Studio Sergison
Spring Semester 2012

Low-rise, high-density 2

Contents

Aerial view of Zurich

Last semester the studio began an ambitious and wide-ranging study of European cities which considers strategies for their growth through low rise densification. We are interested in how different cities can absorb a growing population, meet contemporary housing requirements, improve working conditions and contain growth within existing boundaries rather than spread ever outwards. We are not interested in advocating universal solutions, but rather with addressing the complex history and urban legacy of a city and finding solutions that are relevant to the unique set of historical and urban conditions of a particular city.

The first instalment of this study, the work we undertook last semester, considered the city of London – the largest city in Western Europe in terms of population and built land area. Having expanded rapidly in the nineteenth century, at the beginning of the twentieth century London had the largest population in the world. It is a city that in many ways lacked a coherent concept of urban development. This is in part a consequence of the enormous financial pressure it faces in terms of its size, but also as a result of the Anglo-Saxon tendency to prioritise economic gain over urban legacy and civic grandeur.

The city we will be studying this semester is in many ways the antithesis of London. While Zurich is the largest city in Switzerland, it is a fraction of the size of London. One of the few things both cities have in common is a housing shortage. Although the absolute numbers involved are different, the discrepancy between supply and demand is equally problematic. In Zurich, the typical percentage of vacant apartments at any given moment is 0.05% of the total housing stock.

Working on a number of sites that can be seen as representative of the city's urban characteristics projects will explore realistic and appropriate solutions for the future densification of Zurich. As in the past, our work will be supported by different contributors with relevant expertise.

Central

Low-rise, high-density 2
Jonathan Sergison

This semester we will be working in Switzerland, in the largest single urban area in the country. Zurich has never been subjected to the same pressure to expand the larger European cities have experienced, but today it is facing an acute housing crisis. This growing demand for housing can be attributed to a strong and well-managed economy and niche manufacturing industries, as well as to a large service sector, particularly in connection with the city's role as a global financial centre.

Historically Zurich has grown in a reasonable and carefully considered manner. It was recently deemed to have the second highest standard of living in the world. The careful management of the city's public realm, the efficiency to the public transport system, amongst other factors, contribute to this enviable status. And while Zurich has always been committed to a generous housing programme in terms of provision and space standards, its success can in part account for the difficulties it faces. Supply cannot keep up with demand, despite a number of practical pieces of legislation, such as the barring of non-domiciled individuals from owning property. This kind of local government control would be unimaginable in a city like London, even though it would arguably be very helpful.

For decades Zurich has invested in an extremely thorough form of urban planning that is propositional rather than prescriptive. This means that today every part of the city has been subjected to detailed appraisal and careful consideration has been given to its capacity to grow and develop. This work has been democratically approved, and any refinement or change to the urban codes is also subject to public scrutiny. In the Anglo-Saxon world this planning model would be seen as too inhibiting, but it is precisely because it is so clear that the greatest risk (and the financial uncertainty that derives from it) is removed. The potential any site holds is clearly defined by the urban plan, and local objections might slow the process, but not block a project, provided it conforms to all requirements of the urban plan.

The overwhelming character of Zurich as a city today is that of a very carefully planned city developed according to an overriding sense of reasonableness. It displays few urban surprises, or examples of developments that might have occurred almost spontaneously, in an unchallenged manner. However, it does not contain the same kind of urban disasters other European cities are currently addressing, with differing degrees of success.

We will be looking at a number of sites that typify the urban fabric of the city of Zurich and are currently being considered for densification and

1
Ankerstrasse

2
Elisabethenstrasse

3
Hardbrücke

redevelopment. This will contribute to meet the need to provide a substantial number of new homes over the coming years. These sites are not free of challenges from adjacent sites: potentially noisy neighbouring sites, environmental issues, the need to partially demolish some existing buildings and the dilemma associated with the decision to destroy a building that contains embodies energy.

These points are made because we believe that, if our work is serious and holds the ambition to be in some way at the service of the host city, it needs to address real issues and not only artistic or conceptual ones.

As in the past, the studio will place emphasis on the need to develop reasonable and realistic low-rise, high-density solutions. We will consider the manner in which the existing urban fabric can be extended and consolidated. Priority will be given to the normative as a programmatic consideration. We recognize the need to be inventive and architecturally ambitious, but our work aims, above all, to be humane and appropriate.

1
Stauffacherstrasse

2
Central

3
Nordstrasse

Zurich as we know it today started out as a Celtic settlement on the banks of the river Limmat. Later, it became a Roman village and developed into a flourishing medieval town. By the late Middle Ages the population had increased, new quarters had been built and several monasteries had been established. A major project was the fortification of the town, which took over a century to complete and defined the borders, as well as the general appearance of Zurich for the next 300 years, until it was redesigned as a star shaped baroque fortification in the 17th century.

The size of the town remained constant until 1830, when a liberal constitution came into force and ended the dominance of the guilds, which had been in power since the middle ages. From 1857 onwards, political changes, industrialisation and the construction of the railway lead to vast population growth and changed the face of the city. The fortifications and parts of the old town were demolished. Next to the newly built main station a new quarter with luxury apartments, prestigious buildings and financial institutions were constructed on an orthogonal grid. The Bahnhofstrasse, the main street, connected the station with the newly built lake promenade, while the industrial production sites that remained in the town centre were relocated to a new industrial area outside town, to the west of the station.

By the start of the First World War, Zurich had become a thriving city, with a heterogeneous population and a cosmopolitan atmosphere, where Lenin lived next door to the Cabaret Voltaire, the home of Dadaism. In less than a century the population had tripled and in some of the adjacent municipalities it had grown ninefold. In the municipality of Aussersihl, still a village in 1860, dense urban blocks now gave the quarter its appearance, and the working class, mainly immigrants from Germany and Italy, gave it life.

But there is also a negative aspect to this success story. While a small upper class lived in new and prestigious areas such as Enge, the majority of the population lived in poverty in the Niederdorf and the municipality of Aussersihl. The merging of the city with the surrounding municipalities in 1893 allowed a centralised approach to these inequalities. Zurich had now become a city of more than 100 000 inhabitants, with tramlines connecting the new outlying districts with the centre.

In the years before the First World War, reform movements in Zurich, as in the whole of Europe, were seeking solutions to social problems. Among these, the Garden City Movement is one of the best known.

1
Hofwiesenstrasse around 1950.
Typical cooperative housing, built
in 1932

2
Langstrasse in Aussersihl around
1910

3
Train viaduct in the industrial
quarter and Josefstrasse
around1908

Against this background, the municipality held a competition for strategies to develop Zurich over the next 30 years. The central issues in question are: traffic management (interestingly, the first plans for a suburban railway system were drawn in 1908, but were only implemented some 70-80 years later), the development of a zoning plan, the establishing of public parks and the improvement of living conditions in the old town (Niederdorf and Oberdorf).

An important outcome of this were the vast housing projects built by the Social Democratic municipality during the interwar period. To this end, vast tracts of land within the city were bought (by the '30s, one third of the area was owned by the municipality). Part of this land was then distributed to cooperative building societies. But the influence of the municipality remained far-reaching: they determined the positioning and colour of the housing blocks, and even their floor plans. In contrast to the building blocks of the pre-war period, the new ones were less dense, making it possible to have green spaces in the centre (e.g. Bullingerhof). Where possible, garden cities were built (e.g. Milchbuck and Friesenberg). In addition to these housing projects, cultural facilities, schools and green spaces were planned, and infrastructure was improved.

The second merging of the city with the surrounding municipalities in 1934 formed the basis for the next phase of growth, starting with the end of the Second World War and lasting until the 1960s, when population reached a peak of 440 000. This time, the city grew not only outwards, but also upwards: with Lochergut and later Hardau, high-rise structures were erected. The increase in car ownership led to new priorities in city planning. While in the interwar period the inner city was adapted to local traffic, there was now a need to connect the town to long-distance routes. Paradigmatic of this spirit was the proposed motorway junction in the centre of the town to be built over the Limmat and the Sihl, Zurich's two rivers. In the 1970s this doctrine was reconsidered and pedestrian zones were established in the city centre (e.g. Bahnhofsstrasse). But generally the population of Zurich declined, and any growth at this time occurred mainly in the suburbs.

Since the 1990s, Zurich's population has been growing again (today, it has reached 380 000). Cooperative and social housing projects remain one of the main tools for implementing urban planning policies. But now the focus is on the sustainable use of land: in order to prevent settlements sprawling further out into the countryside, the aim is to increase density within the existing city, and convert former industrial zones into commercial and residential areas (examples of this are Neu-Oerlikon, but also the areas along the railway-lines, such as the Europaallee). Former working-class quarters, as for example Aussersihl and Industrie, are now very popular and quite gentrified. People of different nationalities, students, professionals, 'creatives', and young families live here, attracted by the array of bars, restaurants, boutiques and galleries. As the population is expected to grow by 40 000 inhabitants by 2030, the main issue in urban planning today is how to achieve a sustainable densification without compromising the quality of life.
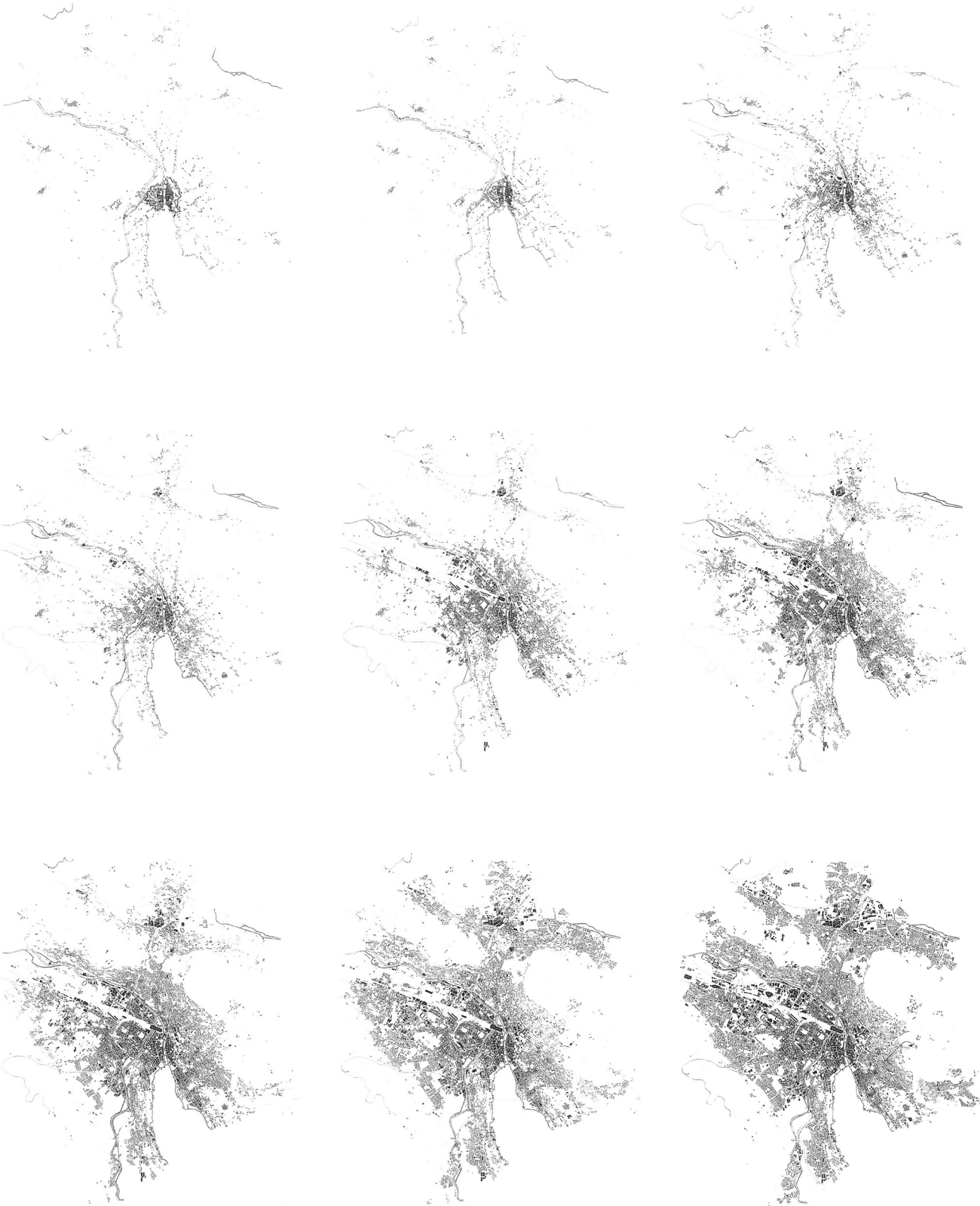
Top row
Zürich with the baroque Fortification (1825), it's demolition (1845) until the merging of the city with the sourrounding municipalities in 1893 (1885).

Middle row
The rapid growth of Zurich in the first half of the last century (1900, 1915 and 1930)

Bottom row
Development of Zurich from the second World War to date (1945, 1960 and 1990)

The first component of the work to be undertaken this semester requires you to develop a strategy plan. This can be understood as a typological and massing study. The principal tool to assist in this exercise will be a 1:500 model which will also enable your project to be placed within a wider context.

We ask you to begin by exploring numerous solutions that would ensure that the site you are studying can be developed to a reasonably high density. Each study or option you propose should be critically appraised and tested in terms of the density that it yields, and then refined or discarded.

This work should be understood as an interactive process that will begin to develop the idea for the project you will be working on throughout the semester.

A seminar will be offered to introduce this piece of work.

1

2

4

1
Ausstellungsstrasse

2
Zollstrasse

3
Badenerstrasse

4
Weststrasse

3

1 Ausstellungsstrasse
2 Zollstrasse
3 Badenerstrasse
4 Weststrasse

In this studio we hold the position that invention is a necessary ambition in architecture, but it rarely emerges through a spontaneous intuitive impulse. Typically, an architect can only make a truly unique proposal after many years of study and reflection. It is even questionable if true originality can ever be achieved, given the wealth of built work in the history of architecture.

To assist your understanding of the task you are attending to this semester we would like you to undertake a survey of an exemplary housing building in Zurich. It should be noted that the production of the last 20 years in Zurich and the German speaking part of Switzerland has resulted in some of the very best examples of contemporary urban housing anywhere in the world.

Your work should consider the plan organisation of the building. You should be able to describe it clearly and analytically, employing diagrams where necessary. Additionally, a measured survey of the facades as they exist should be produced. This requires you to look very carefully at the building, making sketches and taking photographs as a way of recording the condition of the building. We also ask you to make a precise photographic portrait that conveys the atmosphere of the building and the manner in which it is situated in the city. Finally, where possible, we ask you to make a photographic portrait of an internal space and record the relationship of the building's interior with the city outside.

A seminar will be offered to introduce this piece of work.

1 2 3

4 5

6

7

1
Atelierhaus Wuhrstrasse, Ernst Giesel, 1953-54

2
Stadtvilla Seestrasse 49, architect unknown, ca. 1900

3
Heiligfeld 3, A.H. Steiner, 1954-55

4
Wohnüberbauung Klee, Knapkiewicz & Fickert, 2008-2011

5
Wohngebäude Riffraff, Staufer & Hasler with Meili, Peter Architekten, 1999-2002

6
Hohlstrasse 78, Peter Märkli, 2005

7
Wohnüberbauung Pflegiareal, Gigon & Guyer, 2002

Third exercise: Atmosphere/Image

The next piece of work you will need to undertake requires you to produce two images. The graphic technique to be employed is not prescribed, although you should be able to explain why you consider the technique you have chosen appropriate.

These images should represent the atmosphere and the presence of your building. One of the images should represent the exterior of the building and the relationship it has with the existing urban context. The other image should convey an interior space and ideally represent its relationship with the city.

A seminar will be offered to introduce this piece of work.

Project perspective by Matthew Bailey and Vitor Pessoa Colombo

The results of the previous exercises should now be re-appraised and drawn upon to make the next instalment of this semester's work. We would now like you to develop a more precise concept for a building or series of buildings on the site chosen for your work. The principal tool we ask you to employ is a 1:200 model. This should include a sufficient representation of the wider context of your site, also modelled at 1:200.

The emphasis of your work should be to critically appraise and further refine earlier studies. While a model will be the principal piece of work, we expect that your project should be developed with study plans, elevations, sections and sketches. It is important that the density of your project is also measured.

At this stage in the semester your work will be subject to a review.

Fifth exercise: Plan

While at this stage in the semester you should already have developed a rudimentary understanding of your project in plan, we now ask you to develop and test this more precisely.

Your plan studies should be undertaken at a number of scales and should consider the circulation concept for the building and the distribution of residential and non-residential programmes. You will need to develop a proposal for apartments, considering their number, variety and internal organisation. You should undertake this work by also reassessing the interior image made earlier in the semester.

A seminar will be offered at this stage of your work.
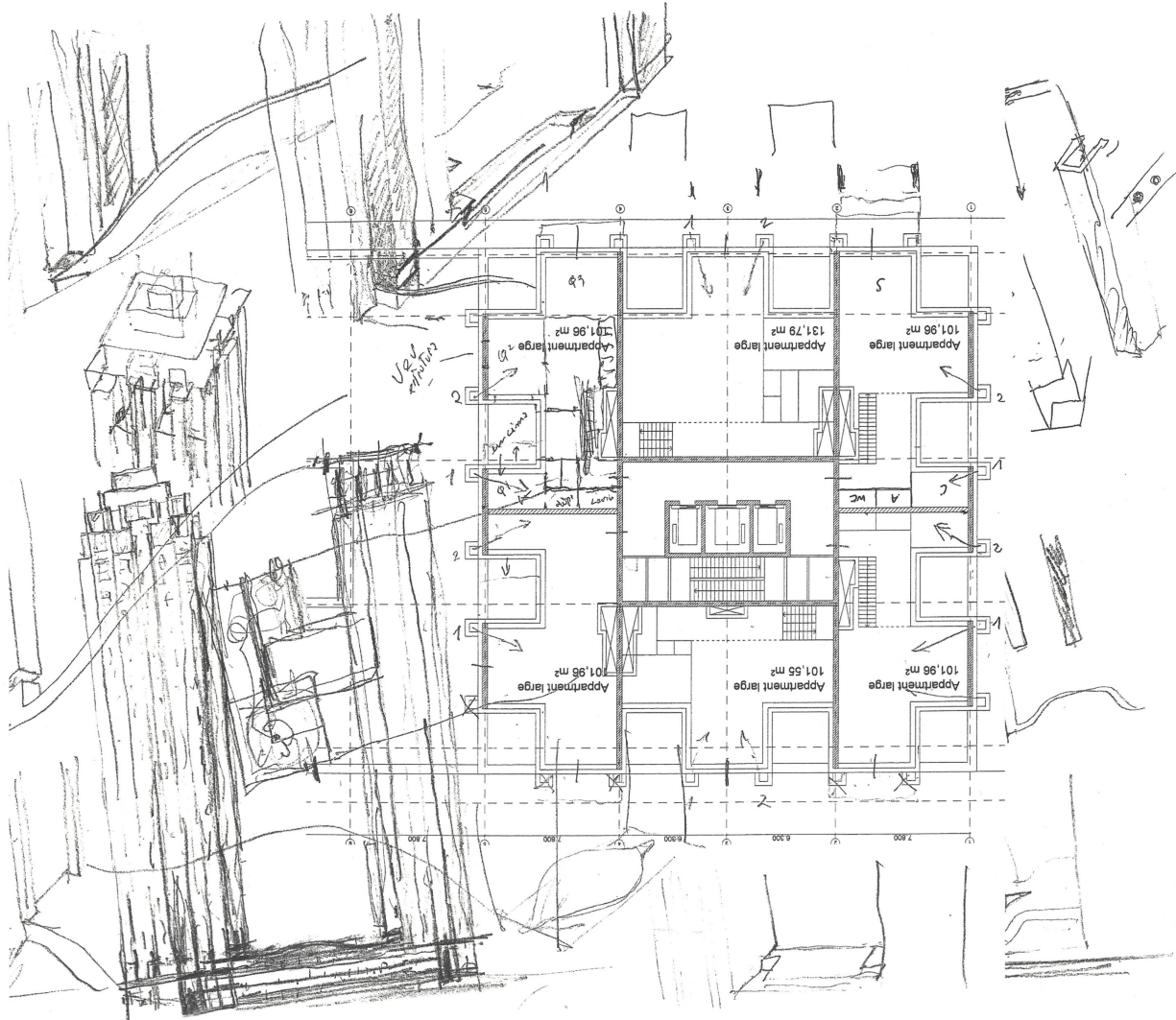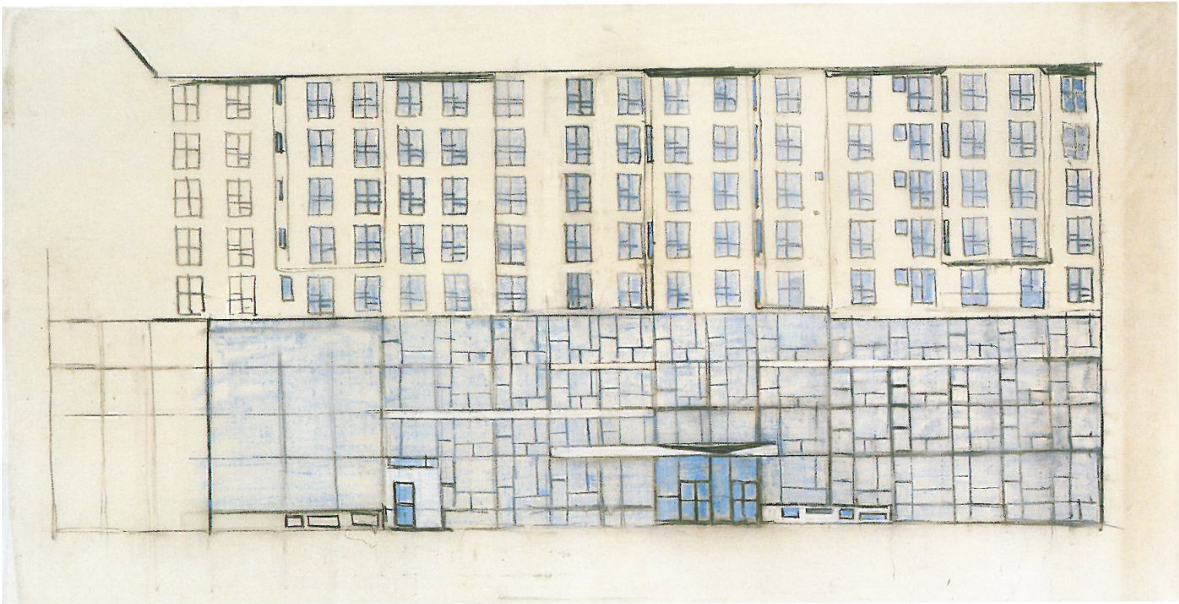
Sketch by Alvaro Siza

This piece of work will require you to re-appraise the study you made earlier of the image of your building in the city and consider the idea for the elevation. Your façade studies also need to take account of the work done in the fourth and fifth exercises and the understanding you now have of the formal properties of your building and its organisation in plan.
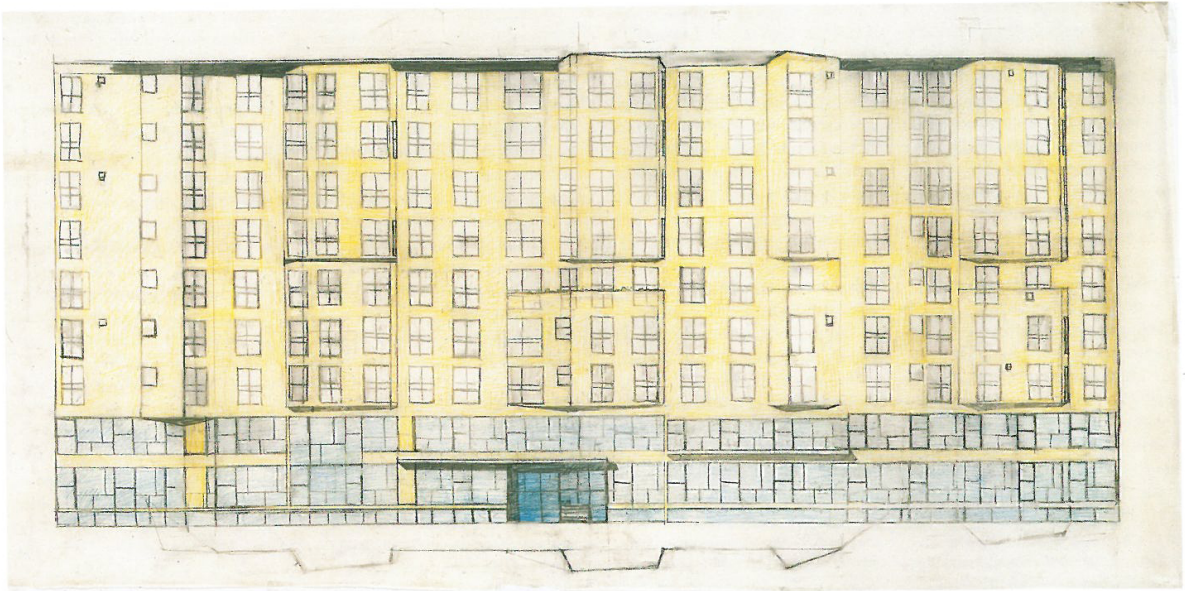

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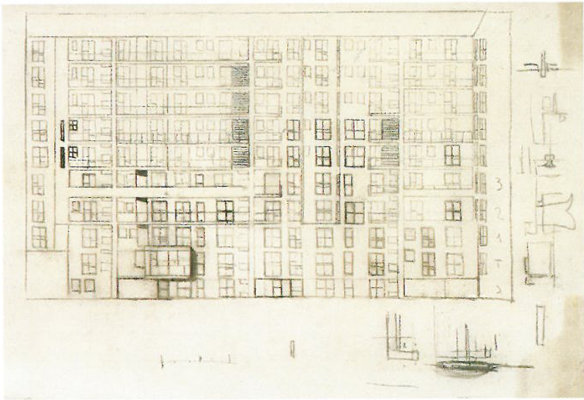
3

1-3
Drawings by Claudio Vender, apartment building on Piazza Santissima Trinità 6, 1967

2

Date	Event	Details	Assignments
23 February	Studio introduction		
24 February	Studio briefing	Jonathan Sergison (JS) presents studio and autumn semester. Lecture by JS: "Low-rise, high-density". Studio trip briefing and introduction: "How to make a survey of a building" by SM Lecture by CW: "The urban character of Zurich" Lecture by Georg Nickisch: "Illustrating architecture"	Allocation of sites Start work on 1:500 group model
1-4 March	Study trip to Zurich	Please see separate programme for detailed information	
8-9 March	Review	Review of survey studies and first ideas of urban strategy Lecture by JS: "Ideas of buildings"	Survey analyses 1:200 survey drawings 1:500 model studies
15-16 March	Review	Review of urban strategy Revision of survey drawings	Images of building 1:500 block model
22-23 March	Review	Review of interior and exterior atmosphere perspectives	Interior and exterior perspectives 1:500 block model
29-30 March	1st intermediate review	Project reviews with guest critic Lecture by Stephen Bates: "Density"	1:500 block model 1:200 model studies Interior and exterior perspectives Facade and plan studies
5 April	Tutorials		1:500 block model 1:200 model Interior and exterior perspectives Facade and plan studies
12-13 April	Easter holidays		
19-20 April	Tutorials	Lecture by JS: "Plans"	1:200 plans and sections 1:100/1:50 typical apartment plan

Date	Event	Details	Assignments
26-27 April	2nd intermediate review	Review of plans with guest critic	1:200 plans and sections 1:100/1:50 typical apartment plan Facade studies
3-4 May	Review	Review of elevations	1:200 elevations
10-11 May	Review	Review of final drawings	1:200 plans and sections 1:200 elevations 1:100/1:50 typical apartment plan
17-18 May	Tutorials	Submission of final drawings	Start final model
24-25 May	Tutorials		Final model Prepare presentation
29-30 May	Final review	Invited critics	1:500 site model 1:100 model 1:200 plans and sections 1:200 elevations 1:100/1:50 typical apartment plan Interior and exterior perspectives Sketches and references pdf presentation

L'Architettura della città
Aldo Rossi, Marsilio, Padova 1966

Das Haus und die Stadt / The House and the City
Diener & Diener, Städtebauliche Arbeiten/Urban Studies
Roger Diener, Martin Steinmann, Birkhäuser, 1995

Dichte / Density
Archithese, Niggli Verlag, 2011

Forme forte
Martin Steinmann, Birkhäuser, 2003

The seduction of place: the city in the 21st century
Joseph Rykwert, Weidenfeld & Nicholson, 2004

Papers 2
Jonathan Sergison and Stephen Bates, London, 2000

Building Zürich
Franz Eberhard und Regula Lüscher (Hrsg.), Birkhäuser Verlag, 2007

Zürich wird gebaut - Ein Führer zur zeitgenössischen Architektur 1990-2010
Hönig und Roger Frei, Verlag Hochparterre und verlag Scheidegger &
Spiess, 2010

Wohnen in Zürich - Reflexionen & Beispiele 1998-2006
Axel Simon (Hrsg.), Niggli AG, 2006

Mehr als Wohnen - gemeinnütziger Wohnungsbau in Zürich 1907-2007
gta Verlag Zürich, 2007

Metropolitanregion Zürich - der Zürichsee als Projekt ETH Studio Basel
Roger Diener und Marcel Meili, gta Verlag, 2008

RES - räumliche Entwicklungsstrategie des Stadtrats für die Stadt Zürich
Hochparterre & Amt für Städtebau der Stadt Zürich, 2011

Dichter - eine Dokumentation der baulichen Veränderung in Zürich -
30 Beispiele
Stadt Zürich Hochbaudepartement Amt für Städtebau (Hrsg.), Amt für
Städtebau Zürich, 2012

Die Disziplinierung der Stadt - Moderner Städtebau in Zürich 1900 bis 1940
Daniel Kurz, gta Verlag, 2008

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