

Studio Sergison
Autumn Semester 2015

Block and courtyard



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Berlin, aerial view

Introduction

This semester we will begin a year-long investigation into the manner in which type can generate an urban and architectural response. In the first instance we will be working in the German capital, Berlin, and will consider block and courtyard buildings and the ways in which they can be employed as a contemporary means of repairing the existing urban fabric. This building type has been the dominant one in this city and was reappraised in the work undertaken as part of the restructuring of Berlin the 1980s, the so called IBA programme. Our intention is not driven by a nostalgic intent, but rather by the desire to consider the potential of older housing solutions for meeting contemporary needs.

While Berlin is growing in demographic terms, it was historically much larger than it is today. At the end of the nineteenth century its extension was comparable to that of London and Paris. The considerable damage it suffered in the Second World War has by no means been repaired, and the large land surface the city occupies is built to a relatively low density. A number of sites have been selected for our project work this semester, all of which offer the opportunity to add to and complete existing damaged urban blocks.

Our work will investigate strategies for developing sites by using the courtyard building type. The emphasis of your work will be on normative, predominantly housing programmes.

As in the past, many experts on the issues that we will be exploring this semester will support the studio.



Hackesche Höfe courtyard

The German term, Mietskaserne does not translate easily into English. It means 'tenement' or 'rental barracks' and is particularly associated with Berlin. In Werner Hegemann's polemic, 'Das steinerne Berlin', the whole city is referred to as the largest tenement city in the world.

The Mietkaserne, or urban blocks with courtyards were built between 1860 and 1914 as a way of housing the growing population of Berlin, particularly after the unification of Germany in 1871. They were contained within a large enclosing ring, the so called Wilhelmian Ring.

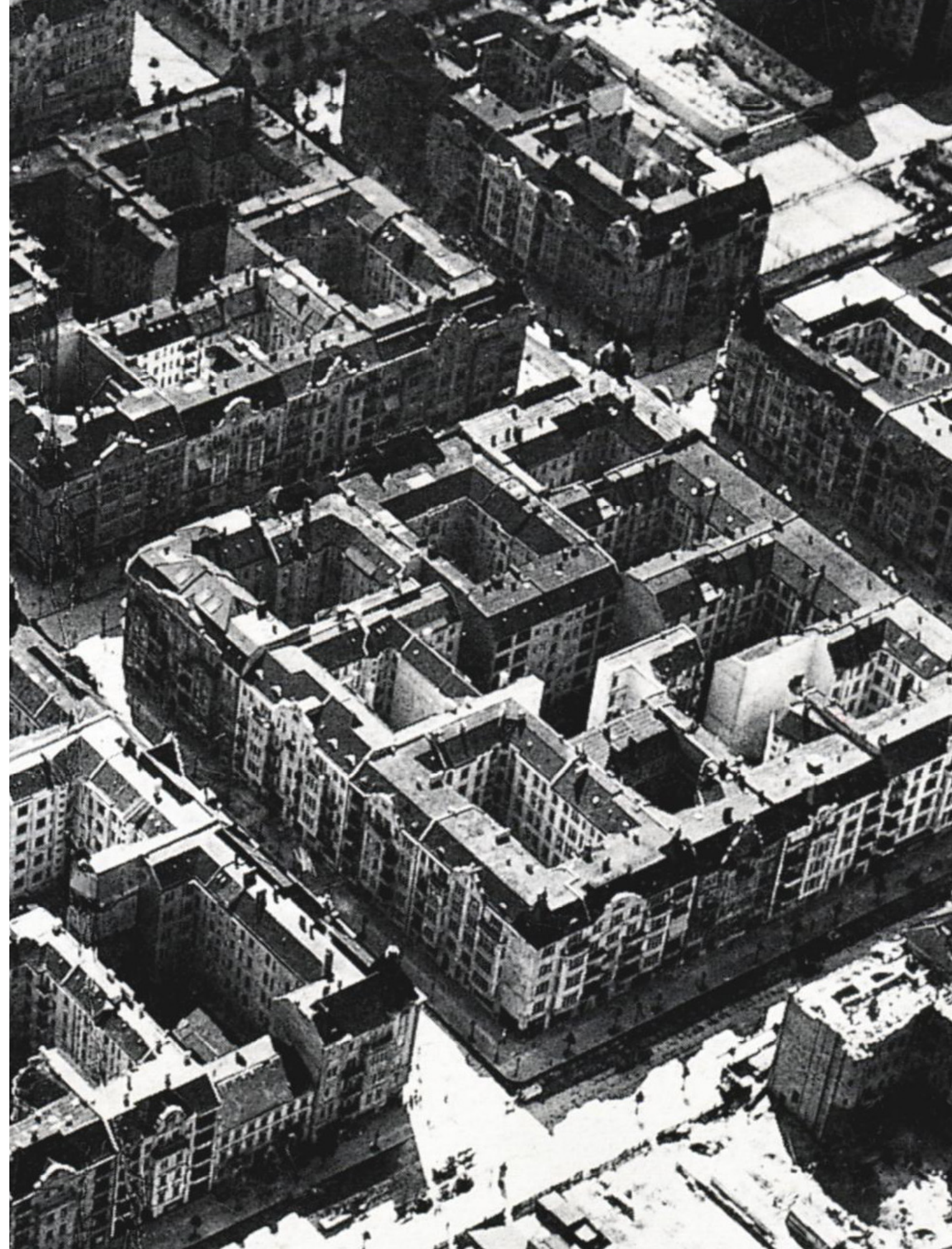
Buildings were generally limited to five storeys in height, a legal restriction based on the number of floors it was deemed reasonable to climb. The blocks were large because it was necessary to allow a fire truck to turn around within the inner courtyards. Often the buildings within the courtyards would house industrial units, which had a detrimental impact on the apartments facing onto the courts.

The block and courtyard housing type is the dominant urban housing solution in central Europe and can be encountered in cities as diverse as Zurich, Vienna, Milan, Paris and Prague. In Berlin, as in other cities, it acquired its own unique character.

Studying the pre-1940 plans and photographs of Berlin we encounter a vast urban landscape covering many hundreds of hectares. The damage inflicted upon the city during the Second World War, particularly in the later stages of the conflict, saw the destruction of a substantial part of the city. During the intervening years there has been a substantial programme of rebuilding, although the division of the city into east and west until 1989, meant that this was somewhat limited in scale. Today Berlin is a city of voids, with many empty spaces and gaps in its urban fabric, and this gives it a unique character amongst European cities.

While there are more recent examples of high density re-development, Potsdammer Platz being an obvious one, much of the rebuilding of Berlin has occurred in a piecemeal manner, is low rise, and small in scale. The task this semester will be to design projects that explore strategies for the repair and completion of a number of currently fractured urban blocks.

Mietskasernen, Berlin around 1900





1
Gartenstrasse, Prenzlauer Berg
2, 4
Oderbergerstrasse, Prenzlauer Berg
3
Riehmers Hofgarten, Kreuzberg



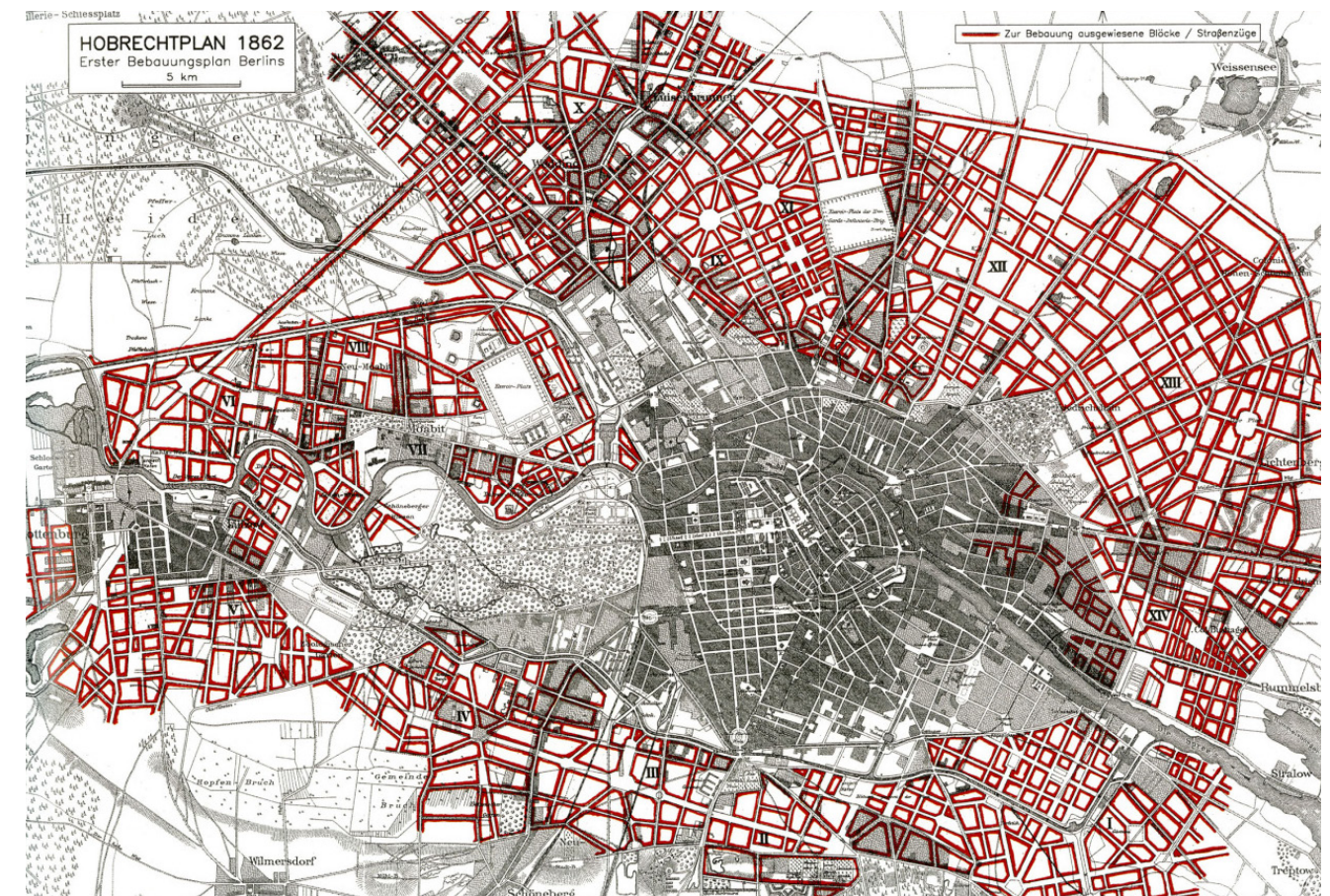
James Hobrecht (1825–1902) created what continues to be the core of the German capital to this day: the urban development plan that, during the Kaiser era, turned Berlin into the “largest tenement city in Europe”, together with a sewer system that was to establish itself as the most resilient network in the city. Following a significant period in which the tenement model was held to be an example of inhuman construction, Hobrecht’s work is now generally acclaimed. Attempts are now underway to rebuild the *Gründerzeit* city.

James Hobrecht – whose first name indicates his English descent – was born in 1825 in East Prussia, the second of five children. He broke off his studies in agriculture, working initially as a surveyor and moved to the Prussian capital in 1847 to pursue his studies at the *Bauakademie*. A year later, the revolution broke out. As a national liberal fighting on the side of the rebels, Hobrecht remained a child of the 1848 revolution for the rest of his days, marked by his experience that seemingly immovable circumstances can be brought into motion, and that the freedom and self-determination of the people were no longer abstract formulations.

It is against this background that the development plan of 1862 should be seen, conceived by Hobrecht as the government’s master builder on behalf of the Berlin Chief of Police. The fact that the population of the city had doubled in scarcely 25 years led him to extend the municipal area by five and half times its size. Hobrecht developed a street plan interspersed by squares at relatively regular intervals. The streets were 72 feet in width or wider, and were laid out decoratively according to designs by the garden artist Peter Joseph Lenné.

A minimum of rules enabled a maximum of urban growth: with the coming into force of the development plan, scarcely a decade passed before the population of Berlin had doubled again. Hobrecht favoured tenements buildings because they allowed the “recommendable mixed habitation” of rich and poor – the richer inhabitants on the *piano nobile* at the the front of the complex, poorer citizens in the roof and cellar apartments and at the rear.

The cohabitation of different social classes did not last long. In addition, living in such close proximity soon endangered the health of the tenements’ inhabitants: over one thousand people died each year from typhus alone, mainly due to the fact that excrement was collected in cess pits, which became breeding grounds for infection. Hobrecht pressed for hygiene to become a primary concern for a number of years, and in the 1860s, as construction counsellor of Stettin, he was able to plan and build the sewage and water supply systems for the city. With this precedent and the support of the doctor and politician Rudolf Virchow, in 1872 he was commissioned to construct a similar system for Berlin. Four years later the sewage system was opened, and later completed in 1907. In contrast to systems such as that in use in London, the sewage was not channelled into rivers from which drinking water was drawn, but employed as fertiliser for agricultural fields. Through the development of this concept, Hobrecht became a leading and recognised urban engineer for more than 30 German towns and cities, and developed similar plans for Moscow, Cairo and Tokyo.



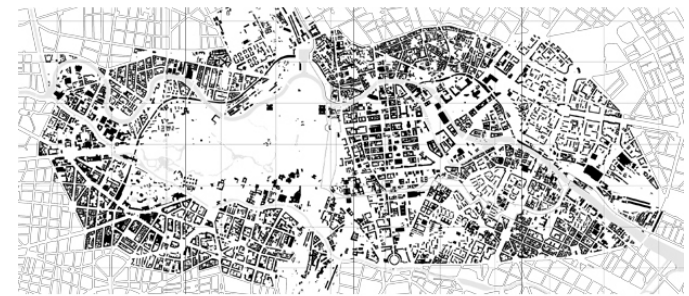
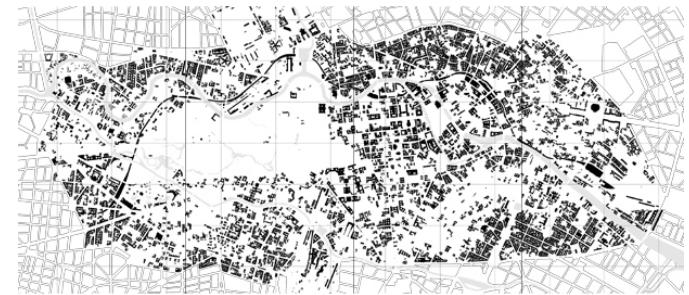
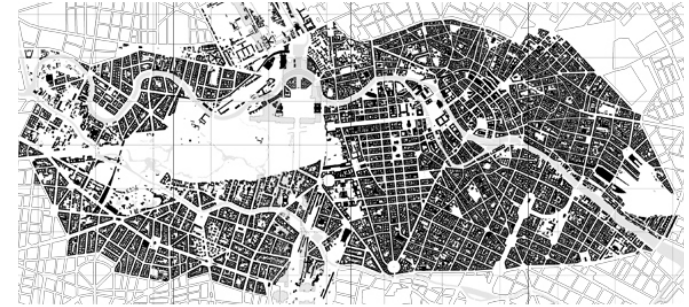
The Hobrecht Plan, 1862



1



2



3

1
Street view , circa 1900
3
War destruction, 1945
4
City plans 1943, 1945,
1953, 2015

In spite of the destruction brought by war and subsequent demolitions, the appearance of a large portion of inner-city Berlin remains heavily influenced by one type of building: the Berlin apartment block. The origins of the building lie in the eighteenth century, when landowners began to develop rear courtyards for residential purposes. Over the course of time, side wings were added. Later the construction of apartment blocks adopted the pattern of erecting a front building with side wings and cross buildings.

As the apartment block were virtually the sole form of housing in the nineteenth century, the result was a mix of various social classes in the front and rear house that was typical of the city. The overwhelming majority of Berlin apartment blocks were constructed during the period of rapid growth experienced by the city in the prescribed last two decades of the nineteenth century. Their form was greatly influenced by the Hobrecht Plan, which prescribed the street plans and specified the minimum size of the courtyards. By 1887, these were only 17.40 x 17.40 feet in size- sufficient for fire trucks to turn around. As a consequence, Berlin had the highest population density of all European metropolises.

Living conditions in the overcrowded, often squalid apartment blocks were subjected to heavy criticism from contemporary sources, which lie at the root of the Modern Movement's hostility. It was not until 1925 that side-and cross-wings were outlawed in new building regulations. Apartments varied from district to district in layout and comfort. In Charlottenburg or Wilmersdorf, where working class districts had more interconnected courtyards and extremely small apartments, large middle class houses were erected, with green courtyards and apartments of more than a dozen rooms. Floor height also varied. The older apartment blocks have patterned facades, whereas street frontages were later decorated in Gothic, Renaissance or Baroque style or a mixture of all. After the second World War, one of the urban planners' primary objectives was to replace the much criticised apartment blocks with new, modern apartments. In the 1960s and 1970s, in the course of the *Kahlschlagsanierung* - the process of razing entire areas - whole districts were torn down.

This ignored the fact that many inhabitants actually liked living in the old apartments and only wished to modernise their kitchens, bathrooms and heating. Older apartments, once renovated, remain among the most popular forms of housing amongst all sectors of the population to this day. The century-old floor plans have proved their extreme flexibility over the course of the years.

One of the saddest chapters in the construction history of Berlin is the "destucco-ing" of the tenement houses. In the 1960s and 1970s, both in the East and West, around three quarters of all old housing stock had the stucco hacked off – the perpetrators being both housing associations and private owners. The reasons given for this include a belief that a "simplified" facade would be cheaper to maintain, as well as more ideological arguments about the stucco being a remnant of an abominable era. In the words of Hans Scharoun, the architect of the Philharmonie: "The stucco on the walls is the stucco in our heads". No other city has treated its history with such brutality.



1
Tenement houses, circa 1900

2
Interior, circa 1900

Project sites

Moabit, Berlin





MÖBEL

MÖBEL NACH MASS

FR XP 211

B PR 7575

B ES 8

First exercise: Study of an apartment

We all have experience of what it means to live in an apartment. Many of you probably find yourself starting this day in an apartment, a horizontally arranged dwelling with a number of rooms serving different purposes - sleeping, cooking, and so on. We would like you to explore in greater depth what it means to live in an apartment and how the structure and atmosphere of a dwelling affect the way we inhabit a space or collection of spaces.

We ask you to choose an apartment, preferably not your own, but one you can gain access to. Once you have selected it, you are asked to study a space or a collection of rooms and find a good angle for photographing it, being careful with the light level and composition of the photograph.

You will then be asked to make a model of the room(s) at a scale of 1:10 based on a print of the photograph you took. The model should accurately recreate everything that can be seen in the print.

Having done this, you are asked to photograph the model you have made. Care should be taken to recreate the lighting levels and atmosphere you observed in the room you selected, as illustrated in the photograph you took.

You will then need to take a photograph of the model and print it at the same size as the original print.

An introductory talk will explain how to carry out this first assignment.



2



1

pages 18 and 19
Tenement houses in Kreuzberg, Berlin

1
Model of interior
Tudor Munteanu

2
Photograph of final model
Tudor Munteanu

Second exercise: Survey

In this studio 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 make a truly unique proposal after many years of study and reflection. It is even debatable whether true originality is achievable.

To help you understand the task you are attending to this semester, we would like you to undertake a survey of one of a number of courtyard buildings we have selected. We believe that by doing this you gain a deeper understanding of the qualities of an existing building, a useful corrective to the belief that it is possible to invent spontaneously. The information recorded in your survey will be drawn upon and referred to throughout the semester and will potentially inform your work later.

You should consider the plan organisation of a block and will be expected to describe it clearly and analytically, employing diagrams where necessary. You should concentrate on understanding the quality and arrangement of a facade by drawing on a measured survey of an existing series of elevations. This will require you to look very carefully at buildings, making sketches and taking photographs as a way of recording their condition.

We also ask you to make a precise photographic portrait that conveys the atmosphere of the buildings and the manner in which they are situated in the city. You might also make a photographic portrait of an internal space and record the relationship of the building's interior with the city outside.

A lecture will be offered to introduce this exercise.



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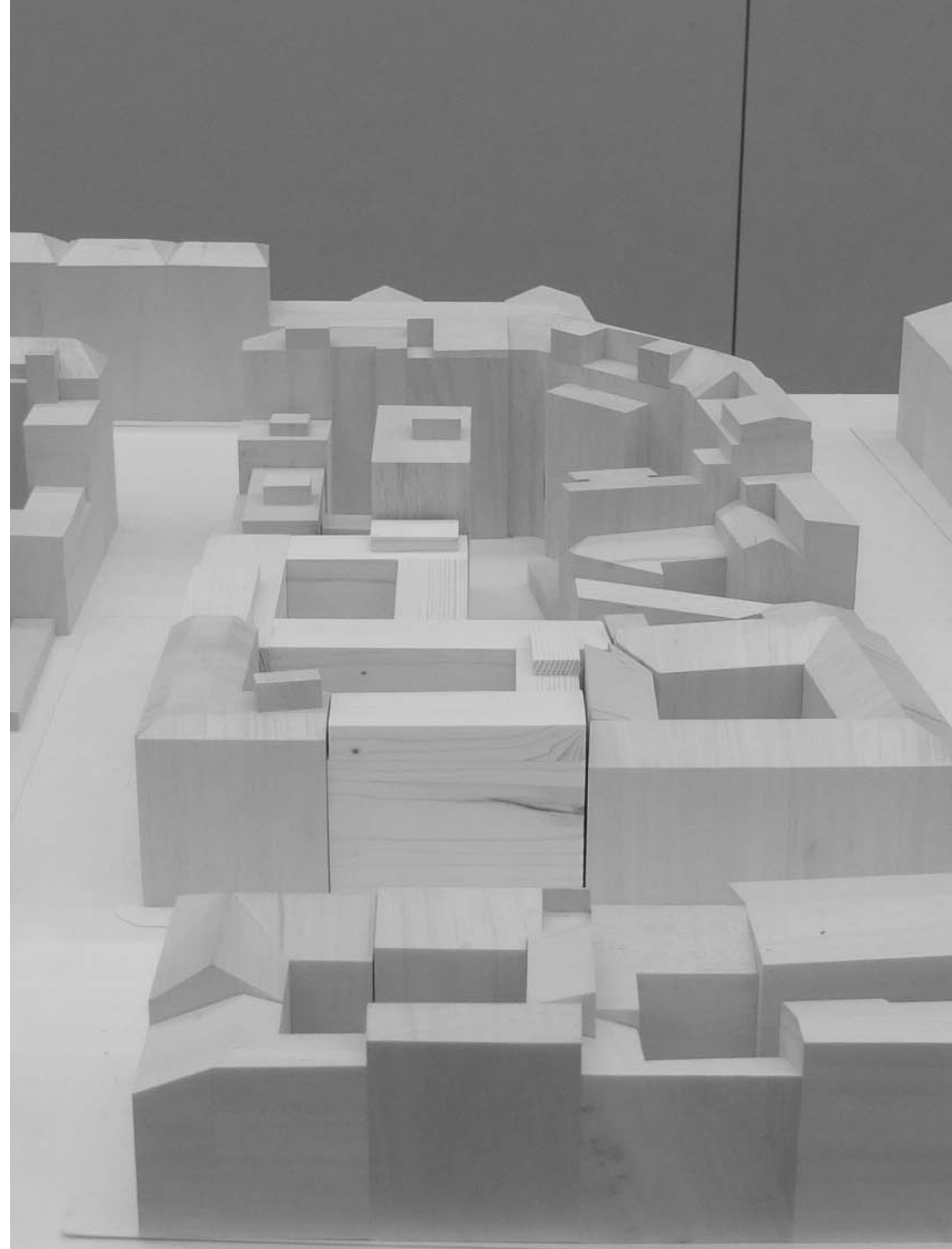
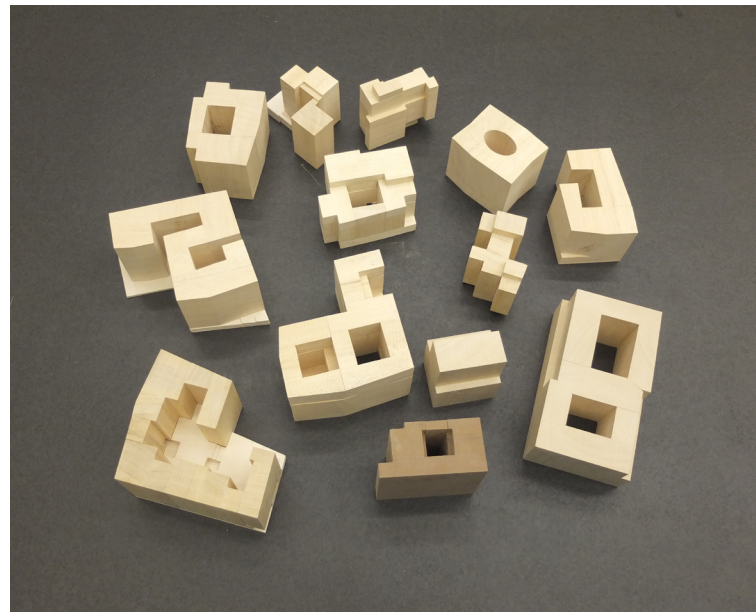
Third exercise: Strategy plan

The third 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 you in this exercise will be a 1:200 model. This should encompass a wider area of the neighbourhood in which your site is located.

We ask you to begin by exploring a number of solutions that would allow the site you are studying to be developed to a reasonably high density through the introduction of courtyard blocks. Each option you propose should be recorded photographically and then critically appraised and tested to determine the density it yields. This should be further developed and refined or discarded as appropriate.

This work should be understood as an iterative process that will begin to develop the idea for the project you will be working on throughout the semester. You should use the study trip to Berlin as an opportunity to understand the scale and existing urban structure of the city.

A lecture will be offered to introduce this exercise.



Fourth exercise: Atmosphere and image

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

The images should represent the atmosphere and the presence of the building you propose. One of the images should represent the exterior of the building and its relationship with the existing urban tissue, the project site and its immediate context. The other image should represent the interior of a block and its qualities as a semi-public, semi-private space.

A lecture will be offered to introduce this exercise.



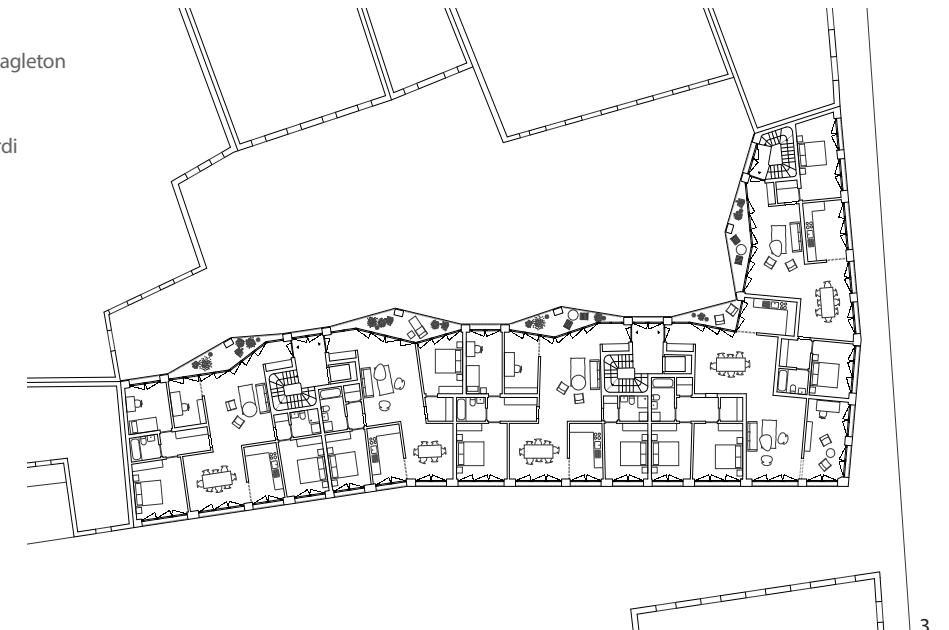
Fifth exercise: Building concept

The results of the previous studies should now be re-appraised and drawn upon for the next phase of this semester's work. We now ask you to develop a more precise concept for a block with courtyard(s) focusing on the relationships they have to one another and to the wider context. The principal tool we ask you to employ is a 1:100 study or sketch model which should include an appropriate amount of context. This is really the beginning of the key piece of work you will produce this semester. We are interested in the qualities contained in the buildings you design and the way they are expressed through the organisation of the facades.

The emphasis of your work should be on critically appraising and further refining earlier studies. While a model will be the main product of your work, we expect that you develop your project through study plans, elevations, sections and sketches. It is also important that the density of the project is measured.

At this stage in the semester your work will be subject to an intermediate

- 1
Study model
Andrea Scognamiglio and David Eagleton
- 2
Interior model
Lorenzo Fassi and Gabriele Gagliardi
- 3
Floor plan
Carmen Van Pamel



Sixth exercise: Facade concept

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 a scale of 1:100 as an unwrapped elevations and translated into three-dimensional models. This work should be undertaken with a clear concept of the image of your building. 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? There are numerous additional questions you should be asking yourself about the facade.

A seminar will be given to assist you in understanding this exercise.



1
Facade model
Andrea Scognamiglio and David Eagleton

2
Elevation
Andrea Scognamiglio and David Eagleton

3
Elevation
Alexandre Figueiredo Canario and Jie Zhang

As a convincing set of ideas for your buildings emerges, you will need to produce a careful set of drawings of some of the facades you have developed. You will also be expected to produce a number of sections at a scale of 1:100.

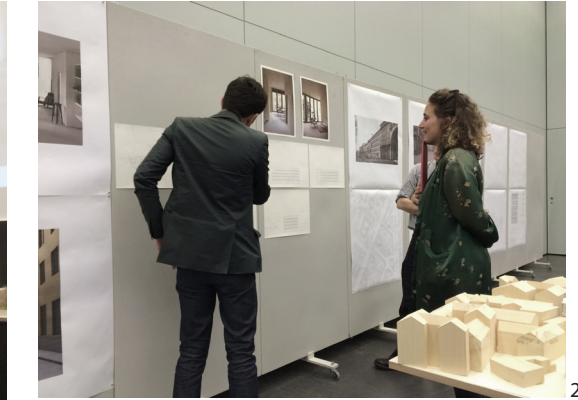
This semester, less emphasis has been placed on the study of plans, which should be drawn at a scale of 1:200 and should provide a rough indication of how vertical circulation is organised, where entrances are placed, and the distribution of apartments (although these need not be exhaustively studied in plan). Consideration should be given to the repetition and variation of apartments and other programmes that might be introduced, especially on the ground floor.

A landscape plan should be produced at a scale of 1:200 to explain the idea for the landscape surfaces and your approach to hard and soft elements and to the public realm in general.

The main piece of work should be the making of a 1:100 model of all or a large part of the area of your strategy plan, giving careful consideration to the selection of materials.

Two further 'atmospheric' perspectives should be produced of the final version of your project.

Finally, you should prepare a pdf or Powerpoint presentation of your project. This is an important tool for presenting your project, explaining the development of your work and the strategy you have selected at the final reviews.



1-3
Final reviews
Spring semester 2015

Date	Event	Details	Assignments
17 September	Studio introduction		
18 September	Studio briefing	Autumn semester studio presentation by Jonathan Sergison (JS). Lecture on surveying a building by Lea Prati (LP). Lecture on Berlin by Philipp Knorr (PK). Screening of Wim Wender's "Wings of Desire".	Photographs of apartment Preparation for 1:500 model
24-25 September	Tutorial	Presentation of chosen apartment Lecture by JS on "Block and courtyard"	Interior photograph
01-04 October	Trip to Berlin	Trip to allocated project sites Survey studies Detailed programme to be issued	Survey photographs and drawings
08-09 October	Review	Review of photographs and survey drawings	Apartment photograph Survey photographs and drawings
15-16 October	Tutorial	Review of initial ideas for building Lecture on perspectives (LP & PK)	1:500 site model Initial ideas for building
22-23 October	Review	Review of strategy plan	1:500 site model Initial ideas for building
29-30 October	Review	Atmosphere image	Interior and exterior perspective
05-06 November	Tutorial	Building concept review of model, plans, sections and elevations	1:200 model studies, plans, sections and elevations
12-13 November	Intermediate review	Project reviews with guest critics	Ideas for a strategy plan 1:200 model 1:200 plans sections, elevations Perspectives 1:500 models
19-20 November	Tutorial	Review of plans, sections elevations and perspectives	1:200 plans, sections, elevations 1:200 models
26-27 November	Review	Facade studies	1:100 plans, sections, elevations 1:100 models

Date	Event	Details	Assignments
03-04 December	Tutorial	Review of facades	1:100 / 1:50 facades 1:100 plans, sections, elevations
10-11 December	Review	Plans, sections, elevations Submission Final interior and exterior perspectives	Submission of final plans 1:100 plans, sections, elevations
17-18 December	Final review		Pdf presentation 1:500 model 1:200 model 1:200 ground floor plan 1:100 plans, sections and facades Interior and exterior perspectives

Reading list

- The city in the city-Berlin: a green archipelago
O.M.Ungers et al., (Cornell University, 1977) Lars Müller, 2013
- Fragments of the European city
Stephen Barber, Reaktion Books Ltd, 1995
- Architektur Schein und Wirklichkeit
Hans Kollhoff, zu Klampen Verlag, 2014
- Fragments of Metropolis
Christoph Rauhut (ed.), Hirmer Verlag, 2015
- Metropolisarchitecture: Ludwig Hilbersheimer
Richard Anderson (ed.), Columbia University Press, 2012
- O.M.Ungers-Architekturlehre-Berliner Vorlesungen 1964-66
Nikolaus Kuhnert (ed.), Archiplus no.179, May 2006
- Bruno Taut - Meister des farbigen Bauens in Berlin
Taschenbuch, 2005
- Berliner Architektur der 20er Jahre
Ludwig Hilbersheimer, Florian Kupferberg Verlag, 1967
- Berlin und seine Bauten (series)
Architekten- und Ingenieur-Verein zu Berlin, since 1877
- Der Eckgrundriss - Stadthäuser
Georg Ebbing and Christoph Mäckler. Deutsches Institut für Stadtbaukunst, Niggli, 2004

References

- 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
- The Seduction of Place: the City in the Twenty-first Century
Joseph Rykwert, Weidenfeld & Nicholson, 2000
- Die Stadt im 20. Jahrhundert. Visionen, Entwürfe, Gebautes
Vittorio Magnago Lampugnani, Wagenbach Verlag, Berlin, 2010

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