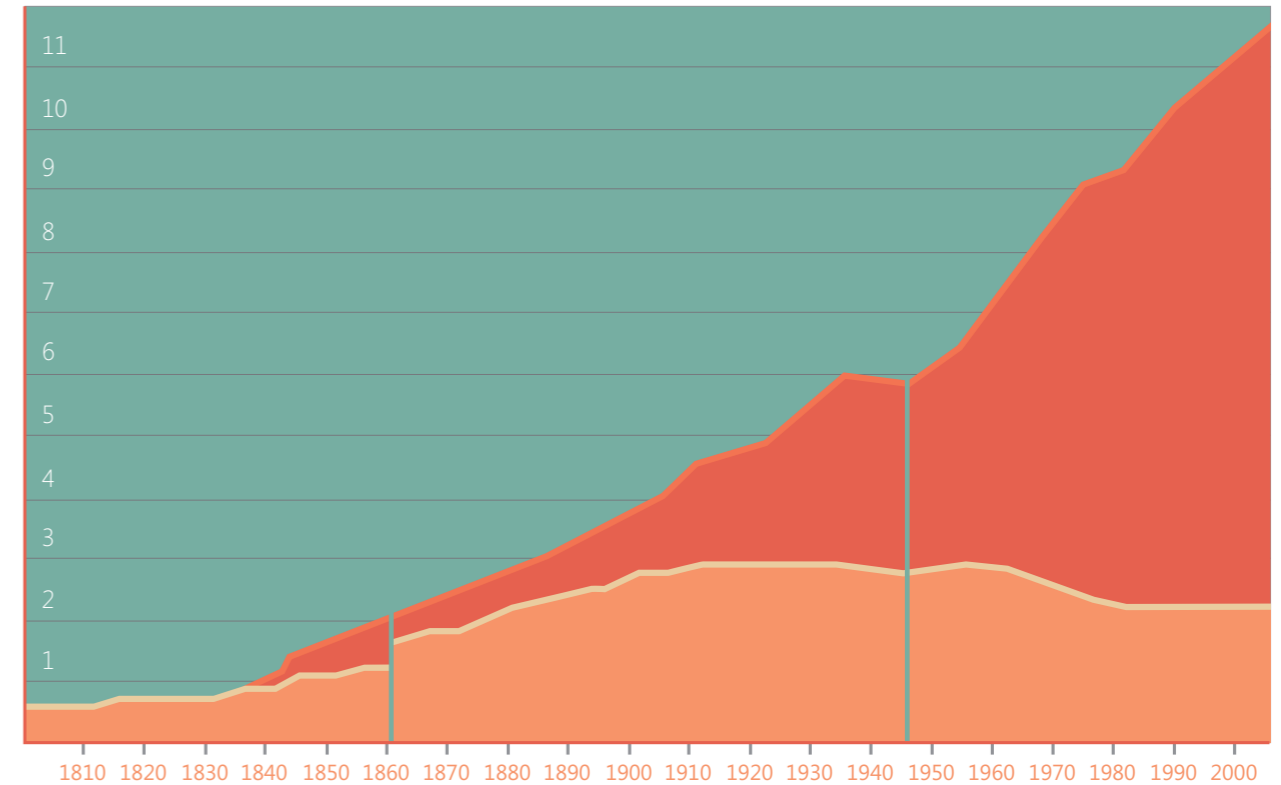
The development of the automobile **accelerates the growth of the city**. From 1950 to 2010, the urban area (including Paris and its suburbs) has increased from 6 to 12 million inhabitants. During the same time, the population of Paris has decreased from 3 to 2,2 million inhabitants. Our project site, which was historically at the edge of the city of Paris, is now **located in the heart of the metropolis**. However, the administrative boundaries never changed since Napoleon's extension. This last point is particularly important today. The nearby suburb of Paris, where live more than 6 million people, is **divided into 123 municipalities**. Each of these municipalities is **autonomous in matter of urban planning**. It makes large-scale projects very complicated to achieve because each municipality has different interest. The project to create a Grand

Paris, in order to facilitate the decision process, is **politically extremely complicated**. Our project site is located just at the border between Paris and Saint-Ouen.



Left
Construction from 1950 to 1965

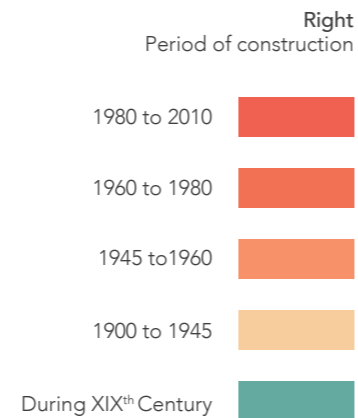
Population of Paris and Paris with its Suburb (million/year)



CONCLUSION

We explained in this historical analysis the major events, which affected the development of our site. We must recognize that most of these projects are not part of the great history of Paris. There is almost **nothing left from the Thiers wall** and people see this project as a shame for Paris. The Haussmann work did not change so much the aspect of this area. The main effect was the **forced movement of the poor from the centre of Paris to the periphery**, including our site. The green belt was **never really realized**. The ring highway is a **nuisance for local residents**. The housing blocks are also in many ways problematic today. Another point we would like to notice is that all these projects were **thought at the metropolitan scale**. There was never really a local project. Our site has always been used to **support the**

development of Paris and it was often trapped between national networks. This historical background allows us to understand the challenges of this site.



INTRODUCTION

We will analyze in the second part the current situation, and see what are the development opportunities. We will discuss the metropolitan issues, the urban trend, the social context, the transportation network, the cultural heritage, the urban form and the green structure. The aim of this research is to **find out the objectives of our project**, and to help us to **define our strategy**. We must therefore understand the qualities, the weaknesses, the opportunities and the threats from this area.

02 URBAN ANALYSIS AND DEVELOPMENT OPPORTUNITIES

CHAPTER

EVOLVING AREA IN NORTHERN PARIS

In 2001, the municipality of Paris has launched an urban renewal project: **Le Grand Projet de Renouveau Urbain (GPRU)**. This project involves most of the neighbourhoods of northern Paris, including our. The goal is to accelerate the development of these territories, which combines multiple social, economic and urban problems. This project is expected to **reduce the inequalities between the northeast of Paris and the southwest.**

The territory concerned by the GPRU is divided into sector. Our project site belongs to the sector **Porte Montmartre – Porte de Clignancourt**. This sector is located in the north of the 18th arrondissement of Paris. This territory is also since 1995 a **Sensitive Urban Zone (ZUS)**. It means that this area is a high-priority target for city intervention.

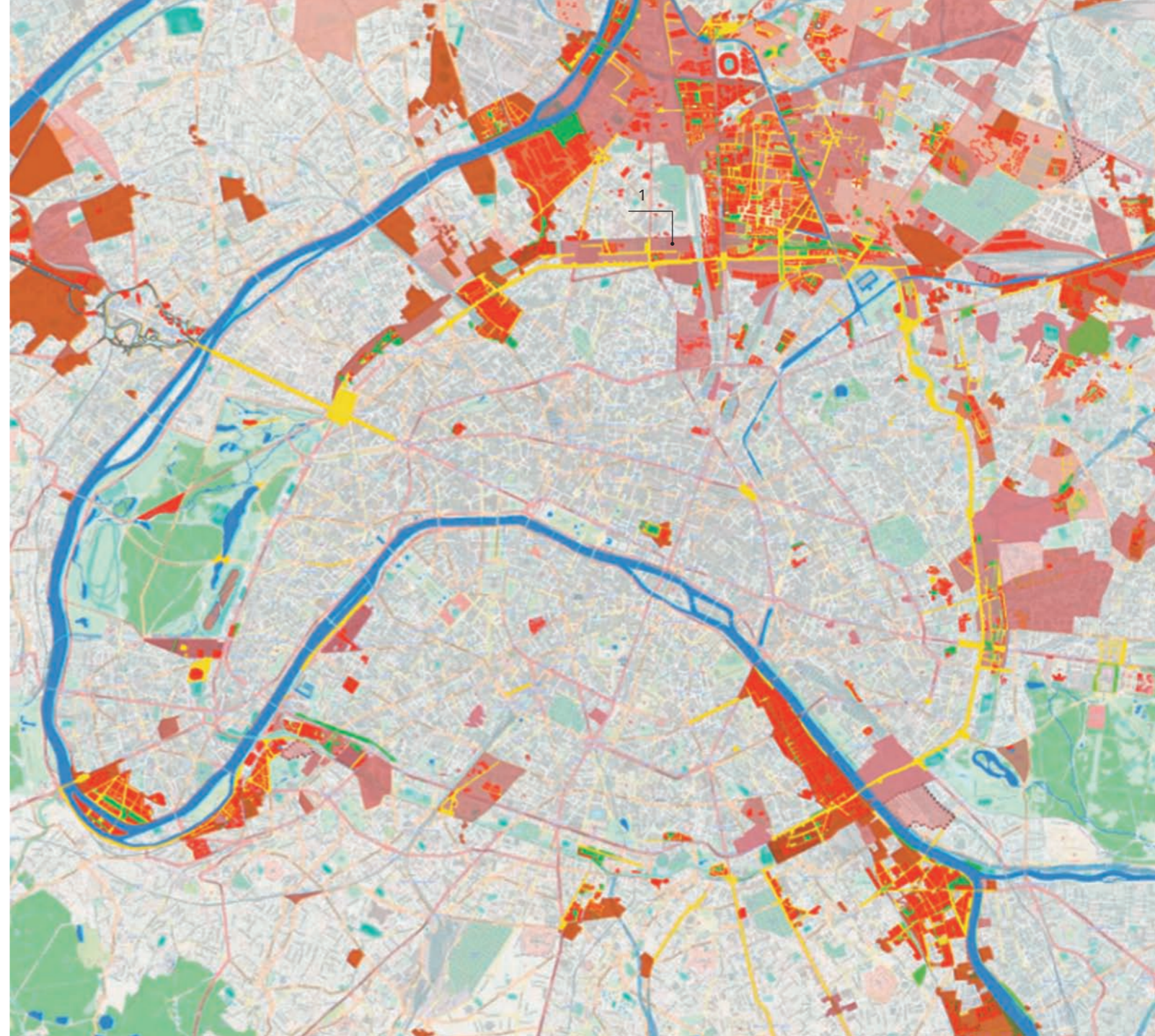
Project location (1)

Right

Map of the different projects and study areas in Paris, Apur

The different objectives set by the city are:²⁷

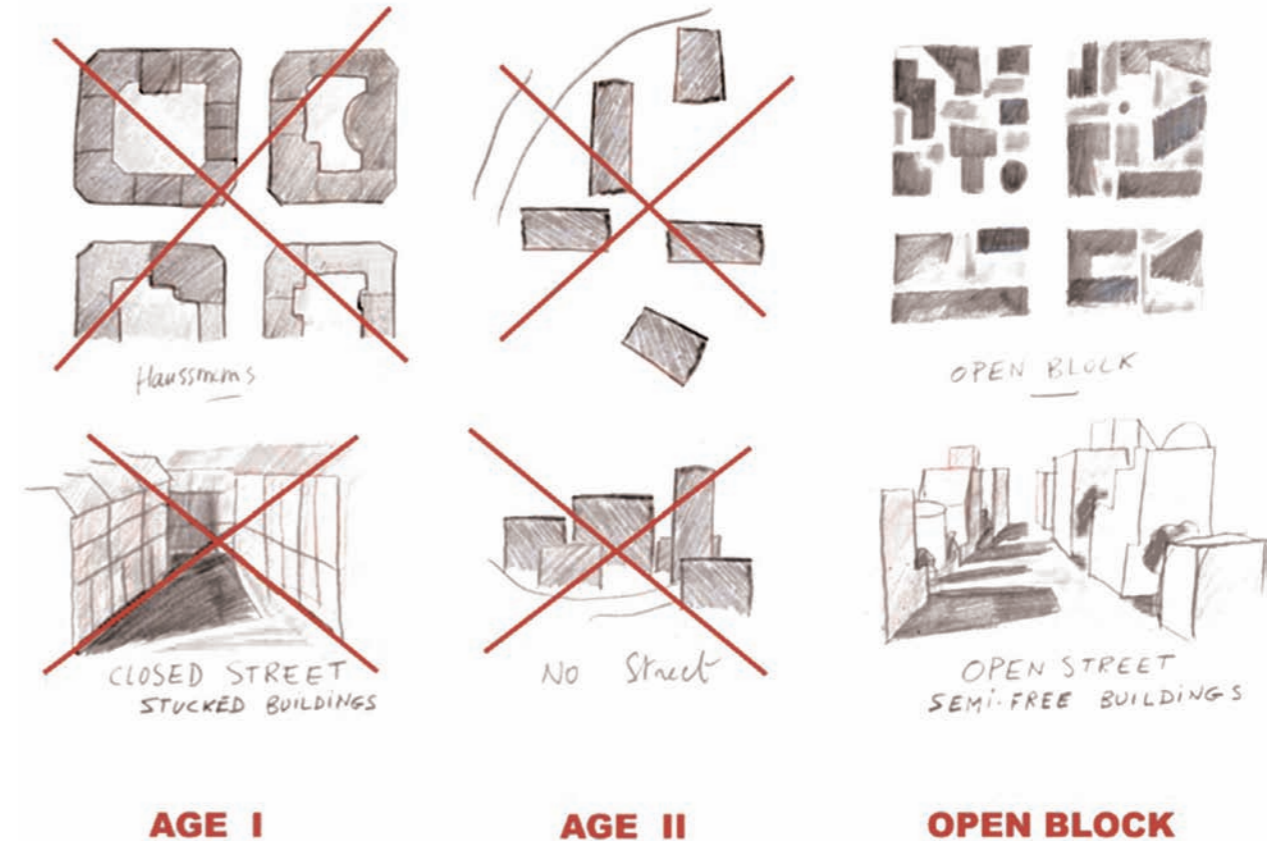
- To open up and connect the districts to the city, to create public transportation
- To promote social and economic integration, and to develop qualitative facilities
- To improve day-to-day living conditions and quality of life.
- To improve the urban environment and the quality of housing.
- To help the economic development of these neighbourhoods
- To promote environmental quality
- To work in cooperation with the other municipalities of the suburb



URBAN TREND IN PARIS

The project from Christian de Portzamparc for Massena neighborhood has significantly influenced Parisian urbanism. He theorized the **Open Block**, which is **between Haussmann block and the open plan from the modern**. The Open Block consists of **many independent and diverse buildings**. These buildings are **aligned along a traditional street**. The **heights are coherent but non-identical**. The buildings do not touch each other in order to **generate more openings**. The center of the block is open and visible from the street but **still private**. Nowadays, most of the large urban projects within Paris are built according to this model. We are lucky to have an example of this urbanism in a **similar situation as our**. The project of the ZAC Claude Bernard is located one kilometer east of our site. This project also takes place between the Marshals Boulevard

and the highway. It is a typical project of Open blocks. This urban form offers numerous qualities, but it does seem to be adapted for our location. The ZAC Claude Bernard allows us to see the main issues. Firstly, **the scale seems inadequate** because there are mostly very large elements in this area of Paris. As example, the warehouse in front of the project (Calberson Macdonald Warehouse) is two times bigger than the entire block. This highly fragmented planning is hard to read in this kind of context. Secondly, this urban form is **hard to integrate in a context dominated by infrastructures**. A block is waiting for another on the other side of the street, and it does not tolerate any breaks. And finally, it is a very static urban form in a space on the move. This form is **not adapted for large, empty and open spaces**.

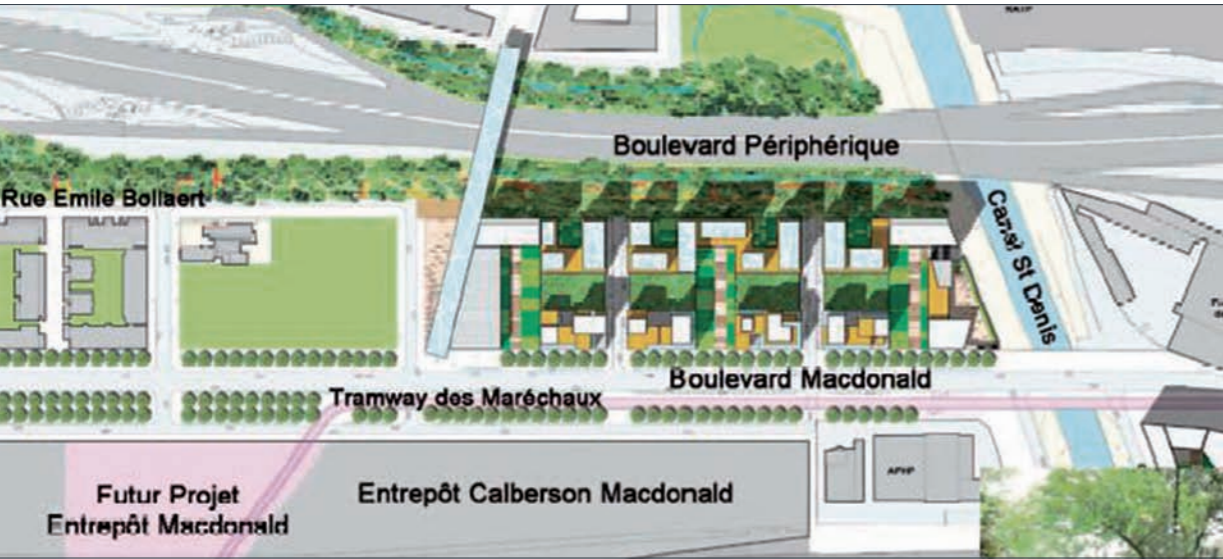


QUARTIER MASSENA



1995-2007, FRANCE, PARIS





Right
Views of the ZAC Claude Bernad



SOCIAL, ECONOMIC AND CULTURAL CONTEXT

The Parisian Urban Worksop, called Apur²⁸, conducted a survey about the sector **Porte de Montmartre – Porte de Clignancourt**. Most of the followings data come from this work²⁹.

High average of young people and single-parent households

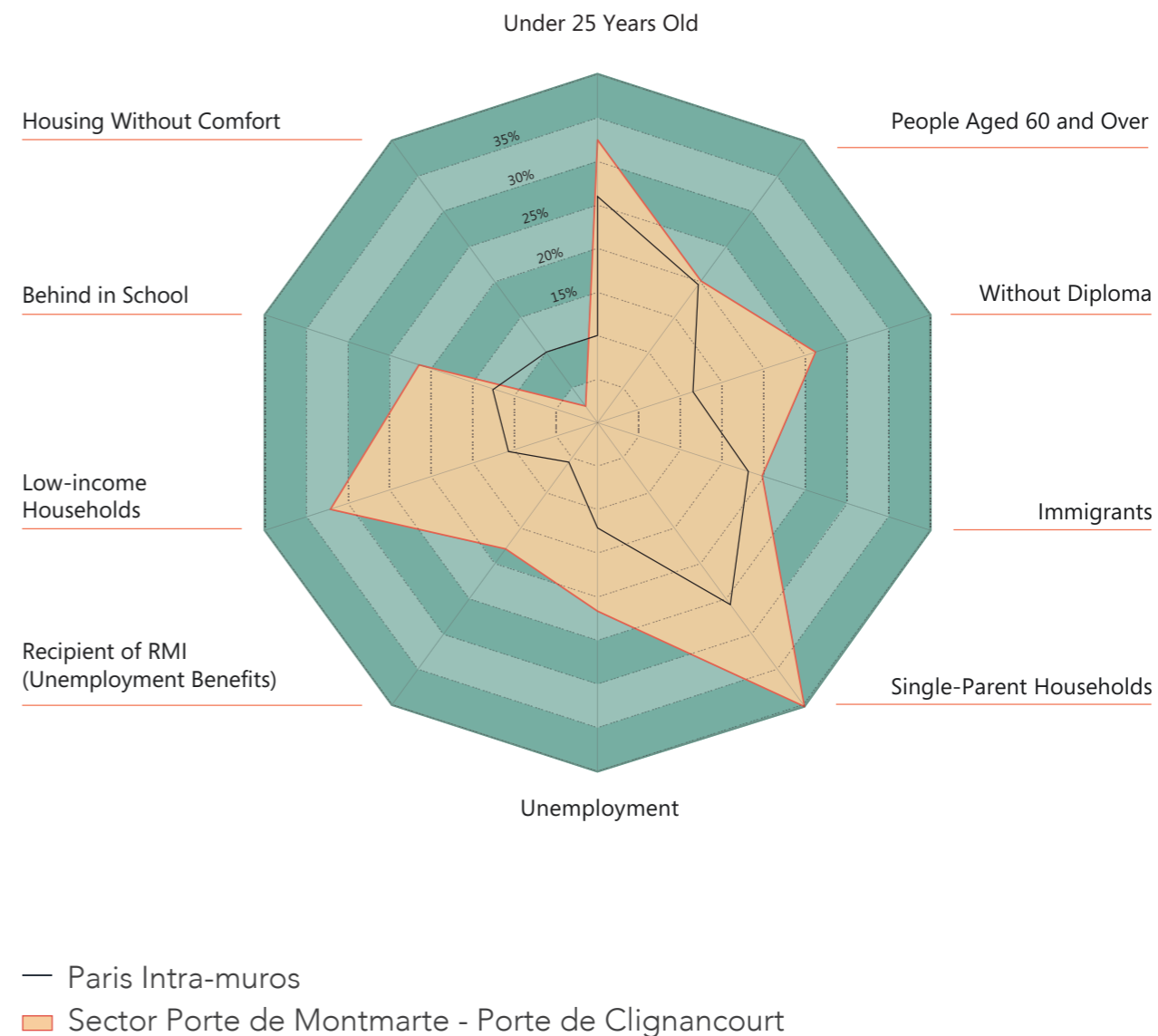
This area is characterized by a **high average of families** (35% of households instead of 22% in Paris). A lot of these families are **single-parent households** (43% instead of 26% in Paris). The presence of these families leads to a **high percentage of young people**. People under 20 years old represent 25% of the population instead 18% in Paris. The proportion of people **older than 60 years of age is also important** (30% instead 19% in Paris). Most of these people are living in their homes since the construction of the housing.

Preponderance of labourer and employee

The **employee and labourer represent 71% of the workers** instead of 35% in Paris. Only **8% of the workers are middle manager** compared to 35% in Paris. Nearly a third of population aged 15 and above don't have any diploma (11% in Paris).

Important social issues

A third of the population (**33%**) **live below the poverty threshold** instead of 11% in Paris. The **unemployment rate is one of the highest of Paris** (22% instead of 11% for the whole city). Concerning education, 23% of children finish primary school at **least one year later than normal** (13% in Paris). Only 54% of the children are accepted at the national diploma at the end of ninth grade (70% in Paris).



TRANSPORTATION NETWORK

The Boulevard Périphérique

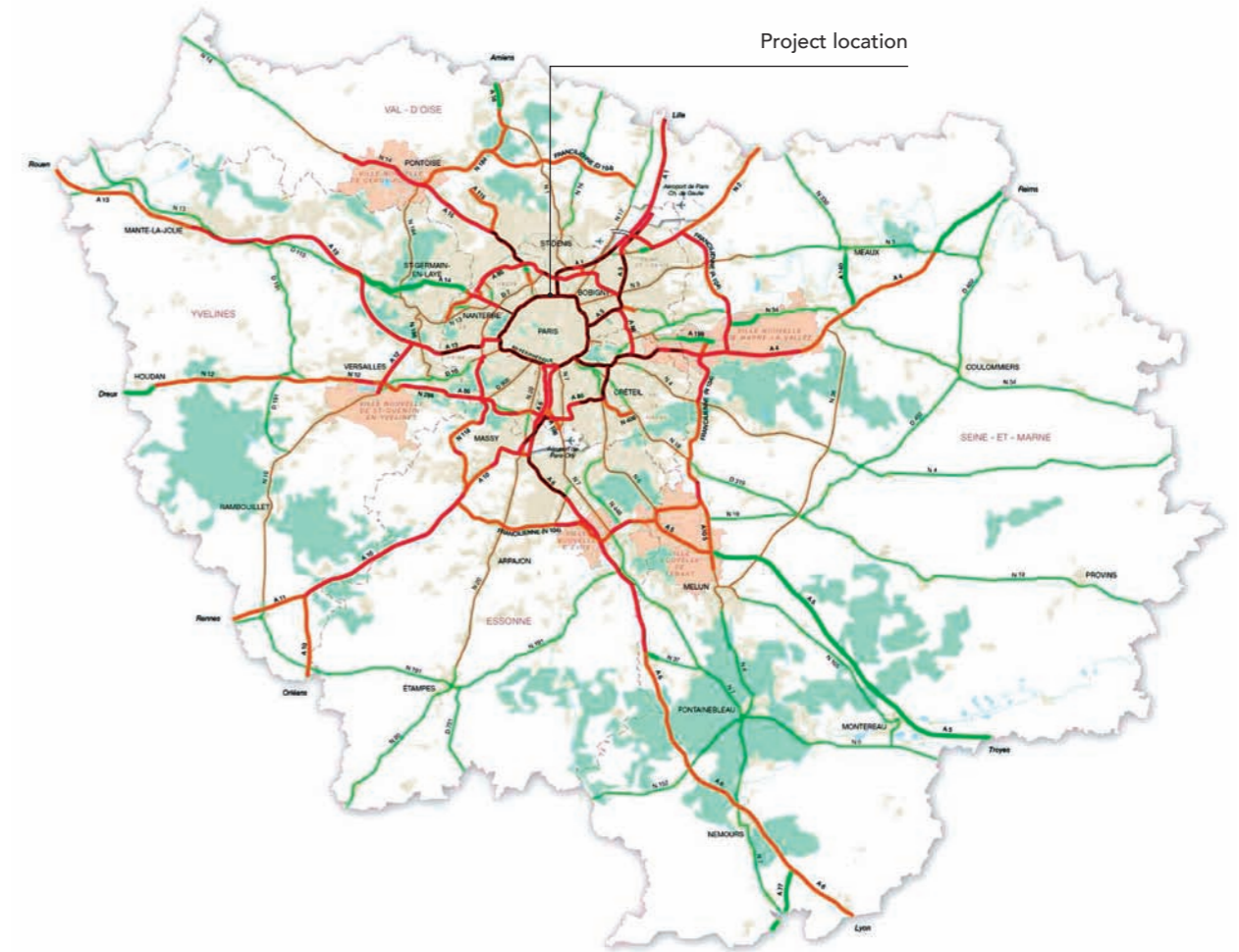
As we have seen previously, our site is located along the Boulevard Périphérique. This highway is one of the main roads of Paris. This is the busiest urban highway in Europe with 270,000 vehicles per day³⁰. Most of the movement (around 60%) are between Paris and the suburbs. The movements from suburb-to-suburb represent 35% of the traffic and the movements from Paris-to-Paris represent only 5% of the traffic. Near to our site, there is one of the four main road junction. The interchange of Porte de la Chapelle, which is an impressive engineering project, connects the ring road to the Northern Motorway (A1). On the portion near our site, the highway is an 8-lane road and is raised onto an embankment.

This infrastructure generates a lot of noise pollution and air pollution. This

is a major issue for the 100,000 people who lived within 100 meters from the Boulevard. Within 200 meters, there are also 20 hospitals, 20 nursing homes, 40 crèche and 68 sports fields.³¹ The other main problem with the Boulevard is that he divides the territory in two parts. The fact that he is raised onto an embankment makes it very difficult to cross. It is like a wall between Paris and its suburbs.

The boulevard Ney

The Boulevard Ney is part of a collection of thoroughfares that encircle Paris. The whole ring road is called Boulevards of the Marshals. These boulevards are parallel to the Boulevard Périphérique. There is also a lot of traffic on this road. Underpasses are built in most of the junction to limit congestion. As the Boulevard Périphérique, this road gen-



Number of vehicles per day (two direction)










- 150,000 to 300,000
- 75,000 to 150,000
- 25,000 to 75,000
- less than 25,000

Upper
Average daily traffic in 2002

erates a lot of noise pollution and air pollution. It is also a significant break because it is hard to cross it. However, the construction of the T3 tramway in 2017 will give us the opportunity to redevelop this boulevard.



Left
Traffic Network Analysis

-  Boulevard Périphérique (8 lanes - 80km/h)
-  Main roads (4-6 lanes)
-  Secondary road (2 lanes)
-  Local Network (1-2 lanes)
-  Railway tracks
-  Pedestrian area
-  Petite Ceinture (Old Circular Railway)
-  Subway Station
-  Vélib Station

The public transport network

Our site is **well served by public transport**. There is one metro station of the line 4 at the Porte de Clignancourt. This is the main north-south line of Paris. It crosses all other subway lines and served three train station: North Station, East Station, and Montparnasse Station (south). It also served the

Châtelet – Les Halles Station, which is the major commuter train hub in Paris. The T3 tramway, which is expected to encircle Paris, ends currently Porte de la Chapelle. The extension on our site is planned for 2017. This line is the first modern tramway using separate tramway lane system in Paris. There are also several bus stops, which



provide a good local service. Our site is also equipped with the Vélib, which is a large-scale public bicycle sharing system in Paris. The Autolib system, which is the equivalent of Vélib for cars, was also recently installed in our area.

The railroad tracks

Close to our site, there are also all the **railroad tracks from Paris North**. This station is the busiest in Europe and the third one in the world by the number of travellers (190 million per year)³². There are around 550,000 travellers per day including about 400,000 travellers to the suburb of Paris. This is certainly an economic advantage for our site to be closed from the train station but the rail tracks are also a **very strong urban break**.

The radial streets

Near to our site, there are two arterial roads that **convey traffic to centre of**

Paris. They are the Boulevard Ornano and the Rue de la Chapelle. They are, with the Rue des Poissonniers, the only streets **that cross our site in the north-south direction**.

The local raster

The local street network is underdeveloped. This is mostly due to the **division into large parcels of the land and to the difficulty to cross the main infrastructures**. This lack of local network causes the isolation of the site due to a bypass effect. There are **no streets to support local activities, social life, and district development**.

Left
Aerial view of the Porte de La Chapelle

CULTURAL HERITAGE EVALUATION







There are on our project site a lot of buildings that reflect the history of this area of Paris. We will identify in this part the important **buildings to preserve, those to transform, and those to destroy.**

Championnet workshops

The workshops were **built on our site in 1882.** At the beginning there were more than 1,500 people working to the

construction and reparation of Parisian bus. The workshops were used during World War I to **produce weapons and aircraft** for the French army. During World War II, the Germans also requisitioned the site. On 21 April 1944 the Royal Air Force **bombed all the north of Paris.** About one hundred bombs were dropped on the workshop. There were no victims among the staff but the original buildings were almost completely



-  Buildings to renovate - Function preserved on the site (Housing)
-  Buildings to preserve - Develop a new function
-  Buildings to destroy - Function deleted on the site (Industry)
-  Buildings to destroy - Function preserved on the site (offices)
-  Buildings built in the 1950s
-  Buildings built in the 1990s

Upper
Datation of the different buildings of the workshops

Bottom left
View of the main shed

destroyed. The buildings that we can see today were for one part built after World War II. They are long shed built in red brick. They also have a very interesting industrial roof. These buildings **should be preserved in any case**. The other buildings that we can see today were built during the 1980s. This second generation of buildings is formed by industrial buildings and also by administrative buildings along the Boulevard Ney. These buildings **do not have a high architectural value**.

Bottom
Facade of the buildings built in the 1980s.



Ney barracks

The barracks of Boulevard Ney was built after World War II. This building was **used by the army to store flour** and was also a bakery. During World War II, the bread and many other foods were restricted in France. We suppose that this building has been built to ensure that this will not happen again.

The army do no use the barracks since 2004. In response to the need to make effective use of abandoned buildings, the City has **installed temporary programmes**. The main building along the Boulevard Ney is an **accommodation centre for homeless** (400 beds) and the other one is a **Muslim centre of worship**. These programmes will be transferred somewhere else in Paris.

These two buildings have some architectural qualities but they **also pose a lot of problems**. Their location within the plot, their footprint and their relation to the street would further complicate the

density that the city would like to see on the site³³. The building on the Jean Coc-teau street is also **interrupting brutally the green axe**. This is why it is considered to destroy these two buildings.



Top right
Muslim centre of worship

Top left
Accomodation centre for homeless

Bottom
Facade of the Ney barrack

The residential towers

As we saw in the first part, there are several residential towers on our site from the 1960s. The height of these towers **may seem disproportionate**. Their integration in the context is brutal and it seems inconceivable to build the same today. However, these towers are now **part of an architectural landscape** along the Boulevard Périphérique. In the current context of high housing demand, there is **no need to destroy these towers**. It is why the City pursues a renovation policy of these buildings.

Right
The three residential high-rise on our project site



URBAN FORM AND STRUCTURE

A lot of different urban forms are next to each other on our site. There is not really a dominant urban tissue. Unlike Haussmann's Paris, which is very isotropic, our site is characterized by its heterogeneity. By simplifying a lot, we can identify the following forms:

- The south of the site is mostly composed of housing blocks. This is a **continuous tissue** with regular alignments and similar heights. It is also a very dense urban form.

- Between the Boulevard Ney and the Boulevard Périphérique we have a mix of two systems. The housing from the 1920s are organized in open blocks. There are also fixed alignments and heights but the blocks are not closed. The other form is a composition of **independent buildings**. There is no alignments rules, no heights limits and

overall no continuity any more.

- In the north of the Boulevard Périphérique, there are mostly **individual houses**. Density is much lower and buildings scale is pretty small.

- To the east, along the rail tracks, there are mostly **industrial buildings**. They have a large footprint but are not very high.

Right
Black plan of our area

Next page
Building heights plan






URBAN GREEN SPACES

Although the long park around Paris has never really been completely realized, our site is **very important for the Parisian green system**. The Paris Biodiversity Plan identifies this area as a strategic territory for increasing biodiversity within Paris. The objectives set by the city are:

- To have **more nature**, to create new green spaces in the green belt
- To have **more porosity**, to create new connections
- To have **more uses**, to create new functions

Right
Biodiversity plan, 2011

 Increase the permeability of the soil, create new green spaces, diversify the vegetation, transform the boundaries

 Create new connections with Parisian park

On our site, the green structure is based on three elements:

- **Jean Cocteau mall** is the heart of the system. This mall, with its triple row of trees, allows cycling and pedestrian links at neighbourhood level. Unfortunately, this 30 meters wide promenade is blocked at the end by the Ney barracks. Despite the quality of the vegetation, the public space needs to be renovated.

- **The Petite Ceinture**, which is the old circular railway around Paris, is also an important element of the green structure. The traffic shutdown of the line and the difficulty to access the platform allowed nature to grow. It is nowadays an important reserve of biodiversity with a lot of varieties of plants and trees. There are several projects of transformation into a promenade but not for



our section. The State decided that this section should remain usable for rail traffic.

· Thanks to Haussmann's renovation, most of the **Parisian boulevards** are **tree-lined**. This is the case of the Boulevard Ornano on our site. The street of La Chapelle and the street of the Poissonniers, which have not been transformed by Haussmann, are also planted. However, the vegetation is less regular and often interrupted of these two streets.

- (1) Jean Cocteau Mall
- (2) Petite Ceinture
- (3) Boulevard Ornano
- (4) Rue des Poissonniers

Right
Vegetation Height Map, Apur



SWOT ANALYSIS

STRENGTHS	WEAKNESSES	OPPORTUNITIES	THREATS
Well located in the Parisian metropolis	Underdeveloped area compared to the rest of Paris		There are a lot of different actors with different interests
	Strong social and economic difficulties	A lot of aids and programs are available to develop this area	
Well served by public transport	A lot of noise and air pollution due to the high traffic No porosity and no local network	Extension of the tramway in 2017	
		Good industrial heritage to develop A lot of ground to develop will be released	Temporary programs will not be easy to relocate
A lot of green spaces are available	Green spaces are isolated and neglected	The City as an ambitious program of sustainable development	

CONCLUSION

The proposed site is located at the interface between the northern districts of Paris and its inner suburbs. **A division into parallel strips** characterizes the urban structure of this area. The current form of the district comes mostly from the path of the old fortifications of the city. The two main axes of the Thiers wall, the boulevards of the Marshals and the Chemin de fer de la Petite Ceinture, still exist. The two radial roads that existed before the construction of the wall, **Rue de Mont Cenis** and **Rue de Clignancourt**, are brutally interrupted.

The site is characterized by the following stripes:

(1) The historic city marked by **Haussmann architecture** along the **boulevard Ornano**

(2) L'Atelier central de Championnet,

which is a major industrial area for the RATP, is today a **significant break in the urban network**. It is impossible to cross this site over 500 meters.

(3) The "Chemin de fer de la Petite Ceinture" is an old railway around Paris. The trench of the railway is also a significant break because **there is just two bridges to cross it**. The two bridges are 600 meters far away from each other.

(4) The boulevard Ney (part of the boulevards of the marshals) is also a main rupture. There is **four lanes of fast traffic** and two exit lanes.

(5) The strip of social housing in this area is a bit different because there are many mixed-use functions. Nonetheless the perception of the whole is similar. It is composed of independent buildings with an **undefined green space** at the ground level. These private ground

spaces also define an **impenetrable strip**.

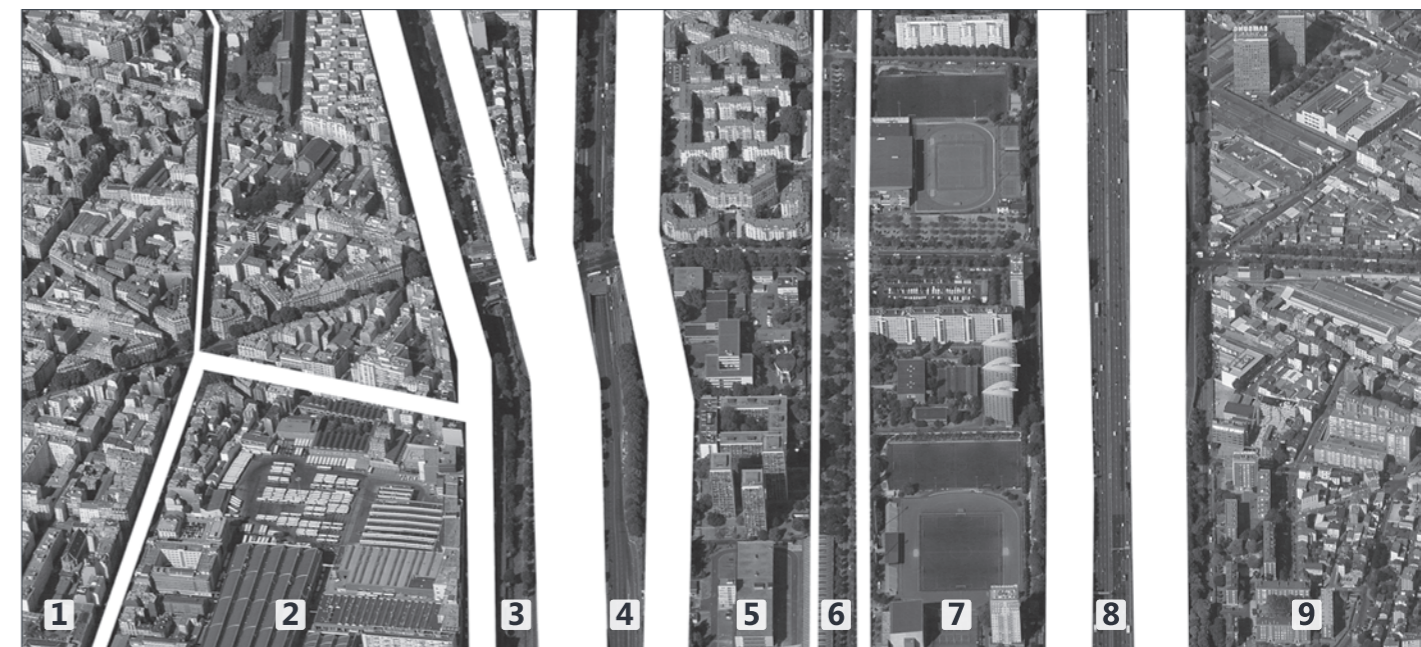
(6) The Jean Cocteau street is the centre of the green structure of the quarter. This space has a lot of qualities but it is isolated from the rest of the district. It is the **backyard of the housing**.

(7) The public facilities strip is composed of equipment **accessible only to**

"members". There's a lot of sport centres around Paris on this strip.

(8) The boulevard Périphérique is one of the **main road infrastructures of Paris**. It is on the site in an elevated position. It's a physical and visual boundary.

(9) On the other side of the boulevard Périphérique is a **predominantly residential area**.



The result of all these breaks is that the only way to cross the site is to go through the Porte de Clignancourt or Porte des Poissonniers. These two crossroads are not sufficient to support a neighbourhood and they **lead to a bypass effect** for the site. This lack of local network causes the **isolation of the site**. There is **no porosity, no continuity, no accessibility** and the district is closed on itself. It is for us a priority to create a new framework to **support local activities, social life, and district development**.

Right
Aerial view from the Batignolles cemetery to the Porte des Poissonniers, 1970



INTRODUCTION

We saw in the last chapter all the issues that this area is facing. But at the same time, northern Paris is **changing very fast**, and there are plenty of opportunities to change the situation. This territory, despite all its weaknesses, **has qualities that should be valorised**. Unlike most of the projects that this area has experienced in the past, there is - this time - a real desire to develop urban qualities. The change is already underway, and we will now **present our proposition** in order to revitalize this neighbourhood.

03 PROPOSAL FOR AN URBAN REGENERATION

CHAPTER

PROJECT GOALS AND OBJECTIVES

Our intervention is part of an **Urban Renewal Project**. The aim is to transform this difficult area in order to **generate urbanity**. To achieve this urban character, we need to develop a **dense, fluid, and diverse urbanism**.

- The density, which is often reduced to the environmental aspect, is the parameter that enables group cohesiveness. In our case, we consider density as a way to **create urban intensity**.

- The fluidity, which should not be reduced to the mobility aspect, is the parameter that allows exchanges. Our site is very fragmented and these ruptures cause the isolation of the area. The **lack of fluidity is a factor of segregation**. The accessible city can be achieved by creating porosities and new continuities.

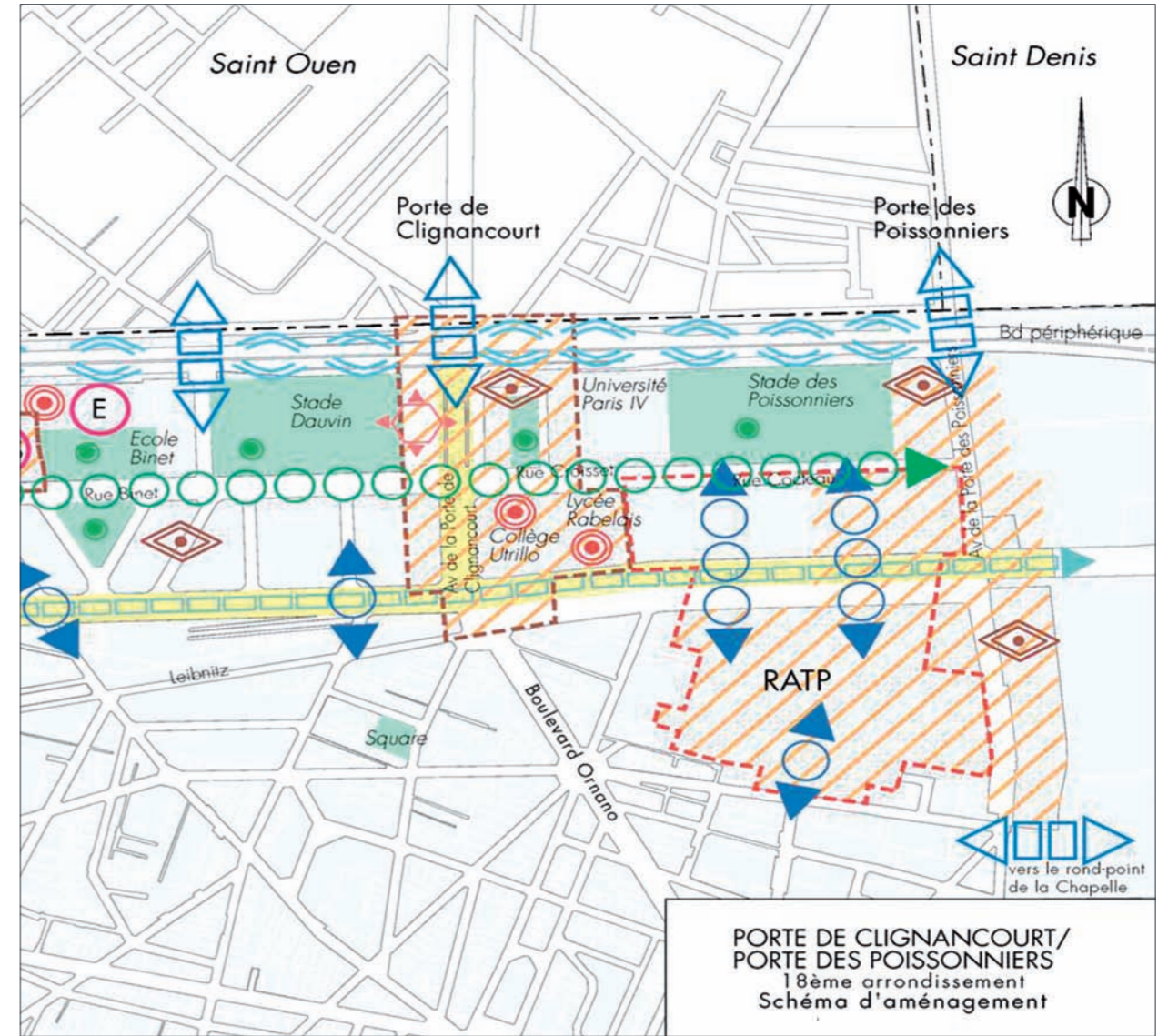
- The diversity is the third characteristic

of the urban condition. There are no interactions in a homogeneous social group, and no exchanges in a mono-functional context. The diversity must be social and functional.

Our proposal should combine all these characteristics in order to **reactivate this area of Paris**.

Development guidelines from the Local Plan of Urbanism (PLU)

-  Reconnect the neighborhood
-  Develop green spaces and soft mobility
-  Create or enhance urban continuity
-  Requalify the existing public facilities
-  Improve the appearance of green spaces
-  Renovate the housing complexes
-  Reduce the noise pollution
-  Develop or restore the urban fabric
-  Projects in progress
-  Sectors waiting for a project



SCENARIO AND DEVELOPMENT STRATEGY

In our development scenario, we propose to **remove the industrial activity on the site** of Championnet workshops. It does not make sense for us to keep such a large industrial area in the centre of Paris. These workshops used for the buses renovation can be **moved to the outskirts of the town**. However, the **offices of the Ratp can be maintained** on this site but should be redesign. The **Ney barracks should be destroyed** in order to release ground to develop. The new Centre of Islamic Culture, which will be finished in 2014, will offer the space needed to **relocate the Muslim centre of worship**. The issue of the accommodation centre for homeless is still pending, but the city plan to **destroy it and to integrate a smaller centre** into the new project. This scenario allows us to release a lot of valuable space and to preserve the

strengths of this area. Our strategy in order to insert urbanity in this area can be explained with the SWOT analysis that we saw in the last chapter. Our methodology is to **use the opportunities to counter the weaknesses** of this area. This approach will **generate new strengths**. For example, the **release of ground** allows us to deal with the **underdevelopment of this area** and to achieve a new **dense urban project**. The **construction of the tramway** allows us to **reduce the traffic** and to **redesign the Boulevard Ney**. This is the opportunity to develop a **local network based on soft mobility** supporting the district development. The city's ambitions in **sustainable development** enable us to **revalorize the green spaces** and to develop new one in order to **support activities and social life**.

Project Specifications

Programme given by the city	Surface
All categories of housing, from family to individual	Unspecified
A range of economic activities – retail, small business, offices	Unspecified
Local public amenities linked with housing construction	Unspecified
Public school	4,000m ²
Public spaces	Unspecified
Parking lot for housing	1P/100m ²

Relocation resulting from our development scenario	Surface
Office spaces for the Ratp	15,000m ²
Accommodation centre for homeless	2,000m ²

OUR VISION FOR THE SITE

In order to revitalize this area, we propose to use an **atypical urban form for Paris**. We looked for a structure able to respond to the **large-scale and to the dynamism of the context**. We also wanted to provide greater transparency in order to **create new urban openings**. It was also important to find a form, with **high density**, able to accommodate **different kind of functions**. The urban form, which meets the best these expectations, is for us the **organization into in stripes**.

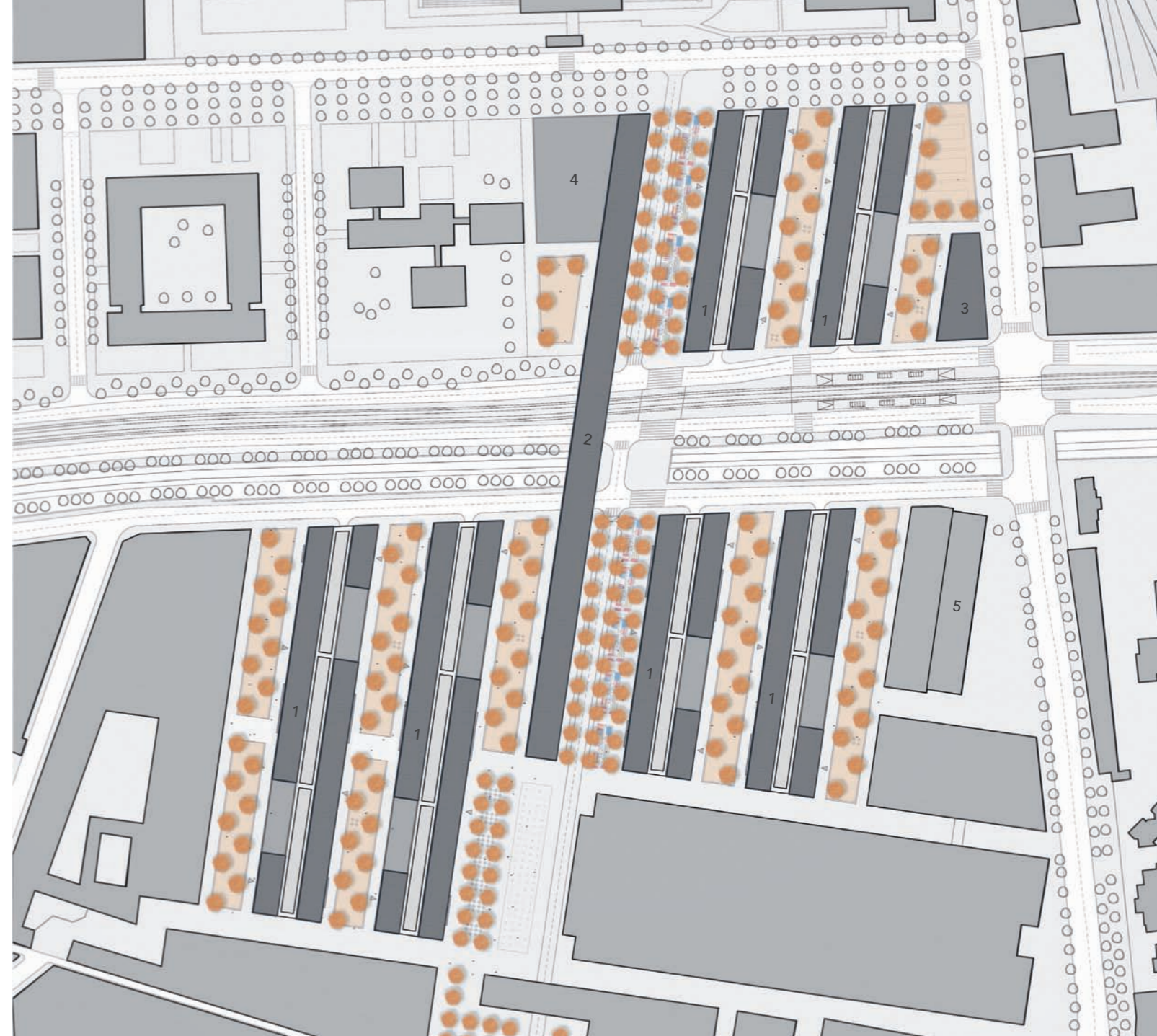
Our proposal is to overlay a new system over the existing one, but in the **opposite direction**. Our project is based on a group of stripes north-south oriented. The strip, which extends the Rue de Clignancourt, is the main axe of the project. Throughout this new axe come a **series of public spaces**. It supports the economic activity of the district. The main

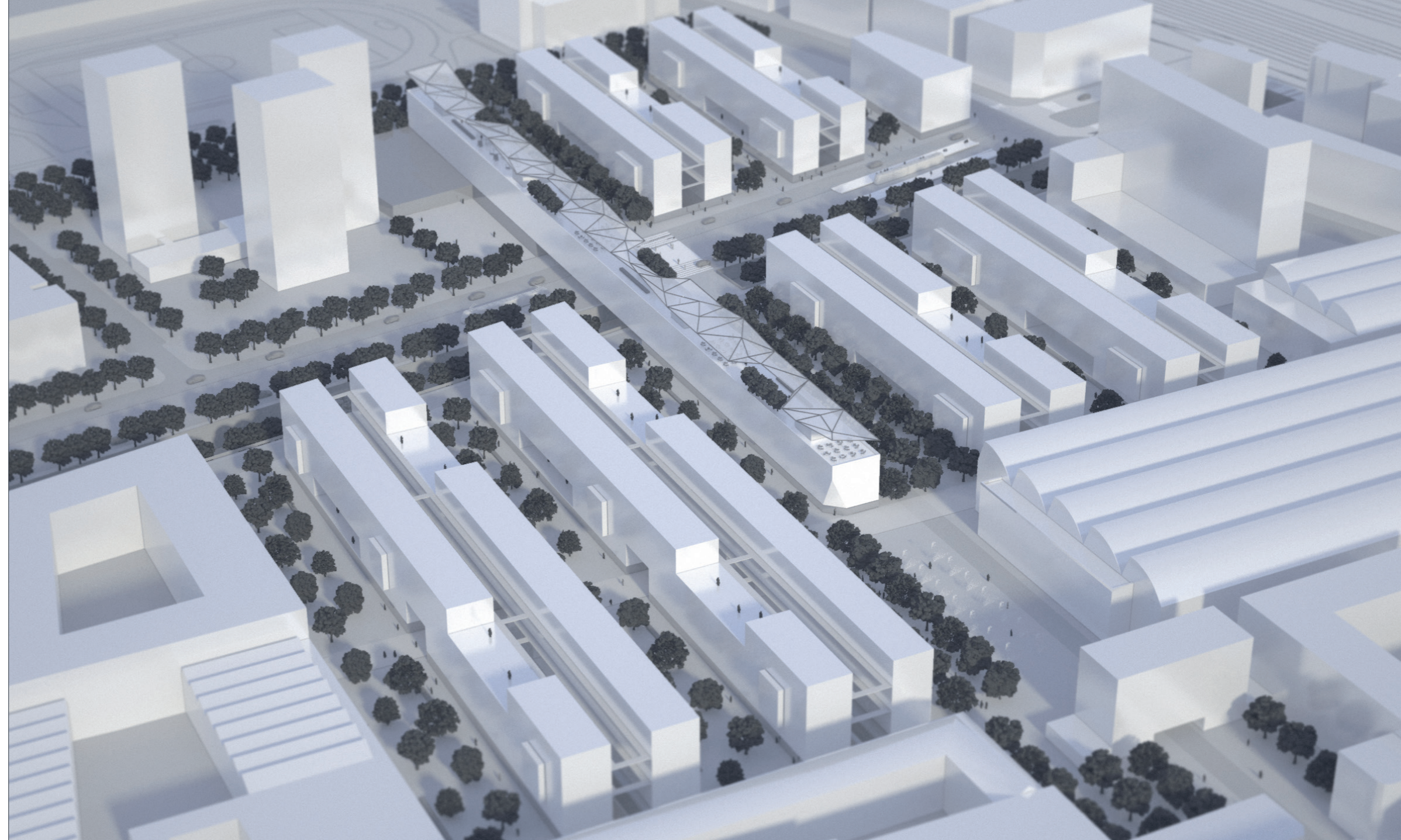
hall of the workshops is situated directly on this axis and as a place to highlight it. All the other stripes are parallel to this one.

The new office building of the Ratp passes over the Boulevard Ney. This is **powerful symbol**, which shows the **reactivation of this neighbourhood** at the metropolitan scale. It also permits to **create a physical link** between the two sides of the Boulevard Ney and to **reinforce the axe** of the Rue de Clignancourt.

- Housing stripes (1)
- Ratp Offices (2)
- Temporary Accommodation for Homeless (3)
- New Public School (4)
- Old Housing Tower to Renovate (5)

Right
Masterplan - Porte des Poissonniers





Right
Aerial view of the project

INCREASE THE URBAN INTENSITY

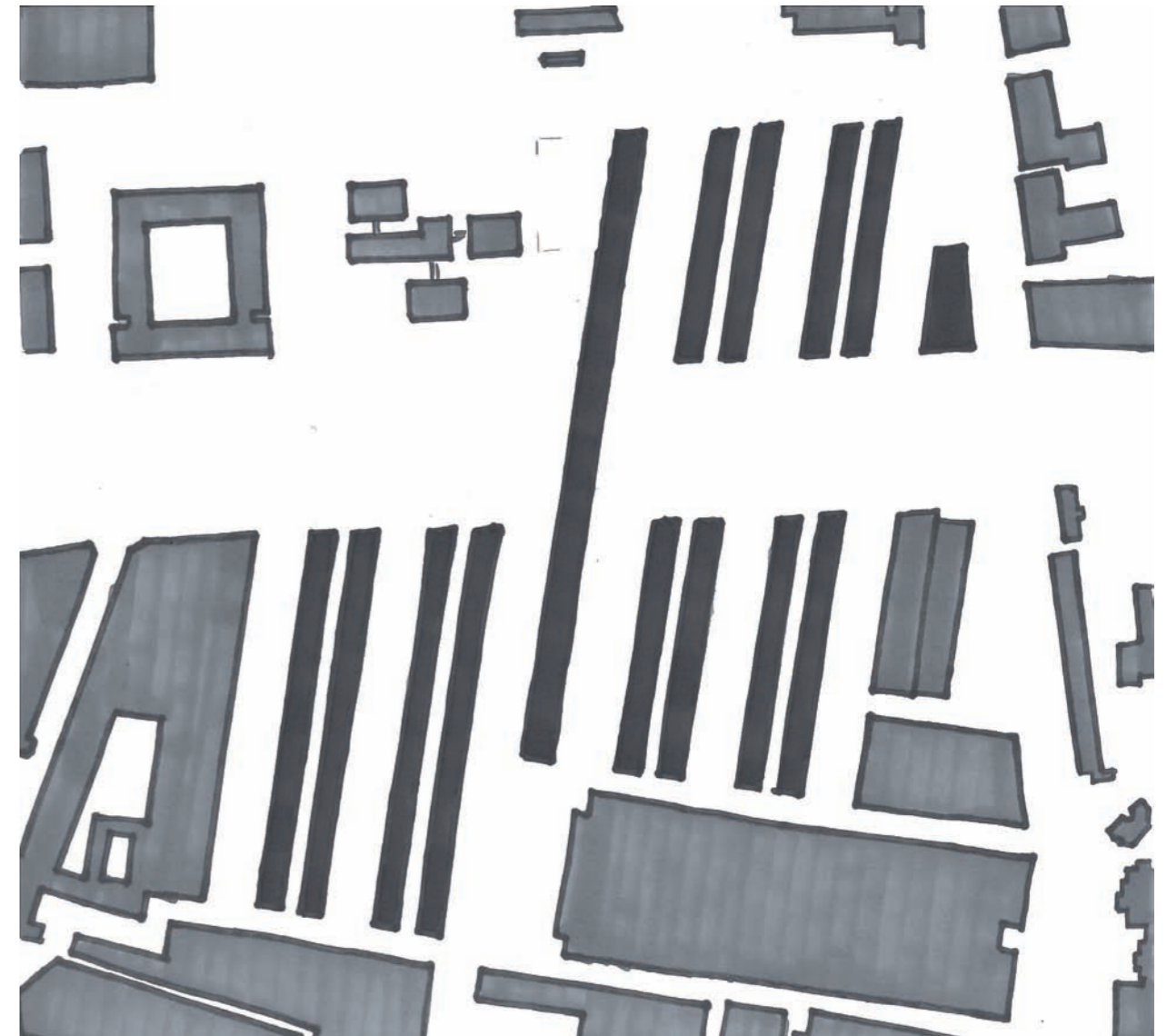
In order to give an urban character to this area, we chose to **develop a high density**. The Haussmann architecture in Paris has a density around 5. Our project has a similar density but with a different urban form. This may seem extreme, but we believe that this **site is able to accommodate such a high density**. This choice can be justified by the **excellent public transport service** or also by the presence of **many green spaces**.

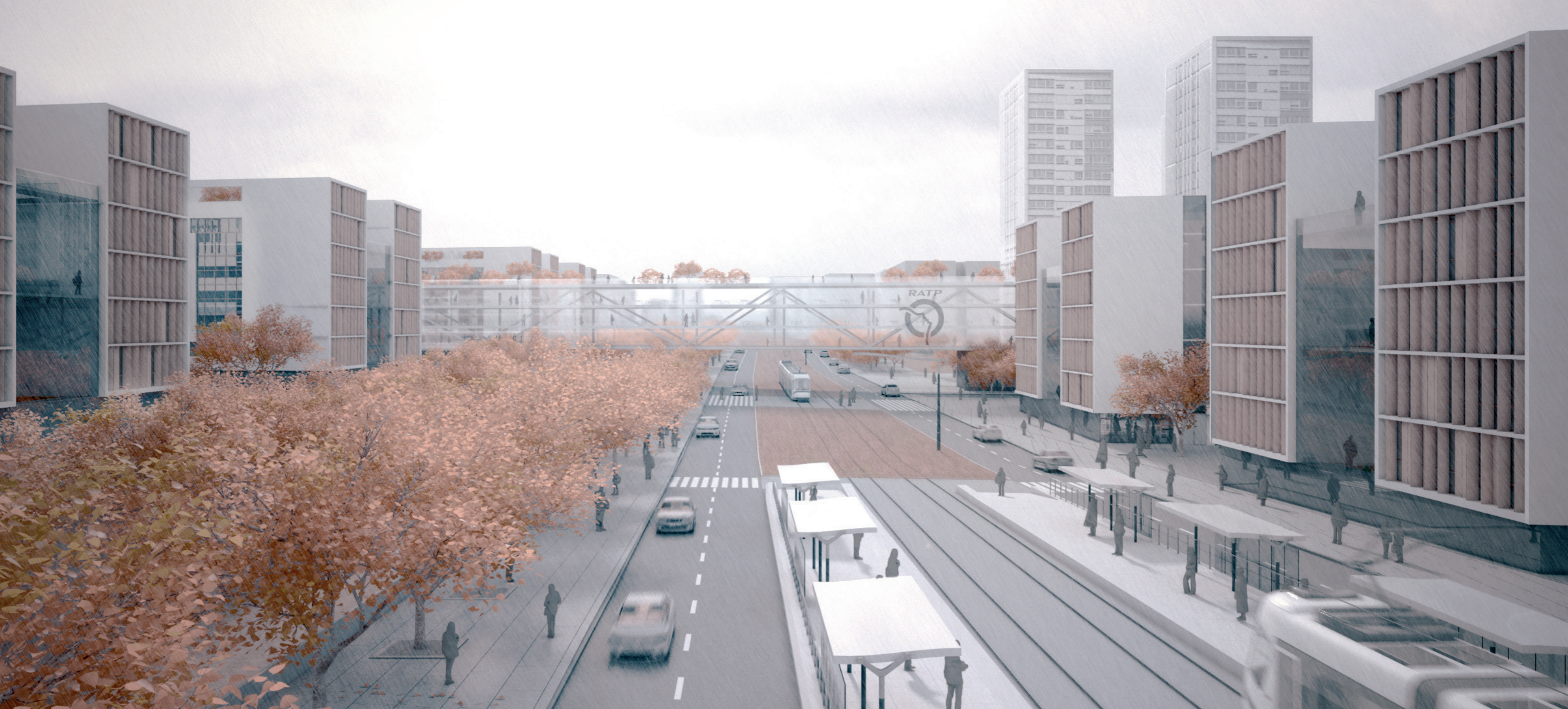
In order to give a character to the neighbourhood, we chose to **express the community** in our architecture. Our idea was to **create a new unity** in order to clear the breaks. Our system is pretty isotropic, but the **diversity comes from the existing context**. Indeed, the site is **already very heterogeneous** and there are almost everywhere elements that help to orient. This architectural unity allows the **identification of this new**

neighbourhood.

The choice of the building typologies also aims to create new cross-situation. We chose a type of housing in strips that achieves a high density and provides quality housing. These very long buildings generate a dynamic space.

		Right
		Black plan of the project
SURFACES BY FUNCTIONS	Housing mix	79,130 m ²
	Offices	10,638 m ²
	School	6,000 m ²
	Homeless Center	4,446 m ²
	Shops	18,489 m ²
	Total Construction	118,703 m ²
	Ground Surface	27,939 m ²
	FAR (Floor Area Ratio)	4,24





CREATE A NEW LOCAL NETWORK

The main challenge for us is to deal with the **lack of local network**. Our goal is to connect or re-connect the various elements of the district. We want to create **new porosity**, and **new transparency** in order to **open this area to the city**.

We developed a central axis in the prolongation of the Rue de Clignancourt. This axe is not similar to the other streets because this is not a residential space. It **comes with a series of public spaces**. The first one is the **new place in front of the warehouse**. This place highlights this beautiful industrial building. This is an interesting space for **cafes and restaurants**. The second public space along this axe is designed to accommodate a **market under the trees**. The last main public space is located on the roof of the office building. This **sky garden is the main attraction in the area**. This park connects the two parts of the

project.

Along the housing stripes, we created a **new network of pedestrian streets**, which can **support any kind of activities**. The idea is to have a **polyvalent central block** in each street. This space can accommodate playgrounds for children, terraces, green spaces, sport spaces, gardens, bicycle parking racks, performance spaces, and many other activities. These spaces are lined both sides with shops on the ground floor. The high density allows us to concentrate on underground car parking and to create pedestrian streets along the housing stripes. These new public spaces **support the social life** in the neighborhood.

Right
Black plan of the project





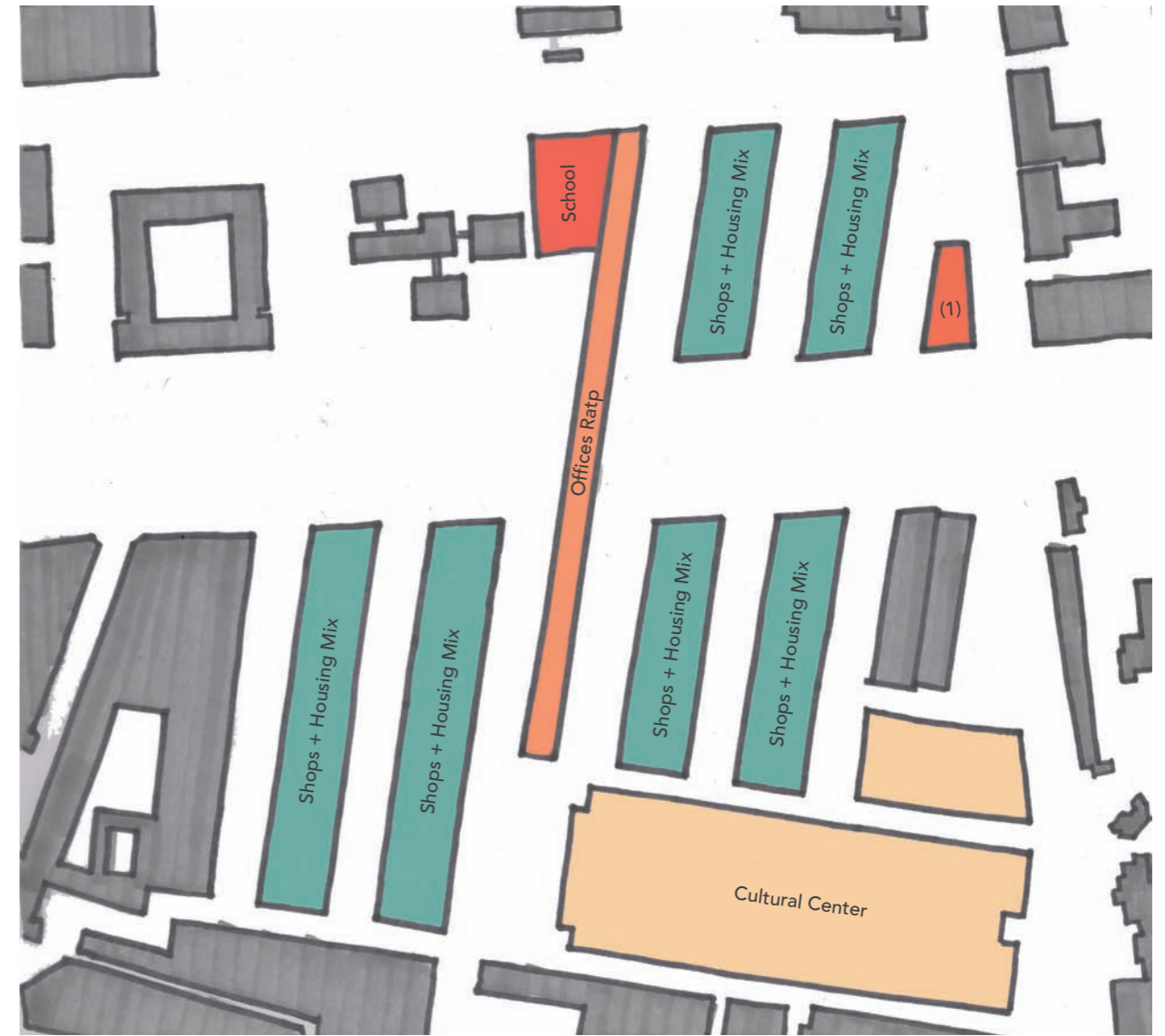
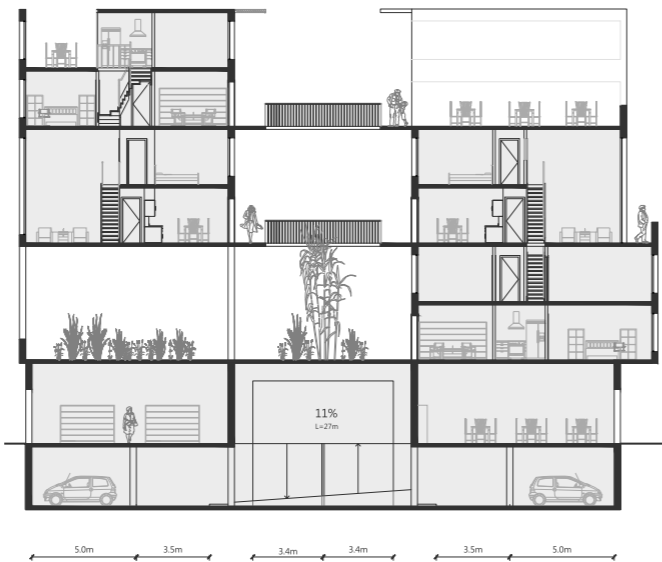
INCORPORATE DIVERSITY AND ADAPTABILITY

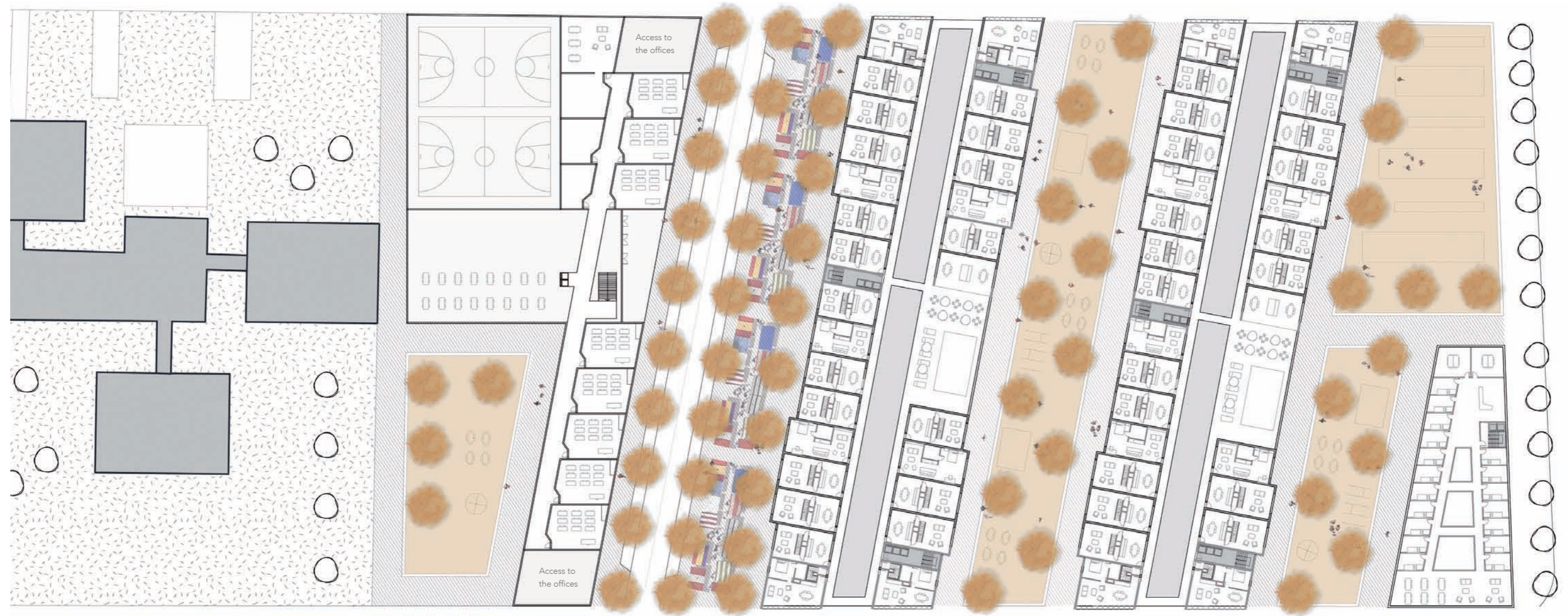
It was very important for us to **create housing for everyone**. In order to **provide a good social mix** in the building, we designed **several housing typologies**. Included are apartments between one to six rooms, from 60-meter square to 160-meters square for a triplex. There are apartments in simplex, duplex and triplex with or without terraces. The challenge is to offer **something for all social classes and also all groups of age**. Each housing block is actually composed of two side-by-side buildings. The access balconies are taking place in between these two buildings. Each unit is cut in some places to **let in natural light and to provide community terraces**. These spaces are meeting places for the residents. There are playgrounds for children, terraces to have lunch, and it is able to **accommodate other functions as needed**.

In the ground floor, there are **all the local shops** (bakery, grocery, bank, etc.) for the housing. We also **established a school** under the office building of the Ratp. The goal is to **integrate all the functions** peoples would expect to find in a dense urban environment.

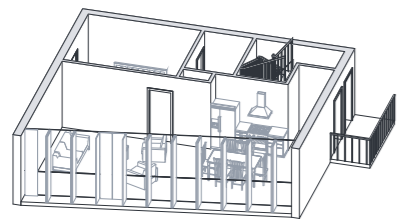
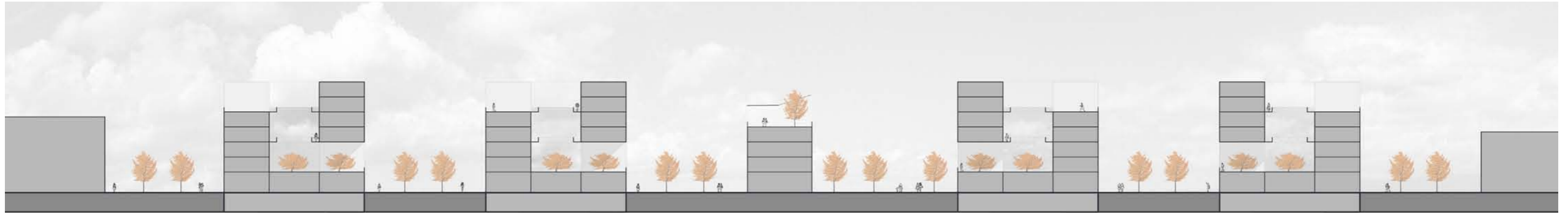
Right
Distribution of the functions

Emergency accomodation for homeless (1)

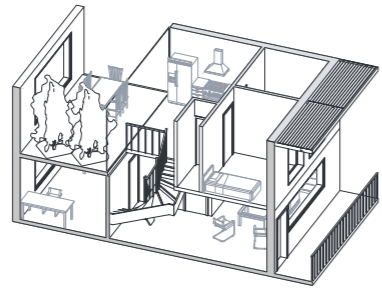




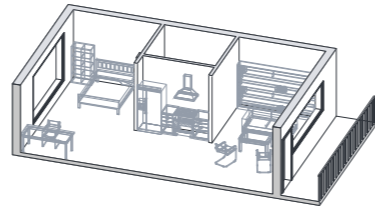




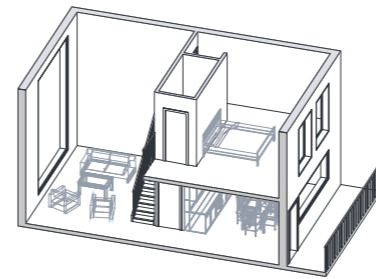
Simplex 60m²
2 rooms



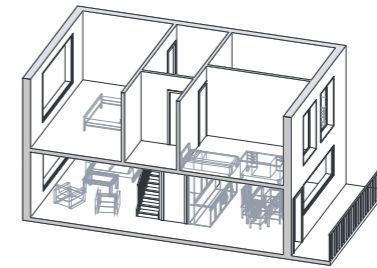
Penthouse 120m²
5 rooms + terrace



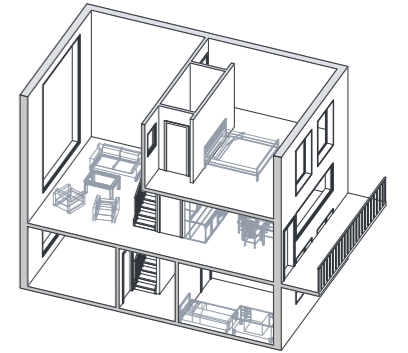
Studio 60m²
1 room



Duplex 100m²
3 rooms



Duplex 120m²
5 rooms



Triplex 160m²
6 rooms

CONCLUSION

We presented our research in order to **redevelop the interface of Paris and its suburbs**. The metropolitan challenge is to **create new urban continuity** between Paris and its suburbs. We saw through our case study all the issues that we are facing in this territory. In the first part, we paid attention to **the turbulent history** of this site. We saw that people have **failed to develop an urban quality** as we can find it in other areas of Paris. This historical research enabled us to understand **how this area was formed**. In the second part, we analysed the current situation. We studied all **the weaknesses** of this area, but it also allowed us to see the **development possibilities**. From these researches, we established in the third part **our proposal for this area**. We developed a clearly structured project combining **density, porosity, and diversity**. We believe that these three characteristics are absolutely necessary in order to create a new urbanity in this area. Despite the relatively small scale of our intervention compared to the metropolitan issue, we think that it could contribute to **reduce the urban fracture**.

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Informations

⁰¹ The English Channel is an arm of the Atlantic Ocean between England and France.

⁰² Les Halles was the traditional central market of Paris.

⁰⁷ Known as « l'étoile de Legrand »

⁰⁸ « Gare de marchandise de la Chapelle »

¹⁵ Octroi is a local tax collected on various articles brought into a city.

²¹ Travail, Famille, Patrie

²³ The Glorious Thirty

²⁶ APUR (Atelier Parisien d'Urbanisme)

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⁰³ http://en.wikipedia.org/wiki/Basilica_of_St_Denis

¹¹ http://fr.wikipedia.org/wiki/Enceinte_de_Thiers

¹² http://en.wikipedia.org/wiki/Georges-Eug%C3%A8ne_Haussmann

¹⁴ http://fr.wikipedia.org/wiki/Napol%C3%A9on_III

¹⁹ http://fr.wikipedia.org/wiki/D%C3%A9mographie_de_Paris

²⁵ <http://www.paris.fr/viewmultimediacdocument?multimediacdocument-id=99270>

²⁷ http://www.apur.org/cdrom/CD_CUCS_2010/pdf/menu1_cucs/Quartiers/PMPC/Projet%20de%20territoire.pdf

²⁹ Source IAU Île-de-France - <http://www.iau-idf.fr/>

³⁰ http://en.wikipedia.org/wiki/Gare_du_Nord

³¹ European 12, Briefing note - http://www.european-europe.eu/media/default/0001/01/e12_topic_pdf.pdf

Legislations

⁰⁵ Décret du 29 floréal an X (19 mai 1802)

⁰⁶ Loi n°1842-06-11 du 11 juin 1842 relative à l'établissement des grandes lignes de chemins de fer

²² Act of October 11, 1940

Articles

⁰⁹ Lamartine, Le Moniteur, January 22, 1841

³² Petite Ceinture et biodiversité (Ecofaubourgs, 09 septembre 2008)

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⁰⁴ Gonzales, Sylvie. Des cheminées dans la plaine: Cent ans d'industrie à Saint-Denis, 1830-1930. Créaphis. 1998. 208 pages.

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¹³ Louis Girard, Napoléon III, Paris, Librairie Arthème Fayard, 1986, 269 pages

¹⁶ Documents relatifs à l'extension des limites de Paris, Préfecture de la Seine, Mourgues frères, Paris, 1859, 130 pages

¹⁷ Madeleine Fernandez-Leveau, La dernière enceinte de Paris, 1983, 304 pages

¹⁸ J. Flourens, Les fortifications de Paris, Société du Recueil J.B.Sirey et du journal du Palais Larose et Tenin, 1908, 148 pages

²⁰ Jackson, Julian (2001). France: The Dark Years, 1940-1944. Oxford University Press. p. 124. ISBN 0198207069.

²⁴ D. L. Hanley, A. P. Kerr, and N. H. Waites (1984). Contemporary France: Politics and Society Since 1945 (2 ed.). Routledge.

²⁸ Mairie de Paris - Étude sur l'insertion urbaine du boulevard périphérique, 2008

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