“the urban leftover”
open corner situations in the downtown area of berlin
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A synopsis of the Berlin Block and the phenomenon of the open comer:

In the 18th century Berlin’s urban layout was dominated by a block-grid, the so-called “Gruenderzeitblock”. The functional characteristic of this Block was a the mix of dwellings and commercial uses.

During the period of industrialization at the beginning of the last century, many people migrated to the urban setting of Berlin. The high demand for places to live required that space was used as efficiently as possible. An extremely high density was reached by organizing the block in sequences of up to nine courtyards in a row.

In the beginning of the 19th century, the “IV Construction Regulation Plan” (”Bauordnung”) and “General Zoning Plan” (“Bebauungsplan”) tried to regulate the construction boom in Berlin. The maximum height of buildings was then limited by the width of the street to a maximum of 22m (66 feet) space. The aspects of light and sun became important only in apartments facing the street, typically occupied by upper income families. Regulations for the lower quality courtyard apartments were less concerned with sanitary issues but primarily fire regulations.
After the First World War new ideas in art, architecture, and urbanism emerged in Europe. In Berlin for example, large scale projects were developed, based on a new social aesthetic relieved from tradition. A new type of dwelling typology was proclaimed, rejecting the historical block structure and "Mietskaserne" portraying the blocks as a bleak and inhuman environment with substandard living conditions.

One new of the types of urban housing favored a linear arrangement "Zeile". Through its linearity maximization of light, sun and air and the establishment of public green spaces promised a significant improvement over the traditional block structure.

Combined with indoor plumbing, each apartment received the same amount of daylight, setting completely new standards of living. These early projects, with high architectural standards, offered radical innovations for their time, which the later rapidly constructed postwar housing projects -although similar in their premise—rarely could accomplish.

After World War II, Berlin was almost completely destroyed, and reconstruction of the city's infrastructure was necessary. One year after the war, the first reconstruction plan was developed under the direction of Architect Hans Scharoun. He based the project on the modern ideas developed in the 1920ies combined with the recommendations of the "Congress Internationaux d' Architecture Moderne" (CIAM), which focused on new strategies of urban and social development.

In Berlin, the urban situation was strongly characterized by the political separation of the city and the attempt to deny visual associations with recent history. This new urban ideal refused the traditional block structure. Several urban competitions took place to find new strategies for the reconstruction of the city.
Common to these proposals was to reduce the allowed percentage of lot coverage, so that more open space was provided. No distinction was made between the lots following the street and the lots located at a corner position. This undifferentiated rule and combined with the fact of constructing new linear building types is responsible for many “open corner” conditions in Berlin. In addition to this rule, Mrs. Klegin, a government official in the building administration of Berlin, enforced this law strictly and promoted the “open corner” condition on which this project is focused.

The previous activities can not be isolated from the fact that during the war, buildings located at intersections were the most damaged due to the pressure waves of bomb explosions. As buildings along the street were reconstructed, the corner often remained empty. The corner lots, therefore, became the starting point for the “Zeile.” The old “Grunderzeitblocks” which remained were considered temporary, to be substituted by the “Zeile” in the future.

The “Zeilen” constructed during the 1950s became dwellings only, no longer evincing functional diversity in the differentiation of the design of the elevation. The entrance was located on the back side, and the courtyard was used as a parking lot. The floor plans and ceiling heights were reduced.
Selected “open corner” conditions in Schoeneberg and Wilmersdorf indicating their frequent presence in the parts of the former West Berlin.

- Uhland Street
- Detmolder Street / Weimarsche Street
- Bamberger Street / Regensburger Street
- Guenzel Street / Jenaer Street
- Berchtesgardener Street / Apostel Paulus Weg
- Berliner Street / Babelsberger Street
- Babelsberger Street / Badensche Street
Open corners in Berlin

example of some "open corner" conditions in downtown

Schimijan Street
Hedwig Street / Frege Street
Holsteinsche Street / Feuerbach Street
Feuerbach Street / Koerner Street
Bruchsalser Street / Dufacher Street
Wex Street / Bruchsaler Street
Prinzregenten Street / Waghaeusler Street

Hohenzoller Damm / Fasanen Street
Haupt Street / Frege Street
Fasanen Street / Pariser Street
Prinzregenten Street / Dufacher Street
Bundesaallee / Wilhelmsau
Grunewald Street / Berchtesgadener Street
Gneisena Street / Zossener Street
Reclaiming “Urban Leftover”?

The situation of the “Urban Leftover” is evident in over 100 locations in the former West Berlin. These open corner conditions can be found especially in Schoeneberg, Tiergarten and Charlottenburg. The radical urban concepts under which the Zeile was erected were never realized completely. This design project demonstrates different ideas for dealing with this leftover today. Recent discussions have placed blame on the architecture of the 1950s regarding its inappropriate urban qualities. A typical “solution” would be to demolish the “Zeile” and revert to a new building in the outlines prior to World War II.
This project operates with the following premise:

Both typologies, the Block and the Zeile should be respected. The aim is not to promote the Block or the “Zeile”, but to preserve the essential qualities of both types and revive the compelling ideas of Congres Internationaux d’Architecture Moderne (CIAM), namely to design dwellings with same amounts of sun and natural light, air and green areas. In addition the project seeks to embrace the contradiction of preserving the open corner, respecting the city’s complex historical layers, and at the same time to grant the left over a new contemporary urban identity.

right: study models of various preliminary design ideas
Photographic documentation of the neighborhood of the project site, hinting the atmosphere and context in which the proposed project is located.
Site

the development of the site during the past hundred years

historic

the site today

proposed project

elevation sketch of Volume I & II

model from the street side

model from the back side
Site & Volume
site of the proposed project, grunewald street / gleditsch street

the courtyard today
the open corner
the open corner (street elevation)

elevation sketch of Volume I & II
This photomontage gives an idea of the public approach to the new defined urban situation and the proposed building on the corner lot.
public approach
Perspectival Lines:

Sketches indicate the elevation lines of the new building in relation to the existing surrounding buildings.
Sketch of the courtyard idea:
The semipublic courtyard with space for small businesses
Photomontage of the semipublic courtyard illustrating the connection to the street through the “large door” - entrance axis.
Along the passage small illuminated showroom windows are guiding into the semipublic courtyard. The courtyard is designed with various levels to differentiate the space and its use. This conditions also allows illumination and circulation of air to the underground parking garage.
Building courtyard and floorplan

floorplan first floor

floorplan underground parking & cellar

section C: Volume I
Large Door

This design proposes two major volumes with different treatments. The interlocking space creates a large door to the courtyard. This door is the entrance to the Zeile and courtyard. Also, it is the main entrance to the new building, and it houses the vertical circulation device.
Building

the large door - entrance to the old and new buildings

Section E: Volume I & II

typical floor plan level 1-4
Split Level

The project offers twelve two and three room apartments with flowing spaces. All units are organized in a split level system. The different level organization offers various connection of rooms and allows different qualities of spacial conditions.
Section A: Volume II - apartment split level and courtyard with underground parking

Section B: Staircase, Courtyard and underground parking

Section D: Volume I
Setback

In front of the Zeile the setback is used to separate the apartments on street level and give them a space of privacy. In the remaining parts of the project, spaces on street level contain commercial areas, with dwelling units above.
Building

the setback from the street and the relation to the existing building's

section F: Setback, existing building and courtyard with underground parking

a)  level difference, low railing
b)  level difference, high railing - creating a terrace in front of the apartments
c)  level difference and bench
c)  integration of planters
Illustration of the qualities of the interior of an apartment. The vertical louvers frame views to the surrounding buildings.
Split-level circulation possibilities in volume I and volume II of the building

Apartment type A

"Large door" entrance to the existing zeile and the new building
Staircase
Elevator

Apartment type B

1. window type I&II - level III
2. corner window - level III
3. window - level I
4. split level - level I & II
Interior rendering of an apartment
Facade
principle of elevation assembly

panel position at corner
panel corner isometric

principle of anchoring
the panels

top panel anchor
(preventing tip over of
panel (free adjustable))
interior plaster
10” concrete load
bearing wall
4” rigid insulation
proof water membrane
2” air circulation gap

bottom panel anchor
(load carrying device,
anchor plate free
adjustable, wedge
mechanism)
Facade

Wall section and louver idea

- Top coping panel - cover
- 2" air circulation gap
- Proof water membrane
- Typical concrete panel
- Core material
- L-profiles
- Insulation (ext.)
- Corrugated metal fixed with clips
- Air circulation
- Horizontal louver
- Shutters window - buffer zone (translucent glass white)
- Sliding top; right: endorses
- Noise reduction
- Visual separation
- Reduction of pollution
- Climatic buffer
- Connection of cladding panel to street level
- 10" concrete load bearing wall

First floor

Second floor

Third floor

Fourth floor

Fifth floor
The louver-panel is used horizontally in the corner volume I at the edge only, creating a balcony space. The horizontal line of the window is distorted to manipulate the inside outside perspective of the opening. The opening appears as a big volume penetrating the living room.

“Horizontal Louver”
Facade

the horizontal louver

double insulated glass
woodframe sliding windows
shutter panel
metal cover and L-profile fasteners
insulation, airgap
panel anchor
upper louver panel (precast)
louver panel - balustrade
hardwood flooring
separation layer
topping slab
separation layer
loadbearing concrete slab
The louver-panel is used vertically in volume I & II of the project controlling the transparency of the elevation depending on the viewer position from the street as well controlling the view from the inside to the outside. The space in between the load bearing structure and the panel becomes a balcony.
Facade

the vertical louver

do double insulated glass
woodframe sliding windows

hardwood flooring
separation layer
topping slab
separation layer

vertical precast louver

balcony space

thermally separated
concrete slab

loadbearing concrete slab
The importance of the urban corner condition is also emphasized in side the rooms by providing an strip window opening with a balcony space.

The horizontal window is used to manipulate the perspective of the opening. With this manipulation an illusion of a volume penetrating the living room is created. This effects supported by white semitransparent glass shutter elements integrated in the outside construction of the concrete elevation panel.
The Zeile:

wrapping facades are creating two volumes

the volume is creating a head of the Zeile

interlocking volumes creating an opening

a door to existing and to the new building as well

an inviting access to the courtyard.

The Block:

redefining the corner by introducing a cornerstone,

giving an identity to the context and

serving as a starting point for the block.

As an embodiment of time and its respective culture, the physical presence of architecture has traditionally been an excellent source for the further development of our environments. In this proposal, an attempt is made to respect two almost contradictory forms of urban housing, the Block and the Zeile, which are simultaneously present and overlaid at this site in Berlin. Three primary conditions, the general historical context, the building volumes, and the facade modularity are examined to assist in the development of new architectural corner which retains essential qualities of both Block and Zeile.
I would like to dedicate this work to my parents who supported me always on my way in life and education.

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Christian KIENAPFEL

education
05/01 Master of Architecture
08/99 Graduate School at Virginia Polytechnic Institute and State University
Department of Architecture
Scholarship of the “Fulbright Commission”, USA - Germany
06/99 Master Degree in Architecture at FHLausitz University of Applied Science, Germany

experience
Kuala Lumpur, Malaysia
97/98 Gregotti Associati International
Milan, Italy
94/95 Betow Architects
Berlin, Germany

workshops
2001 International Architectural Educational Exchange -IAEE Workshop
California State Polytechnic University, USA
2000 International Workshop (USA-Germany) at Virginia Polytech Institute, USA
1998 International Architecture Workshop (Spain-Germany) at FHLausitz University of Applied Science, Germany
1996 International Architecture Workshop (Spain-Poland - Italy - Germany) at FHLausitz University of Applied Science, Germany

awards
2001 Graduate Faculty Award for Excellence in Architecture, the Department of Architecture, Virginia Tech
2001 Phi Kappa Phi Honor Society
1999 Fulbright Commission Scholarship
1998 First Prize from the German State of Brandenburg, BDA Association of German Architects
1998 IKEA-Foundation Research Scholarship
1998 Carl-Duisberg-Society Scholarship, Germany
1997 Leonardo Scholarship, European Community