# From Grand Paris to Entrepôt Ney

P1-report, Paris Canal Saint Martin (AR3AR111)



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### PREFACE

### INDEX

This P1 report shows the progress that was made in the first quarter of the RMIT studio of Canal Saint-Martin, which focuses on the transformation of industrial sites in the north east of Paris. On the cover you can see the Entrepôt Ney the, final subject of this analysis. The report starts with an analysis of Paris, which was first done with the whole studio group and focuses on the scale from Paris as a metropolis, the actual Paris, and ends with an personal analysis of the Parisian apartment. This is followed by a small masterplan for Paris north-east before the excursion. The Entrepôt Ney is located in the Parisian neighbourhood of La Chapelle. Together with Heleen van der Poel and Alexandra Braas I have analyzed this neighbourhood and separately we developed masterplans for the area around our buildings. After this masterplan the report continues with an analysis of the Entrepôt

On the bottom of each page you can find a value assessment of the important values I derive from this page. There are four categories: a **high** value, a **positive** value, an **indifferent** value and a **negative** value.

I hope you enjoy reading my P1-report!

Lennart Snoek Delft, 12-05-14 Prefacep. 2(Grand) Parisp. 3La Chapellep. 6Masterplanp. 9Entrepôt Neyp. 12Bibliographyp. 21

## (GRAND) PARIS

### **GRAND PARIS**

The Roman settlement Lutetia was founded on a small island within the Seine that was accessed by a long route that runs from north to south. Paris grew steadily through the following centuries, and other settlements were founded around Paris. One of these settlements is La Chapelle During the 19th century the city expanded rapidly and absorbed different smaller settlements in its expanded city borders. In the 20th century the growth moved from Paris to its suburbs and 'Villes Nouvelles' were founded. In the present situation are different older settlements absorbed in Grand Paris. But the inhabitants of Grand Paris still relate to these settlements as separate identities.

Paris is not a metropole, but a small city surrounded by a numerous amount of villages that have a strong economic relation with Paris. The RER connects all these different villages with Paris, and brings the inhabitants of the banlieus to their work in Paris and back to their houses. The ring road around, the boulevard périphérique, creates a clear border between Paris and the outer villages which easily can be recognized on every map or satellite image. The French government wants to strengthen the metropole of Paris. It is not Paris and the banlieus, but Grand Paris. Different masterplans have been developed to strengthen this metropole position in a globalizing world.



Fig.1 PRESENT aerial (Grand) Paris (geoportail, 2014)

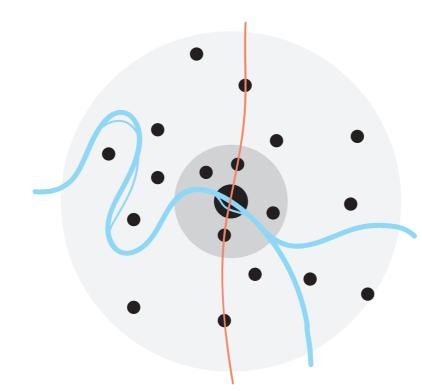
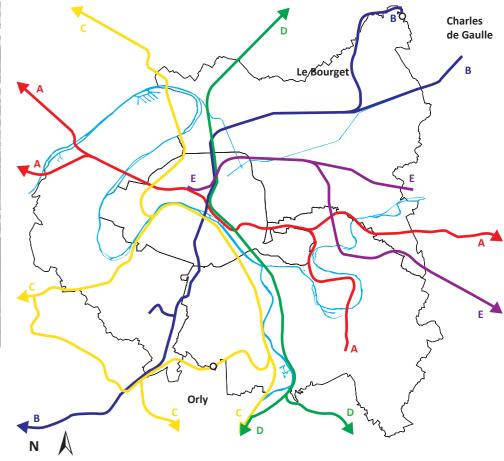


Fig.2 PAST Paris founded on island in the Seine on crossing with the north south route. Several villages arose around Paris.



suburbs (Eppink, Snoek, 2014)



Fig. 4 PRESENT one small city and + 100 villages and neighbourhoods

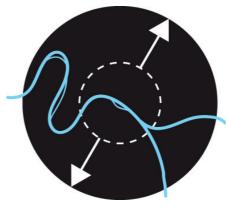


Fig. 6 FUTURE Grand Paris: one metropole with one identity

+100 identities Grand Paris consists of many smaller villages which have their own historic context / périphérique unpleasent noisy barrier that disturbs the existance of a Grand Paris

Fig. 3 PRESENT Réseau Express Régional (RER), connection between Paris and

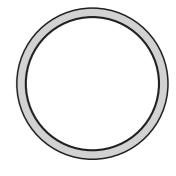


Fig. 5 PRESENT périphérique as clear boundary and barrier



Boulevard Périphérique (tf1.fr, 2014)

#### PARIS

If we zoom in on the scale of Paris, we can find in the situation of today layers which were created through history. The modern Paris is the Paris after Haussmann. Most present buildings in Paris are built during this period (1848-1870), or after when his work was continued. But the first boulevards which are associated to Haussmann, arose on the foundations of the various city walls that have defined the borders of Paris long before Haussmann. The boulevard périphérique defines the borders of the current Paris. It was placed on the position of the last defensive wall: the Thiers wall (1844). Other important historical layers are the interventions from the industrial revolution, for example the numerous railroads.

The big boulevards, and the wide collection of railroads clearly define the open spaces in this dense built city. A big collection of building blocks, shaped by the infrastructure, create a unique framework in which each block is unique. But their architecture is quite similar, not only because most buildings are dressed with the Lutetian Limestone (the natural stone of Paris) or share the same styles, because they form a unity by their strict alignments and building heights.

Looking at the economic perspective of Paris, we see that the citizens in the North-East part of the region are socially disadvantaged compared to the rest of the city and especially the South-West. In the North-East are the incomes lower, the unemployemt rates are higher and the amount of social welfare use is also higher. But compared to the rest of France or some banlieus, is the disadvantage not so big or perhaps even favoured. By building more expensive houses in the northeast region, will the income differences shrink. But this doesn't change the position of individuals.

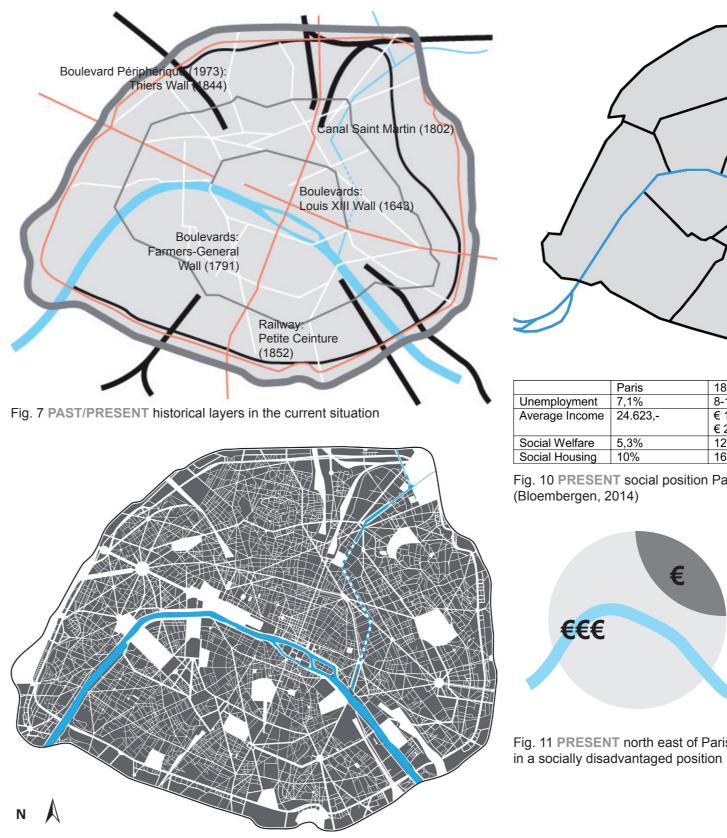


Fig. 8 **PRESENT** built space (Eppink, Snoek, 2014)

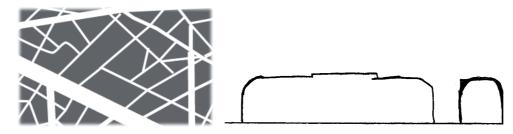
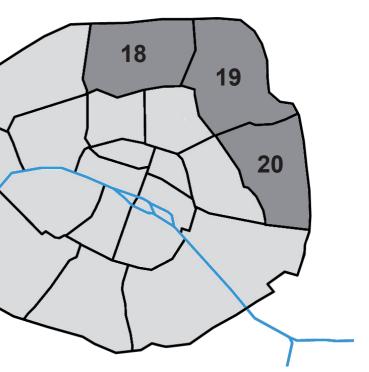


Fig. 9 PAST/PRESENT uniform architecture in unique framework

**Haussmann** Paris is Haussmann, and Haussmann can be found everywhere in Paris which gives it the monumentality and the grandeur we all love / **railroads** create open space in a dense city / **income difference** a better spread of incomes is needed, but the less advantaged also need a place to live



	18e	19e	20e
	8-10%	8-10%	8-10%
-	€ 15.000,	< € 15.000,-	< € 15.000,-
	€ 20.000,-		
	12-16%	12-16%	4-8%
	16,5%	32,9%	25,6%

Fig. 10 PRESENT social position Paris Nord Est compared to the rest of the city

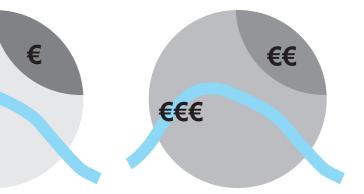


Fig. 11 **PRESENT** north east of Paris is in a socially disadvantaged position the social positions will shrink

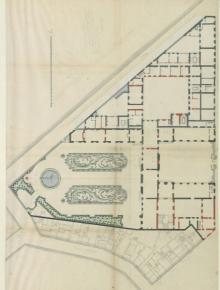
#### **PARISIAN APARTMENT**

Part of the urban context of Paris, is the dwelling most Parisians live, or have lived in. The current structure of the city is formed by blocks which were shaped by the streets and boulevards. They can be characterized as Haussmann blocks. But the typical Parisian 'modern' apartments were developed before Haussmann. Apartments became the dominant architectural elements during the 'Restoration' and 'July Monarchy'. Because of the need for compact housing for the rising population, the upcoming of the middle class and several cultural reasons: 'material figure of broad social conceptions of private and public life; the containment of social heterogeneity in a unifying framework; the imbrications of the domestic and the urban; and the transparency and fluidity of every component of urban space." (Marcus, 1999, p. 17)

The Parisian apartment is a assembling of two older types: the 'maison à allée' and the 'hôtel privée'. The 'maison à allée' was a house in a street, mostly above a shop. Tenants rented several rooms across the house which were not necessarily next to each other, there was almost no privacy and a lot of spaces were shared. In the 19th century apartment buildings the shared staircases and vestibules gave room for interaction between the private dwellings. The hôtel privée was a free standing villa separated by the street, surrounded by walls, for the aristocrats. Within the villas was a strict distinction between private and public rooms, often with separate wings for the male and female. The 19th century apartment used the classical room division on a smaller scale, and the luxury and grandeur of the older villas was translated in a rich collective facade, where the separate apartments couldn't be identified. The 19th century apartment also used a 'portier' or 'concierge' to collect the rent and to maintain the collective spaces.

Typical for the Parisian apartment is the 'cour'. In the big building blocks, these voids were needed to bring daylight into the apartment, and were used as acces points. The contrast between the busy street, and the serene (green) cour is big. In a traditional dwelling is the kitchen and the entrance orientated on the cour, and are the sleeping and living areas orientated on the street.

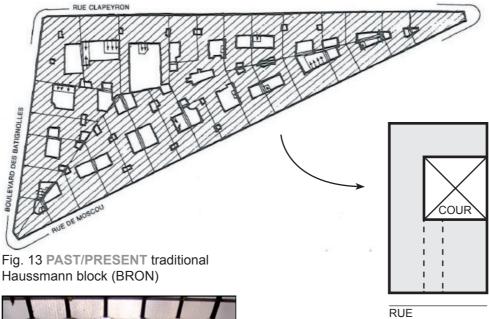
*small scale* the small scale of these blocks make the streets more pleasent by their increased activity, and creates a small personal and unique world to escape a big city / cour a proper cour is a green silent oasis, a nice contrast with the city but provides often not more than the necessary daylight / privacy with a concierge, a central cour, and the small scale: your personal life might be a collective good



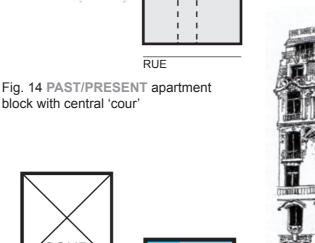




Hôtel privée: Hôtel de Toulouse, Paris; Maison à allée: Rue Saint-Séverin, Paris image derived from gallica.bnf.fr 04-04- image derived from gallica.bnf.fr 04-04-14 (Atget, 1900-1927)



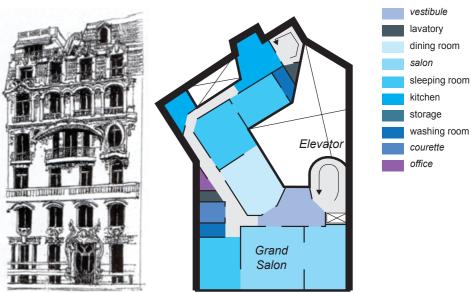
COUR



RUE

kitchen orientated at cour, living and

sleeping room orietnated at the street



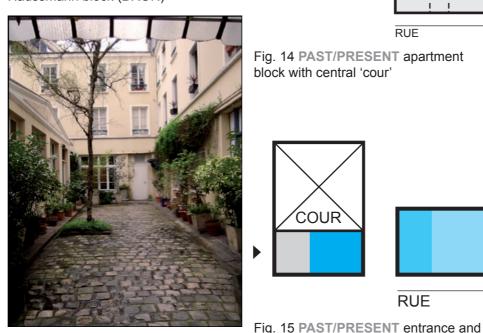
(Poisson, 1999)

BOULEVARD

1828 (Marcus, 1999)

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cour of aparment building in Montparnasse, lovely-apartment.com 4-4-14



Fig. 16 PAST apartment building on the Boulevard Saint-Denis, Paris, Dubois,

Fig. 17 PAST apartment building 29 Rue Rapp, Paris, Jules Lavirotte, 1901

## Theme I: Ordinary living in Paris

### LA CHAPELLE

### **HISTORY OF LA CHAPELLE**

The village of La Chapelle developed along the route de Flanders, the old Roman road, that formed a pilgrim route between Paris and the Basilique de Saint-Denis which was founded in 1136. Several shops were built along this route for the pelgrims, and a village arose. The oldest building that still can be found in La Chapelle was the 'Église Saint-Denys de la Chapelle' which was completed in 1203. The next centuries the village grew steadily, but exploded during the industrial revolution. This first started with the construction of the railways and the Gare du Nord and Gare de l'Est, which were opened in 1846, and gave the village its boundaries which are still the same today. From 1846 till 1888 the population multiplied with 7, and with the construction of the Thiers wall, La Chapelle was annexed by Paris. After WWII the industrialization of stopped and several industrial buildings are replaced by dwelling complex. This process is still ongoing today. The Thiers wall turned into the boulevard périphérique from 1958-1975. La Chapelle is nowadays a part of Paris.

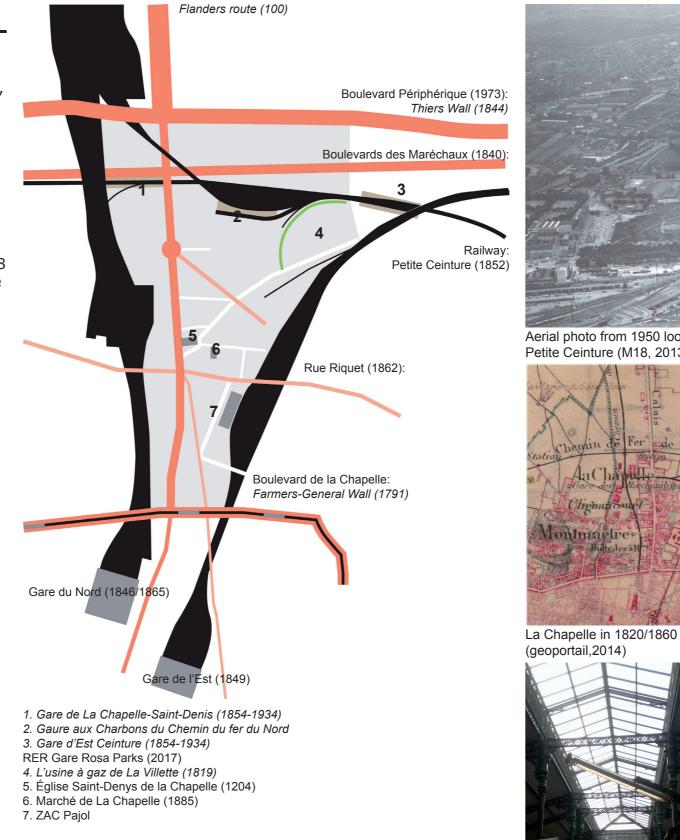
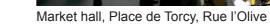


Fig. 22 PAST/PRESENT Historical layers in La Chapelle that are present today



*railroads* through history the railroads have been the visible boundaries and the catalyst for industrial development / Bds des Maréchaux symbolizes the annexation by Paris, as the final boundary



Aerial photo from 1950 looking east, along the Boulevards des Maréchaux and Petite Ceinture (M18, 2013)



de

ontmartre

La Chapelle, quartier in Paris, in 1906 (geoportail,2014)



#### PUBLIC/GREEN SPACE, BUILDING TYPOLOGY

La Chapelle is characterized by its variety in buildings and open spaces. Like Paris, there is a strict traditional separation between public and private, but in La Chapelle people don't always built from the street on. The images show a great variety in building heights and open spaces which are integrated within the building block, sometimes they are public, sometimes they are private. Another typology that can be founded is the cite Charles Hermite. The whole block is designed as one element, and built from the street. Within the building block there is a green collective space that can be accessed by the street.

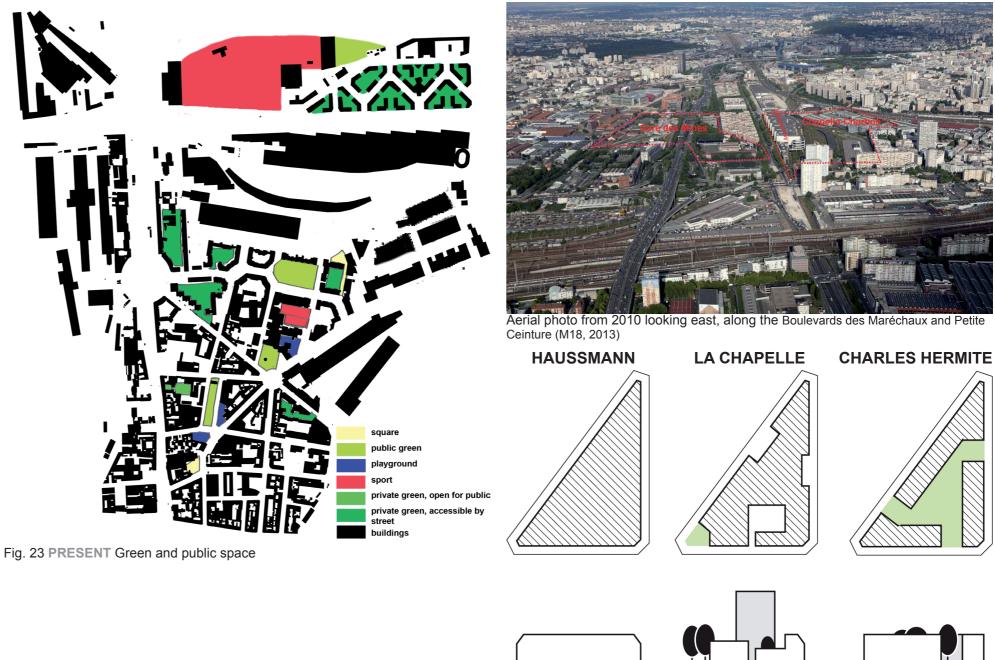
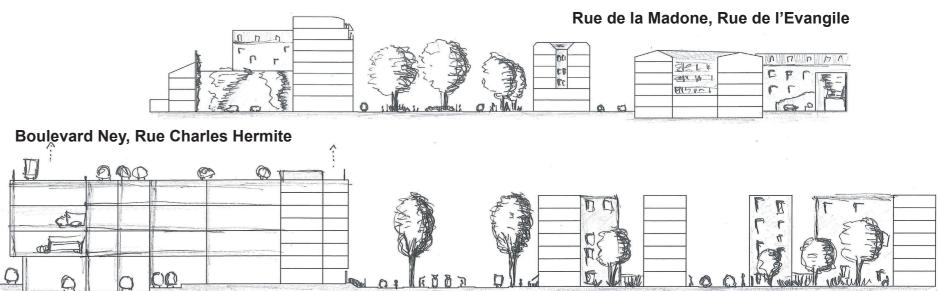


Fig. 24 **PRESENT** Parisian building blocks



*Cite Charles Hermite* the designed block with collective courtyard as exception within Paris but with the same density. Almost 100 years old, still popular today. Innovative design / Blocks of La Chapelle smaller and messier than the 'rest' of Paris, mix modern and traditional

Fig. 25 PRESENT profiles of La Chapelle

E) Work

#### FUNCTIONS, ACCESSIBILITY AND SURROUNDINGS NEY

La Chapelle is dictated by a combination of large industrial buildings, like the logistical centre CAP 18 and the entrepôt Ney, and dwelling blocks with small shops in the plinth. Between these building blocks are there several schools, and sport facilities. For the young population are there recently new community centres realised which focuses on sports, like the skate ground in the Cite Charles Hermite; GP18, and a sports centre in ZAC Pajol.

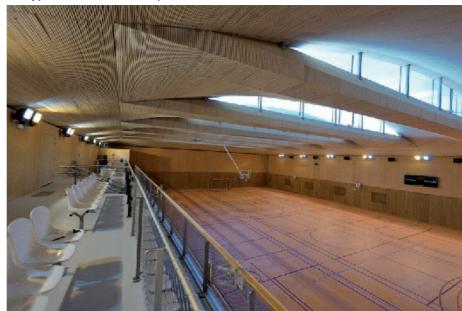
Adjacent to entrepôt Ney are there two neighbourhoods, Cite Rachmaninov and Cite Charles Hermite which are both very uniform in their architecture and materliazation. The entrepôt Ney separates these neighbourhoods. Between Cite Rachmaninov is an partially abandoned rail emplacement. Underneath entrepôt Ney lies the Petite Ceinture, which is partially used as a freight line. This will change in the future. A new connection between the airport Charles de Gaulle and Gare de l'Est requires the realization of a railway tunnel underneath CAP18, along entrepôt Nev to the existing tracks in the direction of Saint Denis. The existing railway viaduct will be abandoned, and the traffic line over the Petite Ceinture will be integrated with this tunnel. All tracks will be rearranged. The accessibility of La Chapelle will improve in the future. The metro line 12 will be extended to the north to Aubervilliers, and the new RER station Rosa Parks will create a direct fast connection to the centre of Paris. Also will there be a new tram line realised, number 8, that will go to Saint-Denis.



Fig. 26 PRESENT functions in La Chapelle (Braas, 2014)



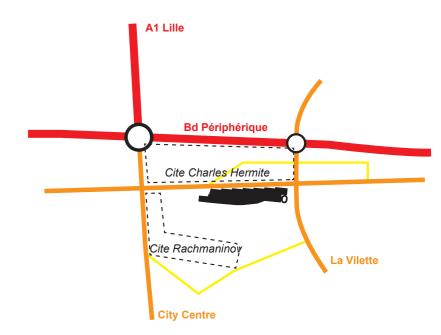
EGP 18 (Cite Charles Hermite); image retrieved from flickr.com/photos/ funkypiks/7881530470/in/photostream/ on 12-05-14

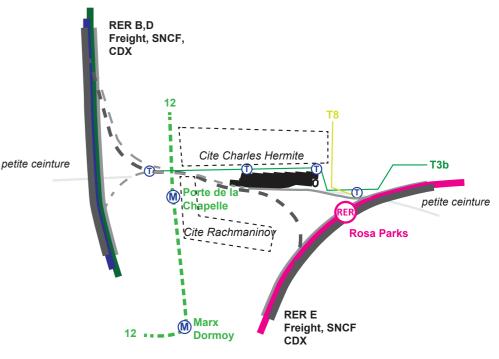


Centre Sportif ZAC Pajol; image retrieved from rabotdutilleulconstruction.com/realisations/equipements-publics/centre-sportif-zac-pajol on 12-05-14



Cite Rachmaninov





community centres good focus on sports and youth / day. Innovative design / accessibility Ney close to the highway, between a metro and RER station, several tram stations nearby / entrepot Ney as barrier there is no direct connection between Rachmaninov and Charles Hermite, while their both prrt of La Chapelle

**Cite Charles Hermite** 

Fig. 27 PRESENT Roads around Entrepot Ney (>2016)

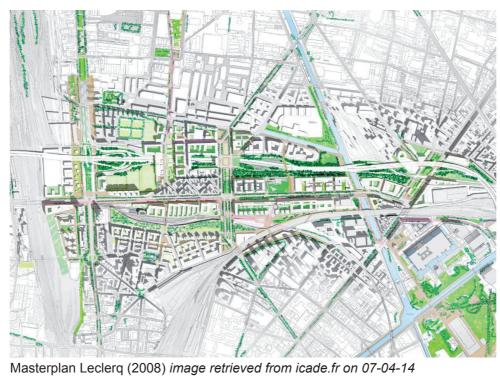
Fig. 28 FUTURE Public Transport around Entrepot Ney (>2016)

### MASTERPLAN

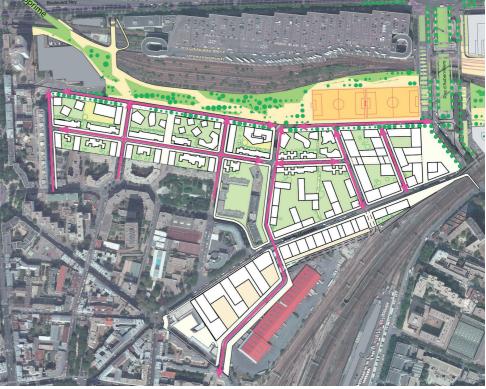
### **MASTERPLAN LECLERQ**

The neighbourhood of La Chapelle is currently under development. As part of a greater masterplan of François Leclerg which covers large part of the area around the périphérique, there is an underlying program that wants to invest in this subordinated region. The city wants to create more expensive houses to attract people with higher incomes, they want to invest in education and health by building new schools, new sports centres and building more green; and they want to build new offices and commercial center that create jobs and can attract more people and employees to boost the economy of this area.

Another ambition of this masterplan is to improve the connection over the périphérique by adding new (green) routes and creating more qualititave (green) spaces, like the linear forest. The masterplan for Chapelle-Charbon, also created by the office of François Leclerg, is one of the subplans. In this plan a large park is created on the existing railway lots, and several railway elements, like the old station, are therefore removed. New dwellings are added to the area by extending the current structure of La Chapelle and continuing this by transforming the CAP18 area, this is currently a distribution centre. The new lots are filled with atypical, non-Parisian dwellings, like small rowhouses and huge urban villas.







Masterplan Leclerg for Chapelle-Charbon (2012)

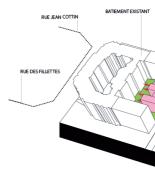


Fig. 29 new green connections in east-west direction, new slow traffic connections in north-south direction





Inhabitants with higher income



PARIS Fig. 30 breaking barrier of Périphérique Fig. 31 investments in area around Périphérique

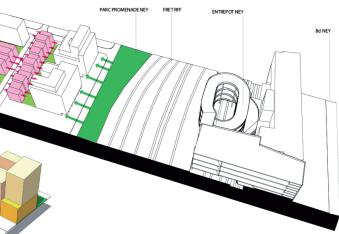
#### 1. Current Situation, '80s blocks and railway elements



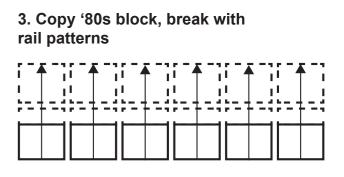
2. Extend '80s block, remove warehouse and vacant station







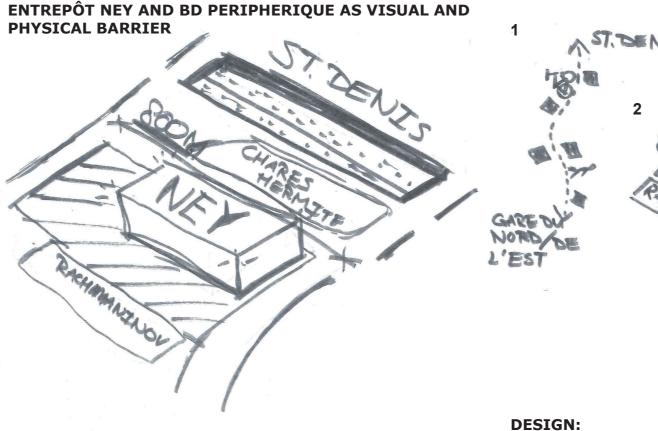
Housing typologies in Masterplan Leclerq (2012)



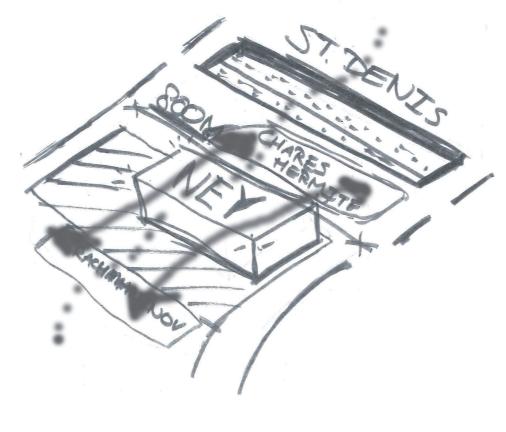
#### STREET LEVEL

After the urban analysis of this region, and the two excursions of Paris, I perceive the entrepôt Ney as a physical and visual boundary. From the Cite Charles Hermite and Cite Rachmaninov this building is always dominant a dominant presence in the background. But if you want to walk from the cite Charles Hermite to the Cite Rachmaninov the distance is more than 1 km, while the actual distance is less than 200 m. While the cite Rachmaninov is an integrated part of La Chapelle, Cite Charles Hermite is an enclave between the Périphérique and the Bd Ney. The main principle of the masterplan will be to connect these neighbourhoods by braking the barrier of the Entrepôt Ney and the Bd Périphérique.

This is done by creating a new slow traffic route that connects several schools and sport facilities, to support a cross-over use and stimulate the use of bicycles. There is not much public green in the neighbourhood, like the masterplan of leclerq proposes a community park is needed between these neighbourhoods. Unlike the plan of Leclerq, do I want to maintain the railway elements and keep this as a theme for the park. The railway has always been a historical boundary of La Chapelle, and it was the catalyst for the industrial buildings that can be found in the surroundings. The new building blocks will be 'family' with the cite Charles Hermite, unlike the plan of Leclerq, to create a new unity between these neighbourhoods.



MAIN PRINCIPLE: BREAK BARRIER, CONNECT CITE CHARLES HERMITE WITH CITE RACHMANINOV



#### **TOOLS:**

VIS

 Slow traffic route that connects schools, sport and community centra
New neighbourhood park
Make new buildings in Rachmaninov family with Charles Hermite

1. Maintain rail elements: theme for park

2. New roads along old railroute. Axe between RER and Metro station.

**3.** Continue lot structure of Rachmaninov

#### MASTERPLAN

This masterplan is roughly based on the plans for Chapelle-Charbon by the office of François Leclerq. Besides the principles that are explained and illustrated on the previous page, is there more to tell. Along the old railway station is an axis that connects the metro with the RER station. This old train station will be reused as a pavilion for the park and the street, it will be its boundary and transition. Based on the program of Leclerq are most new buildings dwellings, but there are also some offices. The slow traffic route is continued over the Périphérique, where a sport hall and two office complexes form a new connection between Saint Denis and Paris. This is based on the masterplan of the office of Christian Devillers.

For the dwelling blocks in Chapelle-Charbon, is the allotment of the Cite Rachmaninov continued, like the plan of Leclerq, but filled with blocks that refer to the Cite Charles Hermite. The CAP 18 terrain is in its shape and relief maintained and the building blocks are in line with the previous buildings. The different directions of CAP18 and Rachmaninov meet in the middle.

The reorganization of the rails due to the railway tunnel for the Charles De Gaulle express creates much room for more greenery. The railway viaduct over the Bd Ney won't be used anymore so it can be reused as a high line.



Fig. 34 Masterplan (1:5000)



Fig. 35 Profile of Jardin Ney (1:1000)

## **ENTREPÔT NEY**

After WWII there was a trend of de industrialization in the north east of Paris. Old warehouses and factories were demolished and replaced by new modernistic dwelling complexes, but along the railroads the industry was still developing. In the 60s the multinational Calberson started the development of two huge logistic buildings between the Boulevards des Maréchaux and the railroads. These buildings replaced numerous buildings that belonged to the Gaz de la Vilette. The first building, the entrepôt Macdonald, was completed in 1970. Six years later in 1976, the entrepôt Ney was completed. Both buildings were designed by Marcel Forest. Within the city of Paris, these buildings have a high density of their logistical activities. These activities are stacked which makes their typology special.

If we compare the Macdonald with Ney, it is clear that the Macdonald has an higher architectural value. Historian Henri Bresler (2014) valued the mushroom columns and square caissons of the Macdonald as special, and compared the spaces which are formed by their openness and strong repetition with the Mezquita in Cordoba. The entrepôt Ney has a more 'simple' construction with less attention (or money) for aesthetics. I would indicate the architectural style as 'functional'. The building is designed for one function, not more and not less, in the most economical and efficient way that maximizes use on this complex footprint that overlaps several rail lines and activities of the SNCF. Compared to size is the entrepôt Ney less long, but higher than the Macdonald.

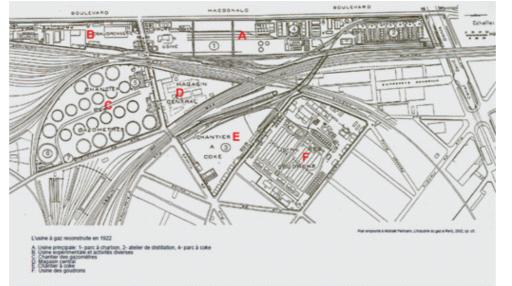
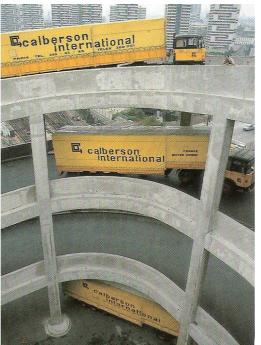


Fig. 36 PAST L'Usine a Gaz de la Vilette in 1922 (Bresler, 2014)



tite Ceinture and Entrepôt Ney, 1984 image retrieved from image retrieved from wikipedia.org on 07-05-14



Ramps of Entrepôt Ney image retrieved from image retrieved from icade.fr on 07-05-14



typology and location stacked logistics building, a dense solution within the city of Paris / relation with entrepôt Macdonald same architect, same context



Aerial view on the entrepôts Macdonald and Ney (Bresler, 2014)



#### STREET LEVEL

The the entrepôt Ney is enclosed by railroads in the south and the west, and by the Bd Ney in the north and the Rue d'Aubervilliers in the east. The Boulevard Ney is recently improved with the construction of the new tramline. This wide boulevard of 45 meter is a pleasent green space with the grass loan of the tramline and the rows of trees. Where the enclave of cite Charles Hermite is orientated on this boulevard, is the entrepôt Ney orientated on the Petite Ceinture. The entrepôt Ney is a bit averted of the Bd Ney. Looking along the Bd Ney are the entrepôt Ney and the cite Charles Hermite a harmony in their uniformity, but the entrepôt overshadows the enclave with its height. It is interesting to see that the enclave and the entrepôt have roughly the same footprint.

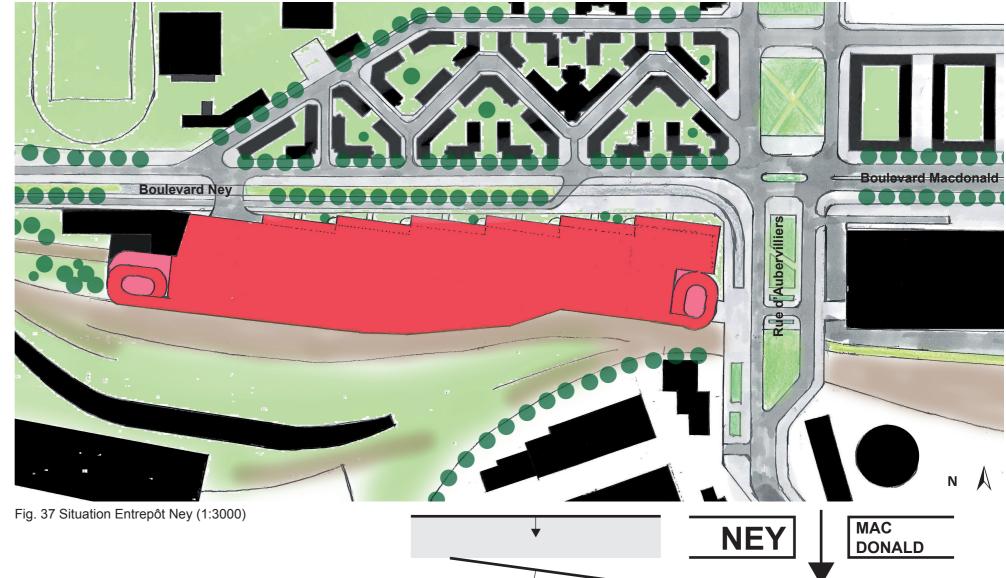


Fig. 38 Harmony in uniformity, dysharmony in scale



**Cite Charles Hermite** 23 10 15

100

Fig. 39 Proportions

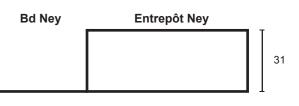


bd Ney pleasent green boulevard / relation with entrepôt Macdonald mark the entrance to Paris along the Rue d'Aubervilliers / harmony in uniformity / dysharmony in scale the building overshadows Bd Ney / orientation on Petite Ceinture the building averts from the Cite Charles Hermite

Boulevard Ney

Rue d'Aubervilliers

Fig. ?? Entrepots as gate to Paris



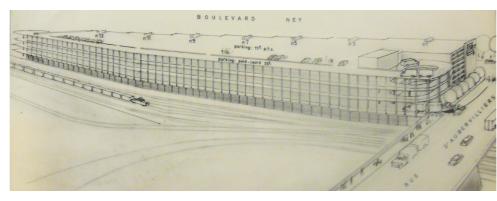
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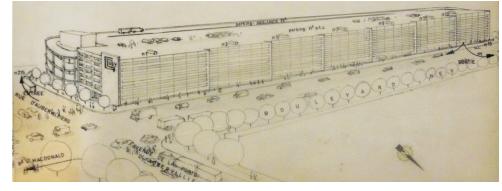
Boulevard Macdonald

#### **BUILDING MASS**

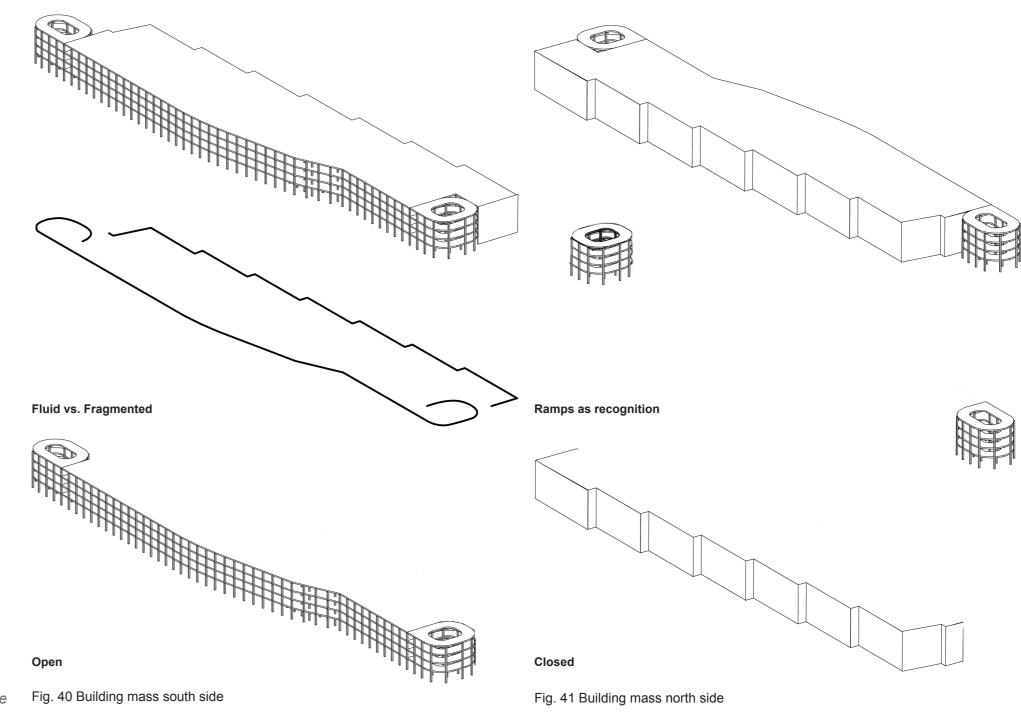
In the huge mass of the entrepôt Ney are the ramps very prominent and recognizable. These can be identified as separate elements of the building, but they form a unity with the open grid structure on the south side that connects both ramps in a fluid line. What I've always valued of this building is its open structure on the south side through which the logistical activities are visible. Where the south side is open and fluid, is the north side closed and fragmentated. This is the result of the orientation on the Petite Ceinture which resulted in a zigzag shape on the north side, another strong characteristic of this building.



Entrepôt Ney, Perspective of south facade (Forest, 1973) archives departementales du Nord, 2014



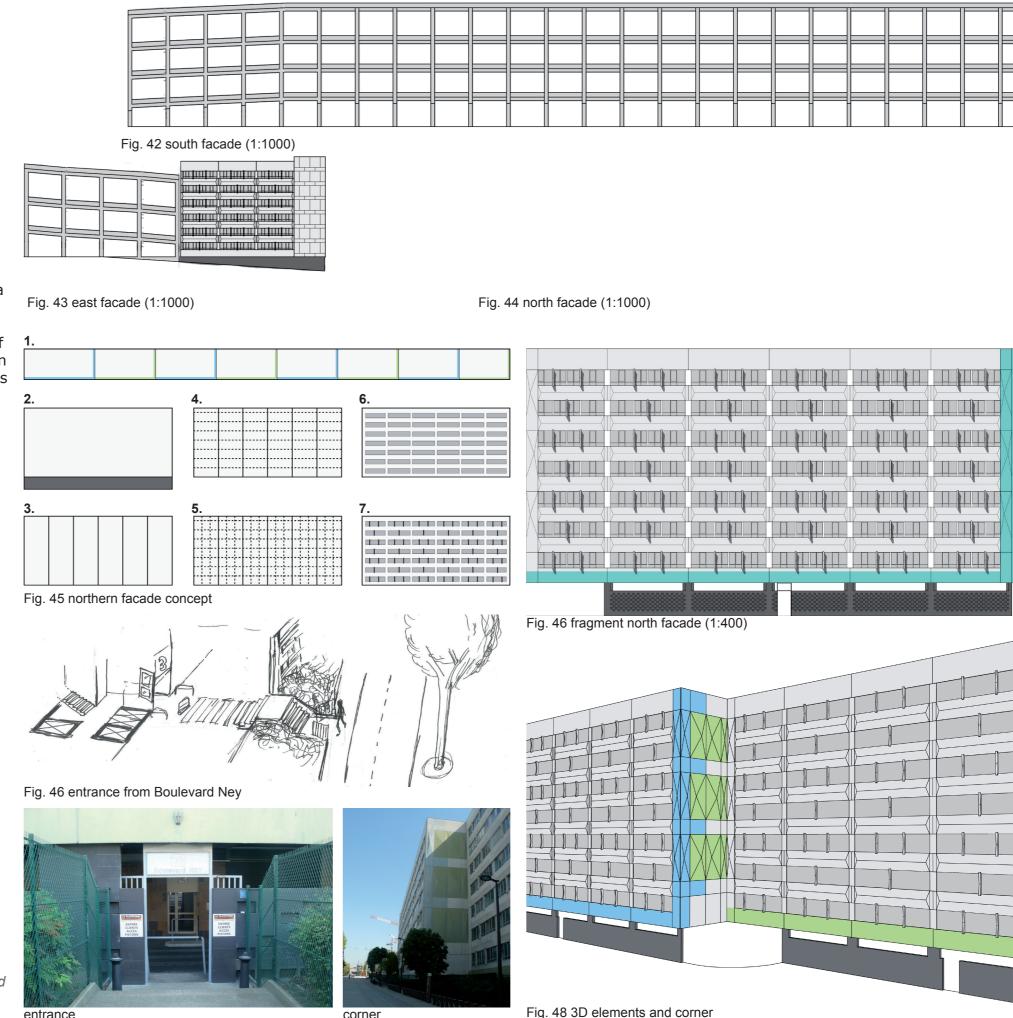
Entrepôt Ney, Perspective of north facade (Forest, 1973) archives departementales du Nord, 2014



open south side visibility of inside activities / ramps unique recognizable characteristics of the building / fluid south side forms a connection between the ramps and forms a unity / zigzag north side strong characteristic, but it looks 'unnatural'

#### FACADE

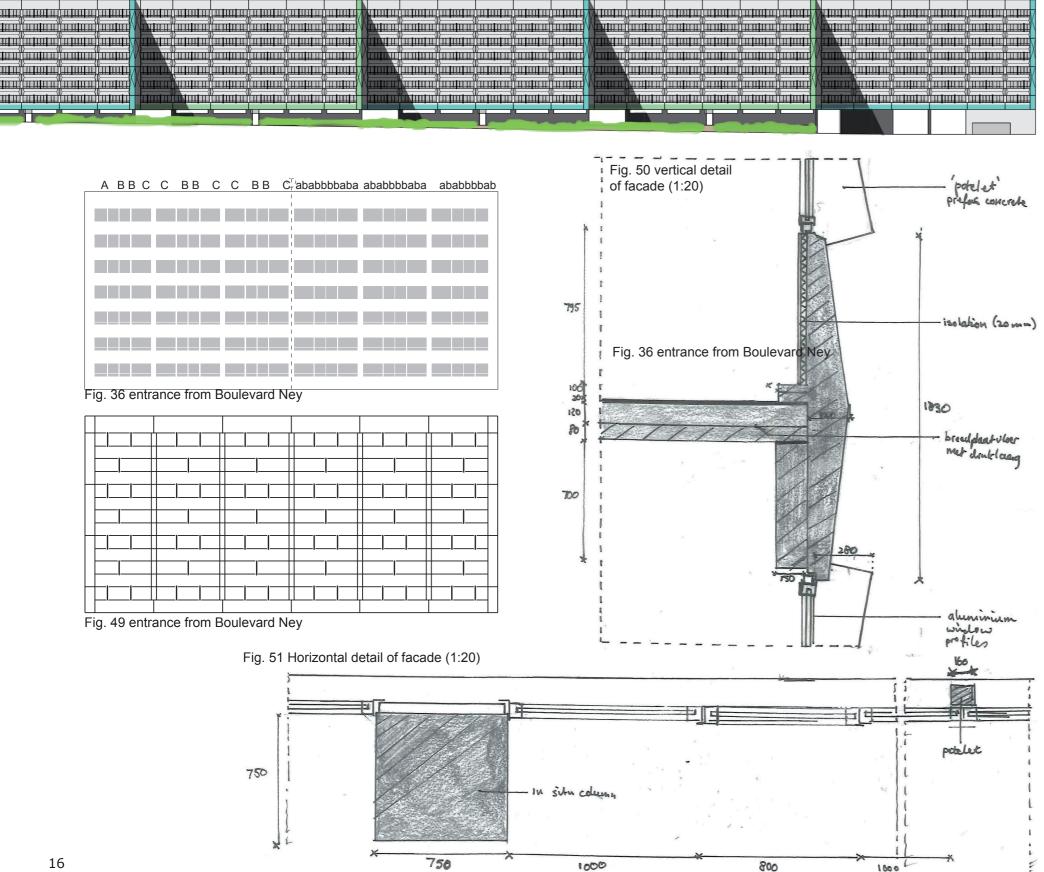
The southern facade is formed by the big regular concrete construction. An interval of 10 m creates on this scale by its repetition a strong rational image, which I aesthetically value. Where the south facade consists of enormous columns and beams, the northern facade is covered and very refined. The zigzag shape divides the facade in seven elements, which are all highlighted with a green-blue colour interval. The facade that covers seven office floors, is built up out of prefabricated concrete elements that create a relief in the facade. The facade is symmetrical, but there is a difference between the corner elements and the middle elements. The aluminium window frames are carefully hidden behind the concrete elements, but the facade misses any kind of insulation which could make the room behind it more comfortable. The analysis shows that there are only two window sizes, placed in a horizontal strip. There is a balance created between the horizontal and vertical lines by the prefab concrete elements that are placed over the windows. This facade is placed on top of a dark, continuous plinth. The plinth of entrepôt Ney consists of a closed black wall with some vegetation in front of it and a fence. Compared to the open plinth of Charles Hermite filled with cafes and shops, the plinth of entrepôt Ney is very dark and unpleasant. Pedestrians can enter the building from the boulevard Ney. Every two storage rooms on a floor is connected to a core that connects the storages and the offices with the street. The pedestrian that wants to enter the building has to cross a gate in a fence that separates a small stroke of green from the street. After climbing the stairs, the pedestrian has to cross another road to enter the building.



south facade repetition of concrete beams and columns creates a strong image / refined north facade slim details, balancing of vertical and horizontal articulation / **3D elements north facade** nice attempt to break with the scale of the building, but it is hardly visible / plinth unpleasent and uninviting

entrance

|--|

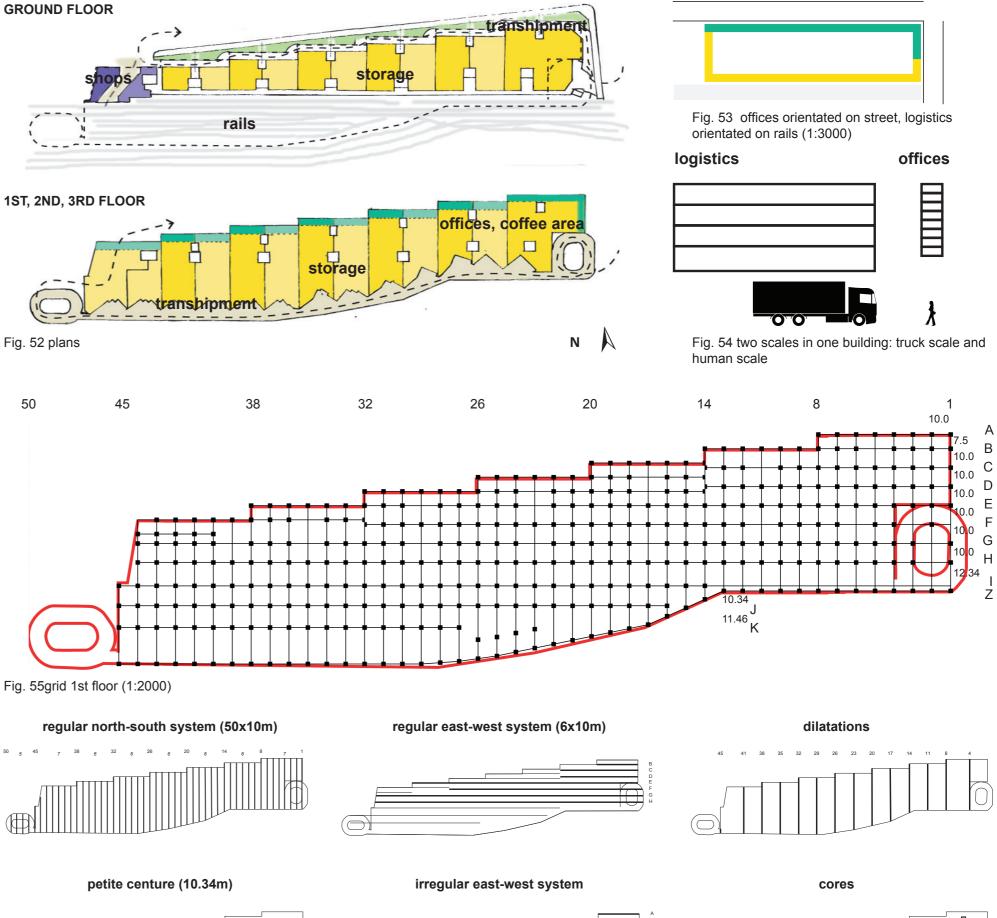


#### **FUNCTION AND GRID**

The building is divided in several storages which have a small office and lunch room at the north side, and is connected to the stacked road on the south side were the transhipment takes place. Trucks drive in one direction over the road, and can easily drive backwards to park their trucks to unload or load their freight. For trucks is the entrance on the east side on the Rue de Aubervilliers, and the exit on the north side at the Boulevard Ney.

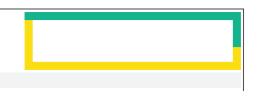
To summarize the previous findings: there is a clear scale difference and orientation in this building. There is a human scale 1ST, 2ND, 3RD FLOOR with the closed, but refined, zigzag facade on the north side. Here you can find the offices, and the open brute concrete truck scale on the south side where you can find the logistic activities.

The construction of this huge building is orientated on the petite ceinture which lies underneath the building. The architect assigned a clear grid structure of 10x10m. In the north south direction a clear 10 meters distance between the columns is realised, but in the east west direction there are a lot of exceptions that were needed to fit the building between the existing underlying rail structure. Every 30 meters there is a dilatation placed in the north south direction, and every 60 meters there are two sets of cores for the vertical transport in the building besides the curved slopes on the ends.



two scales an important characteristic of this building is its two scales: the small office side on the north, and the enormous truck size on the south / petite ceinture the construction of this building is based on the petite ceinture, it is its origin / *truck routing* the ramps and the roads inside the building are an essential part of the stacked logstics typology / **10x10** grid this grid is an regulating aspect in the building, but it is abondend underneath the petite ceinture

Fig. 56 grid schemes





#### **BUILDING SEGMENT**

Each segment consists of two storages which have their own office block with toilet and transhipment space. They share two cores which both have installation facilities. One core connects the offices and the storage facilities with the street and the parking deck on the roof, the other core connects the platform of the trains with the storage facilities. Both cores can be used to escape the building during a fire.

The in situ columns decrease in size in every floor, this indicates that the construction is economical and that no materials are wasted. There is a height difference for unloading and loading the trucks, between the stacked road and the storage facility. This is realized by building the overlapping floor upon the floor of the road. Both floors have different load tolerances. The storage spaces can carry a maximum of 1500 kg/m2, the transhipment facilities can carry a maximum of 1200 kg/m2.

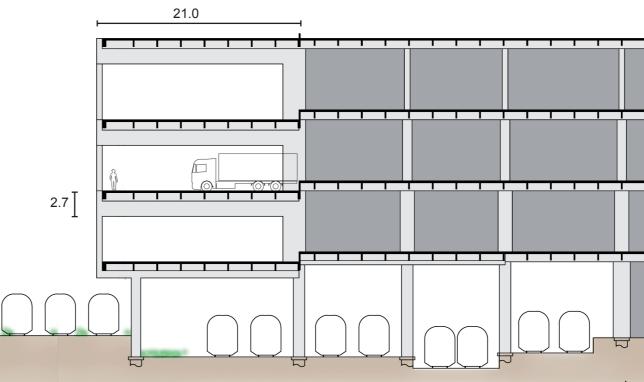
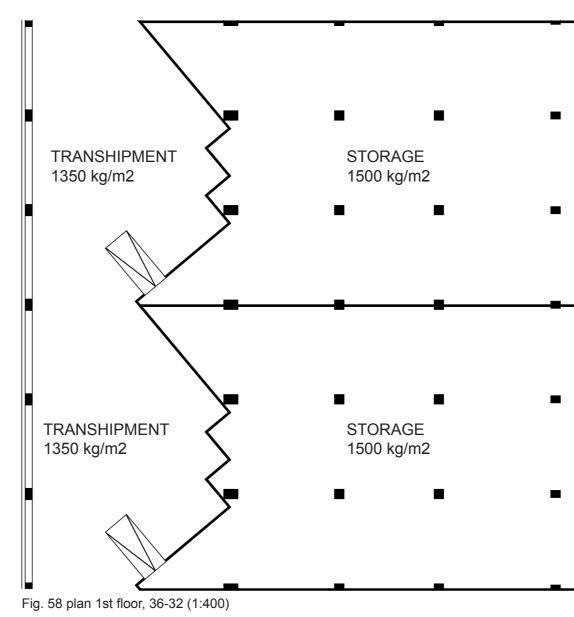
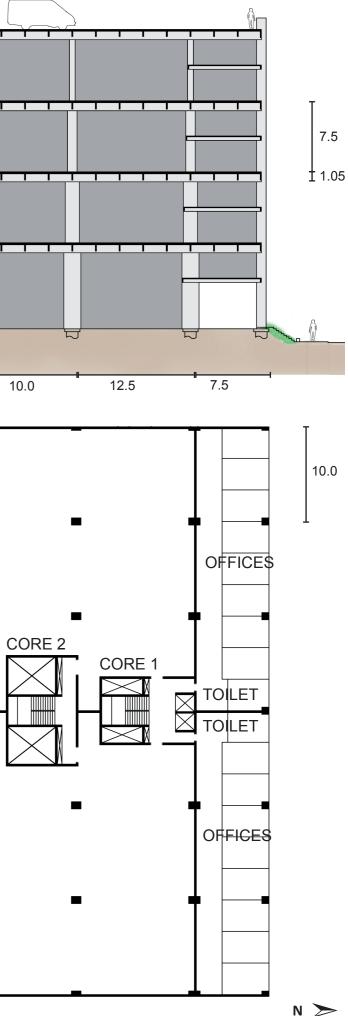


Fig. 57 section 37 (1:400)

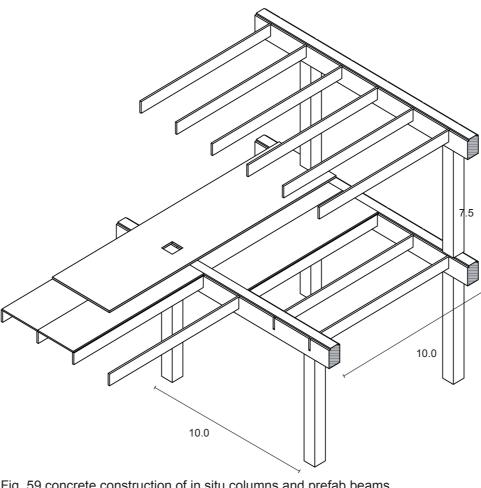


2.7 m high beams these enormous beams are even a huge exception in this building / height difference in floors this difference forms the spaces to load and unload the trucks, but it breaks with the height of the logistics room



#### CONSTRUCTION

It has always been clear that the construction is made out of concrete. In general the construction consists of prefabricated beams, and a combination of prefabricated and reinforced in situ concrete columns, but there is a difference in the type of floor that I found in the drawings in the archive in Lille, and what was actually realized. In the drawings the floors consist of prefabricated caissons with an in situ floor. But the photographs show something different. In these pictures you can see the larger prefabricated beams continuously overlapping the columns and thin right-angled prefab beams that support a prefab floor element. The joints between these prefabricated elements are later filled with cement. This looks much different than the tapered caissons I found in the drawings. The use of prefab beams and in situ columns is similar with what I've found in the drawings, but apparently a different floor type is used. Now I assume that the floor consists of a precast concrete panel with an in situ concrete floor on top. It's not clear in the pictures how the smaller right-angled beams are connected to the main beam, but due to the big size of 750 x 1200 mm I assume, that these prefabricated beams contain empty spaces that can carry these smaller beam.





0.15

Fig. 60 concrete caissons carried by prefab concrete beam

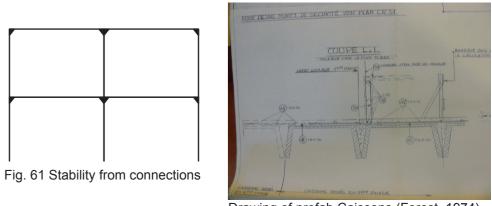


construction elements on the ground floor.

1.2

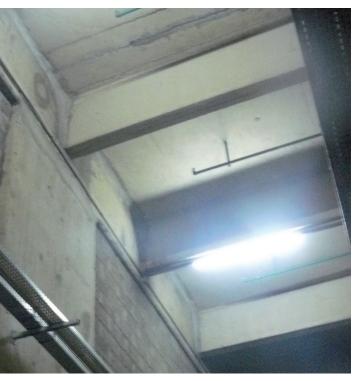
0.75

0.75 0.75



prefab elements good technical quality, and a sleek look / cement the cement that is used to close the joints between concrete elements is clearly visible and ruins the cut shape of the concrete elements

19



Visible cement to close the joints between the separate prefab and in situ

Drawing of prefab Caissons (Forest, 1974) archives departementales du Nord, 2014

#### **INTERIOR SPACES**

How do you experience these huge spaces in this building? What are their qualities? The strength of this building is its repetition. In the storage rooms, without the storage facilities, a huge space is left which is dominated by the thinner prefab beams that create a tension between the floor and the ceiling and articulate the depth of the building. This space becomes overwhelming when the walls are removed and an outside view is provided, although there is not much daylight so deep in the building which decreases the quality of the space.

But on the other hand I was surprised about the amount of daylight that reached the rail platform which is hidden in the building on the ground floor. But even though, this space was not very pleasant because of the dark ceiling.



Rail platform on ground floor

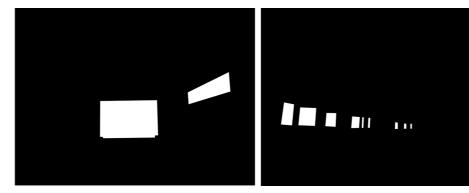


Fig. 62 Daylight openings in views



Interior route on ground floor







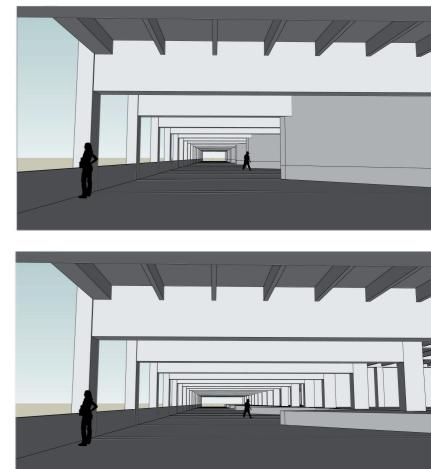


Fig. 64 Interior gallery on first floor, with and without walls

repetition and openness the repetition and the openness of the construction creates interesting and pleasent **interior spaces** / walls these walls are necessary to create separate segments in the buildings with different fire zones, but they seperate the space which gets its spacial quality from its repetition.



Fig. 63 Storage with and without walls

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