

A tale of urban resilience: the case of *Cloche d'Or*
Jo Schmiz

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TABLE OF CONTENTS

1	INTRODUCTION	11
1.1	Cloche d'Or 2031	12
1.2	Business parks: characteristics and urban tendencies	20
1.3	Fiction as method to envision impossible scenarios	
1.4	The state of a nation	
2	THE EVOLUTION OF LUXEMBOURG CITY'S ECONOMY	23
2.1	Historical context	25
2.1.1	1867 - A fortress needs industry	29
2.1.2	1905 - New limits and expanding industry	33
2.1.3	1954 - The steel industry	37
2.1.4	1979 - The highway exit	41
2.1.5	2000 - The growth of the financial sector	45
2.1.6	2024 - An industry without produce	49
2.2	Tomorrow? - A one sided vision	50
3	CLOCHE D'OR - ORIGIN AND GROWTH	53
3.1	It all started with a hotel	54
3.1.1	At the crossroads of <i>Route d'Esch</i> and <i>Route de Bettembourg</i> (1908)	57
3.1.2	The <i>Hôtel de la Cloche d'Or</i> and its open swimming pool (1954)	59
3.1.3	Relocation of an industry (1989)	61
3.1.4	An economy on the rise (2000)	63
3.1.5	Cloche d'Or: a new neighbourhood(2013)	65
3.1.6	Money rules it all (2022)	67
3.2	Cloche d'Or: the new neighbourhood?	68

4	CLOCHE D'OR: CHARACTERISTICS OF A ZONE	71
4.1	Contextualising Cloche d'Or and its surroundings	75
4.2	Human context	77
4.2.1	Built context	78
4.2.2	Fixed mobility infrastructure	80
4.3	Natural context	82
4.3.1	Blue infrastructure	84
4.3.2	Green infrastructure	86
4.4	Urban fabric dictates urban living	88
5	THE CONQUEST OF URBAN SPACE	91
5.1	The impact of the fictive scenario: Repurposing of a business park	92
5.2	Project intentions: main principles	94
5.3	Retaking the public space	101
5.3.1	Road infrastructure	
5.3.2	An example of a landmark project: The public swimming pool.	110
5.4	Conclusion	113
6	FINAL WORD ON FICTION AS A METHOD	115
7	BIBLIOGRAPHY	117
7.1	Iconography	
7.2	Bibliography	



1 Introduction

1.1 Cloche d'Or 2031

Rosie wanders through the business park in Cloche d'Or. Much has changed since she has come back from university. She walks past one of the buildings of the European Commission. There are only a few businesses left. Most of them have moved on or have closed their subsidiaries in Luxembourg. Not that Rosie advocates for the departure of the financial sector, people lost their jobs. Her uncle also lost his job, or he had to change office. She can't remember, but he is alright now. Nevertheless, she never liked this area anyways. The atmosphere was too serious, shops too expensive...nothing that would attract someone to spend some time around these built boxes.

But life seems to come back now to the Cloche d'Or. It is sporadic but developing quickly. This is why Rosie likes to go on these evening strolls, she never knows what to expect next. The first time she heard that people were interested in taking over the business park, was when a group of friends organised a series of parties in an old hangar. The landowners even approved of those events. What better place to choose with no neighbours around? Luxembourg's citizens' interest rose shortly after, and the government saw the need to support them.

Rosie sees someone's laundry moving in the wind between the outside structure of an office building. She guesses that the first office retrofits have been finished last week. People are already moving in. She jumps to side abruptly, because some child decided to direct his bike towards her. The other kids started laughing. She tells them to be more careful and walks on. She reassures herself that this really is the perfect playground for kids, as she remembers a debate she had with her brother. What can be better than large empty streets and almost no cars around? Rosie checks if she has packed a towel as she arrives at the new open swimming pool, otherwise she must borrow one again.

1.2 Business parks: characteristics and urban tendencies

The term business park is effectively defined as “a space constituted of one or several urban planning zones exclusively dedicated to economic activity” in a territorial report by the Rhône DDT1 (2013). (Département Départementale des Territoires)

The vast surfaces occupied by Business parks are characterised by their specific architecture and oversized road infrastructure. These zones are provoking urban movement, for goods and labor transportation, but also for leisure and purchases. Business parks are also a major contributor to suburbanization through the urban sprawl phenomenon. (Lejoux 2018)

A business park generally speaking is situated far away from a city centre, because of the availability of cheap land, which also is accessible by good road infrastructure. Another factor is that most of these businesses are not welcome in the heart of a city. Especially wholesale and logistics are seen as nuisance for a healthy city.

Furthermore, despite the oversized road infrastructure, these places aren't very accessible due to frequent congestions and a lack of connection to public transport. The term inaccessibility is also reflected by the closed-off properties with fences, extensive CCTV systems and security firms controlling the premises. These vast areas are very difficult to have a sense of orientation because of their size in the first place, but also because there rarely are landmarks in this uniform urban tissue. Therefore, it is not surprising that people lose a sense of direction and orientation, without mentioning insufficient signalling. (Lejoux and Charieau 2021, 2-3)

Lejoux and Charieau (2021) argue that business parks are downplayed as an urban object by urban planners and designers. It is unquestionable, that these areas require special attention in urban design and planning as well as in architecture. Publications such as *Learning from Las Vegas* (1972) by Venturi, Scott Brow, and Izenour and *Cities without cities: an interpretation of the Zwischenstadt* (2000) by Sieverts have already tried to deal with these in-between areas of urban developments. State promoted research projects like Luxembourg in transition 2050 encourage research on these business areas and how to integrate them into a more resilient future economy.

Business parks remain unattractive for immediate urban restructuring, because of their unflattering architecture, but also because the economic aspect oftentimes suppresses urban development attempts. Additionally, the territory of a business park is complexified by the various stakeholders, public and private, which makes the understanding of power relations even less clear. (Lejoux and Charieau 2021, 13)



ZONE D'ACTIVITÉ
CLOCHE D'OR

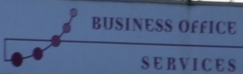
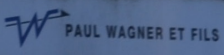
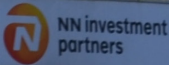
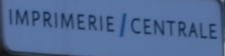
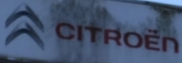


Fig: Zone d'activité économique Cloche d'Or, 2024





Fig: Street infrastructure in the Howald business park (2024). Office and commercial buildings in the background.





Fig: Signalling of artisanal business in Howald. (2024). Office building in the background.





Fig: Parking of a supermarket in Howald. (2024). Bank building in the background.

1.3 Fiction as method to envision impossible scenarios

When imagining worst case scenarios, a parallel can be taken in the exploration of the impact of global warming on our planet and possible climate catastrophes. A study by Joe P. L. Davidson and Luke Kemp suggests that there are three modes of envisioning climate catastrophe: foresight, agitation and fiction. Foresight is a mode which is primarily used by the scientific world and seeks precise probabilities and damage estimates. It creates plausible images of future events using quantitative and probabilistic models. Agitation is often used politically to set off social change by evoking possible catastrophic climate futures. All three models have their strengths and weaknesses, but they can be used in a complementary way to investigate probable endgames. (Davidson and Kemp 2024)

Both models, foresight and fiction, speculate on a scenario in the future. Foresight is based on rigorous mathematical models. Incorporating the methods used in climate fiction could potentially disrupt the simplistic models prevalent in foresight literature and promote the adoption of more inventive approaches (Keen 2021).

1.4 State of a nation

First, the framework for this fictive scenario must be established. In this case the studied area is reflected upon the same way as the question of the impact of climate change on our cities and habitat. The suburban areas of business parks and industrial zones have reached a complexity, economically, socially and environmentally, that empirical analysis and rational predictive models aren't sufficient to envision every possible outcome. Fictive exploration opens the door of speculation, which is limited by the other models. (Davidson and Kemp 2024)

LUXEMBOURG, A FISCAL PARADISE

The finance sector is Luxembourg's leading economy and represents 25% of the gross domestic product (GDP). (Chambre de Commerce Luxembourg 2024) Luxembourg is among the five leading financial sectors in the European Union. (Wardle and Minelli 2023) In addition, Luxembourg has one of the most open markets in the world. Foreign Direct Investment¹ is the third highest only behind the United States and the Netherlands. This leads to another peculiarity which is that 73.5% of employees don't have a Luxembourgish nationality and are either foreign residents (27.3%) or

1 - Foreign Direct Investment: Foreign direct investment (FDI) is a category of cross-border investment in which an investor resident in one economy establishes a lasting interest in and a significant degree of influence over an enterprise resident in another economy (OECD, 2024)

cross-border workers (46.2%). (Chambre de Commerce Luxembourg 2024) The high percentage of cross-border workers results in Luxembourg's population growing roughly 34% from Monday to Friday between 7 am and 7 pm. (STATEC 2023) These daily migrations in addition to traffic inside the borders take a heavy toll on Luxembourg's mobility infrastructure. The main mean of transport in commuting traffic remains the car with 71% compared to only 21% public transport commute. Commutes by soft mobility play a minor role with 8% daily. (Ville de Luxembourg and Direction Mobilité 2024)

Situation wise, many financial firms' offices are situated in business parks. The Big Four² accounting firms notably all have their offices in suburban areas, such as in Cloche d'Or.

AN ETERNAL ECONOMY?

A scenario in which Luxembourg's finance sector loses its weight as the main income of the country is easily imaginable.

The most obvious one is a global economic crash, which hurts finance centres worldwide. Such a scenario can also occur on a smaller scale in Europe for example. Moreover, subtler changes like the country of Luxembourg losing its fiscal advantages, has consequently the departure of most international offices. These conditions can be induced by political changes or by a series of events which are out of the hands of the government and the finance sector.

Finally, artificial intelligence might be taking over the tasks executed by accounting firms' employees in the future. In this case, the whole sector will be revolutionised, changing also the firms' status on the ground.

In any case the situation of business parks in suburban areas, will have drastic changes in the urban and architectural context. The previously mentioned scenarios, large parts of these areas will be left abandoned. What could happen in these areas, which only seem to result out of an economic phenomenon?

2 - "The Big Four are the four largest global accounting firms—Deloitte, Ernst & Young (EY), PricewaterhouseCoopers (PwC), and Klynveld Peat Marwick Goerdeler (KPMG), as measured by revenue." (Kenton 2024)



PLACE VANDER



2 The evolution of Luxembourg City's economy

Luxembourgish people are usually proud of their country's past. When someone asks about their city, they immediately remind everyone of Vauban's masterpiece, Gibraltar of the North. The same applies to the glorious years of Luxembourgish steel industry, a time where Luxembourg again was on top of the world. Rosie asks herself if it is justified to glorify these times to this extent.

There is nothing glorious about the fortress of Luxembourg. In fact, most of the time it was occupied by foreign forces and its people suppressed. When it comes to the furnaces and mines, she still remembers stories her grandfather told her about the miserable working conditions and the pollution it created for its cities.

Rosie is curious what future generations will think about her country's recent identity. One of the richest countries in the world, a fiscal paradise. How long will it last? Will the infrastructure it has left us be monumentalised such as the fortress' ruins or the furnaces in the South? Rosie likes to think that there could be more than business.



2.1 Historical context

Industrial zones and business parks answer to numerous urban questions, some of which seem obvious, others not so much. These developments depend on numerous factors such as accessibility for the working force, access to resources, availability of land, technological advances, the political situation, mobility, topography etc.

To understand the urban situation of today's industrial developments or business parks, they must be put into context with the evolution of Luxembourg's economy.

The year of 1867 is the starting point of this analysis, because it marks the starting point of Luxembourg's economic development as an independent country. (Reinert 2017)

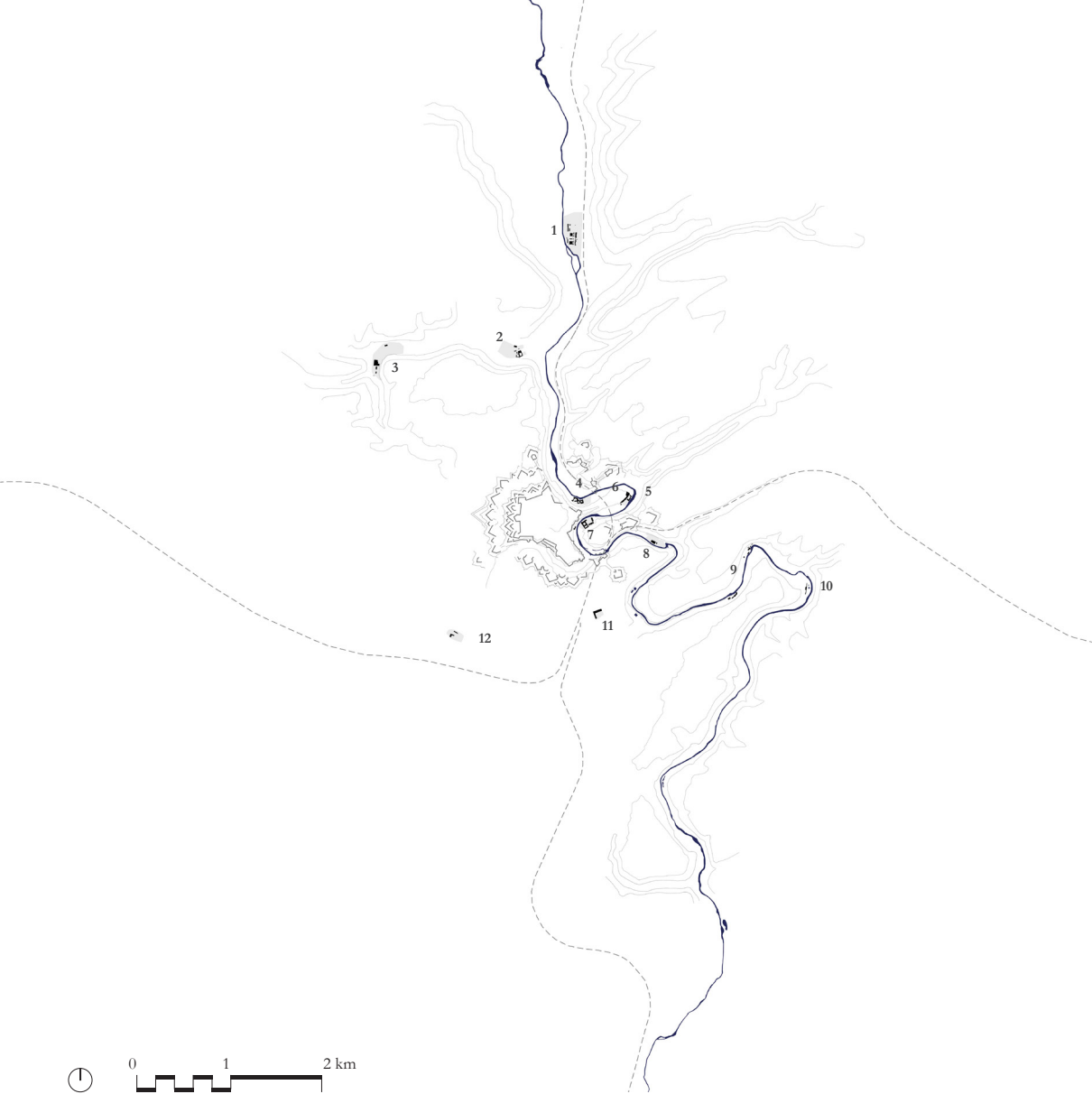


Fig : Map of industrial sites. Luxembourg City, 1867.

- 7 *La Ganterie du Stadgronn* (1824 - 1945?),
- 8 D'Polvermillen (1835 - 1958),
- 9 D'Schläifmillen (1835 - 1939),
- 10 D'Gantebeinsmillen (1872 - 1934?),
- 11 August Charles & Cie (1838 - 1897),
- 12 D'Hollerecher Schmelz (1858 - 1886),

- glove making factory
- cotton mill along the Alzette river
- cotton mill along the Alzette river
- cotton mill along the Alzette river
- glove making factory in Bonnevoie
- foundry in Hollerich



Fig 1: The Pulvermühl around 1835. Drawing by Frésez, J.B. (1835).

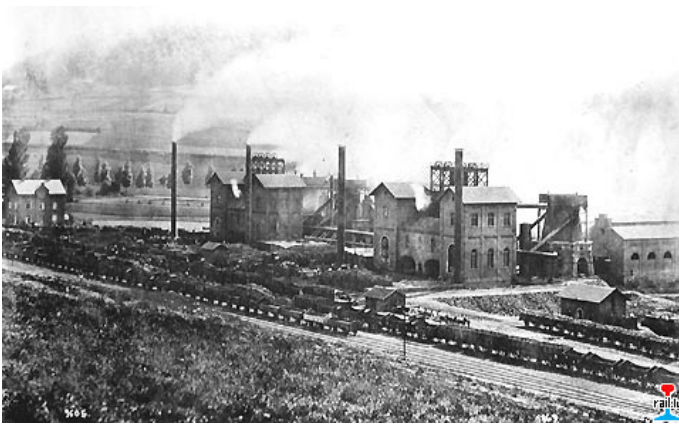


Fig 2: The first two furnaces of the Dommeldang steel mill. Photograph by ARBED Dommeldange, 1869. ARBED "Les Premiers 2 Hauts-Fourneaux Vus à Partir Du 'Bloe Bierg'."



Fig 3: Ceramics Factory Villeroy & Boch in Rollingergrund. Lithography of unknown date. Collection of WPW GEOLUX S.à r.l.

2.1.1 1867 - A fortress needs industry

Luxembourg City's origins can be traced back to the year 963 when Sigfried, Count of the Ardennes acquired the Bock rock, where he erected his castle on the remains of a Roman castellum. Through the years ancient Luxembourg grew as a medieval fortress and evolved into a bastion fort with the invention of gunpowder. Luxembourg's strategic situation in Europe saw its occupation by multiple foreign military forces, such as Habsburg Spain, the French under Louis XIV, Austrian Netherlands, the French again and the Prussians. Their architects, such as the notorious military architect Vauban, transformed the Fortress of Luxembourg into one of the most advanced military strongholds of the time, nicknamed «Gibraltar of the North».

With the Treaty of London on 11th May 1867, Luxembourg was declared an independent country, and the fortress was to be demolished and foreign armed forces must leave the city under the circumstance of a neutrality. The city of Luxembourg becomes the capital of the Grand-Duchy of Luxembourg. (Jacquemin, 1991 & 1994)

Up until this point, the industry also responded almost solely to the military function of the city. Their purpose is mainly to feed the armed forces, to clothe them or to equip them with their specific tools. (Fig 1)

The earliest artisanal industries are water driven mills on the Alzette river, with the Mohrfels mill perhaps the oldest from around the year 1000. (Schumacher 1996, 86-87) Other mills have already been repurposed. Their strategic placement to the water makes them very attractive for newer industries. The tissue making industry of the Godchaux brothers extends to three different of these mill sites around the City of Luxembourg alone: the Polvermillen, the Schläifmillen and the Gantebeinsmillen. The production line was powered by hydraulic turbines. (Schumacher 1996, 92-95)

Tanneries were also very present, as well as glove making factories, such as the one in the Stadtgronn. Owned by August Charles, the company was extended, and a bigger and more modern factory opened under the roof of the old Covent of Bonnevoie.

Ironworks industry was already present on site since the 16th century. They were strategically placed close to water, iron deposits and wood for burning (Grengewald). Both industrial sites situated in Eich and in Dommeldange operate in collaboration under the company name of «Société en Commandite des Forges d'Eich Metz & Cie». The site in Dommeldange being the more modern was erected next to the new railroad and the water course next to it was changed to cool the furnaces. Both high furnace sites were of big military interest. (Schumacher 1996, 96-101)

The Ceramics industry also had its place in the City of Luxembourg. The Boch brothers opened production in 1766. It was the first organised large factory with a strong work line division, fuelled by hydraulic force. The company grows rapidly and will be known later as «Villeroy & Boch». (Schumacher 1996, 78-81)

Finally, there were also industries for the well-being of the troops. The Mousel Brewery could be found in Clausen and the tobacco and cigarette industry in the city centre. (Schumacher 1996, 82 & 88)



Fig : The territory of Luxembourg City. Topographic map. (Hansen 1905)

- | | | |
|---|---|---------------------------|
| 1 | <i>D'Dummeldenger Schmelz</i> (1866 - today), | steel mill in Dommeldange |
| 2 | <i>D'Eeche Schmelz</i> (1845 - 1977), | foundry in Eich |
| 3 | Villeroy & Boch (1767 - 2010), | ceramic factory |
| 4 | <i>D'Muerbelsmillen</i> (1083 - 1910), | grain mill |
| 5 | <i>La Brasserie de Clausen</i> (1563 - 1985), | beer brewery |
| 6 | <i>La Brasserie Mousel</i> (1759 - 2000), | beer brewery |
| 7 | <i>La Ganterie du Stadgronn</i> (1824 - 1945?), | glove making factory |
| 8 | <i>D'Polvermillen</i> (1835 - 1958), | cotton mill |

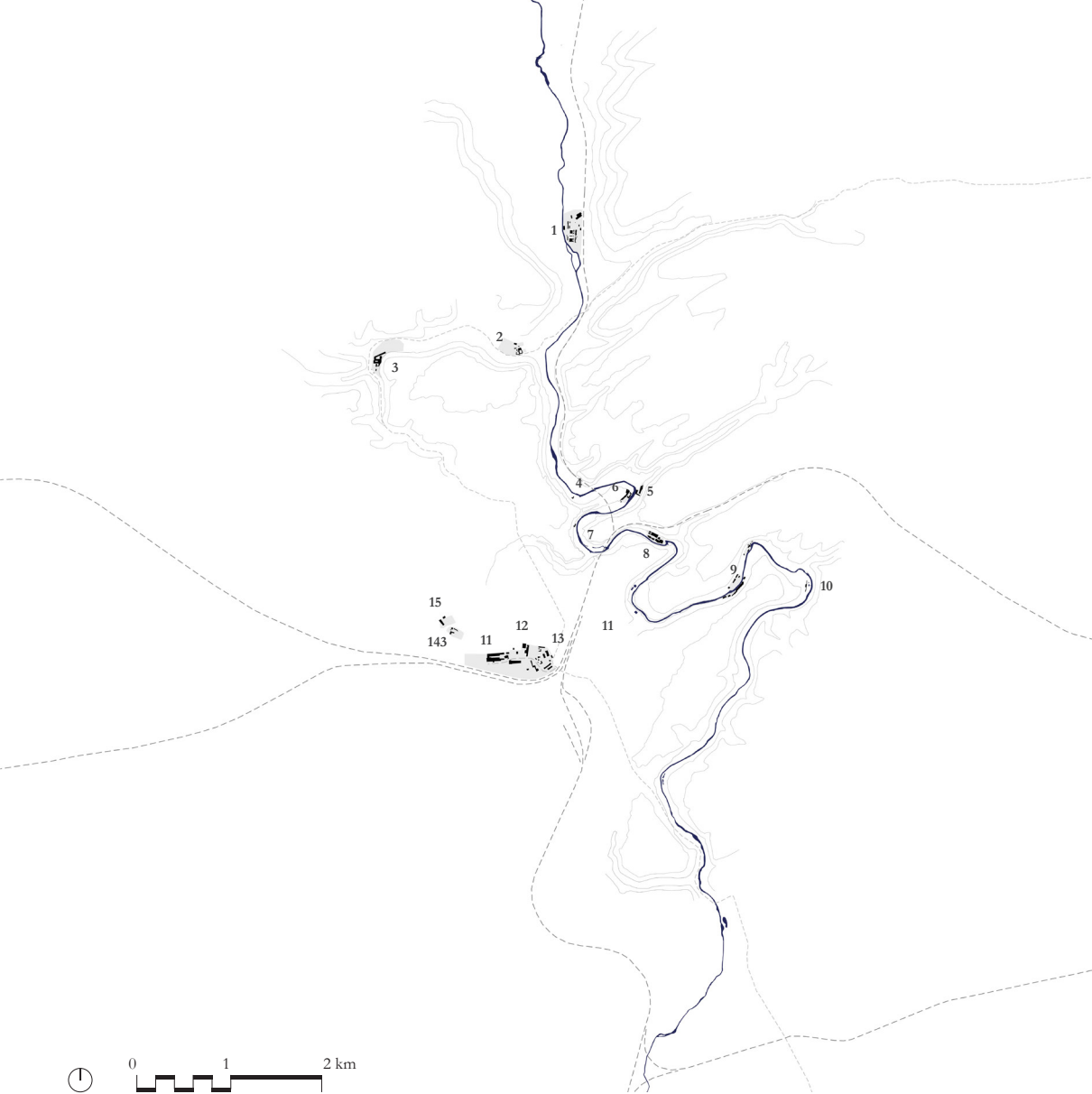


Fig : Map of industrial sites. Luxembourg City, 1905.

- | | | |
|-----|---|---------------------------------------|
| 9 | <i>D'Schläifmillen</i> (1835 - 1939), | cotton mill |
| 10 | <i>D'Gantebeinsmillen</i> (1872 - 1934?), | cotton mill |
| 11 | <i>Aciérie d'Hollerich</i> (1877 - 1978), | steel mill in Hollerich |
| 12 | Heintz van Landewyck factory (1897 - 2015), | tobacco and cigarette manufactory |
| 13 | Paul Würth & Cie (1870 - 2004), | industrial engineering & technologies |
| 14 | <i>D'Hollericher Gaswerk</i> (1898 - 1965), | gas plant |
| 15. | <i>D'Schluëchthaus</i> (1902 - 1997), | slaughterhouse |

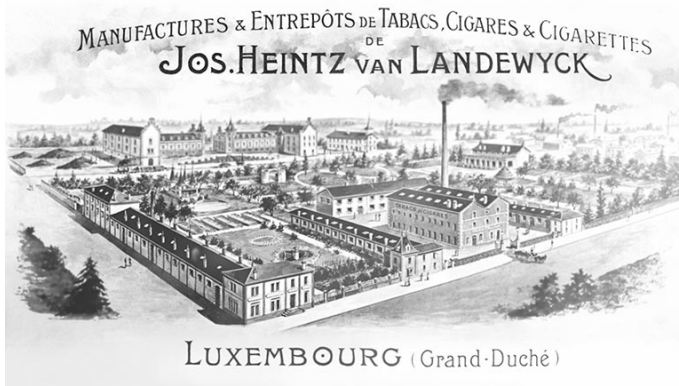


Fig 1: The tobacco factory of Jos. Heintz van Landewyck. Lithography from 1897. *Manufactures & Entrepôts de Tabacs, Cigares & Cigarettes de Jos. Heintz van Landewyck. Luxembourg (Grand-Duché)*. Landewyck Collection.

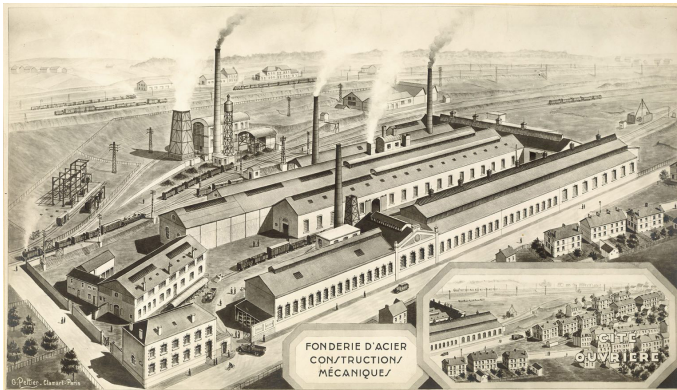


Fig 2: Illustration of the steel mill in Hollerich by Peltier, G. (n.d.). *Fonderie d'acier - Constructions Mécaniques Hollerich*. Archives Camille Aschman - Collection famille Aschman-Bodson.



Fig 3: Personal note written on the photograph of the Schleifmühl. Post card sent by Bernhoeft, Ch., (1905). *Schleifmühl, Luxembourg - Alzette*. Collection industrie.lu.

2.1.2 1905 - New limits and expanding industry

The demolition of the fortifications, which defined the City of Luxembourg for the entirety of its existence, meant that for the first time there was space for an urban development not linked to military purpose. A quest to find a new national identity was introduced. The industrialisation played a huge part in the development of the city during these times, introducing important technological advances. The city saw immense growth with its population almost tripling and extended outside of the old defensive lines, which are not limiting the urban territory anymore. (Savin 2007)

Unsurprisingly, the industry in Luxembourg was also growing drastically aided by the advancements in technology of the industrial revolution. A majority of the present historic sites saw a period of modernisation of their current infrastructure. Some of them even had to be relocated due to lack of space for extension or simply because of the natural growth of the city. (Schumacher 1996) (Fig, p.31)

For example, the tobacco company «Heintz Von Landewyck» moved from the city centre to Hollerich, right next to the expanding train station. (Fig 1) The smelly production moved away from the housing areas and acquired more space to develop their factory site and a better connection for the export of their products. (Schumacher 1996, 82-83)

The first industrial zone of the Luxembourg city found its origins in Hollerich. Its location in proximity of the railway and far away from the housing of the city centre attracted heavy industry such as the steel industry (Acierie d'Hollerich, Paul Würth & Cie) (Fig 2), a gas plant as well as a slaughterhouse. Around the development of the train station itself, numerous warehouses find their place as well as various artisanal businesses. Concerning the steel industry around Luxembourg City (Eich, Dommeldange & Hollerich), their industrial sites still saw modernisation, however it was clear that the industry was shifting towards Esch and the South of Luxembourg, where resources were more abundant. These investments in the South is the beginning of Luxembourg's future success in the steel industry.

Still situated on the same sites the tissue industry came into flourishing. (Fig 3) The Godchaux's factories also introduced many advancements for the nearby neighbourhoods such as a functioning drinking water system. (Schumacher 1996)

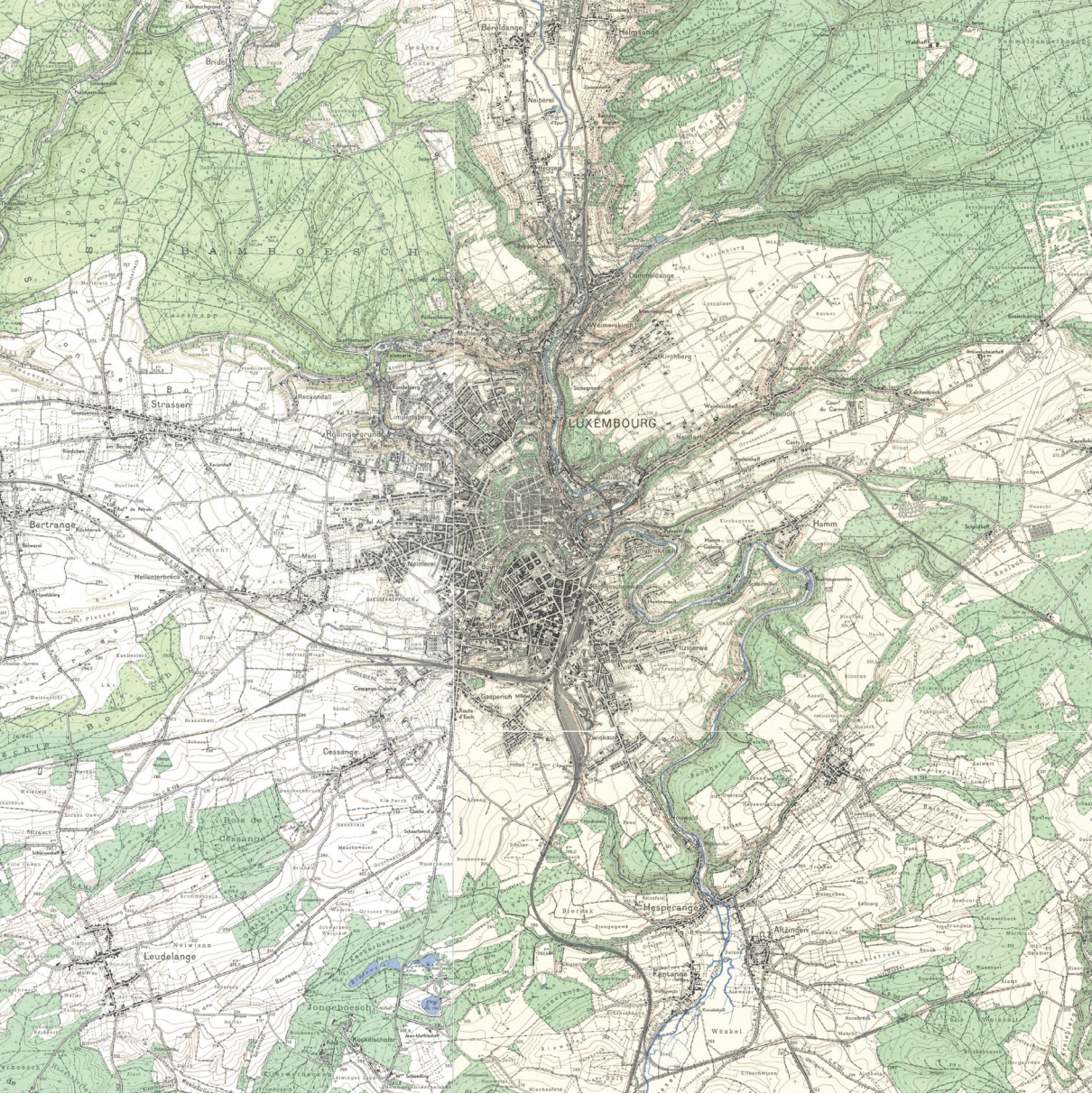


Fig : The territory of Luxembourg City. Topographic map. (Administration du Cadastre et de la Topographie 1954)

- | | | |
|----|--|---------------------------|
| 1 | <i>Station d'épuration Beggen,</i> | water treatment plant |
| 2 | <i>D'Dummeldenger Schmelz</i> (1866 - today), | steel mill in Dommeldange |
| 3 | <i>D'Eeche Schmelz</i> (1845 - 1977), | foundry in Eich |
| 4 | Villeroy & Boch (1767 - 2010), | ceramic factory |
| 5 | <i>D'Muerbelsmillen</i> (1922 - 1987), | mustard factory |
| 6 | <i>La Brasserie de Clausen</i> (1563 - 1985), | beer brewery |
| 7 | <i>La Brasserie Mousel</i> (1759 - 2000), | beer brewery |
| 8 | <i>D'Polvermillen</i> (1835 - 1958), | cotton mill |
| 9 | <i>Moulin de Luxembourg S.A.</i> (1933 - 1944) | industrial grain mill |
| 10 | <i>Acierie d'Hollerich</i> (1877 - 1978), | steel mill in Hollerich |

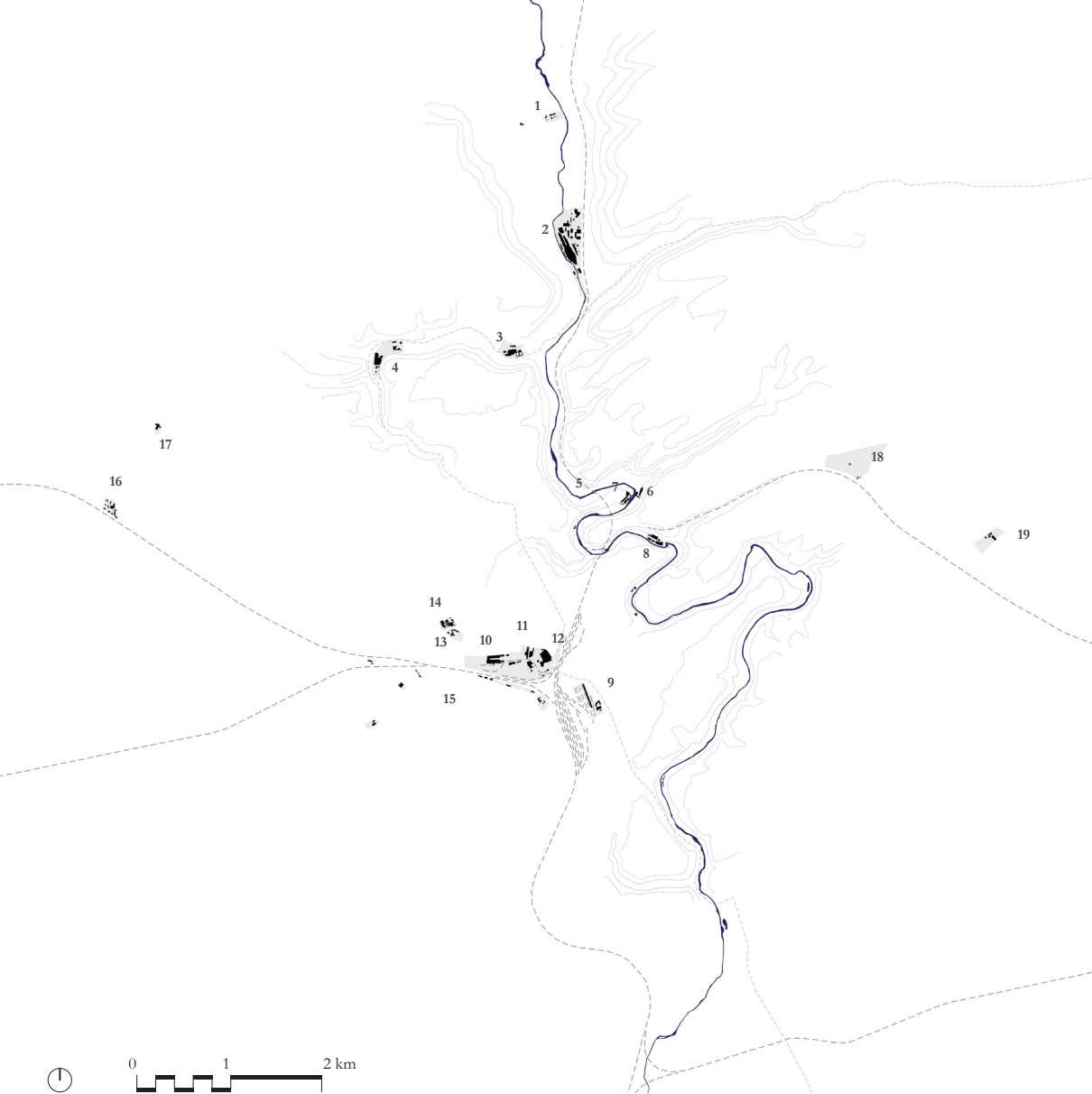


Fig : Map of industrial sites. Luxembourg City, 1954.

- | | | |
|-----|---|---------------------------------------|
| 11 | Heintz van Landewyck (1897 - 2015), | tobacco and cigarette manufactory |
| 12 | Paul Würth & Cie (1870 - 2004), | industrial engineering & technologies |
| 13 | <i>D'Hollericher Gaswerk</i> (1898 - 1965), | gas plant |
| 14. | <i>D'Schluëchtbaus</i> (1902 - 1997), | slaughterhouse |
| 15 | Factories and warehouses, | in Cessange and Gasperich |
| 16 | Oil refinery, | in Strassen |
| 17 | Factory, | in Bertrange |
| 18 | Stone quarry, | in Cents |
| 19 | Scierie Scheidhaff, | saw mill |



Fig 1: The Dommeldange steel mill in 1920. Photograph in the Marcel Schlim Collection.

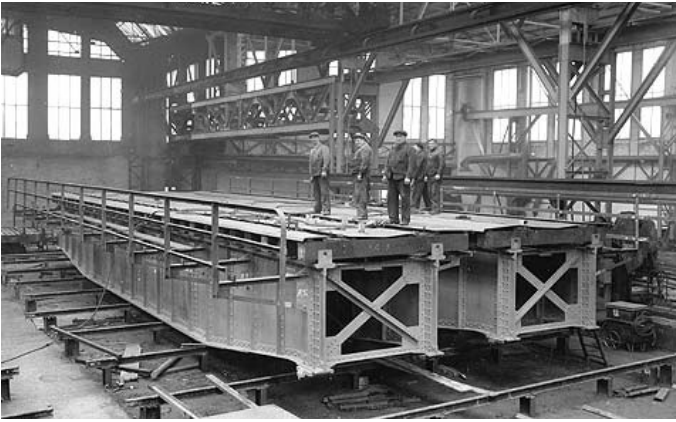


Fig 2: Paul Wurth assembly factory in Hollerich. *Tablier Métallique Du Pont de Chemin de Fer Sur La Ligne Luxembourg - Wasserbillig (PK 33.687 - Mertert) Construit Par Paul Wurth S.A. 1953.* Photograph in Paul Wurth S.A. Archive.



Fig 3: Photograph of the National Grain Mill in Luxembourg City of unknown date. *Le Moulin de Luxembourg*, n.d. Photograph. Photothèque VDL archive.

2.1.3 1954 - The steel industry

The following times were dark. Europe sunk in chaos during the First World War (1914-1918) and shortly after during the Second World War (1939-1945). In between wars, the impact of the Great Depression (1929-1939) was felt on European territory as well.

The year 1911 marks the year of the foundation of ARBED (*Aciéries Réunies Burelbach Eich & Dudelange*) the company which put the Luxembourgish steel industry on the international market. Despite the destruction of the industrial infrastructure during both wars and political dilemmas, the steel industry was strong enough to emerge strongly in times of peace. (Hamdi, 2018) During “The Thirty Glorious” (1946-1974) national steel production grew into Luxembourg’s strongest economic value. (Zahlen, Adam, and Luxembourg, 2003)

Steel production was also the most prominent economy in Luxembourg City during these times. (Fig, p.35) The three sites around the city of Luxembourg, Dommeldange, Eich and Hollerich, play their role in the Luxembourgish economy and are linked to the more lucrative production sites, situated in the Southern part of the country. In fact, the company ARBED (*Aciéries Réunies de Burbach-Eich-Dudelange*), which reunites the various factories was the figurehead of Luxembourgish steel production. (Schumacher 1996, 100-101)

Industrial engineering companies specialising on steel construction or industrial technologies also gain in prominence. Paul Würth & Cie is expanding and working closely with the steel industry. (Ottelé 2011)

Another business developing their production sites are Villeroy & Boch, taking on the international market and recounting advances in new types of porcelain. (Villeroy & Boch 2024)

Further expanding production sites are the breweries in Clausen (*Brasserie de Clausen* & *Brasserie Mousel*) as well as the slaughterhouse in Hollerich.

Another specificity about this time is that some artisanal businesses are fighting to survive due to the industrialization of their craft. A notable case in the city of Luxembourg are the grain mills, which vanish almost completely with the foundation of the Moulin de Luxembourg, an industrial grain mill nearby the train station in Bonnevoie. (Fig 3) (Ottelé, n.d.)

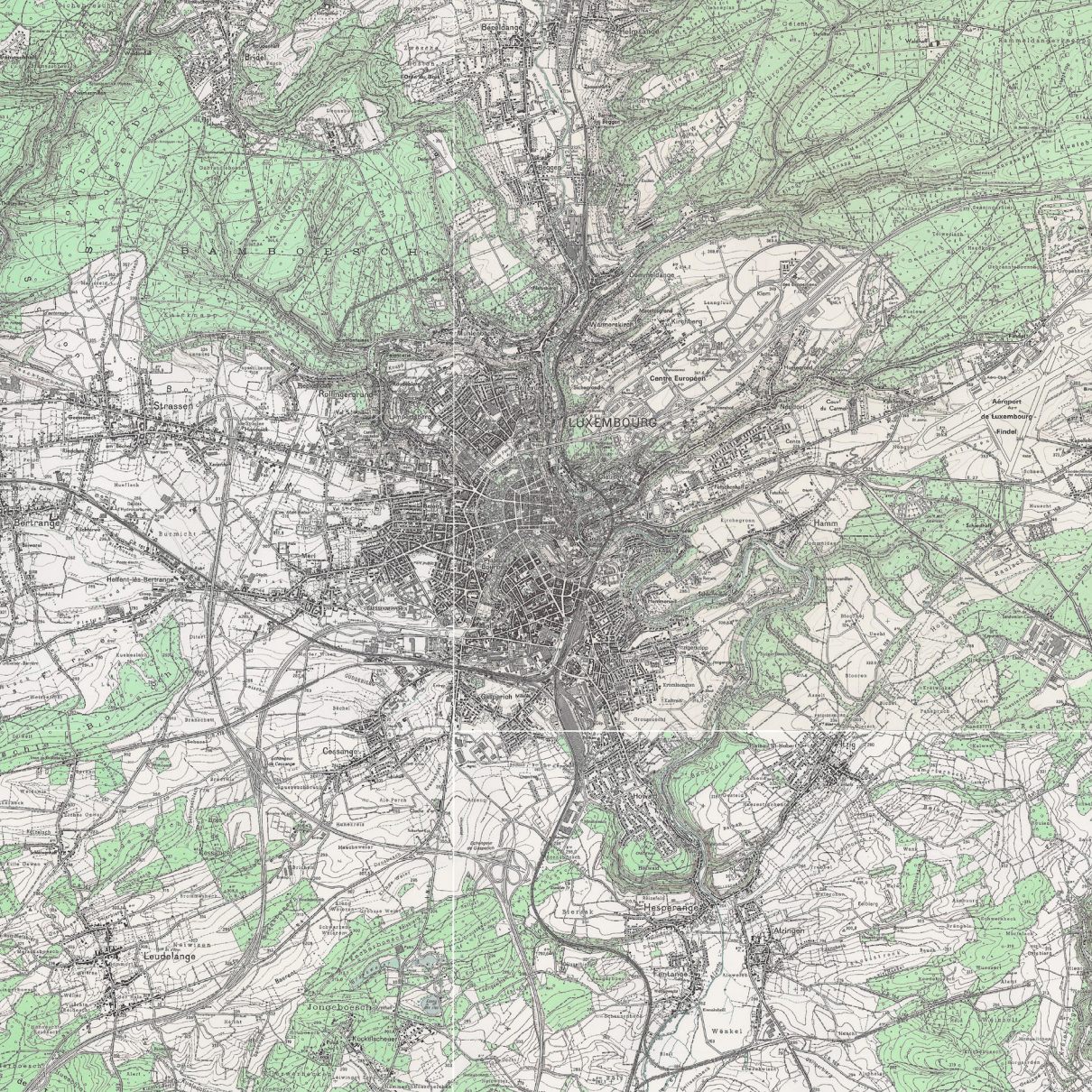


Fig : The territory of Luxembourg City. Topographic map. (Administration du Cadastre et de la Topographie 1979)

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|----|---|---|
| 1 | Industrial site Beggen, | water treatment plant, factories & warehouses |
| 2 | <i>D'Dummeldenger Schmelz</i> (1866 - today), | steel mill in Dommeldange |
| 3 | Villeroy & Boch (1767 - 2010), | ceramic factory |
| 4 | Kirchberg (1952 - today), | European district |
| 5 | <i>D'Muerbelsmillen</i> (1922 - 1987), | mustard factory |
| 6 | <i>La Brasserie de Clausen</i> (1563 - 1985), | beer brewery |
| 7 | <i>La Brasserie Mousel</i> (1759 - 2000), | beer brewery |
| 8 | <i>Route d'Arlon</i> , | offices, warehouses & small industry |
| 9 | Industrial zone Hamm, | warehouses & small industry |
| 10 | Heintz van Landewyck (1897 - 2015), | tobacco and cigarette manufactory |
| 11 | Paul Würth & Cie (1870 - 2004), | industrial engineering & technologies |
| 12 | Industrial zone Hollerich, | warehouses, workshops & a gas plant |

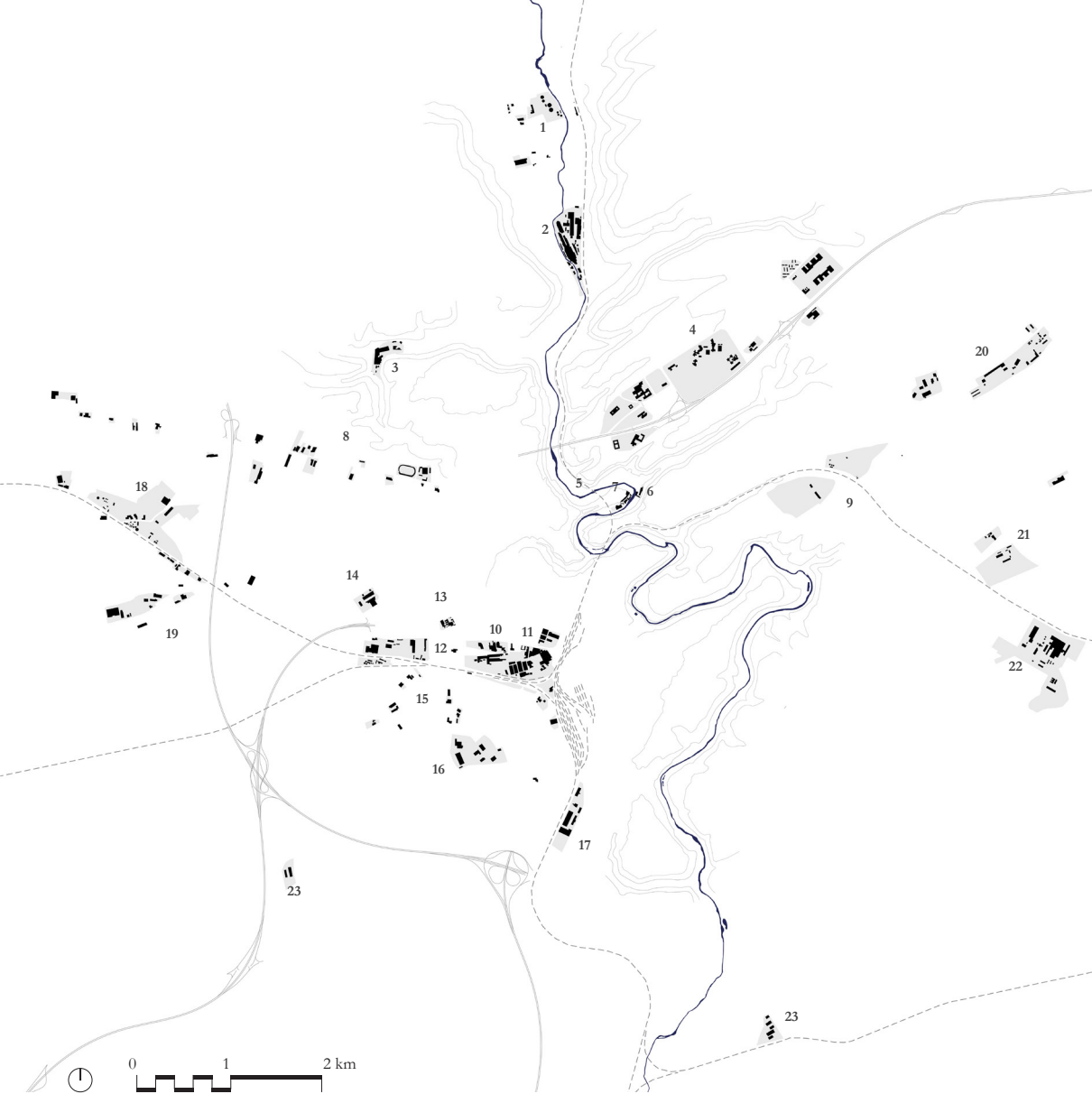


Fig : Map of industrial sites and business parks. Luxembourg City, 1979.

- | | | |
|----|---------------------------------------|---|
| 13 | <i>D'Schluechthaus</i> (1902 - 1997), | slaughterhouse |
| 14 | Luxlait (1960 - 2009), | dairy factory |
| 15 | Factories and warehouses, | in Cessange & Gasperich |
| 16 | Industrial zone Gasperich, | artisans & warehouses |
| 17 | Artisanal & commercial zone Howald, | artisans & warehouses |
| 18 | Business park <i>Bourmicht</i> , | artisans, factories & warehouses in Bertrange |
| 19 | Business park <i>Helffent</i> , | commercial area in Bertrange |
| 20 | Findel, | offices, warehouses, airport |
| 21 | Industrial zone Rollach, | car services, construction technology |
| 22 | Industrial zone Contern, | industry, warehouses & artisans |
| 23 | Warehouses | |



Fig 1: A photograph of the construction of the highway section between Élange (f) and Luxembourg in april 1981. The inauguration was on 15th July 1981. Photos Archives Républicain Lorrain.



Fig 2: Photograph of the European Centre by Edouard Kutter. (n.d.) *Luxembourg - Le Centre Européen. Photograph.* Archives nationales de Luxembourg (ANLux).



Fig 3: An aerial photograph of the European district Kirchberg entitled “A Monofunctional District Where Cars Were Kings.” (n.d.) Fonds Kirchberg, Archive

2.1.4 1979 - The highway exit

This era marks the decline of the mighty steel industry in the country. The steel crisis in the Lorraine Basin linked to the first and second oil crises and growing competition from emerging countries force a reaction in reducing production. (Zahlen, Adam, and Luxembourg 2003) The decline of the steel industry leaves a huge void in Luxembourg's economy as well as leaving thousands of people without a job people.

It was during these times that a few big German banks discovered Luxembourg as country of opportunity, because they wanted to escape the surveillance of their state. This meant the beginning of the financial centre, and the service industry. (Goebbels 2015)

The steel industry moves away from the capital, with industrial steel mills such as in Eich and Hollerich closing their doors. The steel mill in Dommeldange was also stripped from its productive purposes and was even closed for a while, because of its lack in competitiveness during the early years of the crisis. (Schumacher 1996, 100-101)

The appearance of the highway redefines the limit of the city. (Fig 1) Highway interchanges have become the city's new entries. With the new infrastructure a new kind of industrial areas appears at the highway exits. (Fig, p.39) The most common typologies in these zones are warehouses, artisanal production as well as car dealers. The newly available areas are very attractive to those businesses, because they have a huge footprint and those kinds of plots simply have disappeared in the densification around the city centre. (Lejoux and Charieau 2021, 3) Transport of goods and labour is enhanced by the oversized roads, which has mainly shifted towards automotive mobility, meaning trucks and cars. These areas are interesting because produce can be transported in and out of the city in short time. These means of transport allow businesses to be more flexible with their scheduled transports, unlike the strictly organized railway.

These newly appeared zones can be found in Beggen, Hamm, Howald, Bertrange, Contern and Gasperich among other places. The *Route d'Arlon* also sees an increase in economic activity, but differs from the new business zones in its form and relation to the city.

A special mention goes to the development of the European district on the Kirchberg plateau. (Fig 2 & 3) With Luxembourg being one of the founding members of the European Union in 1950, several European institutions and most notably the Court of Justice of the European Union find their place on the Kirchberg plateau. (Communautés Européennes 1985)

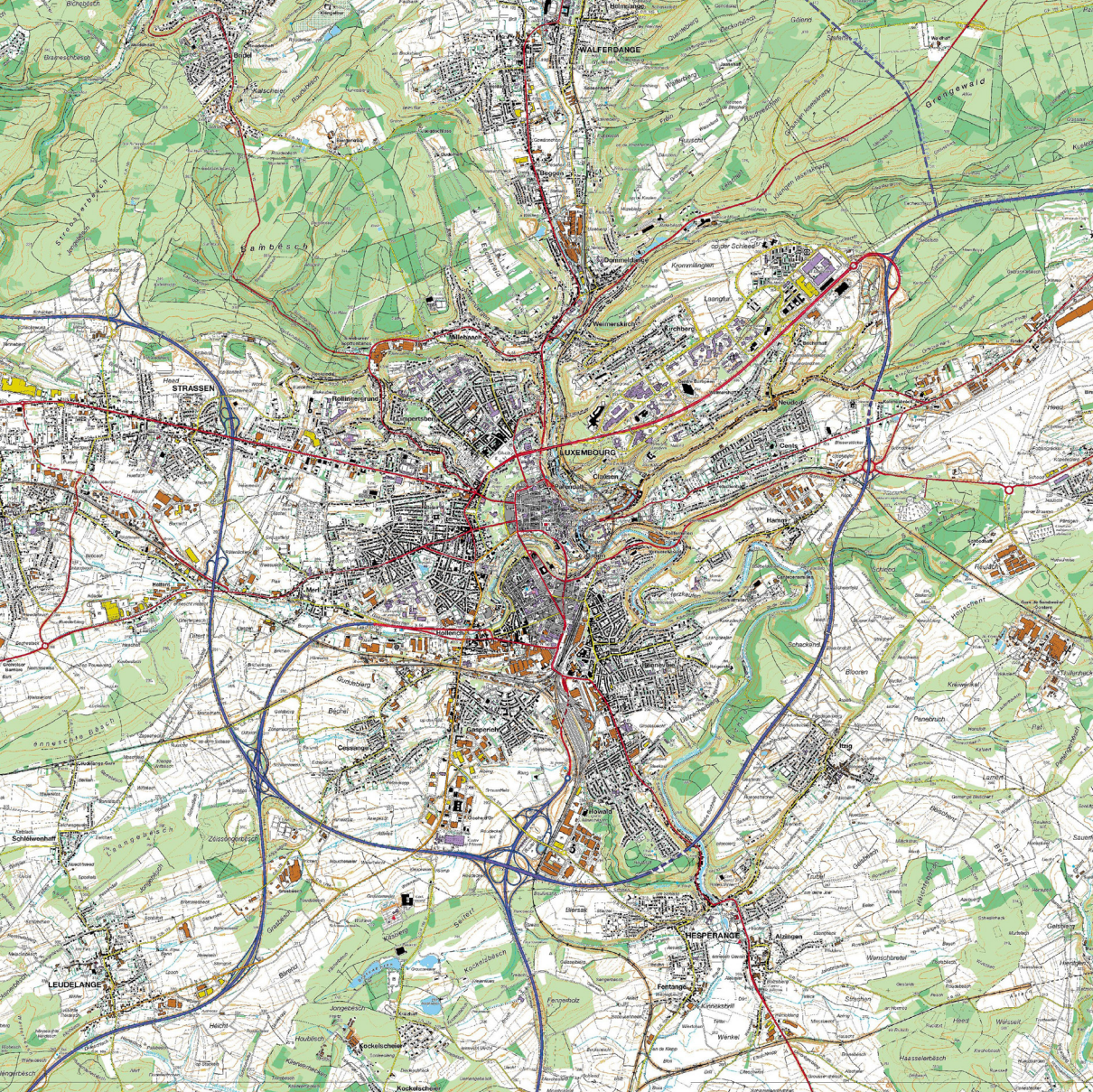


Fig : The territory of Luxembourg City. Topographic map. (Administration du Cadastre et de la Topographie 2000)

- | | | |
|----|---|---|
| 1 | Industrial site Beggen, | water treatment plant, factories & warehouses |
| 2 | <i>D'Dummeldenger Schmelz</i> (1866 - today), | steel mill in Dommeldange |
| 3 | Villeroy & Boch (1767 - 2010), | ceramic factory |
| 4 | Kirchberg (1952 - today), | European district |
| 5 | <i>La Brasserie Mousel</i> (1759 - 2000), | beer brewery |
| 6 | <i>Route d'Arlon</i> , | offices, warehouses & small industry |
| 7 | Industrial zone Hamm, | warehouses & small industry |
| 8 | Industrial zone Hollerich, | Paul Würth & Cie, Heintz van Landewyck etc. |
| 9 | Luxlait (1960 - 2009), | dairy factory |
| 10 | Factories and warehouses, | in Cessange & Gasperich |
| 11 | Industrial zone Gasperich, | artisans & warehouses |



Fig : Map of industrial sites and business parks. Luxembourg City, 2000.

- | | |
|---|--|
| <p>12 Business park <i>Cloche d'Or</i>
 13 Artisanal & commercial zone <i>Howald</i>,
 14 Business park <i>Bourmicht</i>,
 15 Business park <i>Helffent</i>,
 16 Findel,
 17 Industrial zone <i>Rollach</i>,
 18 Industrial zone <i>Contern</i>,
 19 Industrial & commercial zone <i>Hesperange</i>,
 20 Industrial zone <i>Grasbësch</i>,
 21 Industrial zone <i>Am Bann</i>, Leudelange</p> | <p>offices, Post & telecom, administration etc.
 artisans & warehouses
 artisans, factories & warehouses in <i>Bertrange</i>
 commercial area in <i>Bertrange</i>
 airport, offices, warehouses
 car services, construction technology
 industry, warehouses & artisans
 small industry, car dealer, warehouses
 construction companies, food market
 business park, small industry etc.</p> |
|---|--|



Fig 1: Photograph of the *Deutsche Bank* building in Kirchberg, Luxembourg, completed in 1991. (n.d.) Fundació Mies van der Rohe Archive.



Fig 2: Photograph of an artisanal development from the 2000's in Howald, Hesperange.



Fig 3: Photograph of the old *saint-paul* printing factory in Gasperich. The amenities were the home of the *Luxemburger Wort* newspaper from 1979-2022.

2.1.5 2000 - The growth of the financial sector

Up until the year 2000 the GDP (Gross Domestic Product) grows to second overall in Europe, because of the constant development of the financial sector. The competition in the sector is high and healthy and coupled to low salary deductions in income tax and social security contributions, make careers incredibly attractive. The boom in the financial sector increased the reliance on immigrant and cross-border workers, which rose from 18% to almost 37%. (Zahlen, Adam, and Luxembourg, 2003)

During this period, most business parks known today took their form. They can now be identified much easier as zones, unlike the disparity of the sites from the city's early years. (Fig, p. 43) The extreme rise of the financial sector sees development of office buildings soar. The German banks who initiated the boom in Luxembourg's financial sector, installed their head offices on the Kirchberg plateau (Fig 1), due its good access to international travel such as the highway and the Findel airport. (Fonds Kirchberg 2021) Despite the Kirchberg plateau's rightfully claimed status as the European and financial centre of the city, other financial firms settle down in various parts around city. Notable developments can be seen in Gasperich, Leudelange, Howald and on the Route d'Arlon. The steel industry has almost disappeared from the City of Luxembourg by now. The only remaining production site is the steel mill of Dommeldange was closed for a while for restructuring. (Schumacher 1996, 100-101)

Finally, artisanal industry is still a factor and is present in most business parks or industrial zones around the city. Furthermore, sites which parted their ways with the steel industry, regain their industrial purpose with warehouses or other repurposing. Some of these places are for example Hollerich, Eich, Hamm, Gasperich and Howald. (Fig 2 & 3) The remaining zones are either specialised industrial and artisanal production sites or individual sites.



Fig : The territory of Luxembourg City. Orthophoto. (Administration du Cadastre et de la Topographie 2023)

- | | | |
|---|---|---|
| 1 | Industrial site Beggen, | water treatment plant, factories & warehouses |
| 2 | <i>D'Dummeldenger Schmelz</i> (1866 - today), | steel mill in Dommeldange |
| 3 | Kirchberg (1952 - today), | European district |
| 4 | <i>Route d'Arlon</i> , | offices, warehouses & small industry |
| 5 | Industrial zone Hamm, | warehouses & small industry |
| 6 | Industrial zone Hollerich, | Paul Würth & Cie, Heintz van Landewyck etc. |
| 7 | Factories and warehouses, | in Cessange |
| 8 | Industrial zone Gasperich, | artisans & warehouses |
| 9 | Business park Cloche d'Or | offices, Post & telecom, administration etc. |

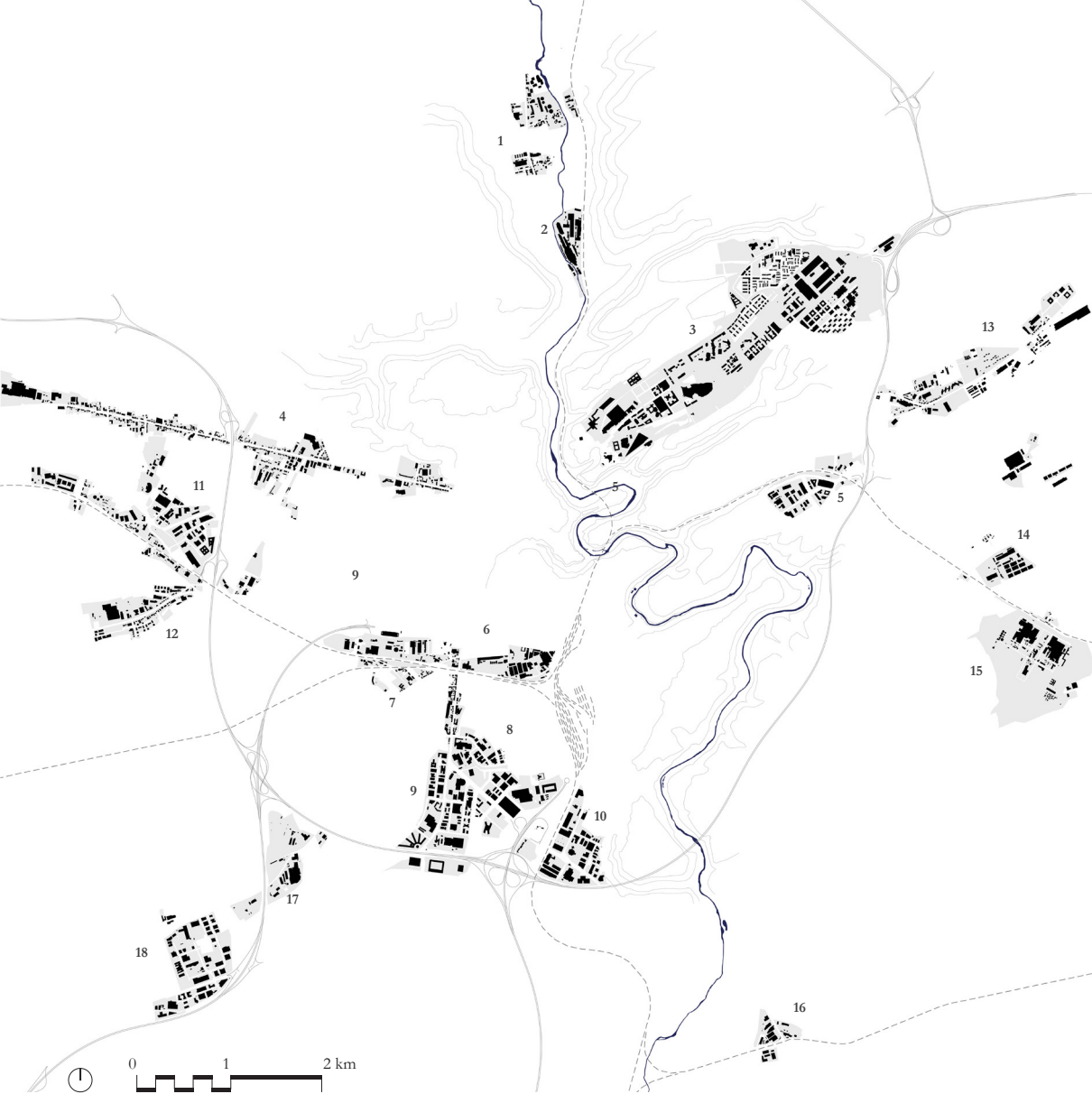


Fig : Map of industrial sites and business parks. Luxembourg City, 2024.

- 10 Artisanal & commercial zone Howald,
- 11 Business park *Bourmicht*,
- 12 Business park *Heffent*,
- 13 Findel,
- 14 Industrial zone *Rollach*,
- 15 Industrial zone *Contern*,
- 16 Industrial & commercial zone *Hesperange*,
- 17 Industrial zone *Grasbësch*,
- 18 Industrial zone *Am Bann*, Leudelange

- artisans & warehouses
- artisans, factories & warehouses in Bertrange
- commercial area in Bertrange
- airport, offices, warehouses,
- car services, construction technology
- industry, warehouses & artisans
- small industry, car dealer, warehouses
- construction companies, food market
- business park, small industry etc.



Fig 1: Midfield Project Howald, Hesperange. Masterplan of new urban business park in Howald by Güller Güller architecture urbanism in 2011. *Plan Directeur Midfield Luxembourg.*



Fig 2: 3D model of the urban restructuring project launched in 2021 for the industrial park in Hollerich, Luxembourg.



Fig 3: 3D model of the Cloche d'Or neighbourhood in Gasperich by Grossfeld PAP in 2019. Most buildings have already been completed.

2.1.6 2024 - An industry without produce

Nowadays, as climate change or global warming have become ever more prominent, and the world is threatened by global crisis. New types of visions in urban planning have emerged and are focusing on mixed-use buildings and neighbourhoods, ecological resiliency, and carbon net-zero. The Luxembourgish government launched an international consultation for Luxembourg's ecological transition with the aim of finding a scenario to achieve carbon neutrality by the year 2050. Some of the responses featured new visions of the business park, a notable contributor to Luxembourg's carbon footprint in terms of car use. (Département de l'aménagement du territoire (DATer) 2021) Furthermore, in Luxembourg City, projects restructuring business parks or industrial zones, such as in Howald (*Projet Midfeld*) (Fig 1) and Hollerich (*Nei Hollerech*) (Fig 2) are set to become reality in the coming years, with Howald already in construction. These projects address not only economic and ecological subjects, but also the social aspects of buildings, housing, and public space. (Zeien+Baumann sàrl 2022 & GIE NEI HOLLERICH 2021) Another urban project is situated in Gasperich, with the development of the new financial centre and neighbourhood Cloche d'Or, next to the original business parks. (Zeien+Baumann sàrl 2019) (Fig 3)

In general, most business parks are starting to become saturated. These zones have become defined in the urban fabric by their form, function, and typology. (Fig, p.47) Productive and artisanal industry have almost vanished and are replaced by offices or make way for new urban developments. The growth of zones like Gasperich have become inevitable, because inside the boundaries of the city is no space left and the financial sector is still growing. (Chambre de Commerce Luxembourg 2024) What is left of the productive industry is either found on their original sites, like the steel mill in Dommeldange, which has changed its initial purpose in the same firm to a specialised mechanical repair shop. Zones like Hamm and Contern, are mainly occupied by construction firms or firms specialised in building technology. They are also subject to the installation of administrative or financial offices.

Large scale production has become less lucrative around Luxembourg City and sees even longstanding traditional businesses, such as Villeroy & Boch and Paul Wurth & Cie, moving their production sites and workshops outside of the country. (Villeroy & Boch 2024 & Paul Wurth SMS Group 2024)

2.2 Perspective on speculative scenarios

LUXEMBOURG'S ECONOMICAL HISTORY IN A NUTSHELL

The City of Luxembourg was in general very dependent on one strong economic sector throughout its history.

Up until 1867, the city's industrial and artisanal businesses fuelled the fortress and its military forces. After Luxembourg was declared an independent country, the fortress was demolished, and the people freed of its military occupancy.

The industry found anchorage in an already present industry, which was the steel industry. Abundant resources but also technological advances and knowledge, catapulted Luxembourgish steel production to competitive international level, which lasted for more than 80 years and presented a high of almost 30% of the GDP in 1960. (Casali 2016) However a steel crisis (1975-1985), induced by the First Oil Crisis in 1973, saw the closure of the last active mines and reduced production drastically. Consequently, jobs were also cut, and firms were restructured to survive. (Casali 2016)

Facing these times of crisis, Luxembourg put in a big effort to diversify its economy and built a fiscally advantageous environment. The growth of the financial sector over the past years has reached global recognition and produces 25% of its current GDP. (Wardle and Minelli 2023)

SPECULATING ON FUTURE SCENARIOS

There seems to be a repetitive pattern when it comes to Luxembourg's economy. The country seems to rely on a single strong economical field, which outperforms the other industries by a large margin. However, those economies disappear following crises or times of substantial changes, such as the steel crisis and the demolition of the fortress of Luxembourg. The country always manages to recover from the decline of an important economic actor, which is replaced by another strong industry, which is currently the financial sector.

Considering these drastic changes in economy, one could easily project such a scenario on the current financial sector. One day Luxembourg's fiscal environment might not be as advantageous anymore. This analysis strengthens the proposal of fiction as method to envision impossible future scenarios on business parks. How will these areas recover from a departing industry?

Batiment B

GOLDBELL – CENTER 5, Rue Eug. R

Batiment A

EBRC - Reception

PLUS AUCUNE SOCIETE
PRESENTE DANS LE
BATIMENT

PAS DE COURRIER SVP
PAS DE PUB SVP

PLUS AUCUNE SOCIETE
PRESENTE DANS LE
BATIMENT

PAS DE COURRIER SVP
PAS DE PUB SVP

Fig. Photograph of letter boxes of a closed office building in Cloche d'Or, 2024



3 Cloche d'Or - Origin and Growth

Rosie tries to remember the origin of her home. Her grandfather tells her stories all the time, but it is hard for her to organise them in her head. She knows that Gasperich was a village which was slowly eaten up by the city. They were farmer's people and with the industry arriving it became a settlement for factory workers.

The name Cloche d'Or comes from a public swimming pool which has long been gone. Rosie's mother went there all the time when she was a kid. Or does the name come from a tavern her grandfather used to go to?

She hardly remembers when the first office buildings were completed. She had the impression that they were there since forever. However not at the extend of today. When she came back after she finished her studies, the place was unrecognisable. The fields where she did her walks on warm summer evenings were gone. Instead, were standing office towers reaching at least twenty storeys high.

People are saying that it is not going to stop anytime soon. The land has already been sold and permits have been granted. Rosie vaguely remembers an article which talked about the new masterplan which was about to revolutionise urban living.

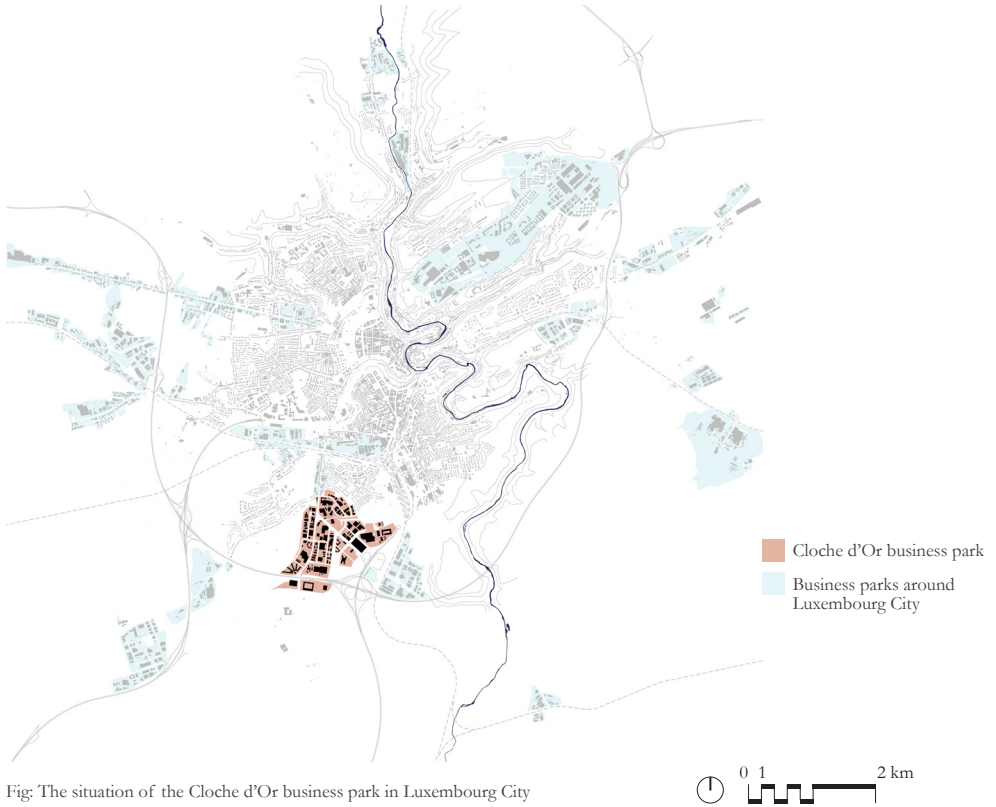


Fig: The situation of the Cloche d'Or business park in Luxembourg City

3.1 The rise of Cloche d'Or

Cloche d'Or belongs to these business parks and is situated at the Southern limit of the City of Luxembourg right next to the highway exit going to Hesperange and the train station. (Fig, p.54) In the North, the business park is bordered by the neighbourhoods of Cessange and Gasperich.

The territory of Cloche d'Or is currently making headlines as a new neighbourhood promoting a model of new urban living. Some very notable investors are behind these developments, which are amid execution.

To understand the complexity of Cloche d'Or, it is important to understand its origins within relation to the economic evolution of Luxembourg in the back of the mind. Moreover, this analysis gives an insight on how the territory of Cloche d'Or was perceived by the people and of what use it was for them, from early industrial times to today.



Fig. Photograph the skyline of Cloche d'Or, 2024. The highway passing in the foreground, the Post distribution centre right next to the highway.



HOLLERICH

Gasperich

Drosbach

291

304

305

Grassentweier

Chateau

Langenweier

Lanour
Kehnbour

Peterbusch

Fischer
R. de
ingen

Cessingen

285

Yubichof

89

307

Wieschen
Bruckend.

294

298

Mur

S...

308

28



Fig 2: Photograph of the Restaurant Weber - Hebber (n.d.) Photothèque Ville de Luxembourg.

3.1.1 At the crossroads of Route d'Esch and Route de Bettembourg

The Ferraris map from 1778, shows the territory of today's Cloche d'Or as mostly farmland with denser vegetation along the water stream of the *Drosbach*. Both neighbourhoods of Cessange and Gasperich are still in the state of a village and not yet annexed to the city. There is one principal axis perceptible, which connects the City of Luxembourg towards the Southern city of Esch-Alzette. This street is today known as Route d'Esch. Also, the forests of the Kockelscheuer are situated towards the South of the farmland of Cessange and Gasperich. (Fig 1)

The Hansen map of 1905, shows Cessange and Gasperich attached to the City of Luxembourg. Both neighbourhoods are situated Southern of the city's first industrial zone Hollerich and close to the train station.

In 1908, the Café Weber-Hebber opens its doors on the intersection of the Route d'Esch and the Route de Bettembourg. (Fig 2) His cottage café was situated at the height of the *Cessingerberg* and was close to the promenades of the Kockelscheuer. The place offered ten-pin bowling and fresh wine and was used as country escape for many inhabitants of the city. (Rolph, 2021)

Fig 1: The territory of Cloche d'Or. Topographic map. (Hansen 1905)



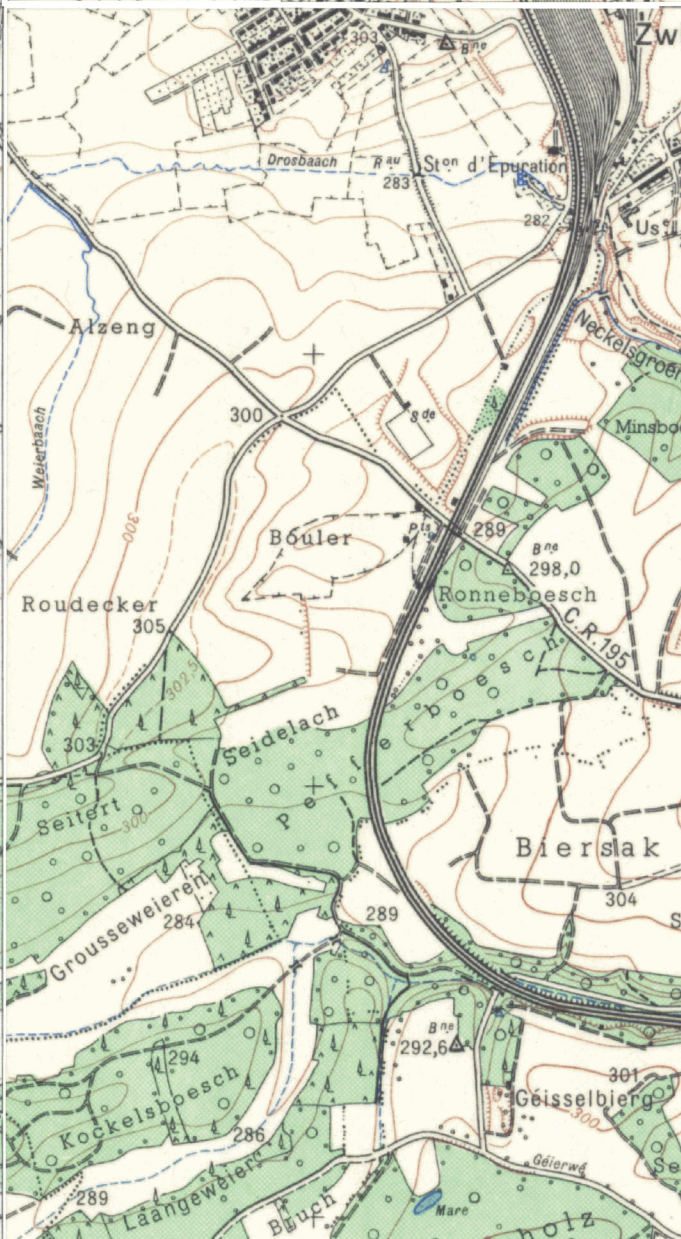
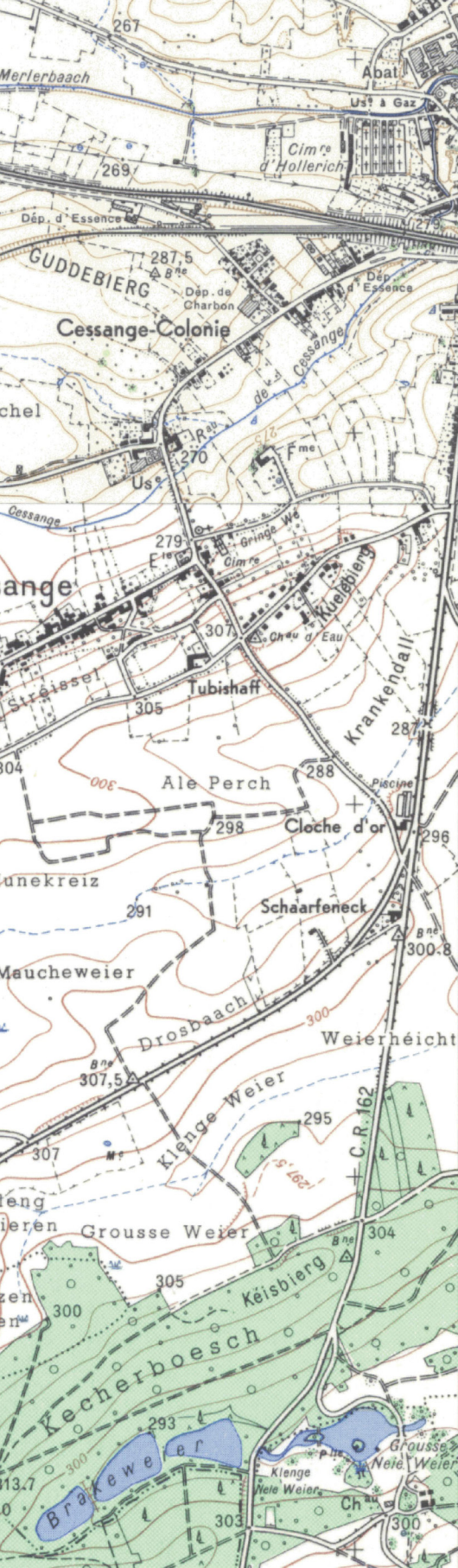




Fig 2: Photograph of public swimming pool of the “Hôtel de la Cloche d’Or” by Théo Mey, 1961. Photothèque Ville de Luxembourg.

3.1.2 The Hôtel de la Cloche d’Or and its open swimming pool

Economically, Luxembourg is in the middle of the “The Glorious Thirty” and the steel industry is growing rapidly. (Zahlen, Adam, and Luxembourg, 2003)

The name “Cloche d’Or” was used for the first time in 1937 when a hotelier overtook the Café and converted it into a hotel. (Fig 1) The establishment continued under the same name when ownership changed again in 1939.

Originally the masterplan from 1943, envisioned a recreational area in the South of Gasperich, including a stadium and a motor racing circuit. This vision seems to have been confirmed by the reopening of the “Hôtel de la Cloche d’Or” in 1945, after the previous owner died in a concentration camp during the Second World War. In the hotel and restaurant complex were included an open swimming pool, a squash field and ten-pin bowling. (Fig 2) (Rolph, 2021)

Fig 1: The territory of Luxembourg City. Topographic map. (Administration du Cadastre et de la Topographie 1954)





Fig 2: Photograph of the Ban de Gasperich in 1991. Beginning of construction works in the fields of Gasperich. Photothèque Ville de Luxembourg.

3.1.3 The rule of the highway

The steel crisis in the 1970's forces a decline in the steel industry and leaves a void in Luxembourg's economy, which will be filled by the growing financial sector. (Goebbels, 2015) The highway connection between Hollerich and Esch-Alzette is finished in 1974 and completely changes the status of the land between Gasperich and the highway interchange. (Fig 1) The area loses its status as peripheral country escape and becomes attractive for businesses due to its proximity to the highway interchange. The first artisanal and commercial buildings appeared at the limit of Gasperich starting from 1976. (Fig 2) The first project of an interprofessional office building was presented in 1984 and the infrastructure for the extending business park was inaugurated in 1988. The new business park attracts office buildings first, but also artisans or commercial firms which do not belong inside of the city anymore due to the size of their infrastructure. (i.e.: car dealers, Post distribution centre, printing companies etc.)

The Hôtel de la Cloche d'Or changed ownership numerous times of the years, evolving into a renowned restaurant. However, the open swimming pool was demolished with the extension of the business park and the hotel closes its doors shortly after. (Rolph, 2021)

Fig 1: The territory of Luxembourg City. Topographic map. (Administration du Cadastre et de la Topographie 1989)



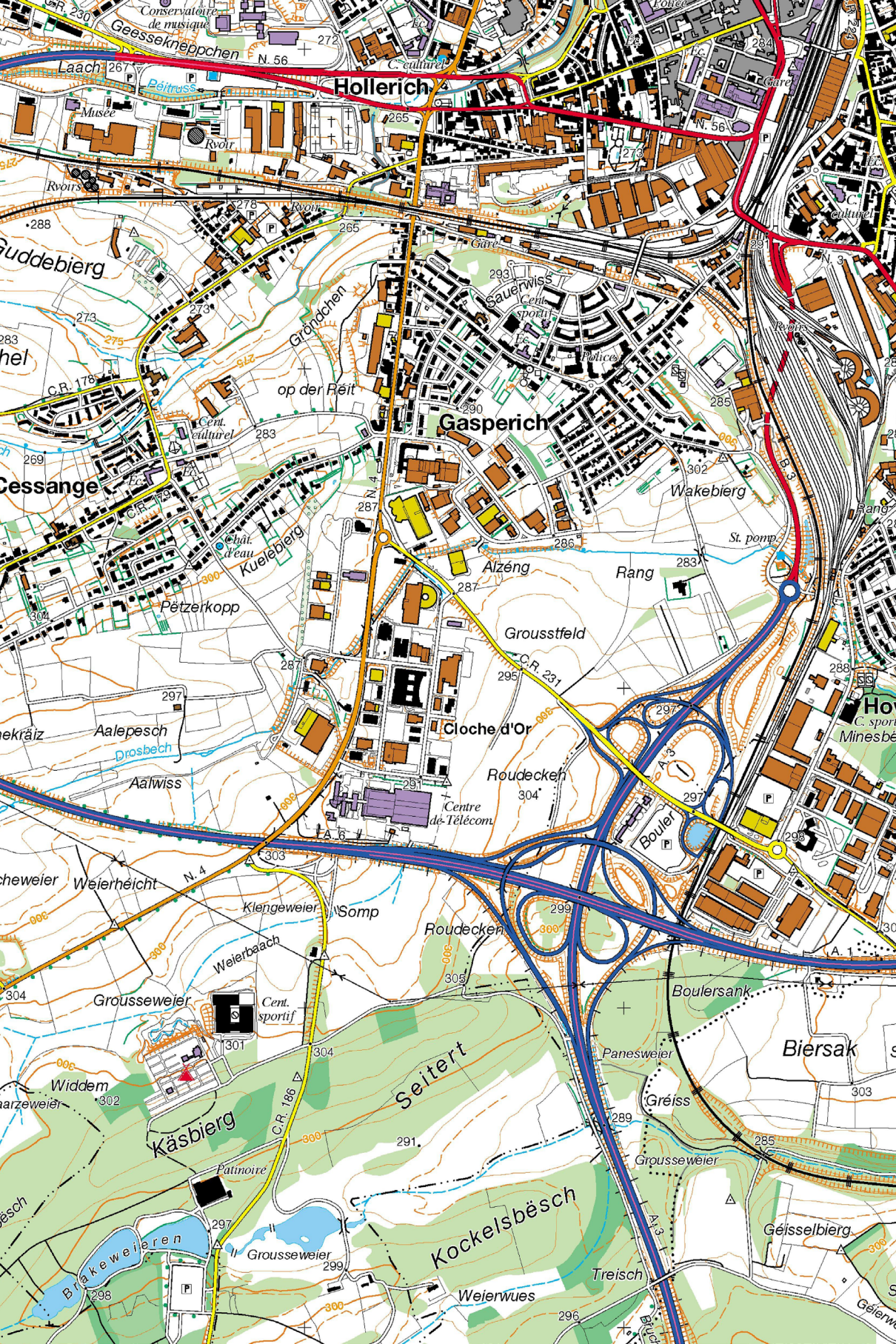




Fig 2: Photograph of the Ban de Gasperich in 1995. View on fields and the business park in the back. Photothèque Ville de Luxembourg.

3.1.4 An economy on the rise

The financial sector sees no slowing down in the years of the 2000's. The area rapidly fills up with office buildings, warehouses and other commercial buildings following the *Drosbach* and is set to be finished in 2003. (Fig 1) (Rolph, 2021)

The highway bypass of Luxembourg City is completed at this point and the area is now connected to the East of the country. The completion of the road works also marks the development of the Howald business park, situated East of the highway interchange. This business park however is on territory of the municipality of Hesperange and therefore doesn't fall under the administration of the capital.

The Cloche d'Or area keeps the name of the hotel complex, which has vanished leaving only the empty plot. The area has now completely lost its status as a place to escape urban life. (Fig 2)

Fig 1: The territory of Luxembourg City. Topographic map. (Administration du Cadastre et de la Topographie 2000)



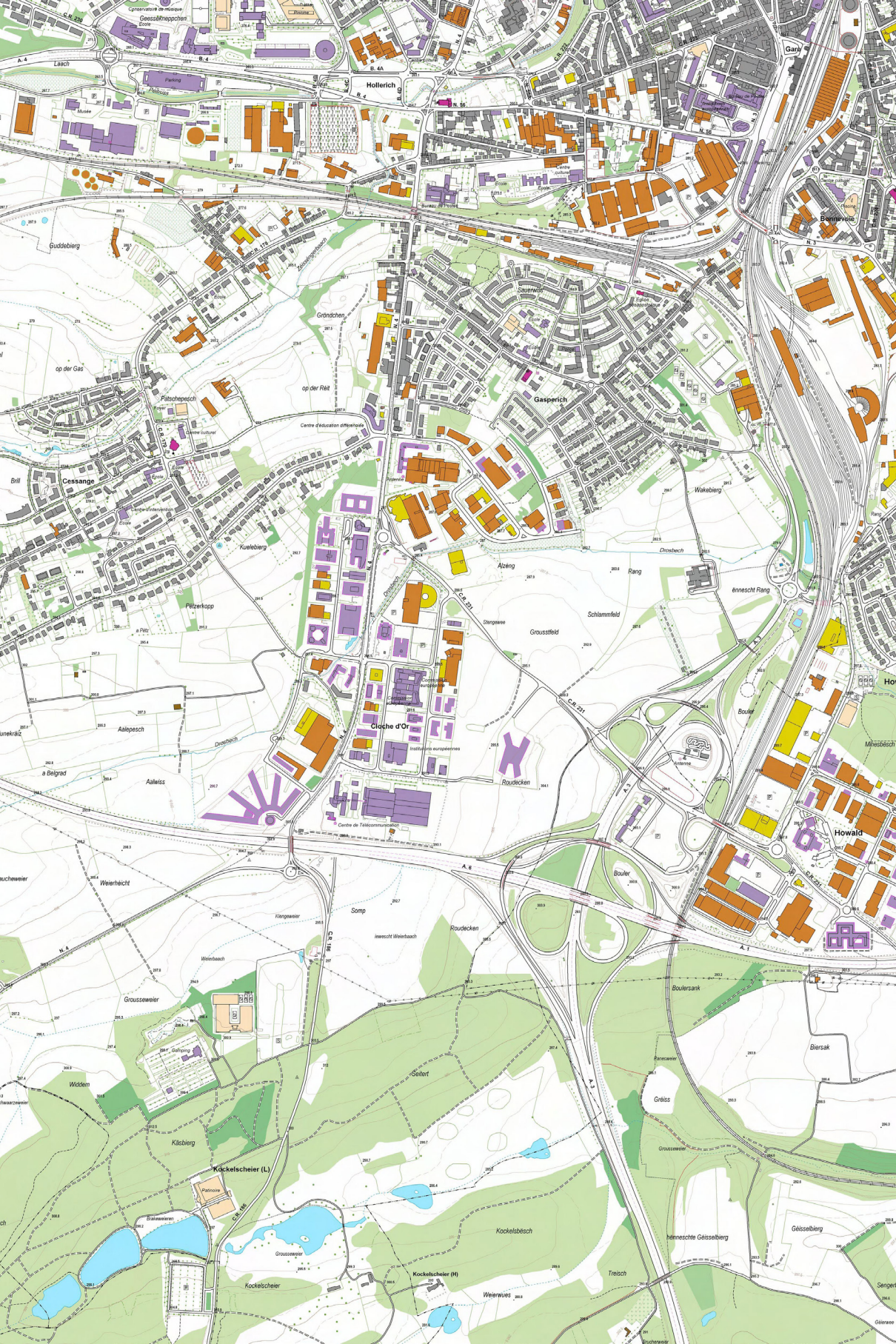




Fig 2: Photograph of the Ban de Gasperich in 2018. The Weierbach ecological couloir under construction. Photothèque Ville de Luxembourg.

3.1.5 Cloche d'Or: a new neighbourhood

In 2004 a masterplan was ordered by the Ministry of the Interior with the intention to develop a new city quarter, following the existing PAG. Grossfeld PAP was founded in 2007, the society who manages the development, which had Flavio Becca on board, owner of most of the empty fields of 80 ha East of the existing business park. (Fig 1)

The area is set to developed into a mixed used zone combining housing, commercial buildings, and office buildings. A new mobility concept was also elaborated, focusing on public transport, including a new tramway, bus lines and a new train station, soft mobility, and cars. A further mentioned point was the importance of green spaces in their development.

The year 2010 marks the beginning of construction, with the first road infrastructures, office buildings and housing. (Fig 2) The first completed building was the new head office of PwC in Luxembourg. (Coubay, 2023)

Fig 1: The territory of Luxembourg City. Topographic map. (Administration du Cadastre et de la Topographie around 2013)







Fig 2: Photograph of traffic on the *Boulevard de Kockelscheuer*, 2024.

3.1.6 Money rules it all

In a span of only 10 years, almost three quarters of the Grossfeld PAP territory has already been developed or is under construction. (Fig 1) The new Park Ban de Gasperich was inaugurated in 2023, the second housing cluster is almost completed, and offices continue to be built. In addition, the new French school opened its doors in 2018 and the Cloche d'Or shopping centre in 2019.

The recent developments reenforce the presence of the service industry on site. (Fig 2) A said modern urban planning is implemented, which resembles more the old developments. The rest of the empty space will be filled up with office buildings in the coming years.

Fig 1: The territory of Luxembourg City. Orthophoto. (Administration du Cadastre et de la Topographie 2023)



3.2 Cloche d'Or the new urban neighbourhood?

A COMPOSITION IN THREE PARTS

The area of Cloche d'Or is first interesting in terms of the extend of its development compared to other business parks situated at the limit of the municipality of Luxembourg City. The different developments can still be seen today and are quite distinct in their urban characteristics.

The original industrial zone of Gasperich presents a larger number of warehouses, with only a few specialised office buildings. The business park Cloche d'Or consists mainly of office buildings, some of them more modern than others. The layout of this part strongly resembles the planning of the industrial zone of Gasperich and shows some artisanal warehouses. Finally, the third development is the ongoing construction of the new finance centre. There is the intention of implementing a kind of diversity in programmes (business, commerce, housing, and public functions), which distincts this part to the others. Buildings no matter what function are highly equipped modern and performing buildings.

BUT STILL A WHOLE

All three developments of Cloche d'Or however represent all main characteristics of a typical business park.

Firstly, they are situated like most business parks in a suburban area at the limit of the city. Secondly, they are all recognisable by their sheer size of the extended occupied area in a city. To add to the size of the plots, a large number of properties are often secured, either by fences or CCTV, but sometimes even be the presence of security personnel.

Furthermore, the architecture differs drastically to the more central parts of the city, which presents a remarkable uniformity. The last characteristic is the oversized road infrastructure or more specifically automotive infrastructure, including parking spaces.

NEW URBAN LIVING?

The Grossfeld project introduces novelties in business parks, such as a general diversity of functions, such as housing, business, commerce, and public functions. The introduction of a tram line and the construction of a nearby train station also elevate accessibility drastically.

However, the size in every aspect of the urban zoning is inadequate to the human scale on the ground. This is true for all three parts of the Cloche d'Or. As a person in the public space, one can easily lose the overall vision of the area due to the size of the plots and the uniformity of buildings. The public space itself is very unattractive presenting little to none outside amenities. In some way, Cloche d'Or still refuses accessibility to people.



Fig. Photograph of a man passing by a Cloche d'Or advertisement entitled *New Urban Living*, 2024.



4 Cloche d'Or: Characteristics of a zone

Rosie does not know why she always disliked the Cloche d'Or business district so much. Well, 'dislike' is a strong word, but still there is something. She thinks about what could make her claim stick. Obviously, there is a lot of concrete and almost no public installations. There is not even a bench to sit on while having lunch. The buildings are very anonymous. The names of the companies are marked on the door, some even have big signs, but she cannot even imagine what is happening inside these boxes. Walking past these buildings, she feels like an alien. The few buildings she is allowed to enter are rare and it takes an eternity to get there by foot.

There are not only bad things though. She has always noticed the green corridor around the Drosbach. It is like the last natural element which persists in this money driven, organised world. And there is the new park, the biggest park in Luxembourg. It is quite nice she must admit to herself.

Oh yes, she forgot! The streets were hell. It took an eternity to cross. No wonder because some boulevards are even larger than the highway.

Now that everything stopped, she has time to reflect.



Fig 1: Photograph of a garden shed in Gasperich with the Cloche d'Or in the background, 2024.

SUBURBAN SITUATION

The Cloche d'Or zoning is situated on the Southern limit of the city. Fragments of the territory's disappearing agricultural function are still perceptible.



Fig 2: Photograph of the highway crossing of the *Route d'Esch*, 2024.

SIZE AND URBAN SPREAD

Business parks like the Cloche d'Or are intricately linked to the urban spread phenomenon, due to their large footprint.

Fig 3: Photograph of a closed barrier of an office parking in Cloche d'Or, 2024.



PLOT SIZE AND ACCESSIBILITY

The territory seems porous because of the generous size of the plots and the free-standing buildings. However, access is often limited by gates, fences, and CCTV and sometimes even security guards.

Fig 4: Photograph of the Rue Eugène Ruppert. Cars are parked on each side, 2024.



UNIFORM ARCHITECTURE

A large part of Cloche d'Or's built fabric are highly equipped office buildings. The buildings typically present the same box as shape and are of a similar size.



Fig 5: Photograph of the Boulevard de Kockelscheuer leading towards the Cloche d'Or, 2024.

OVERSIZED ROAD INFRASTRUCTURE

Cloche d'Or is directly accessible from the highway. The road infrastructure is adapted to large waves of workers arriving every morning, but also for transport of goods.



Fig 6: Photograph of the side walk in front of the Deloitte offices, 2024.

LOSS OF HUMAN SCALE

A pedestrian in Cloche d'Or can easily feel overwhelmed by the oversizing of building and infrastructure.

4.1 Contextualising Cloche d'Or and its surroundings

The Cloche d'Or territory is inscribed in the complexity of suburbanisation and urban sprawl. The issue of the role of business parks in these kinds of suburban territories must be treated with close attention as well. (Lejoux and Charieau 2021) In order to be able to understand the many facets of the studied area, it is important to treat the different aspects separately.

Business parks like the Cloche d'Or are often believed to be a result of an economic phenomenon. Zones like these are highly adapted to be as profitable as possible and belong to the most unnatural places. (Ministère de l'Environnement, du Climat et du Développement durable & Ministère de l'Énergie et de l'Aménagement du territoire 2023)

Therefore, it seems evident to start the closer analysis with the human-made part, which can be divided into two main categories. The first category is the built fabric, which is linked to the social context and the actors on site. The second one is the infrastructure which creates the link to and between the actors on site.

On the other hand, the highly artificialized territory, raises the importance to take a closer look at what is left of natural features. However, everything which seems natural was once touched by humankind. It is therefore important to understand the main logics of nature in its context.



Fig. Photograph of pedestrians crossing the Boulevard W. H. Raiffeisen to the Cloche d'Or shopping centre, 2024.

4.2 Human context

Human presence is as clear as night and day on the Cloche d'Or territory. The area is at the forefront of current urbanisation and urban sprawl. The economic component of the business park makes Cloche d'Or one of the most artificial zones in the City of Luxembourg. This is true for human activities, which is focused on business and commercial scenes at first. Leisure activities are in close relation with the commercial activities.

Artificialisation is also true when talking about the built environment, buildings, and open space. The soil cover map from 2018 (Fig) demonstrates that the surroundings of the buildings, public and private, are sealed almost completely. (Ministère de l'Environnement, du Climat et du Développement durable & Ministère de l'Énergie et de l'Aménagement du territoire 2023)

One would think that a highly artificial and human centred zone, would also have highly adapted public space. However, this is not true for the suburban area of Cloche d'Or. It appears that all activity turns around what happens in the large boxes and takes all attention away from what happens outside. It becomes evident, that individuality trumps the common. Every leisure activity is cramped into shopping centres, firms have their own lunch places, individual parking, gyms and sometimes even nurseries. On the outside, access to properties is controlled, streets filled up with stationed cars, street crossing lights stay red for an eternity.

The common outside space is absent. Benches are rare even around the newly constructed housing blocks.

To confirm this case, a more precise analysis of the built environment is necessary.



Fig: Soil cover in 2018 on the extended territory of the Cloche d'Or
(Ministère de l'Environnement, du Climat et du Développement durable & Ministère de l'Énergie et de l'Aménagement du territoire 2023)

4.2.1 Built context

The Cloche d'Or zone is defined by three main developments. The first one is the industrial zone of Gasperich, the second one the original business park of Cloche d'Or and the third one the Grossfeld development, which is still ongoing. These developments each have their specific building types, which also relate to the types of interactions and activities in the respective parts of the zone.

INDUSTRIAL ZONE GASPERICH

The original industrial zone of Gasperich is situated closest to the neighbourhood of Gasperich in the North of the Cloche d'Or area. There is still a mix of artisanal and commercial buildings and warehouses, which are coherent to the original design of the zone. Some of the warehouses have since been converted into fitness centres and commercial buildings, such as supermarkets, furniture, and appliance stores. There is a limited number of office buildings, which are often coupled to a warehouse. Specifically, there are also two nurseries. To sum up, this part of Cloche d'Or has kept its artisanal image but is currently subject to modernisation.

BUSINESS PARK CLOCHE D'OR

The business park Cloche d'Or, situated in the Southeast of the Cloche d'Or area is mainly made up by office buildings. A large part of these offices is active in the finance sector. Other buildings accommodate administrative offices, such as departments of the European commission, the municipality, or the government. The office types are quite advanced and specialised already. There are also some engineering offices and law firms as well as administrative offices which are linked to other productive businesses. Specific to this area are also two car dealers as well, the central heating plant and Post distribution centre with its telecom department.

THE GROSSFELD DEVELOPMENT

The Grossfeld development is the currently constructed new urban neighbourhood and business park towards the East of the area. The will to introduce a mixed-use business park is the core idea of the project. The housing blocks are therefore a novelty in this area. Furthermore, a shopping centre is supposed to be at the heart of the development as well as the new French school. There are also public functions such as the national fire station, an animal shelter and the national football stadium. The new office buildings stand out because of their height and are equipped with the newest technologies.



Fig: Typologies of Cloche d'Or

-  Office building
-  Finance firm
-  Warehouse
-  Commercial building
-  Residential building
-  Service or public building
-  School building



4.2.2 Fixed mobility infrastructure

In Cloche d'Or, the infrastructure linked to mobility is the most important one, because it is at the core of the existence of a business park. Here we can differentiate between the road infrastructure and the infrastructure linked to public transport.

The road infrastructure is typically oversized for these types of suburban business parks. It is directly connected to the highway, which is supposed to “generate urban mobilities, for the transport of goods and labour, as well as for purchases and leisure.” (Lejoux and Charicau 2021, 1) However, the Cloche d'Or has lost its productive status and therefore is not used as much for the transport of goods anymore.

The highway and roads on the Cloche d'or territory can be separated into two categories. The highway, the two new boulevards, the *Boulevard de Kockelscheuer* and the *Boulevard W. H. Raiffeisen* and the historical axis of the *Route d'Esch* belong to the first category. The second category regroups all the streets which connect the different firms outside of the larger streets. The hierarchy of both categories is truly clear, the highway and the boulevards trump the secondary streets in their size, speed, and usage.

The primary mesh's main purpose is to absorb the mass of cars which flows in every morning from the highway. For this to work out, the boulevards are sometimes even larger and have more lanes than the highway. They function as real barriers for pedestrians.

The secondary mesh has a lower flow rate than the primary axes and their main purpose is to navigate to the different firms. These streets are occupied most of the time by cars standing still on the parking spots on either side of the streets.






Linked to the road infrastructure are Park and Rides which are supposed to create the link from individual transport at the outskirts of the city to public transport towards the central city. Those places are currently connected to bus stations but will soon see a connection to an operating tram line and a new train station.

The tram line which will connect the City of Luxembourg from North to South and back will start its operation in Cloche d'Or in July/August 2024. (Luxtram 2021) The train station in Howald started operating in 2017 and a second is currently under construction. It is the last stop before the central station. (CFL 2024)

The most used public transport at the moment however are buses. The soft mobility must not be neglected. Bicycles and pedestrians are an essential part of the contemporary city. However, these means are linked to the street design, which can be redefined easily.



Fig. Fixed mobility of Cloche d'Or

-  Primary road network
-  Secondary road network
-  Parking space
-  Train station
-  Tram line



4.3 Natural context

As previously mentioned, the natural features on the Cloche d'Or territory are all but natural. Cloche d'Or has lost its agricultural status since the construction of the business park. Notably, agricultural land already is unnatural.

However, two water streams are still disturbing the artificial environment with their green buffer. Their spread however is kept under control by concrete on either side. Ironically both streams culminate in the most unnatural of natural areas, the newly inaugurated Park Ban de Gasperich.

There is nothing bad about unnatural green spaces however to be clear. It is evident that in urban areas, untouched nature is almost impossible. Green spaces are essential for human well-being in cities, and their presence and treatment are therefore of utmost importance. These spaces can range from front yards, private gardens, market gardens, parks or a forest touching the limit of a city. Green spaces are also important in city mechanics such as water management. Well designed, they make a city healthier.

Both blue and green infrastructure, go hand in hand and are therefore important to be looked at separately to understand them as a whole.



Fig: Photograph of the natural corridor of the *Weierbach* in Clôche d'Or, 2024.

4.3.1 Blue infrastructure

The two water streams are the most obvious elements when talking about blue infrastructure. The *Drosbach* is entering the zone from a Southeastern direction. It crosses the original business park, passes under the new Boulevard Wilhelm Friedrich Raiffeisen, longs the original industrial zone and the collective gardens before it enters the new Park Ban de Gasperich, where it helps fill the water basins. The *Drosbach* leaves the zone to the West. The other water stream, the *Weierbach* was recently renatured part of new urban development, the Grossfeld PAP. (ecological corridor) It comes from the Kockelscheuer forest from the South and longs the Kockelscheuer Boulevard next to the national stadium. It then crosses the boulevard the parking of the stadium and the highway to reemerge next to the water tower. Here the stream continues in the more obviously renatured segment, along the limit between the old business park and the new housing developments. It also passes underneath the W.H. Raiffeisen Boulevard and then flows into the *Drosbach* at the collective gardens.

Connected to both streams, is the question of topography. The valleys do not seem obvious at first sight, but they have its impact on the Cloche d'Or territory.



Fig 1: Photograph of Drosbach next to the heating plant, 2024.



Fig 2: Photograph of Weierbach and its green corridor, 2024.

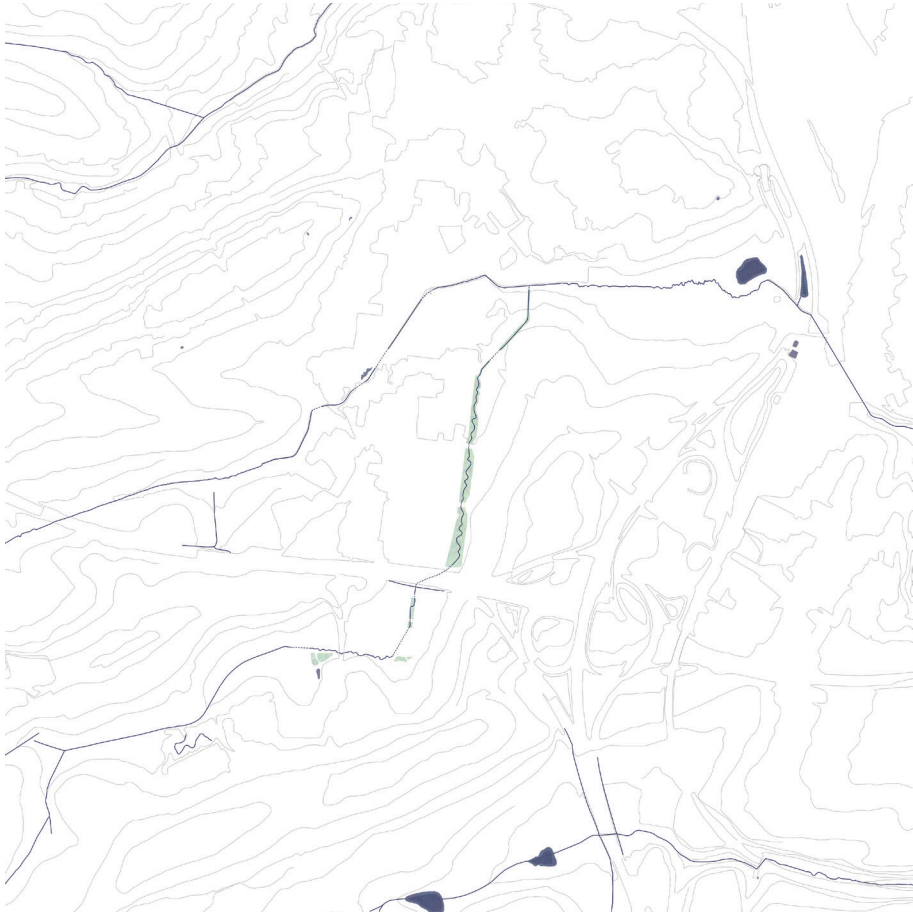




Fig. Blue infrastructure Cloche d'Or

-  Water network
-  Water basin



4.3.2 Green infrastructure

Although the Cloche d’Or is a very mineral area, there is still some variability in its green spaces.

Originally the area was farmland and towards West the zone is still defined by agricultural fields. Nevertheless, some remnants can still be found in the business park itself, like in the centre between the original and the new zone, Northern of the Park Ban de Gasperich and next to the water tower. Last mentioned are set to be developed in the coming years.

In addition, an association managing garden lots is placed on the limit of the original industrial zone of Gasperich.

In the South and in the East to forested areas are situated, the Kockelscheuer and the Howald Forest, respectively. The Kockelscheuer forest hosts a series of lakes and sports infrastructure. The forest in Howald is spread through the valley defining the Howald plateau.

Important to mention are the greenspaces around the two water streams. The Drosbach seems to guarantee a natural corridor through the zone, which also extends on the farmland. It is mostly trees and brushes which grow more freely than the well-groomed green spaces of the business park. The greenery around the Grossfeld stream is planned in detail. It has not developed yet, because of its recent renaturation.

Greenspaces around the office buildings are defined by its owners and some of them have more qualities than others. Finally, public green spaces outside of the park are scarce and developed conservatively, with some trees and grass on the boulevards or on the streets’ limits.








Fig 1: Photograph of a green corridor between buildings following the *Drosbach*, 2024.



Fig 2: Photograph of gardens next to the housing development, 2024.



Fig: Green infrastructure Cloche d'Or

-  Forest
-  Agricultural fields
-  Park
-  Green corridor
-  Plain
-  Garden



4.4 Urban fabric dictates urban living

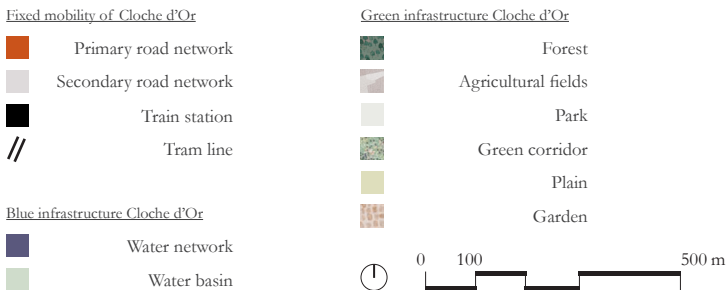
The main characteristics to be held back after all either belong to the infrastructural or human-made part or to the natural part.

In terms of infrastructure, the most imposing element is the street network and everything which is in relation with automotive mobility. These elements always keep a clear hierarchy, which is due to their dimensions and their purpose. The highway and important axes, such as the two boulevards and the historic axis are above all secondary routes by their level of speed and frequency. The secondary streets are slower in speed, but serve more as car stationing, which makes them none the less frequented. The infrastructure is linked to what is happening in the buildings. In fact, in today's state one doesn't go without the other. The population still relies strongly on transport by car, which explains the abundance of parking space, private and public, around the area. On the other hand, Cloche d'Or and Gasperich are connected extensively to public transport, with a high frequency of buses and the opening of a new train station in 2017. The arrival of a new train line in the Summer of 2024 strengthens those connections.

Despite the good connection to the public transport network, Cloche d'Or remains car dependant, which is mainly due to its current street hierarchy. Furthermore, cars occupy every inch of public space on the secondary streets, which leaves no space for the occupants. The economic goals of the present firms also encourage the negligence of the slow space or pedestrian space, because of the concept of high efficiency.

Nevertheless, in all this artificial fabric, some natural factors still persist. The two water streams, *Drosbach* and *Weierbach*, are two natural arteries cutting through the built fabric. They are also reuniting the same desire from two different stages in time. These arteries, however, are always kept in line by the surrounding city.

Fig: Synthesis of the Cloche d'Or territory







5 The conquest of urban space

Rosie walks in through the street which she has walked through many times before in her life. As she passes by the repurposed office buildings, she is often astonished of how quickly the transition was made. The days of the specialised business park are gone. The people have regained the streets. After the big financial firms left, the area slowed down drastically. Other firms left too, because the peripheral zones lost their advantages. Dense traffic disappeared too for a while, which saw people walking in the middle of the boulevard in plain day. The inhabitants wanted it to keep it that way and launched a No Car initiative, which was picked up by the municipality.

Sometimes, Rosie likes to walk instead of cycling. The slower pace makes her appreciate her neighbourhood much more. There is an exciting mix of commercial and artisanal businesses and housing now. The empty space attracted a lot of young people, which wanted to step away from the way of life imposed by the older generations.

Rosie stops at one of the new piazzas. There is a sign which says, that one of the local bands will do a gig tonight. She might come back later; the weather is nice and this could be a lovely way to end the day.

5.1 The impact of the fictive scenario: Repurposing of a business park

AN IMMOVABLE SYSTEM

The proposed fictive scenario has the purpose to launch a discussion or reflection on a contemporary urban vision, which frustratingly doesn't seem to work out.

The business park of Cloche d'Or is at the forefront of these new neighbourhood models. The business park shows features three types of business park design from three different times. The ongoing developments try to unite urban living with business activity, which in this case are mainly accounting and consulting firms.

The advanced state of the development of the Cloche d'Or urban project, gives the understanding that the neighbourhood doesn't function as described in the many interviews given by the landlords and land developers. (Kurzawa 2020) The combined factors of businesses, which strive for efficiency and the oversized road infrastructure, which comes from the old model of artisanal or industrial zones prohibit the desired slow speed and public transport focused neighbourhood to function. Furthermore, they dictate the functioning of the business park to a point in which it seems impossible to generate change.

As seen in the historic analysis Luxembourg often relies on a single strong industry. When the said sector risks to collapse or move on, the country needs to shift its industry to avoid an economic crash. In today's volatile economic situations influenced by global pandemics, wars, global warming and the appearance of artificial intelligence all make the disappearing of Luxembourg's fiscal advantages not so impossible.

SUBJECT OF CHANGE

The proposed fictive scenario envisions the vanishing of the finance industry. This context can be understood as affected firms either forced to close their activity due to an economic crisis or their moving on from Luxembourgish territory because of the loss of the fiscal advantages, which grew the economy in the first place.

The series of cascading effects are impossible to predict, but in essence, it is evident, that the current purpose of the financial business park on Luxembourgish territory is lost. Consequently, a said scenario breaks the cycle of these specialised economic zones and creates an opportunity to revisit these areas with a different mindset. With the issue of climate change the urban sprawl phenomenon seems outdated. To preserve as much natural space as possible, the city must be kept in its boundaries and large surface suburban zones like business parks immediately come to mind. (European Environment Agency 2023) This fictive scenario can create a space which loosens the grip of cars on the city and give the public space back to the pedestrian.



RENAULT

5.2 Project intentions: main principles

HIERARCHICAL SHAKE UP OF THE ROAD INFRASTRUCTURE

First, a change to the current road infrastructure must be made. Currently the dominating roads are the highway, both boulevards and the historic axis towards the South. These streets are highly frequented with decent speeds and are obvious barriers in the public space. The secondary roads are mainly used to station cars and to move to the firms on site. Both road categories are oversized to manage the daily car influx.

Changing the hierarchy of both road categories would shake up the mobility on site. The smaller roads become the primary road network, by moving away from a car centred mobility to create an attractive public space focused on pedestrian and slow mobility. Furthermore, public transport gains in importance and must comply with the necessary demands.

The redefinition of the secondary mesh into an attractive public space, generates opportunities for other projects to develop around them.

The large axes which preside today are segmented by prioritising the fluxes on the secondary mesh, which redefines the new hierarchy concretely.

SPREAD OF THE GREEN AND BLUE MESH

Both natural arteries which penetrate through the artificial business parks are given space to spread. This can be done in close dialogue with the previously mentioned redesign of the street network.

The current arteries will be freed from the current constraints in infrastructure and are allowed to spread through the streets. Revitalising public space with greenery and better water management is essential considering the high level of sealing in the business park. The removing of sealed soils is also an important step when it comes to limiting car access. Nature spreading through the business park also plays its part in redefining the size of the street, by creating buffers in the street section.

Current situation



Project intention



Fig 1: Shake up of the street hierarchy



Fig 2: Spread of the natural arteries

REPURPOSING THE EMPTY OFFICE BUILDINGS

The departure of accounting and consulting firms is the immediate effect of this fictive scenario. At today's state, the urban fabric of the Cloche d'Or business park seems porous, because of the large plot sizes and the free-standing buildings. However, this doesn't guarantee accessibility. In fact, most plots are secured by fences, barriers, CCTV and even active security guards. Access to the public is consequently very limited. The leaving of these business firms opens a new opportunity to how access can be treated in a more public way.

In terms of function, the empty office buildings will be repurposed considering the current needs. Some of them may remain offices, others will offer space for new commercial activities. With the shortage of housing in the City of Luxembourg, it is evident that a large part of these buildings, will be subject to new living spaces.

A common project could envision the changing of the status of the previously mentioned plots by assuming the porous character of the zone and implement a freer movement through these housing projects

LANDMARKS DEFINE THE URBAN FABRIC

Usually, it is hard to develop a sense of orientation in a business park, firstly due to its sheer size, but also because of a uniformity throughout the buildings. This claim is less present with the development of the new Cloche d'Or neighbourhood and its oversized shopping centre, school and the giant park. However, this strengthens the absence of landmarks in the other parts of the zoning.

Landmarks, which are placed in each part of the business park, not only improve orientation in the area, but they also create an identity socially and culturally. Reminding that the main problem of the area is the public space, those landmarks need to be linked intricately public functions, which reunite people and therefore define neighbourhoods.

The first project is the reconversion of a car dealer warehouse into a public swimming pool, reconnecting to the roots of the Cloche d'Or. There is also an urban agriculture project which strengthens the existing gardening association. In the Southeast will be a communal artisanal project, a place where people can go to learn from professionals and where spaces are available for private use. Lastly, a project in the heart of the new development seeks to bridge the gap between the office towers and the housing blocks via a cultural centre.

Current situation

Project intention



Fig 3: Empty finance offices assume the porosity

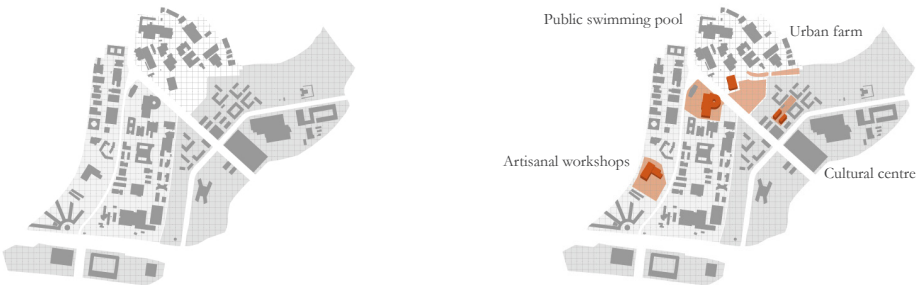


Fig 4: Landmarks as a way to create identity





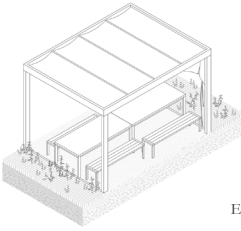
Fig: Vision of the Cloche d'Or territory



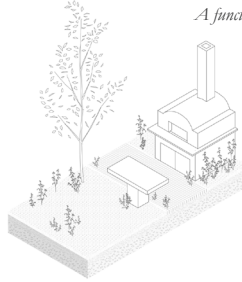
A needed function

A function of choice

Students

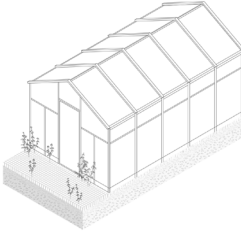


Exterior co-working

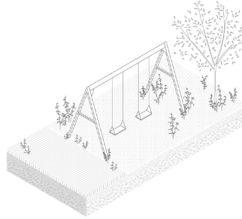


Bread bakery

Families

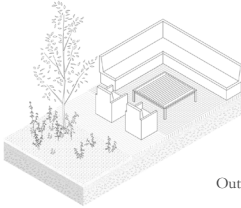


Greenhouse

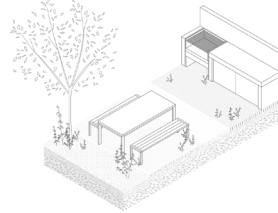


Playground

Adults

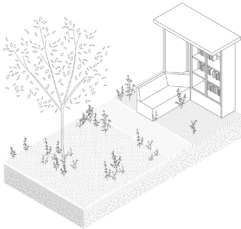


Outside meeting space

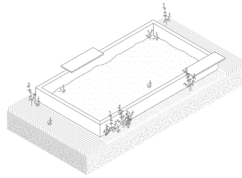


Open-air kitchen

Children

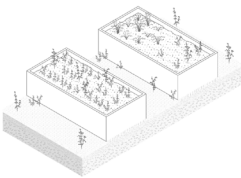


Public bookshelf

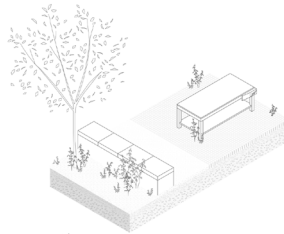


Playground

Seniors

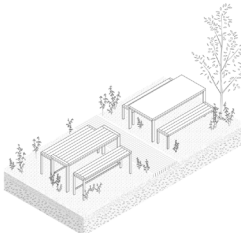


Elevated garden

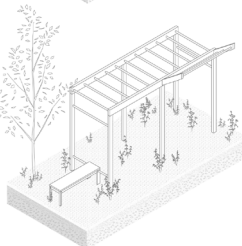


Workbench

Company



Lunchspot



Gym



5.3 Retaking the public space

To guarantee the implementation of the previously mentioned principles, they must come together on the ground in the various interventions. The interventions which are most essential to provoke the shift from a car centred zone to a space for the people are firstly the identity of the streets and secondly the landmark projects, which boost social interactions.

5.3.1 Road infrastructure

The design of the road infrastructure stays similar throughout the entire Cloche d'Or territory. In each case, the principles are that there is a defined infrastructure for slow mobility. The cycling lane is divided into two lanes. Access for cars is guaranteed but limited throughout the day. In fact, the lane is large enough for a car and a bicycle to pass each other in opposite directions. Next to the cycling path is also a footpath, which longs the natural corridor. On the other side of the cycling lane is a space which is dedicated for communal projects. The occupants of the area can define the function following the axes. Functions can be changed over time and are removable. The functions themselves are not fixed, moreover they are defined by the public. For the case of this work this is only a list for the purpose of illustrating the scenario. (Fig) This lane is based on the dimensions of the abolished parking spaces in the streets. The line might change sides depending on the context.

In terms of materiality, it is essential to avoid diminish soil sealing. The only sealed segment is the bike path and some exceptions.

In addition to the new road infrastructure the remaining part of the Cloche d'Or territory will be connected to the existing heating plant. (Ville de Luxembourg 2016) The heat distribution plant powered by a waste incineration plant in Leudelange will be able to guarantee 85% of the heating demand of the zone Cloche d'Or.

Two segments are used to demonstrate the said interventions, with one being in the older Cloche d'Or business park and the other in the new development.



Fig 1: Photograph of *Rue Robert Stumper*, 2024.

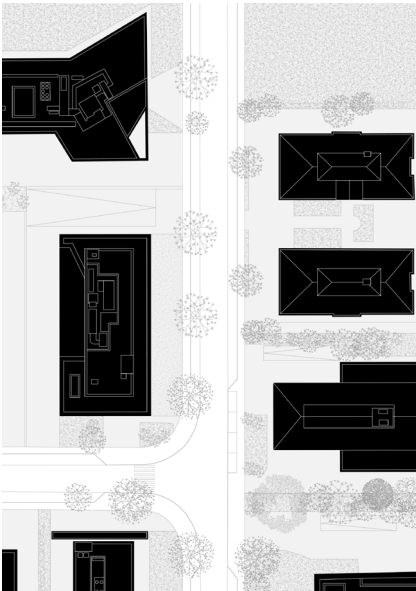


Fig 2: Plan of *Rue Robert Stumper* in its current state.



RUE ROBERT STUMPER

The Rue Robert Stumper is the typical road in a business park. There is car parking on either side of the road, with a sidewalk next to it.

In this case of intervention, the topography allows for a continuity of the Weierbach stream, which strengthens the proposed natural sprawl through the urban fabric.

The common lane is placed on the left in this case, with the footpath longing the green space.

Some connections to the plots are made by bridges to minimize the cover of the stream.

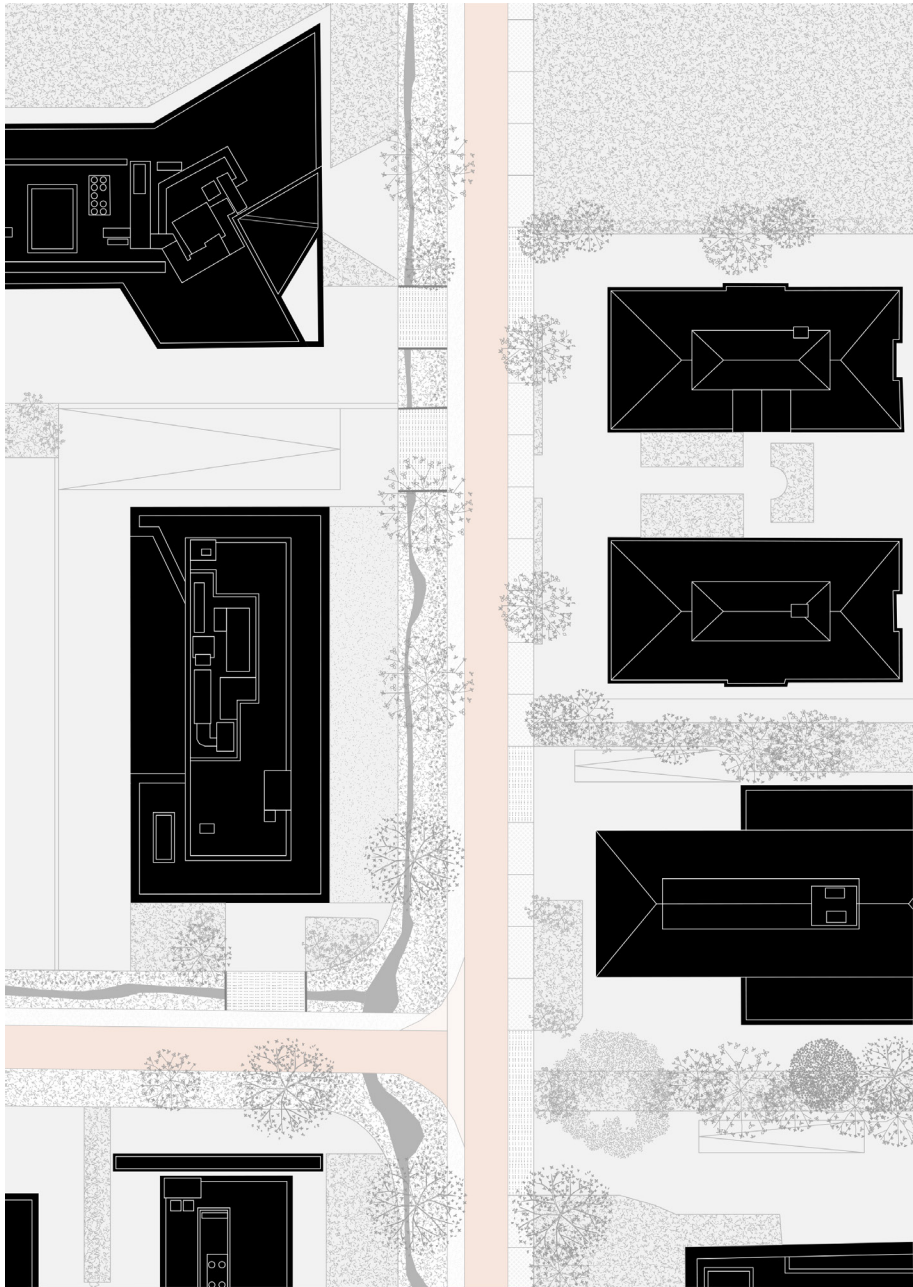
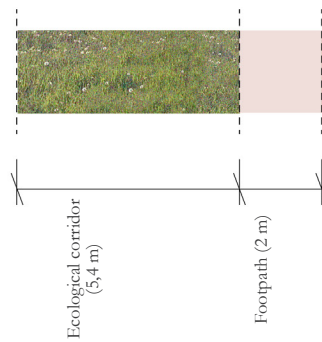
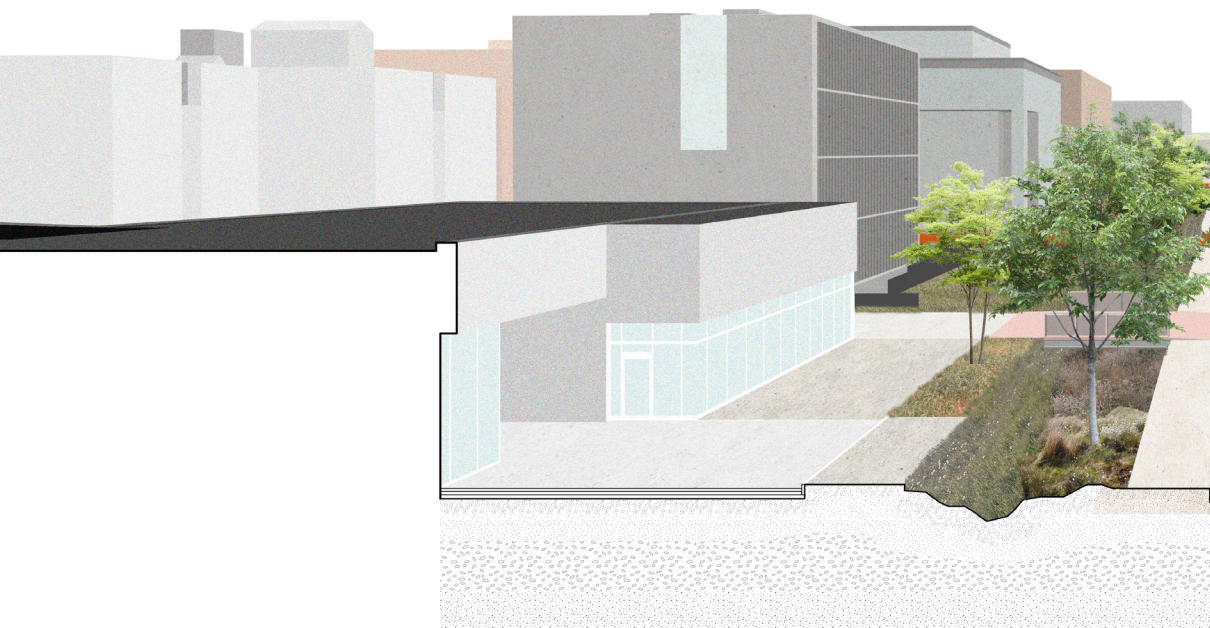


Fig 3: Plan of Rue Robert Stumper after the redefinition of the road system





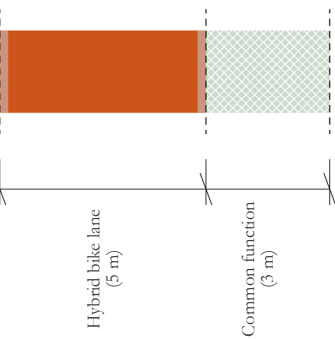
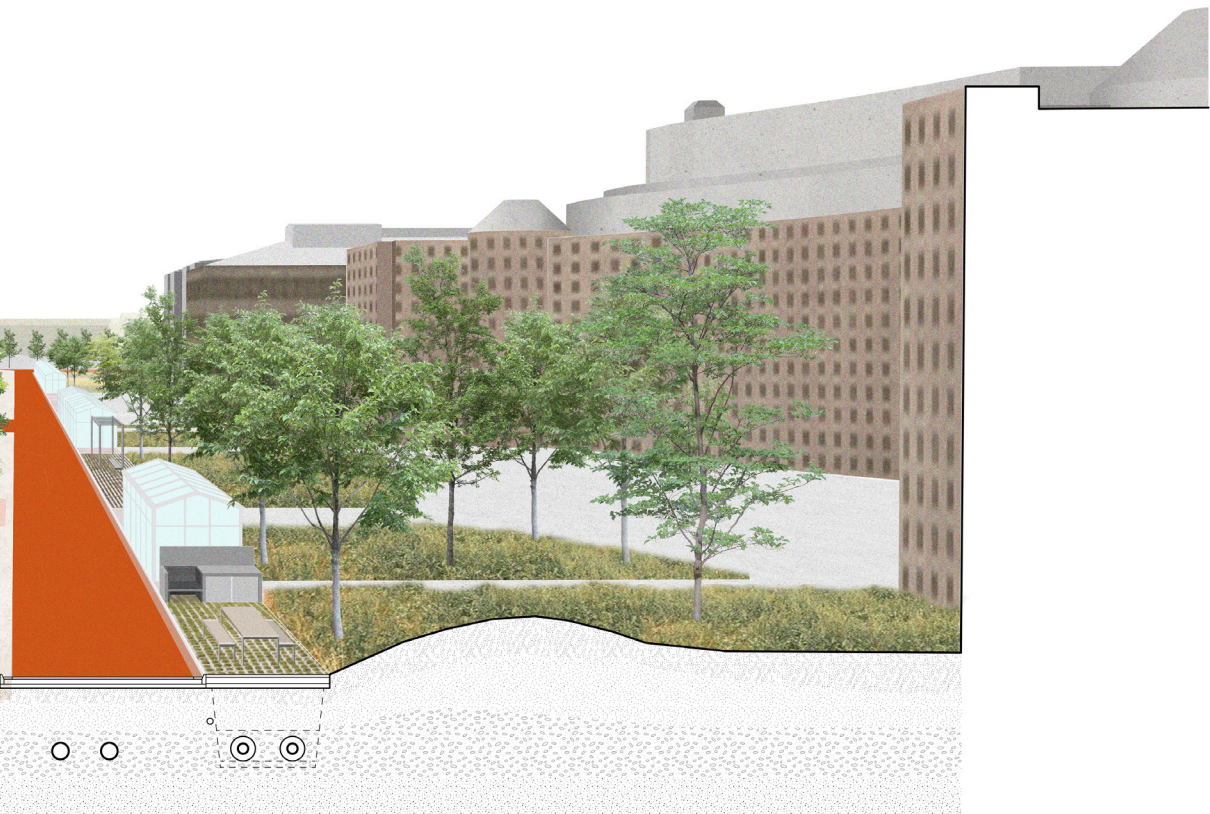


Fig. Perspective section of the new street layout in the *Rue Robert Stumper*.



Fig 1: Photograph of *Rue Charles Darwin*, 2024.

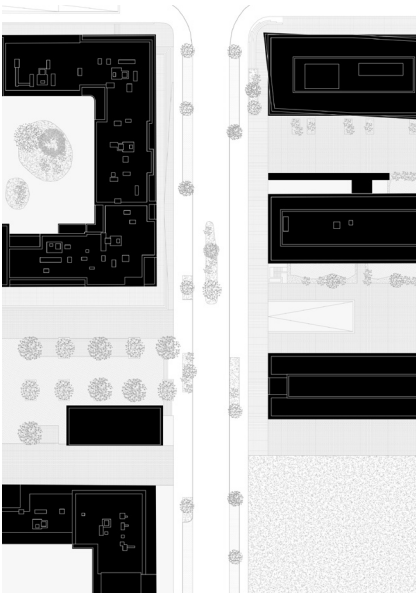


Fig 2: Plan of *Rue Charles Darwin* in its current state.

RUE CHARLES DARWIN

This street is situated in the newly developed zone between high raised office buildings and housing blocks. Currently there is no real connection between the two. The aim of this intervention is to create a diffuse crossing of the bike lane, which extends the public space of the housing complex to the other side of the street. The same principles of common interventions are also applied.

The link of both complexes will be reinforced by the landmark project of the cultural space.

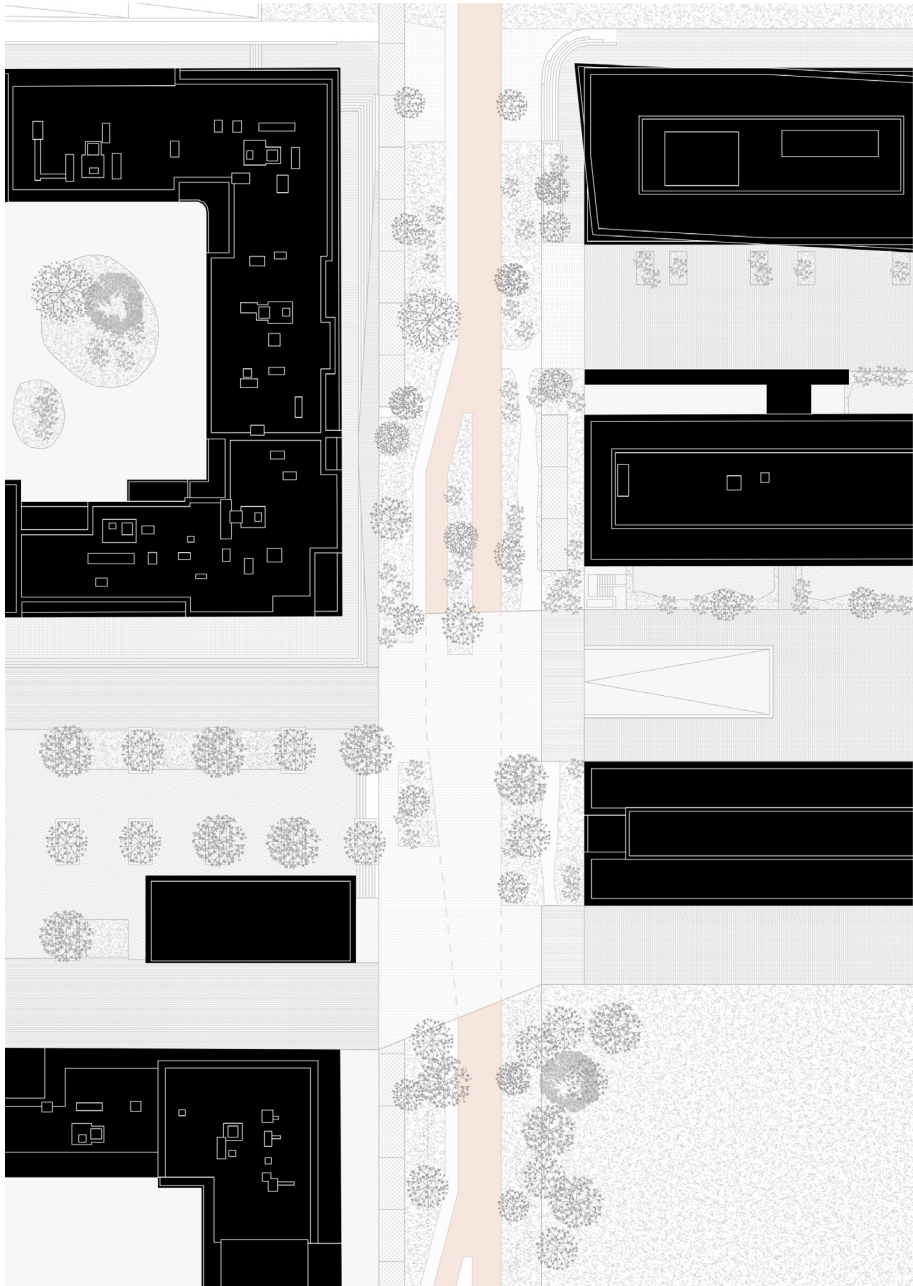
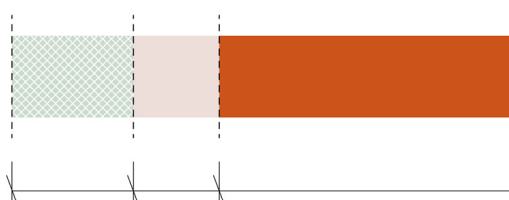
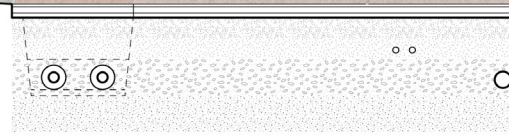


Fig 3: Plan of *Rue Charles Darwin* after the redefinition of the road system





Common function
(3 m)

Footpath (2 m)

Varying bike lane
(5 - 9 m)

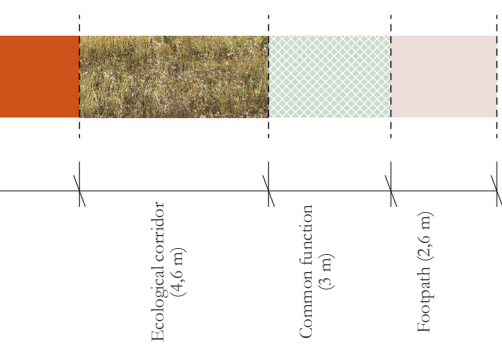
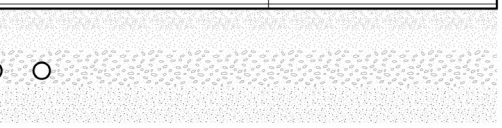


Fig. Perspective section of the new street layout in the *Rue Charles Darwin*.

5.3.2 An example of a landmark project: The public swimming pool.

In addition to nostalgically reconnect the area of Cloche d'Or to one of its original functions, the public swimming pool is a good example of a public function which brings people together.

To guarantee territorial coherence, the programme of the project must be tied to the main objective of this work, which is to improve the public space of the Cloche d'Or. Firstly, the amenities of the old car dealer are situated right next to one of the penetrating water streams, the Drosbach. It is also next to the heating plant and sits at the intersection of the W.H. Raiffeisen boulevard and the historic Route d'Esch, two streets which lose their top spot in the street hierarchy. The project is therefore situated ideally to be an example of the main intervention principles such as the spread of green spaces, and the restructuring of the street infrastructure. Shown here is the segmentation of the boulevard by continuing the green artery and opening the soil to break the boulevard's status.

The project itself seeks to limit interventions as much as possible. The car dealer's facility was divided into two parts: the showroom (the half disc) and the workshop warehouses. Most of the existing wooden post and beam structure is kept in place. The only changes in structure are in the part of the Olympic sized swimming pool, which had to be changed because of the extended span over the basin and the stands. The showroom is transformed into an outside swimming pool which is in dialogue with the surrounding open space which was previously covered with cars. The other side of the old workshops is transformed into flexible multipurpose rooms, which can be separated into various dimensioned spaces or opened completely to both sides of the building. The space in front of the swimming pool will be an open public space, which can be used as extension to the multipurpose rooms. On the other side of the building a natural pond creates a calmer outside space, which can also profit from the multipurpose rooms.

The reception of the swimming pool is placed in the middle of the building which can be accessed on both sides. From this central space one can either access the multipurpose rooms or the changing rooms and showers which are under the stands, before entering the swimming pool. Sports amenities are placed on the currently unused area around the heating plant. Access still needs to be guaranteed for technical reasons and standards, but it is important to activate both sides of the Drosbach. In this case the heating plant will also be in the conversation of the landmark and a point of orientation.

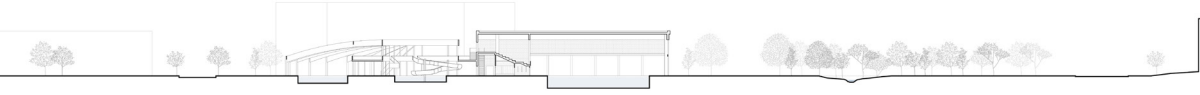
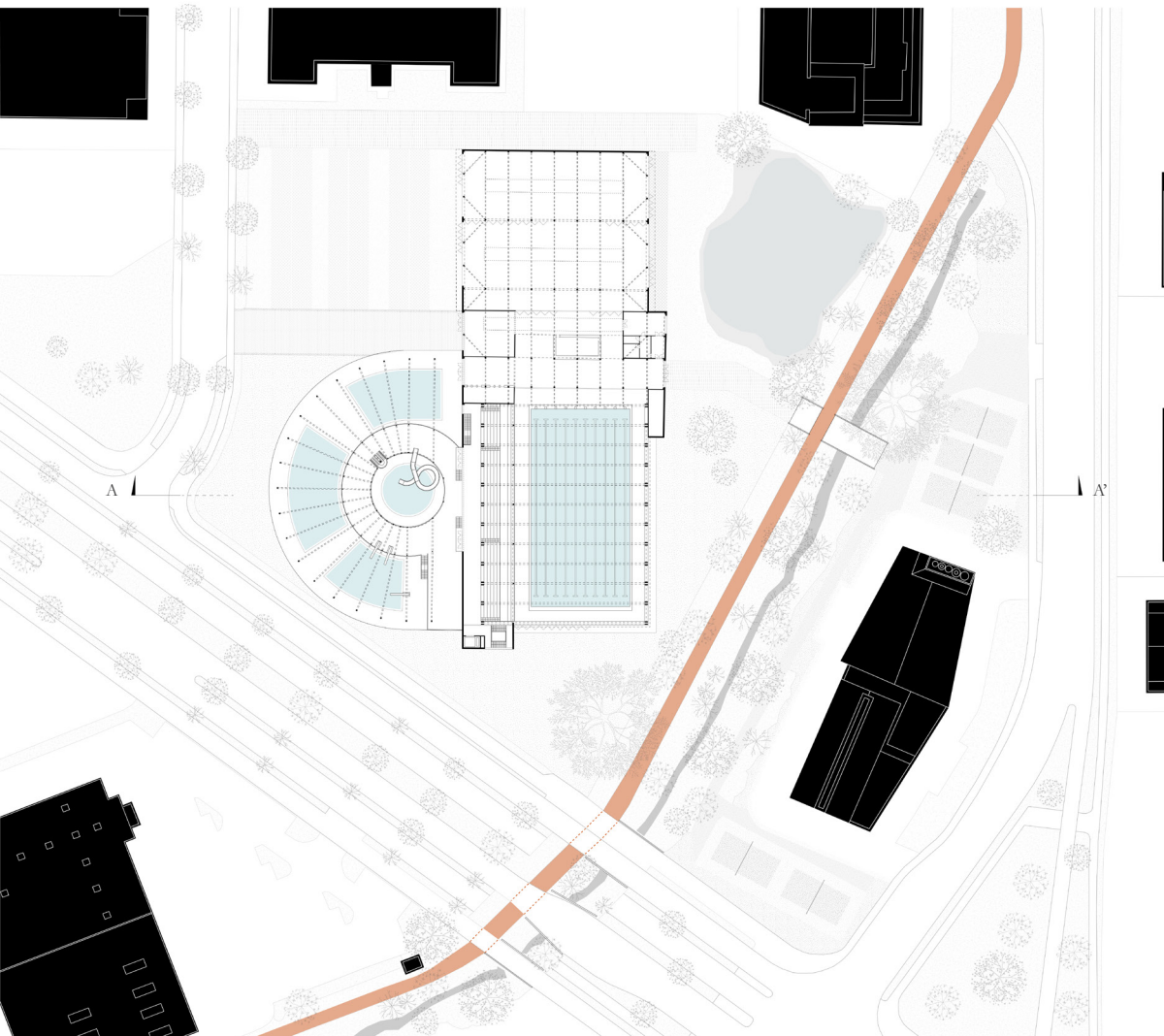


Fig 1: Cross section AA' of the public swimming pool



0 10 60 m

Fig 2: Plan of the reconversion of a care dealer's warehouse into a public swimming pool.



Fig: Photograph of traffic lights on the crossing of the *Route d'Esch* and the *Boulevard de Kockelscheuer*, 2024..

5.4 Conclusion

In summary, fiction can be used as a method to explore impossible scenarios in cases of very complex territories. In the case of Cloche d'Or the fiction is used to find a way to evade the urban dictations of strong actors such as the finance sector. More specifically, the fiction of the disappearing leading economy allows for a scenario in which the inhabitants of the Cloche d'Or and Gasperich can take initiative to create more than a business park.

Business parks such as the Cloche d'Or are usually based uniquely on its economic purpose. Recent developments in Cloche d'Or show the will to create new neighbourhoods and try to seize the opportunities of these vast suburban zones. However, they still depend on the present financial economy to create a quick profit for the investors and might be too ambitious with the scale of the projects. In Cloche d'Or especially, the morphology doesn't differ much from the original business park and artisanal zone. The car stays the dominant factor. The infrastructure around it clearly oversized to persist with a mode of transport whose presence in the contemporary cities has to be scaled down.

The aim of this work's interventions is to find a way to break these car centred principles by first bringing back the human scale to the smaller sized streets and to create qualitative public spaces. The projects around the restructuring of the car infrastructure should strengthen the proposal, by creating public functions and social and cultural interactions. All these factors are essential for the development of a spatial identity and a functioning and pleasant neighbourhood.

A further path to continue research would be what will happen on the oversized primary road infrastructures: the boulevards and the highway. Do they keep their status as infrastructure? Will they be filled up with everything which is not wanted in the residential space and become infrastructural axes? Or will they simply be eaten up by the newly imposed hierarchy of slow speed neighbourhoods?



Fig: Photograph of the Cloche d'Or skyline from the public parking next to the national stadium, 2024.

6 Final word on Fiction as a method

It is true that it can be argued that fiction as a method to envision scenarios wouldn't have been necessary for the proposed project. It might simply be possible to develop a scenario in which municipality and the present finance sector work in collaboration for the benefit of both.

However, this method allowed me to take a step away from a complex subject in which I got lost frequently. Furthermore, I was able to build a narrative which made sense to me, and which fuelled me throughout the semester.

Sometimes, it takes a little fun to get right back to the subject.

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