

RE:
WORK

**MAKING PLACE FOR INDUSTRY,
LOGISTICS AND WHOLESALE
IN BRUSSELS**



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LOGISTICS AND WHOLESALE
IN BRUSSELS



L O
U S
I E LABORATORY
 URBANISM
 INFRASTRUCTURE
 ECOLOGIES

 FACULTÉ D'ARCHITECTURE
lacambrehorta

SteR*

 ERASMUS
SCHOOL
BRUSSEL

This master class was organised in 2012 by Louise (Laboratory on Urbanism, Infrastructure and Ecologies, Faculty of Architecture ULB) and SteR*(Stedenbouw en Ruimtelijke ordening, Erasmushogeschool Brussel), supported by the Secretary of State in charge of Urbanism for the Brussels-Capital Region.

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FOREWORD

At the first edition of the Brussels Master Class, that was held in 2011 and was titled '120% Brussels', urban and architectural answers were raised in order to cope with the challenges that our Region has to face due to the demographic growth.

This master class was part of the reflection on the elaboration of the Regional Sustainable Development Plan (RSDP) and on the change of the Regional Land Use Plan (demographic RLUP). The purpose of the RSDP is to develop a global vision for the future of the Region on every level: in the field of urban planning as well as in terms of mobility, housing, economy etc. With the demographic RLUP, solutions have to be found in order to make optimal use of the available space when responding to the needs of the Brussels' population caused by the upcoming demographic increase.

The 2012 edition of the master class also took part in the reflection, evolving around the theme of urban economy and in particular the challenge of uniting spaces for housing, for living and for the realization of economical activities.

The urban economy is a major challenge for the development of Brussels. Indeed, the borders of the Region cannot be extended, so it is important to reflect on ways to combine functions that often used to be separated, to a coherent entity. This is a considerable

challenge, because since the Region continues to welcome an increasing number of new inhabitants, the intention is to be able to offer quality jobs for everyone, while maintaining a comfortable habitat, with respect for the environment and economical as regards to the use of space. It is a challenge that I, as Secretary of State in charge of Town Planning, feel that is crucial to accept, along with my other competences, namely the responsibilities that I have been charged with in the French Community Commission. As you can see, the theme urban economy has not been chosen coincidentally and exceeds the field of architecture and town planning.

The reflection on these matters led to interesting results. Students and young European architects were invited to examine five Regional sites that each show a specific urban typology. The suggestions made by the different groups along with the view point of the mentors that accompanied them are all of quality and evoke both complex and relevant reflections. They can, as I may hope, inspire the different authorities who are in charge of these matters and feed the discussions about the different plans (RSDP, RZP) that are now being elaborated or modified.

Enjoy your reading,
Rachid Madrane

PRÉFACE

La première édition de la masterclass d'architecture, qui s'est déroulée en 2011 sous le titre "120% Brussels", a abordé les réponses urbanistiques et architecturales à apporter aux défis posés par la croissance démographique que connaît la Région bruxelloise.

Cette masterclass s'inscrivait dans le cadre des réflexions qui sous-tendent l'élaboration du Plan Régional de Développement Durable (PRDD) et la modification du Plan Régional d'Affectation du Sol (PRAS démographique). L'objectif du PRDD est d'apporter une vision globale de l'avenir de la Région, à tous les niveaux: aménagement du territoire, mobilité, logement, économie,... Le PRAS démographique doit quant à lui permettre l'utilisation optimale des espaces disponibles pour faire face aux besoins qu'entraîne l'accroissement de la population bruxelloise.

L'édition 2012 de la masterclass s'est elle aussi inscrite dans le fil de ces réflexions. Elle s'est construite autour du thème de l'économie urbaine, et en particulier de la cohabitation entre les lieux d'habitat, les lieux de vie et les lieux dédiés aux activités économiques.

L'économie urbaine est un enjeu capital pour le développement de Bruxelles. En effet, les limites de la Région ne sont pas extensibles. Il y a donc lieu de réfléchir à la meilleure manière de faire cohabiter des fonctions qui, par le passé, ont souvent été séparées. Ce défi est de taille puisqu'il s'agira, dans une Région

qui va vers une intensification de sa densité, d'accueillir de nouveaux habitants, de leur offrir des emplois de qualité et accessibles à tous, tout en maintenant un cadre de vie agréable, respectueux de l'environnement et économe au niveau de l'utilisation de l'espace. C'est un défi qu'en tant que Secrétaire d'Etat en charge de l'Urbanisme, il me paraît crucial de relever en y associant mes autres compétences, notamment celles dont je suis chargé auprès de la Commission Communautaire française. Vous l'aurez compris, la thématique de l'économie urbaine n'a pas été choisie par hasard et va bien au-delà de l'architecture et de l'urbanisme.

La réflexion a été menée avec brio par des étudiants et jeunes architectes européens, invités à se pencher sur cinq sites de la Région présentant chacun une typologie urbaine bien spécifique. Les propositions formulées par les différentes équipes, avec l'éclairage des tuteurs qui les ont accompagnées, sont de grande qualité et suscitent des réflexions complexes et pertinentes. Elles pourront, je l'espère, inspirer les différents pouvoirs publics en charge de ces matières et alimenter les réflexions sur les différents plans (PRDD, PRAS) en cours d'élaboration ou de modification.

Bonne lecture,
Rachid Madrane

VOORWOORD

Tijdens de eerste editie van de master class architectuur, die werd georganiseerd in 2011 met als titel '120% Brussels', werden stedenbouwkundige en architecturale antwoorden gezocht voor de uitdagingen die het Gewest door de demografische groei het hoofd moet bieden.

Deze master class lag in de lijn van de bezinning die als basis diende voor de uitwerking van het Gewestelijk Plan voor Duurzame Ontwikkeling (GPDO) en voor de wijziging van het Gewestelijk Bestemmingsplan (demografisch GBP). De doelstelling van het GPDO bestaat erin een globale visie uit te denken voor de toekomst van het Gewest op alle gebieden: ruimtelijke ordening, mobiliteit, huisvesting, economie,... Het demografisch GBP moet het optimale gebruik mogelijk maken van de beschikbare ruimten om tegemoet te komen aan de noden die de groei van de Brusselse bevolking met zich meebrengt.

Editie 2012 van de master class vormde eveneens een aansluiting op deze bezinning. Deze was opgebouwd rond het thema van de stedelijke economie en in het bijzonder de vereniging van plaatsen om te wonen, om te leven en om economische activiteiten te verrichten. De stedelijke economie is een belangrijke doelstelling voor de ontwikkeling van Brussel. De grenzen van het Gewest zijn immers niet onbepaald. Er dient dus te worden nagedacht over de beste manier om functies, die in het verleden vaak werden gescheiden, samen te brengen.

De uitdaging is zeer groot aangezien, in een Gewest waar de opvang van het aantal nieuwe inwoners in stijgende lijn gaat, het doel erin bestaat om deze inwoners kwalitatieve jobs te bieden waartoe iedereen toegang heeft, en tegelijk een aangenaam leefkader te behouden, met respect voor het leefmilieu en zuinig in het gebruik van de ruimte. Het is een uitdaging die mij als Staatssecretaris bevoegd voor Stedenbouw cruciaal lijkt om aan te gaan, en dit samen met mijn andere bevoegdheden, namelijk die waarmee ik belast ben bij de Franse Gemeenschapscommissie. Zoals u ziet werd de thematiek van de stedelijke economie niet toevallig gekozen en gaat het hier om veel meer dan alleen architectuur en stedenbouw.

De bezinning hierrond door studenten en jonge Europese architecten was zeer geslaagd. Zij werden uitgenodigd om zich te buigen over vijf sites van het Gewest met elk een zeer specifieke stedelijke typologie. De voorstellen die werden geformuleerd door de verschillende teams, samen met het standpunt van de mentoren die hen begeleid hebben, zijn kwaliteitsvol en tevens een aanzet tot complexe en relevante overwegingen. Ze kunnen, naar ik hoop, de verschillende overheden die belast zijn met deze materies inspireren en voer zijn voor discussies rond de verschillende plannen (GPDO, GBP) die momenteel worden uitgewerkt of gewijzigd.

Veel leesplezier,
Rachid Madrane

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INTRODUCTION

Benoit Moritz (Louise) and Jens Aerts (STeR*)

Although the term is relatively unknown in Brussels, research-by-design is common practice today among Brussels architects and urbanists, whether practitioners or students. In fact, this method of representing and researching potentialities within a given territory was already explored through multiple initiatives, such as “Studio Open Stad”, a joint studio of several Belgian architecture schools exploring development possibilities on the borders of the Canal, in 1998; “Vacant City”, a cultural initiative on the becoming of Brussels’ Mont des Arts, in 2001; “A Vision for Brussels”, a research by the Berlage Institute on the urban challenges inherent to the implementation of the European institutions in Brussels, in 2007; or more recently in 2012, “Brussels 2040”, an institutional initiative questioning the development possibilities of Brussels according to interaction with its hinterland. These four initiatives show a clear evolution and opening-up towards research-by-design in Brussels, as well as increasing recognition of its major potentialities for the reflexion on city making.

The master class “RE:WORK, Making Place for Industry, Logistics, and Wholesale in Brussels” is fully inscribed in this methodology, allowing both to explore a territory for potentialities in respect to certain programmes (in this case programmes of economic activity) and to explore a range of new ideas and theoretical concepts by applying them on projects which will remain fictional.

Furthermore, it is the second International Master Class organised under this legislature by the Brussels-Capital

Region. A first master class “120% Brussels”, dedicated to the demographic challenge, was organised by Architecture Workroom Brussels – a ‘think-and-do tank’ for innovation in architecture and urbanism – over the course of summer 2011.

The 2012 edition of the Brussels Master Class was entrusted by the Brussels region to a consortium of educational institutions on architecture and urbanism active on Brussels’ territory: the ULB Architecture Faculty through the Laboratory on Urbanism, Infrastructures and Ecologies (Louise), and the Erasmushogeschool Brussel through its research centre SteR*.

Beyond community subdivisions related to Brussels’ institutional structure, these two institutions wished to associate in organising this master class in order to demonstrate the capacity to address and organise jointly a European educational initiative, which contributes to the impact of both institutions on an international level.

This collaboration implied the joint definition of objectives and general methodology, but also the involvement of teachers from both institutions in the follow-up of the groups during the two weeks of intensive work produced by the invited participants.

Beyond this experience, the teachers from both research centres are equally convinced of the necessity of repeating this collaboration to truly nurture the emergence of a kind of urban pedagogy that makes use of the reality of Brussels, whether institutional, geographic, or territorial. Our aim is to consciously build the ambitious network of reference universities Brussels deserves. A network that addresses the many challenges Brussels and its metropolitan area will be facing in the near future, as a European metropolis and capital city.

Looking back at the success of this initiative, the experience is certainly to be repeated.

We like to take this opportunity to thank the Secretary of State in charge of urbanism for the Brussels-Capital Region and the members of the cabinet who gave us support and made this initiative possible.

We also wish to thank Susanne Eliasson and Anthony Jammes of GRAU, Jan Verheyen of IDEA Consult, and Brussels Bouwmeester Olivier Bastin, for their involvement and commitment to this project.

We thank the participants and teachers for the intense work during these two weeks and the impressive results that came out of it.

Finally we thank Philippe De Clerck and Yannick Vanhaelen who coordinated the workshop on a daily basis and actively supported the teaching staff.

RE:
WORK

MAKING PLACE FOR INDUSTRY, LOGISTICS AND WHOLESALE IN BRUSSELS

Philippe De Clerck, Yannick Vanhaelen & Nadia Casabella

For more than 20 years now, European metropolises are confronted with transformations of unseen scope in their socioeconomic structures. Many consider these changes as a real revolution in the way our societies relate to space and time. New socioeconomic contexts arise, which are mainly characterised by an encompassing globalisation.

Brussels, like many other European cities, is engaging a thorough reflection to develop the ambitious policies that will turn this evolution into a stepping-stone towards a better future, a reflection in which architecture and urbanism have a significant role to play. Beyond mere aesthetic or cultural merits, they are powerful tools with which to improve quality of life, social cohesion and well-being. The regional government has therefore decided, among other initiatives, to support the organisation of five thematic master classes inviting students and young professionals to debate on the transformations ahead for the capital of Europe.

This year, urban economics has been the focus. As Europe and other parts of the world are facing a global economic crisis, the master class looked at how architecture and urbanism could contribute to the development of a new urban economy, and more precisely at the productive ways economic activities (mostly manufacture and logistic services) could cohabit with other functions within contemporary cities, away from past functionalist schemes or sectorial planning approaches and into a new, more diversified economic model.

SHIFTING URBAN ECONOMICS

The industrial downfall at the end of the 20th century was as significant as it was brutal, as Brussels had held an undisputed forerunner position as a leading industrial city the century before. Brussels' industry had soared by building upon its strategic position between a major maritime axis and the most dense railway network in the world. Small and medium-sized businesses were then an integral part of the urban fabric while large enterprises remained scarce, which, however, never hampered Brussels' leading position as industrial hub, peaking at an employment of 175,000 units during the Golden Sixties.

A decade later however, mass bankruptcy, stop of activities, and 'tertiarisation' of activities within the existing companies sounded the end of this golden age of industry and the evolution towards a tertiary economy, relying on Brussels' position within Belgium, and later more importantly on its role as capital of Europe. As of 2009, the number of Brussels jobs in industry had slumped to 38,000, or just 5 percent of the city's employment provision. The Audi plant at Forest is now the only major industrial company remaining on Brussels soil and industrial activity has become equally scarce in the city's outskirts. In itself, this deindustrialisation process wouldn't be considered problematic if it weren't for Brussels' specific, highly ambivalent urban and socioeconomic condition, dissociated between extreme wealth and extreme scarcity due to strong inadequacies between researched profiles and available workforce.

Recent studies of the situation in Brussels have identified it as one of the richest cities in Europe, outstripped only by London (inner London) and Luxembourg. Connected directly to Paris and London, Brussels is in the centre of one of the most powerful economic regions, the Eurodelta or North-West Metropolitan Area, comprising major cities and regions such as Lille-Eurometropolis, Antwerp, Rotterdam, Amsterdam, and the Ruhr Area. Brussels' economy is up and running: after a slumbering 2012 spring, GDP estimations

seem on the rise while employment creation shows a slight progress as the year ends. The Brussels-Capital Region accounts for 20 percent of Belgium's GDP, a figure that even reaches 32.7 percent when the Brussels conurbation as a whole is considered. Finally, the gross domestic product (GDP) per inhabitant in Brussels is no less than 216 percent of the European average.

But at the same time, Brussels is not exceptionally rich. The share of disadvantaged, low-skilled population continues to increase, a share that does not fit the high-skilled profile needed for the great majority of jobs in tertiary or administrative activities. This in its turn means that unemployment indices are soaring in the city centre: 20.6 percent in March 2011. The question becomes yet more complex as the labour market in the contemporary metropolitan condition does not follow territorial borders. Over 50 percent of the approximately 760,000 jobs in Brussels are held by highly qualified commuters living in outlying areas. Hence, even with Brussels being undeniably the driving force of the Belgian economy, its wealth is primarily produced by people living in the neighbouring regions, thus drastically reducing the benefits of this economic model for the city itself.

So one might say the main challenge for Brussels' economy is a social one in that wealth isn't distributed evenly. Curbed public expenditure is shrinking redistribution policies even further, contributing to raise inequalities and jeopardise social mobility. This growing divide between rich and poor, which in Brussels translates into extreme urban segregation, claims for attention. This social and spatial division – which is of course negative for the social cohesion of the city – is also negative for the economy itself in more ways than one.

Negative externalities in the form of criminality or insecurity that already encourage the middle-class to flee the city could eventually deter companies from settling down in the city, as well as could invite others to move away. A more direct effect though is declining tax revenues. The Brussels

Region already struggles to provide basic services, and soaring poverty levels only burden those services further. A key challenge for policy is therefore to facilitate and encourage access to jobs that will enable people to escape poverty, which means both investing on the workforce human capital – up-skilling through vocational training and education – and bringing new low-skilled activities in the city.

NEW URBAN INDUSTRIES

As in other cities, deindustrialisation has forced Brussels to look for new economic development models, resulting in a more or less unstable socioeconomic context. The necessity is ever increasing to shift toward an economy which could not only sustain a more equal society, but also secure the economy of tomorrow: as the recent economic collapse painfully demonstrated, several tertiary activities well represented in Brussels (business-to-business services, finance sector) are highly sensitive to the global economic situation. All of this makes the development of a more diversified economic model a true necessity.

Many factors are already present to support this diversification. Logistics, for example, is more than ever an essential activity for the development of the city, and the high stakes on sustainable transport make both the existing rail infrastructures (trains and trams) and the maritime access through the canal an important asset. On the other hand, not only have cities tremendously evolved in the past decades, so has industry. Rather than the end of industry in the city in favour of offices, the postindustrial era should be defined as an inversion: whereas previously, knowledge used to serve industry, it is now industry that serves knowledge. High-end industry, for instance, enjoys great prospects, even greater the closer it comes in contact with the city and knowledge economy.

This should encourage further developments, but developing industrial activity within the city premises is hard to achieve on an increasingly limited amount of available land.

Brussels' booming demography already induces an alarming need to liberate available land for more housing. The growing profitability of housing construction is bringing about an almost exclusive transformation of the urban industrial areas into residential areas. Thus from 2004 to 2008, despite demand, the Brussels Region (SDRB-GOMB) identified a decrease of 40 percent in surfaces devoted to industry.

Considering this, traditional zoning is unlikely to offer any prospect of a solution in this prospect, being too land-consuming while offering no substantial quality to the city: the absence of activity outside of working hours, heavy transportation traffic and infrastructure, lack of territorial permeability, and strong visual impact hardly combine with city living. Peaking vacancy in Brussels' industrial zones further confirm the obsolescence of this model: increasing land prices and road saturation push traditional industries out of the cities, and existing surfaces are often unsuitable – in terms of size or level of services – for new, emerging forms of industrial activity.

Current technological conditions make it possible for small-scale industry to be entirely viable, as part of a vast network of suppliers and subcontractors, without succumbing to concurrence of larger companies. This same technological evolution has led urban industry to reinvent itself, leaving behind smoking factory chimneys in favour of discreet and clean manufacture. Numerous forms of industry are thus entirely reconcilable with urban life, allowing for the creation of easily accessible employment centres in the city core.

The weighty, practical question is then how to shape the places for these new industries in Brussels. The necessary coexistence between manufacturing activities and the urban fabric has been the source of many debates in Brussels planning. Already the first strategic planning document focusing on Brussels (Regional Spatial Plan 1, 1995) pleaded the need for new forms of hybridisation between housing and economic activity. This prescription however

was not a priority: planning documents of the last two decades have focused mainly on the protection and promotion of housing in the city, which had long been threatened by the rush towards tertiary activity. The increasing pressure on the city from demographic has reversed that balance and the imminent approval of the new Land Use Plan of Brussels (PRAS Démographique / Demografisch GBP) with its introduction of the “ZEMU” (Zone d’entreprise en milieu urbain, or “OGSO”: Ondernemingsgebieden in de stedelijke omgeving) only further strengthen this threat on activity areas. The increased tolerance for the construction of housing in these former entrepreneurial zones could mean a legal and unchallenged transformation of most of these remaining areas into housing. Aware of the inherent risks for the city, planners are struggling to find a concrete balance between these essential urban functions. In this in this context that the 2012 Brussels Master Class attempted to explore new possibilities.

RE:WORKING BRUSSELS

To overcome the apparent paradox of industry as antiurban activity in an almost entirely urbanised territory, Brussels cannot do without a thorough and prospective reflection on how to shape the coexistence between activity and urbanity. Industry has to be implemented on Brussels’ limited soil, yet the proximity with other activities cannot hinder urban quality. This is where an architectural and urban approach to the question becomes essential. The coexistence of economic activities and other functions such as housing within the urban system needs to be reflected upon, visualised, designed, and experienced. This was precisely the aim of this International Master Class “RE:WORK, Making Place for Industry, Logistics and Wholesale, in Brussels”.

This publication presents the results and reflections of this intense two-week event. In addition to an open invitation to European students, Louise and SteR* invited three partner universities (ETSA Barcelona, ENSAP Bordeaux, and

Manchester School of Architecture) to select students to participate in the event, further bridging boundaries and fostering a European think-tank of academic institutions. Professors from all five universities actively contributed their specific expertise to the 38 participants of the master class on a daily basis.

The departure point of the master class was the choice to investigate the coexistence between the inhabited city and the productive city beyond the ready-made recipe of hybridisation or urban mix. Together with the academic staff of Louise & SteR*, urban practice GRAU (Susanne Eliasson and Anthony Jammes) and the Brussels-based research consultancy firm IDEA Consult (Jan Verheyen), turned this approach into an innovative and didactic methodology. The sometimes-antagonistic logics underlying the productive city and the inhabited city became not only an accepted fact, but the guiding principle for the design methodology itself – as GRAU will be explaining in the next pages.

Five specific sites in Brussels were selected, for their capacity to address and challenge very distinct types of urban situations where this productive cohabitation between city and economy could be (re)created. Preliminary research gathered relevant information for each site and allowed participants to focus from the start on the development of very concrete proposals on an urban project scale.

The five designs developed by the participants are examined in the “Proposals” part. For each site, the respective tutors documented the context, challenges, and the process through which the different groups came to a coherent proposal in two weeks of time. It is left to the participants themselves to present their final resulting proposal. The inherent potentials of these proposals are further discussed in the “Readings” part. Olivier Bastin (Brussels ‘Bouwmeester-Maître Architecte’) and master tutor Jan Verheyen (IDEA Consult) give critical readings related to their respective field of expertise and show to which extent their insights can be relevant to Brussels. All insights of this event are

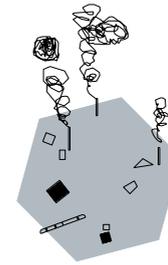
then articulated in the form of “Seven Clues For A Revived Metropolitan Economy”.

Betting on a possible, feasible, and desirable coexistence between the inhabited city and the productive city, the various proposals contained here let us peer into a more equitable, sustainable city of tomorrow. We hope they can inspire other cities in their quest for alternative growth models based on their metropolitan potentials.

AN ILLUSTRATED NARRATIVE ON ECONOMY AND CITY

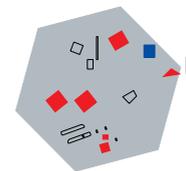
Susanne Eliasson & Anthony Jammes (GRAU)

We have gone from the industrial city...



Lars Lerup, Miasma, *After the city*

... to the postindustrial city



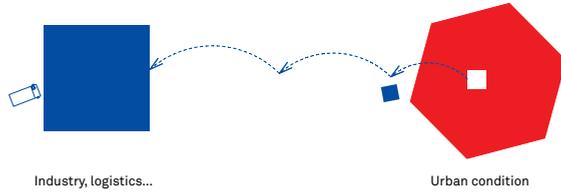
The Highline, New York

Introducing the friendly city, a city filled with urban life, green spaces, new qualitative housing, bikes and pedestrians...

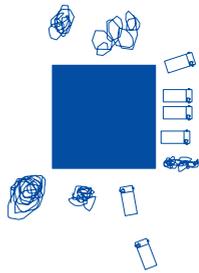


Houston, promenade

Increasing land prices, traffic and spatial incompatibilities have progressively rid the city of economic activity. But it has not completely disappeared, it has shifted in shape or found more fruitful ground further on the outskirts of the city.

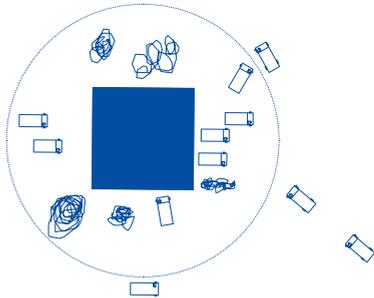


Industrial activity poses several major constraints. It needs distance because of the various disturbances it causes.



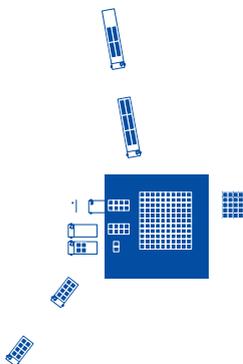
Paul Rand, design for Ford company

It needs considerable space and infrastructure to operate.



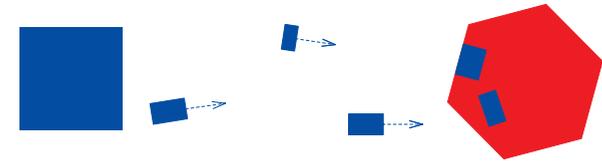
Housing close to industrial zone, Dunkerque

It relies on quantity and generates fluxes different from the city.

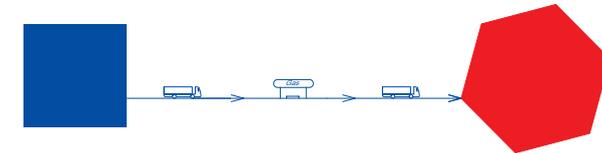


So, why reintroduce economic activity into the city?

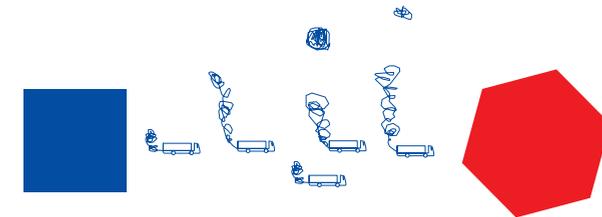
Understanding the mutual shift of city and economic activity, the reasons for reintroducing a real cohabitation between both are becoming more and more obvious:



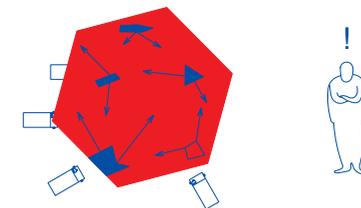
1. Reintroducing industry and logistics into the city centre can help reduce transport costs.



2. It will subsequently help reduce CO2 emissions.

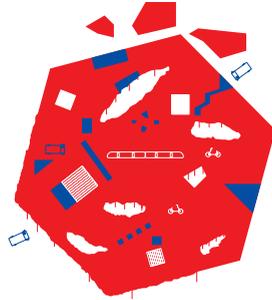


3. For a city like Brussels, it will help create new job opportunities for low qualified sectors.



4. In a service-based economy, where everything is expected to be available immediately, industry and logistics in the city centre can help arrange proximity services.

Industry and logistics can serve the city.
There are certainly many more reasons, some of which shine through the results of the master class.

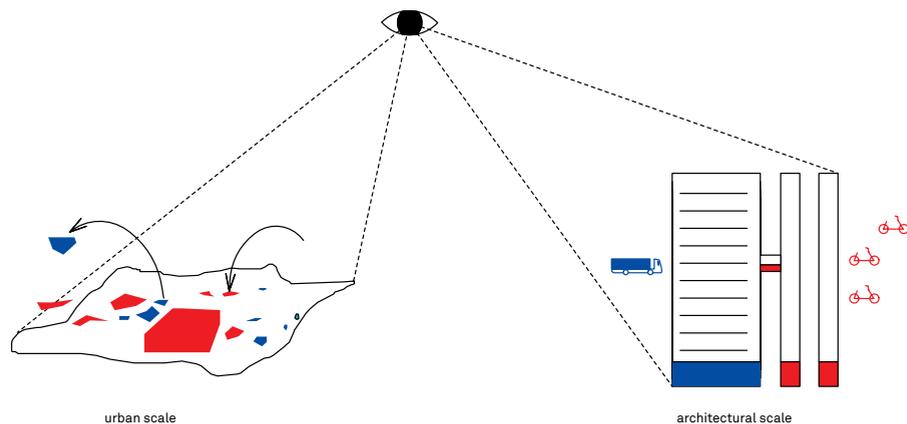


Knowing the added value that the coexistence of economic activity and city can create the question is now:

How can we make place for economic activity within the city without compromising the “friendliness”?

It is a very complex challenge that can not be summarized into simple directives. We need to seek for new ways and scales of coexistence and coproduction, finding the right relationships between the urban and the economy.

This can only be achieved by playing simultaneously on the urban and on the architectural scale.



For the friendliest city.

DESIGN=ECONOMY*

Susanne Eliasson & Anthony Jammes (GRAU)

A COMPLEX AND CONTEMPORARY QUESTION

The subject of the 2012 Brussels Master Class “RE:WORK Making Place for Industry, Logistics, and Wholesale in Brussels” is a complex one. Not only does it question how and where we can find space within the city for industrial activities but also how these activities can cohabit with urban programmes in a productive and pleasant way. Looking at urban developments in the last century it is clear that a truly fruitful cohabitation between economy and city never fully arose. Industrial activities were simply tolerated, up until the point where they left the city centre, giving way to the postindustrial model and moving towards the friendly city, ultimately leaving all attempts at cohabitation behind. But with industrial production and urban environments shifting in shape, scale, and culture, the issue of cohabitation is yet again on the table. The master class aims at finding ways to create a new relationship between the ‘friendly city’ and the ‘machines’, between the city as we know it and the industry as we need it. This will be one of the great challenges for the 21st century European city model, and Brussels is a good place to take it on. Of course, expecting a two-week master class to fully dissect this relationship would be as illusory as expecting a new

cohabitation between city and industry to emerge without friction, the risk being to fall into simplistic and naïve answers such as constant hybridisation to smoothen it all. Thus, the master class, and the projects that are presented in this publication, do not pretend to offer a unique solution. They merely start to build a database of innovative and pragmatic proposals, ideas that can be further debated and developed by different stakeholders.

THE SITE AS PRETEXT

Five sites, located in and around the centre of Brussels, were selected for the master class: Reyers, Quai Demets, Neder-Over-Hembeek, Da Vinci, and Batelage. Each site is large, complex, and highly strategic for the future development of Brussels. Several sites, like Quai Demets or Batelage, have witnessed numerous projects and proposals come and go already. The five sites were chosen as relevant territories for implementing or strengthening economic activities within the city. For the master class, they were used as pretexts for initiating new relationships between economy and the city: instead of trying to resolve every aspect of the site, the students concentrated on exploring one type of relationship per site, allowing a maximum amount of solutions to emerge all while being site specific.

*Olle Eksell, 1967

For the students to be able to focus on one issue, knowing the complexity of each site and the limited time frame that the master class offered, it was important to start designing immediately, not getting lost in complicated research. Previous to the master class a 'package' was crafted for each site containing the main information needed. The package offered detailed information on the site (situation, perimeter, study perimeter, site history, plans, aerial view, zoning), a showcase of past and ongoing projects, and a reading on architectural and urban references. It also contained five questions specific to each site, already hinting towards a possible exploration of an urban and economic relationship. The fact that the Wi-Fi connection offered during the master class only worked sporadically turned out to be a real opportunity for the production, forcing everyone to do without much additional information, and to select information intelligently.

THE IMPORTANCE OF METHODOLOGY

Following a two-week master class is taking the risk of ending up with a range of interesting ideas but no instruction manual to read them. What we were hoping to end up with was a smart database of legible proposals that could be selectively and collectively chosen and discussed, even long after the end of the master class. In order to allow the maximum amount of freedom and mess necessary to be able to come up with innovative solutions (as Bruce Mau says, 'Never clean your desk') a clear methodology needed to be determined, offering a structure for everyone to speak the same language. We believe that a well-designed method is the key to any project, since it allows a common understanding of the process while following a clear path. The method becomes increasingly important as we are dealing with complex issues.

As a practice we deal with the complex reality of the contemporary city daily in our projects. Within this context, the question of representation becomes a key issue. Design is a means to transform chaos into form and organisation, whether it is on the scale of the city or that of a very small space, and drawing is a tool that helps to achieve this organisation. Not as a celebration of complexity but rather a search for clarity, drawing has strong potential. We need to reserve specific attention to the link between method, process of the project, and the economic reality in which we operate. Olle Eksell, a Swedish graphic designer, published the book "Design=Economy" in 1967, in which he explains how design and economy tend to be separated while they should be tightly linked. We strongly believe in a bringing together of design and economy, and in the drawing as a vehicle for this purpose.

When discussing the way industrial and logistic activities can function efficiently within the city, the choice of representation becomes crucial, because the right means of expression will allow us to explain something very complex in a simple way. It is also about finding the representation that fits into reality, expressing the essence of the issue.

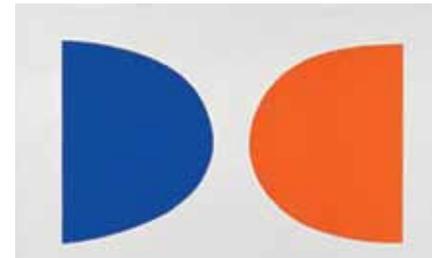
1. RED AND BLUE

For this master class the main challenge was to find ways to develop cohabitation between city and economy, therefore to be able to think about both space (m³) and economy (m²). The first step taken into the methodology was to define two main colours referring to the two global programmes that were to interact: blue for economic activity and red for the city.

This simple choice had several purposes. To start, it automatically put the focus on the main challenge of the

master class by identifying its two main protagonists in a recognizable way. By doing so there was no way to escape the question, each design needed to contain both blue and red, the variable being in the quantity of each and the type of relationship they developed. Furthermore, this simplistic colour code also helped to increase the efficiency of the working process. As several people were working together for the first time (up to eight in the second week) it became a way to understand each other's ideas within the group and to communicate them to the teaching staff.

Drawing with specific colours is a means to organise ideas collectively. Rather than an abstract or authoritarian approach it was a very concrete one that helped both the design and the communication during the master class.



Blue and Orange from Suite of Twenty-Seven Color Lithographs – Ellsworth Kelly, 1964

2. ARCHITECTURE AND URBANISM

Step two in the methodology was to separate the disciplines of architecture and urban planning. This separation occurred not because the two disciplines are independent, but precisely because we know that they cannot function without each other. Architecture alone cannot create a good cohabitation between economy and city, and neither can urban planning. The separation was a way to explore the potential of each discipline, pushing their limits in order to better come together. Thus, each site

was divided into a group of 'architects' and a group of 'urbanists'.

The first week the architects were to stay in the perimeter, understanding and challenging the architectural programme, while the urbanists were to play around it, understanding the city and drawing the urban story in a speculative way. Each group developed proposals arising from their understanding. The second week of the master class the architects and urbanists of each site united to confront their ideas and develop one common project. Together they had to define the scale of the project and its objectives, forcing them to discuss the relationship between each other. This gave birth to numerous and animated discussions within the teams.

Most important, we felt that a distinction between architecture and urbanism would help us explore other fields of possibilities than those of the in-between scale, searching for new relationships in the extremes. Two existing references help to illustrate this.

The first one, the Shinonome Canal Court residential development in Tokyo, is based on the idea of housing that is flexible enough to accommodate small offices and home offices to improve the social relations of its inhabitants as well as adjusting to their current lifestyles. When working on the building design, architect Riken Yamamoto decided to put the water section (bathrooms and kitchen) by the window instead of the core of the building, the way it is usually done, changing the whole relationship between living and working. This move leaves the vestibule free for working areas to open up to the central corridor, creating an urban environment within a private building. From housing to city, the Shinonome residential development illustrates the importance of economy at the small scale to produce a sense of urbanity.

The second project works in the opposite direction. The city of Rotterdam will launch a pilot project in 2013 destined to connect the port industry with housing developments in the city centre. A symbol of the 'circular economy' advocated by the authorities, the project consists of the construction of a pipeline that recovers the steam emitted by industrial companies to heat an entire area of the city. It is a complex and expensive project that requires a new economic philosophy, both from the industrial companies and the city. The pipeline will start by connecting three companies, allowing the heating of 50,000 homes with 26 kilometres of pipeline in 2013, and the operating company hopes that several other companies will join the project as it develops. From city to housing, the Rotterdam project is a good example of the added value that economy can play in the city.

3. PIN UP

The last measure that was taken in the methodology was to propose a rigorous process of public display. Setting aside site visits and official presentations the master class offered eight days of work, and every day the groups were to pin up five A5 on the wall, ending each working session with a small public presentation. There were to be five A5 per day, no less, no more. As the days went by the A5 accumulated, showing the working process of each team.

However, the main purpose of the master class was not to display a working process. If the process counts, the results are equally important, and the A5 eventually served to make these results clearer. Indeed, they forced the groups to express themselves clearly and to chose what they were to draw or represent. In terms of production it was quality, not quantity that became the defining element.

LEARNING FROM THE MASTER CLASS: CRITICAL MASS AND BALANCE

The results of the master class, which are being presented in this publication, should not be regarded as five site-specific projects but rather as five different approaches proposing a wide range of urban situations that explore different potentials, such as the built structure, physical connections, or immaterial links. These situations may not be immediately operational on a specific site, but they all embrace a pragmatic yet optimistic and visionary idea of what coproduction between urbanity and economy can do for the city. They are truly contemporary in their understanding of the urban complexity, and its potential, and should serve not only to reflect on the future of the five chosen sites, but also ultimately to nourish the reflection on the scale of Brussels, extending it even further to other European cities.

What strikes us most in all the proposals is the persistent reference to critical mass. Indeed, they show that cohabitation between economy and city is not just a question of well-designed space: even though good design is crucial it cannot alone be the answer. The question of reintroducing industry, logistics, and activity in the city centre is also a quantitative question, and, if as architects and urban planners we know how to deal with critical mass when it comes to urban programmes (to a more or less successful result), we do not know how to deal with quantity when it comes to logistics or industry in the city. Speaking of the friendly city and the machines, no one really seems to be an expert. Yet it is crucial that architects and urban planners, be it students, practitioners, or theoreticians, start to discuss this issue, because it will deeply shape our cities in the future.

During the master class, the issue of critical mass necessary to be able to

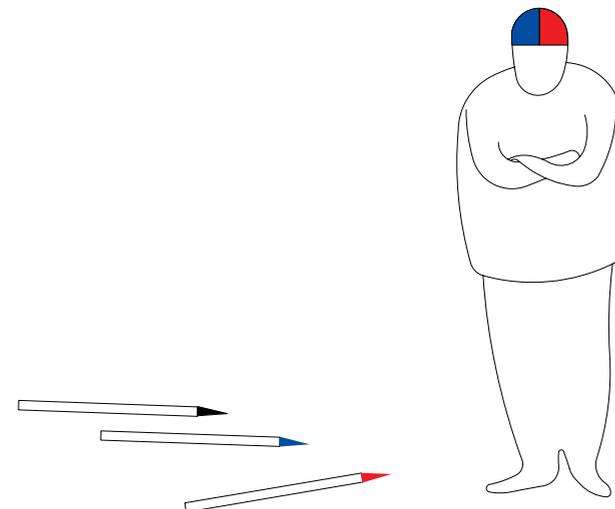
develop a good relationship between economy and city was one of the main topics discussed with the students, and it immediately triggered another one: the question of balance.

Kick-starting the design process the first week we witnessed a lot of red and blue drawings on the wall, showing abstract intentions of coproduction. As the days went by, and the drawings became less abstract and more contextual, the blue pen tended to be left out. During the daily pin up sessions, we kept asking for the blue, Jan even dressed in the colour to get the message out: that the main issue of the master class was to reintroduce industry, logistics, and wholesale in the city and that could not be achieved without the blue. During the final presentation the blue was present but to a more or less large extent.

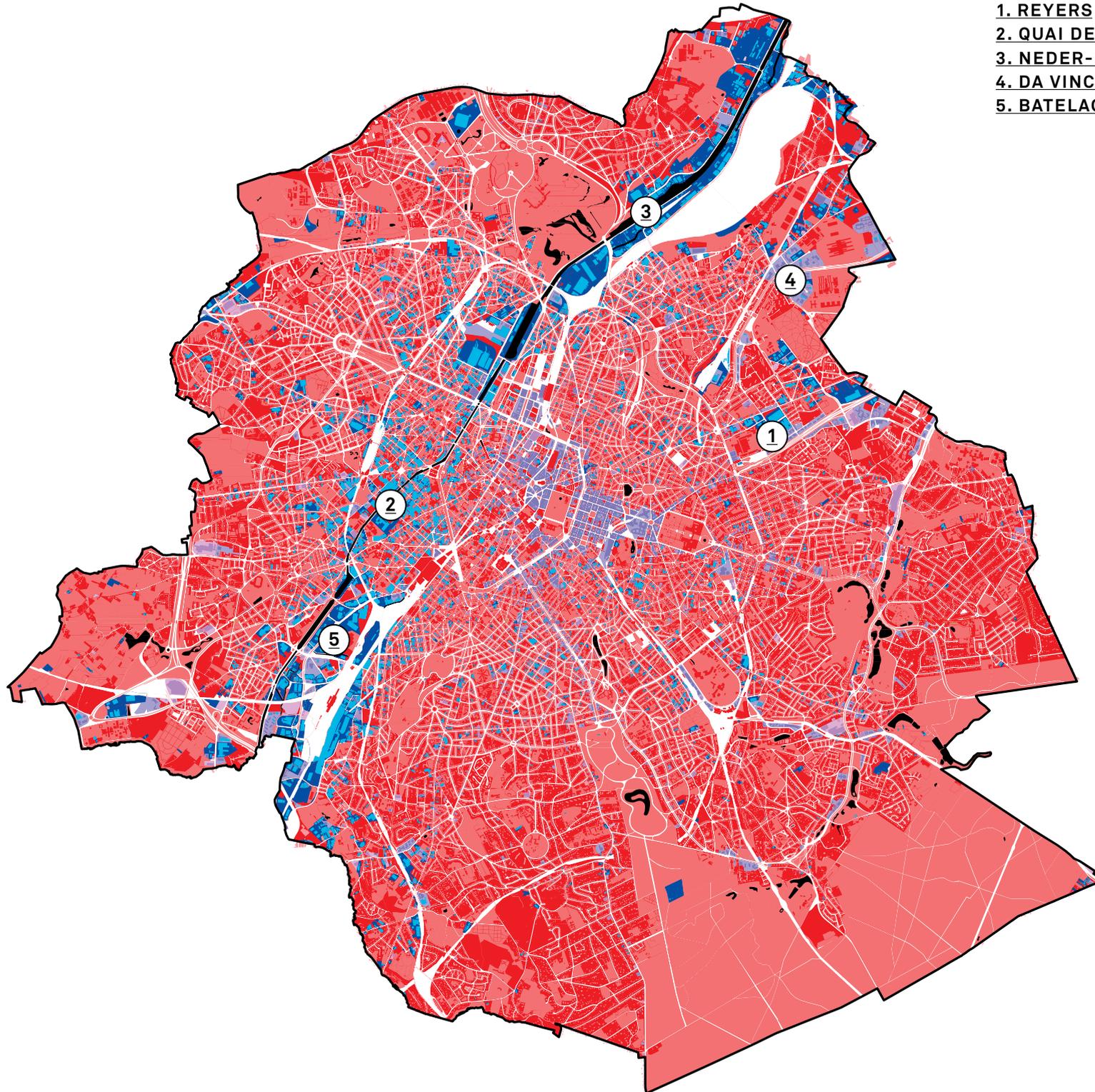
What this colour story illustrates is the limit of mixed use when it comes to

economy and the city and the inevitable problem of gentrification that cohabitation poses. It shows that the question of balance is key to a good cohabitation between city and economy, and this balance is not easy to achieve. Indeed, it isn't only about finding the right proportions of red and blue, it is about finding the right relationship between both, understanding what each brings to the other. Sometimes the only way to sustain an existing industry can be to offer a new urban condition.

Here is where our role as architects and urban planners becomes essential. Through our 'spatial' eye we can help identify these relationships, just as the proposals of the master class start to do. By clearly identifying critical mass and balance as key issues, the master class already takes an important step into the great challenge of the friendly city and the machines.



PROPOSALS



- 1. REYERS
- 2. QUAI DEMETS
- 3. NEDER-OVER-HEEMBEEK
- 4. DA VINCI
- 5. BATELAGE



SITE 1 REYERS

HOW DO ECONOMIC ACTIVITY AND CITY MEET HERE?

The two economic blocks of Reyers are surrounded by a diverse urban context. The construction of housing in this ZEMU zone questions the physical relationship between city and activity and how the programs can complement and strengthen each other.

Looking at Reyers as a potential productive pole, the two groups started to explore how new programs could help to create a productive relationship between activity and housing. They were trying to see how, and at what scale, the city and the productive activities could coexist. While the architecture group worked on the scale of a building block, the urban group developed the concept on the scale of a programmatic master plan.

As the two groups met the second week, they decided to continue the master plan that had been outlined the first week. It became a pretext for experimentation, just as the site had been. The experimentation was pushed further as the group decided to work in pairs on different pieces of the master plan. Looking at it as a plan of confrontation and superposition rather than a final master plan it begins to show the different levels of interaction necessary to achieve a truly productive environment.

— Susanne Eliasson & Anthony Jammes (GRAU)

STUDENTS

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Lucas Bacle
Filippo Cattapan
Penny Christou
Karin El Ajlani
Guillaume Harache
Dieter Leyssen
Thomas Loisier

PUSHING THE PIECES

Geoffrey Grulois & Jorge Perea

DECLINING CLUSTER IN DECLINED FABRIC

The image of the Reyers site is linked to that of the Belgian state broadcaster (RTB), which opted to locate itself there at its creation in the 1960s. Situated at the entrance to a motorway that leads to the capital and alongside its outer boulevard, this site was set up based on the modernistic logic of locating major national amenities close to motorway infrastructures. The broadcasting centre developed until the end of the 1970s to form a gigantic and introverted studio and office complex. In the 1980s, locating the Belgian headquarters of Radio Télévision Luxembourgeoise (RTL-TVI) close to the RTB bolstered the media-based direction taken by the Reyers site. At the same time, the development of office buildings alongside the entrance to the motorway made the area a major employment centre for Brussels.



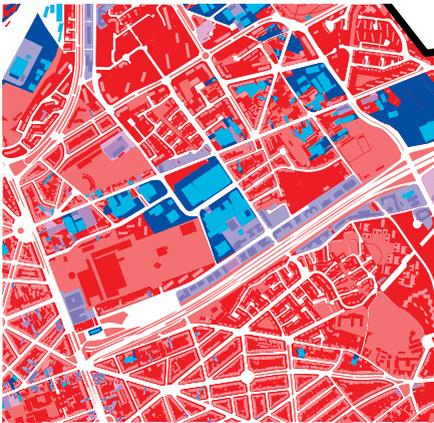
As a result – and in contrast to most of the Zones of Regional Interest in Brussels – the Reyers site today is not an industrial wasteland and the forthcoming location of Télé Bruxelles could further

strengthen the district's role as a media centre. Yet the future of Reyers remains very uncertain. The progressive dilapidation of the area's building heritage in the face of current programmatic and environmental contingences threatens the Reyers site with becoming partially abandoned and disused. Since 2012, there have been unofficial rumours about the possible relocation of the Vlaamse Radio- en Televisieomroeporganisatie (VRT) to new premises in Flanders – a decision that would call all of the current vitality of the site into question.

Having said that, the Reyers site suffers from a lack of urban quality. The development of Boulevard Reyers and Chaussée de Louvain into urban motorways since the 1960s has contributed to virtually closing off this functional area, unbridgeable for pedestrians and thus depreciating for local residents. In addition to the broadcasting facilities, to the north and east of the site, urban blocks have lost their structure and have been invaded by low-density warehousing. The unfettered development of commercial businesses on the Chaussée de Louvain has tended to make residential accommodation on the upper floors of the buildings disappear and, generally speaking, the existing dwellings at the Reyers site suffer from a lack of amenities and urban infrastructure that would make it a genuine neighbourhood where people would be happy to live.

AN EMERGING COMMON VISION

As a result the Reyers site, far from symbolising a flourishing media cluster of the 21st century, tends to embody an obsolete and piecemeal image of the Belgian welfare state and the lack of coordination in terms of powers responsible for urban planning and development. By way of example, three independent public authorities run the roads delineating the site: the Flemish and Brussels-Capital Regions and the municipality of Woluwé-Saint-Lambert – which makes coordinating policies on mobility very difficult. The same applies to land and real estate ownership, which is, in true Belgian fashion, extremely fragmented. Even the shared building of the national broadcasters belongs to two independent owners: the RTBF and the VRT, the French-language and Dutch-language television companies respectively, each with its own distinct policies.



Although the Reyers site is not undergoing a massive deindustrialisation process, its lack of attractiveness demonstrates the difficulties involved with trying to get business-based and urban functions to cohabit with one another in any quality manner without some sort of planning and coordination tool. In fact it appears to suggest that the presence of

major service and industrial centres *de facto* exclude the possibility of creating a quality living environment.

To respond to the issues of redeveloping the Reyers site, the Brussels-Capital Region approved an Urban Development Plan in 2010 that encompasses three main objectives for the area in question: the concentration of business activities around a clearly identifiable media centre; the transformation of the E40 motorway into a “parkway” (i.e. a road planted with trees, with grassy areas on either side); and the redefinition of a cohesive commercial identity for the Chaussée de Louvain. These three objectives should make it possible to respond to the desire to define an entrance to Brussels that exudes quality.

USING THE ZEMU AS A STEPPING STONE

During the master class, the Reyers group departed from the general objectives set out in this urban development plan to develop a more specific master plan that meets the expectations of what could be a high-quality, dynamic ZEMU for the Brussels-Capital Region. The idea of restoring urban qualities to the roadways surrounding the site, embedded in the urban development plan, was taken as the starting point. Therefore, the main question became how it would be possible, within the area delineated between the motorway, Boulevard Reyers and Chaussée de Louvain, to create a quality environment that combines both business and housing amenities on different scales. Rather than drawing distinct lines and making separate business and residential zones, the group has sought to apply different ‘grains’ of functional variety, by developing different ZEMU typologies. Given the forthcoming demographic expansion and shortage of housing in Brussels, the group has also tried to demonstrate that it would be possible to



Reyers Urban Development Plan (Buur, 2010)

introduce residential amenities into urban industrial districts, while at the same time preserving – and even strengthening – the economic vitality of those areas.

The group has also looked to take full advantage of the main physical and landscaping features of the site, rather than try to recreate an artificial and continuous urban fabric. In so doing the urbanists have identified the structure and components of the Reyers site, while the architects examined the appropriate typology for the site and the creation of intermediate spaces, areas to be ‘negotiated’ between the productive city and the inhabited city. The scale and type of each component at the site was identified to explore a specific idea of quality coexistence. Each element has been given its own autonomy and personality, while at the same time maintaining a dialogue with neighbour entities.

FOUR-POINT MASTER PLAN

The master plan is made up of four complementary units whose architectural qualities and programme potential have been explored: the “Media Square” along Boulevard Reyers, the “RE:WORK Park”, the ZEMU blocks and the “Postmodern Museum” alongside the motorway.

For the strip of land that faces Boulevard Reyers, the group has sought to extend the idea of redeveloping the boulevard by coming up with a major pedestrian platform – the “Media Square” – which would give sense to

the elements already in place along the boulevard: the Reyers tower and the office blocks from the Emeraude project. Rather than reconstitute a continuous built-up frontage, the group underlined the interest of the metropolitan nature of the public space, which would allow access to the site by public transport from the rest of the city. The ease of access to this metropolitan “Media Square” is strengthened further within the region by the future development of the pre-metro into a fully-fledged metro and the construction of the new metro line to the north of Brussels.

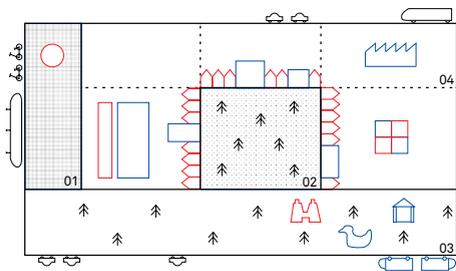
In view of the uncertainty surrounding the future of the broadcasting centre, it was chosen to leave this element aside and concentrate on the site’s four other components, while still emphasising the interest of retaining the scale and autonomous nature of this audiovisual production infrastructure. The creation of a public space on either side of this infrastructure – the “Media Square” and “RE:WORK Park” – will compensate for the introverted character of the old broadcasting centre.

The idea put forward in the urban development plan to open the green space at the centre of the Reyers site to the public has been reiterated, highlighting the importance of this public space for the identity of the Reyers district. To bring this park into play and make the most of its potential, it is proposed to construct two linear buildings that create urban façades on two sides. Dedicated to economic activity and housing respectively, both buildings interact through intermediary programs. This built morphology and programmatic tension makes it possible to delineate the third spatial component of the master plan, the “RE:WORK Park”.

To the east, the suggestion is to develop the two areas of mixed ZEMU development by building residential

accommodation above the warehouse space. Rather than seek to set these two functions apart, the group tried to see how public spaces could be created between the two types of use and development programmes. For instance, a logistical loading zone in the daytime could become a car park for residents at night. The typologies proposed for these blocks do not involve demolishing the existing structures. On the contrary, the group stresses the relevance of redeveloping these blocks as land and property opportunities arise. Here, as elsewhere, the group wants to highlight acceptance of the fragmented and autonomous nature of the individual elements of the master plan.

Finally, the group also emphasises the interest of reusing the postmodern built heritage alongside the E40 motorway. Rather than go down the path of demolition and reconstruction, it suggests adapting these buildings to new development needs and new environmental constraints and redefining the surrounding public space. In particular, converting the E40 motorway into a parkway makes



- 01 MEDIA SQUARE**
 public square
 tower panorama
 monument of media culture
 parking
 food sellers
 bike rental / repair

- 02 RE:WORK PARK**
 housing
 leisure
 education
 small businesses

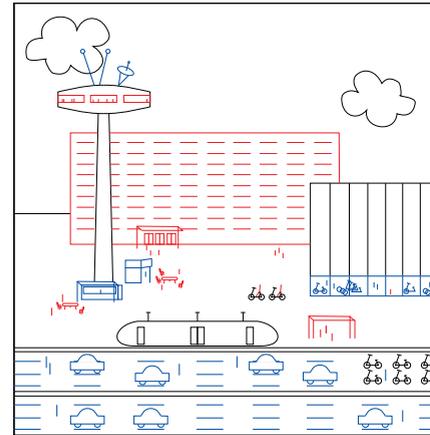
- 03 POSTMODERN MUSEUM**
 housing
 public boulevard
 cultural activity
 logistic hub
 headquarters of businesses

- 04 ZEMU**
 housing
 existing car industry
 printed press
 small tech companies

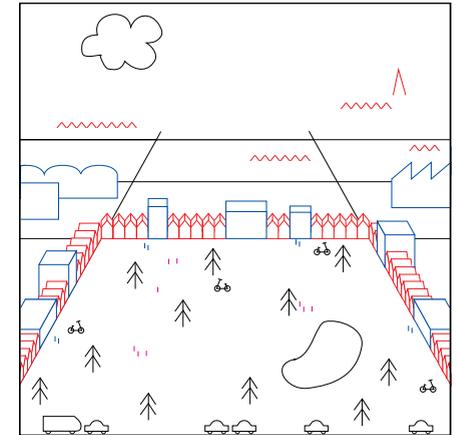
it possible to build residential dwellings in this “Postmodern Museum”, again demonstrating the diversity of form that the ZEMU could take.

How do you give new meaning to a site that offers good accessibility and significant built-up areas, but which embodies the declining and fragmented image of the Belgian welfare state? Given the uncertainty hovering around the developmental future of the site, the group has tried to strengthen the intrinsic urban and landscape qualities by emphasising the potential offered by the existing green spaces and buildings. How do you transform an enclosed green space in the centre of the area into an urban park? How do you introduce a blend of residential and industrial into the two large blocks of land located to the east of the site? How do you reallocate antiquated office buildings situated alongside the entrance to the motorway? Those are the questions that the group investigated during the master class by identifying the four component-projects of an ambitious master plan for Reyers that meets the desire to define a good quality and dynamic ZEMU for the Brussels-Capital Region.

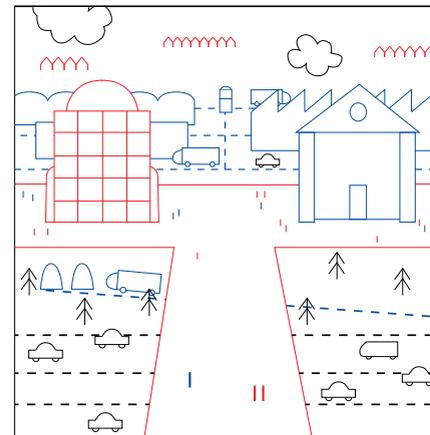
01 MEDIA SQUARE



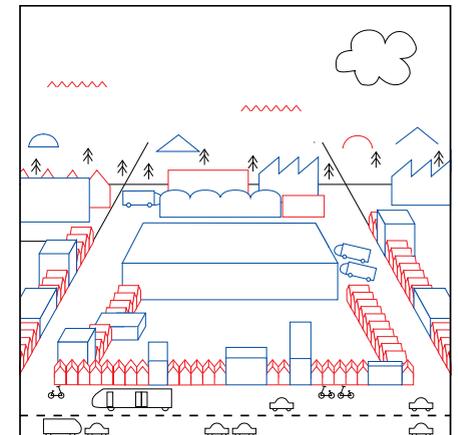
02 RE:WORK PARK



03 POSTMODERN MUSEUM



04 ZEMU



A MOSAIC OF PRAGMATIC MEDIATIONS

Located in the north-west of Brussels, at the intersection of the Boulevard Leopold III, Chaussée de Louvain, and the highway that connects the city to the Brussels National Airport, Reyers appears as a strategically situated area to experiment with new urban forms that mix production activity and urban fabric. The starting point was to revalue the site as a new productive pole alongside the second belt of Brussels. We envisaged a development of the site in which the existing urban structure is initially kept and ways are explored to increase its attractive potential.

While currently the site is characterized by the cultural negotiation between the Flemish and Wallonian media companies, this master plan negotiates on a programmatic, as well as on a morphological and typological level, between the existing condition and new proposed productive program. According to the specifics of the site, this idea of negotiating is explored progressively:

ZEMU 1: URBAN MORPHOLOGICAL NEGOTIATION

This site is located next to the boundary of the Reyers area, created by the Chaussée de Louvain. In this zone, defined by the city as ZEMU (Zone d'Entreprise en milieu Urbain), we propose to introduce contextual configurations in the new tissue. This will enhance the transition between production and residential fabric, as well as create new hybrid forms of coexistence.

ZEMU 2: BUILDING TYPOLOGICAL NEGOTIATION

Located at the core of the Reyers site, ZEMU 2 is the most adaptable part of the site as is it located at the core of the Reyers site and lacks a direct relation with the surrounding fabric. Hereby, it is characterized by a wide diversity of warehouse typologies. We introduce a new typology, enabling the close coexistence of housing and industry. This method anticipates the companies' migration and proposes a process to regenerate the urban fabric.

RE:WORK PARK: PROGRAMMATIC NEGOTIATION

The "RE:WORK Park" creates a porous boundary between the Media Centre and ZEMU area. Two slabs face the park. On the side of the media centre, a productive slab complements the centre with flexible, accessible space. Opposing this volume, a residential slab creates the possibility to have dense housing in relation with the adjacent ZEMU sites. This void created in between these two slabs offers a transition between the two areas and works as a place where industry and city can meet.

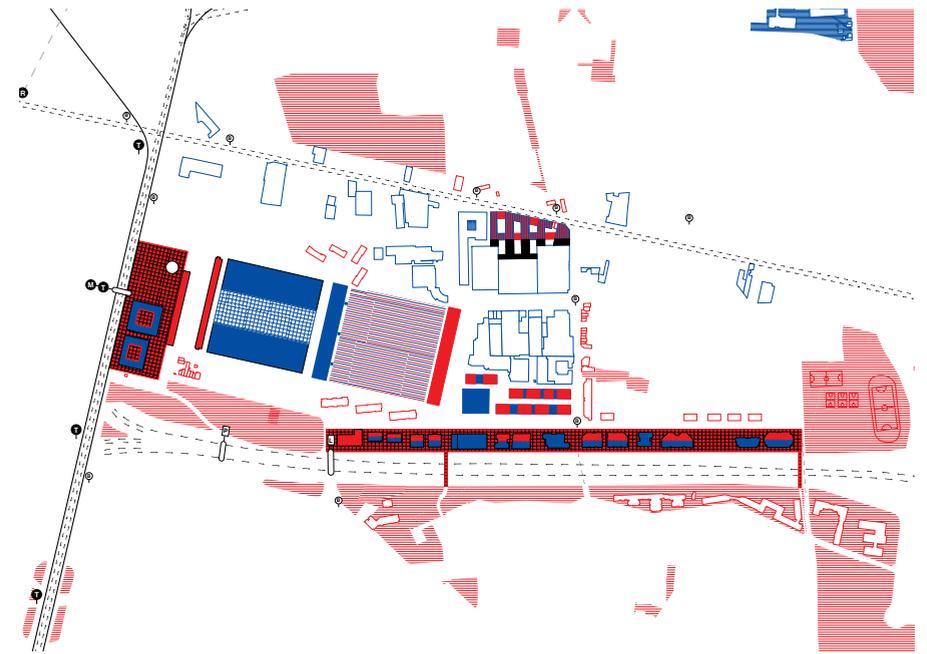
POSTMODERN MUSEUM: CONNECTING MANIFESTO

The existing strip of 1980s – 1990s office buildings connects physically all the different parts of the master plan and has a strong communicative potential as it is located alongside the highway. For this reason, we envisage it as a manifesto that illustrates in a diagrammatic way the strategy of the master plan. This intervention illustrates our general approach to keep the existing, even if its value can be questioned, and give it a new attractive image by strengthening its character. We addressed the public domain by opening the lots of the different postmodern objects and restructuring them into one green and attractive boulevard. After that, we used the opportunity of the split structures of the buildings to organize the coexistence explored by this master class.

CONCLUSION

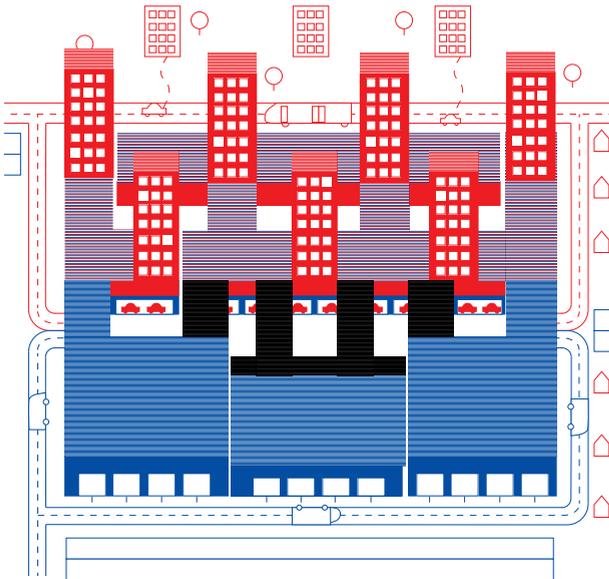
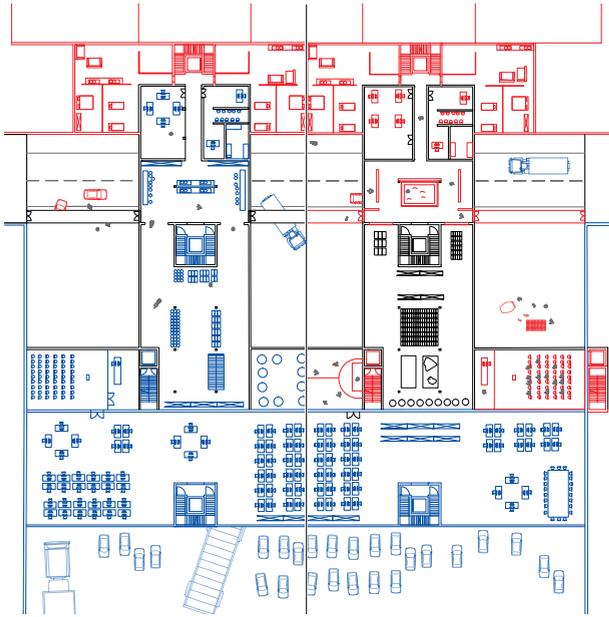
Working on these four strategies, we understood that for any kind of combination between production and housing, a general reflection on the public value of a site and its role in the city is essential. In the case of the Reyers site, the spatial negotiations that we proposed both determine and are determined by our urban reflection on the possibility of a productive pole alongside the second belt of Brussels.

— Esperant Abasi, Lucas Bacle, Filippo Cattapan, Penny Christou, Karin El Ajlani, Guillaume Harache, Dieter Leyssen, Thomas Loisier



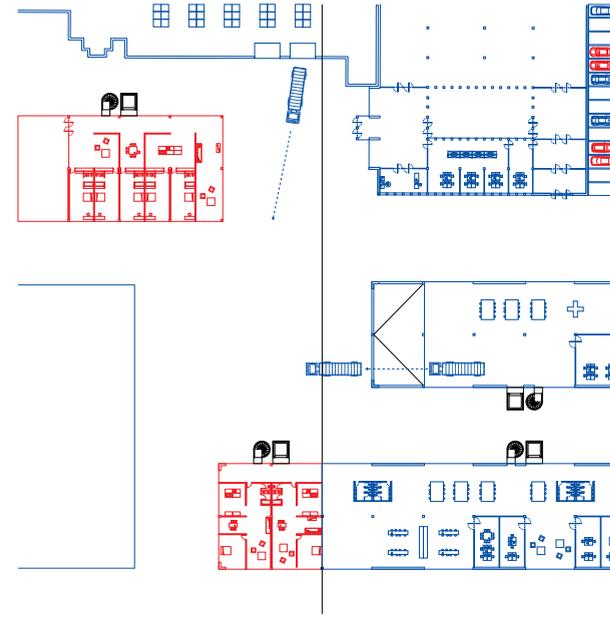
Master plan

Behind the new public plaza and the broadcasting building, four distinct elements make out a new master plan for the Reyers site (two blocks of ZEMU, Postmodern Museum, RE:WORK Park)



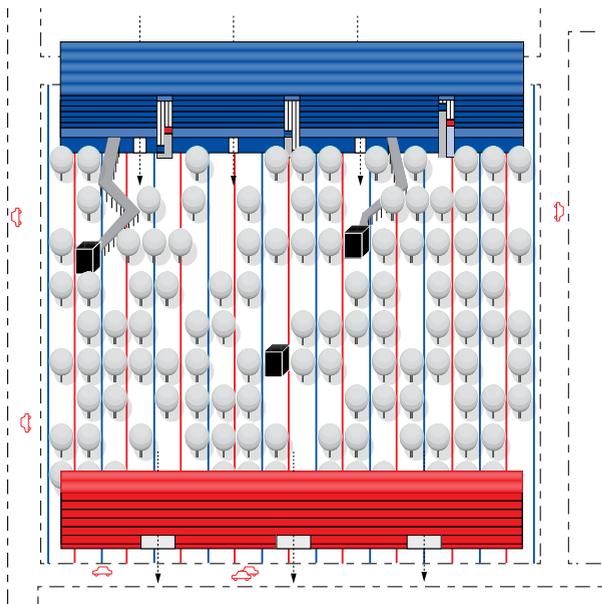
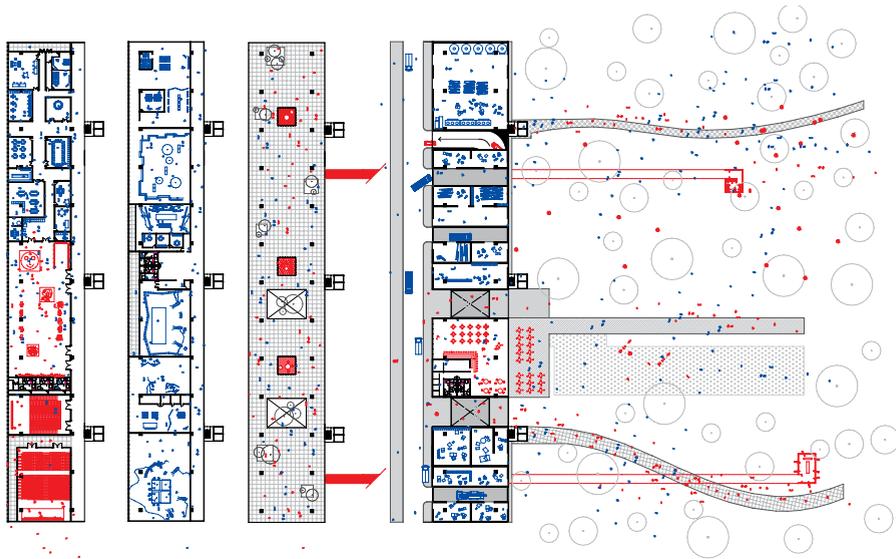
Urban morphological negotiation

The existing urban block of the first ZEMU is extended on the side of the Chaussée de Louvain with housing programme. Above the street, intermediate flexible spaces are available, constantly negotiated between the economic activity and activities related to the dwellings.



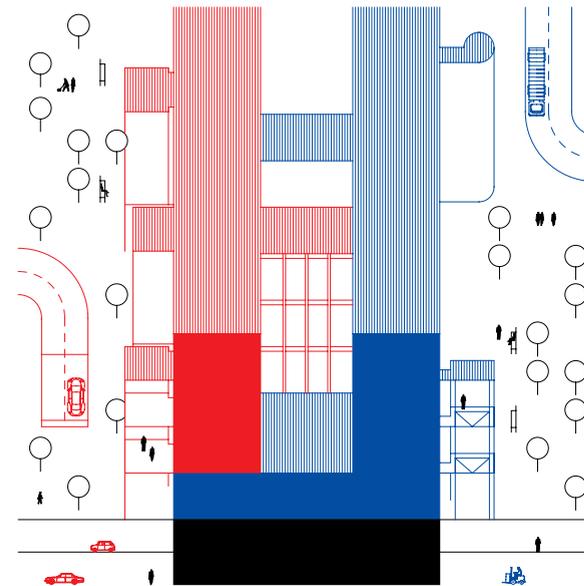
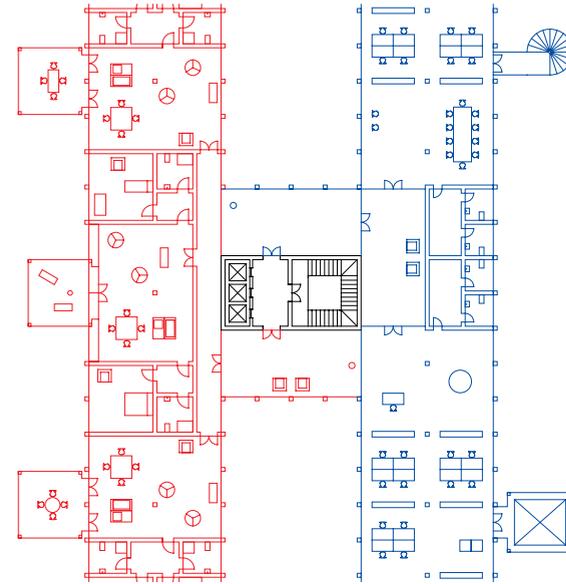
Building typological negotiation

A new typology is introduced on the south side of the second ZEMU, while existing warehouses are left as is. This allows for a transition in the fabric, strengthening the interaction with the Postmodern Museum and the soon-to-be reduced motorway.



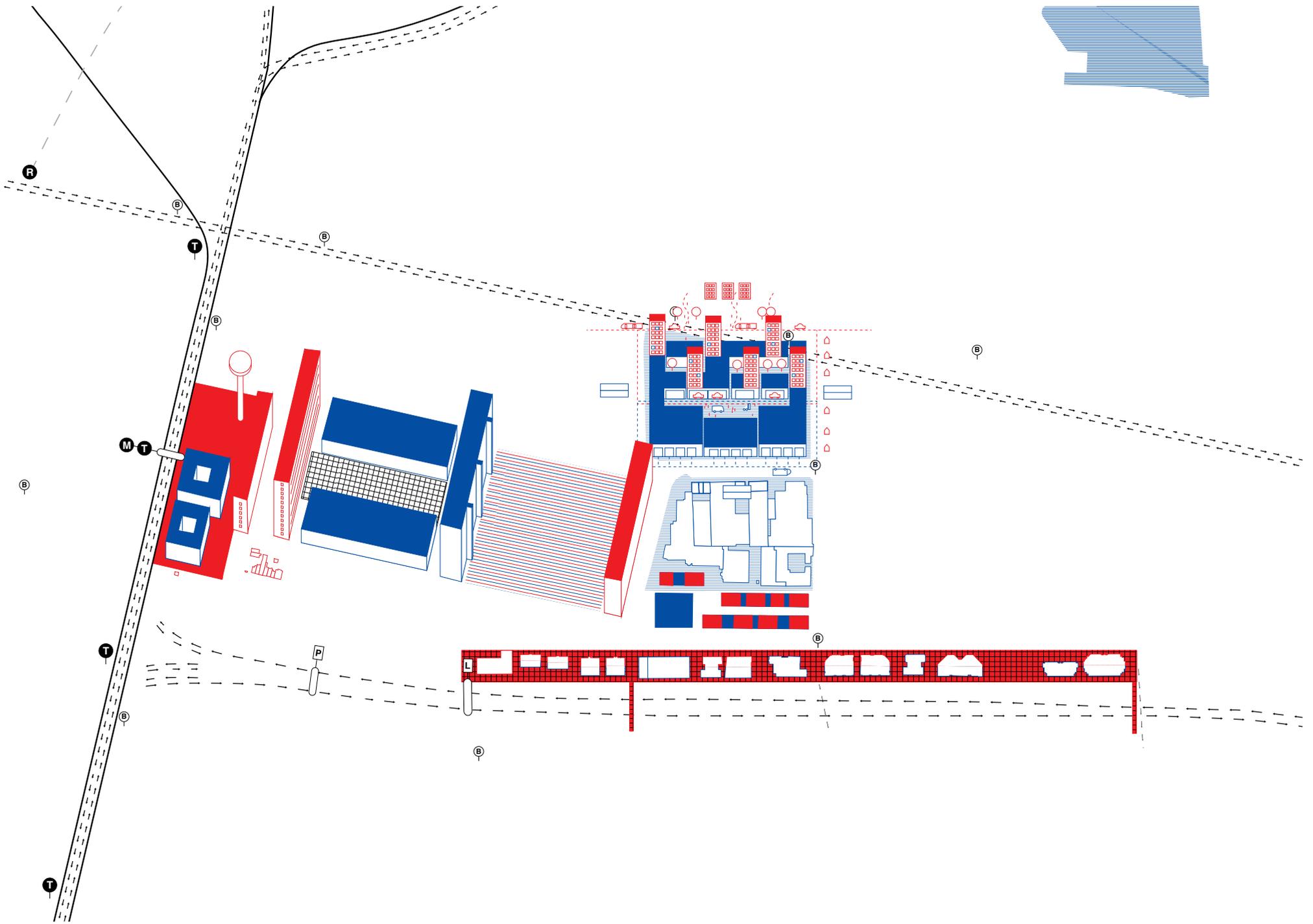
RE:WORK Park: programmatic negotiation

The park behind the broadcasting company is opened to the public, and two opposed but complementary buildings are implemented on either side. The park becomes the fuzzy border between industry and city.



Postmodern Museum: connecting manifesto

The existing building morphology is programmatically enhanced into a hybrid typology with economic activities on the side of the motorway and housing towards the neighbourhood. External elements are plugged to the buildings where necessary, making the intervention visible and recognisable from the motorway. A large and generous public space unifies the intervention, bridges the motorway, and creates a new attractiveness for the residential areas on either side of it.



Axonometry
Overview of the interventions.



SITE 2

QUAI DEMETS

HOW CAN ECONOMIC ACTIVITY SERVE CITY MAKING?

Quai Demets is in the middle of an urban transformation process. Searching for ways to create a new and dense neighbourhood within the block is the opportunity to reflect on how the existing economic activity can create a new urban condition, which is more a process of bringing things together than switching from economic to urban.

While looking at ways to generate an attraction to the site, the group decided to use an economic approach: rather than a spatial solution they chose to explore an hypothesis based on the university. They looked at how the university could collaborate with the existing programs on the site and eventually attract new ones, creating a synergetic development triggered by education. By doing so, they also explored the potential of private and public partnership.

While the urban and the architectural group worked around the same ideas at different levels the main challenge, once together, was to transform the economic hypothesis into a spatial proposal, realising the effect that spatial design can have on such a strategy. By using the old structures on the site and developing new construction devices, the synergetic development, making use of the existing buildings, infrastructure and local businesses, becomes clearly visible.

— Susanne Eliasson & Anthony Jammes (GRAU)

STUDENTS

Stijn Brancart
Daniel Burston
Fanny Guigon
Pol Fité Matamoros
Guillem Pons Ros
Alice Taylor
Mark Turner
Yelena Theyssens

DROP SPACE!

Nadia Casabella & Isabelle Doucet

Urban, dense, layered, and accessible. Those were the first impressions the students had after visiting the site for the first time – based on a quick look from behind the bus window. Those were also the qualities that made them choose this particular site, against others. Yet their final proposal could be considered surprisingly suburban, sparse, mechanic, and isolated.

With this text, we want to focus in particular on the incommensurable distance separating the students' final proposals from their more spontaneous, first hunches. This distance seems to prove the hypothesis put forward in the introductory pages of this book, namely that urban design is a specific form of knowledge production. Indeed, design (in more general terms) does not solve problems, nor does it fix anything. Instead, design conceives new realities and allows for new insights and imaginaries. But perhaps most of all, design is a form of reassembling: it deconstructs reality and reconstructs it differently afterwards.

The critical rather than celebratory tone of this piece is therefore not to be seen as a critique of the students' work. Instead it is intended as a broader questioning of, firstly, the possibility to re-enact initial intuitive, even 'innocent' and 'ignorant' impressions of an urban question or site in the process of design thinking. And secondly it is thus

a questioning of the reductive dangers (and powers) of design when it is forced to operate in speedy rather than slow settings (two weeks), and when, thus, it unavoidably thrives on bold, hasty decisions rather than – in line with Isabelle Stengers – through 'hesitation'.

URBAN | SUBURBAN

The site is surrounded by urban tissue that we usually know as compact city, namely, visually characterised by a continuous façade aligning the streets, and with commercial activities often placed on the ground floor facing the street. The site itself, however, is a sort of no-man's-land located on the edge between two municipalities, Anderlecht and Molenbeek. The site's brief summarises this as an 'island condition'. The way the site is at present urbanised is typical for any suburban shopping centre: one single



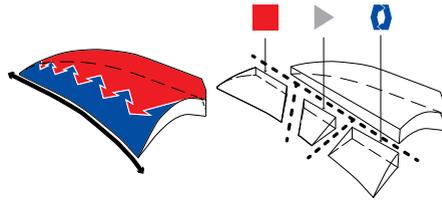
entrance from the Rue de Birmingham and one from the Quai Demets for the whole site (approximately 17 ha.), priority given to car access and not to pedestrians, built structures detached from the street and placed according to parking facilities, macadam overall, etc.

The students' proposal confirms this suburban character: slightly denser on the edge touching the Delacroix metro station, but based on a loose arrangement of built structures over the site. This loose arrangement could recall the abattoirs' physical layout, often described as a 'city within a city' – a term which also accounts for its functional autonomy. Otherwise, campus schemes and the like also display the same spatial looseness, this time against a pervasive green background. However, neither green nor autonomy are terms belonging to the students' lexicon: green isn't a color in their scheme, nor is autonomy an attribute as they seek to clutch the site onto surrounding institutes.

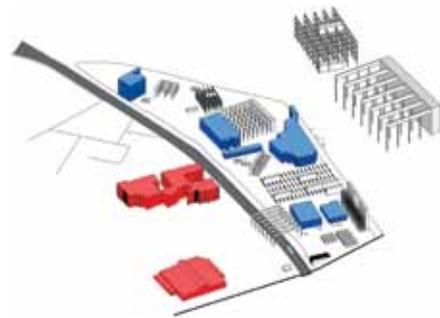
DENSE | SPARSE

Because of the sharp level difference between the Birmingham Street and the Quai Demets, the first impression of the site's topography is always misleading. We are dealing with a 10 to 15 metres step for a site depth of only 20 metres on average. Much like in a classical theater, the sloped stage and the objects placed upon it transform alongside the perspective, which fabricates a sense of crowdedness, vividness, hence of urbanity. Even the cars, with their overwhelming presence, might contribute to this feeling of being cramped. The site, by contrast, is somewhat empty, with numerous wasted corners, corroborating the inefficient suburban layout.

The initial analysis looked at the topography, resulting in very inspiring sketches exploring a transversal development of the site, namely by using the tunnel



road connection between the two transit depots, under the Birmingham Street. Interestingly, due to the group's choice to return to (and stick to) the brief – use existing structures on the site, some of them classified as industrial heritage (e.g. the electricity power house, reconverted into tramways atelier) – their 'rich' transversal approach made way for one of sparse-ness. Perhaps this has to do with the (often mistaken) association of a positive appraisal of existing structures (conservation) with their 'untouchability' and aura of detachment.



LAYERED | MECHANICAL

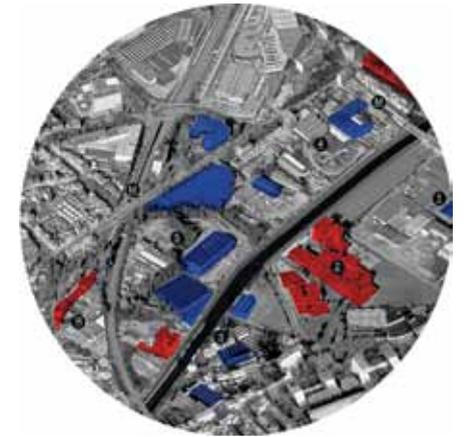
André Corboz's image of the palimpsest has been one of the most pervasive in 20th century urban design, further capitalised by Sebastian Marot with his 'sub[strate] urbanism'. Less known but equally compelling is Doreen Massey's geological layering metaphor to describe successive rounds of investments in the city: new spatial patterns that overlay patterns produced in previous periods, becoming the spatial basis for the next round of investment.

This part of the city is intrinsically linked, first, to the presence of the river

Zenne, then to the canal of Charleroi. For centuries, productive activities like filatures, tanneries, and breweries made use of the river's clean water, right before it would flow into the city, pulling all the dirt with it. But also transport was key. As soon as the canal was finished in 1832, coal, chalk, stone for construction, metallurgy products, grains from the south, and wood, bricks, and porcelain from the north were brought plentifully to the city. This industrious identity cohabitated with housing, and grandiose, imagined futures dedicated to leisure – see for instance the gardens and bathing facilities project on the Erasmus University College site dating back to 1877. The construction of the western railway bypass in 1871 confirmed the vocation of the area as predominantly a site of production, triggering the construction, in 1890, of the slaughterhouse.

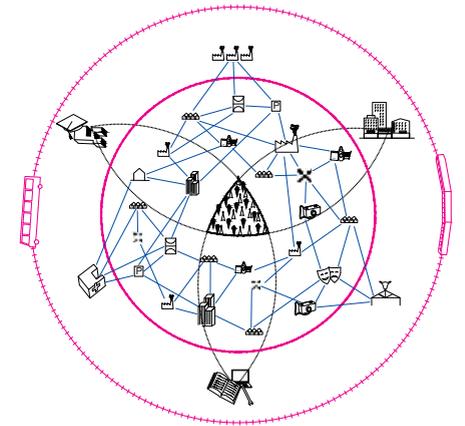
Most importantly, the slaughterhouse generated a very important cluster of interrelated activities, some interested in recycling the slaughtering leftovers: the veterinary school, tanners, masseurs, leather artisans, glove makers, bulbs (because of the stearin coming from animal fat), milliners, hatters, and sawyers. First signs of decline emerged after WWII, due to scarcity, new regulations, and, above all, because of the emergence of refrigerated trucks. Today, the Abattoirs, a private company managing the slaughterhouses, are 'reinventing' themselves into the next 'Boqueria' of the Brussels Metropolitan Region. Opposite to the slaughterhouses, a new centre for recycling, reuse, and reselling, called Ecopole, has been recently approved.

At some point in their design process, the student group submitted a scheme summarising their proposal. It consisted of a gear with three cogwheels: education, government, and industry. To the question, 'what if one of the wheels fails?' the students responded by plac-



01	ABATTOIRS
02	ERASMUS SCHOOL
03	SMALL INDUSTRY
04	HEAVY INDUSTRY
05	WAREHOUSE
M	METRO
R	RESIDENCE

ing a piston (a proper bridge) across the canal. The mechanical approach of this response seems to follow the logic of action and reaction, and, thus, derives from a belief that things move because there is some kind of force (real or figured) propelling them. Such belief contrasts with the possibility to effectively exploit the inherently layered condition of the area, which can be seen as a missed opportunity. It could have made the difference between a spatial determinism associated with the industrial past and boosting the craftsmanship revolution



linked to the reinvented Abattoirs or to the leisure future once evocated but suddenly relinquished.

ACCESSIBLE | ISOLATED

This is a site that is directly accessed by two main roadways, close to two metro stations (connecting to the two main metro lines crossing Brussels' agglomeration), next to the Ropsy-Chaudron bridge – one of the few crossing the canal (built in 1945) – and with a possibility to create a direct entrance to the Delacroix metro station. In short, in terms of connectivity and accessibility, not bad at all! It is therefore perhaps surprising that the final proposal chooses to underline the site's disconnection, best represented by the lack of bridges connecting the two sides of the canal. At one point the group envisaged the construction of a bridge that would be ending right into the vocational school (EhB) placed in front. Later on this was replaced with a bridge linking the training centre to the Abattoir site, sprouting from a perhaps ill-defined place somewhere in between.

But the inaccessibility and isolation of a site also has to do with the imagination, or lack thereof, that helps in cultivating a site. Some eloquent recent designs have anticipated a major public space of metropolitan size and ambition (XDGA, 51N4E, Berlage Institute), and as such managed to refresh the city's imagination for this place – currently that of a sign board, with all the arrows and logos of the companies settled down there. These designs also contributed to re-enact some turning points in the site's history, such as the construction of the very linear Birmingham Street, flanked with trees, and culminating into a hippodrome (Vanderstraeten plan of 1846) that replicated the monumental axis of the opposite valley's cornice, which in turn ends on the Palace of Justice. In contrast to this monumental gesture, the stu-



dents' proposal develops a 'recycling' image, somewhat messier and jumbled, but definitely more pragmatic. Moreover, the student group showed a big resistance to work on the iconographic dimension of their proposal, clearly refusing to place this site on the Brussels mental map by means of another gesture.

So what about the incommensurable distance we identified at the outset of this text? Where and why does it emerge in the design process? Does a design process at some point 'drop' space on its quest for more relevant and productive answers? The group deconstructed the site and reconstructed it afterwards beyond the mere reorganisation of the physical elements present on it. They did it rather by repositioning the site strategically, and by opening up some unforeseen opportunities for its development; e.g. creating an alliance between the Erasmus school, the few surviving surrounding industries, and a continuous vocational program.

Needless to say, the process they followed is utterly contingent and follows a cumulative causation logic – in turn influenced by each student's imagination, the master class's adopted methodology, the intermediary crits... This is not to weaken their proposal, but to stress the importance of design as a specific form of knowledge production other than scientific knowledge. Our cities need these other forms of knowledge, less

formally structured, more contingent, less technically articulated, more social, and less problem-solving too, as most of the problems design is confronted with are particularly ill-defined.

In the midst of an undoubtedly complex set of considerations that are always at the basis of urban questions and that require a large and varied body of expertise and other knowledge, design and design research adopt quite a specific place. The specific and unique contribution of design, no matter how limited it may seem, is that it allows for questioning and exploring questions spatially and through imaginary channels. In an increasingly loud – and justified! – call for inter- and multi-disciplinary research on the city, design research offers a specificity that is perhaps worth

re-emphasising. Namely, by testing options through creative and imaginary processes, by operating back and forth between the imaginary and the real, the possible and desired, the concrete and abstract, the controlled and contingent, it is perhaps closer to the messiness of the real than one might expect.

The experimental aspect of design is essential, and, thus, design is not just a matter of trial but also error. The 'failure' side of design is in fact a value that is too often denied and underestimated in epistemological models that still largely thrive on progress, clarity, and clean-cut solutions. This text can thus be seen, as we said earlier, not as a critique but as a way to expose the bumps and bruises that are always part of design.

URBAN UPCYCLING

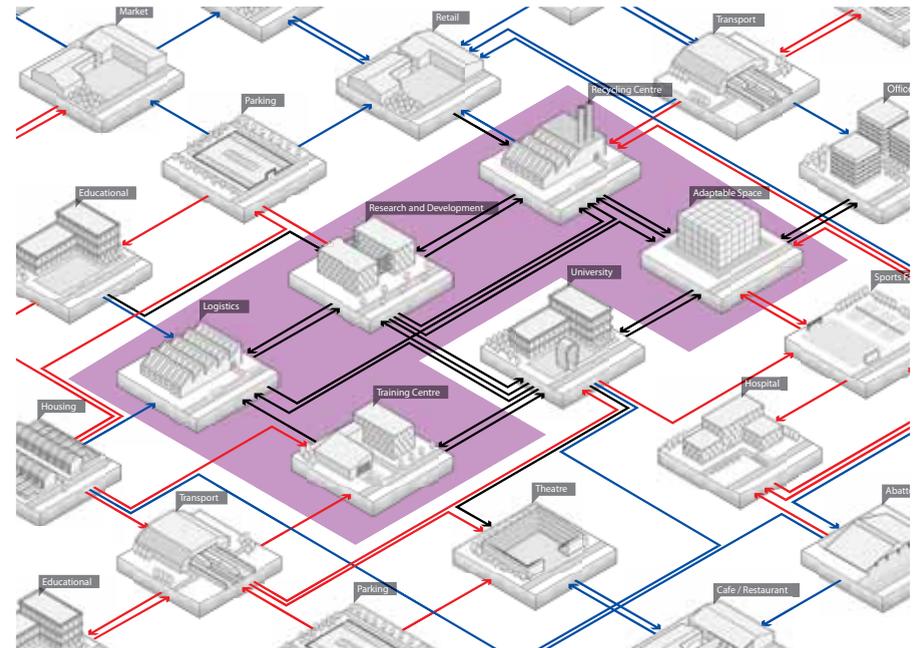
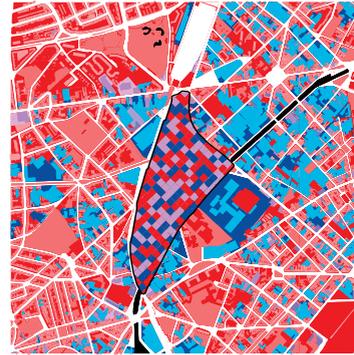
Centrally located and well-connected, Quai Demets is situated within a strong infrastructural context. It boasts a number of adaptable existing buildings, initially built for industries that no longer exist.

In response to current economic issues within Brussels, we propose a strategy for Quai Demets that can capitalise on existing buildings, infrastructures and local businesses, and support communities.

At the core of our strategy we propose that further education and re-education act as a motor for major economic growth. By providing courses and internships for people seeking employment, we hope to offer existing businesses and future investors a range of trained personnel. In this way, a cycle of economic activity is established which will encourage private investment. Over time this will form a synergy between private and public activities, which will create a new metropolitan condition and kick-start sustainable development and growth for the foreseeable future.

We aim to create a new urban identity that, in addition to new enterprises and industries, will incorporate several housing programmes, cultural and recreational facilities, and above all a flexible infrastructure for further development.

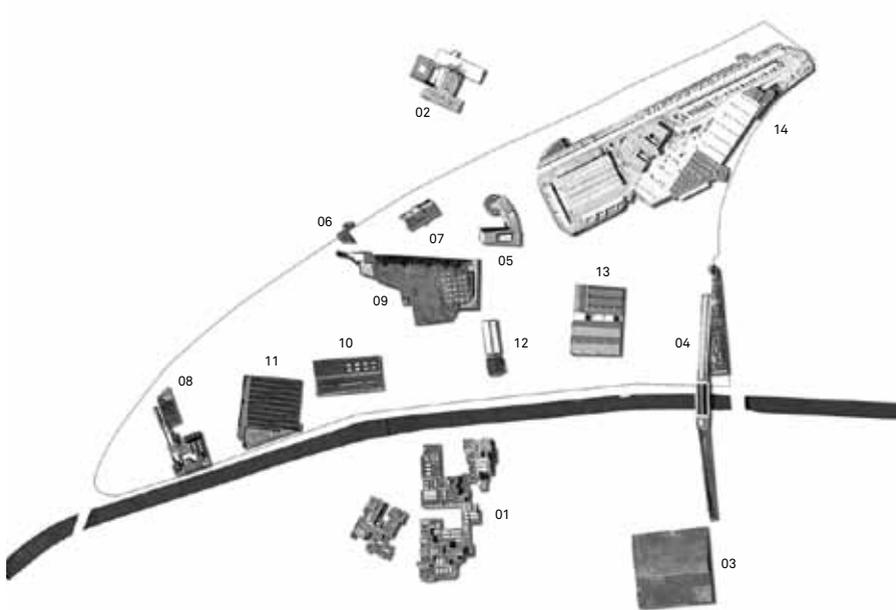
— Stijn Brancart, Daniel Burston, Fanny Guigon, Pol Fité Matamoros, Guillem Pons Ros, Alice Taylor, Mark Turner, Yelena Theyssens



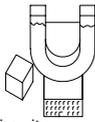
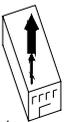
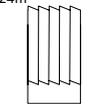
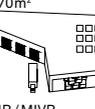
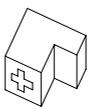
Feeding the city

Using the neighbouring university as a catalyst, the existing and new programmes on site become levers in a wider network of urban upcycling.

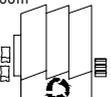
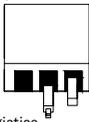
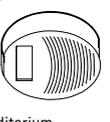
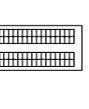
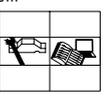
- EXISTING BUILDINGS:
- 01 University
 - 02 Hospital
 - 03 Abattoir
 - 04 Metro Delacroix + Housing
 - 05 Nescafé
 - 06 Metro
 - 07 Employment office
 - 08 Incubator
 - 09 STIB / MIVB warehouse
 - 10 STIB / MIVB
 - 11 Warehouse
 - 12 Warehouse structure
 - 13 Retail warehouse
 - 14 Bus depot



EXISTING

 University 485m ²	 Bus Depot	 Incubator 4324m ²
 Metro Delacroix 1046m ²	 Abattoir 6884m ²	 Retail Warehouse 10930m ²
 Employment Office 4270m ²	 Warehouse	 STIB / MIVB 1947m ²
 STIB / MIVB Warehouse 535m ²	 Hospital 1120m ²	 Nescafé
 Metro	 Warehouse Structure	

PROPOSED

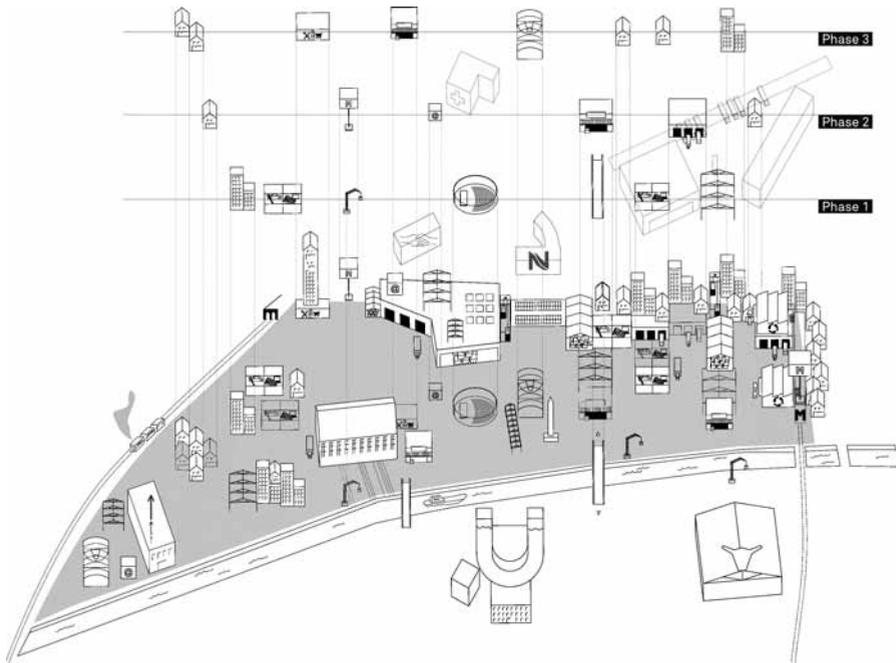
 Bridge 5000m ²	 Recycling Plant 400m ²	 Storage 500m ²
 Logistics	 Elevators	 Auditorium
 IT	 Plug-in-structure	 Crane 70-110m ²
 Metro Station 50m ²	 Parking 500-1000m ²	 Housing 400-1000m ²
 Retail	 Offices 50m ²	 Sports Hall 100m ²
 Landmarks	 Amenities	 Workshops

Using the old

The existing structures create the framework with which programmatic intertwining begins.

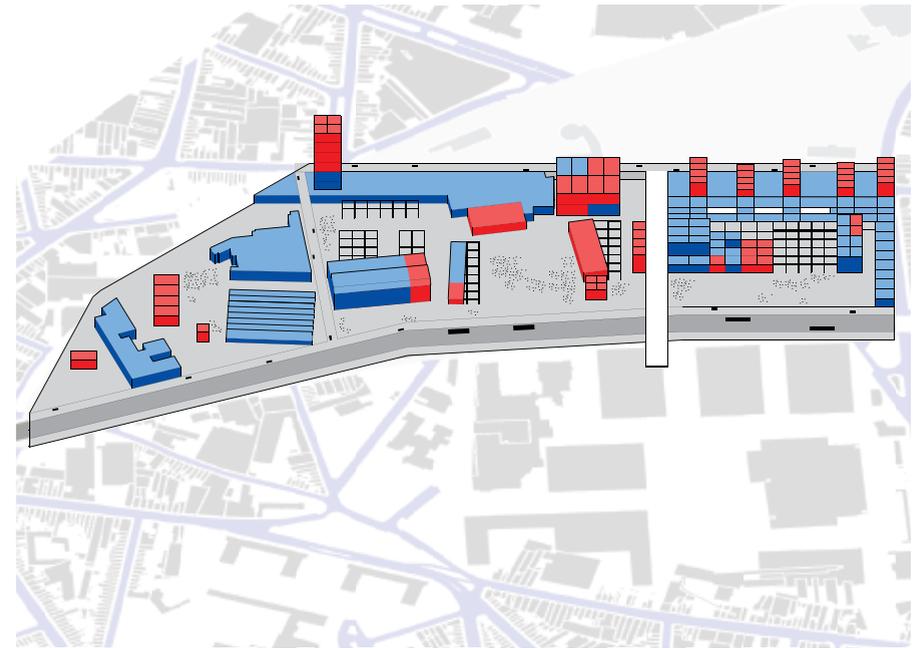
Toolbox

A set of new elements is implemented on site, influencing connectivity, efficiency, and uses, and brings the existing programmes together in a synergic development.

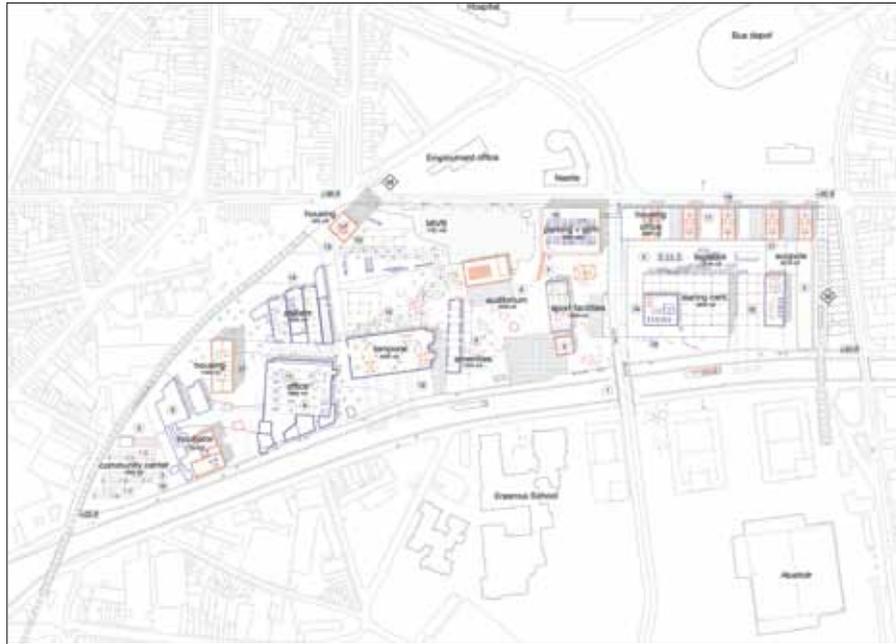


Instruction manual

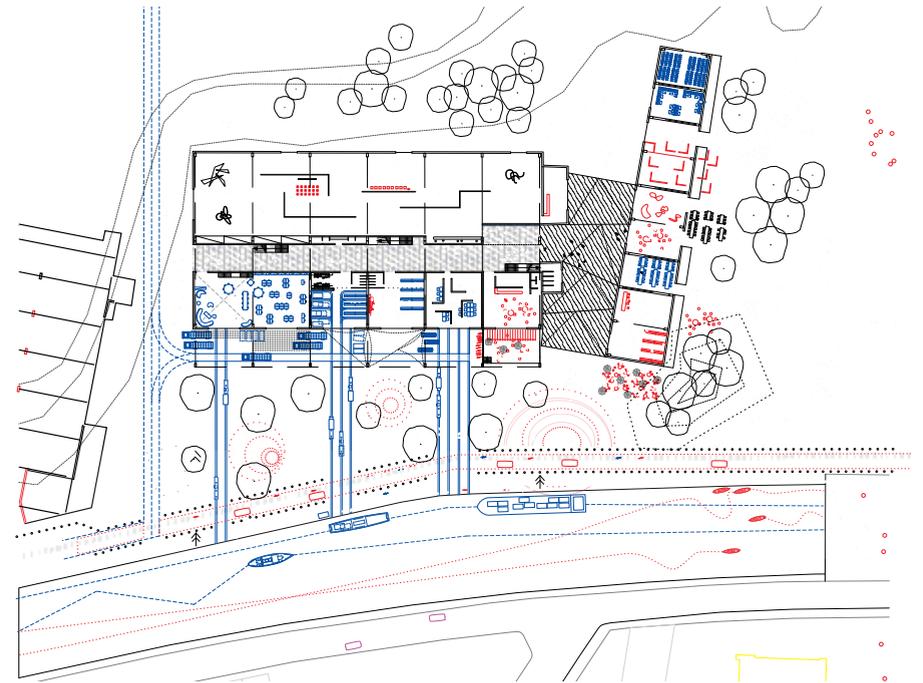
The project is process-driven. It creates and sustains a dynamic from the very beginning of the intervention, aiming at educational-triggered private and public partnerships.



A collaborative city
Suggested morphology.



Proposal
Plan.



Zoom
Reconversion of existing structures.



SITE 3 NEDER-OVER- HEEMBEEK

HOW CAN WE CREATE THE IDEAL CONDITION TO COMBINE ACTIVITY AND CITY?

Along the canal, city and activity work side by side without any real coproduction. Rather than trying to fully erase the limit between them it is possible to envision new programmes, infrastructure and landscape that create new levels of interaction without losing the efficiency of each system.

During the first week, the architecture group worked on the site of the flower market, exploring how new architectural programs could help to create a good relationship between activity and the city, examining the importance of time and flexibility when combining these programs. The urban group focused on the role of infrastructure and landscape by studying three different sequences of Neder-Over-Heembeek, going from the residential area through the economic zone and to the canal.

The second week, the group decided to work on all three sequences, exploring different types of relationships between the urban and economic parts of Neder-Over-Heembeek. By introducing the idea of friction, acknowledging the difficulty of coproduction between the logistics zone on the canal and the quiet residential area, the proposals manage to envision ways of coexistence that are very delicate with their environment.

— Susanne Eliasson & Anthony Jammes (GRAU)

STUDENTS

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Marian Plas
Aina Pont Marin
Pauline Varloteaux

FUNCTIONAL FRICTIONS

Géry Leloutre & Philippe De Clerck

A LAYERED COEXISTENCE

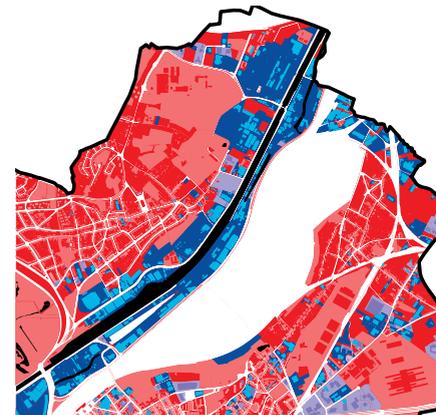
Far from being a product of chance, the challenge of coexistence between industry and city at Neder-Over-Heembeek is a direct consequence of two of its major territorial characteristics.

Perfectly positioned for prevailing winds to evacuate pollution away from the city centre, the ancient village of Neder-Over-Heembeek owes its very annexation to Brussels in 1921 to the works undertaken by the capital in order to extend its harbour and develop industry on its premises. Meanwhile, the valley topography sloping to the south was ideal in the eyes of the Brussels authorities to project new wholesome, functional, and attractive neighbourhoods for the diminishing inhabitants of the city.

Accommodating the coexistence between productive city and inhabited city has therefore always been a key issue in the development of Neder-Over-Heembeek. This was attempted in the interwar period by the calibration

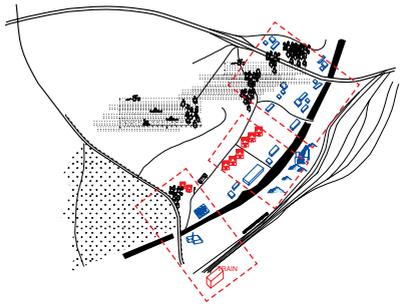
of the urban mesh, resulting (from the bottom of the slope going upward) in large uninterrupted pieces of land for industry along the canal, compact urban blocks for working-class and lower middle-class households, and spacious residential areas in abundant greenery for the well-off. The street acts as the mediator, the place of friction between programs. The layout of the flower market site pertains to this tradition.

In the 1960s, with the strict functional zoning of the modern era, a shift in the place of friction occurs, to a new, monofunctional space: the buffer. On the steep hillside of the valley, living and industrial activity are clearly separated from one another by a linear zone of dense vegetation, which would be developed into the Park Meudon in the 1980s. This separation is more subtle than it might seem at first notice. Within the buffer, functions connected to the industry such as offices, restaurants, or representational spaces were tolerated and functioned as the mediating elements. The head offices of the chemical group Solvay, with its spindly tower designed by Henri Montois, is a testimony of this ambition. The complex is implemented in a largely unbuilt part of Neder-Over-Heembeek near fragments of agricultural land, a sports centre in the landscape, the Park Drie Fonteynen in Vilvoorde and other large clusters such as the military hospital, a business park, the former Carcocke coking ovens (currently being reconverted), and the Brussels Ring.



THE TERRITORY OF FRICTION

The study of the current relationship between city fabric and industrial fabric reveals a new shift in the spaces of functional friction, from the scale of public space – the street or the green zone – towards the territorial scale. Landscape and infrastructure are defining features in the way Neder-Over-Heembeek is organized.



The urbanism group identified three spatial sequences in which the rural, the urban and the industrial meet in specific ways alongside the increasingly steep landscape of the canal valley. Together, they form the key samples to experiment with a new territorial strategy of mediation. For each of the three sequences, a distinct relationship between economy and city generates a specific intervention and a specific strategy and grain for the urban mix.

In the first sequence, the point of encounter between economic and urban fabrics is loose and rather undefined. The gentle slope is punctuated by large amounts of open space, which can become a catalyst for intensified urban and economic activities. Both industrial fabric and housing fabric are therefore strengthened and extended onto the open space, where all functions can meet and interact. A structure of collective spaces connects all activities in a natural, fine-grained urban mix. The radiance of the flower market site as a potential focal point is identified on urban scale as well.

The second relationship, on the contrary, is frontal. A sequence of public spaces sloping down from the old centre of Neder-Over-Heembeek ends in the Park Meudon, which acts as a buffer between an almost continuous housing frontage and a large logistics building which bars access and views towards the canal. Direct interaction with the canal is therefore impossible; however, the sloping topography can be used in order to achieve strong visual relations with it. From the Park Meudon, the roof of the logistics building is made accessible and becomes a large platform extending the urban fabric on top of the industrial fabric in a fine-meshed urban mix, and strengthening the ending point of the sequence of open spaces.

Finally, the third landscape sequence further up the canal in Vilvoorde is characterised by the very strong presence of infrastructure and infrastructural planning. Along the ring, monofunctional, self-referential economic clusters are implemented in the midst of agricultural lands. They are answered to by adding 'clusters of urbanity' turning the landscape into a city-economy archipelago. This first response to the infrastructural landscape of Vilvoorde will be questioned and redefined in the final proposal of the group.

THE TIME OF FRICTION

In the northwestern part of Brussels, a large logistics zone between the canal, the road, and the railway, facing the premises of the royal palace, hosts the morning market for vegetables and fruit, which some people call 'the belly of Brussels'. The flower hall is an extension of this market, albeit implemented further up north. However, where the morning market is huge but has no visibility whatsoever on the public realm, the flower market and its monumental glazed façade can seem



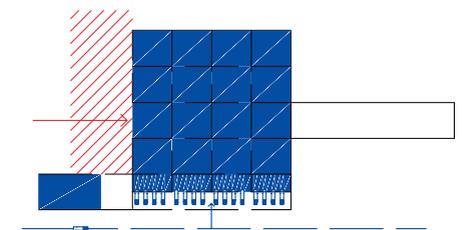
like a signal of entry into the area of Neder-Over-Heembeek.

This place for public sale, packed at dawn and deserted in the afternoon, in the direct vicinity of a residential neighbourhood inhabited mainly by commuters and near important sports and school facilities was seen as the perfect setting to explore concrete and precise formal and functional synergies on the architectural scale between economic activities and urban life.

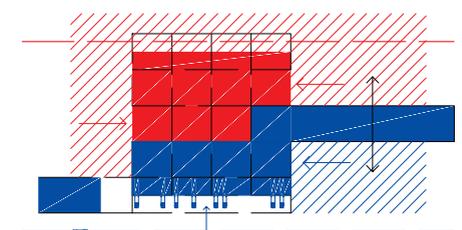
An intervention addressing both built fabric and public space can introduce a new scale of reference in and around the flower market, articulating both fabrics into a focal point citywide. Directly linked to the spatial potential is the question of time. In addition to their very specific spatial needs, the different elements that meet on the site function in very different timeframes. The flower market is a place of intense activity, though only when storing and distributing flowers to the city retailers from 4 a.m. to 7 a.m. This building and its immense parking reveal themselves as the programmatic catalyst for a wide array of related functions.

By the thorough comprehension of activities, the definition of their needs and the search for intense spatial complementarity, the architect group creates a gradient of activities between the industrial and the urban. A total of 100,000 m² for economic activities and

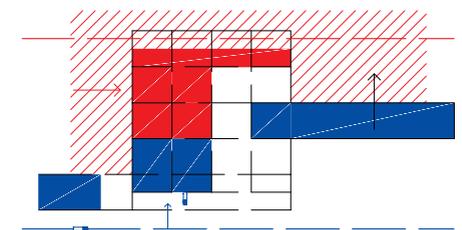
60,000 m² of housing and leisure is added on the site. Logistics and distribution, retail, farming, and restaurants are all different spatial programs building upon the existing dynamic of the market and extending the time scope of its activities. During the day, after the flower market has ceased functioning, the site hosts restaurants, shops, or a local food market, while wholesale and ateliers extend secondary sector activity throughout the



4 - 7 AM
FLOWER MARKET + LOGISTICS



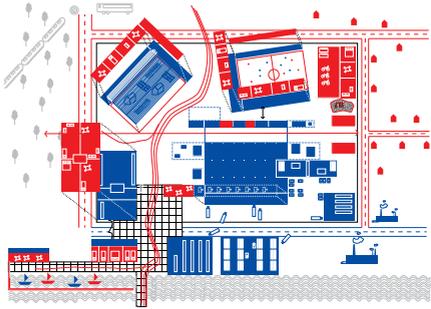
12AM - 5PM
RESTAURANTS, SHOPS, LOCAL FOOD MARKET
WHOLESALE
WORKSHOPS SPACE + ATELIER FOR CARPINTERS



7 - 10PM
BARS
CULTURAL EVENTS
WORKSHOPS SPACE
LOGISTICS

day. At night, cultural events and bars cohabit with logistical activity on respective sides of the building.

All of these activities rest heavily on a collective space, designed to offer both the flexibility and functionality required to host the varying uses. Technical specificity and culture of public space generate a sense-making design for the floor pattern: the module of truck parking as a measurement unit for a coffee bar terrace, plants as road signs. Cohabitation of functions is made into a friction of mutual reinforcement. This new public space, the “Market Flower”, uses market activities to trigger urbanity: implementing city functions strengthens the economic activity on site, while the latter becomes the beating heart of a vivid neighbourhood.



LANDSCAPES OF MEDIATION

During the second week, the final proposal built further both on the threefold urban logic and on the strategy of programmatic intertwining. Three complex urban situations are designed, where city and large-scale economic activity can coexist in three forms of specifically conceived mutual programmatic reinforcement, resting upon the capacity of the territory itself to act as mediator. They are at the same time sample and situation, showing, in the words of Sébastien Marot, different possible ways to ‘cease the landscape alternative’, to use the elasticity of landscape perception less to solve situations of programmatic friction than to manage them.

When referring to the contemporary city, Bernardo Secchi often likes to quote the hedgehog’s dilemma of Arthur Schopenhauer: ‘One cold winter’s day, a group of hedgehogs crowded together for warmth so as not to freeze to death. However, the pain from the mass of spines soon caused them to separate again, until the cold forced them back together, and thus they continued, moving from one source of discomfort to another, until they found a distance that allowed them to live but without the benefits of the full warmth of community.’ A distance at which they’re neither cold nor hurt. A project for the economic activities of Neder-Over-Heembeek is most of all about finding that right distance.

TIME, LANDSCAPE AND INFRASTRUCTURE

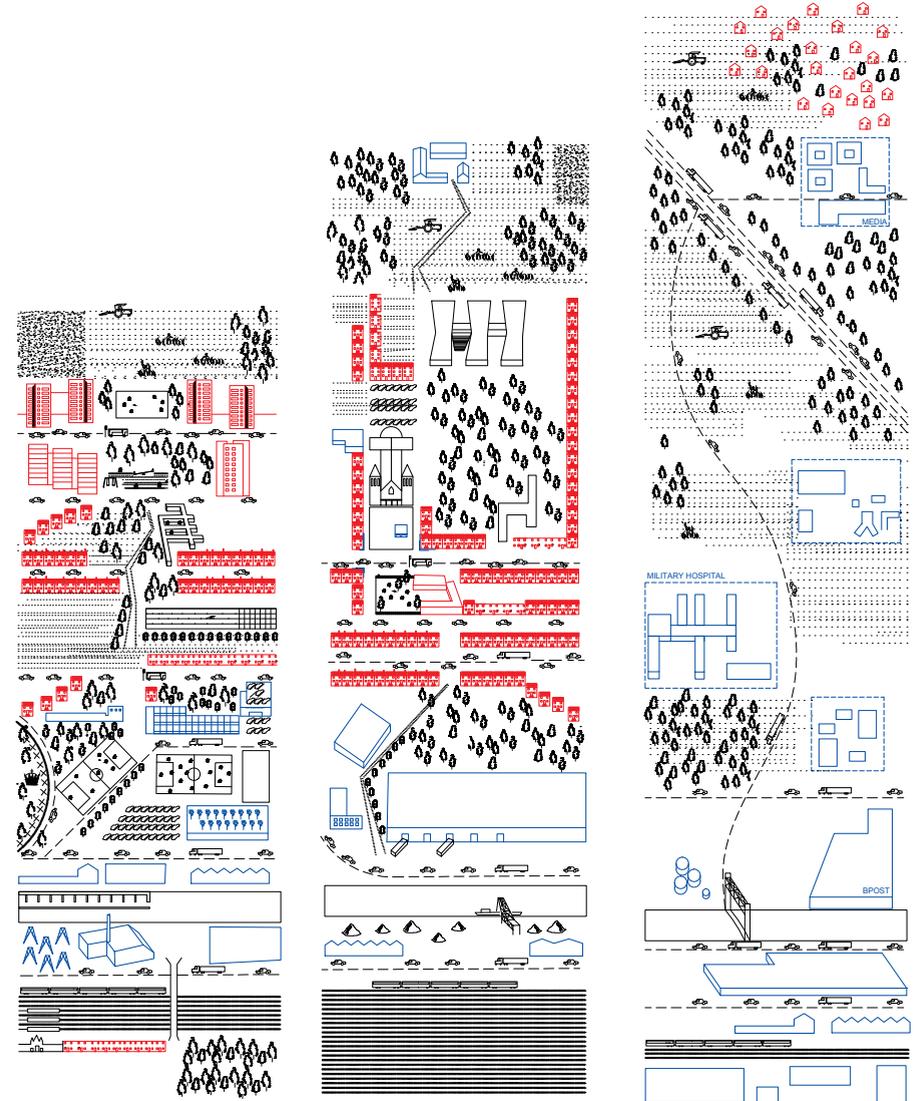
Neder-Over-Heembeek is located in the north of the Brussels-Capital Region, in close relationship with the Flemish region and its rural landscape. The area is characterized by specific border conditions because it is enclosed by different infrastructures, such as the canal, the royal park and the ringroad to Antwerp. The topography of this village-like urbanity enabled the origination of a residential fabric on the hill and the creation of an industrial zone in the valley along the canal.

Today the infrastructural connection between Neder-Over-Heembeek and the Brussels city centre is built on the traffic flow of passing commuters, making the entrance of the area a place of passage and not a place to reside. The southern sites of Neder-Over-Heembeek that can easily be linked to the opposite riverbank and the rest of the city offer a potential to create a new pole of attraction. By exploring a new mixed programme for an industrial building, which is flexible in space and time, both economy and urbanity can strengthen each other and offer a new scale of reference on a city scale.

The central area of Neder-Over-Heembeek offers potential on a more local level. The industrial sites, along the canal, can benefit from a sort of suburban condition, but are simultaneously in the proximity of a (small) urban centre. The specificity of these sites enables us to create new links between economy and urbanity by using intermediate space. By complementing the existing logistic buildings with other suburban functions, such as big boxes, on top, we are able to create an ambiguous public space in between that relinks the small city centre to the industrial canal zone.

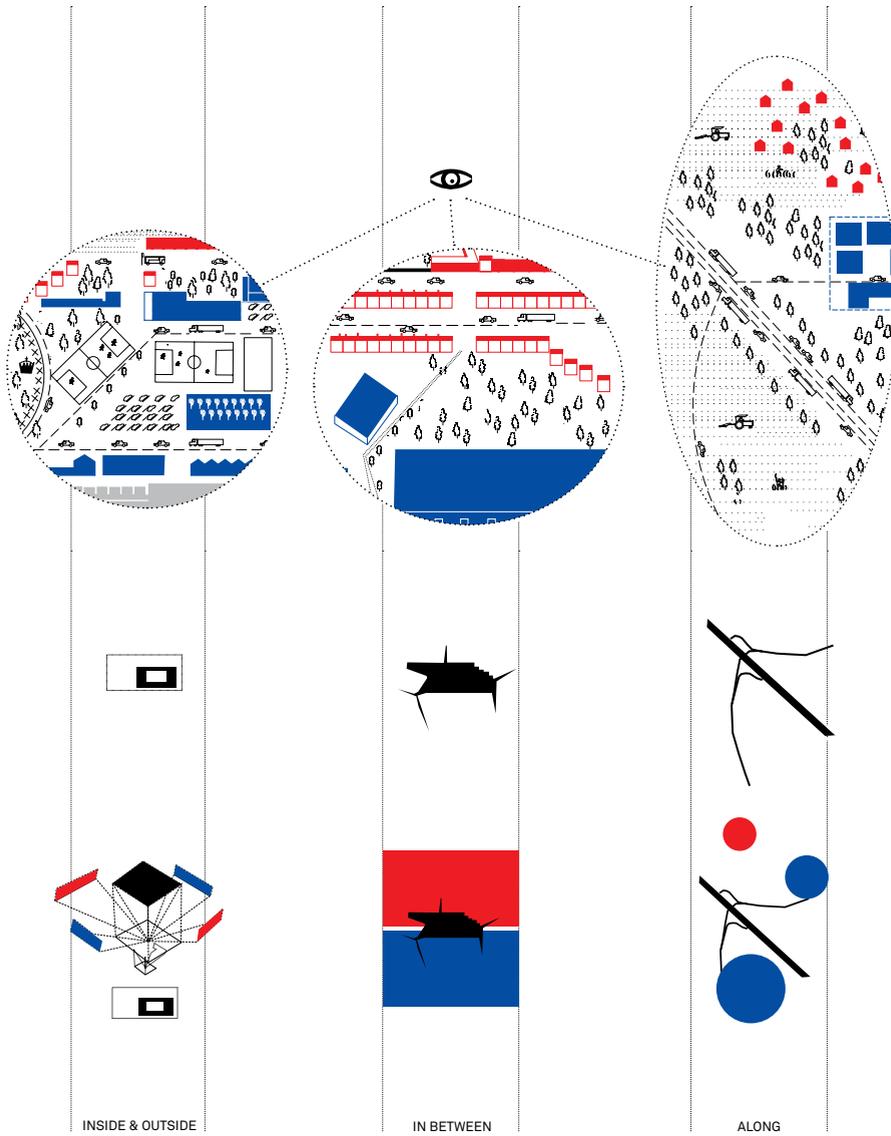
In the north of Neder-Over-Heembeek larger monofunctional economical sites connected with residual green spaces can be revalued on a regional scale. By offering new trucker accommodation along and underneath the ringroad, the unused space is charged with both economical and urban functions. The green space is elaborated as a regional park inbetween, which can attract both local inhabitants and visitors from afar.

Neder-Over-Heembeek is a small urbanity within the Brussels-Capital Region that has the potential to both build on city and economy. Exploring various new relationships between economic activity and urban life by using flexible space and time, by focussing on intermediate space or by creating links through infrastructure, shows that they don’t have to exclude each other. Instead of banning industry, wholesale and logistics out of the cities, enforcing and elaborating them can actually create unexpected urbanity.



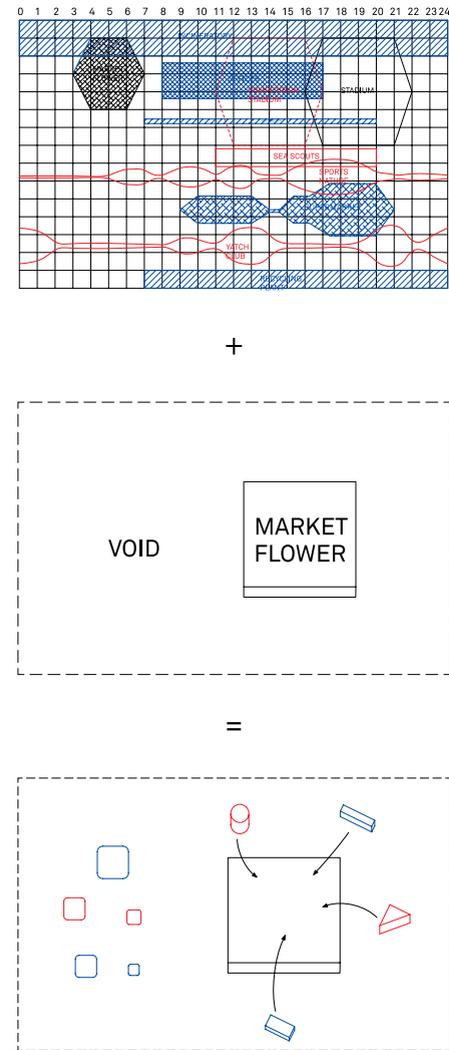
Situations

Three spatial sequences are identified as places where different interventions can experiment the relation between the city, economy, landscape and infrastructure.



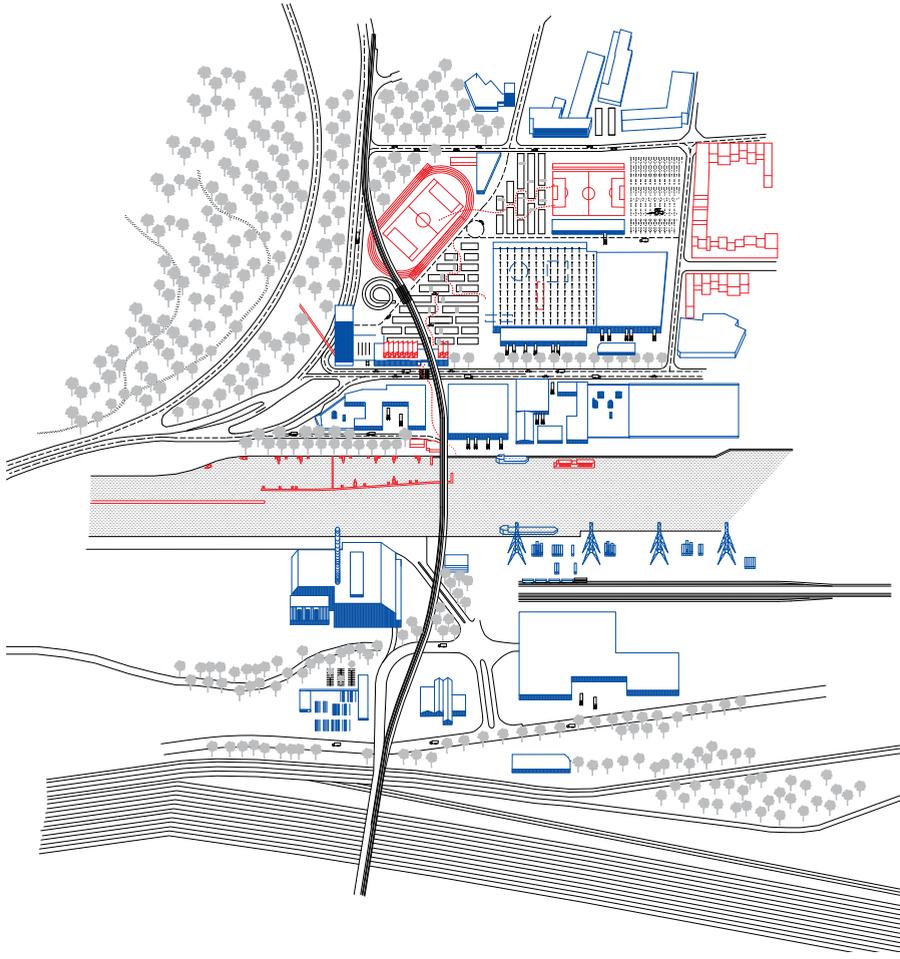
Black as a link

The proposal seeks to identify the 'black element' that can act as link, be it a virtual or visual one, between the red and the blue.



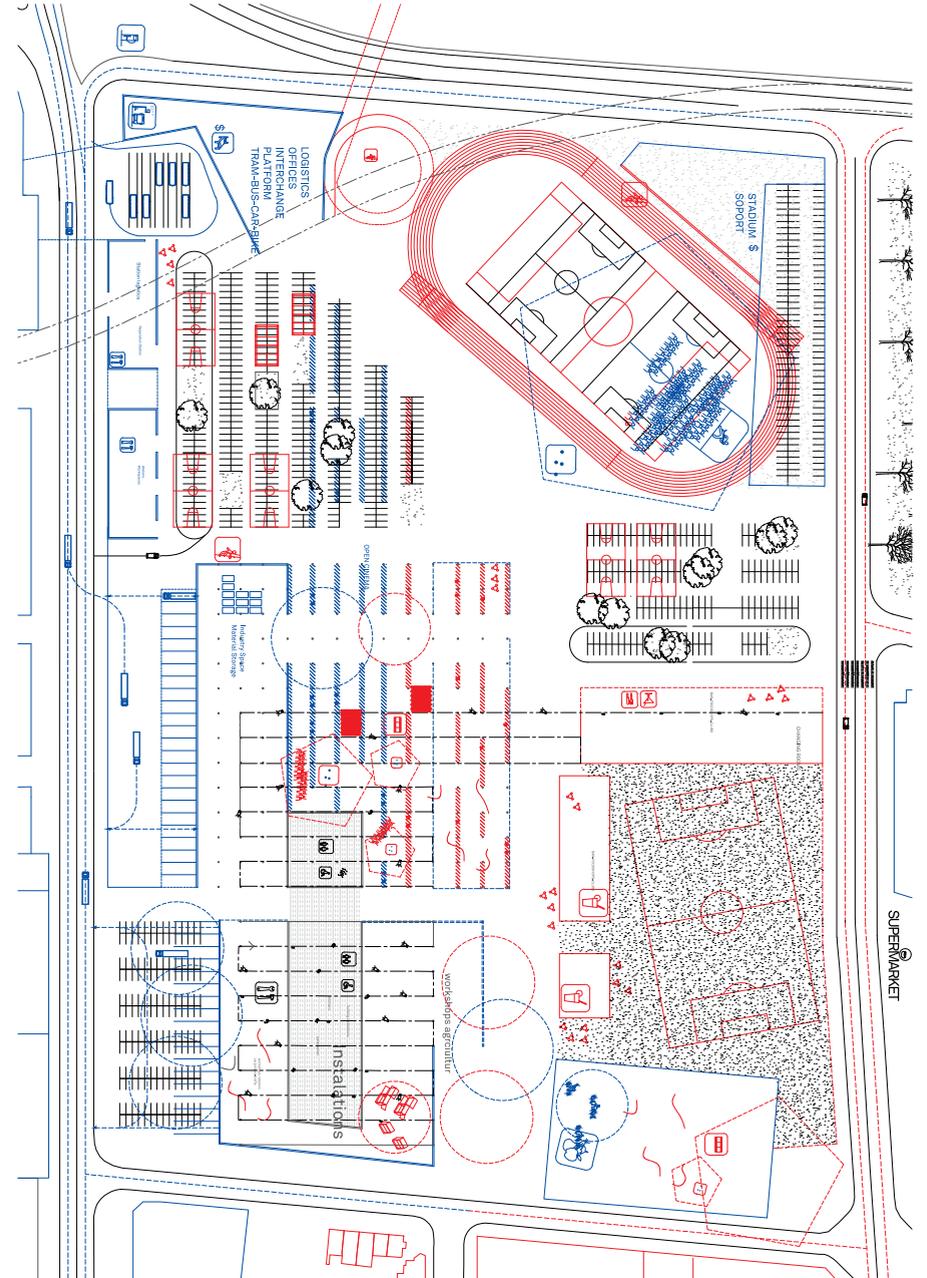
Inside and outside

The first site offers a strong visual presence and very flexible space. Uses in and around the flower market are intensified both in space and time density to create positive frictions.



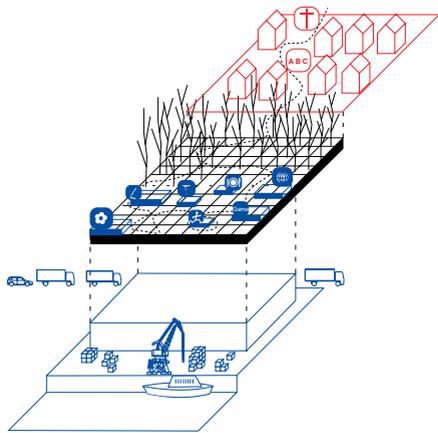
Around the market

The connection of two existing tramlines through the flower market site further strengthens the intensity of uses on site and its role as frontage of Neder-Over-Heembeek. The market thus becomes a new centrality, merging economic-oriented activities and public-oriented programmes in mutual reinforcement.



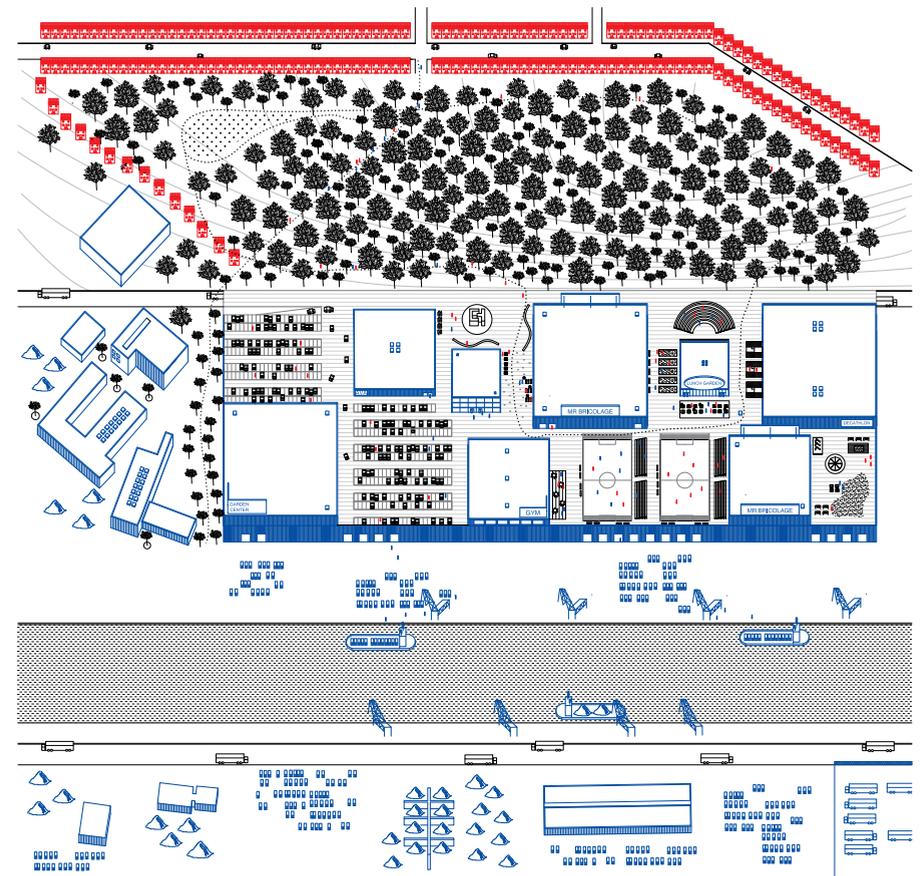
Zoom

The signage becomes a defining element in a public space that becomes just as flexible as the adjacent industrial space of the flower market.



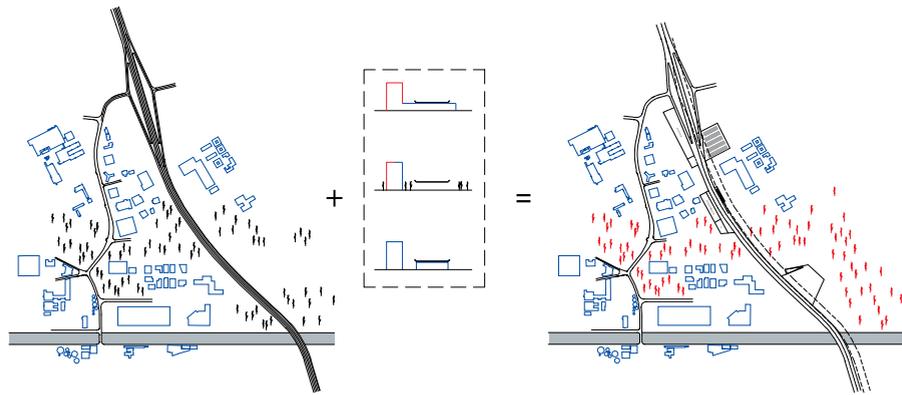
In between

On the second site, use of the topography allows both the existing park buffer and economic functions to seep through on the roof of the logistic building, where a new platform is accessible by foot from the park and by car from the industrial area.



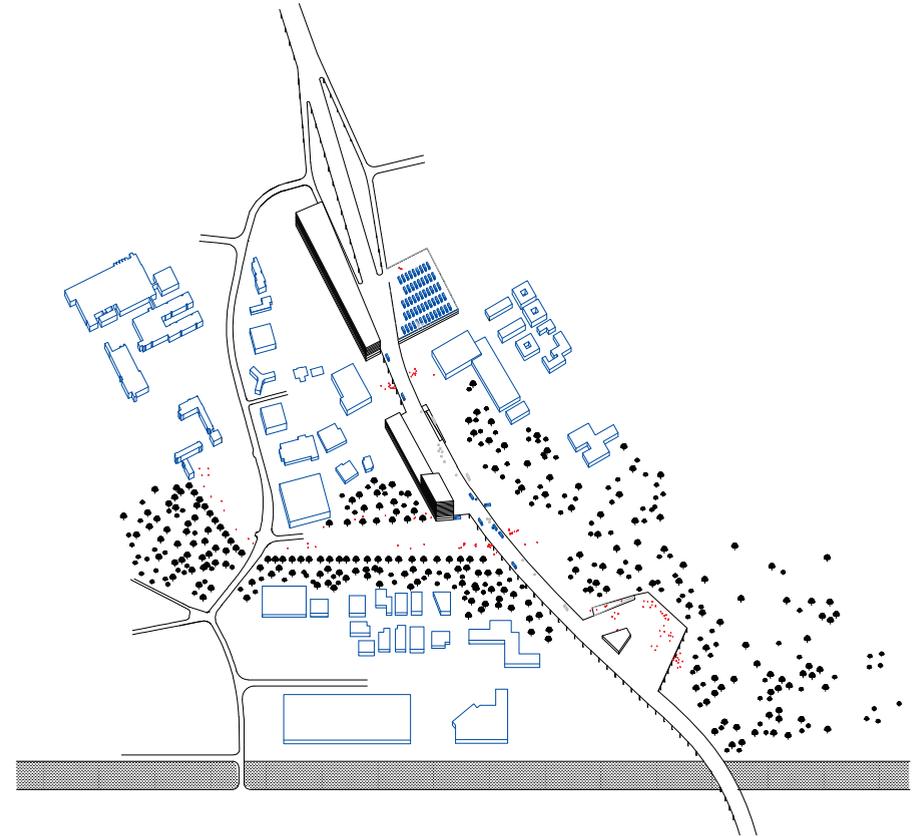
Around the park

Public space coexists with retail buildings, allowing the first to be extended from the park on an elevated platform with a view towards the canal, while the 'big box'-type retail buildings enjoy excellent accessibility and immediate proximity to the delivery of goods. Like the flower market site, the elevated platform becomes fully public and accessible for local activities after business hours.



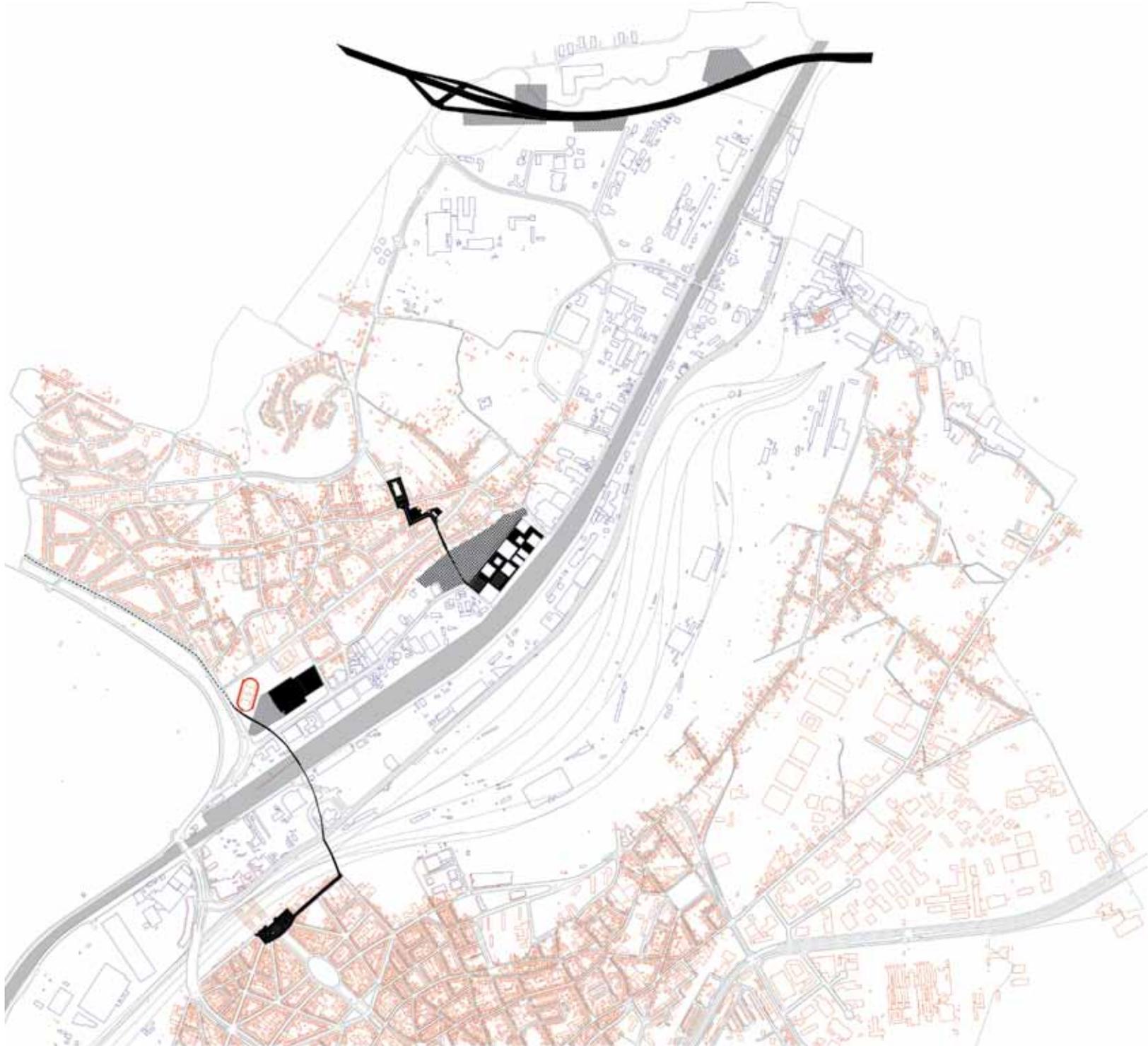
Along

The infrastructure itself becomes the backbone of the third proposal. A wide array of trucker accommodations transforms the Brussels Ring into a productive and urban component of the city.



Around the Ring

The large green spaces around the ring are redefined from agricultural buffer zone to a regional park.



3 strategies for mediation
The three new links in their large urban context.



SITE 4 DA VINCI

HOW DO ECONOMIC ACTIVITY AND CITY MEET HERE?

The site holds a strong potential for the development of new economic activity, with less physical constraints than in the city centre. New activity here can create strong economic value but also a possibility for urban and architectural innovation. The economic activity, and its physical form, needs to be able to create a strong urban condition here.

The first week, the two groups made a very detailed analysis of the area, identifying the three types of urbanity present and looking at the possible evolution of the Da Vinci site based on morphological building analysis.

The three types of urbanity, “compact city”, “weak city” and “bigness”, and the contrast they create in the area became the starting point for the second week union. Taking all the analyses into account the group defined a new hypothesis: they introduced a new transport network as a link between the different urban environments, acting as a catalyst for a new urban condition and allowing new forms of architecture to emerge.

— Susanne Eliasson & Anthony Jammes (GRAU)

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TRIPLE CITY

Michael Ryckewaert & Benoit Moritz

LEOPOLD III: HIGH-TECH AXIS

The Da Vinci site is part of the dynamic and fast-changing economic axis of Boulevard Leopold III, which links the national airport with the city centre.

Since the 1960s, the Boulevard Leopold III has been the leading high-tech axis in Brussels. The wider area surrounding the former location of the Haren-Evere airfield attracted businesses active in the aviation and electronics sectors, such as SABCA (aircraft building), ADB (airport lighting) and MBLE (electronic components).

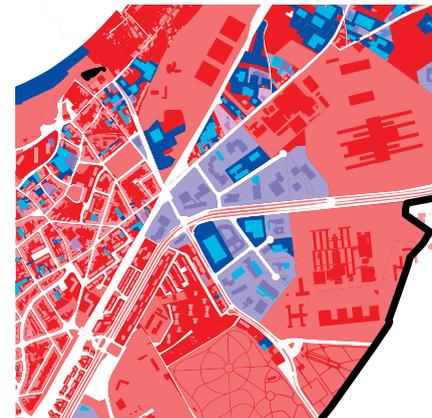
Expo 58 raised the profile of Brussels as a potential capital of Europe and as a point of entry into the future single market. This fitted into the Belgian government's deliberate policy of switching from an economy founded on commodities such as coal and steel to one based on emerging finished products such

as electronic goods, petrochemicals, the automotive industry, and consumer products.

Expo 58 was designed to showcase Brussels – and by extension Belgium – among international businesses in these sectors. This policy was supported by infrastructure development, including the construction of a brand new airport at Zaventem designed by Maxime Brunfaut, and the creation of a motorway network. Not by chance, the first investments in motorways came in the Brussels region. The Boulevard Leopold III, along with a northern section of the outer ring and the Brussels-Ostend motorway, was the first stretch of motorway in Belgium.

Or rather, the first section of urban motorway, as this early motorway construction used a particular profile with through-lanes flanked by service roads. In other words, while essentially providing a connecting function, the motorway also played an enabling role in making neighbouring urban development possible. This is also evident in the construction of pedestrian footbridges over some early motorway sections in the Brussels periphery, the Boulevard Leopold III being no exception.

This strategy rapidly bore fruit. From the beginning of 1960, numerous mainly US businesses set up in Brussels in order to access the single market. Hence the Boulevard Leopold III became the location of head offices and research centres



for several technology companies. Businesses such as IBM, Honeywell, and ESSO here found sites where they were prominently visible to passing motorists, thus emulating the situational rationale of Boston's Route 28, the first and archetypical technology corridor based along an urban motorway.

They also brought with them a distinctive American corporate architecture, a style Belgian architects quickly made their own, as the Expo had shown. On the Boulevard Leopold III, Walter Bresseleers built such examples as the striking IBM technological centre and ESSO research centre complexes.

Since the Boulevard Leopold III sliced through the former Evere airfield, there were a number of larger adjacent plots. In 1967, when NATO moved out of Paris, this international organisation found its settlement here, and the Boulevard Leopold III's role as a location for international development was definitively confirmed. In the following years, this positioning was intensified with the construction of additional businesses, including the development of a large-scale business park on the adjoining sites in Diegem.

BIG ENCLAVES AS CONTEXT

On the other side of the Boulevard Leopold III the former airfield acquired a use as a military site. Together with the Brussels Cemetery and the cemetery in Schaarbeek, these large-scale complexes were determining factors in the changing nature of the urban context of the Da Vinci site.

The area acquired its name in 1975, when the SDRB-GOMB took the remaining plots of the former airfield – 38 hectares – into management and undertook the development of a research park where businesses such as HP, Texas Instruments and similar were set up.

The area has also always been charac-

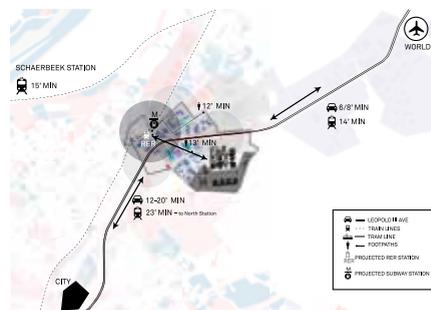
terised by great dynamism. A fluctuating investment climate and the international vocation of the site mean that it is highly subjected to transitions and decisions emanating from the global economy. Businesses like IBM – and with it Walter Bresseleers' striking building – disappeared during the 1990s, and now NATO too intends to adapt its infrastructure.

For this purpose the Belgian government has offered the military site on the other side of the Boulevard Leopold III, meaning the existing headquarters will stand vacant before too long.

FROM CARS TO RAILS: CONCEIVING DA VINCI AS A ZEMU

At the same time, the priorities of the Brussels-Capital Region are changing. With the expected demographic growth in mind, and an oversupply of office space, a number of business areas are being converted into ZEMU zones, open to other urban functions such as housing but retaining their role as zones offering employment. Synergies must therefore be found between the new urban functions and employment.

For Da Vinci, which was primarily set up for international and car transport through the Boulevard Leopold III and the easy access to the Ring R0, to Boulevard Lambermont and to the airport, this new use demands a redrawing of the infrastructure. With the extension of the tramline, the opening of Bordet



station as an RER and metro stop and the tunnel under Boulevard Leopold III at the level of Avenue Jules Bordet, the multimodal accessibility of the site will improve in time.

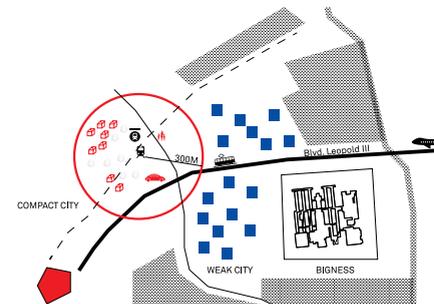
A first sign of change is the arrival of a large retailer, Decathlon, which is introducing commerce as an urban activity in Da Vinci.

This appears to have launched a transformation aiming to tackle the de-localisation of some of these activities, and with it the scope of challenges to tackle during the RE:WORK master class is clear: the increased attraction potential as a transport hub, the opportunities offered by the vacant NATO building, the gradual transformation of Da Vinci as long-term leases expire and possible relocations.

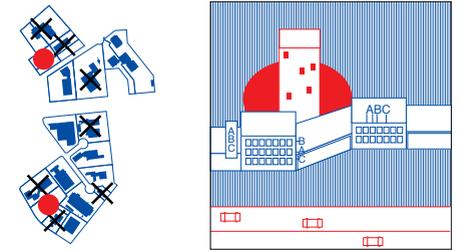
TWO APPROACHES AND A DEAD END?

The design team reads the context as a composite of three types of city: “compact city”, “weak city” and “bigness”. While the team's urban research sees clear potential in the historic centre of Evere and its compact urban nature, and in the opportunity to achieve an example of metropolitan urban ‘bigness’ on the former NATO site, the potential of the Da Vinci site itself which lies between them, the “weak city”, is much less clear.

Through a close examination of the temporal transition of the “weak city” brought about by the regular availability



of business plots, the architects have identified a strategy whereby a housing programme can be strewn across the site like urban confetti. Typologically, housing tends to the vertical, while business prefers horizontality. The businesses are clustered around shared and municipal urban functions.



These concepts will be retained in the final project. Nevertheless, it was not clear what overarching logic might make it possible to unify the three distinct city forms into a single project. How can the potential of good connectivity be realised in such a concept of juxtaposing entities? The team also had to address the presence of large-scale, closed complexes such as the future new NATO site and a remaining military domain as impenetrable enclaves, which might stand in the way of the development of the area. Additionally, the area runs up against the boundary between the Brussels-Capital Region and the Flemish Region, which are seemingly two worlds operating according to quite different rationales.

A CHANGE OF SCALE: INTRODUCING THE TRAM

However, a part of the solution was found by approaching this last condition in a different way. By zooming out and taking a somewhat larger district into consideration, it becomes clear that in the Flemish territory there is extensive open space (with agricultural use) and that this could be a huge asset to the area once housing and urban functions are planned.

The pieces of the puzzle came together from the moment that another route for the tramline was proposed. Following the realisation that Boulevard Leopold III is still a motorway rather than an urban boulevard, and thus cannot function as a vector for an urban project, the tram line was routed behind the site, creating a second circulation axis with a different rhythm, tailored to the public transport service and slow road users. This line relies on an existing route: it goes through the first part of the Boulevard Leopold III, leads on to the business parks near the airport and the centre of Zaventem, offers recreational access to the open space, and allows for access to the future connections on the regional express cycle route network ('fiets-GEN').

The tram will have a main stop on the former NATO site so the ambition of a real, compact metropolitan entity on the site can be achieved. This is an ideal connector between the road transport network and the various public transport networks, making the ambition of creating a very attractive transfer point with commuter parking a reasonable one.

The NATO site will broadly retain its existing megastructure. It will be a large, multifunctional complex where strips of housing alternate with strips of leisure activities, research, and offices. With the passage of the new tram line the NATO site will acquire a new, south-facing outlook on the new urban backbone, towards the open country.

REDEFINING THE BACKBONE

The 19th century produced the compact city; the 20th century produced the modern and the postmodern city! What kind of fabric will determine the image of the 21st century? How can we imagine a new urbanity that respects the qualities of the pre-existing urban fabric in the Da Vinci and former NATO site?

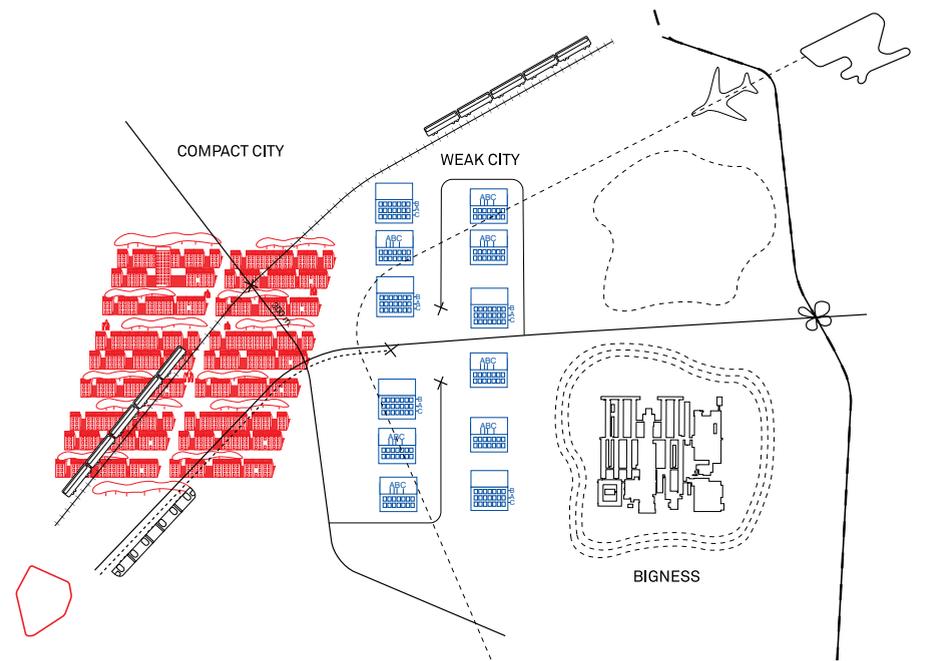
Both sites are located between the Bordet Station and the Zaventem Airport and are close to the boulevard Leopold III. Nowadays, this boulevard serves as a highway that regroups different types of functions and urban tissues. This diversity has at the same time a huge potential to accommodate change and also to confront the positive aspects of the fabrics to form a new urbanity.

First, we studied the connectivity of the site. This step showed us that even though the site is well situated, it is badly connected regarding soft transportation modes. This condition will change around 2025 with the arrival of the RER and the subway station. So, the near future presents a lot of opportunities. It made us think of the way the transportation modes should be organized to generate new flows and life in the area. We therefore propose a tramline that is parallel to the boulevard and encloses a strip that can be densified and diversified.

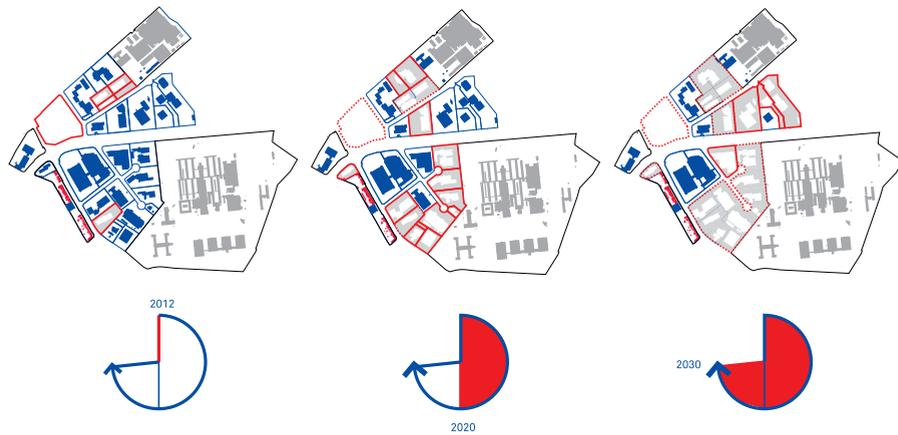
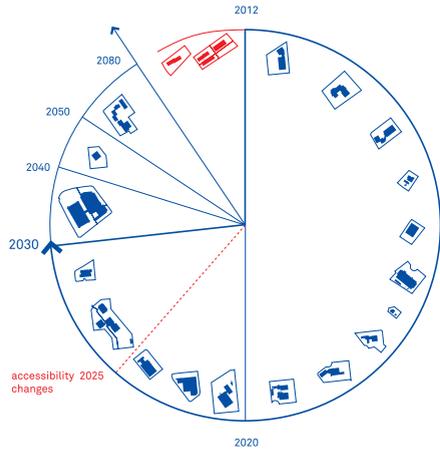
From there on, two strategies are designed to encounter the future needs of the Da Vinci site and the NATO site. We called the first the "weak city" and the latter "bigness".

Today the "weak city" stands for a fragile monofunctional urban system strongly dependent on car use. But at the same time 'weak' is a quality that can be exploited. Da Vinci presents a loose network that allows connecting new spaces and economies in an innovative way. Adaptable and flexible spaces can host new ways of working.

The NATO site is characterized by 'bigness'. The site's inaccessibility and large scale gives the status of an object to the former NATO building. In the future this can be exploited to give a new identity to the area and to host a new urbanity. The spatial organization around public spaces allows different functions and different economies to meet on a human scale. Combined with its better connectivity and flow of transit, the NATO site can generate a new way of living and working.

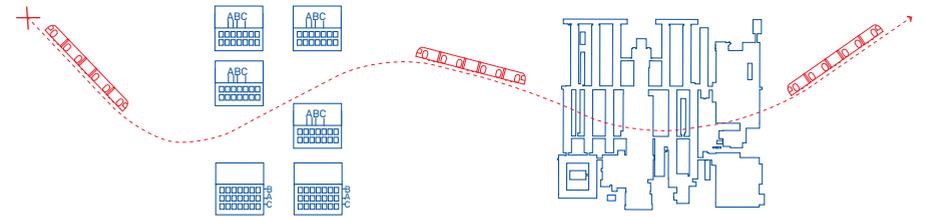


Typologies of urbanity
Three types of urbanity define the Da Vinci site.



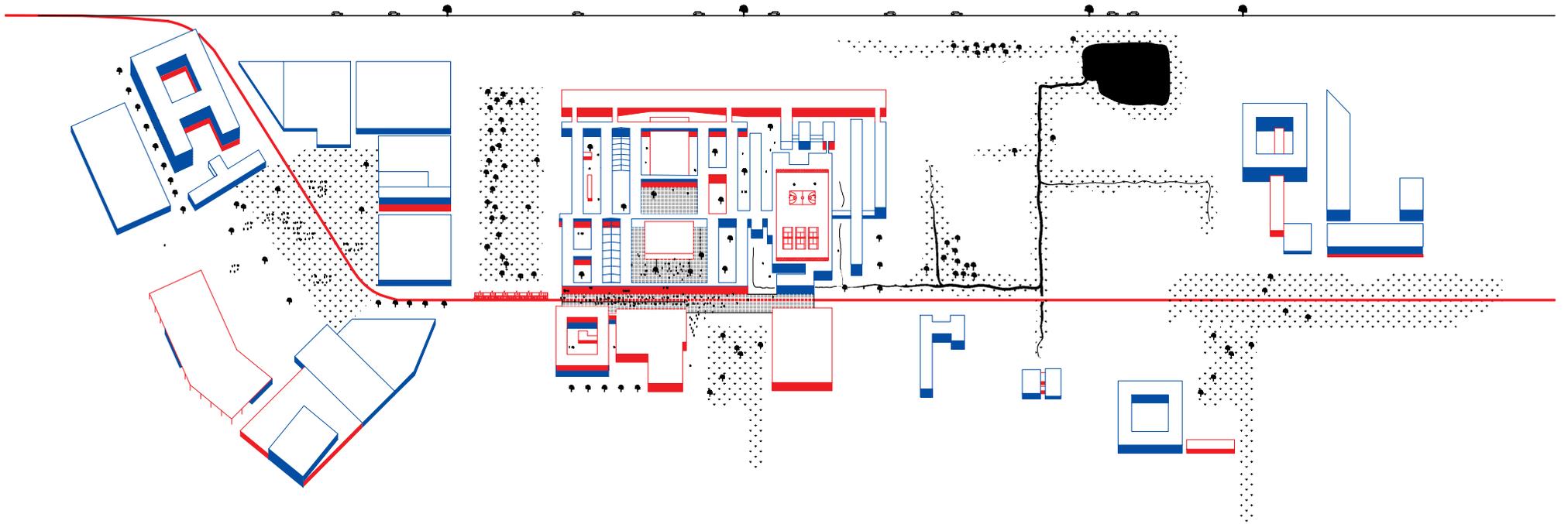
Timeline of land conversion

Three-quarters of the site will be available for redefinition by 2030.

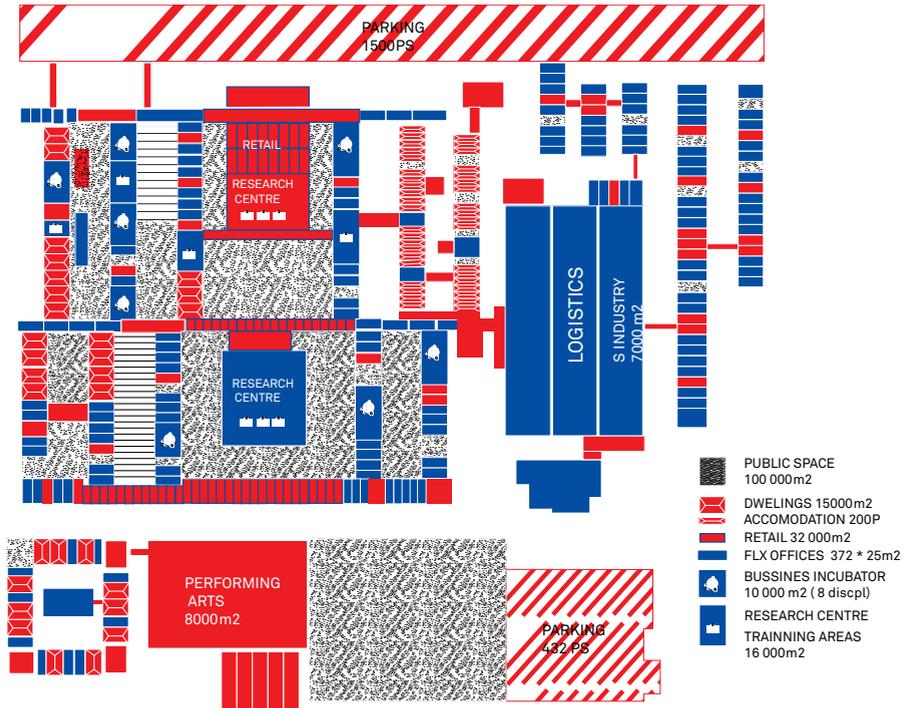
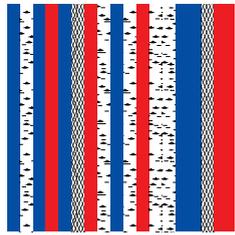


Second strip

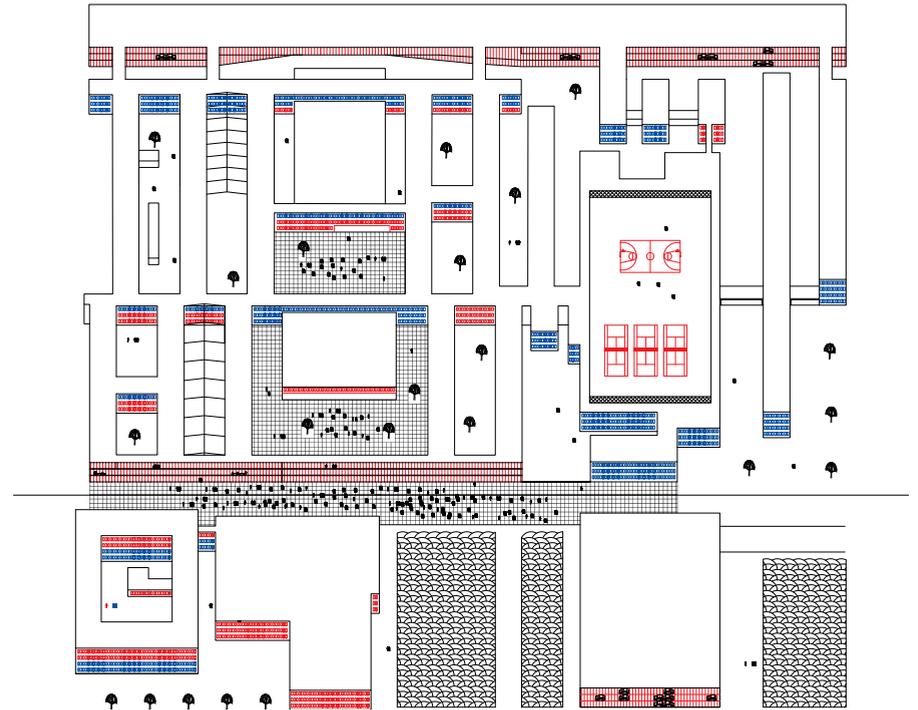
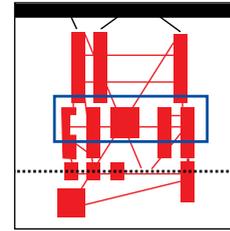
With the Leopold III axis being unable to provide urban connectivity on the local level, the redirected tramline becomes the element allowing the three forms of urbanity to interact, connecting them to Brussels and the landscape amenities in its larger metropolitan area.

**Tramway as catalyst for city and economy**

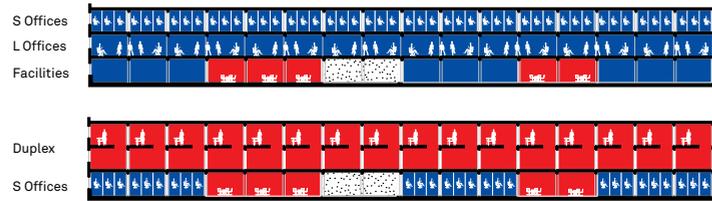
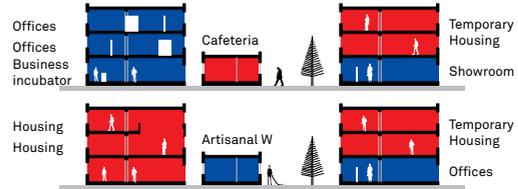
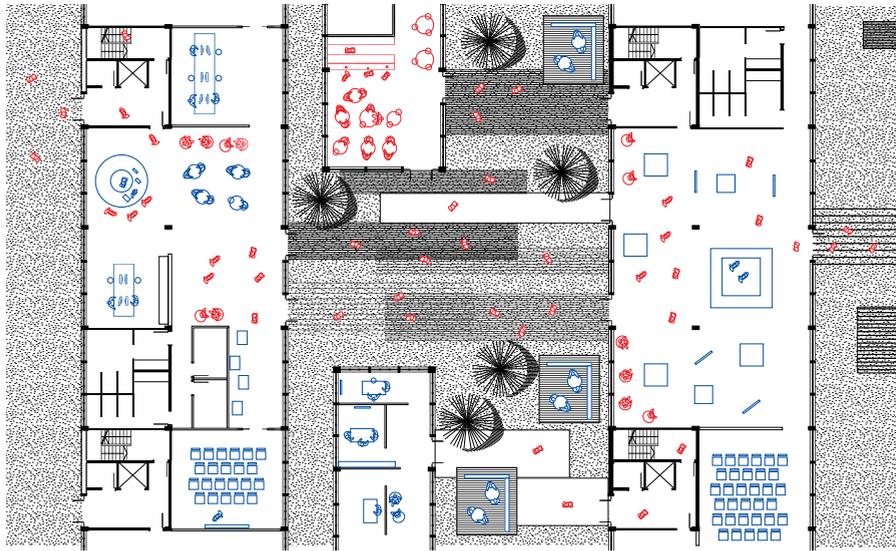
This new connectivity on a local level allows the weak city to accommodate wider uses as a transition between the compact city and the reconverted former NATO building as a new metropolitan attractor.



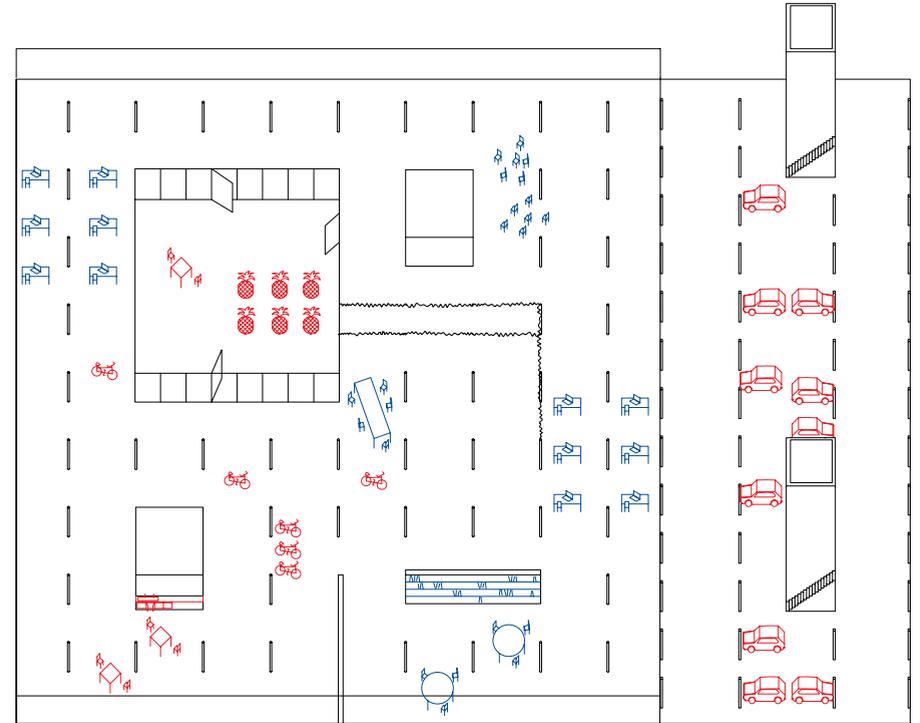
Reconverted NATO
 Programmatic scheme for the former NATO building as self-referential metropolitan centrality.



A self-referenced island of activities
 Axonometric of the reconverted NATO building.



Plan / sections
A cluster of activities in the former NATO building.



Flexibility and mixity
Scheme for the use of the buildings in the Da Vinci zoning.



SITE 5 BATELAGE

HOW CAN CITY SUPPORT ECONOMIC ACTIVITY?

It is important to maintain zones of economic activity within the city. With the possibility of a new urban distribution centre (UDC) being implemented at Batelage, the site will be further strengthened as an activity zone. The city needs to adapt to the economy and find ways to offer urban conditions in favour of economic activity.

While working on a different scale both groups (architecture and urbanism) developed the idea of the UDC as a meeting place, creating a link between existing activity spaces and urban programmes, and explored the UDC as a system rather than a fixed building.

When getting together the second week, the group made a great effort of synthesis of the first week's work and analysis in order to collectively decide where to go next. Starting from their common observations, they produced a very detailed analysis of the way a UDC functions, choosing an appropriate location based on this analysis. They chose to develop the UDC not as a building but as a campus: by exploding the building they proposed a system that develops stronger links with the surroundings. The campus does not refer to the idea of a strong mixed use environment where anything can happen everywhere, but rather to the idea of a multitude of places that each have a clear function, taking into account the existing activities at place that do not feel threatened.

— Susanne Eliasson & Anthony Jammes (GRAU)

STUDENTS

Jonas Apers
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MULTIPLE MACHINE

Jens Aerts & Yannick Vanhaelen

THE BEST LAST MILE

As compared with other sites, the case of the area around the Batelage dock on the south side of the canal is approached from a different starting point. The primary environmental factors affecting this economic zone and its position in the city are distinctive, but so too is the RE:WORK master class proposal for giving shape and place to an urban distribution centre. This special approach is expressed in two challenges.

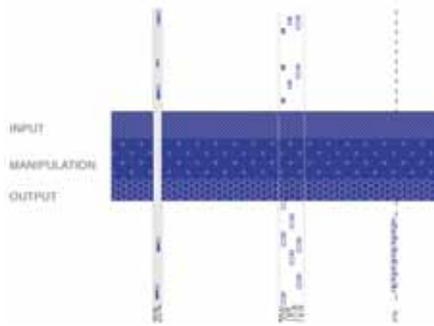
On the right bank of the canal, between the Batelage dock and the railway tracks, lies a zone that has been clearly identified as a site for wholesale trade, manufacturing, logistics and business parks. Stretching between the major infrastructures of the canal and the railway, and crossed by the Boulevard Industriel which links the Ring R0 directly with the Brussels South station,

the zone is extremely accessible by all transport modes. The industrial zone continues southwards to Drogenbos and Ruisbroek, only divided by the administrative boundary between the Brussels-Capital Region and the Flanders Region. For size and accessibility, the site is thus comparable with the northern side of the canal around the Schaerbeek-Formation marshalling yard, where again a clearly monofunctional area for economic activity is taking shape over an area along the canal axis and across the regional border, with connection to rail, canal, and road infrastructure.

In order to organise goods transport as efficiently as possible and without environmental pollution, the Brussels-Capital Region has advanced a proposal for the establishment of a number of UDCs as part of the emerging Regional Goods Transport Plan and the Regional Sustainable Development Plan. The UDC thus forms an essential element in the whole goods transport system: a place in which the transfer, distribution and sometimes final processing of goods with added urban value can take place and the 'last mile' to end users in the city can be handled in the most appropriate and sustainable way. Final transportation can be carried out by smaller vehicles or, from a more forward-looking perspective, by cargo trams and metros. In the other direction, the urban distribution centre can be a place for the



assembly and transportation of urban waste to the larger facilities outside the city centre where it can be sorted, recycled and incinerated.



Since the concept of the UDC has never so far been given practical expression in any programme, typology or logical location, the RE:WORK master class faced a stiff task in making this translation. The development of the UDC is both an architectural and a spatial planning challenge. Architecture goes further than spatial research of programme and dimensions, to materialize the ambition to give a public meaning to a distribution system that is essential to the day-to-day operation of the city. Spatial planning aims beyond integration in the direct urban context, considering incorporation into a metropolitan system which recognises both the need for an improved quality of life in the mixed-use areas and the presence of large-scale economic functions.

ADAPTING THE FRIENDLY CITY

The canal and railway track form a parallel ladder structure, which together with the Boulevard Industriel provide for effective traffic flow and service for businesses, but also act as a wedge that holds the mixed urban areas on the left and right banks far apart. Although the Veeweide-Aurore district on the left bank and the Bas Forest district on the right bank are only 1500 metres distant, the psychologi-

cal distance is vast. Only the Paepsem-Van Kalken axis provides any functioning relationship. But this traffic axis primarily ensures a distribution of car traffic from the Boulevard Industriel to the two banks, and only secondarily provides a radial linking the two districts. What is more, the axis is devoid of any form of communal life. There are no public facilities with their own rhythm and life. Apart from some car dealerships, there are no retail shops. The public domain has a purely transport-oriented function, focused on through-traffic and logistics.

Because of the large scale and the monofunctional nature of this business zone, the point of view of the master class was that it would be illusory to spread a residential programme on such zones as a strategy for urban integration. This blending would in any case disregard the potential and the importance of such large economic zones – easily reachable and with a clearly coherent economic profile – close to the city. The investment costs of achieving the necessary quality for a living environment are also likely to be unrealistic, given the expected high decontamination costs for the heavily polluted ground, the noise pollution from the Boulevard Industriel and the Ring, and the typical contextual factors that accompany large business zones with logistics, wholesale trade, and storage.

While other historical economic zones along the canal are well-embedded in a dense and mixed urban fabric, where there is an obvious trend towards gradual conversion accompanied by increased housing, public facilities, and the retention of some economical activities, a different strategy must be found for integrating the Batelage dock and its surroundings into a broader urban environment.

The Batelage case also makes it clear that in some places the economy does

not need to be adapted to the city and just the opposite is true, even though the pressure on housing is so strong. The city must adapt to the economic conditions, and create urban conditions that are optimal for attracting economic activities. Or to put it otherwise, how can the city create the optimal conditions for the operation of a logistical distribution system with, in particular, an urban distribution centre? A logistical system can contribute in turn to the sustainable city, just as Garnier saw the Cité Industrielle as part of an inclusive city.

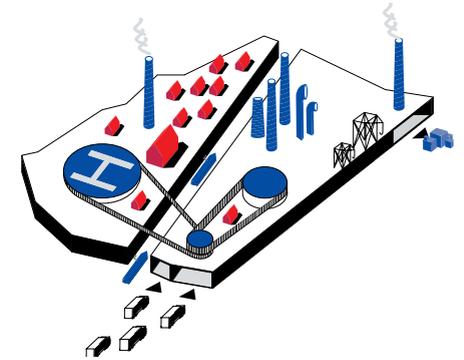


SPACES OF DISTRIBUTION

The RE:WORK master class method of addressing the architectural and urban research in two separate groups in the first week can in general also be extended to a division of the two above-mentioned challenges. The question of reaching a definition of the UDC was a direct assignment for the architects' group. The integration of a logistics concept in the urban system was addressed in the design research of the urbanists' group.

During the first week of the RE:WORK master class the architectural ambition of the UDC was clarified. As a machine with massive input and output, its operations were guaranteed by a combination of two urban mechanisms. The first of these is water transport, via the canal and the organisation of the canal bank. Efficient road transport via the Boulevard

Industriel, which is also an outstanding high-profile location, provides the second mechanism.

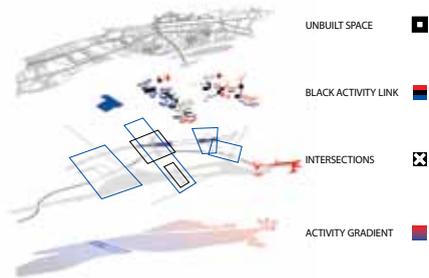


However, typological investigation remained in generic forms that occur in logistical zones, composed of grid systems, flexible spaces and external spaces. Through this the weakness of the existing constellation of logistical zones was exposed: the generic that leads to banality that tolerates no context and hence no urban complexity. The definition of the UDC is thus also an urban statement: a demand for a public place and a public character.

In spatial planning terms, the logical question of the exact location of the UDC in the city was reversed: where can the city be made in an extensive economic area such as Batelage? By recognising the intersections between radial and concentric spatial structures as public places where, inter alia, an urban distribution centre can be developed, a location filter is created which recognises both the logistical added value of intermodality and the urban potential of some main axes as potential links between neighbourhoods.

In the second week of the RE:WORK master class, this urban framework made it possible to implement the distribution centre in a reflected and justified fashion. Also, through this implementation, a more aware approach could be

taken to making the UDC into a public place, through mixed programming.



THE UDC AS A CAMPUS

The urban concept of 'intersection' clarified the importance of investing in the programmatic densification of the Paepsem-Van Kalken axis, in which urban functions can be located which serve both residents and economic players in the city, such as retail trade, showroom distribution or a supermarket. The urban distribution centre is envisioned at the crossroads with the Boulevard Industriel, and consists of various buildings and outdoor spaces in which the different distribution processes can take place.

By extending the distribution centre in the manner of a campus with a range of secondary facilities such as secondhand

sales, recycling and waste collection around the crossroads, the stage is set for the urban machine. Maximum use will also be made of local features such as the nearby railway tracks and the bridge over the canal. Just like it is to the water and road infrastructure, the distribution centre can be connected to the railway tracks to the west, as is currently the case for the B-Post site, for example.

At the urban level, advantage will also eventually be taken of the opportunity to provide a bypass tramline that can use the distribution centre via a secondary track, and so can serve as goods transport across the city. In this way, the urban distribution centre can act as an incentive for planning urban facilities and efficient public transport that can overcome the psychological and physical division of the different areas.

Because of the presence of the bridge, the continuity of the logistical process beneath the bridge can be ensured on both sides of the bridge structure on the right bank. Since the bridge is a high-profile location, office space and meeting rooms for the distribution campus can be provided here. In this way the urban distribution centre functions both as infrastructure in a logistics system and as a programme that generates an urban project.

IMBRICATING URBAN SPACES AND LOGISTIC FLOWS

'An urban distribution centre is transshipment of goods directed to provide greater efficiency in the distribution process.'

— Joseph D. Tario 2011

The industrial area of Batelage is currently an isolated island in between two neighbourhoods of the city of Brussels. By introducing a large-scale urban distribution centre within the industrial site, a new identity and urban role is defined for the site, establishing its importance in the context of the city of Brussels.

The UDC is not a building but a campus, which will organise and stimulate the singular buildings of the area and convert former borders such as the canal, boulevard, and railways into arteries, which reach out into the city.

With a new organisation of the area, each use of the city has its controlled place and role.

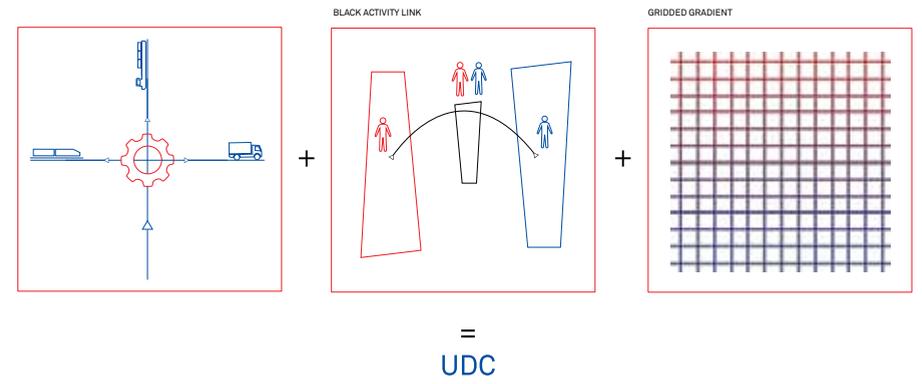
An urban machine rises, combining logistics, production, transport, sales, and services into one as a whole. Developing in time and space and by opening borders, paradoxically the UDC or 'urban machine' goes towards defining the site, creating its own genius loci.

The UDC runs in parallel with new infrastructure that is required for the 'system' to operate as a whole. The insertion of a tramline creates an inner spine that connects three distinct UDC-zones as well as second tramline leading the traveller from Anderlecht along a sequence of small-scale industrial initiatives to the centre of Forest.

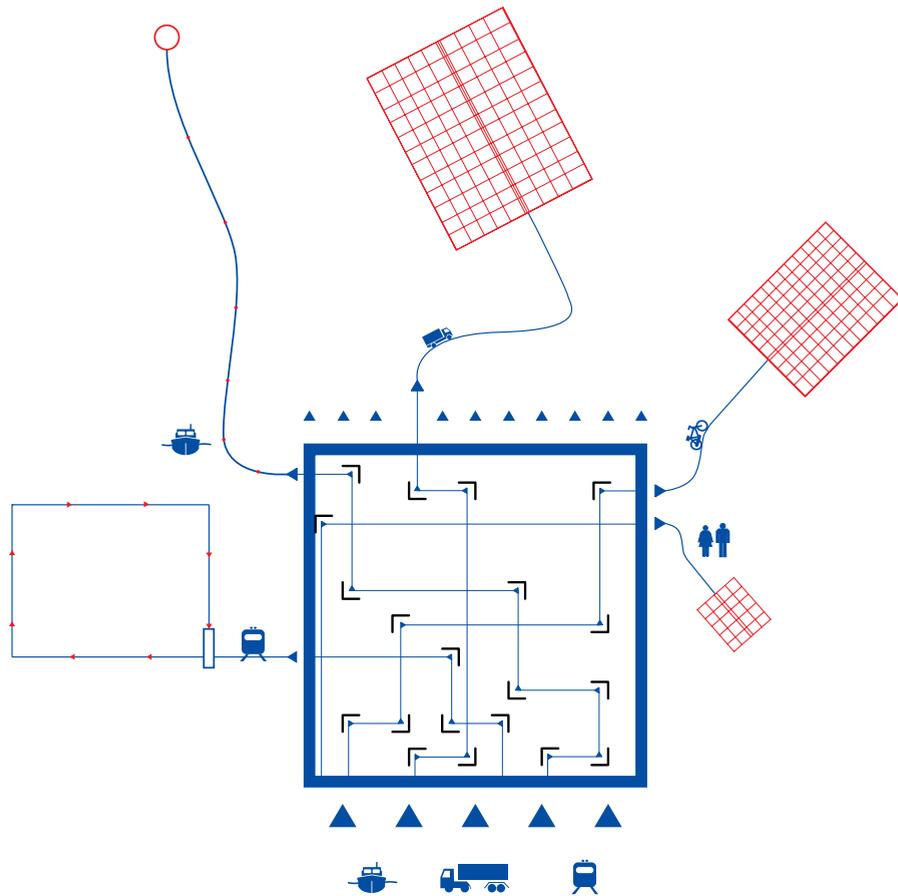
Instead of giving a solution for a logistics centre within the city, here we understand logistics as a way of making new urban relationships both for the site of Batelage and the wider Brussels region.

— Jonas Apers, Tom Berghmans, Sandrine Iratcabal, Bryn Lee, Samuel Llovet, Margaux Puech, Alejandro Felix Sancliment, Sam Westbrook

URBAN MACHINE INTERSECTION

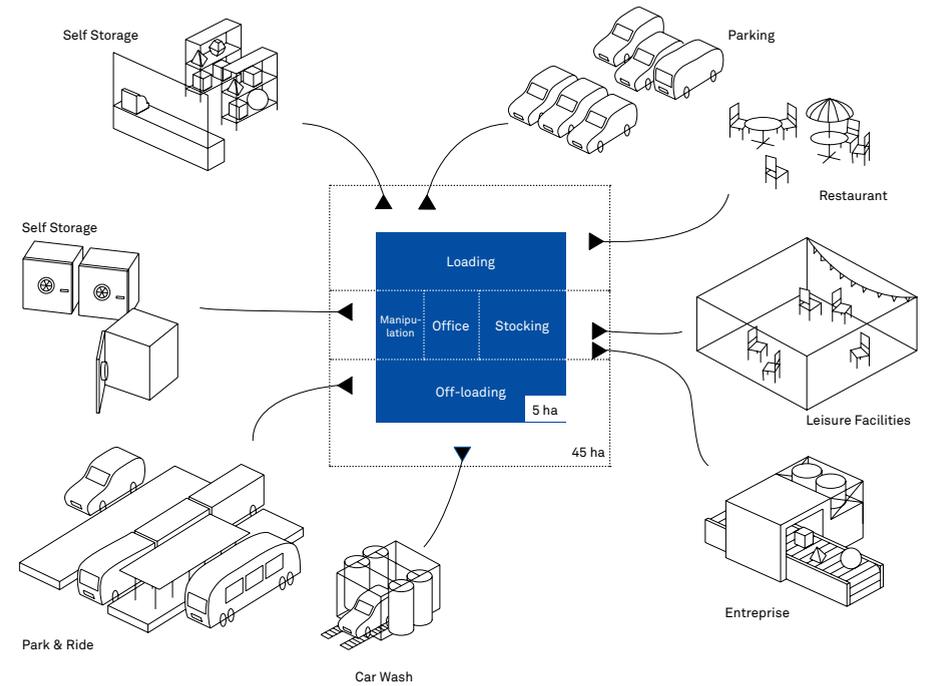


Criteria
Defining elements for the relevant implementation of the UDC.



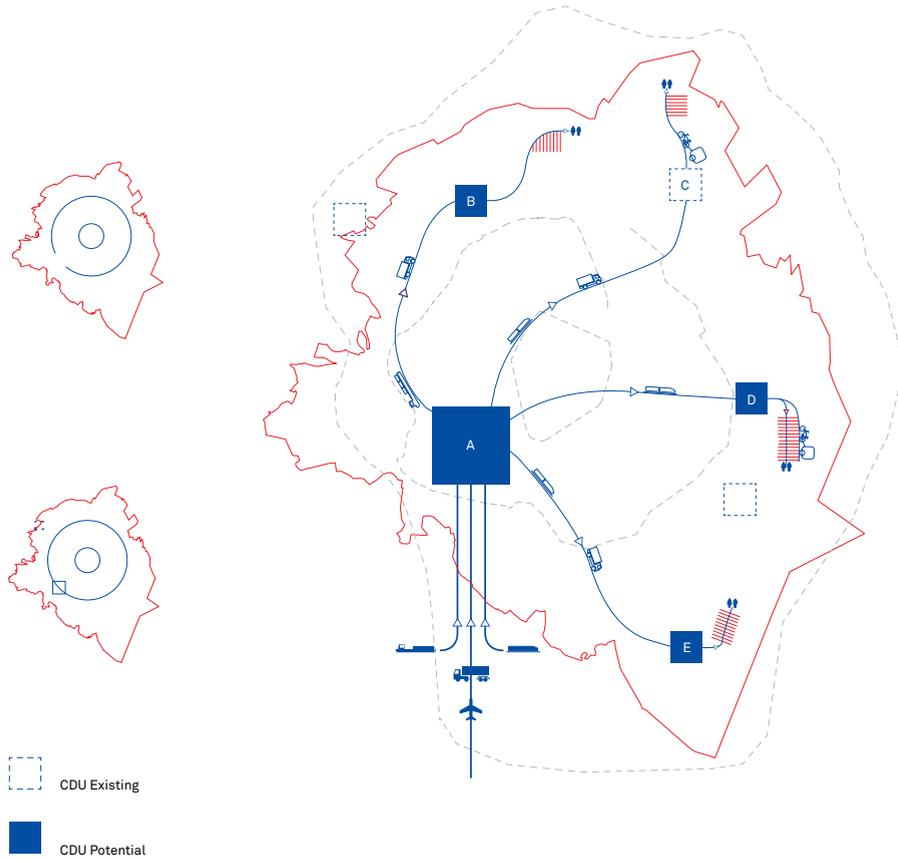
UDC internal system

Scheme of the functioning of a UDC: a perimeter where goods are brought in on a large scale, reorganised or treated, and then redistributed in the city through various smaller-scale transportation systems.



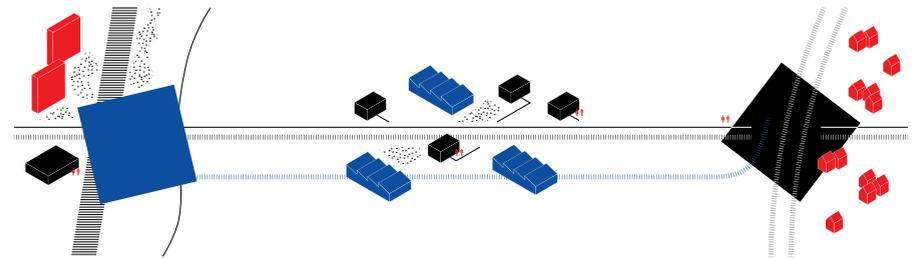
UDC related programs

The UDC function can directly benefit other very diverse functions, which could in their turn give yet another significance to the UDC for the city. The UDC itself is thus only a part of the desired development.



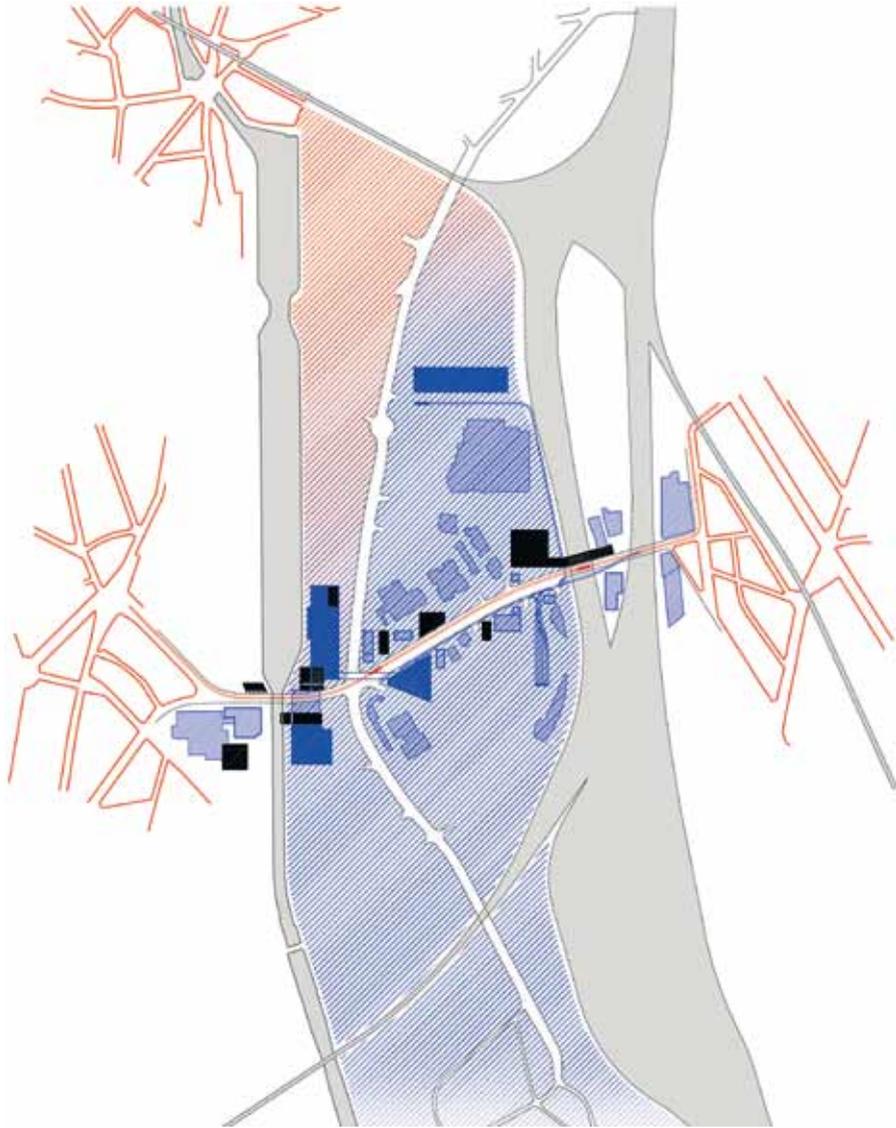
UDC in the city

Creating a large-scale urban distribution centre on the Batelage site allows for the articulation of the maximum amount of transportation axes and the functioning as entry point of goods for smaller UDCs in a more developed logistic system in the Brussels region. This localisation is also the opportunity to close the second ring of tramlines in the South, further redefining the accessibility of the Batelage site in the metropolitan area.



UDC is not only a building

An urban distribution centre is less a building than it is a materialisation of flows and exchanges that take various forms, more or less compatible with the inhabited city.



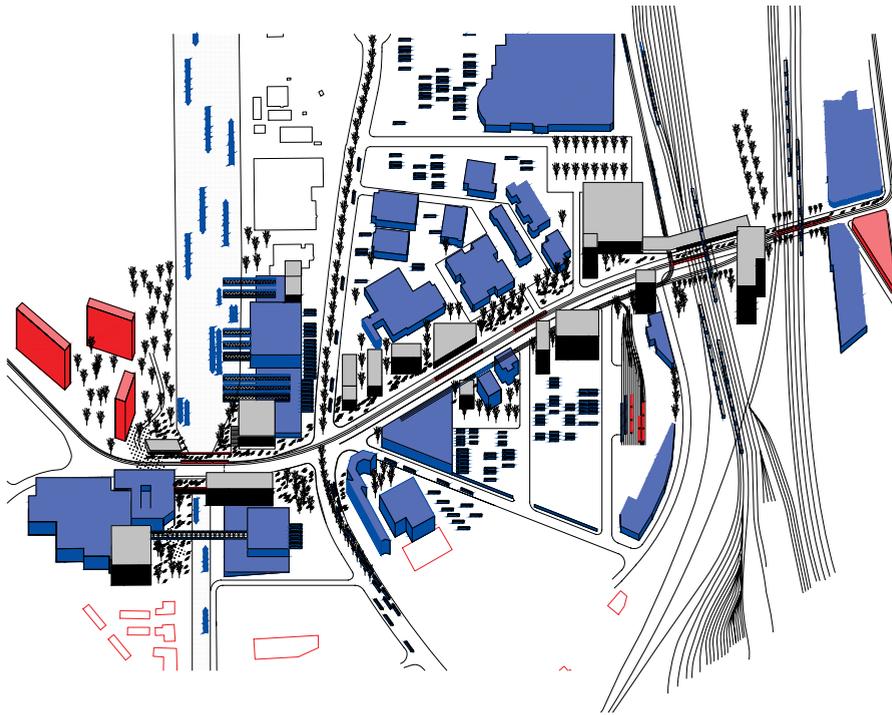
UDC campus

The UDC thus becomes a campus where peripheral programs are integrated functionally as well as morphologically, consolidating both the industrial and residential areas on its limits.



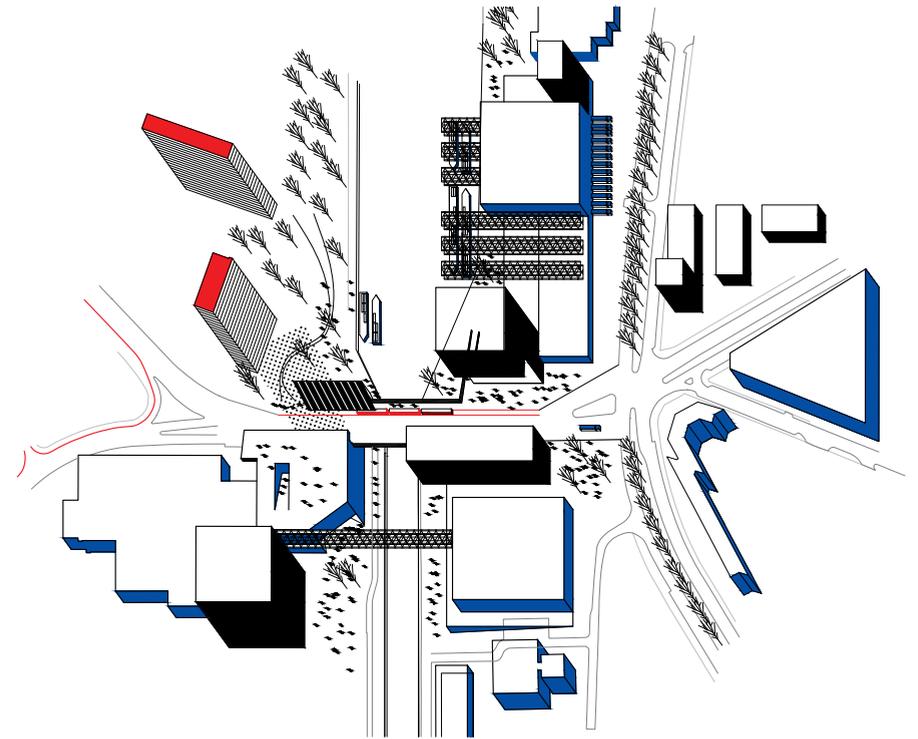
Urban machine

Considering the UDC as a campus including urban uses, it becomes a focal point for the inhabitants as well. The creation of a tramline along the axis of the UDC consolidates its different roles for the city and, passing through the main railway infrastructures, further allows the use of rail logistics.



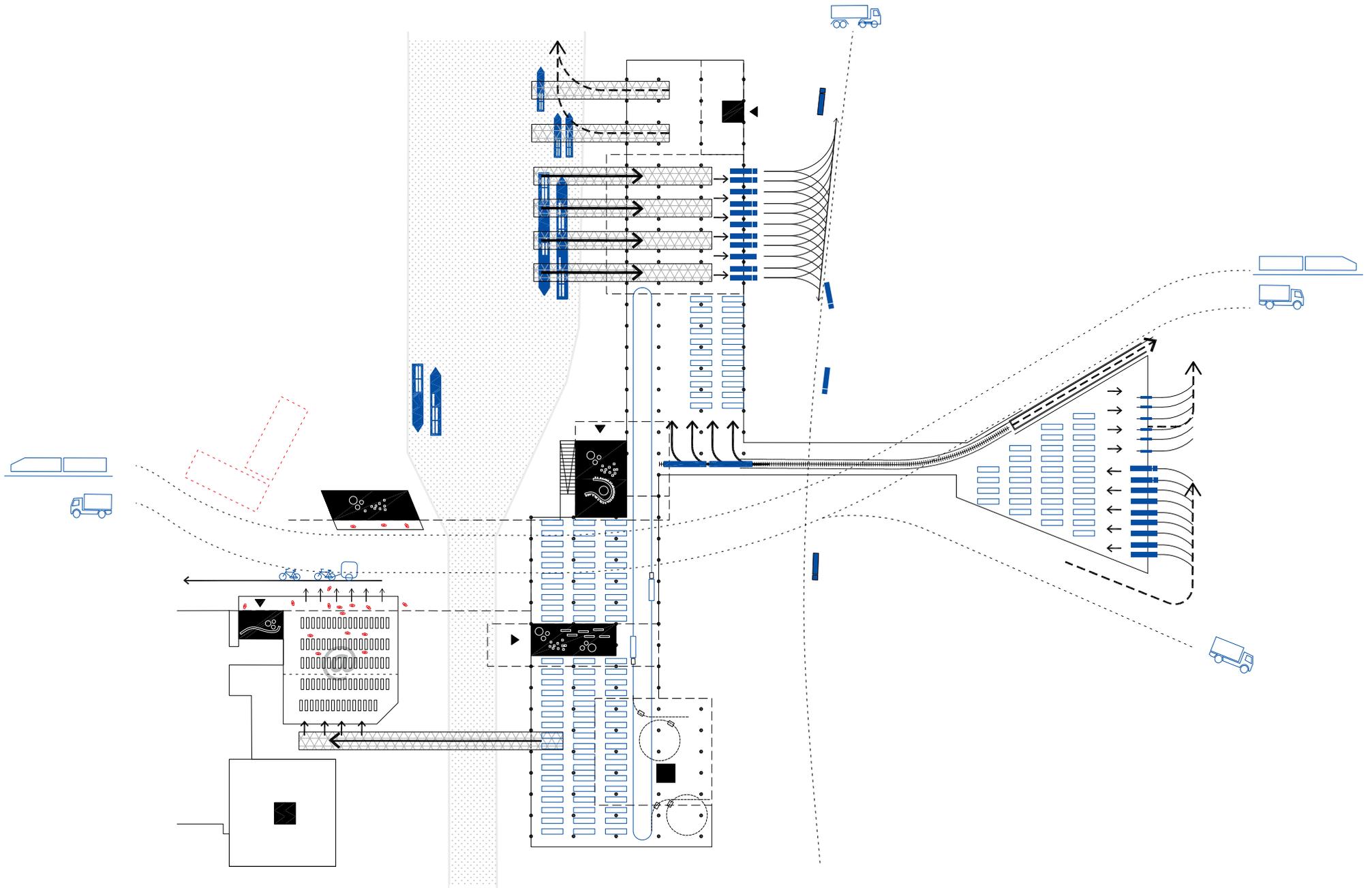
Axonometry

The result is a well-functioning urban machine. However this mechanism is not at all repellent, and becomes the source of urbanity itself through the black intermediary functions it generates advantageously.



Zoom

Logistics space and public space intertwine and sometimes even merge. The use of the canal as a transportation axis does not impede its use as a landscape amenity the rest of the time, which is made possible by the urban activity on site.



UDC System

The current organisation and topography of the Avenue Paepsem can be used at an advantage to make the transfer of goods the binding foundation of the UDC. The different programs of the UDC are spread in different linked buildings with specific programs, transportation modes, and relations to the city (i.e. public or business oriented logistics separated from tram logistics or large-goods logistics).

READINGS

BETWEEN ACADEMIC SPECULATION AND REALITY CHECK

Olivier Bastin (bMa)

THE WORK INSIDE

The work of a Bouwmeester (Master Architect) is an everyday struggle between hope and despair.

Hope for change, with the development of new programmes of housing, economic activities, facilities, urban spaces, and so on. Despair in encountering so many difficulties in increasing the quality of projects, of procedures, understanding, and dynamics. Why is it so complicated to communicate the necessity and potential of programmes that are meant to make the city more liveable?

Of course, such difficulties come out of a lack of a shared culture and a lack of confidence in a prospective future, including new models for the city fabric. Of course these difficulties are deeply rooted in years of habits developed from doing things the wrong way. Of course they are also due to the complex structure of politics and administration. Of course they are the consequences of personal individualities lost in the system.

But most probably these difficulties are mainly consequences of the lack of a vision and positive imagination, and of representations of it to reach a broader public.

Most policy makers have no background in urbanism or architecture, and very few officials can easily develop their skills in those fields.

For these reasons alone, events like the RE:WORK master class are an absolute necessity, as it demonstrates the empowerment of people as soon they are given the means to experiment and prove their visions, to translate them into

graphics, and to communicate them to partner institutions or to the public, who can in turn give critical feedback.

As Brussels Master Architect (bMa), it was thus a great opportunity to be part of this initiative, to give comments and to exchange thoughts based on a real prospective, committed work, balancing on a very subtle line between the realistic and the academic.

THE STEP OUTSIDE

Once you get involved in so many projects that have to make sense and take form, it is easy, as we say in French, to get 'le nez dans le guidon', a metaphor of the sprinting cyclist: you always run your course without stepping off or even seeing where you're going.

The master class structure and organisation substantially contributed to overcoming this obstacle, both through the quality and wide provenance of its participants as well as the abundant teaching staff present. This brought an open-minded vision of the Brussels context. A fresh, outsider look on the territorial characteristics of the capital of Europe allowed them to come up with external references both in strategy and morphology.

The aim was of course not merely to import external processes or methods and to try to implement them on the local reality. Quite the contrary, it was all about building upon the local situation and trying to exploit its strengths and opportunities, while being conscious of its weaknesses and threats. The practice was thus an iterative one, going back and forth through models and hypotheses, trying to connect parts of the city.

By the end of the first week of work, the cultural approach enriched by a systemic organisation of daily A5 representations had already produced a large panel of promising propositions. The undeniable graphic quality of most of the presentations also became a stimulus to start imagining all kinds of potentialities within the territory.

LINKS

As a theme for the master class, the fundamental question was how to develop economic activities within the city, which means integration within the complexity of its framework and everyday experience. As such the proposals often came to creating 'an ecosystem of activities', as was sometimes described during the work sessions. The programmatic synergies had to become the engine of the new urban developments. This could be seen as a utopia of some kind, except that when it fits so closely with the current ways of developing an area, the utopia can become reality.

On the Quai Demets, for example, our entire strategy at the bMa was to invite the actors of three major ongoing projects in that area (i.e. Port Sud, Abattoirs, and Ecopôle), in order to develop their programmes with a consciousness of the landscape that would push them to open up their activities and their architecture toward the canal, and by doing so, connecting each of these activities with each other across and along the water. The idea of connecting them to the Erasmus Hogeschool had been raised by a few actors, but never to the extent revealed by the master class, as a means of 'urban upcycling', which reinforces all activities around the university and redefines the place of the pedagogical structure within the technical and economic development of the area.

The graphical translation of such an evident vision was so motivating, my immediate reaction was to impatiently await the edition of this report, in order to present it to the actors on the field, not only those with whom we were already working but also new actors whom we could involve by creating new synergies within the existing projects.

TOPICS

The different approaches on the different sites have raised several other topics keen to opportunistic appropriation. Even if they are less directly applicable, the reflexive and theoretical attitudes shown in these projects can be fundamental teachings on these sites and in Brussels at large:

'The activities are enough to fashion the city'

In Brussels, the leitmotiv above has been one of the fundamental sources of both weakness and richness.

Weakness because it implies no critical point of view whatsoever on the landscape or architectural quality of a project. Especially in a time of crisis, any developer's initiative is seen as a priceless opportunity for the city, and taking into account the expected job creation and financial returns, they must come to pass even when devoid of urban quality.

Richness because it can on the contrary be a source of creativity, of surprising and innovative models that increase the identity of a heterogeneous city, as promises for hybridation and cosmopolitan capacities.

When managing the urban space, one has a strong responsibility towards those who live in it. It implies not letting anyone design the city unattended, but giving the necessary guidelines to reinforce both the project and its surroundings and create positive support for future initiatives, such as landscape qualities, views and perspectives, infrastructural facilities, and qualified public spaces. Along the canal for example, it is fundamental to impose transversal views across the water from within the surrounding fabric, connecting both sides of the canal and thus the city as a whole.

The urban fabric and urban morphology are not the fields of knowledge of developers or policy makers, but of architects and urbanists. As evident as it might seem, this fact still doesn't seem to be fully acknowledged. The master class has shown that programme-led practices can paradoxically become incredible sources of formal richness, and that this aspect cannot be neglected.

'Weaving the existent versus tabula rasa'

On Reyers, planning debates have evolved towards the creation of a new urban form based on the media-pole activities that could arise out of a tabula rasa strategy, assuming that

the existing urban structure of the site offers more constraints than opportunities.

On the contrary the urban approach of the master class proposes a weaving strategy resting upon the morphological characteristics of the existing architectural forms, and interpreting them as 'objets trouvés', from a redefinition of office buildings humorously baptised "Postmodern Museum" to the weaving of the fabric into an operational ZEMU. The graphic representation of that vision shows that a coherent large-scale urban form can be created out of such a dynamic attitude, and that new architectural forms can be invented using the constraints of the existing structures as an advantage.

'Urban Catalyst'

Is it a dream or a reality? An illusion, some kind of Loch Ness monster, or a tangible strategy that we could rest upon?

The idea of a catalyst is often a chimera for urbanists looking to justify their design a posteriori. What makes the proposition for Neder-Over-Hembeek so interesting, however, is that its activity already exists. It could therefore easily be developed and promoted, but most of all, the links with surrounding activities could encourage visual relations in a wider landscape approach. This gives sense to all levels of the proposition, from the activity to the way it should be implemented, thus suggesting visual connections from the valley toward the canal. The main strength of this strategy is its flexibility, linking the canal close to the city centre, up to the border of the Brussels region and the highway ring that surrounds it.

'The trigger event'

Every film director is looking for a trigger event, one that creates the origin and binding element of a scenario. Confronted with the mammoth scale of the NATO infrastructure, there is no rational way to intervene as an architect. Using the tramway, deviating it from its recently redrawn path, is certainly a provocative but also a meaningful attitude. As a

Trojan horse this very urban tool geared for proximity becomes the generator of a vivid microcosm within the gigantic scale and stimulates a large diversity of programmes.

‘Manage the last mile’

The logistic challenges can become a metaphor for the city when they find a place on the edge of it. Positioning the urban distribution centre close to the large infrastructure of the highway belt and the railroad tracks can be seen as taking care of the edges of the city. Such logistic functions are generally perceived as monstrous infrastructures, considering the large-scale networks they depend on (barges, trucks, and trains). The proposition here is to fragment the UDC and integrate landscape sensitivity, as well as programmatic complementarity, in order to generate a new city part and open opportunities for diversified uses. The edge of a city can become a generating area that could assume the transition between the inner city and its suburbs in a more qualified way.

BACK TO REALITY

All of these topics are incredibly stimulating for the everyday struggle and exhausting mission of the Bouwmeester.

Their applications will of course never be literal; the ‘proposals’ will remain true to the appellation they were given during the master class. Yet even the graphic elegance of all of these attempts alone creates a stimulating confrontation with the actors of the city. As Brussels bouwmeester, it is with great pride that I will carry them on for our various fields of preoccupation, with the hope and persuasion their richness and qualities will outlive the event of the master class and contribute in their own way to the urban debate and to the mission of the bouwmeester to bring quality on the forefront of urban processes.

ECONOMY=DESIGN

Jan Verheyen (Idea Consult)

ECONOMY = IMAGE

In the struggle between cities and regions to attract new businesses and investments, communication and marketing of projects and economic attractiveness is a powerful weapon. Not only for attracting exogenous growth, but also to withhold and strengthen existing economic clusters in the city. Challenging and inspiring business environments can generate pride and involvement of entrepreneurs, workers, and visitors.

Well-known examples of this strategy are “22@” in Barcelona and “Mediacity|UK” in Manchester. Both projects have a clear role in attracting external economic investment to these cities, but also in strengthening existing economic dynamics.

The development of a clear and communicative image is very present in the work on the Reyers site. The “Postmodern Museum” is a communicative and witty approach for turning a low-image zone in a fresh and inspiring project.

ECONOMY = TOOLBOX

Economic development of a city, of a neighbourhood is ungraspable and rather unpredictable. An urban planner can foresee a spatial framework, but the actual demand of entrepreneurs or investors will always be different of what has been imagined.

Urban design for economic development has to integrate different scenarios and different programmes on a flexible structure.

The toolbox developed for Quai Demets has been an interesting exercise. Different programmes and building typologies can be integrated in a masterplan grid in a flexible way. This can be a powerful strategy for collaborative planning with end users of an economic urban zone.

Also the design strategy applied on the former NATO site follows this principle. Different infill scenarios have been tested, showing in this way the potential of the NATO building as a shell that can respond to a multitude of upcoming opportunities.

ECONOMY = FLOW

The organisation of flows and transport is the base for the development of economic activities. Besides considerations on the cost of labour, materials, and capital, economic activities settle on locations where the delivery of raw materials and the shipment of finished goods can be organised in a cost-efficient way. Historically, the presence of markets concentrated industries within the city, because the transaction costs could be optimised.

Today, environmental and socioeconomic challenges not only incite cities to reintegrate industry within the urban fabric, but also create a strong need to organise efficient urban logistics around multimodal hubs.

The projects for Neder-over-Heembeek and Quai du Batelage show how these new transport hubs can become an urban activity.

In the project of Neder-over-Heembeek, three existing logistic sites are 'reurbanized' by adding extra services for the neighbourhoods, for the employees and for the passers-by. The projects apply the service model of high-end offices on industrial and logistic activities. To compensate for the lack of critical mass, these services are therefore opened up to a larger public.

As shown in the project for Quai du Batelage, the organisation of a logistic cluster can also become a new structure for the city, providing a framework for the connection of

neighbourhoods and public transport. By doing this, synergies are created between flows of people and flows of goods.

ECONOMY = COLLABORATION

The economic future of cities and regions will depend heavily on their capacity for innovation, creation of new business, and social inclusion.

Economic and industrial development must therefore always start from the existing knowledge and skills base to create new products, new services with potential for growth. Hence, knowledge and industry need each other: in order to stay competitive, industry has to innovate its processes and products continuously; in order to stay relevant, knowledge and research centres need the proximity, exchange, and collaboration with industrial activities. On a more practical level, development of skills is more and more a joint venture between schools and companies.

An integral urban industrial strategy therefore needs to be a triple helix between industry, knowledge and government: industry and knowledge have to work together to catalyse innovation; the city government can improve the infrastructure.

This approach has been quite literally translated in the project of Quai Demets. Based on the presence of existing activities, of technical schools and universities, of public transport and the sociological base of the neighbourhoods, a new urban industrial cluster is proposed alongside the canal, which can slowly emerge out of a business incubator into a new industrial cluster, combining research, production, sales, and logistics.

ECONOMY = BLACK

When economy and city meet, some interesting new programmes can find a rich substratum. These programmes are both economic and urban and difficult to catalogue in a traditional zoning structure where urban areas and economic areas are clearly separated. Colour codes as red and blue fall short to structure these activities.

These functions, such as urban distribution hubs, service centres, convenience retail, experience centres have all reason to be integrated in the city and to be combined into a multifunctional hub, in order to create consumer comfort.

This is done by integrating services to the logistic zones like in the projects for Neder-over-Heembeek, or by integrating a consumer hub in the logistic campus of Quai du Batelage.

The 'black' developments also revealed a design strategy on a more global level for the canal zone in Brussels. Instead of fighting debates on urbanisation or industrialisation of the quays of the canal, public spaces can be organised perpendicularly to the canal. In this way, the canal can continue to fulfil its economic and logistic function while the neighbourhoods around it can be reintegrated in the city fabric.

ECONOMY = REUSE

Reuse of buildings and urban fabrics is not only nostalgic or ecological, it is also an economically efficient way of development. Capital expenditures can be limited and these developments can thus provide space to activities with need for lower location costs. Reusing existing buildings and spaces can also be a part of a 'place-making' strategy, creating unique spots to attract new businesses.

In the project for Da Vinci, the reuse of a NATO site creates a new type of environment, between city and building, between open and closed. This specific condition can be a perfect location for urban industries, where the privacy and enclosure of a courtyard can be convenient for loading and unloading.

By integrating residential development in the ZEMU-plots of Reyers in the existing industrial fabrics, the project becomes not only very feasible because it allows a smooth evolution, but it also creates a more vivid public space, where new types of urban economic activities, looking both for vibrant neighbourhoods and low costs / square metres, will be able to bloom.

SEVEN CLUES FOR A REVIVED METROPOLITAN ECONOMY

Nadia Casabella & Geoffrey Grulois

A profound yet elliptical link exists between the economic destiny of cities and their physical fabric, which implies that without an ambitious project for the city no economic development plan will get the chance to succeed. The master class advice is to strengthen and operationalise this bond between economic development and spatial planning. In this regard, seven approaches joining spatial and economic insights have been identified. These approaches can be combined and reflected upon to achieve a complex yet clear and ambitious project for the next metropolitan economy. They are illustrated by recent architectural and urban projects, which were presented by their instigators during the master class, and hold a high potential to stimulate the imaginary on urban economy.

1. MIXCITY – INTERWEAVING ECONOMY AND HABITATION

Recently introduced regulations (i.e. the new demographic regional zoning plan awaiting approval) allow for rezoning previously industrial sites into mixed-use areas or ZEMU. In fact the risk exists that more lucrative real-estate operations in the housing sector contribute to shrinking the allocation of space for economic activities. For this reason, one of the major challenges the master class faced consisted of exploring the opportunities created for vibrant neighbourhoods by means of a balanced, efficient mixing of functions. New hybrid typologies were considered: apartments on top of warehouses (Reyers), public facilities parasitising empty

parking lots (Neder-Over-Heembeek), big-scale retail intermingled with ateliers (Da Vinci), housing as a roof for an industrial recycling pole (Quai Demets), or even a logistics campus where mammoth distribution centres were sewn together by a public passage of retail facilities and small working units (Batelage).

The master class projects show that ZEMU zones should be seen as an opportunity to reinvent cohabitation between urban functions beyond the modern zoning rules that have prevailed, for example, in the separation of housing neighbourhoods and industries. Some ongoing projects in Brussels show that sharing infrastructure such as parking or public space can benefit spatiotemporal cohabitation between different programmes, allowing for unexpected appropriations of infrastructure and facilities. Above, along, across, underneath, within: diverse possibilities to effectively strive for mixed use areas (beyond housing) and a 24-hour vibrant economy.

2. PROXCITY – PUSHING LOGISTICS CLOSER TO THE CITY

Logistics' companies were among the first ones to suburbanise, fundamentally due to important changes in the way goods were stored (from vertical to horizontal built typologies, demanding more space); were transported (from rail or chariots into trucks); and were managed (less storage at the selling point, JIT delivery). The renewed importance of the 'last mile' in the urban freight distribution happens in congested contexts that reduce the reliability of the delivery system and in half-full vehicles that intensify congestion further. All this provides additional arguments to relocate freight distribution centres closer to the city, both of small (type relay or distribution locker) and big size (type urban distribution centre or urban consolidation centre).

Most of the master class projects are well aware of the potential offered by displacing large distribution centres into the city, and by connecting them to multimodal trans-

port hubs – like the proposal for the Batelage site, locating a urban distribution centre (UDC) along the canal and perpendicular to the rail tracks. In other projects, the canal area becomes a sort of multimodal turning platform, where water, rail, and road transport infrastructure encounter each other. This is particularly the case in the Demets project, in which the containers are literally fished out of the barges to be then repacked and redistributed to the rest of the city. In yet another, a truck terminal is proposed next to the Brussels roadway ring, conceived as a goods-storage and freight-consolidating centre, with accommodation facilities and personal services for the truck drivers (Neder-Over-Heembeek).

3. MOBILCITY – BOOSTING THE PUBLIC TRANSPORT NETWORK

The employers' organisations have estimated the cost of traffic jams in the Brussels' Region transport system at 207 million euro per year, equivalent in their own words to 4,500 jobs or the construction of 4 kilometres of metro network. Transport accounts for more than half of the world's consumption of fossil fuels and nearly a quarter of the global energy-related CO2 emissions. Adequate, performing transport infrastructures have repeatedly proven to be one of the success factors in any economic development project. One of the biggest challenges for the Brussels' Region is that of the modal shift: how to reduce private vehicle displacements in favour of a bigger share for public transport, walking and cycling?

The answers to be found in the master class proposals all deal with mobility, and transit above all, as a lever to increase urbanity. In the Batelage project the group introduced a cargo tram connecting three distant urban distribution centres, with the downtown district. Intersecting with it, a passenger tram line establishes one of the few transversal connections in Brussels' Region – from Anderlecht centre to Forest centre – and works as a backbone for urban facilities. On the antipodes, on the Da Vinci site, the group managed to turn upside down the old NATO suburban character by cutting it through



The Greenbizz project by Architectes Associés (developed by the SDRB-GOMB) is situated in between residential and industrial areas. Through a specific morphological approach, the building combines efficient flexible spaces for logistics, office space for management, and comfortable housing space in the centre of the city.



The hangar for the City of Blankenberge technical department by BULK Architecten, and the B-Tech NV headquarters by URA illustrate how architectural quality can be brought to spaces commonly conceived as strictly technical, without sacrificing efficiency or flexibility.



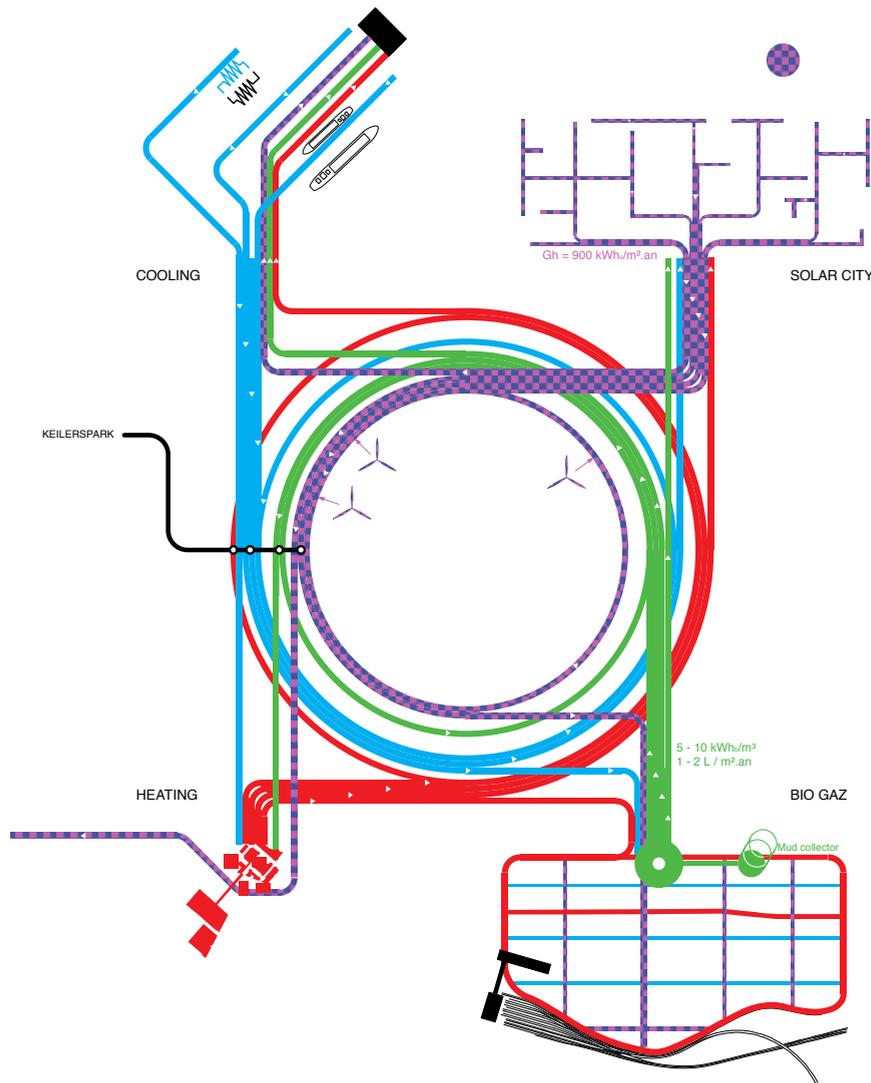
The Marco Polo scheme by BUUR, developed by the SDRB-GOMB, turns a large underdeveloped area in the outskirts of Brussels into a mixed economic and residential project, using connectivity with public transportation systems and the ring road around Brussels as a central backbone for the project, serving both sides of the programmatic spectrum.

with a new tram line, displacing its current course, creating an alternative to the car axis of the Boulevard Leopold III with a public transport, pedestrian, and bicycle axis.

4. ENERCITY – RENEWING ENERGY CONSUMPTION AND PRODUCTION

Among the reference projects GRAU brought in we find the Rotterdam initiative to heat entire housing areas with the leftover steam of harbour industries. Other examples look at reusing high temperature waste heat from processes such as coke ovens, blast furnaces, electric furnaces, and cement kilns, especially for electric power generation using combined heat and power. Yet others look at biomass waste to generate energy (either through composting or combustion), biofuel, thermal power, etc. Striving for energy and resource efficiency in both production and consumption sectors is a major urban economic question, that cuts across manufacture, habitation, and waste management. Increasing energy supply from renewable sources would reduce the risks of rising and volatile prices of fossil fuels, as well boosting the industries and research instances busy with generating know-how to deploy them further, contributing by the same token to create new jobs. Copenhagen is a showcase city for resource efficiency, putting words to deeds in its first climate neighbourhood, St. Petersburg – Kjeld Quarter (designed by Tredje Natur) as well as with its goal of becoming the first carbon-neutral city by 2025.

At a broader level, the development of eco-industrial parks (also in the manufacturing sector) provides a basis for the effective implementation of closed-loop manufacturing at a higher level, making possible to repair, recondition, re-manufacture, and recycle existing products. Indeed, the Quai Demets team moves very far in this direction, since they envisage a complete new economic cycle based on a recycling plant and the future jobs this activity could create.



For the Rivercity workshop organised by the city of Gothenburg, GRAU and Lars Lerup proposed a toolbox of 24 devices to link the districts of the fragmented city through an energy loop based on industrial ecology.



In the east of Brussels along the canal, projects such as the Masterplan by ORG for Abattoir NV, and Port-Sud by Bogdan & Van Broeck Architects for Anderlecht Moulart give a capital new economic role to old industrial structures in the city. The old is reused with modified or extended programmes to become an opportunity for the future.

5. MUTACITY – RECYCLING OF THE EXISTING CITY

Recycling is a form of resource efficiency, which in the manufacturing sector implies extending the useful life of products. As regards to the built fabric, two aspects are worth revisiting. First, existing brownfields can be seen as assets: any future development needs to be rooted in the history of a territory, its physical and socioeconomic characteristics. All proposals cared for the manufacturing past of every of the sites, reflected on their built layout and on their sometimes abandoned buildings. Some use it as a marketing logo for the future development (as in Reyers), others as an identity carrier (as in Da Vinci), yet others as a cheap way to start up new businesses, parasitising on the existing structures (Quai Demets).

Second, when erecting new structures we need to address their degree of reversibility across time. This simply means that we must bear in mind the long life cycle of any built structure, beyond the actual use for which it was originally designed. Obviously buildings are built of components (e.g. window frames, isolation panels, bricks) and all of these components have a different life span. One might consider changing window frames after 15 years' time (not less because of increasing energy prices), while built carcasses will likely remain longer than 70 years. Reversibility should be seen as an opportunity to reuse existing buildings and therefore decrease energy consumption. The case of Reyers is illustrative in this regard: by reusing outdated office buildings along the E40 highway for housing, the potential of adaptable architecture to accommodate future programme demand is fully exposed.

6. ETHNICITY – BACKING ETHNICITY IN FAVOUR OF REGIONAL PROSPERITY

Ethnic entrepreneurship might be considered one of the promising economic sectors of the 21st century urban economy. Spatially it tends to get concentrated in ethnic neigh-

bourhoods, where entrepreneurs have access to their social networks, to information, to financial support. These neighbourhoods also form the major market for selling their goods and services. In Brussels this form of entrepreneurship constitutes the shortest way for upwards social mobility and integration and holds a positive influence to regional prosperity – nowadays mostly present in the retail and wholesale sectors.

During the master class this question was indirectly addressed in the Quai Demets proposal, where the students put forward a productive alliance between the university (Erasmus University College), a training centre and local businesses (ethnic entrepreneurs included) to provide courses and internships for people developing new business and ethnic industries. Even though ethnic entrepreneurship might share with other forms of entrepreneurship and economic activities similar demands and questions, like the presence of qualitative urban infrastructure and performing services, it holds too its peculiarities – like alternative crafts and skills, a singular commercial style, and distinctive products. Thinking forward, Brussels needs to further explore to which extent these separate ethnicities could modify the urban economic landscape beyond the exotic.

7. FLEXCITY – FORMULATING FLEXIBLE CITY PROJECTS

The uncertain character of contemporary urban and economic development forces projects to embrace flexibility in order to adapt to the evolving economic context and its variable geometries of actors. Flexibility is here understood as opportunism to grab onto the material or human resources as they come. This is what we learnt from the “22@” project in Barcelona, approved in 2000 and carried out by the public administration (the municipality, the metropolitan government, and the regional government together). It aimed at the transformation of Poblenou, an old industrial area extending between Glorias Square and the sea, into an area hosting knowledge

related companies (or ‘@’ companies). There flexibility has been built as a principle and as a method for the realisation of an inclusive project development. The 22@ project breaks the tradition of the linear spatial planning process as there is no general master plan but rather a set of adaptable rules defined through the active collaboration of the stakeholders. Footprint, built volume, morphology, and programmes: everything can be discussed and put into question.

Although in Brussels, new agencies, such as the Agency for Territorial Development and the Bouwmeester-Master Architect, have been created in order to move to a more project-oriented urban policy, the need remains for a more active collaboration between stakeholders resulting in a common spatial vision. An active collaboration among stakeholders could yield those positive externalities characteristic of a placed-based, contextual approach, going beyond the efficient and acontextual approach to space of the functional zoning so far. The enhancement of specific sites could only then be accomplished. An urgent landowners pact is needed though: without mobilising all the public land trusts, next to those of the port authorities, no vision is conceivable.

A FINAL REMARK ON ECONOMIC AND URBAN STRATEGY

Spatial planning should take on board fundamental economic challenges, such as stimulating entrepreneurship in the industrial sector and reducing unemployment, instead of relying on purely restrictive measures. Even if everyone would agree that the characteristics of place of residence condition the extent one can benefit from urban wealth, the regeneration programmes of the past have failed in their ‘bricks and mortar’ approach. The Brussels’ “neighbourhood contracts” are a good example of such approach, placing a clear emphasis on the neighbourhood spatial quality, and leaving aside the challenge of urban economy and job creation. Today many voices advocate a redefined ambition for



In a project for the Schilderswijk in The Hague (jointly organised by De Nijl architects, TU Delft, and KEI, and supported by the Netherlands Architecture Fund) local entrepreneurship is stimulated by punctual interventions in the urban fabric, laid out strategically by 51N4E to combine urban redevelopment and citizen empowerment.



The flexible planning process of the 22@ project allowed to make optimal use of existing opportunities and translate them into a qualitative and highly diversified urban environment for economic activities.

the neighbourhood contract tool. In its revised version, the issue of economic development cannot stay auxiliary.

The success of policies attempting to improve a city's competitiveness and quality of life need to be designed at the right scale, for 'the adequate territory', if we don't wish for the reverse effect to occur. As the employers' interprofessional organisation had already contended with their manifesto "Brussels Metropolitan" by the end of 2008, Brussels needs a metropolitan project, an ambitious overarching development strategy beyond administrative and territorial borders. A similar request is put forward in the last state reform agreement, pleading the creation by law of a 'metropolitan community': regional, municipal, provincial, and federal representatives should sit around the table to sign a cooperation agreement on topics relevant to the metropolitan scale. This would certainly instigate public and private stakeholders to actively take part in a multiscale integrated planning process combining both top-down and bottom-up strategies to foster economic and urban development.

Last but not least, for those same stakeholders to engage in innovative developments, a typological and morphological exploration of new urban cohabitation models is urgently needed. In fact, very few contemporary examples of integration of economic activities in (dense) urban contexts other than the historic 19th century city block are widely known. Without the right toolbox and the adequate references, whether local or international, the productive juxtaposition of urban functions will stay out of reach. You hold in your hands our humble contribution to rectify this deficiency.

AFTERWORD LOUISE

Benoit Moritz (Louise)

Louise affiliates: Nadia Casabella, Philippe De Clerck, Geoffrey Grulois, Géry Leloutre, Judith le Maire, Sarah Levy, Luisa Moretto, Benoit Moritz, Marco Ranzato, Yannick Vanhaelen and Stéphanie van Doosselaere.
Activities of the Louise laboratory are coordinated by Benoit Moritz and Geoffrey Grulois.

Since the academic year 2011-2012, the Université Libre de Bruxelles has a full-fledged Architecture Faculty, stemming from the fusion of two Brussels architecture schools, ISACF La Cambre and ISAI Victor Horta. The transition of architecture education into university has opened many possibilities such as interfaculty collaboration but first and foremost the development of research within newly established centres.

Within the Faculty of Architecture, a group of professors came together to create a research centre dedicated to the study of contemporary challenges for city planning and territory. The name was chosen as referential to these research interests: “Louise” for “Laboratory on Urbanism, Infrastructures and Ecologies”.

Urban planning is of course a focal point for Louise, but its preoccupations go well beyond this discipline to take on environmental, infrastructural, and social issues concerning cities and urban territories in the larger sense. Affiliated members are indeed convinced it is flows, networks, and infrastructures that make up the global framework from which urbanism’s contemporary territories are organised. The activity within Louise therefore rests upon a series of initiatives of which the fundamentals had already been laid out within the pre-existing institutions.

As such the activity of Louise takes shape first and foremost through research made in the context of the realisation of doctoral theses, financed by the National Scientific Research Fund, by the regional initiative Innoviris, or university funding. To this day, five doctoral theses are being written.

Next to this basic activity of pure research, Louise also wishes to actively participate in ongoing debates on the development of the Brussels-Capital Region. Louise already co-organises the regional initiative]pyblik[dedicated to the training of skills in the creation of public space. The decision to co-organise the second international Brussels Master Class RE:WORK, funded by the Brussels-Capital Region, fits the same purpose.

In the long run, next to these research and publication activities, Louise aims at partnering with other institutional actors to create an international master of urbanism oriented towards research by design on Brussels’ territory.

AFTERWORD STER*

Michael Ryckewaert (SteR*)

STeR* faculty: Nele Aernouts, Jens Aerts, Paul Blondeel, Nadia Casabella, Stefan De Corte, Tom Dewaele, Luc Lehouck, Thomas Moens, Jan Parys, Michael Ryckewaert, Elke Vanempten.
STeR***COSMOPOLIS** is coordinated by Eric Corijn, Stefan De Corte, Bas van Heur and Michael Ryckewaert and has about 30 researchers and teaching staff.

STeR* is a masters programme in urban design and spatial planning as well as a research unit, currently part of Erasmushogeschool Brussel. As of October 2013, STeR* will integrate in the Department of Geography of the Vrije Universiteit Brussel. STeR* research activities will be bundled with those of the well-renowned research group “COSMOPOLIS city, culture and society”, an interdisciplinary urban research team, focussing on social and cultural urban geography. COSMOPOLIS has a strong track record in urban research in Brussels, among other things on neighbourhood monitoring, on the neighbourhood contracts, on the spatial concepts used in the planning of strategic zones, on the expansion of the Brussels agglomeration at the turn of the 19th and 20th centuries... In addition, COSMOPOLIS members are active voices in urban debates and participate in urban activism in Brussels.

The integration of STeR* means that increasingly urban design and research-by-design will enrich the methodological reach of COSMOPOLIS. STeR***COSMOPOLIS** believes that good spatial planning and urban design is able to mitigate tensions and integrate conflicting programmes in inclusive and participative urban projects. This is exemplified among other things in research on spatial planning and urban design in ‘rurban’ areas within the wider Brussels metropolitan area, and research on the design of urban projects that address the housing and employment needs of socially upwardly mobile inhabitants of the BCR. Both research tracks rely on research-by-design by incorporating workshops, similar to the RE:WORK Master Class approach, as well as involving various stakeholders and actors in their research trajectories.

STeR***COSMOPOLIS** will thus become a research group that focuses on the broader field of ‘urban studies’ uniting the disciplines of social and economic geography, cultural studies, urbanism, spatial planning and housing. The overall framework of the research is based on an ‘urban ecology’ approach, that sees the city and urbanised territories as sociotechnical systems. STeR***COSMOPOLIS** research is funded by Innoviris, EU and national research programmes, and STeR***COSMOPOLIS** also conducts contract research for various local and regional governments.

As a Brussels-based urban design and spatial planning unit, STeR***COSMOPOLIS** intends to further develop an urban research agenda with a particular focus on the Brussels-Capital Region and its metropolitan role. STeR***COSMOPOLIS** is strongly embedded in urban research networks in Brussels such as the Brussels Studies Institute that unites an interdisciplinary range of research institutes conducting research in / on Brussels. In particular, collaborations with Louise, of which the joint organisation of the RE:WORK Master Class is but one example, can result in the organisation of an international master in urbanism and new joint research activities.

PROFILES

MASTER TUTORS**Suzanne Eliasson & Anthony Jammes – GRAU**

Susanne Eliasson and Anthony Jammes are architects and cofounders of GRAU, an office for architecture and urbanism based in Paris. GRAU means 'grey' in German and determines a measure of variable intensity, a metaphor for the complexity of the contemporary city in which the office operates. GRAU works on projects of various scales, ranging from regional development strategies to housing extensions. Recent projects include the development of housing in the agglomeration of Bordeaux, the urban renewal of the district Claveau in Bordeaux, or the Belgian pavilion of the Venice Architecture Biennale 2012. Susanne and Anthony are regular lecturers, panellists and critics at many international institutions such as the IABR in Rotterdam, the Academy of Architecture of Mendrisio in Switzerland, the House of Culture of Japan, and Columbia University in Paris.

Jan Verheyen – IDEA Consult

IDEA Consult is a research-based consultancy company settled in the heart of Brussels. From 1998 onwards they have developed to being a key partner of national and international public bodies and organisations, providing independent advice through applied socioeconomic research. Their extensive knowledge of Brussels, particularly in the field of economics, has made them a key partner in many territorial vision and operational studies on Brussels' territory, collaborating with, among others, Secchi-Vigano, 51N4E, MSA, or BUUR. IDEA has collaborated with GRAU on several occasions, among them the development of a territorial vision for 50,000 dwellings in Bordeaux.

COORDINATORS

Benoit Moritz graduated as an architect at the ISACF-La Cambre and urbanist at the UPC Barcelona. In 2001, he cofounded with Jean-Marc Simon the office MSA. He additionally developed a teaching and prospective research activity at the ULB Architecture Faculty, where he is the coordinator of the Laboratory on Urbanism, Infrastructures and Ecologies (Louise). Within MSA, Benoit Moritz is responsible for urbanism and public space projects, such as the master plan for the development of Tour et Taxis, the realisation of the sustainable district Tivoli, or the renewal of the Place de la Monnaie. Benoit Moritz is also the author of many articles related to urbanism.

Stefan De Corte is geographer and coordinator of the master Stedenbouw en Ruimtelijke Planning (SteR*) of the Erasmushogeschool Brussel. He is one of the founding members of the Interdisciplinary Urban Research Centre COSMOPOLIS, and a teacher and former coordinator of the Master in European Urban Cultures (POLIS) and UNICA Euromaster in Urban Studies (4Cities). He has long experience of research in urban studies, with a focus on neighbourhood development in Brussels, cultural developments in European cities, and migration dynamics in Belgian urban regions. He is currently a doctoral student working on a dissertation on globalisation and neighbourhood development (case study Brussels). His academic activities extend outside university through several engagements in civil society and through consultative bodies of the Brussels and Flemish authorities.

ACADEMIC STAFF

Jens Aerts graduated as engineer-architect at the KU Leuven in 1997. After gaining experience in offices both locally and internationally, he graduated Master in Urbanism in 2001 at the UPC Barcelona. He then became advisor in urbanism for the Vlaams Bouwmeester (2002-2004) and for the Ministry of Mobility and Public Works of the Brussels-Capital Region (2004-2009). He is now an associate of the office BUUR and specialises in strategic planning, master planning, project and town planning supervision. Since 2011, he is guest professor of the Master of Town and Territory Planning at the VUB. His professional commitment is further expressed in his numerous mandates for the Town and Territory Planning Association, Disturb, Platform Kanal, and CIAUD-ICASD.

Nadia Casabella is architect and MSc in Regional Planning (LSE). She is currently project assistant at the ULB Architecture Faculty, assistant at the Erasmushogeschool, PhD candidate, and architect at 1010 architecture practice. She specialises in urban and regional planning, and conceives her work more exploratory than problem-solving oriented. For her this implies seeing every commission as an opportunity to develop new knowledge about cities and the architecture discipline, instead of attempting to answer an often ill-defined question with the few methods and techniques that a tight schedule normally allows. This in turn has heavy implications for the way she chooses to work, straddling across research, teaching, and practice.

Philippe De Clerck is an architectural researcher affiliated to]pyblik[and the Laboratory on Urbanism, Infrastructures and Ecologies (Louise) of the ULB Architecture Faculty, and a founding member of the office DEV space. He graduated with

high honours from the faculty of Architecture La Cambre in Brussels and the ESAP in Porto, after which he gained academic and teaching experience at the ULB Architecture Faculty and design experience with 51N4E before focusing on editorial and cultural production with Architecture Workroom Brussels, where he was editorial board member for Building for Brussels and Changing Cultures of Planning (Prix Fernand Baudin 2012) as well as organiser of the first Brussels Master Class "120% Brussels".

Dr. **Isabelle Doucet** is a Lecturer in Architecture and Urbanism at the University of Manchester, School of Environment and Development (SED) and is connected as a lecturer and researcher to the Manchester School of Architecture and the Manchester Architecture Research Centre (MARC). She received her PhD in 2010, from the Delft University of Technology, Architectural Theory. Recent publications include the edited journal issue 'Agency in Architecture: Reframing Criticality in Theory and Practice' (Spring 2009, Footprint Journal, with Kenny Cupers); the edited volume 'Transdisciplinary Knowledge Production: Towards Hybrid Modes of Inquiry in Architecture and Urbanism' (Springer, 2011, with Nel Janssens). Her current research focuses on (1970s) counter-projects as a methodological device for architectural criticism at the intersections of social critique, politics, and aesthetics.

Geoffrey Grulois is an engineer-architect (FPMs). Before becoming a teacher at the ISACF La Cambre in 2004 and later on at the ULB Architecture Faculty, he studied and worked as an urbanist in Curitiba, Barcelona, and Tokyo. He cofounded the design studio Space Speculation in 2005 and the 'Resilient Ishinomaki Workshops' in 2011. He is currently finishing a PhD on the emergence of the concept of

agglomeration in Belgium in the 20th century. He is co-author of the chapters on urbanism in several monographs, including Lucien-Jacques Baucher, Jean-Pierre Blondel and Odette Filipponne (ULB-FWB); Jean-Jules Eggericx (AAM) and the 'Groupe L'Equerre' (Fourretout).

Xavier Leibar founded his studio with Jean-Marie Seigneurin 20 years ago, working in most fields of architectural creation with a constant desire for sense-making and linking between sites and time, trying to find the right answer with a subtle and simple language. Without breaking off or refusing modernity, the agency aims at designing buildings both fed by memory and turned towards tomorrow. Xavier Leibar has taught at the Architectural School of Bordeaux since 1992 and is member of the Académie de l'Architecture since 2009.

Géry Leloutre is an architect (Horta Institute for Architecture, Brussels, 2002) and urban planner (KU Leuven, 2006) in Brussels. He combines an architectural practice with an in-depth theoretical reflection about the city. He is project teacher of the design studio "Space Speculation", researcher and PhD candidate at the ULB Faculty of Architecture. He has been the editor-in-chief of BrU (Brussels Review of Urban Planning) from 2006 to 2008, the moment he founded the office Karbon' with Bernard Baines, Victor Brunfaut, Matthieu Delatte, and Hubert Lionnez.

Jorge Perea is an architect and planner. A disciple and collaborator of Manuel de Solà-Morales from 1996 until his passing away, he then opened a professional studio in 2012 to follow his theoretical discourse and reflections on the modern city. Former urban design professor at IAAC, the University of Chicago at Barcelona (IES) and Syracuse University (EUA), he teaches since 2007 at the Department of Urban Design at the ETSA Barcelona. Currently

his studio is developing Manuel de Solà's Operaplein project, the renewal of Antwerp's central area. In Barcelona, he developed the reform of the urban environment of the Sants high speed station, reflections and approaches on the transformation of the industrial port, the creation of a new urban centrality in a suburban context in Vall d'Oix in the metropolitan area of Barcelona, and the design of two Cerdà blocks in the technological quarter of 22@ in Barcelona.

Dr. **Michael Ryckewaert** is an engineer-architect and urban planner and holds a PhD in architecture. He teaches urbanism history and urban design studio at Erasmushogeschool Brussel. He is also a voluntary research fellow at VUB and postdoctoral researcher at KU Leuven. His current research focuses on housing and spatial policy. The history of urbanism, infrastructure, and mobility are other key research interests. Michael Ryckewaert has published on social housing, urban housing projects, urbanism, and mobility history.

Yannick Vanhaelen is an architect. After his studies at La Cambre in Brussels and at the Academie van Bouwkunst in Amsterdam, he worked for several renowned offices, among them NL architects, before joining 51N4E (BE) in 2010 as project leader for the Elaboration of a territorial vision for 2040 for the Brussels Capital Region, a collaboration with l'AUC (FR) and Bureau Bas Smets (BE). A founding member of the office DEV Space, he is now a PhD candidate and researcher within the Laboratory on Urbanism, Infrastructures and Ecologies (Louise) of the ULB Architecture Faculty, where his research focuses on the cultural infrastructures of Brussels' Metropolitan Zone.

STUDENTS

Esperant Abasi (UK) is in her final year of her Masters of Architecture at the Manchester School of Architecture.

Olivia Adamska (PL) started her professional life in theatre as a decorator; she graduated in 2012 at the ULB Architecture Faculty with high honours. During her studies, she passed from the decorator's small-scale view to the large scale perspective of an urban designer. Her Polish background found voice in her master thesis by showing Warsaw as a model case for new urbanity in the postcommunist city.

Jonas Apers (BE) is a Belgian student in painting, architecture, and urban planning. He is currently working on his final year project that parallels a theorizing of the autonomy of architecture on urban scale and a redesign of the Anspach Boulevard in Brussels.

Lucas Bacle (FR) is a student at the ENSAP Bordeaux. He also studied one year at the La Cambre School of Architecture with Pierre Blondel. In 2012, he won the Agora 2012 prize of design (Bordeaux). He is assistant professor of architecture at the ENSAP Bordeaux since 2011.

Margaux Baudry (FR) graduated from the ENSAP Bordeaux. She worked as an intern at the atelier of Fabien Pédélaborde (Bordeaux), the office of Masao Yahagi (Fukuoka – JP) and as an independent in the architecture office of Leibar and Seigneurin. Her diploma project was an inhabited park memorial in Ishinomaki, Japan.

Tom Berghmans (BE) recently graduated at the KU Leuven as a Civil Engineer in Architecture. He is currently achieving his graduate as an Urban and Spatial Planner at the Erasmushogeschool Brussels. This practicing architect uses an holistic approach to engage in all questions related to space;

space, more than ever, characterized by means of society.

Stijn Brancart (BE) is a student in Architectural Engineering at the VUB and is currently working on his master thesis, addressing urban adaptability and urban design in a dynamic approach.

Daniel Burston (UK) is First Class honours graduate of Interior Architecture, Cardiff (UWIC) and currently completing a Postgraduate Diploma at the School of Architecture, Barcelona (UPC). His personal research has investigated the socioeconomic impacts of gentrification in the postindustrial city. He gained professional experience at EMBT Arquitectos, and architecture and engineering firm ADIC, Barcelona.

Sophie Camlong (FR) is currently completing her Master in Architecture at the ENSAP Bordeaux. She has been an intern at Encore Heureux architects, where she worked among others on the 'Petit Bain', 'Domo-lab' and 'Ciné 32' projects.

Filippo Cattapan (IT) graduated from the IUAV university of Venice. After working with Salottobuono he is now an independent architect based in Milan. He attended several international workshops with, among others, 51N4E, Office Kersten Geers-David Van Severen, and Point Supreme Architects. He is an assistant professor at Politecnico di Milano.

Penny Christou (UK) is currently finishing her Master of Architecture at Manchester School of Architecture. Her personal research has been investigating the merging of educational areas and existing industrial buildings as an urban strategy in peripheral and semiperipheral areas, to maintain a symbiotic relationship between community and industry development and sustain neighbourhoods' income, education, and employment.

Eva De Fré (BE) graduated in 2012 from the KU Leuven. Most of her student projects question social and urban transformations in the contemporary city. In her collaborative master thesis she explored the advent of gentrification in a former industrial neighbourhood in Brooklyn. She was cofounder and one-year editor of the architectural magazine "Unité" and one of the curators of the "Breuckland" exhibition in Brooklyn, NYC.

Sophie De Mulder (BE) is currently studying at the EHB (Erasmushogeschool Brussel) to obtain a Master in Urbanism and Spatial Planning, after having completed a Master in Slavonic languages in 2006 and having worked abroad for several years. She hopes her background can offer a fresh outlook on the problems facing urban planning.

Catalina Codruta Dobre (RO) recently graduated from the ULB Architecture Faculty with high honours. Based on her experience in urban studies in the cities of Brussels, Ishinomaki (JP), Bucharest (RO) and Astana (KZ); she got interested in the water management of urban areas. In the present, she develops a research project with this theme for the Brussels Region.

Karin El Ajlani (FR) is currently finishing architecture studies at the ENSAP Bordeaux, with a six-month Brazilian exchange program with the Universidade Positivo in Curitiba. In May 2011, he was selected for an urban reflection on the Txingudi Bay (Basque Country), issued with the partnership of Euskal Herriko Unibertsitatea.

Alejandro Felix Sancliment (MX) was born and raised in Mexico City. Since 2006 he has been living in Barcelona, where he studied architecture in ETSA Barcelona. For two consecutive summers he worked as an intern in the Mexican firm Legorreta + Legorreta. In 2011

he joined the Barcelona studio BOPBAA, where he collaborated on several architecture and urbanism projects and competitions.

Pol Fité Matamoros (AR) is currently attending the fifth year of Architecture at the ETSA Barcelona. He was selected to participate in the Ecoviuere contest by the Conditioning and Services department and La Ciudad Posible contest by the Projects' department in 2011. At present, he obtained a grant to collaborate with the Urban Planning Department.

Fanny Guigon (FR) studied in Paris and Madrid for three years of before coming back to Bordeaux to complete her studies in architecture, focusing on prospective and experimental urbanism. Being also passionate with experimental photography, she realizes pinholes and camera obscura.

Guillaume Harache (FR) got his bachelor degree in the ENSAP Lille, and finished his studies in Sint Lucas Gent where he graduated from an international master on sustainable design and urban planning, with jury honours. The subject of his diploma project was a design proposal for a sustainable regeneration of Carrière Centrale, a poor monofunctional district in Casablanca, Morocco.

Sandrine Iratcabal (FR) is a graduate in History of Arts at the Michel de Montaigne University and is currently graduating as architect at the ENSAP Bordeaux, where she is assistant professor. She has participated in various international workshops/competitions and has collaborated with several offices, among them Point Supreme Architects in Athens.

Bryn Lee (UK) is a sixth-year MArch Student at the Manchester School of Architecture. He is currently studying under the Atelier Contested Peripheries, researching into the peripheral conditions of Cheshire,

Manchester. He was shortlisted for the BDP Rossant Award in 2010. Bryn is also working part-time for a well-reputed timber frame manufacturer in the UK.

Dieter Leysen (BE) studied engineering-architecture in Portugal and Belgium before graduating at the KU Leuven in 2012. He did internships in Brussels and Paris and currently works at 51N4E. Recently, he curated the exhibition "Breuckland: Varieties on City Life – A Brooklyn Case", in collaboration with the Vai and the Flanders House NY.

Samuel Llovet Motardit (SP) graduated in 2012 from the ETSA Barcelona. He is part of the research team of the Urbanism Department of the School of Architecture of Barcelona. Currently, he is finishing a Master in Urbanism at the ETSAB and working in architecture firm Jorge Perea Studio.

Thomas Loisier (FR) is currently completing his Master in Architecture at the ENSAP Bordeaux. He has been an intern at L'Atelier d'Agencement, Baggio-Piechaud, and at Groupe Loisier.

Fernando Montoya Martinez (SP) has been studying architecture and urbanism since 2006 at the ETSA Barcelona. He participated in several students competitions, among them Rethinking Mallorca's Seafront (second prize), and his work has been exhibited in Buenos Aires and Barcelona. In 2012 he collaborated with Ariadna Perich's studio for the Portes de Collserola competition (first prize).

Montse Pastor Nicolau (SP) is studying Architecture at the UPC University, Barcelona. During her studies she has worked in several architecture offices in Palma and participated in several workshops in Barcelona and Chile. She is currently finishing her final project, as a grant student in TU Berlin.

Marian Plas (BE) graduated in 2002 as an architect at the Hogeschool voor Wetenschap en Kunst, Sint-Lucas Gent. She started her career as an architect in the private sector where she designed several projects of housing, hotels, shops, interiors, and furniture. She is currently working for the government of the city of Bruges where she is responsible for large-scale projects in local neighbourhoods. Coordination, design, and research for community centres, schools, swimming pools, and surroundings of new large-scale projects are a few of her main tasks.

Guillem Pons Ros (SP) graduated in 2012 in Architecture and Urbanism at the ETSA Barcelona. He has been working with Rahola Vidal Arquitectes for the last three years in the field of architecture and urbanism, collaborating on competitions and project developments. His enthusiastically received diploma project was awarded 'project of the month' on hicarquitectura.com and published in the newspaper "El Diario de Mallorca".

Aina Pont Marin (SP) is studying at the ETSA Barcelona. Being interested in architecture beyond her country she realized a project in Istanbul in collaboration with the Istanbul Teknik Üniversitesi and participated in several international master classes. During the last three years she has collaborated with Vidal architects. She is currently finishing her diploma project, focused on rehabilitation.

Margaux Puech (FR) is currently graduating at the ENSAP Bordeaux. She has also studied at the Politecnico di Milano. She has been subeditor of the publishing house Overworld. She has travelled the globe, participating in several international workshops in, among others, Rosario (AR) and Irkutsk (RU).

Kätti Rob (LU) is a student at the VUB's Master program 4Cities. She joined this comple-

mentary programme in urban studies in 2012 after her studies at the ULB Architecture Faculty. She recently won the Prix Serrure, which accredits the best project of the school year, and gained further experience in the urban field by participating in the "Resilient Ishinomaki" workshop in Japan.

Alice Taylor is in her final year of her Masters of Architecture at the Manchester School of Architecture.

Yelena Theyssens (BE) graduated in Architecture at Sint Lucas Brussel and ETSA Sevilla before starting a Master of Urbanism and Spatial Planning at the EHB (Erasmushogeschool Brussel) in 2011. She has collaborated with several offices, among them Architectenbureau Dirk Gillekens and

Studiebureau Quadrant, where she worked on projects such as the redevelopment of the Agfa-Gevaert site in the Antwerp area. In 2009, her student project for the Edegem School was mentioned in the frame of the "Studio Open School", an initiative of the Flemish Bouwmeester.

Mark Turner (UK) is in his final year of his Masters of Architecture at the Manchester School of Architecture. He has studied at the school for five years now, obtaining an undergraduate Bachelor of Arts degree level and a postgraduate masters in Architecture & Urbanism.

Pauline Varloteaux (FR) graduated in 2012 from the ENSAP Bordeaux where she was assistant professor in 2011. She has participated in several

international workshops in Belgium and Japan and collaborated with various offices, among them Bureau Bas Smets in 2010. She is currently working at Studio Secchi-Vigano in Brussels.

Sam Westbrook (UK) studies at the Manchester School of Architecture. He has worked for a large multinational commercial real estate company within their architecture and design department before joining a smaller independent architectural practice with a strong focus on sustainability. During the summer of 2012 he was an intern at "The Architects' Journal", Britain's leading architectural publication. He is currently finishing his Masters of Architecture (MArch).

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