

ANTWERP

Studio Sergison
Spring Semester 2023

Antwerp



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Aerial view of Antwerp



Introduction

Following the work we did in the Autumn semester 2022 in Genova, this semester we will focus on another port city. We will continue our investigation of how low-rise, high-density urbanism can contribute to the development of the contemporary European city and, in this instance we will consider Antwerp, a city that has been undergoing significant changes in its urban structure in recent years.

Antwerp is the largest city in Belgium in terms of its surface area, and its favourable geographical position within Belgium has created the opportunity for large-scale growth. It is now the third largest port in Europe.

The large area we have chosen for our work this semester lies to the north of the city in the former dock area. Our work will investigate strategies for re-developing the area using perimeter blocks with inner courtyards as a building type. Our work will concentrate on normative programmes, predominantly housing. As in the past, experts and authorities on the issues we will be exploring will be invited to contribute to our work and support the studio.

Cadix, Antwerp

This semester we will consider the perimeter block with multiple courtyards as a building typology.

Working on housing projects requires complex forms of speculation on the part of the architect. It is not absolutely clear what the precise needs of future users may be, and the wider urban context of a building invariably changes over time.

Housing forms the largest part of any city's built area, typically accounting for 70% of building volume and land surface. It follows that the image and character of a city is determined by the buildings that service housing programmes and while it is the monuments, museums and civic buildings that dominate postcard images of a city, it is normative uses – housing and buildings dedicated to work activities – that provide the most tangible impression.

Many cities in Europe, and Antwerp among them, face the need to absorb a growing population, with ever more divergent and complex needs, as evidenced by contemporary residential occupancy patterns. Today almost 30% of urban dwellers live on their own for different reasons, and nearly 64% live either on their own or with one other person, which puts great pressure on housing.

Our work this semester will give particular attention to the following questions:

- How can we build in the most sustainable and appropriate manner?
- How can we address the changing needs of society?
- How can the process of densification be effectively managed?
- How can we develop contemporary solutions to housing by employing a specific typology: the perimeter block with courtyards?

We will study many examples of this building solution.

Fritz Höger
Chilehaus
Hamburg
1924





Antwerp owes its origins to its favourable location in a long hollow bend on the right bank of the Scheldt, a natural landing place for ships. Around that natural harbour grew a settlement that would later develop into a metropolis where port activities flourished.

In Antwerp's early days, the city and the port evolved together in a very characteristic way: with each expansion of the city, a new moat was built as a military defence. The old fortified moat would be absorbed within the city, and rather than being filled in, it would be used as an inner harbour, through which ships could enter the city to load and unload goods. Markets were then established, where goods were traded. With the earth dug up for the new moats, wharfwere built that extended into the river. This combination of canals and wharves produced the typical structure of Antwerp as a 'water city', where city and port were completely intertwined.

Around 1200, Antwerp experienced its first major expansion: its southern boundary shifted from Suikerrui to Sint-Jansvliet, doubling the city's extension. Between 1296 and 1324, the area occupied by the city tripled, and the southern boundary moved as far as of Kronenburgstraat. A ring of stone wall with gates and towers was built, with fortifications along the Scheldt so that the inner harbours could be closed off: ships entering the city had to pass through city gates.

After a fourth expansion at the beginning of the fifteenth century – this time eastwards – Antwerp's population reached an estimated 23,000. Wealth in the city had increased greatly, and the area along the Scheldt was home to the wealthier merchants, as well as to the lower social classes.

In the sixteenth century, due to a strong boom in port activities, the city's wealth grew significantly: Antwerp experienced its 'golden age' and became Europe's most important economic centre. The centre of gravity shifted from the Mediterranean to north-western Europe, and Antwerp took over the leading role port cities like Genoa and Venice had previously held. The population grew rapidly: by 1540, it had reached 84,000. The city underwent considerable spatial changes to house the increasing number of inhabitants and a large number of new houses were built according to Gilbert Van Schoonbeke's design proposal. During this period of prosperity, many other important new buildings were completed: the Stock Exchange, the new Town Hall, the Hessenhuis and several churches.

The increasing need to protect the newly created wealth and the new understanding of military fortification led to the creation of a new defence system. As in most European cities, the medieval city walls were replaced by city wall with bastions. In 1542, a new defence wall was erected, made from heavy brick, with nine bastions and four monumental gates, surrounded by a wide moat.

In 1567, the Spanish occupiers decided to build a citadel at the southern end of the ramparts, the so-called Zuidkasteel, this time not to defend the city against external attacks, but mainly to keep the people of Antwerp under control.

The period of growth and increasing prosperity came to an end in 1585, when Antwerp was conquered by Spain and the Scheldt was blocked by the Dutch army. Due to the resulting economic and demographic decline, the walls constructed

in the mid-sixteenth century would remain the city's boundary until the nineteenth century.

The first major spatial changes since the sixteenth century took place during the period of French rule, from 1794 to 1814. The French military authorities envisaged an important role for Antwerp as a fortified naval base on the northern border of the new empire. The most striking accomplishment of the short period of French rule is undoubtedly the construction of two docks, now Bonapartedok and Willemdok, which replaced the two northern canals of the Nieuwstad. Here the idea of the natural port was abandoned in favour of the development of a modern port with artificial berths, constant water level and only accessible through locks.

When the Dutch took over from the French in 1814, trade replaced military activities, and the existing port infrastructure was repurposed for commercial use. A new economic boom followed, interrupted only briefly by the turmoil caused by the Belgian Revolution of 1830. This economic progress benefited only a limited part of the population. Indeed, the expansion of port activities led capital investors to withdraw from manufacturing to invest in trade, which was more profitable and less risky.

At the beginning of the twentieth century, two new neighbourhoods, het Eilandje and het Zuid, were established, that today form part of the 'City on the River'.

To the north, the city had dug the Kattendijkdok in 1860, outside the Spanish ramparts, by the locks that lead into the Kempen Canal. After the demolition of the ramparts, this dock was connected to the Willemdok and a city district was built around these docks, where port activities and urban life coexisted, and large warehouses and port infrastructure dominated the cityscape. The alternation of building blocks and docks created island-like areas between the docks, as the name of the neighbourhood clearly indicates.

To the south, the city was extended on land freed up by the demolition of the hated Zuidkasteel.

Between the two World Wars, the port made another leap northwards: port activities became completely disconnected, as city and port went their separate ways. As a result, the place where the port had originated and where the first modern port infrastructure had been built was abandoned. From 1960, the harbour infrastructure on the Scheldt quays fell into disuse, and the older docks on the Eilandje followed.

In the twentieth century, other urban functions were relocated outside the urban area, and the city was broken up into a series of components spread over a wide area. Housing played a leading role in this. In the 1950s, a real urban exodus began and a process of suburbanisation took place over a wide area around Antwerp, which the development of the Left Bank new urban district did not slow down. The huge supply of attractive housing options in green areas has exerted a very strong attraction on urban residents and eroded the city.



1



2

1
Lodovico Guicciardini,
map of Antwerp,
Descrittione di tutti i
Paesi Bassi,
1567

2
C. C. Dommelschuijzen
The Harbour,
Antwerp, Belgium,
1842–1928
Russell-Cotes Art

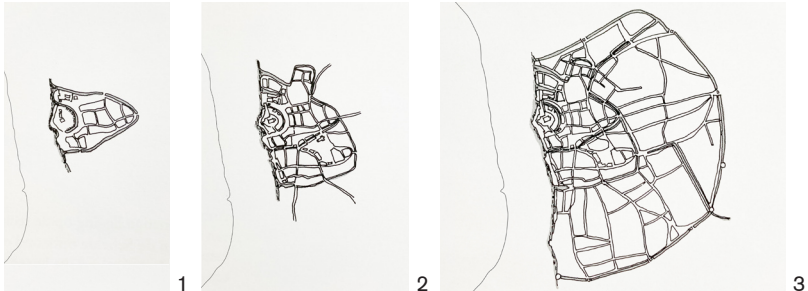
3
J.P. Bonneckroy,
The Antwerp
waterfront from the
Vlaams Hoofd,
c. 1685

overleaf
Jan Wildens
Panoramic view of
Antwerp from the East
1636



3





1
c. 950

2
c. 1250

3
c. 1450

4
c. 1650

5
c. 1830

6
c. 1900

Project site





1



2



3



4

- 1 View of the harbour
- 2 View of the city centre
- 3 View on the Kattendijkdok
- 4 Droogdokkenweg



1



2



3



4

- 1 Looking west
- 2 Looking south
- 3 Looking east
- 4 Looking nord

We hold the position that invention is a necessary ambition in architecture, but it rarely emerges by spontaneous intuition. An architect can only hope to develop a truly unique proposal after many years of study and reflection. Indeed, it is debatable whether true originality is achievable.

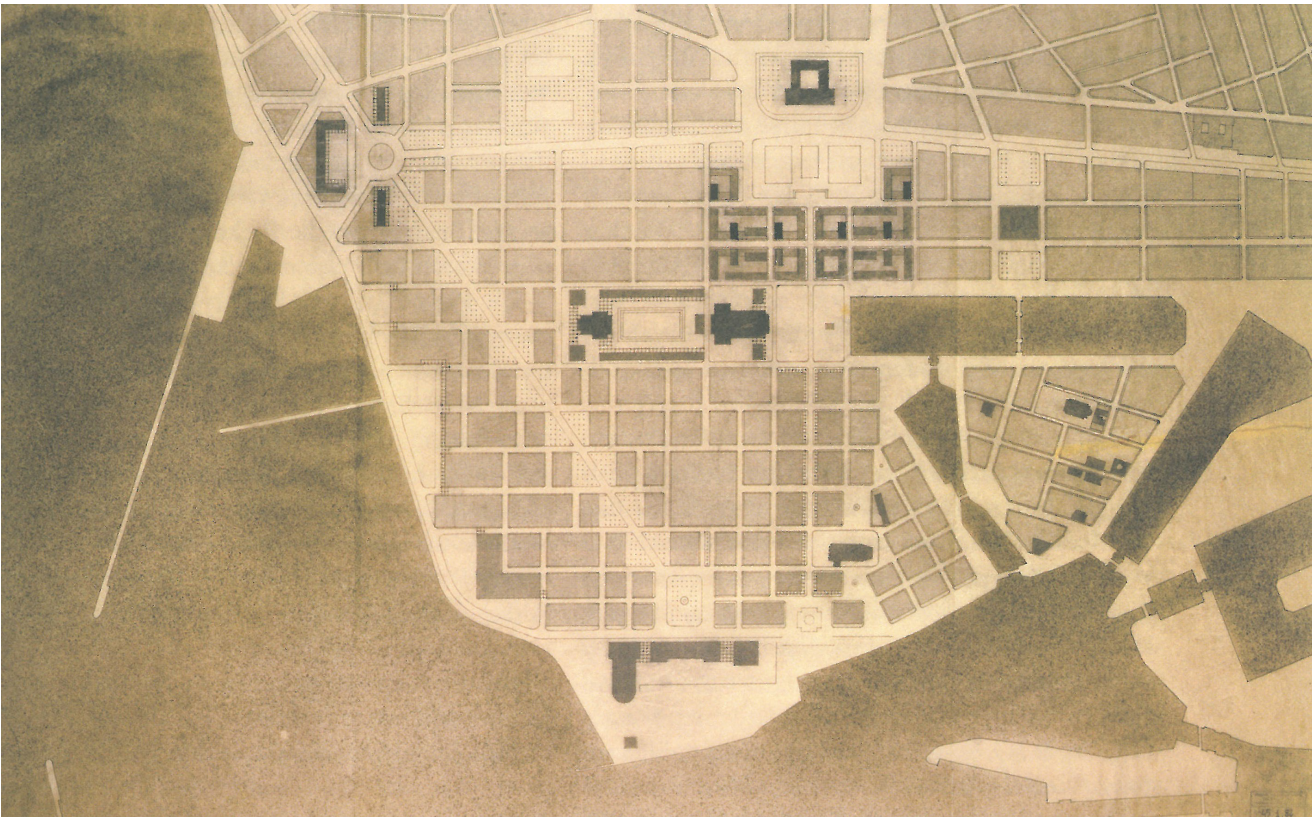
To help you understand the task that you are attending to this semester we would like you to undertake a study of courtyard buildings. We believe that by analysing an existing building you develop a deeper understanding of its qualities – a useful corrective to the belief that it is possible to come up with entirely original solutions.

The information compiled and recorded will be drawn upon and referred to throughout the semester and will inform your subsequent work. You should consider the plan organisation of a block, describing your reference examples clearly and analytically, using diagrams where necessary. This will require you to look very carefully at buildings, making sketches and taking photographs as a way of recording existing conditions where it is possible to visit them.

The precedents and references you have researched should then be illustrated in a booklet.



The first component of the work we will undertake this semester is the development of a strategy plan. This can be understood as a typological and massing study. The principal tool to assist you in this exercise will be a 1:1000 model. This will be made collectively and should encompass an area of the city that is wider than the immediate site in which your work is situated. We ask you to begin by exploring a number of solutions that would ensure that the site can be developed to a reasonably high density with courtyard blocks. Each study or option you propose should be photographed and the density it yields should then be critically appraised and tested, and further developed, refined or discarded as appropriate. This should be understood as an iterative process that will lead to the development of the idea for the project you will be working on throughout the semester. Our study trip to Antwerp should be used as an opportunity to understand the scale and existing urban structure of the city. A lecture will be offered to introduce this exercise.



Reconstruction plan for Le Havre,
1945-1955
Auguste Perret

Third exercise: images

The next exercise will require you to produce two images. No specific graphic technique is prescribed, although you should be able to explain why the technique you choose is appropriate. These images should represent the atmosphere and the presence of your building. One of the images should depict the exterior of the building and its relationship with the existing urban fabric and the site of the project within the city and its immediate context. The other image should represent the interior of a block and its qualities as a partly public, partly private space. A lecture will be offered to introduce this exercise.

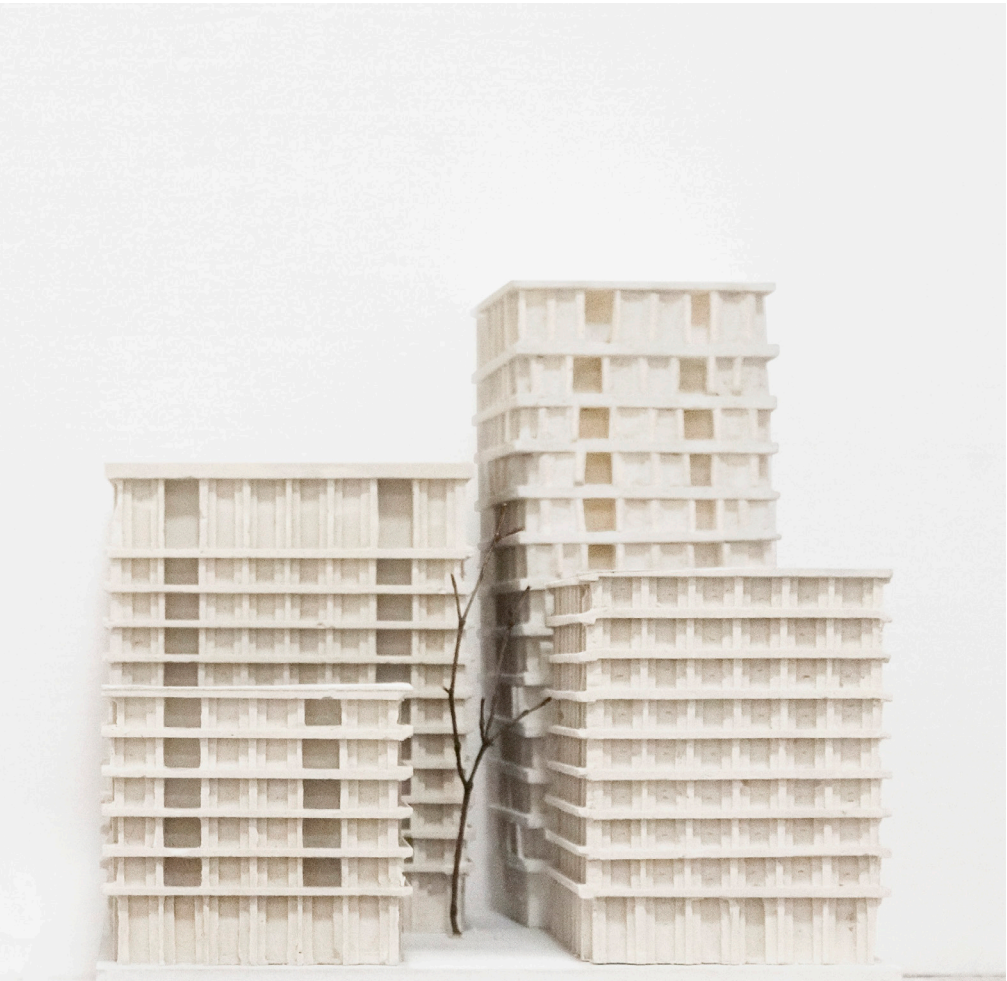
Spring semester 2014
Susanna Morpurgo
Damiano Finetti



Autumn semester 2020
Alvaro Vilanova Mercadal
Ignacio Roig Mercadal



At this stage in the semester, you should already have developed a rudimentary understanding of your project in plan and section, and we now ask you to develop and test your ideas for building facades within the framework of the strategy plan you have developed. The facades of your buildings should be drawn at 1:100 as unwrapped elevations, and translated into three dimensional models. This work should be undertaken with a clear image of your building in mind. What materials is the building made from? What is your approach to the arrangement of window openings? How does the building meet the ground and how is the top of the building resolved? These are some of the questions you should be asking yourself about the facade of your building.



As a convincing set of ideas for your building emerges, you will need to produce careful drawings of some of the facades you have developed. A number of sections should also be produced at a scale of 1:200. This semester less emphasis will be given to the study of plans, although they should be drawn at a scale of 1:200 and provide a rudimentary indication of how vertical circulation is organised, where entrances are placed and how they are arranged, and some indication of the distribution of apartments (although not exhaustively studied in plan). You should consider notions of apartment repetition and variation and what other programmes might be introduced, especially on the ground floor. A landscape plan should be produced at a scale of 1:200 indicating hard and soft surfaces and general sense approach to the public realm. The main piece of work you will produced is the final version of a 1:100 model of all or a large part of the area of your strategy plan, which should indicate carefully considered material choices. Two more 'atmospheric' perspectives of the final version of your project should be produced. Finally, you should prepare a Pdf or Powerpoint presentation of your project. This should be understood as an important tool for presenting your project at the final review, explaining the development of your work and the strategy you propose.



Date	Event	Details	Assignments
24 February	Studio briefing	Studio introduction by Jonathan Sergison (JS) Lecture by Cristina Roiz (CR): 'Site model and reference study'	1:1,000 site model Reference studies
2-3 March	Review	1:1,000 site model Reference studies Lecture by JS: 'The perimeter block' Lecture by JS: 'Strategy plan'	1:1,000 site model Reference studies
9-10 March	Study trip to Antwerp	Study trip to project site ,	Separate programme
16-17 March	Tutorials	Initial ideas for strategy plan	1:1,000 study models Initial ideas for strategy plan
23-24 March	Tutorials	Strategy plan, model, plans, sections, and elevations Lecture by JS: 'Ideas of housing'	1:1,000 study models 1:500 drawings, plans, sections and elevations 1:500 model studies
30-31 March	Tutorials	Building concept, model, plans, sections, and elevations	1:1,000 study models 1:500 drawings, plans, sections and elevations 1:500 model studies
6-7 April	Intermediate review	Project reviews with guest critics	Pdf presentation Reference studies 1:1,000 models and 1:200 model 1:500 plans, sections, elevations Images
13-14 April	Easter break		
20-21 April	Tutorials	Plans, sections and elevations Lecture by CR: 'Ideas of the plan' Lecture by Flavia Saggese (FS): 'Image and representation'	1:200 models 1:200 plans, sections, elevations Images

Date	Event	Details	Assignments
27-28 April	Review	Facade, plans, sections	1:200 plans, sections and facades Images
4-5 May	Tutorials	Facade, plans, sections	1:200 plans, sections and facades Images
11-12 May	Tutorials	Facade, plans, sections	1:200 plans, sections and facades Images
18-19 May	Tutorials	Submission of final drawings	Interior perspectives, Exterior perspectives, 1:1,000 site model Draft Pdf presentation
25-26 May	Tutorials	Final models and images	Pdf presentation 1:1,000 site model Interior and exterior perspectives 1:200 plans, sections and facades Interior and exterior perspectives
1-2 June	Final review	Project reviews with guest critics	Pdf presentation Reference studies 1:1,000 site model Interior and exterior perspectives 1:200 plans, sections and facades Interior and exterior perspectives

Aldo Rossi
“An Analogical Architecture”, in:
Theorizing a New Agenda for Architecture: An Anthology of Architectural Theory
1965 - 1995
Kate Nesbitt (ed.), Princeton Architectural Press, 1996

Robin Evans
“Rookeries and Model Dwellings”, in:
Translations from Drawing to Building and Other Essays
The MIT Press, 1997

Jane Jacobs
“The Use of Sidewalks: Contact”, in:
The Death and the Life of Great American Cities
John Dickens and Conner Ltd., 1962

Georges Perec
Species of Spaces and Other Pieces
Penguin Classics, 2008

Robert Venturi
“Contradictory levels: The Phenomenon of ‘Both-And’ in Architecture”,
“Contradictory levels continued: The Double-Functioning Element”, in: Complexity
and Contradiction in Architecture
Princeton University Press, 1977

Alvaro Siza
“Drawing as Memory”, “The Initial Procedure”, “On Working in a Team”,
“Constructing Ideas”, “Educational Journeys”, “Living a House”, “Building a House”,
in: Architecture Writings
Skira, 1997

B. Colenbrander, C. Grafe, B. van Kaathoven, J. Loontjens, B.Tritsmans
Linkeroever: Across the River
Vlaams Architectuurinstituut, 2017

Martha Pollak
Cities at War in Early Modern Europe
Cambridge University Press , 2010

Marcel Smets
Anversa: la città e il fiume
Casabella: rivista mensile di architettura e tecnica; n. 578, p. 46-58, 1991

Bernardo Secchi
Oltre l’urbanistica contrattata
Casabella: rivista mensile di architettura e tecnica; n. 581, p. 21-22, 1991

Camillo Magni
Il grande progetto urbano di Nieuw Zuid ad Anversa
Casabella: rivista mensile di architettura e tecnica; n. 878, p. 60, 2017

Umnutzung des alten Hafens von Antwerpen Wettbewerb 1990
werk, bauen+wohnen; n. 1-2, p. 38-45, 1991

Pierre Gras
Storia dei porti: Declino e rinascita delle città portuali 1940-2010
Odoya, 2013

I. van Damme, H. Greefs, I. Jongepier, T. Soens
Historical Atlas of Antwerp: Between aspiration and achievement
Thoth Publications, 2022

J. Busquets, J. Grieten, P. Lombaerde, H. Meyer, J. Vanreusel
Antwerpen Ontwerpen
Blondé Artprinting International, 1990

Michael Pye
Antwerp: The Glory Years
Allen Lane, 2021

Contacts

Professor

Jonathan Sergison
jonathan.sergison@usi.ch

Assistants

Cristina Roiz de la Parra Solano
cristina.roiz.de.la.parra.solano@usi.ch

Flavia Saggese
flavia.saggese@usi.ch

Studio

3rd floor
Palazzo Canavée

Office

Dependence
Ufficio D1.03
Largo Bernasconi 2
CH 6850 Mendrisio