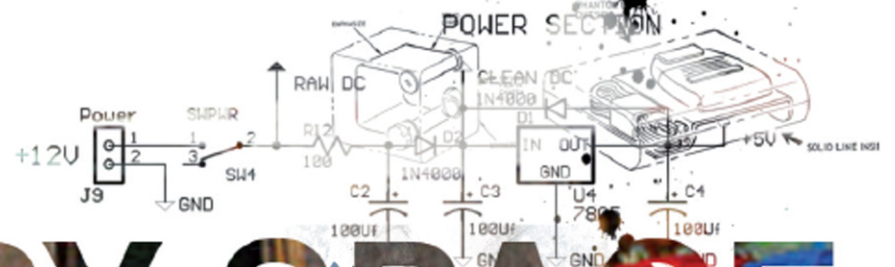


LABORATORY SPACE

FILLING BERLIN
WITH EMPTINESS



- **onderzoek**
- **woning**
- **kader voor de woning (blok)**
- **het blok de stad**

opbouw presentatie P4 laboratory space

‘Mijn architectuur is altijd een kleinere representatie van een groter geheel’

architectuur opvatting Rob Grim

representatie: fysieke en non-fysieke elementen doorzetten, kopiëren, versterken en/of er aan refereren

1943

Plan der Stadt Berlin 1943



Luftbildplan Berlin

1953

Bereich
Eisenacher Platz bis Stralau





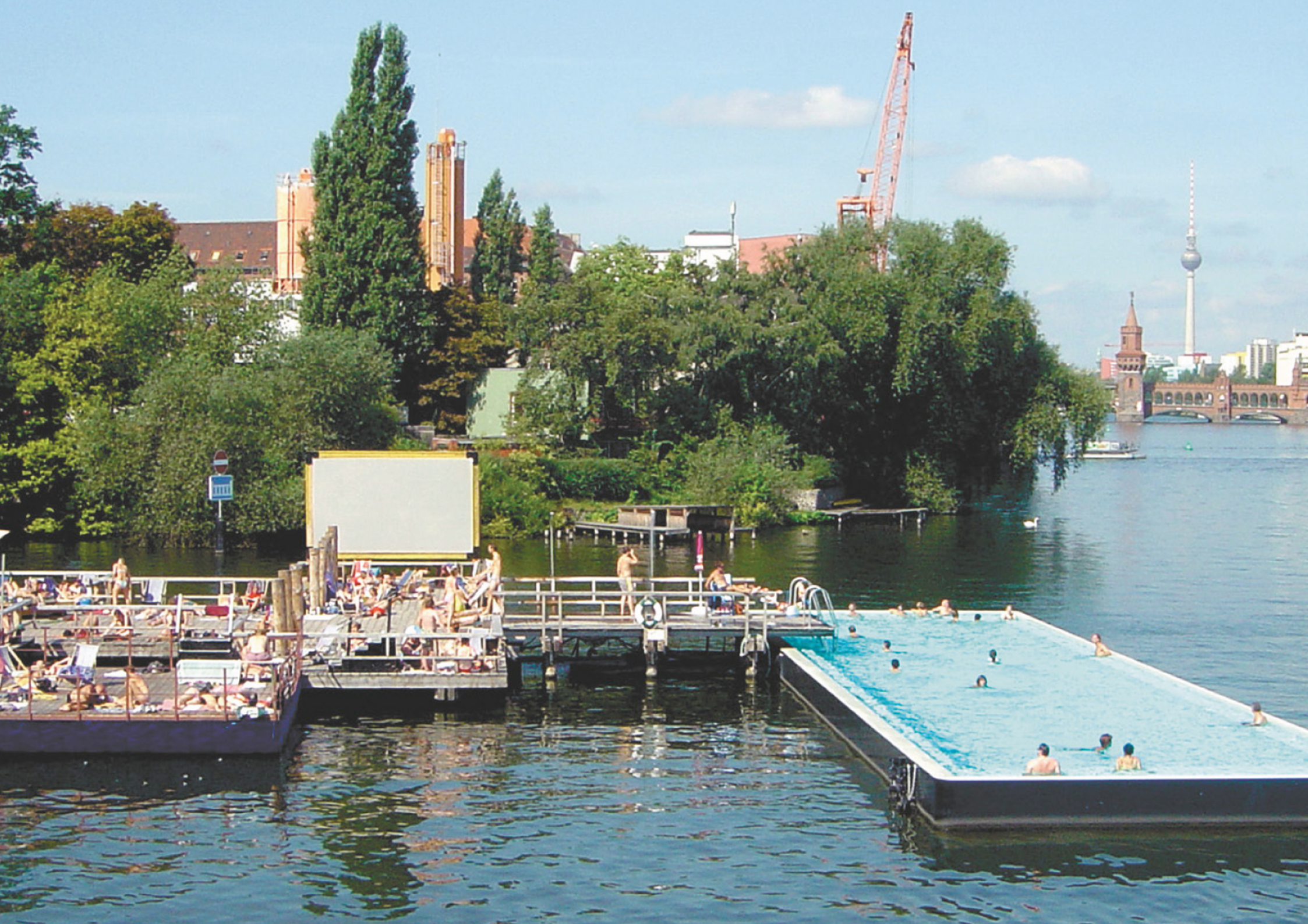














STRA

FAXA
LOPES
GLOBUS
FIPE
HEINER
GEEP
CONJAK
SHAF
BARTO
TERFO

FELICE

MILY

TAT
LOVE

Lea

at



SALE

HOW
LONG
IS NOW



Johannisstraße

'Because of there experimental character we call these Laboratory Space'

Introduction of 'Laboratory spaces - densifying Berlin' by Berend Venema and Rob Grim

(Berlin is not the only city to face the predicament of shrinkage. But ^{ITS} extreme and ideosyncratic character of laboratory would ~~not~~ allow the strategies ~~not~~ it develops to deal with its ~~and~~ ~~contraction~~ ^{CONTRACTION} to achieve a prototypical 'pilot' status that could inject new models in a ~~of~~ Zero-growth Europe.)

Koolhaas, Unger, 1977

**‘Berlin has two faces. One is official.
Not unlike any given West-European capital. But the other face is
completely different.
It is the underground of Berlin.’**

Introduction of ‘Laboratory spaces - densifying Berlin’ by Berend Venema and Rob Grim

built: 1907 laboratory since: 1990

TACHELES

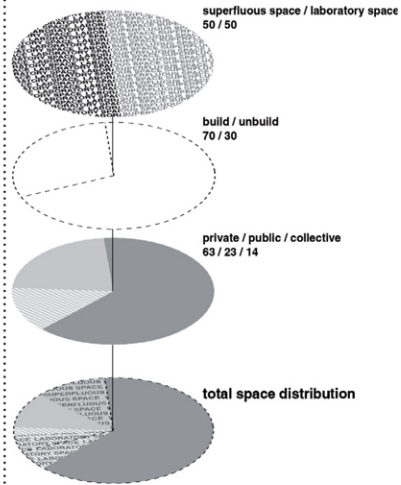


Wer heute durch die Ruine - es ist eine der letzten großen Ruinen Berlins - streift und die Umgebung durchwandert, hat das Gefühl, es mit etwas Unwirklichem, völlig Deplaziertem zu tun zu haben.^[20]

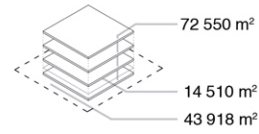
Kunsthau Tacheles is a collective of artist on Oranienburgerstrasse in Berlin-Mitte. They have occupied the former department store. Before the artist came, the building was deserted, used by the NSDAP, AEG and the Free German Trade Union Federation.

Today Tacheles is a well known point on the backpacker type of tourist map. It is the symbol for the creative and underground scene in Berlin and has given space for many famous artists and musicians. Among them was 'A Guy Called Gerald,' an very influential musical pioneer for the Madchester and Manchester Acid House scene. Speculations on redevelopment have forced Tacheles to become part of the debate and open itself to the public. Even with its now more public involvement, Tacheles has held its experimental character. Besides providing rooms and shops for artists, it provides a number of functions, including different bars, an excellent theatre and a club. Brilliant is the cinema which has been supplied with couches in stead of chairs. On the roof a big hippie sign marks this enclave as seen from the air or on Google Earth.

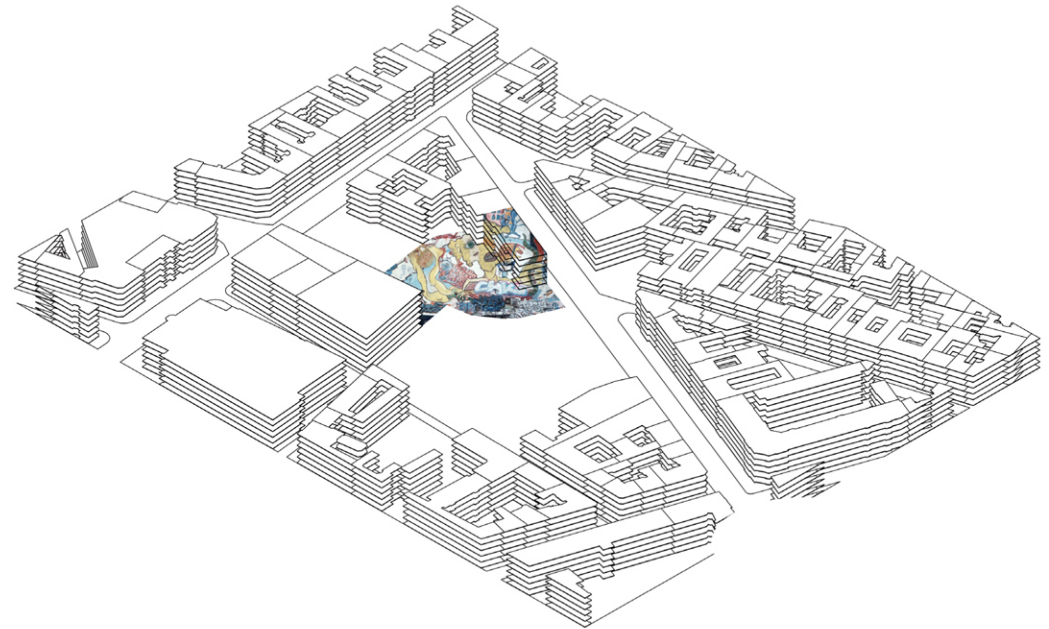
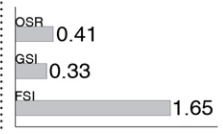
spatial configuration

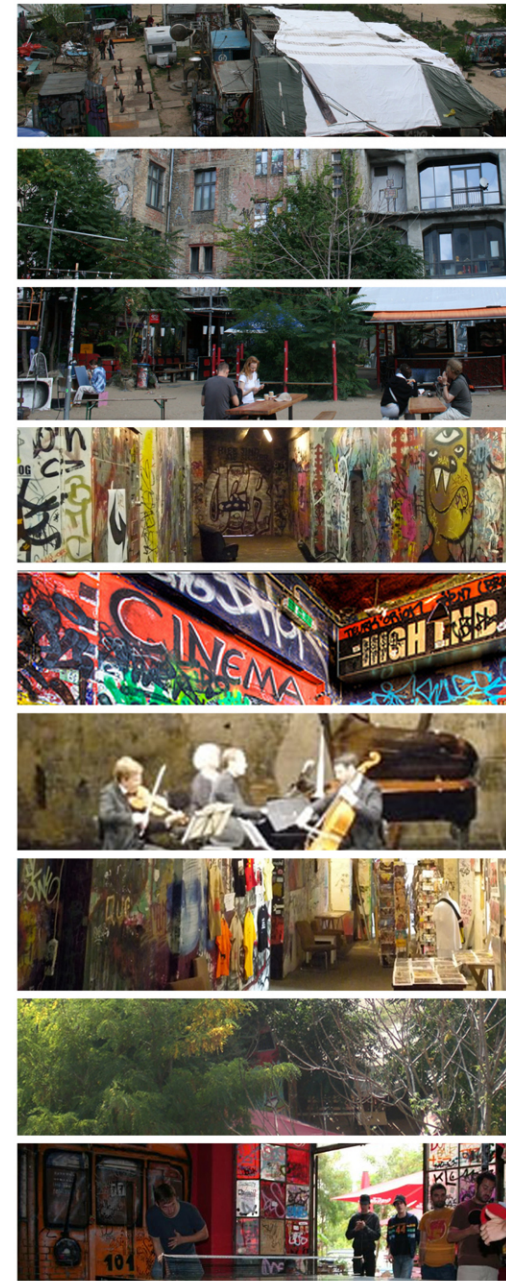


space



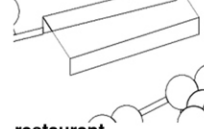
density





functions

workshop / exhibition



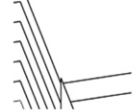
restaurant



bar



studios



cinema



theatre



shop



bug farm

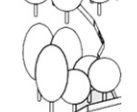
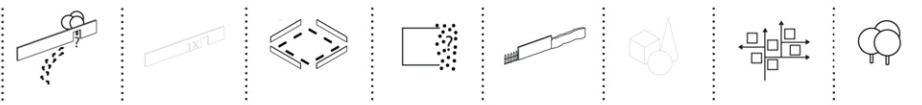
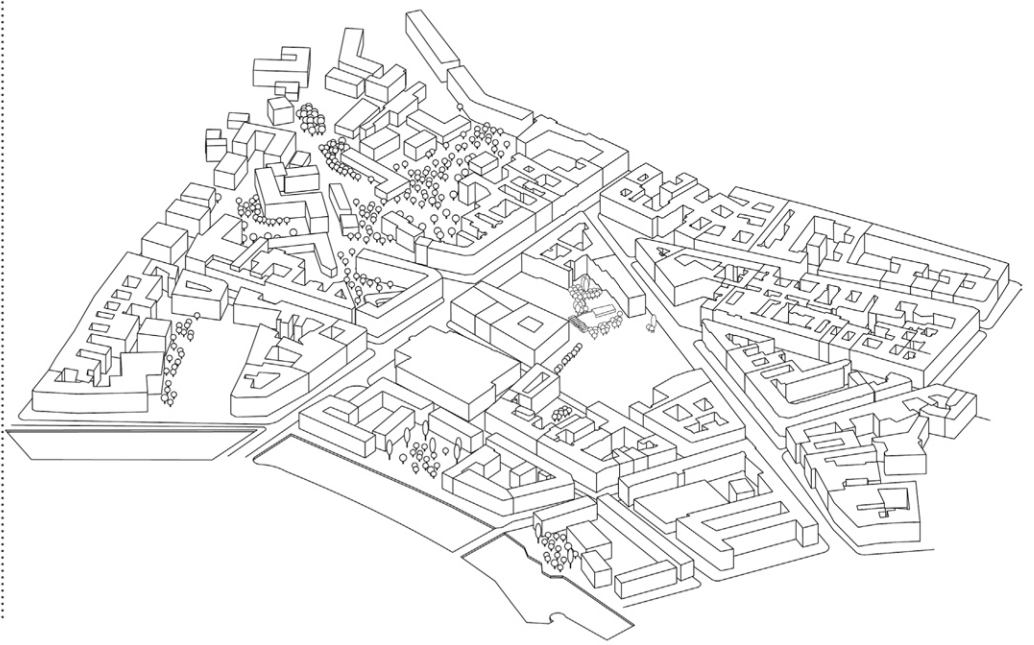
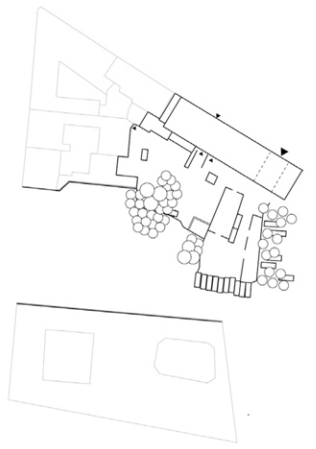


table tennis



plan view



75%

spatial elements

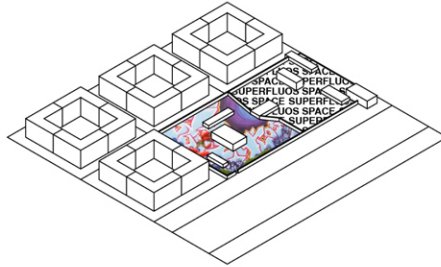
axonomic view

FILLING SUPERFLUOUS SPACE

Since most of the sites put under our loop, contain more than 50% Superfluous Space, the most logical move would be to fill that space with buildings. By reserving a certain amount of the *Superfluous Space* for *Laboratory Space*, the balance can be maintained. However, this balance is very delicate and there is a chance that new developments ruin the *Laboratory Space* all together. This becomes clear when presented in a space-time graph.

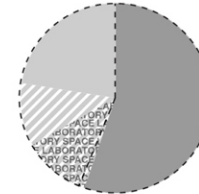
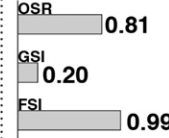
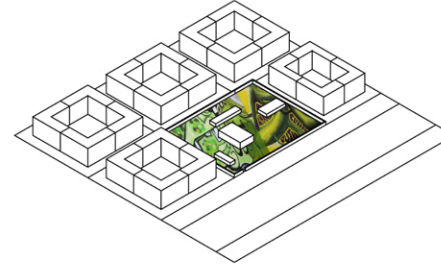
The built space can grow steady, filling in the *Superfluous Spaces*, but the more saturated a city becomes, the more expensive it becomes to build, slowing down the curve in the chart. This is not to say that the curve has to flatten. If there is a certain need, a city can always grow denser, take a look at Tokyo for instance. The *Superfluous Space* recedes and levels of just before it reaches zero. There is always a little bit of this type of space left over in any city. The *Laboratory Space* can grow slightly, before it shrinks drastically. At a certain point ground prices become to high to be left unclaimed, and that is when *Laboratory Space* is expelled. We are looking for the balance just before that point. We need a little bit of *Superfluous Space*, to make the *Laboratory Space* work. As shown before, the *Laboratory Space* can add economic value to the whole city, thus repaying for itself on a larger scale.

current situation



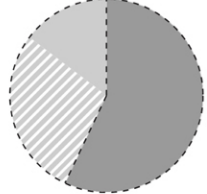
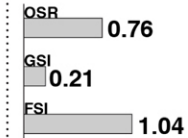
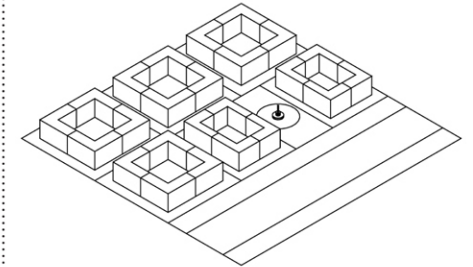
The location consist out of public, collective and private space. The public space contains *Superfluous Space*. Part of the collective space is laboratory.

filling superfluous space

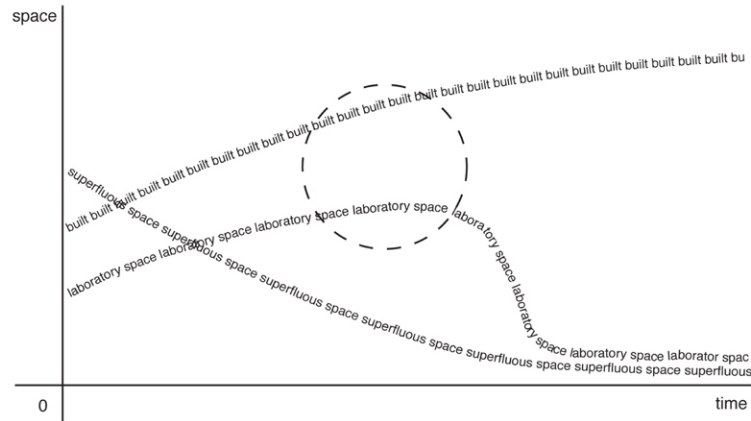


balance
The *Superfluous Space* is partly filled with private space. The *Laboratory Space* also uses a part of the *Superfluous Space*. There's no possibility for the *Laboratory Space* to expand any more.
The density did not increased so much.

filling superfluous space



extreme
The public space has now filled all the *Laboratory* and *Superfluous space*.
The high pressure on the public space, by increase in the private space, has expanded itself.
This means that, although not everything is build, the *Laboratory Space* will disappear.



SUMMARY OF CONCLUSIONS

With *Laboratory Space* Berlin has a powerful means to attracting the *Creative Class* and revitalizing the economy.

Berlin can learn from the gentrification process of other cities that have gone before and adjust its path accordingly.

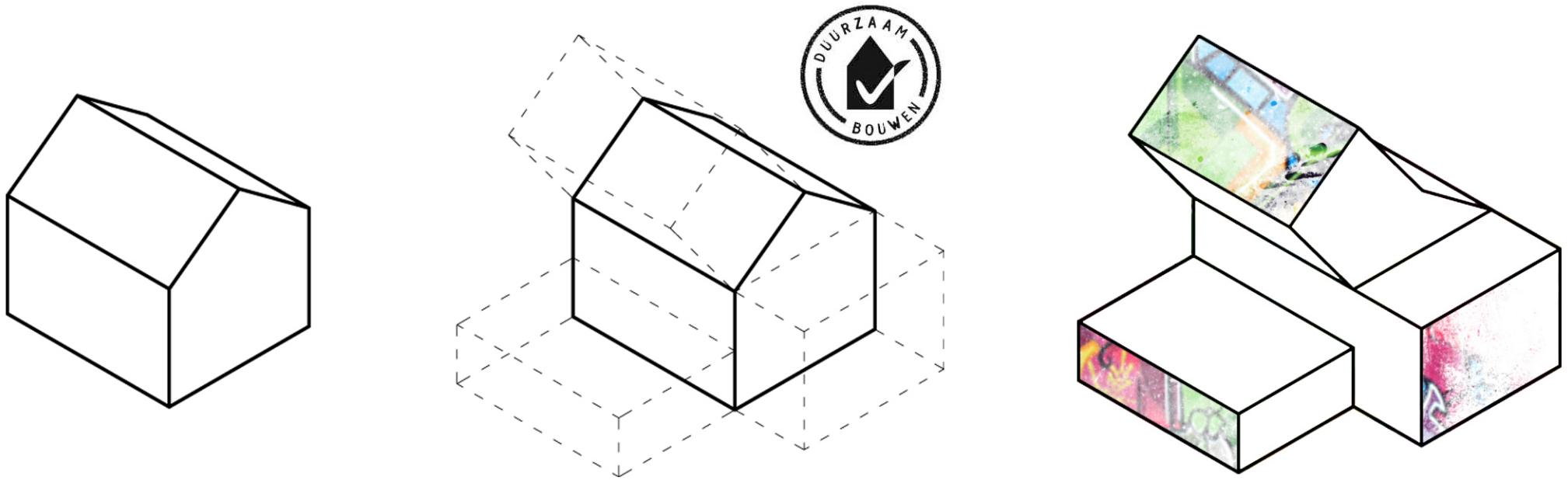
Within the *Laboratory Space* there is a connection between the diversity and richness of functions on one side, and the spatial qualities on the other.

Laboratory Space belongs to, and is a part of, the whole city.

Although *Laboratory Space* should be public accessible, it is not part of the 'ordinary' city spaces - the public and the collective. It can be seen as an addition to those spaces, with a public and collective component. This addition should always make up a small part of the total amount of spaces.

When densifying, with respect to *Laboratory Space*, the key is in the *Superfluous Space*. There should always be a small part of *Superfluous Space* left.

Densification with *Laboratory Space* is a matter of carefully planning, testing, experimenting and designing. Different approaches can lead to different outcomes and not all outcomes are suitable. However, there are definitely a number of possibilities for densification, without the loss of *Laboratory Spaces*.



**Hoe te wonen in Berlijn?
Duurzame leefomgeving die ruimte laat voor Laboratory Space.**

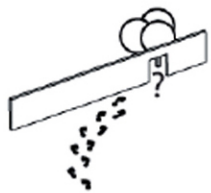
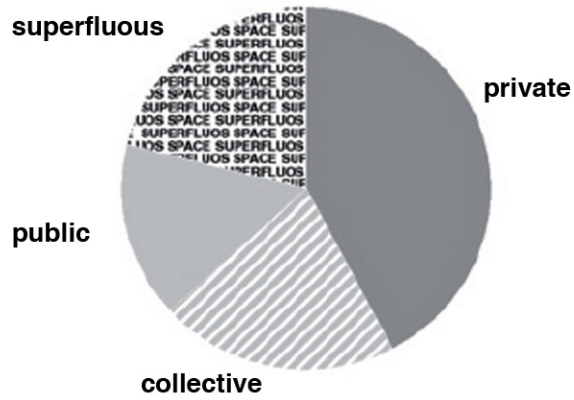
superfluous space

x

creative function

=

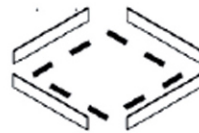
LABORATORY SPACE



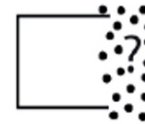
hidden entrance



singular entrance



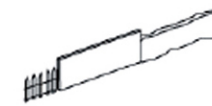
enclosed space



mysterious borders



spatial objects

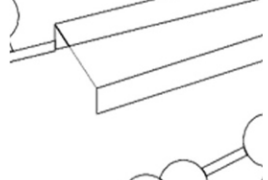


fences



explore

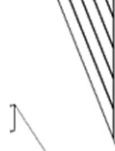
workshop



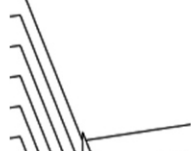
restaurant



bar



studios



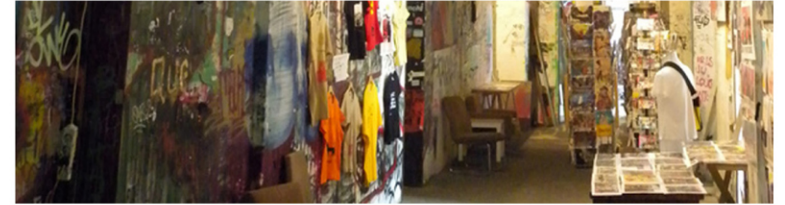
cinema



theatre



shop

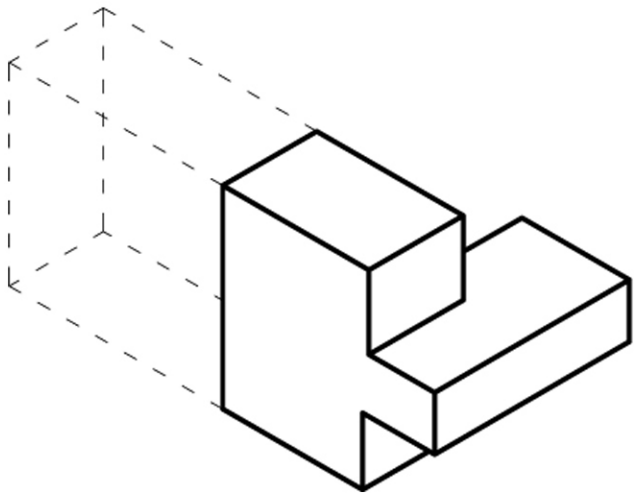


bug farm

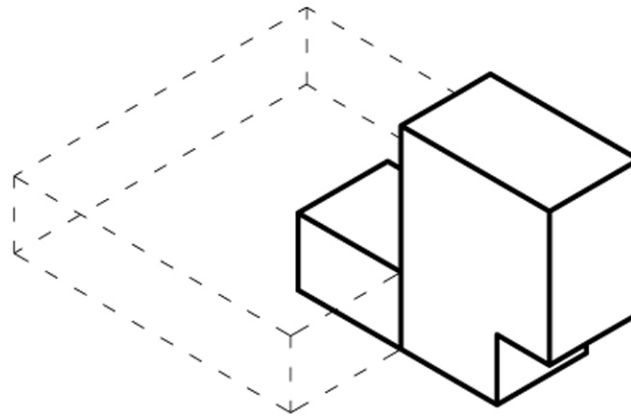


table tennis

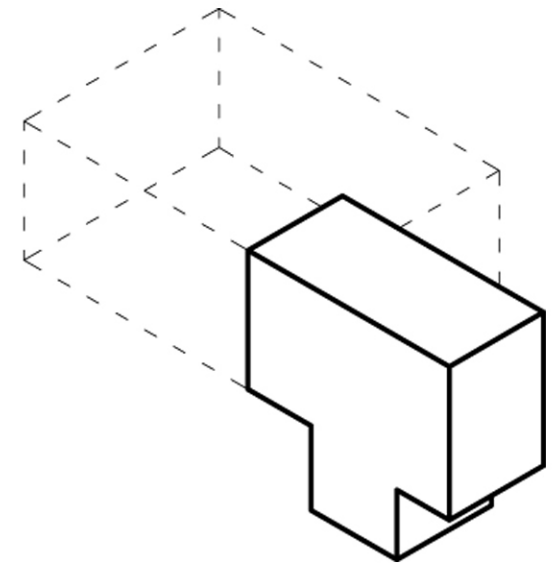




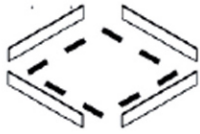
extra hoogte



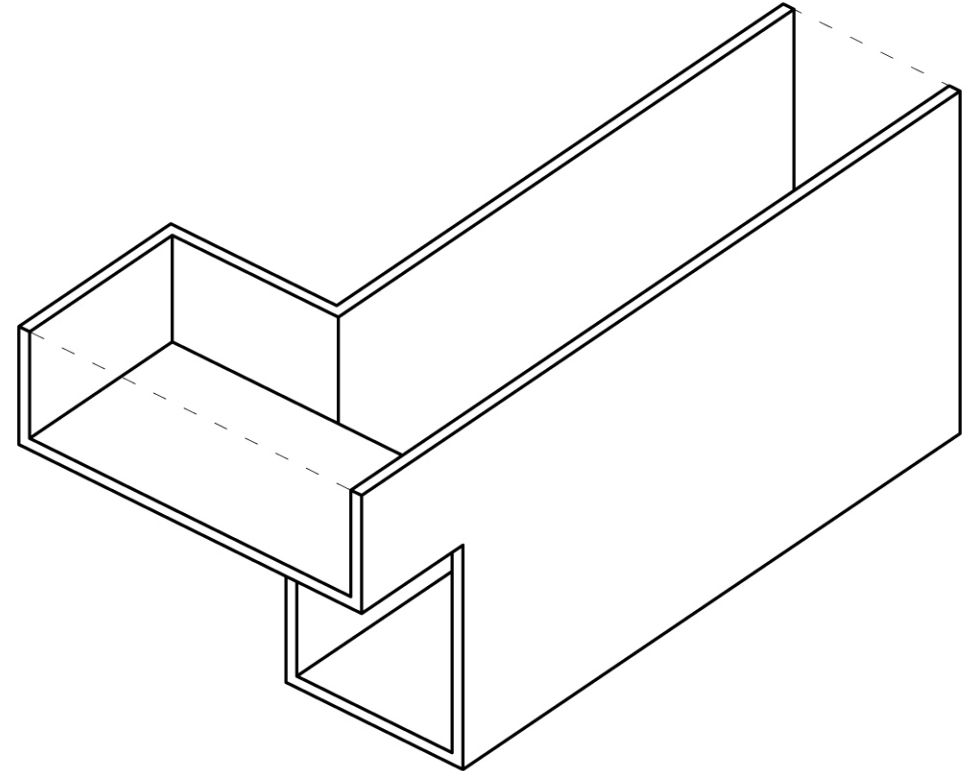
extra breedte



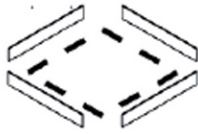
**extra inhoud
(hoogte x breedte)**



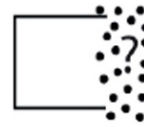
enclosed space



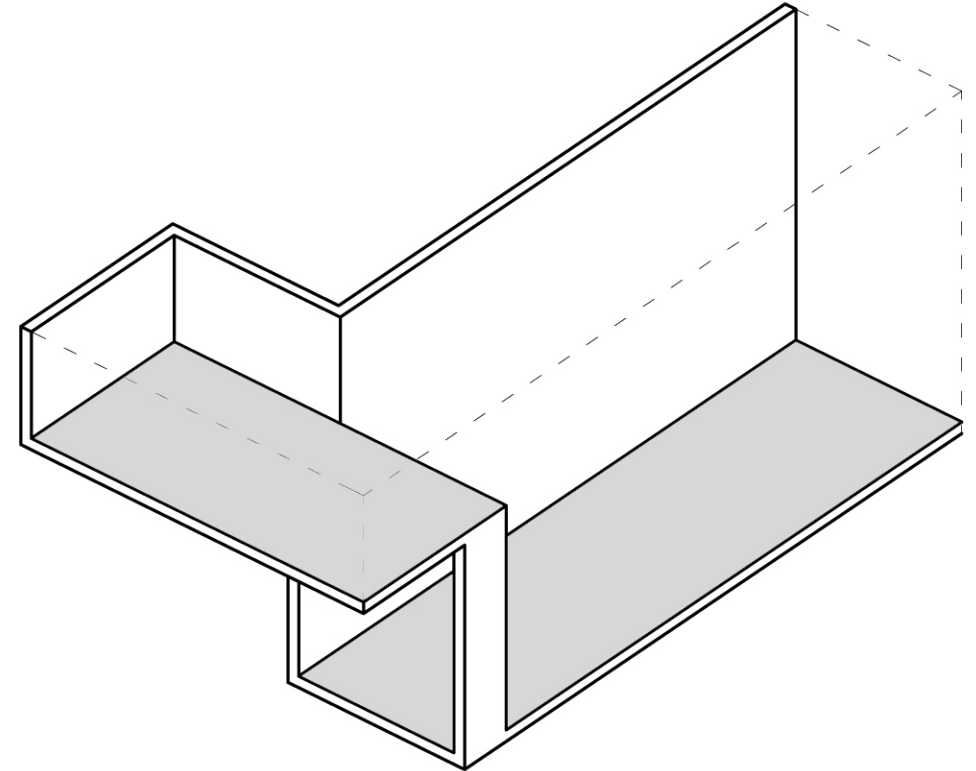
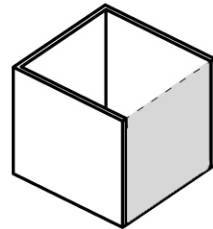
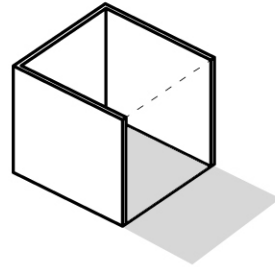
Het kader geeft vorm aan de verschillende ruimtes van de woning.



enclosed space



mysterious borders



De nis kan afgesloten worden, maar ook betrokken worden bij de overige ruimtes.



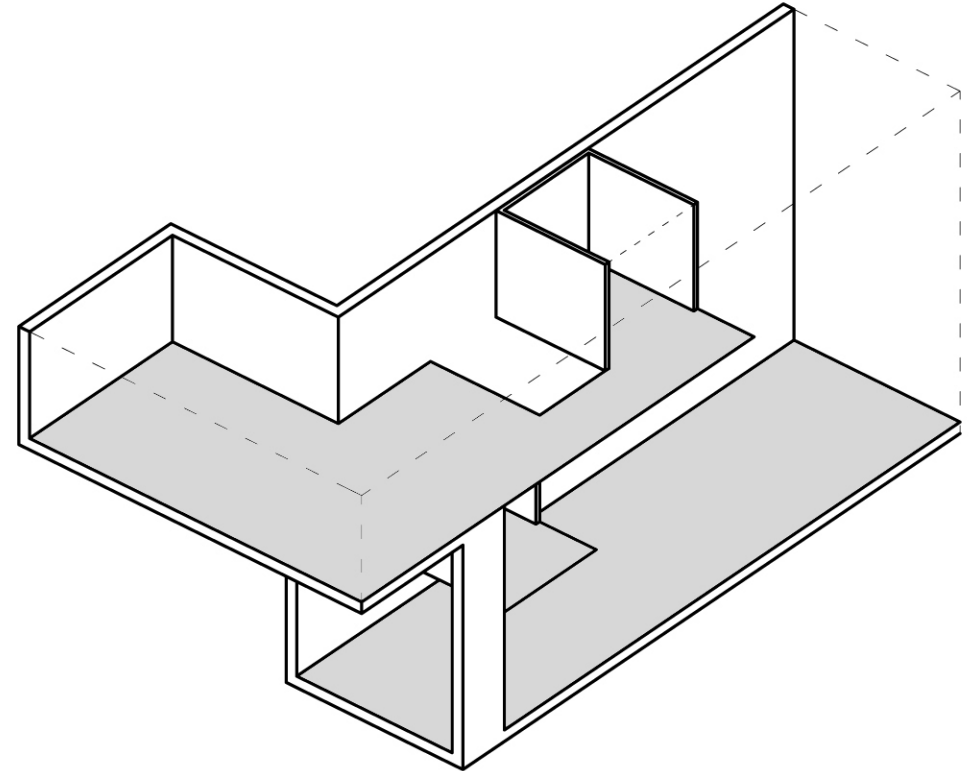
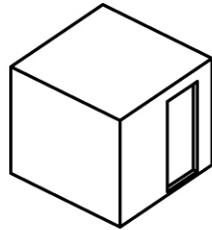
hidden entrance



singulair entrance



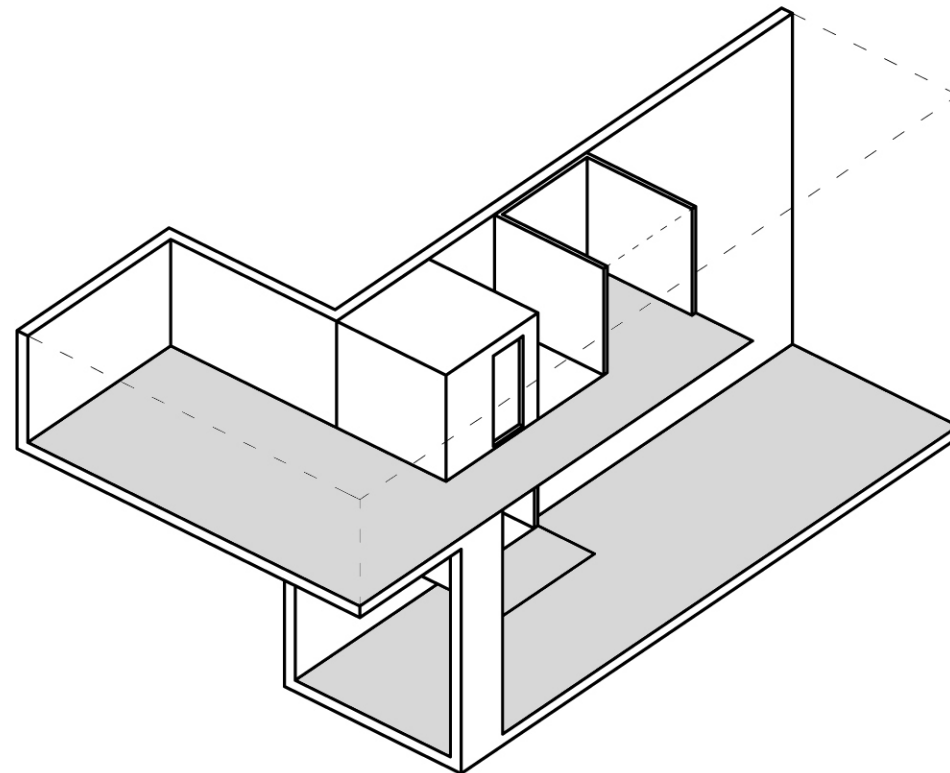
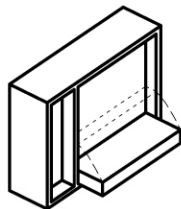
spatial objects



Ruimtelijke objecten met ruimtes dienen de bruikbaarheid van de woning.



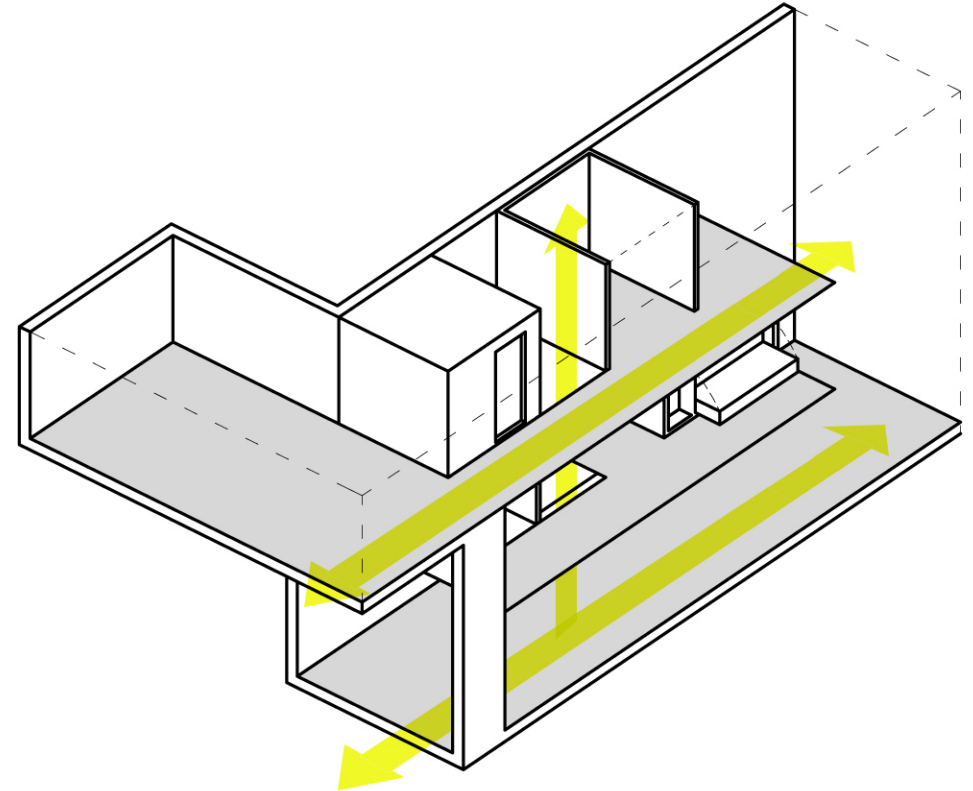
spatial objects



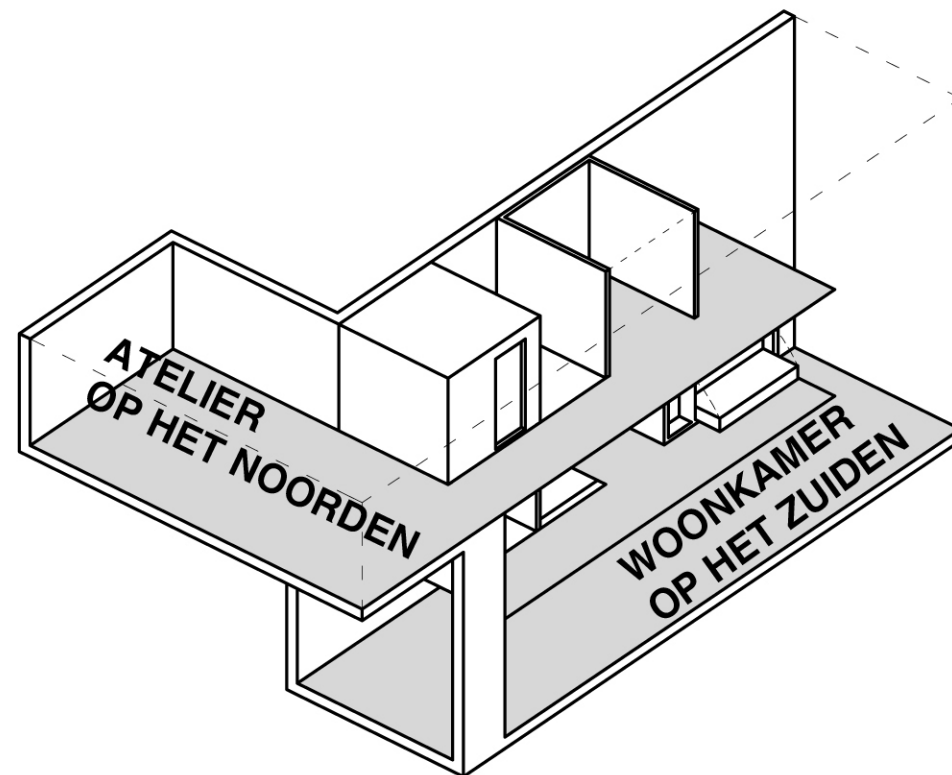
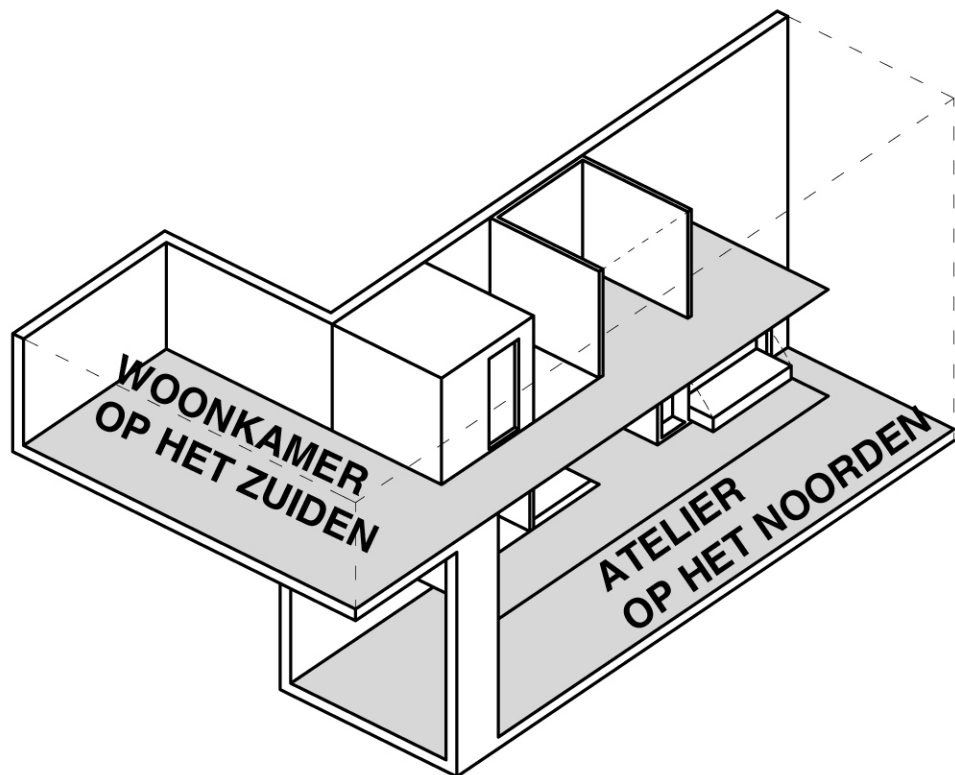
Ruimtelijk object met meubels heeft naast een scheidende eigenschap. Deze combinatie zorgt voor ruimte besparing en flexibiliteit.



explore

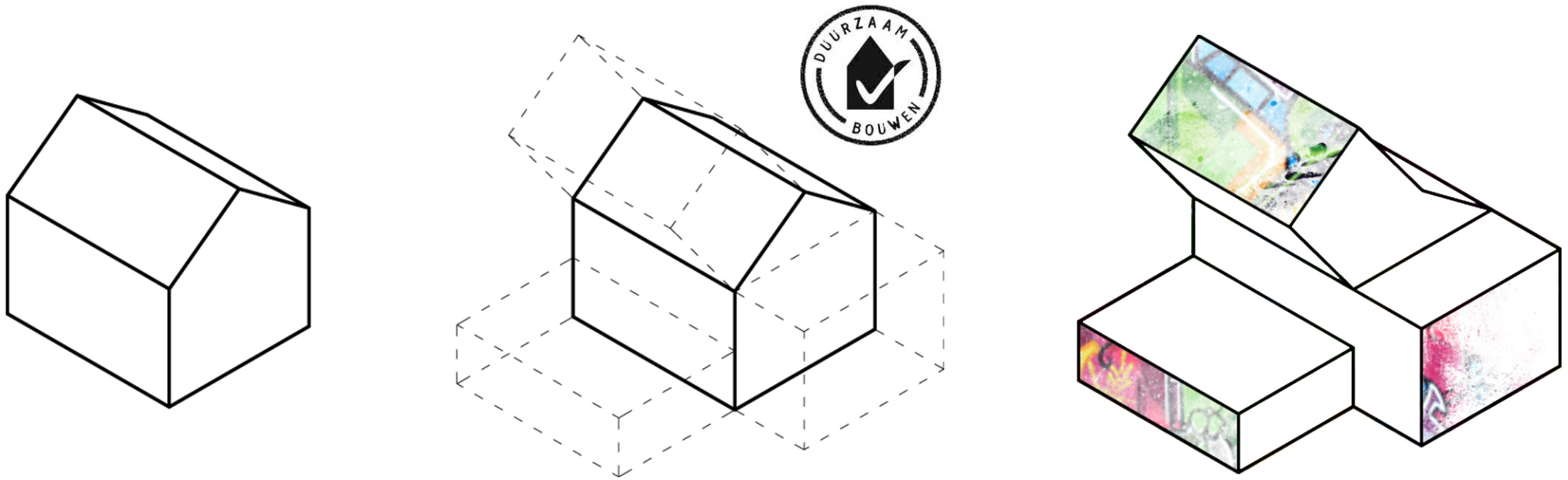


**De combinatie van elementen creert mogelijkheid om te ontdekken.
De lege zichtlijnen van de organisatie verwijzen naar de leegte van de superfluous spaces.**



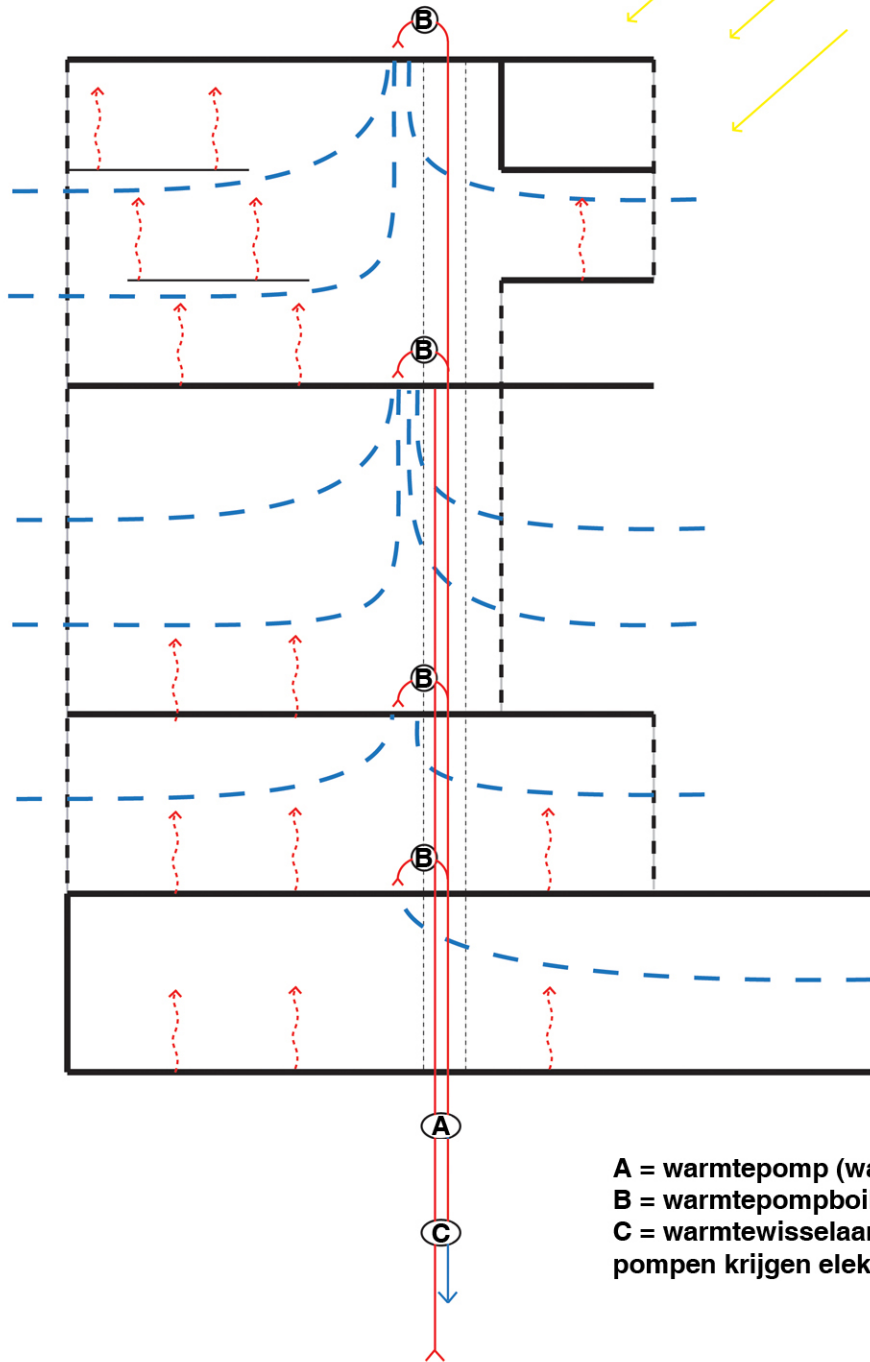
Orientatie met hetzelfde woningtype zorgt voor andere oplossingen.



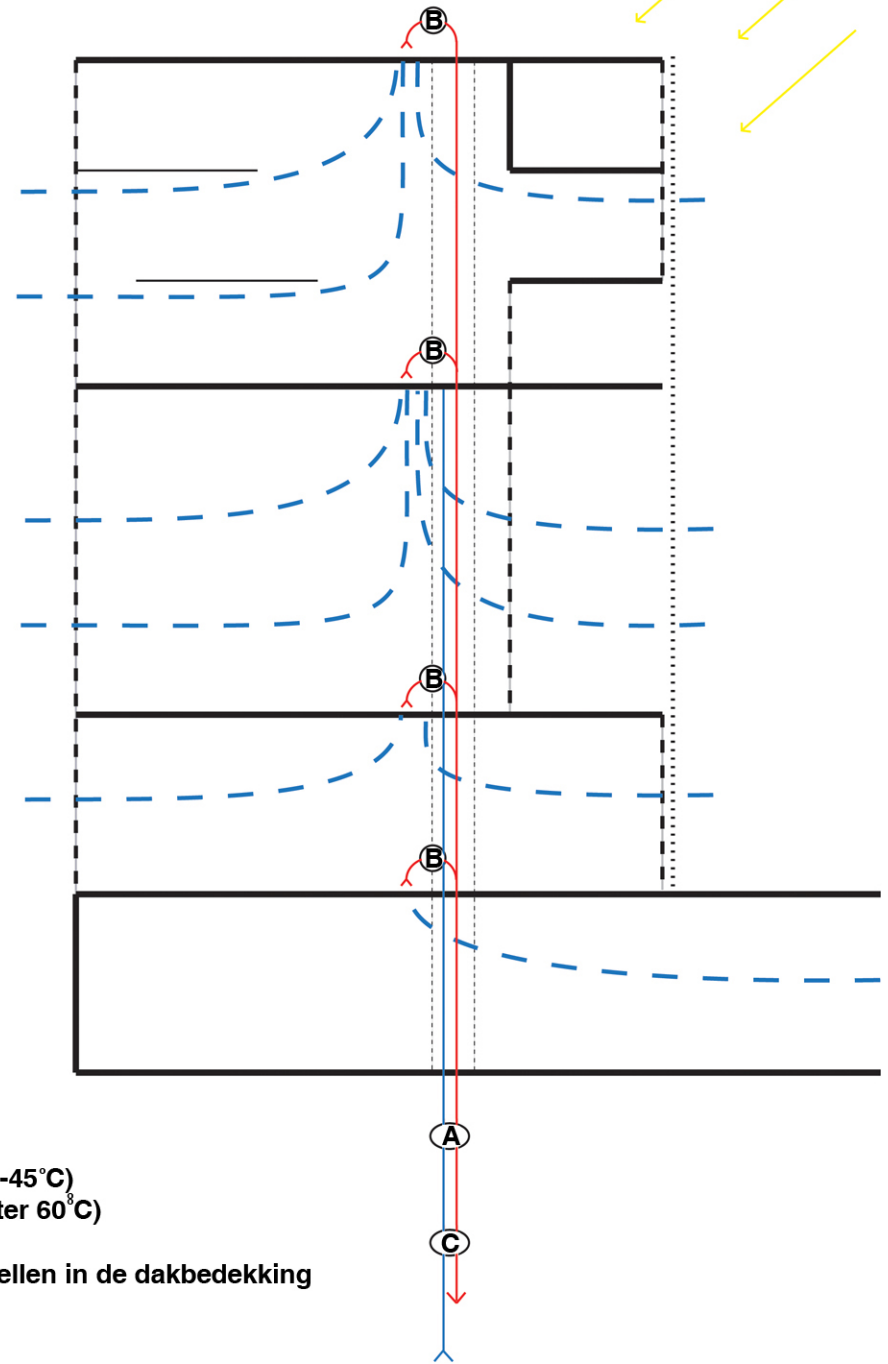


Hoe te wonen in Berlijn?
Duurzame leefomgeving die ruimte laat voor Laboratory Space.

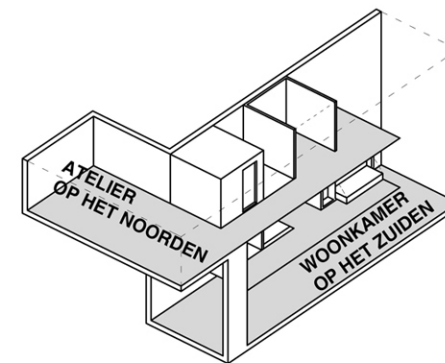
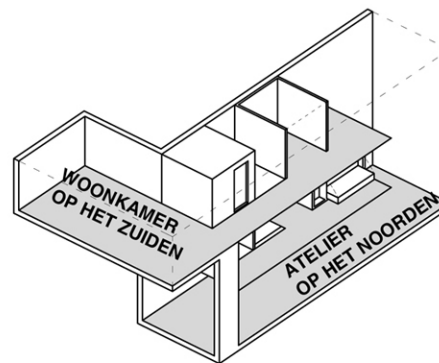
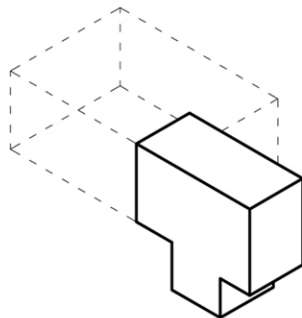
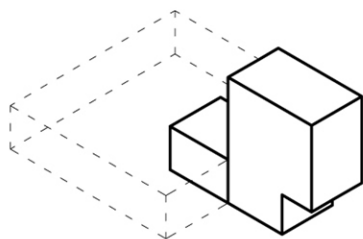
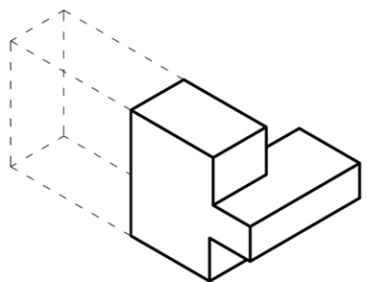
WINTER



ZOMER

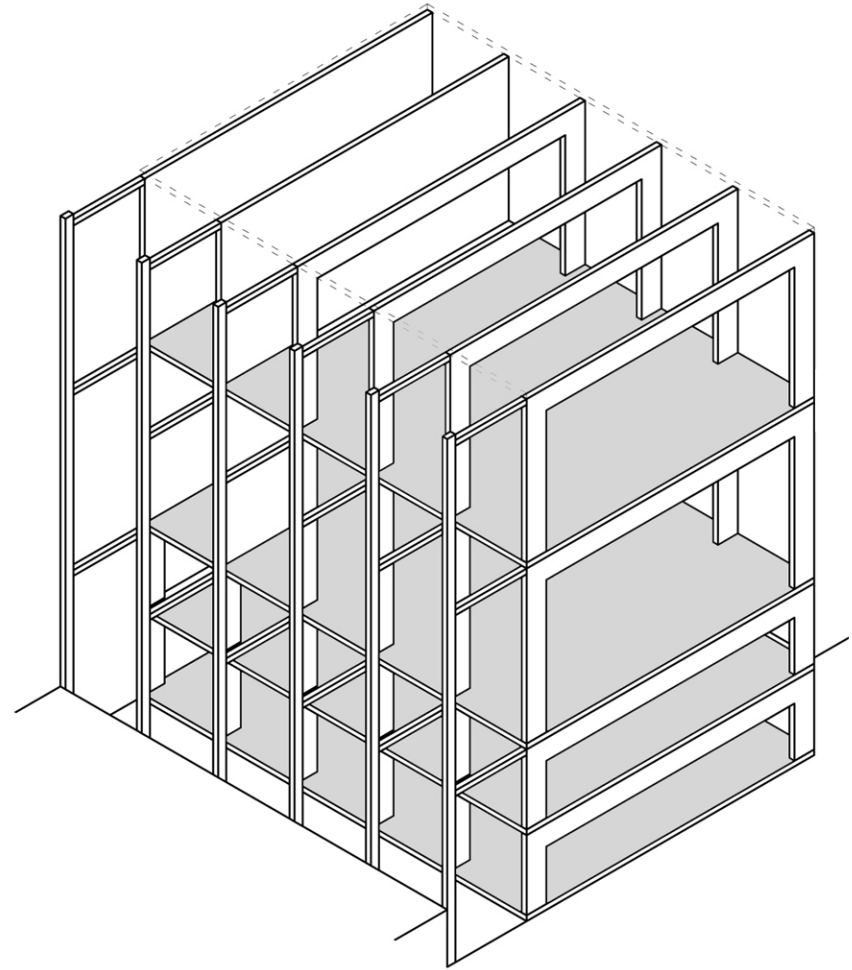
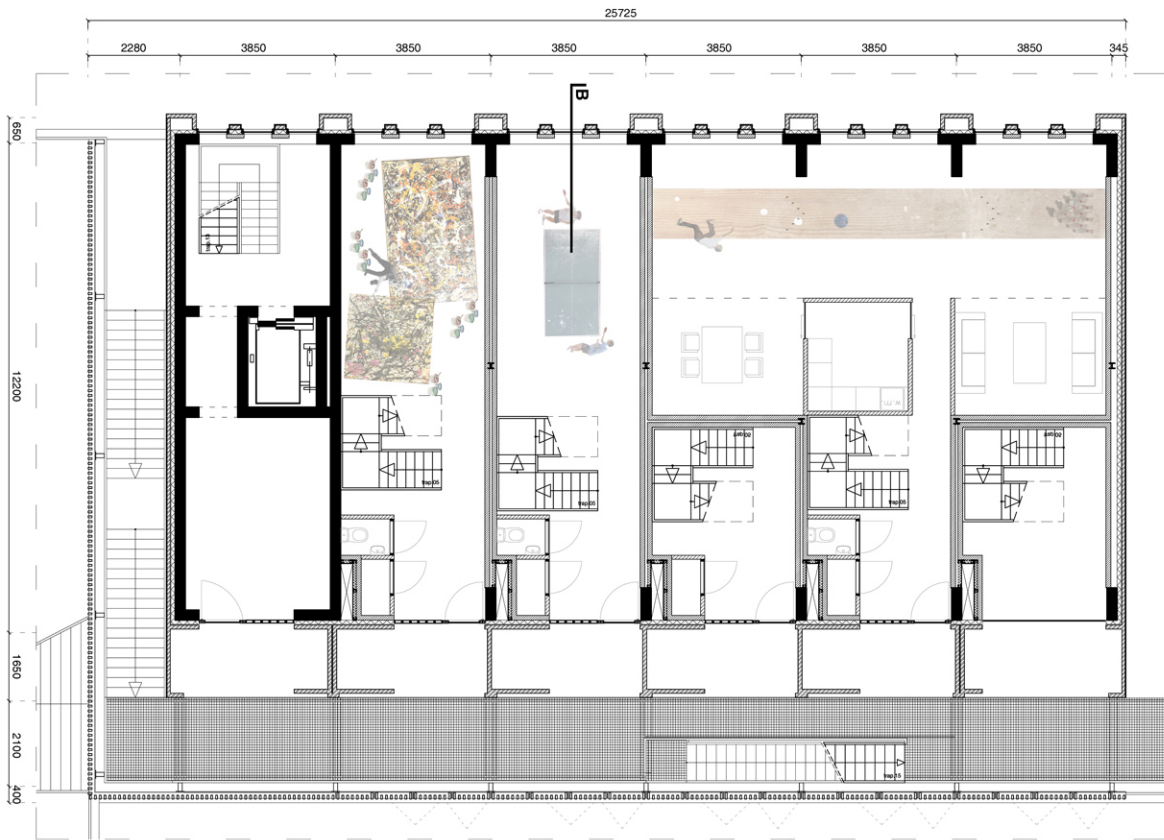


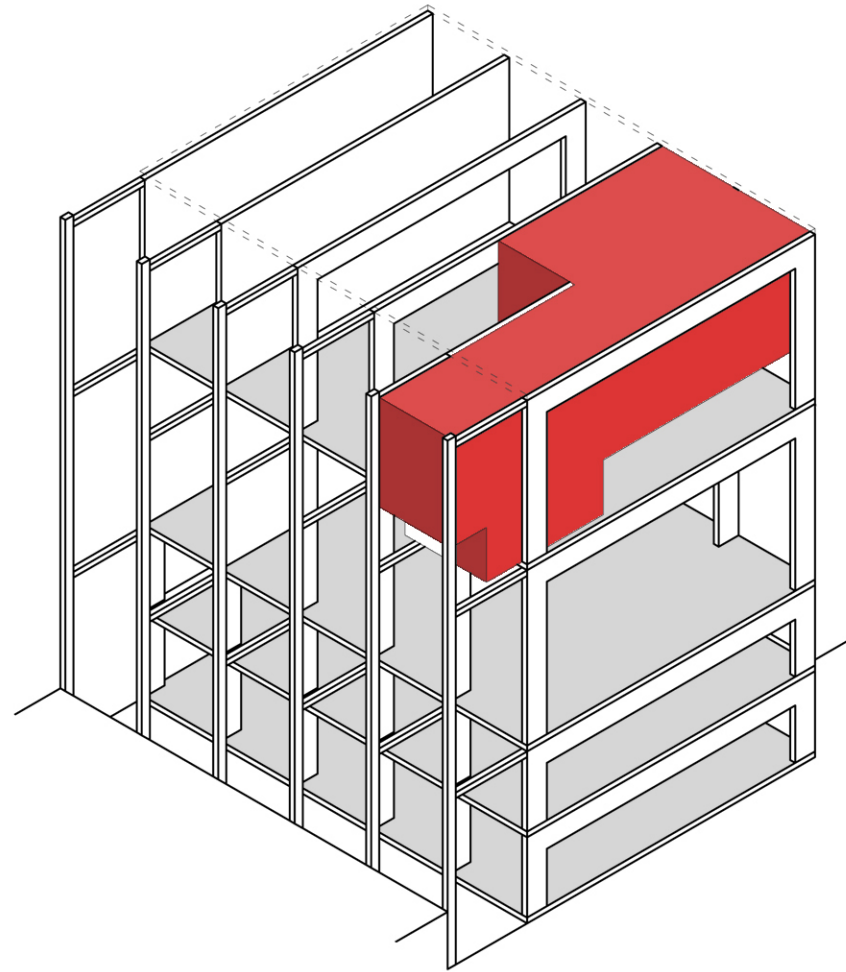
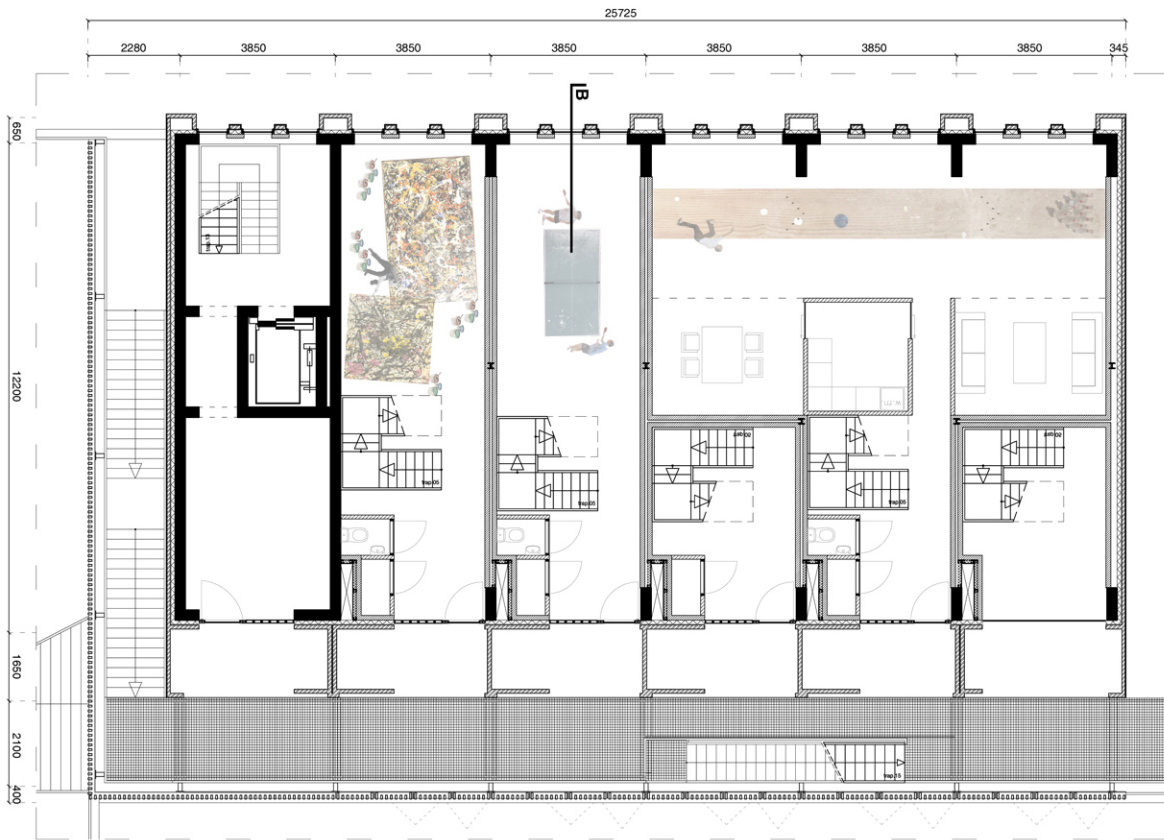
A = warmtepomp (water 15°C > water 35-45°C)
B = warmtepompboiler (lucht 20°C > water 60°C)
C = warmtewisselaar
pompen krijgen elektriciteit van zonnecellen in de dakbedekking

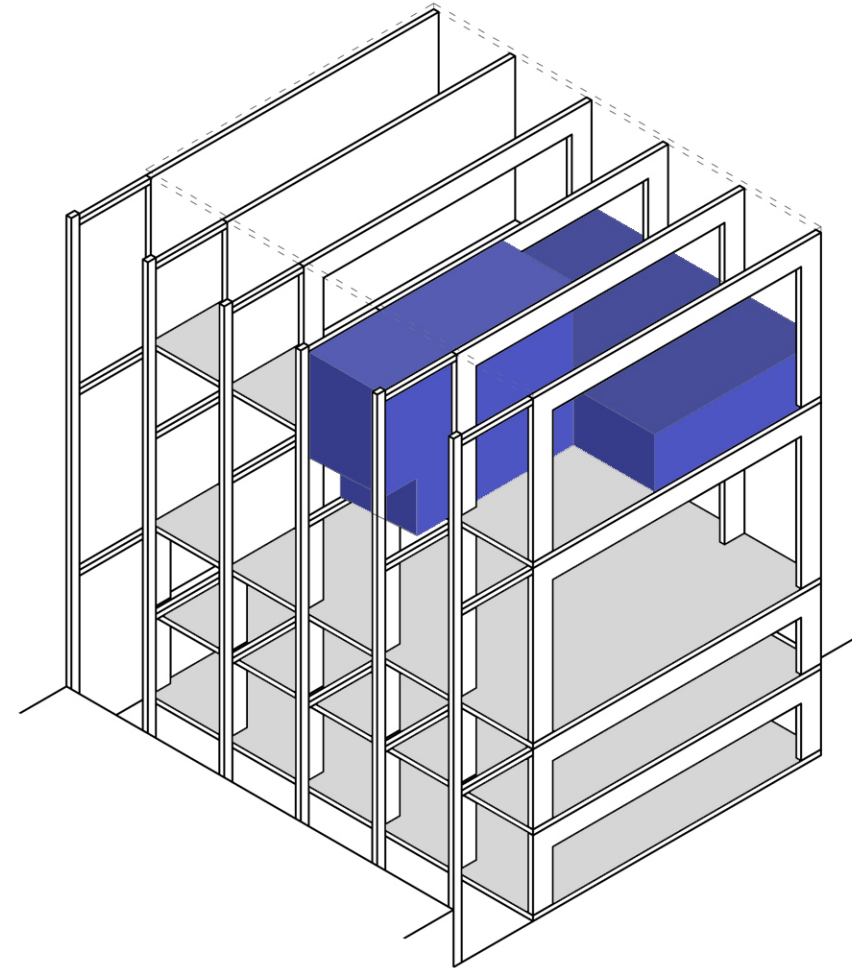
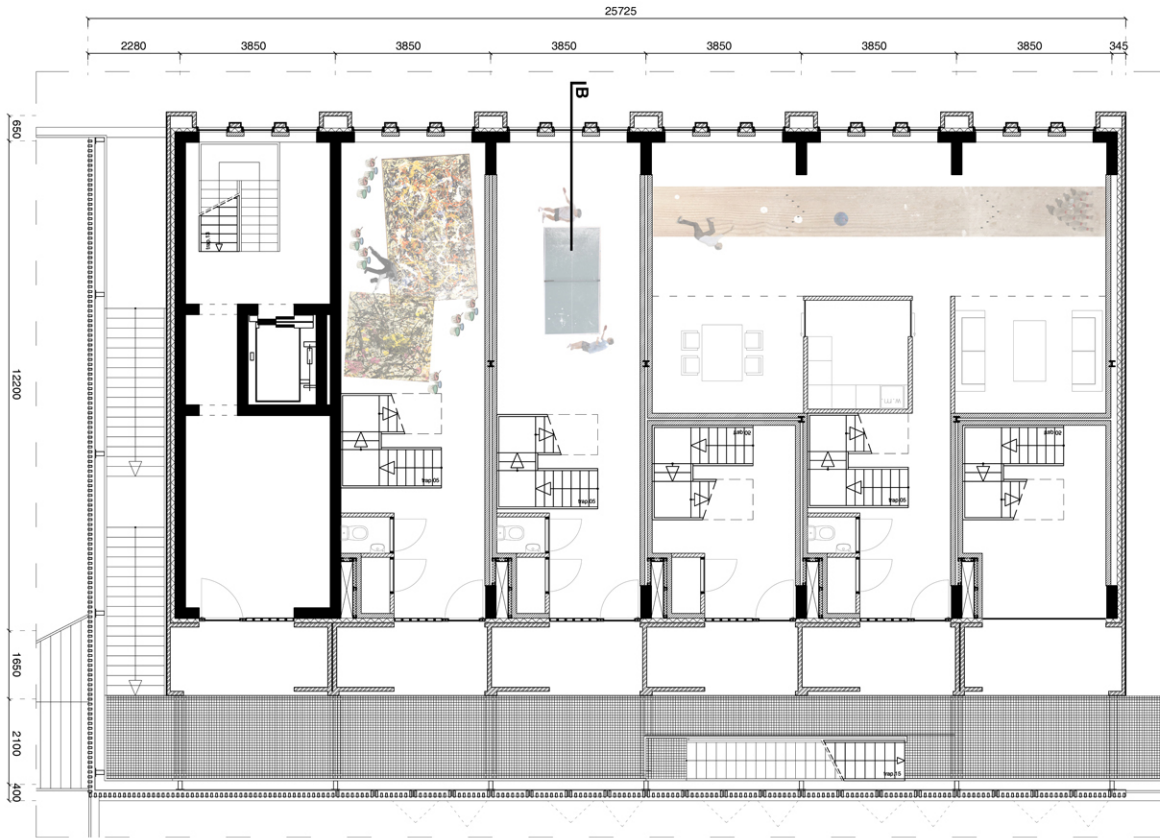


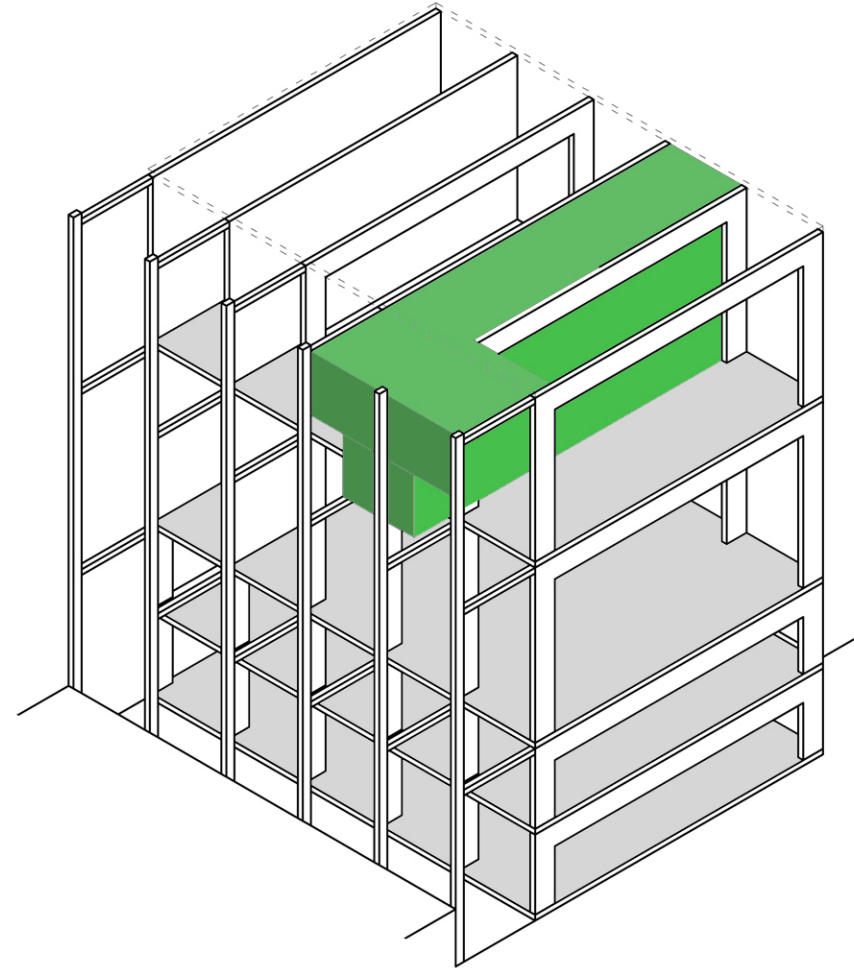
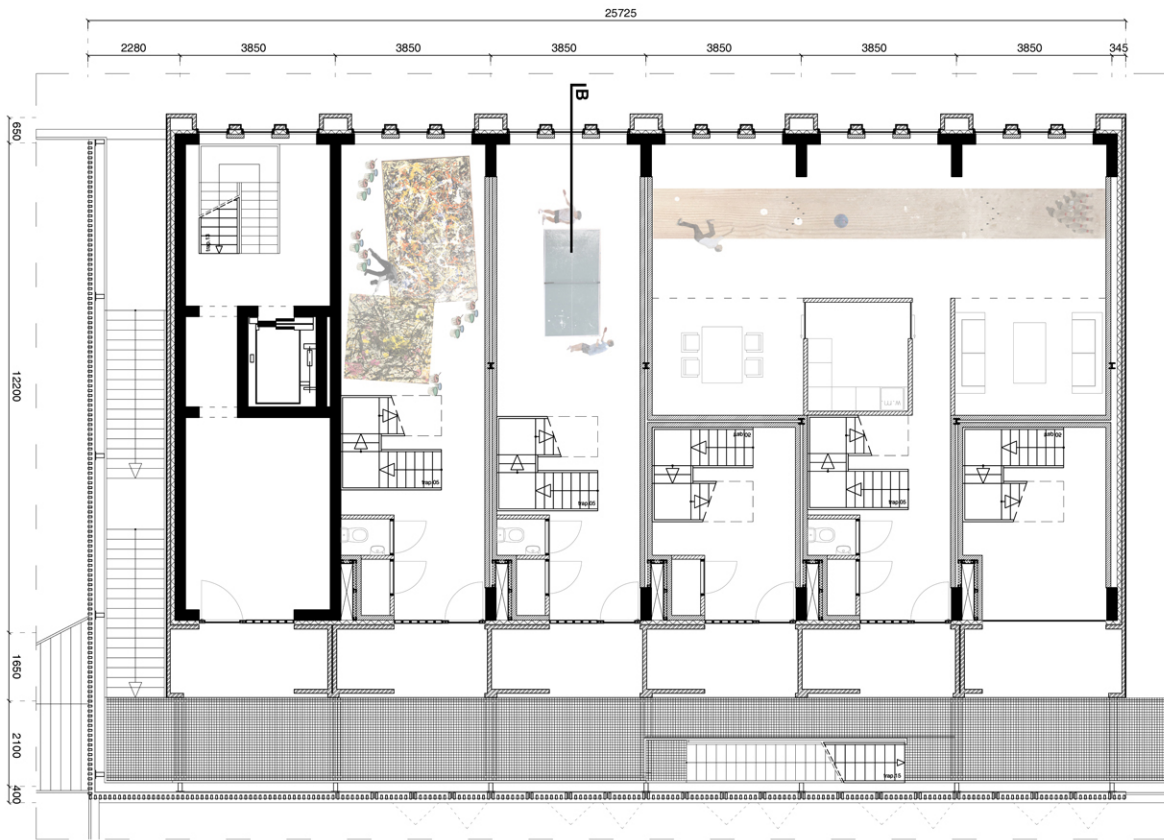
flexibiliteit

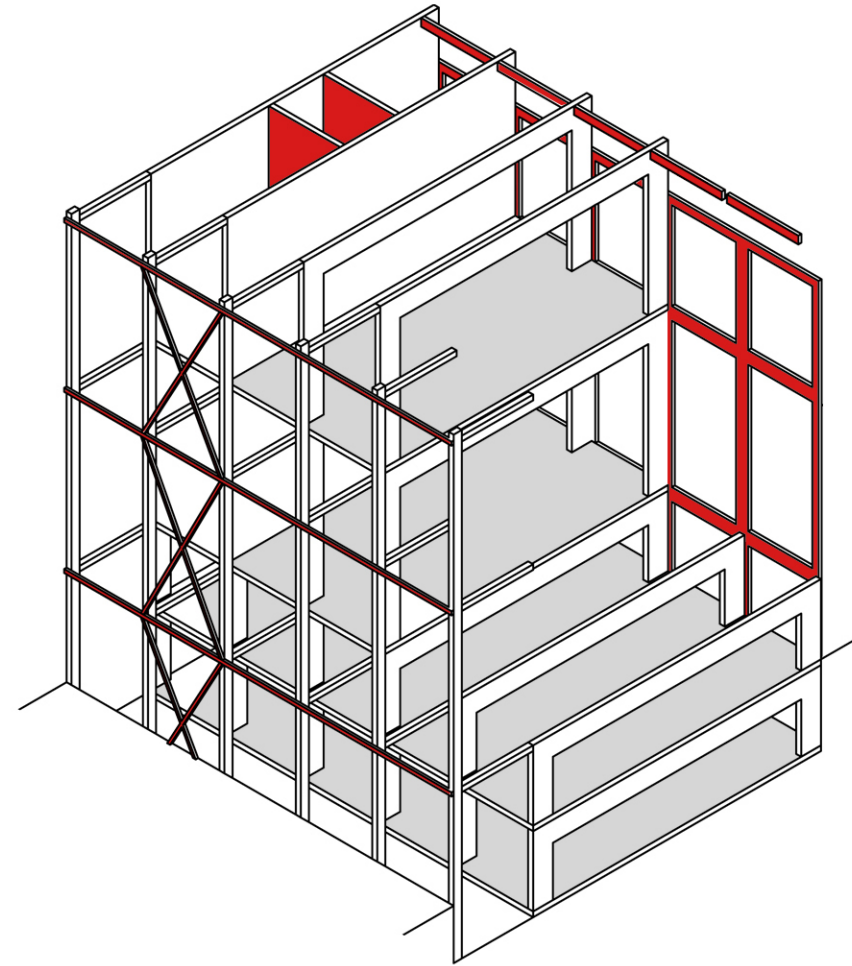
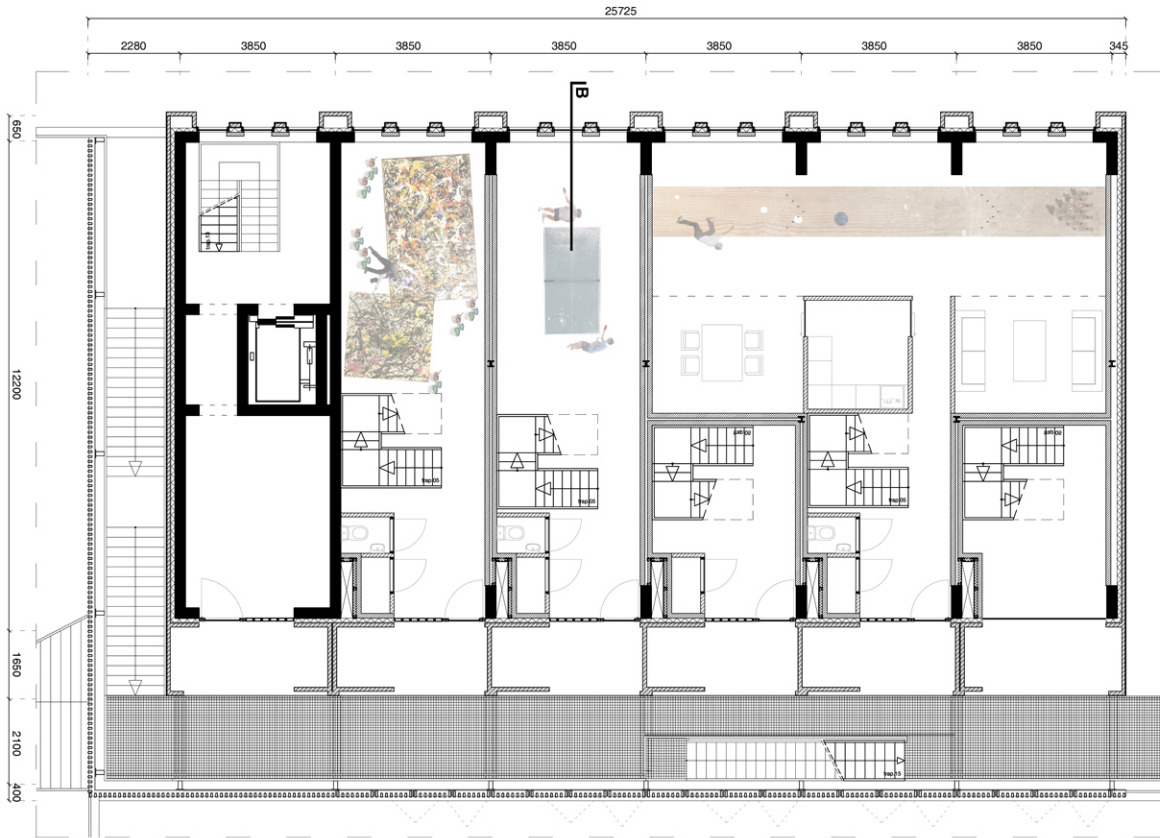
grote flexibiliteit verlengt de gebruiksduur van het gebouw

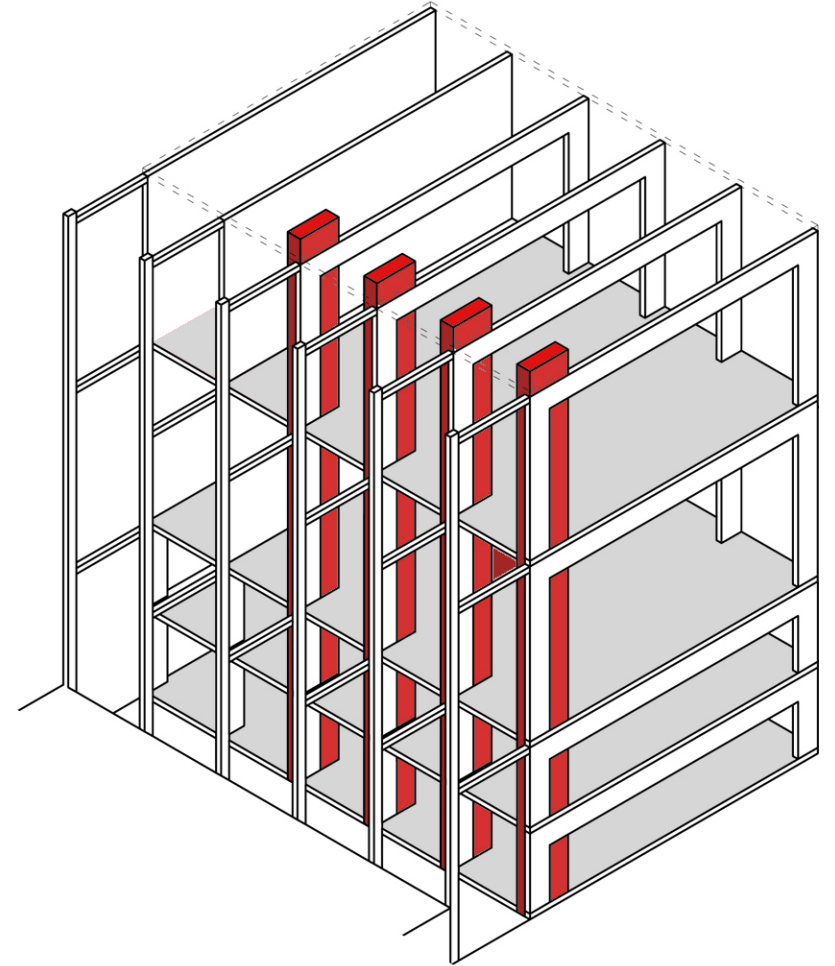


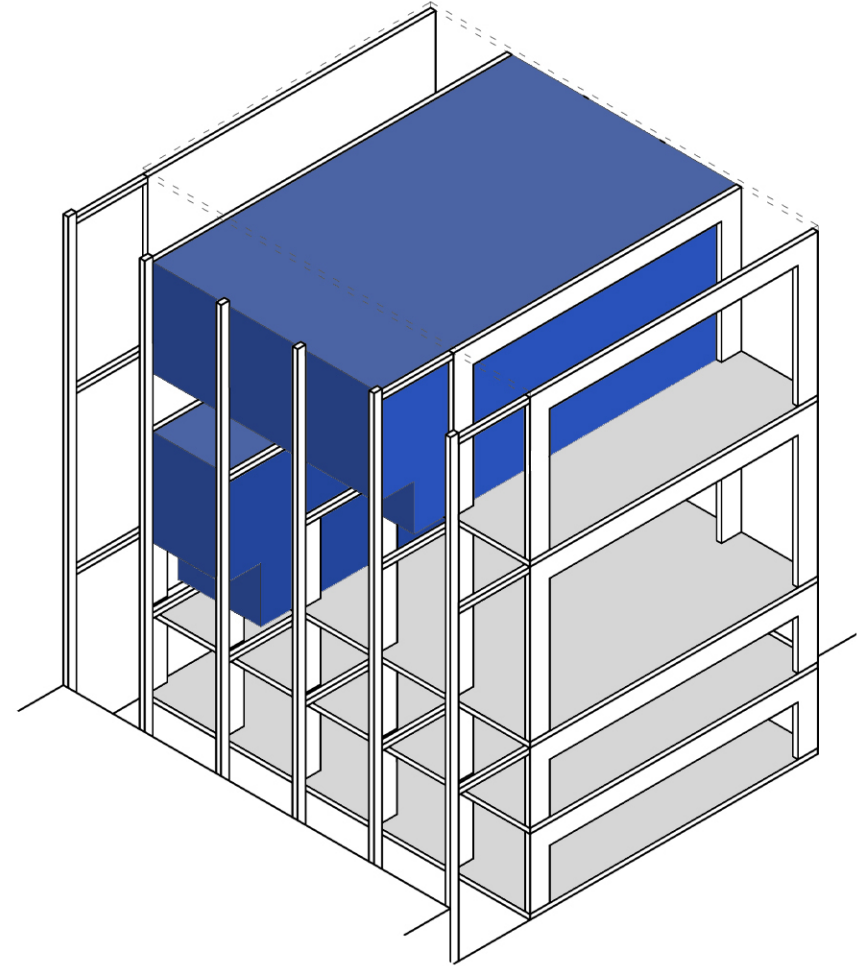


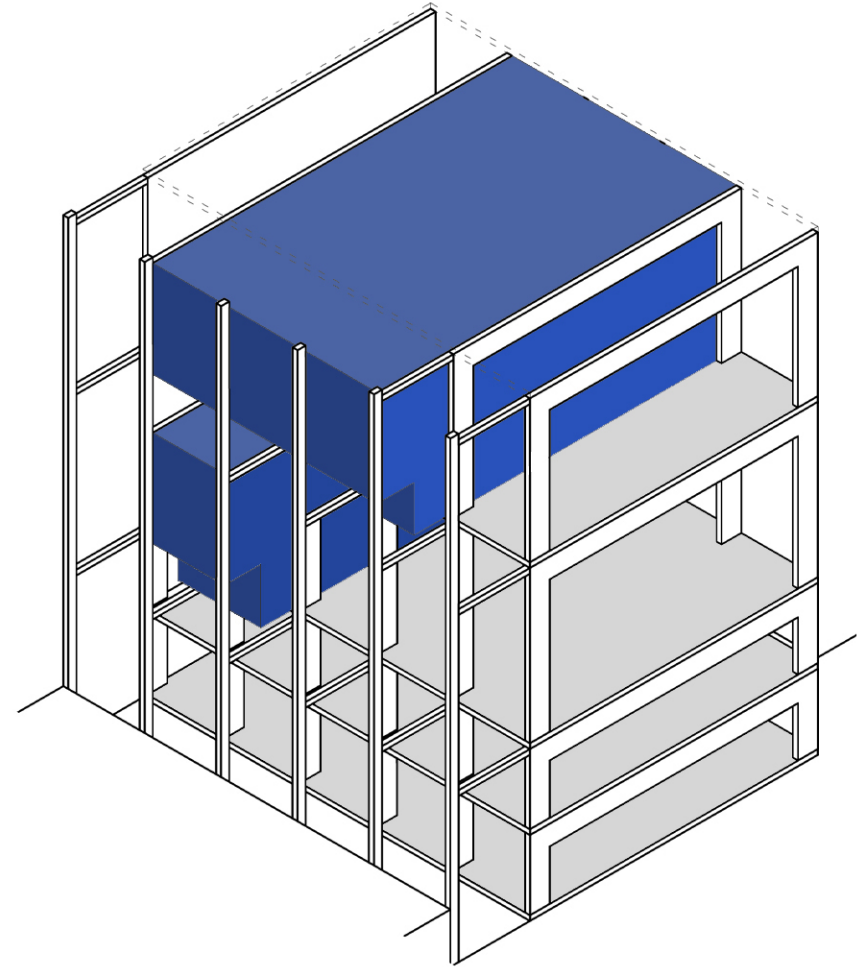
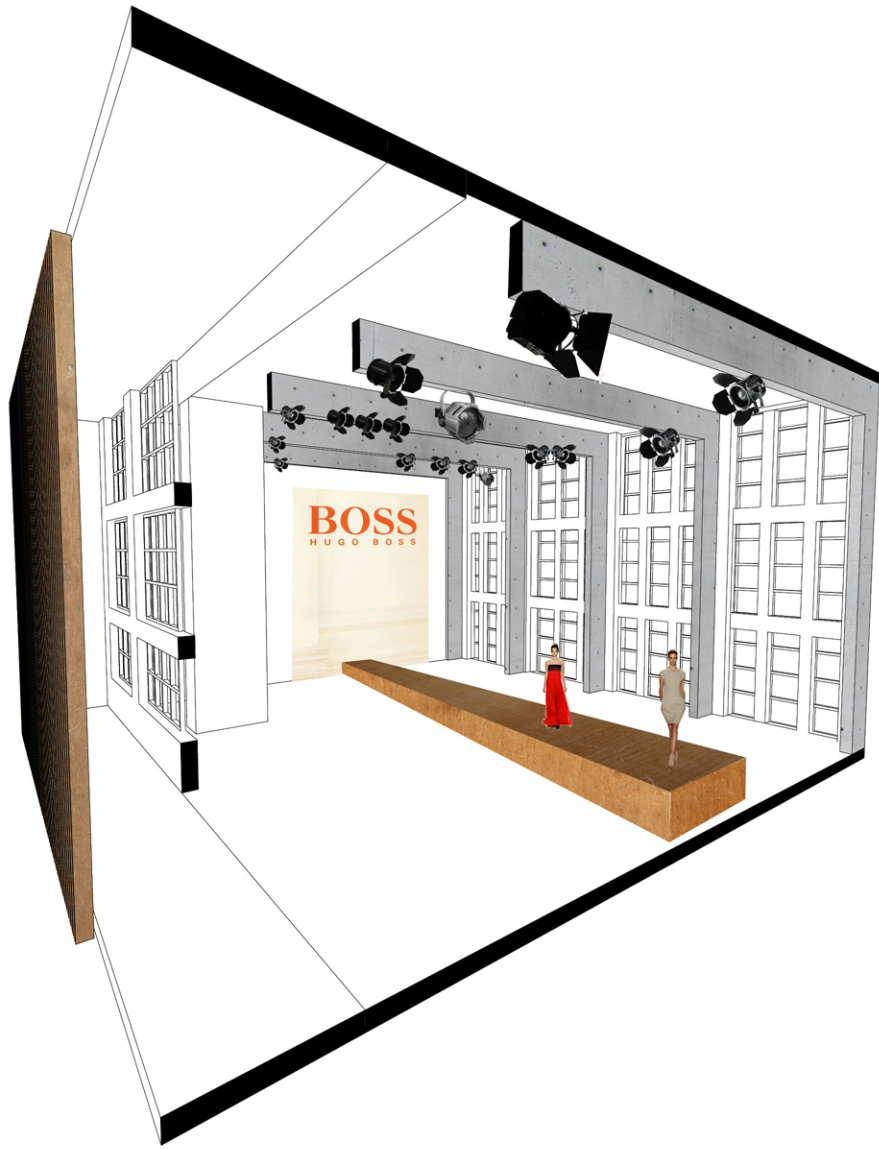


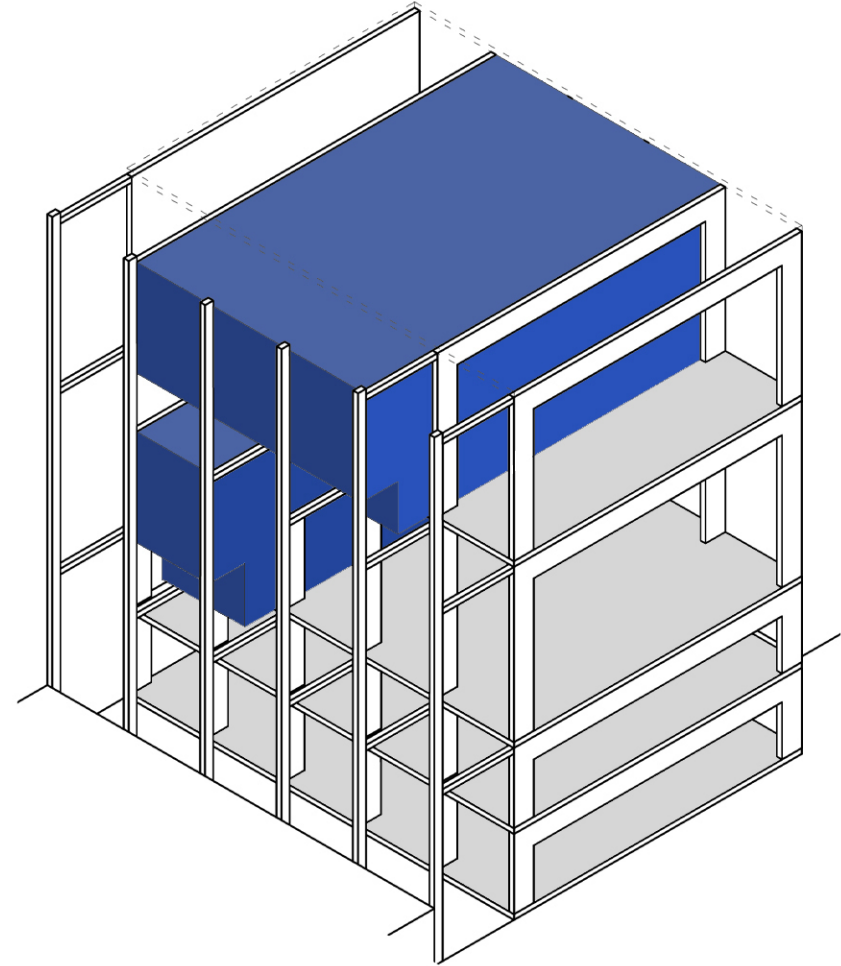
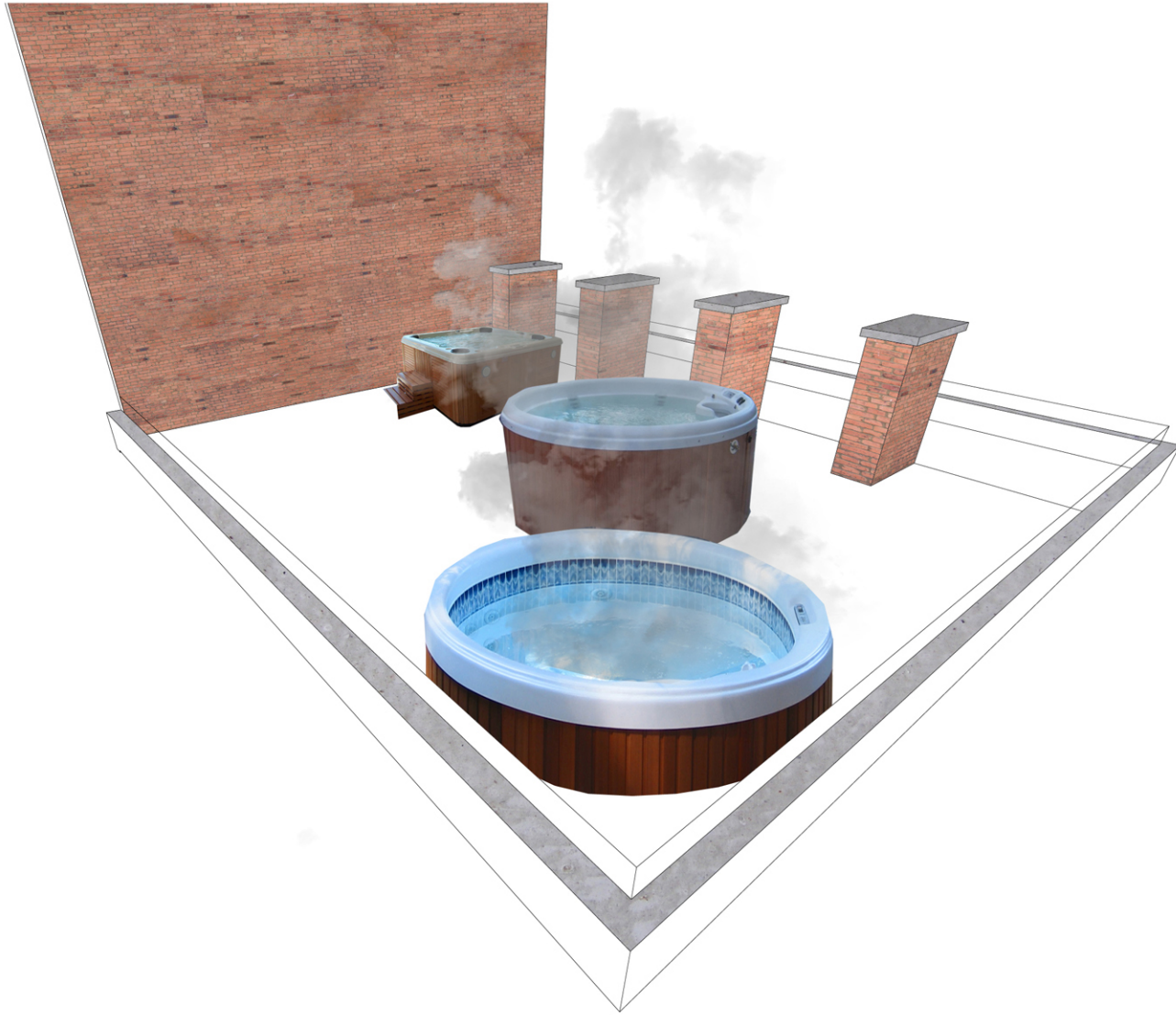


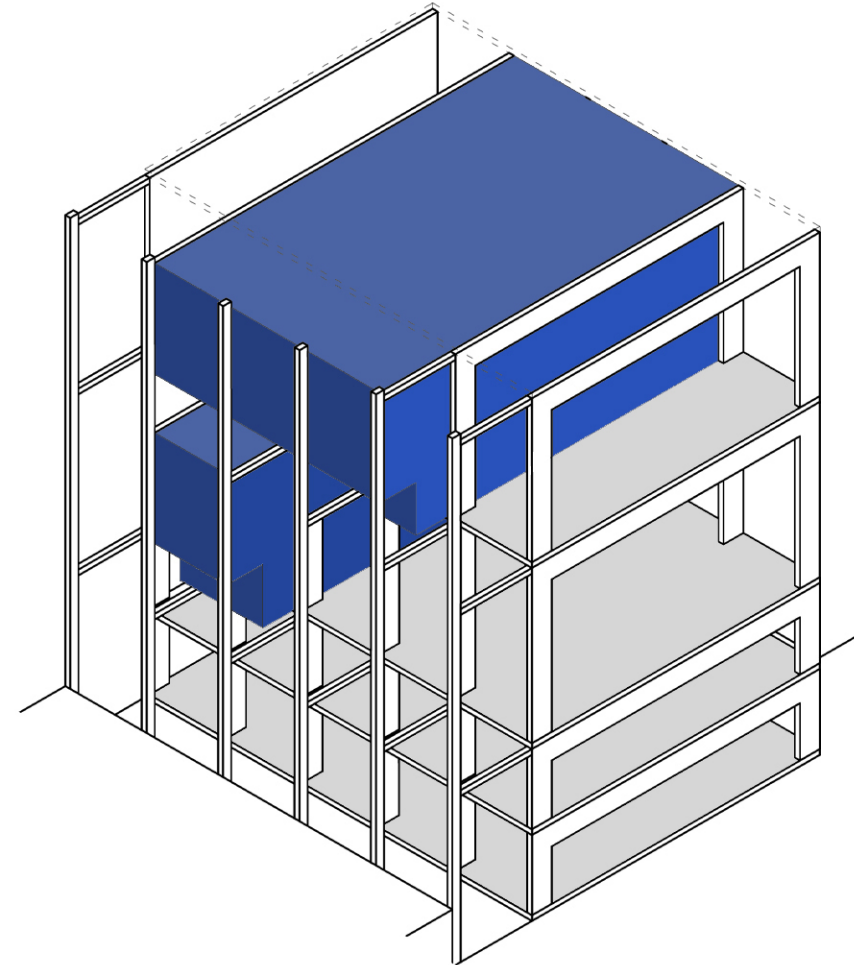


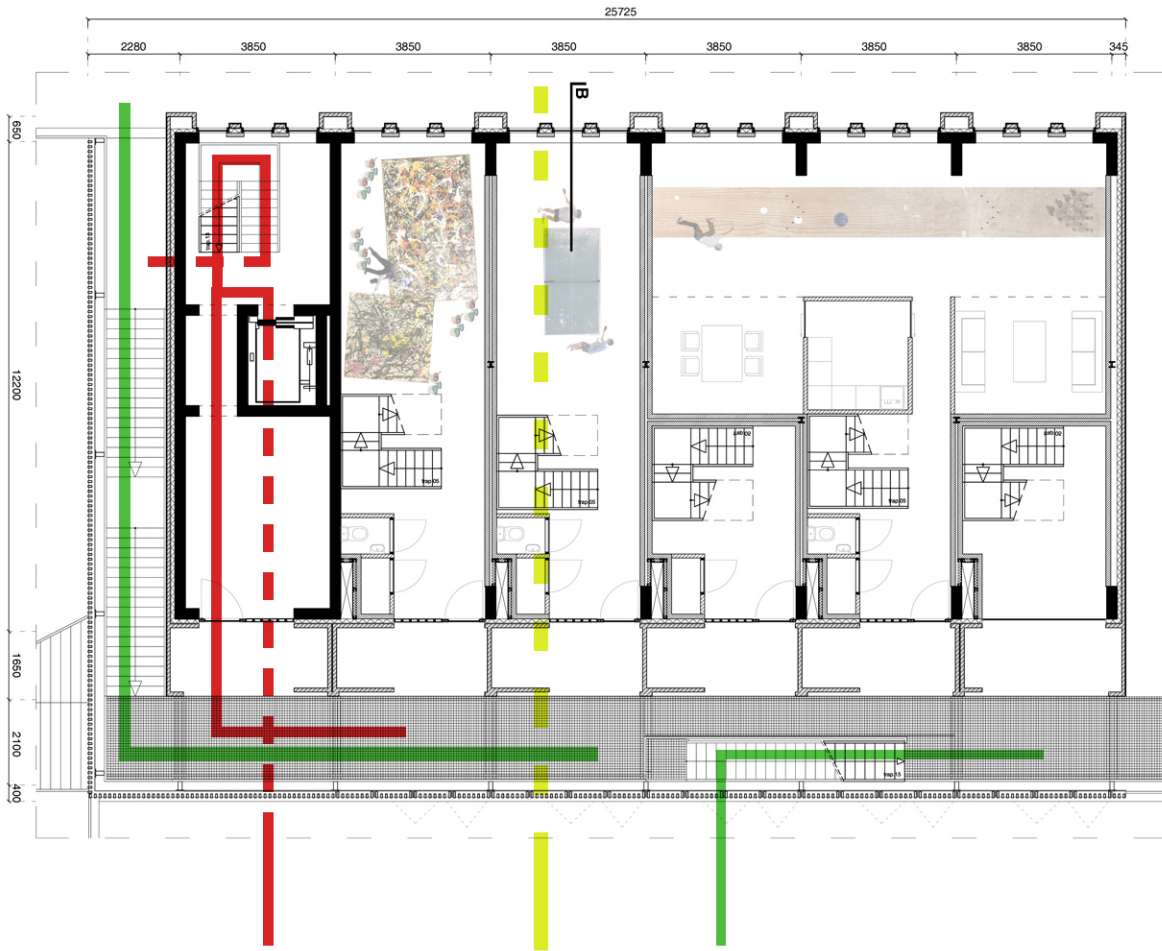




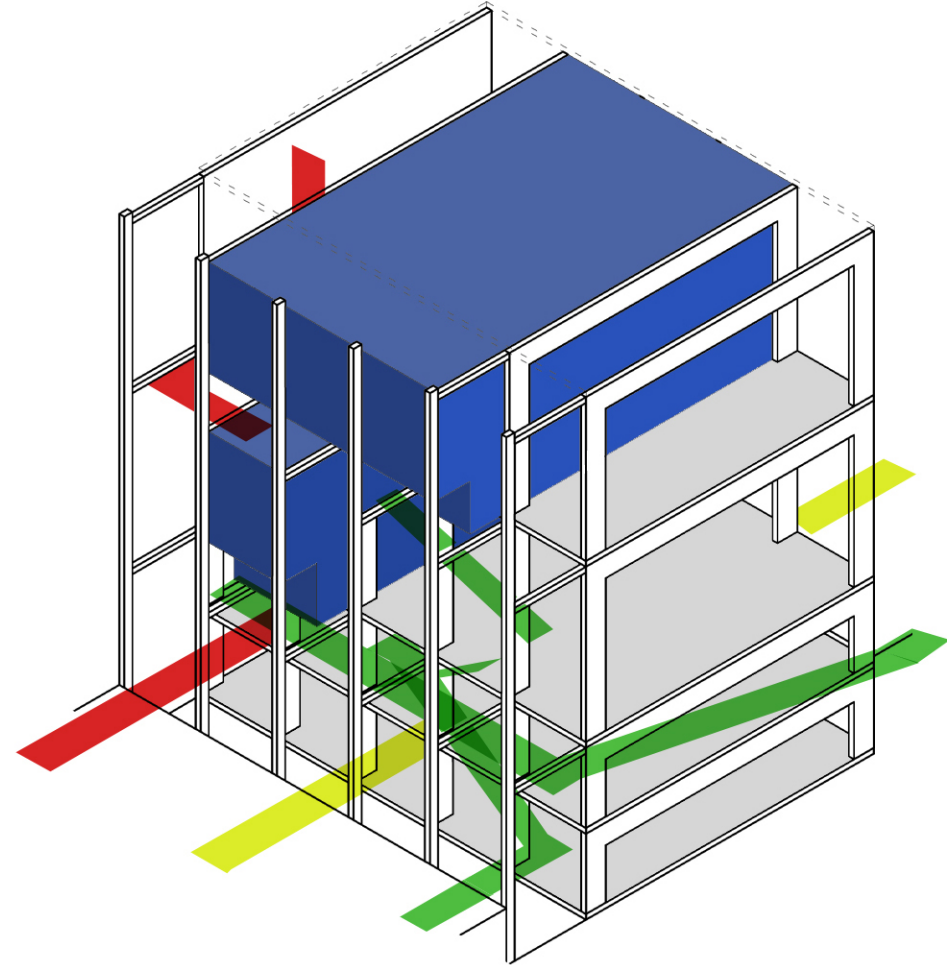


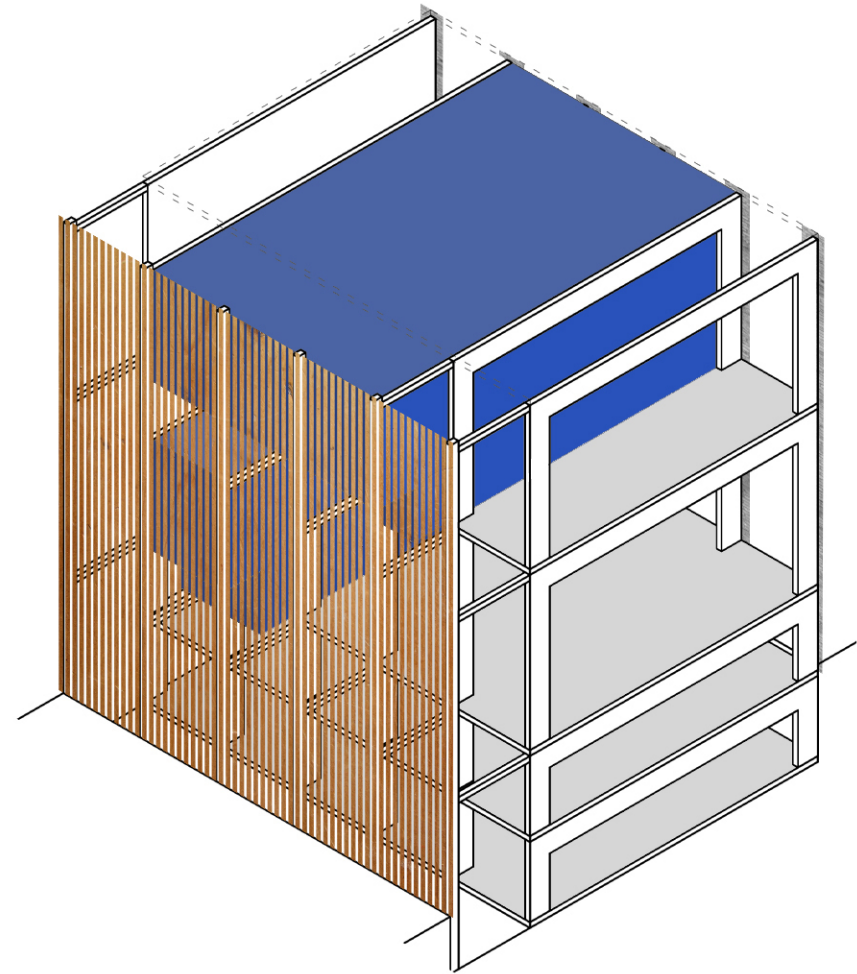
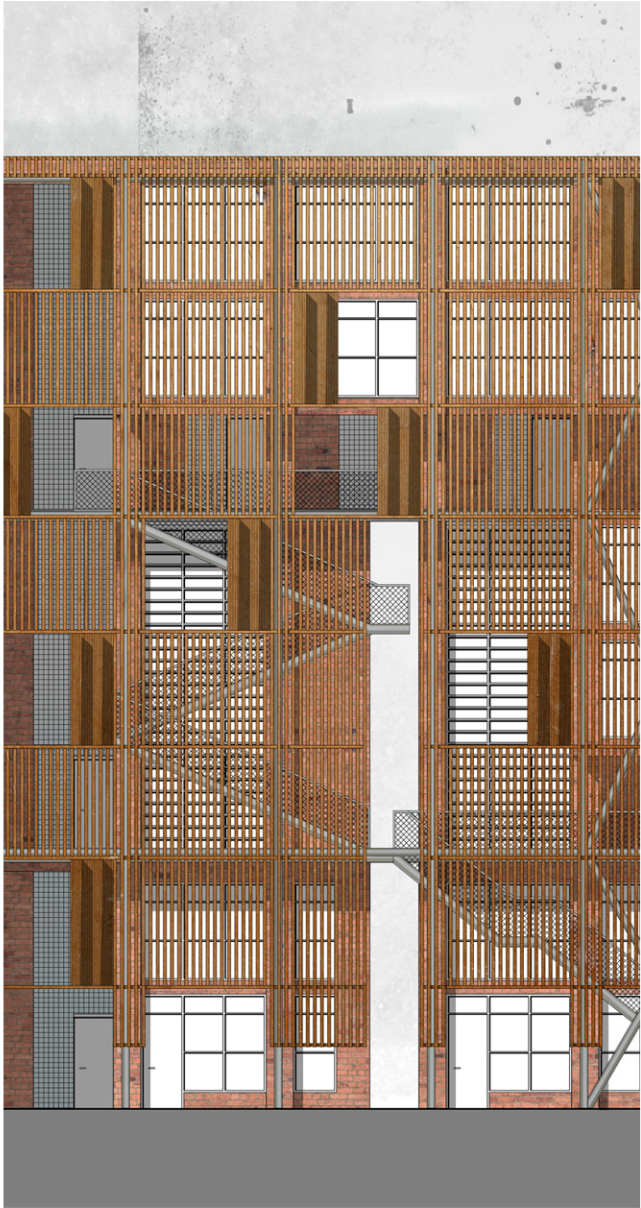




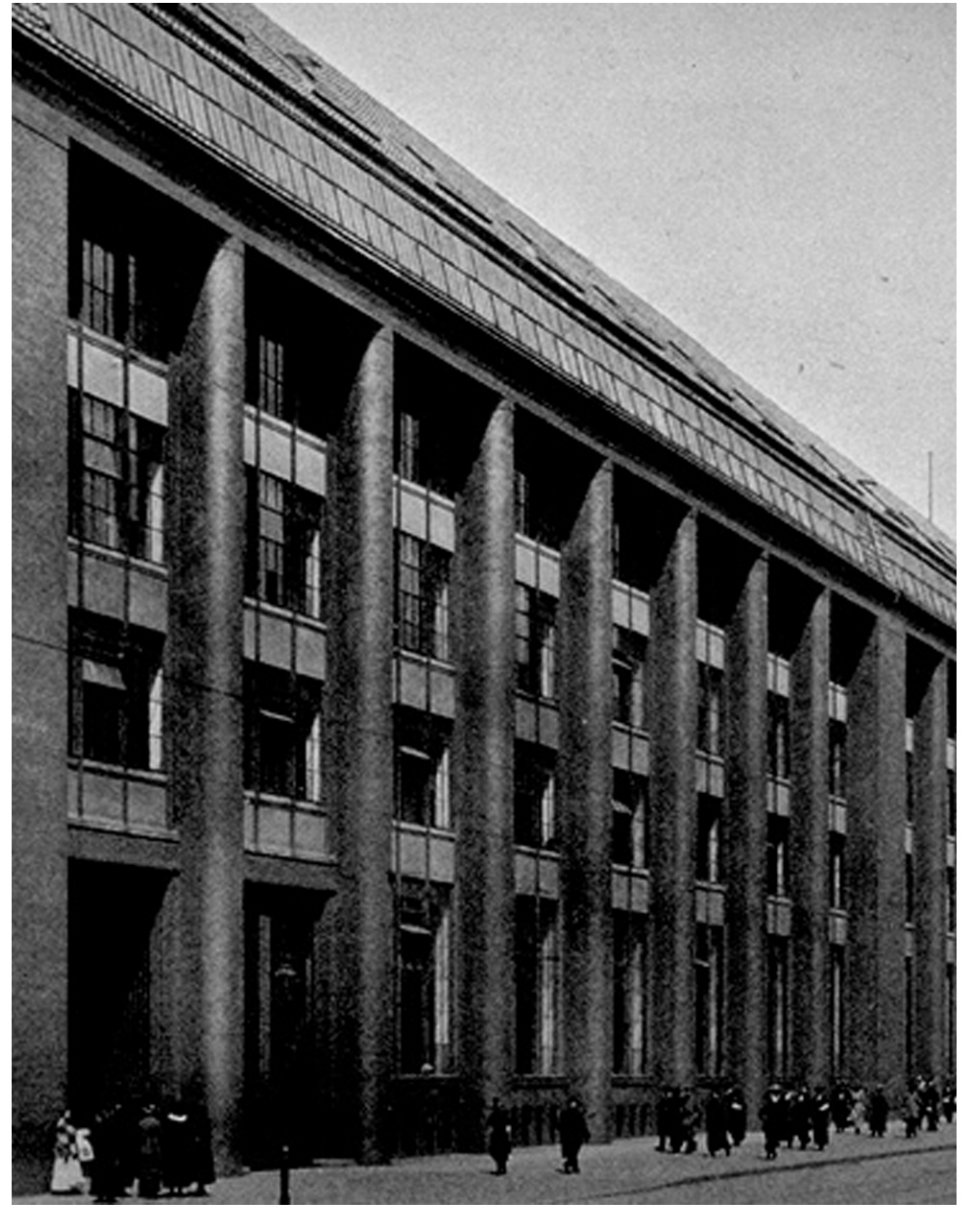
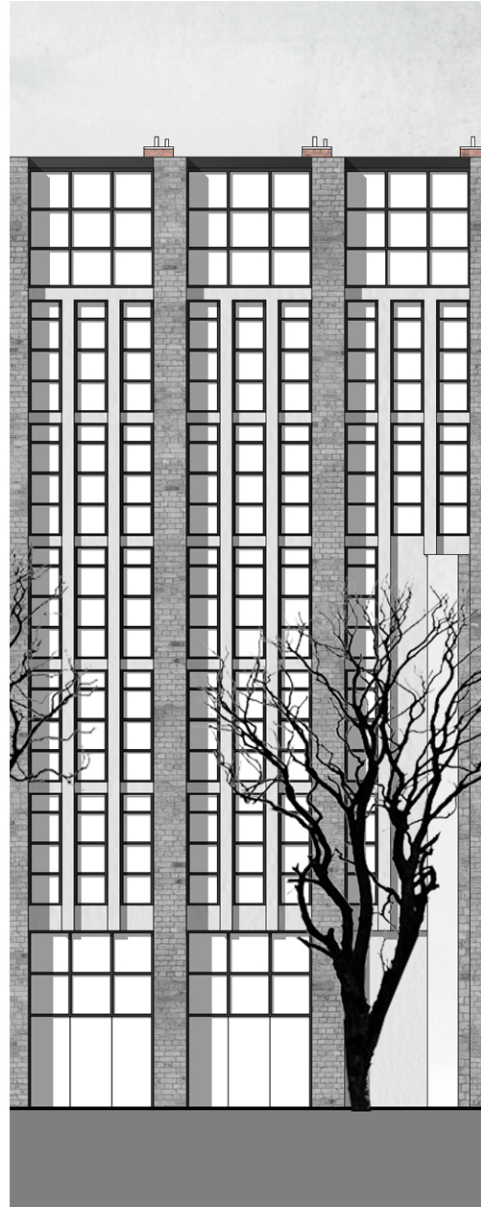
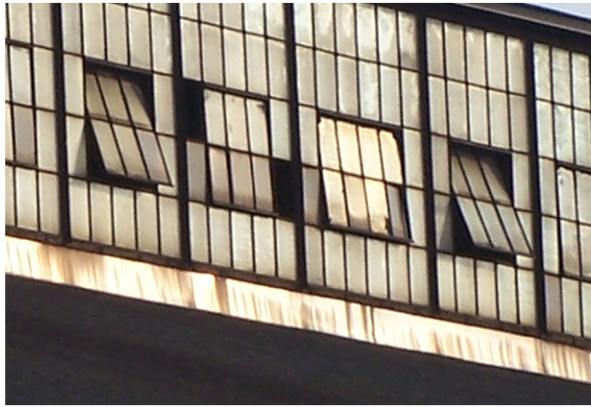


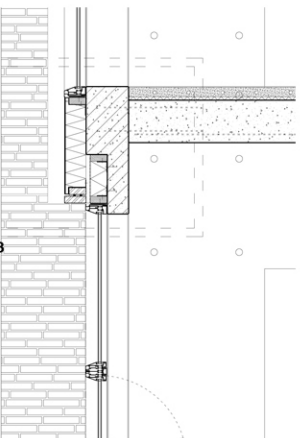
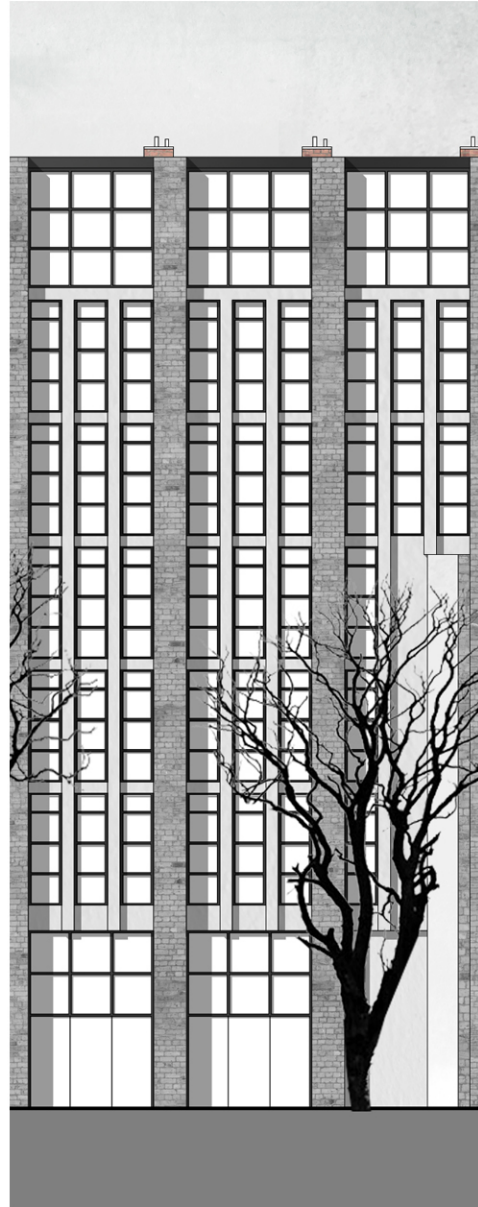
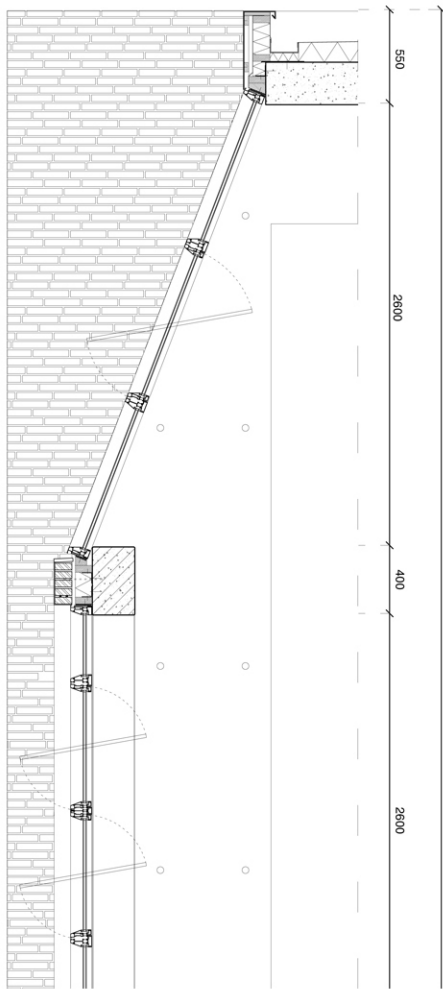
- **collectief**
- **publiek**
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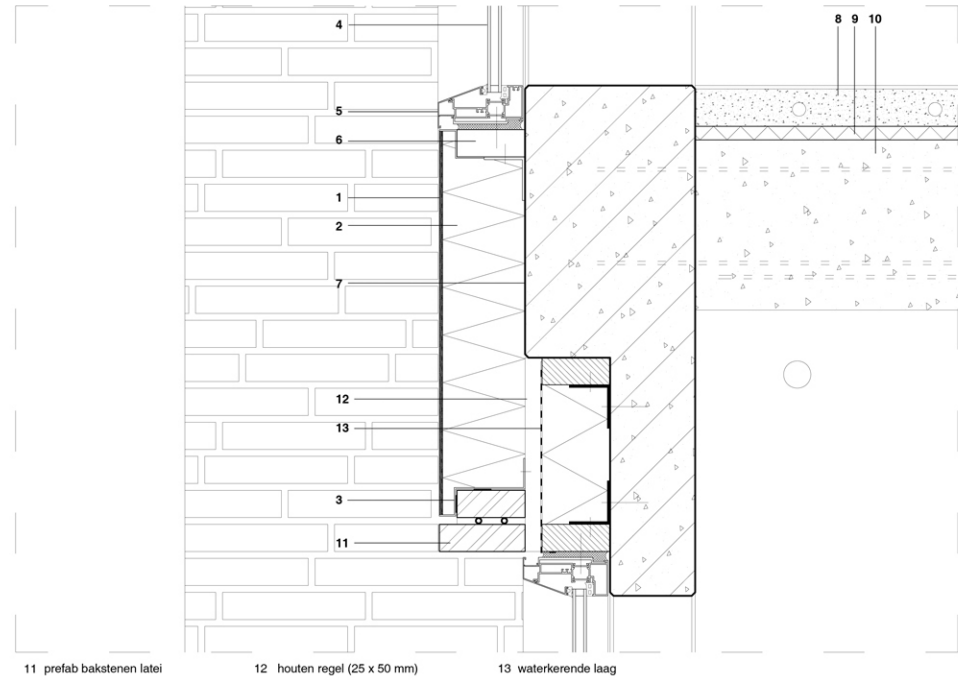




detail 3

DETAIL 3

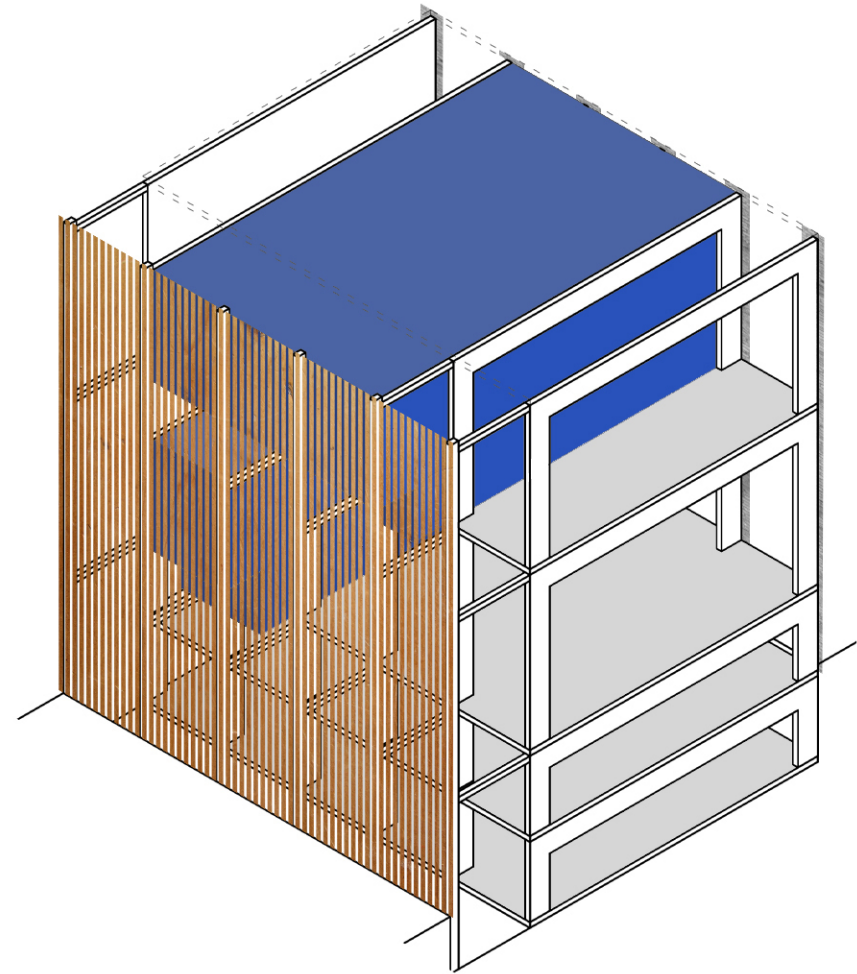
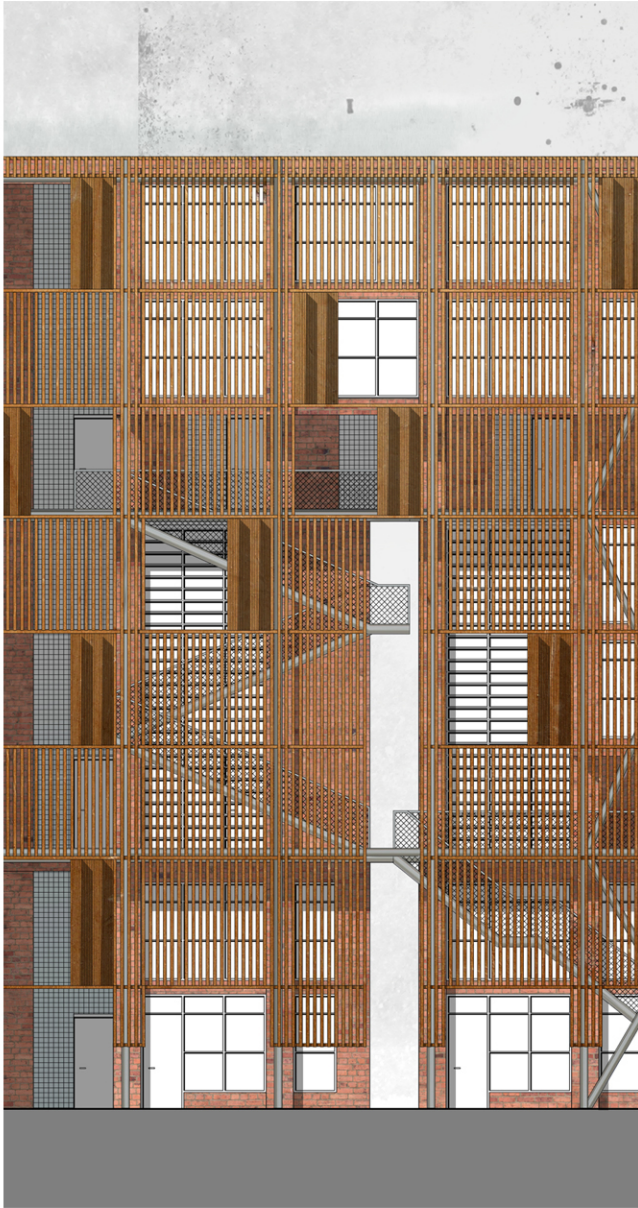
- | | | | |
|--|---|--------------------------------|--|
| 1 PAVATEX DIFFUTHERM
houtvezelisolatie | 4 HR++ glas (4-12-4 mm) | 7 prefab betonnen gevelelement | 8 vloerverwarming in cementdekvloer |
| 2 UNGER-DIFFUTHERM
pleistersysteem
zuiverwit (RAL9010) | 5 aluminium SAPA kozijn 1105
met verjongde afdekkap
signaalzwart (RAL 9004) | | 9 verende laag |
| 3 aluminium RVS sokkelprofiel met
sokkelaanklikprofiel | 6 houten stelkozijn | | 10 i.h.w gestorte betonnen
verdiepingsvloer |



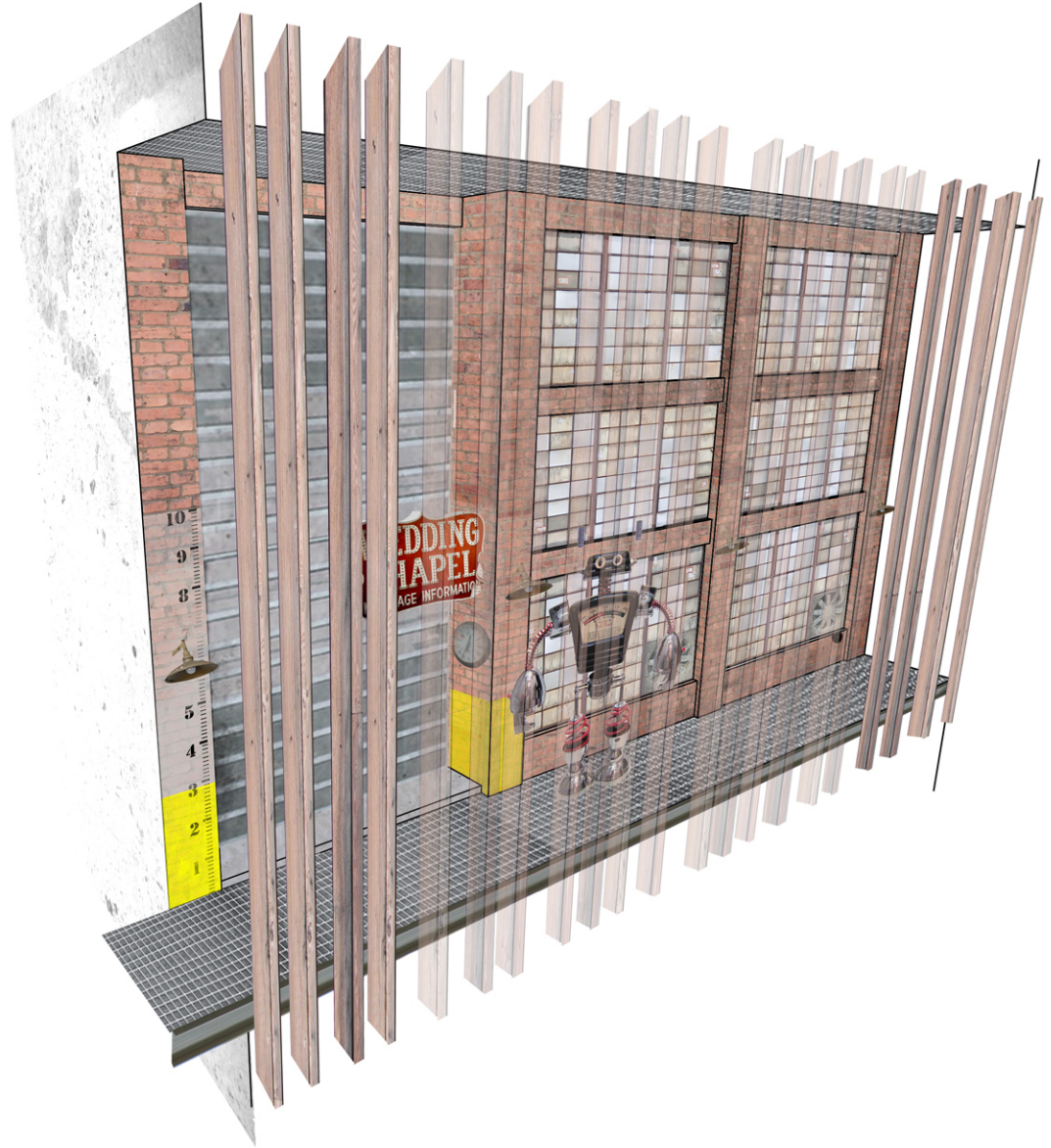
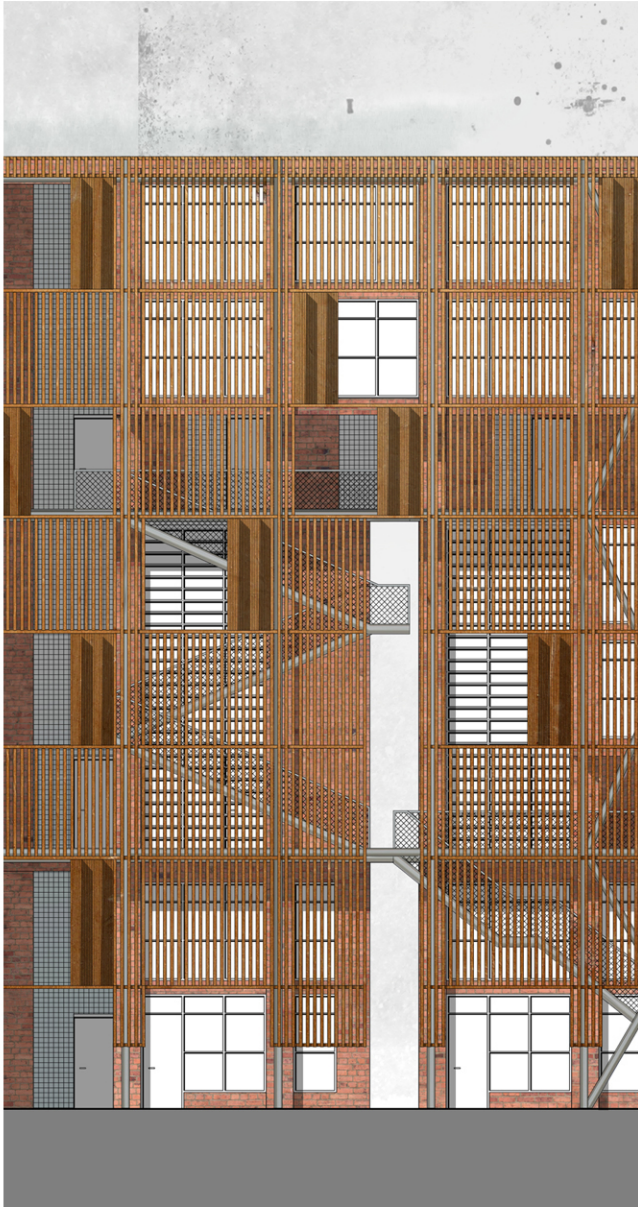
11 prefab bakstenen latei

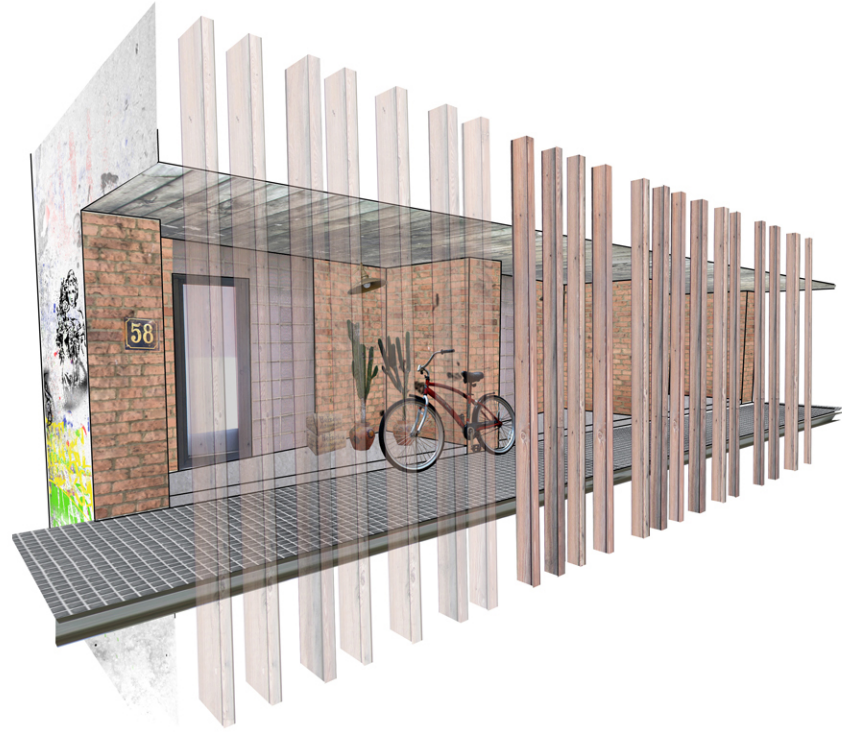
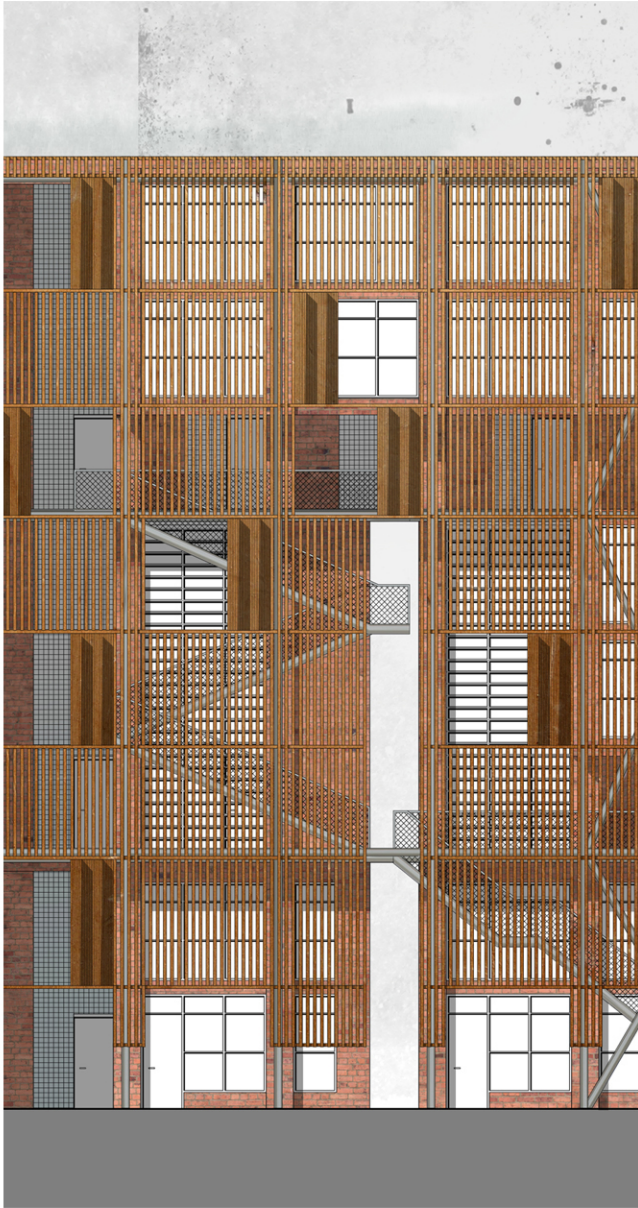
12 houten regel (25 x 50 mm)

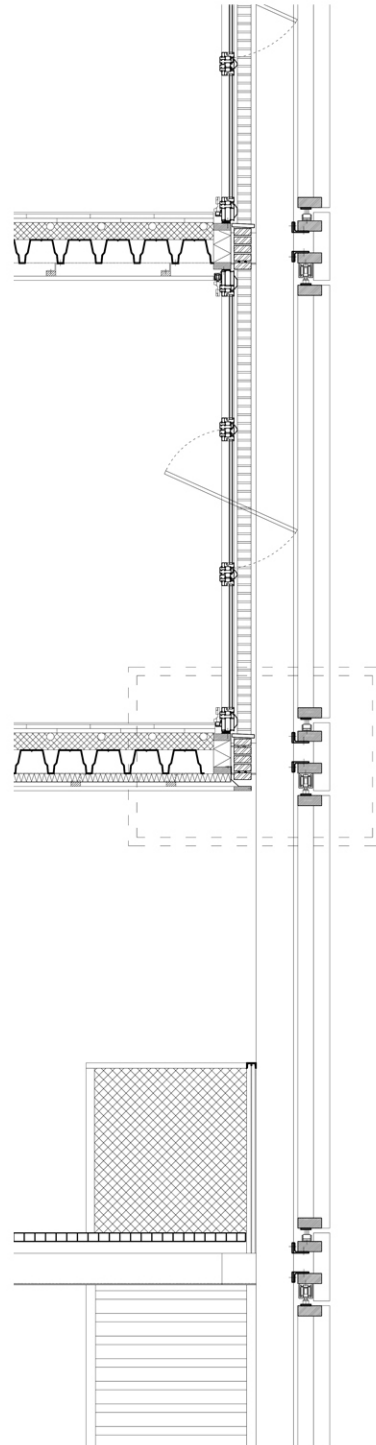
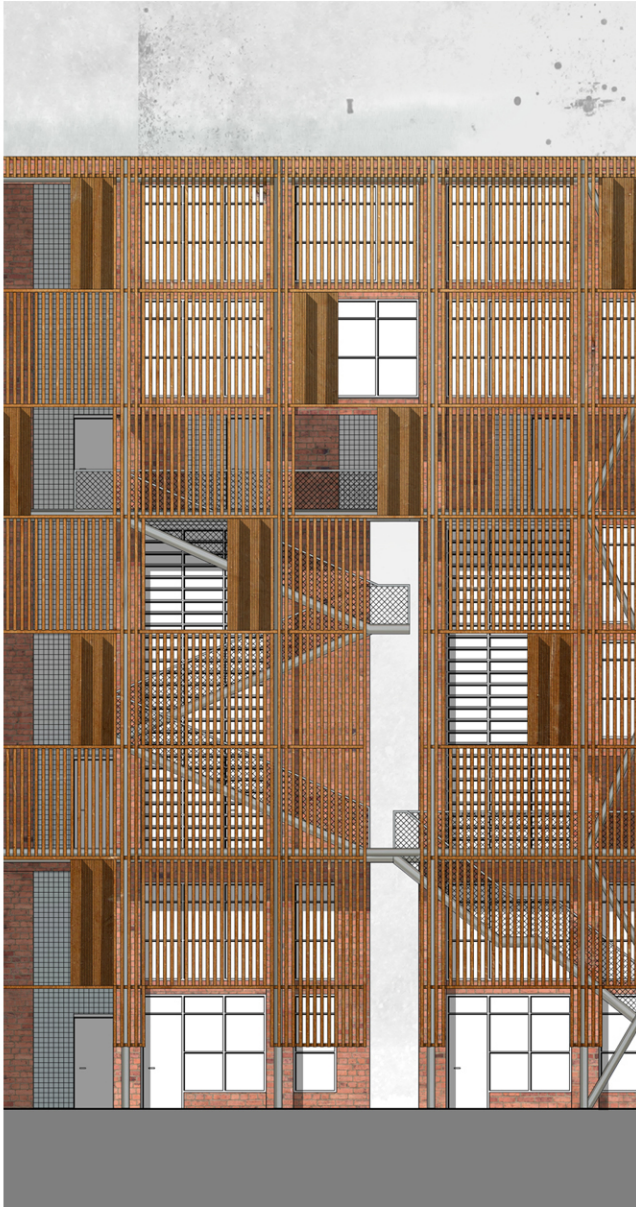
13 waterkerende laag





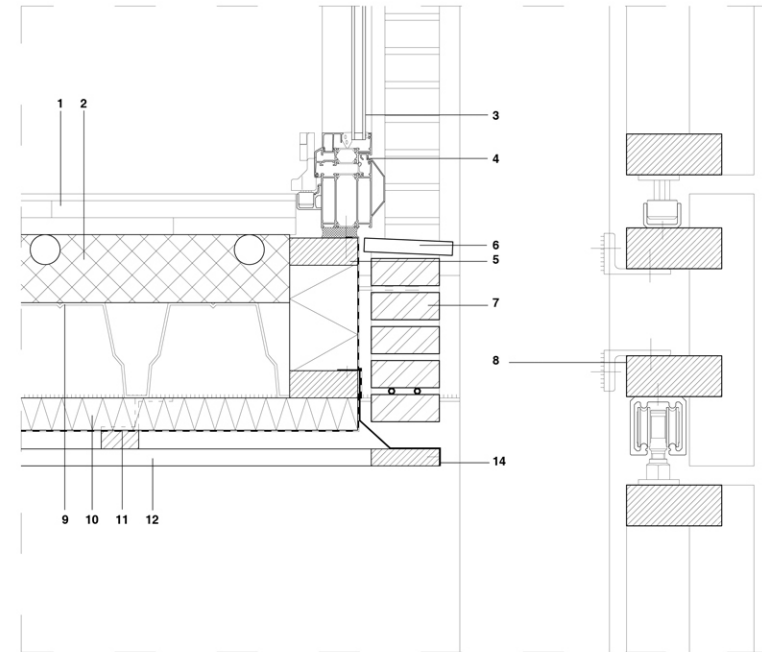




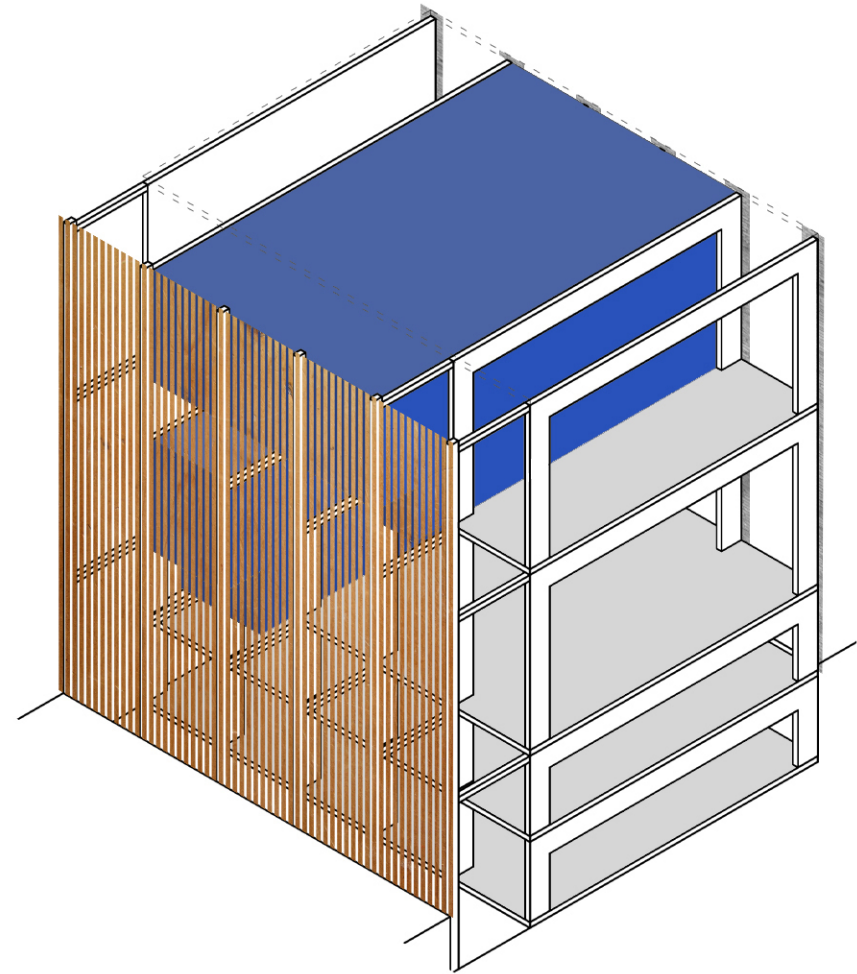
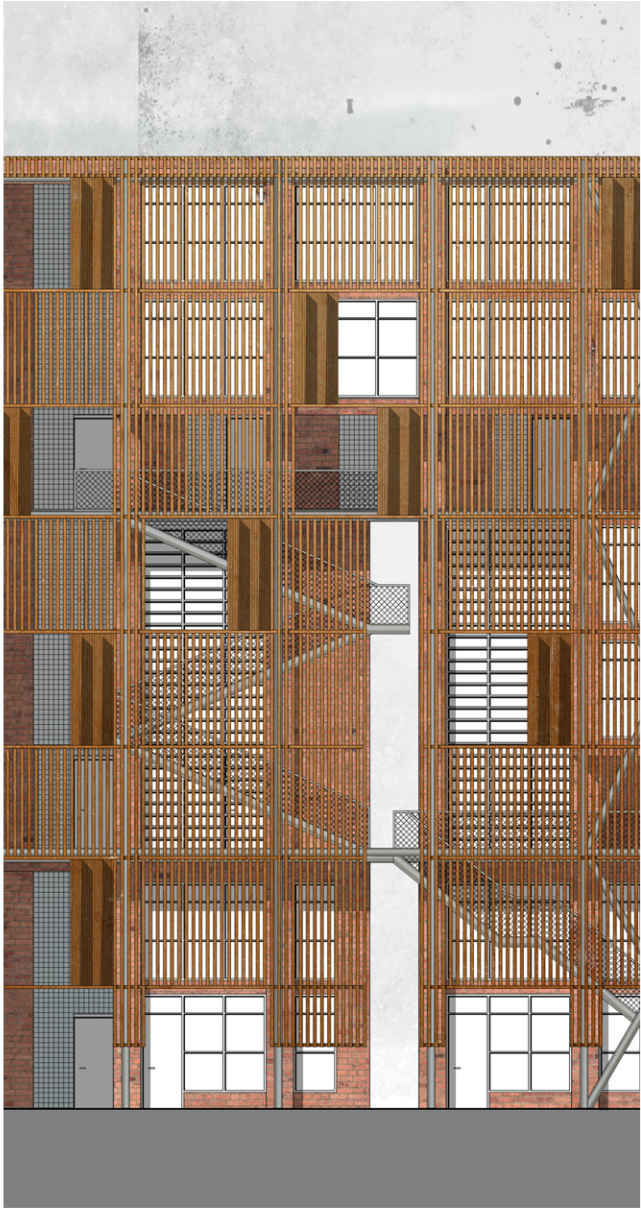


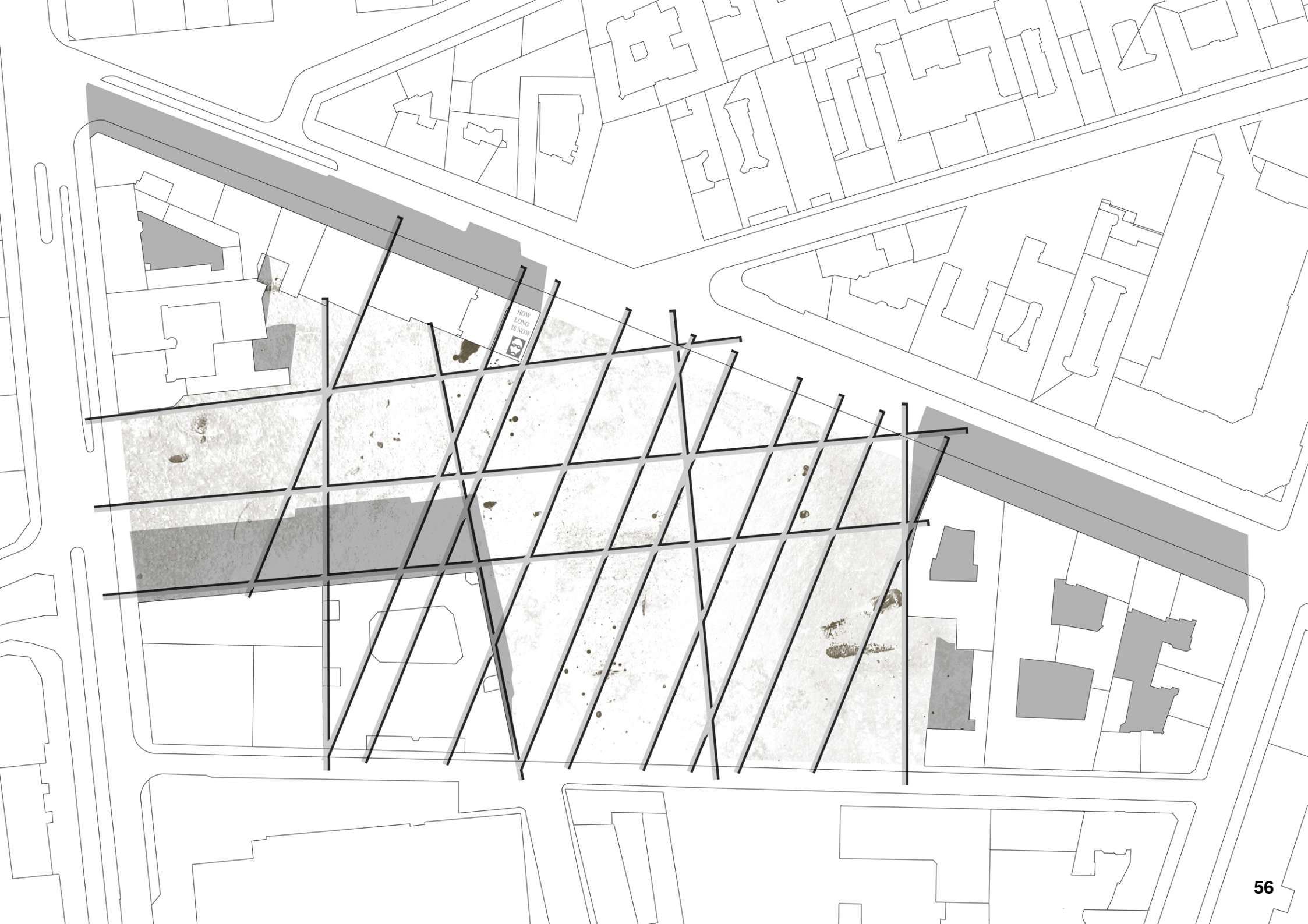
DETAIL 1

- | | | | |
|--|---|---|---|
| 1 2 lagen E22 FERMACELL
vezelcementplaten (25 mm) | 3 HR++ glas (4-12-4 mm) | 6 betonnen dorpel | 8 Prefab gevelelementen:
- houtenframe
- stalenrails
- houtenframe |
| 2 vloerverwarming in EPS isolatieplaat
met warmtegeleidende plaat | 4 aluminium SAPA schuifkozijn
1074 met verjongde afdekkap
signaalzwart (RAL 9004) | 7 wildverband metselwerk van baksteen
in waafmaat op prefab bakstenen
latei | |
| | 5 houten stelkozijn | | |

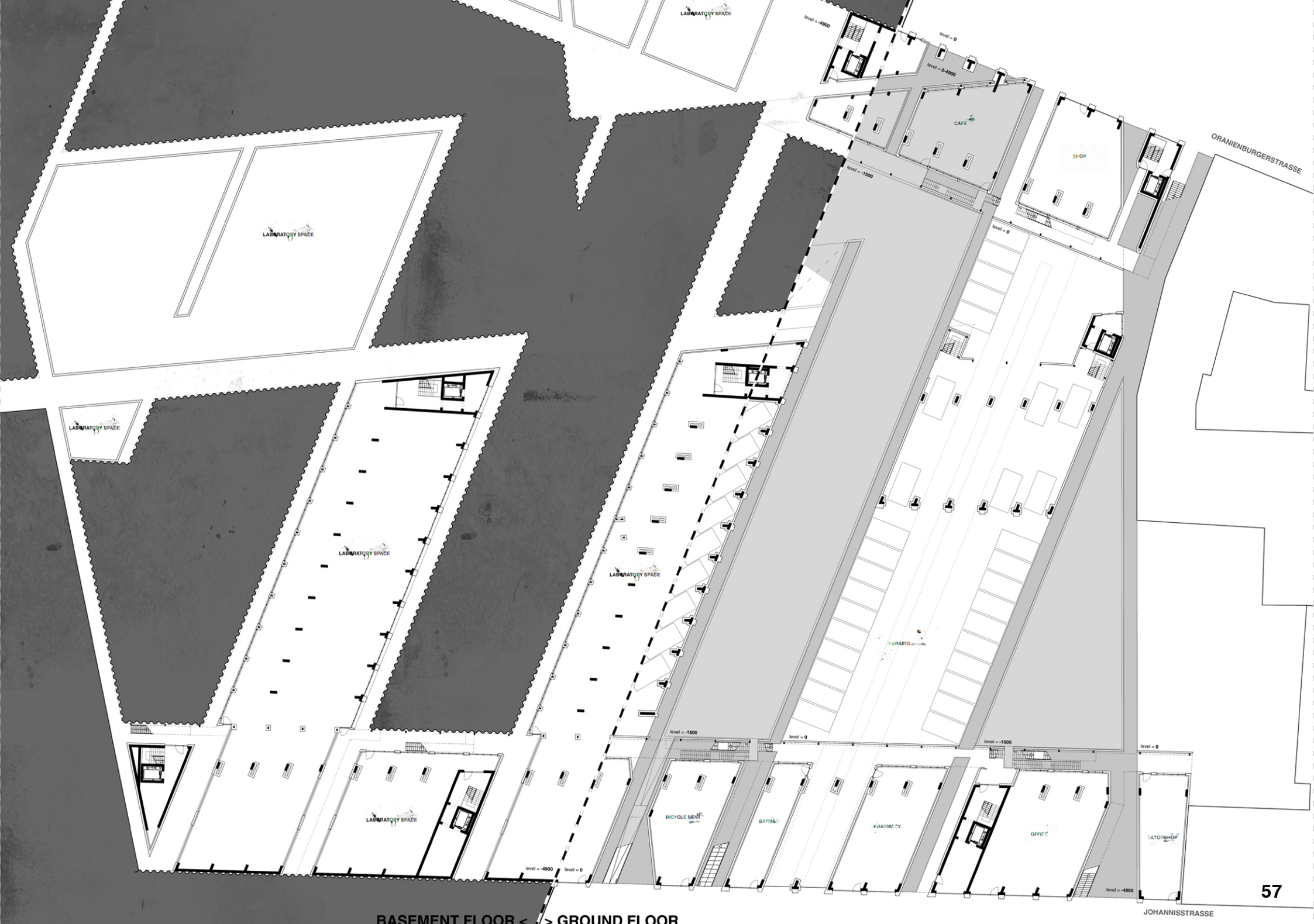


- | | | |
|---|--|---|
| 9 geprofileerde staalplaat | 11 waterkerende laag | 13 steenwol |
| 10 steenwol isolatie tussen houten
regelwerk | 12 plafond van gebruikte houten
planken | 14 aluminium zetwerk
signaalzwart (RAL 9004) |

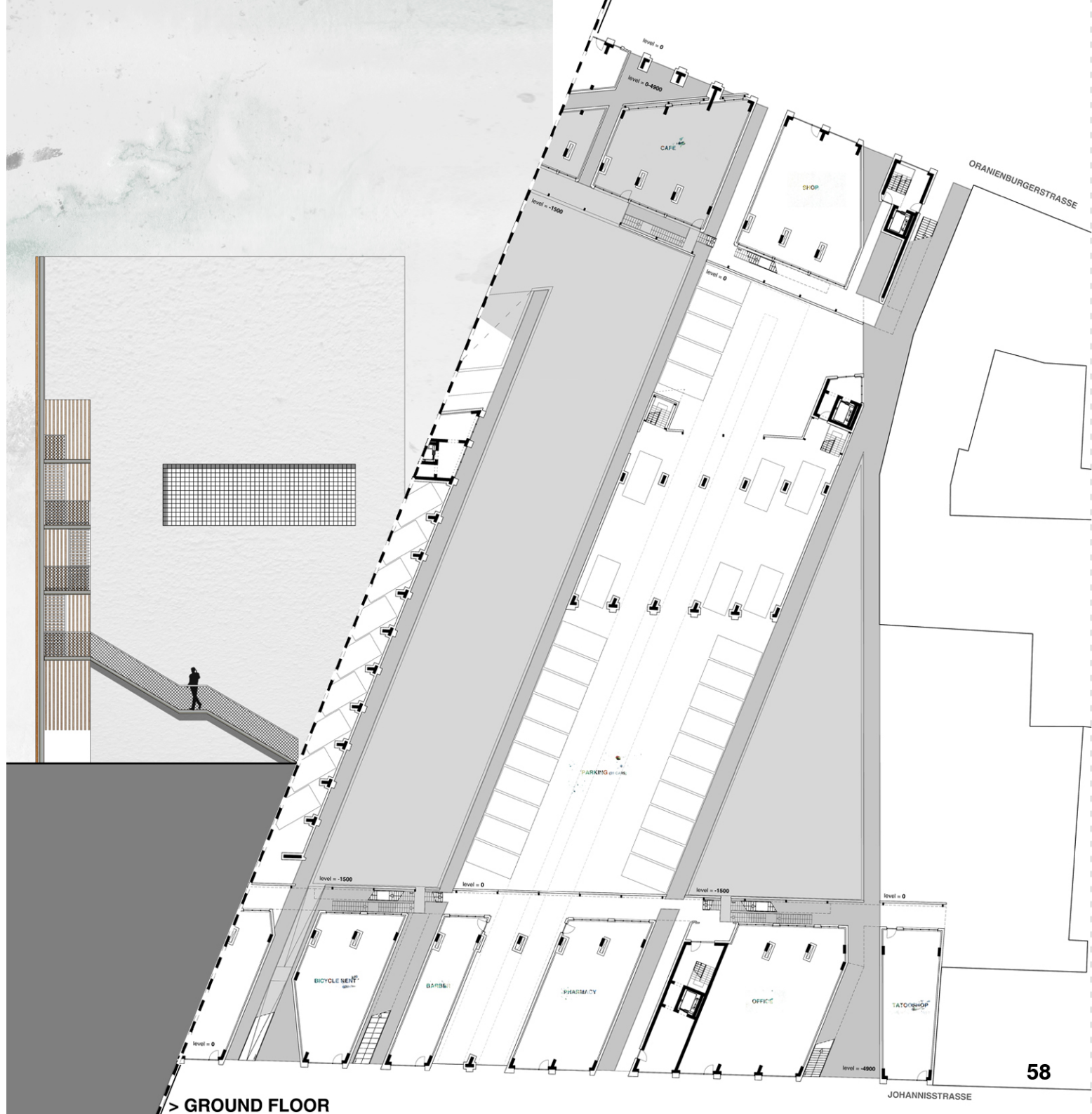
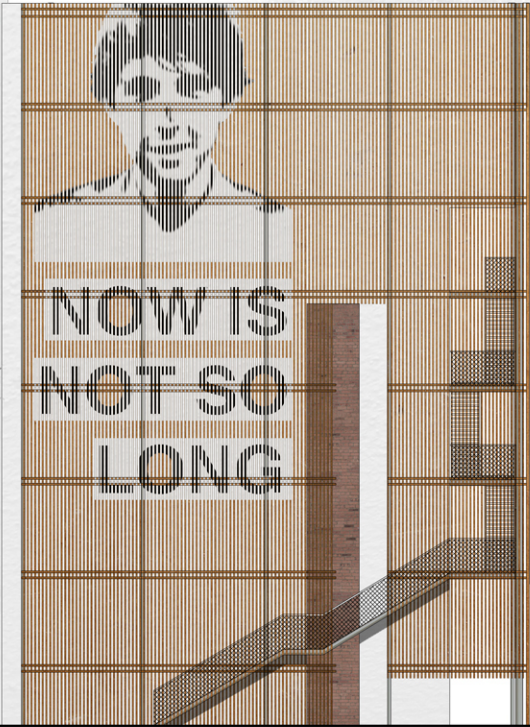




HOW LONG IS NOW

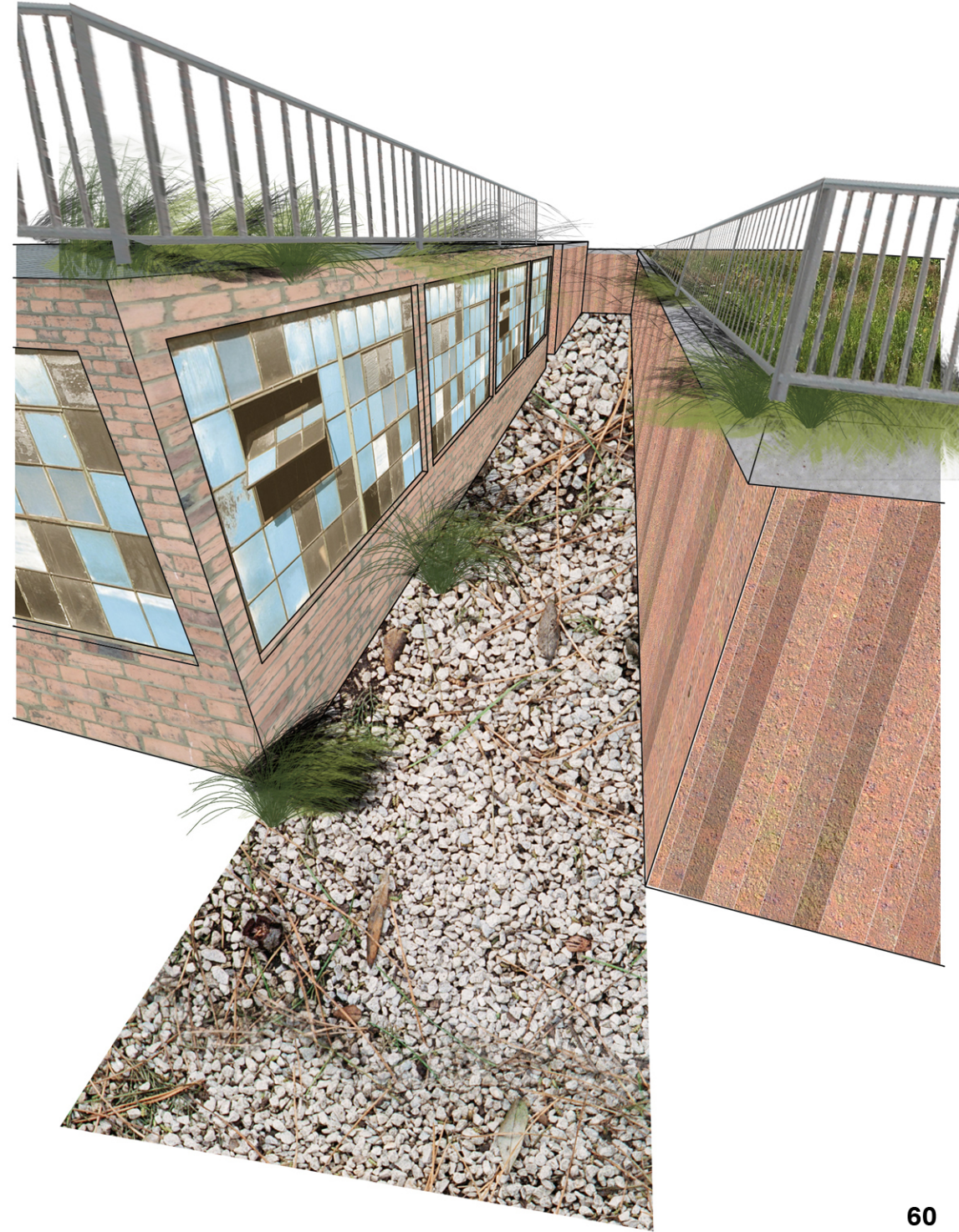
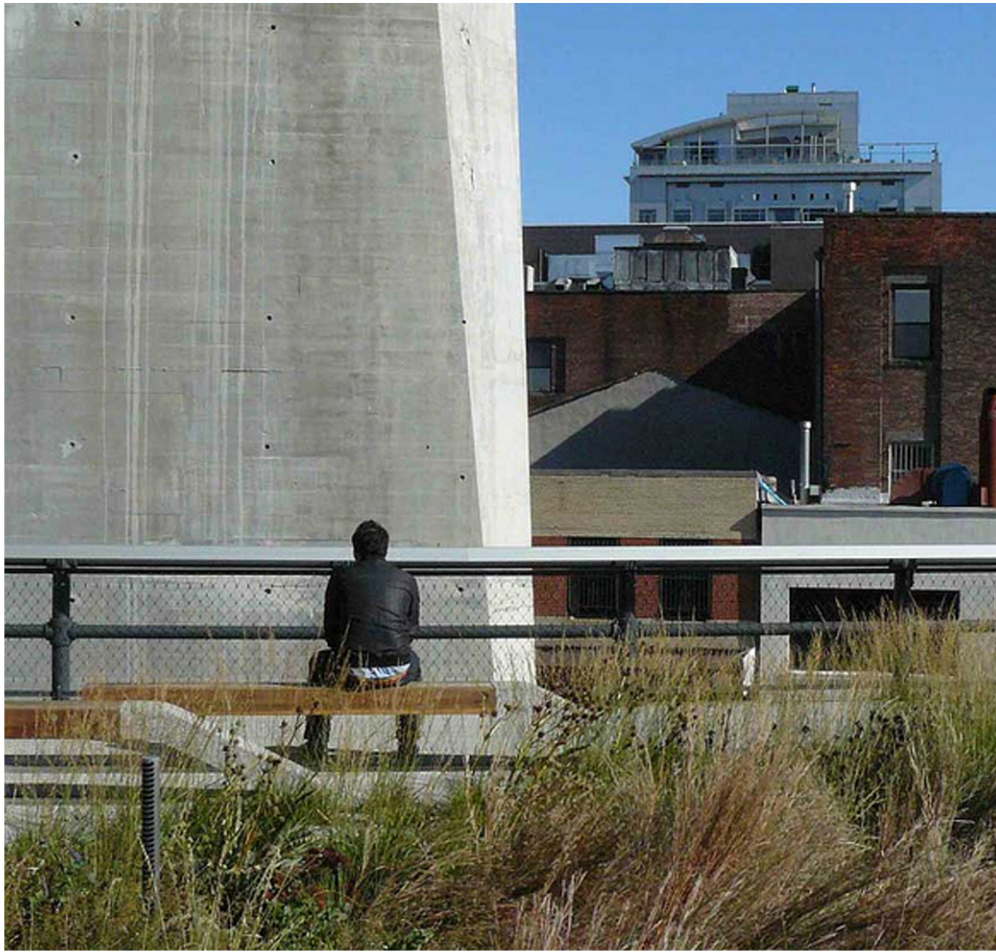


BASEMENT FLOOR < > GROUND FLOOR



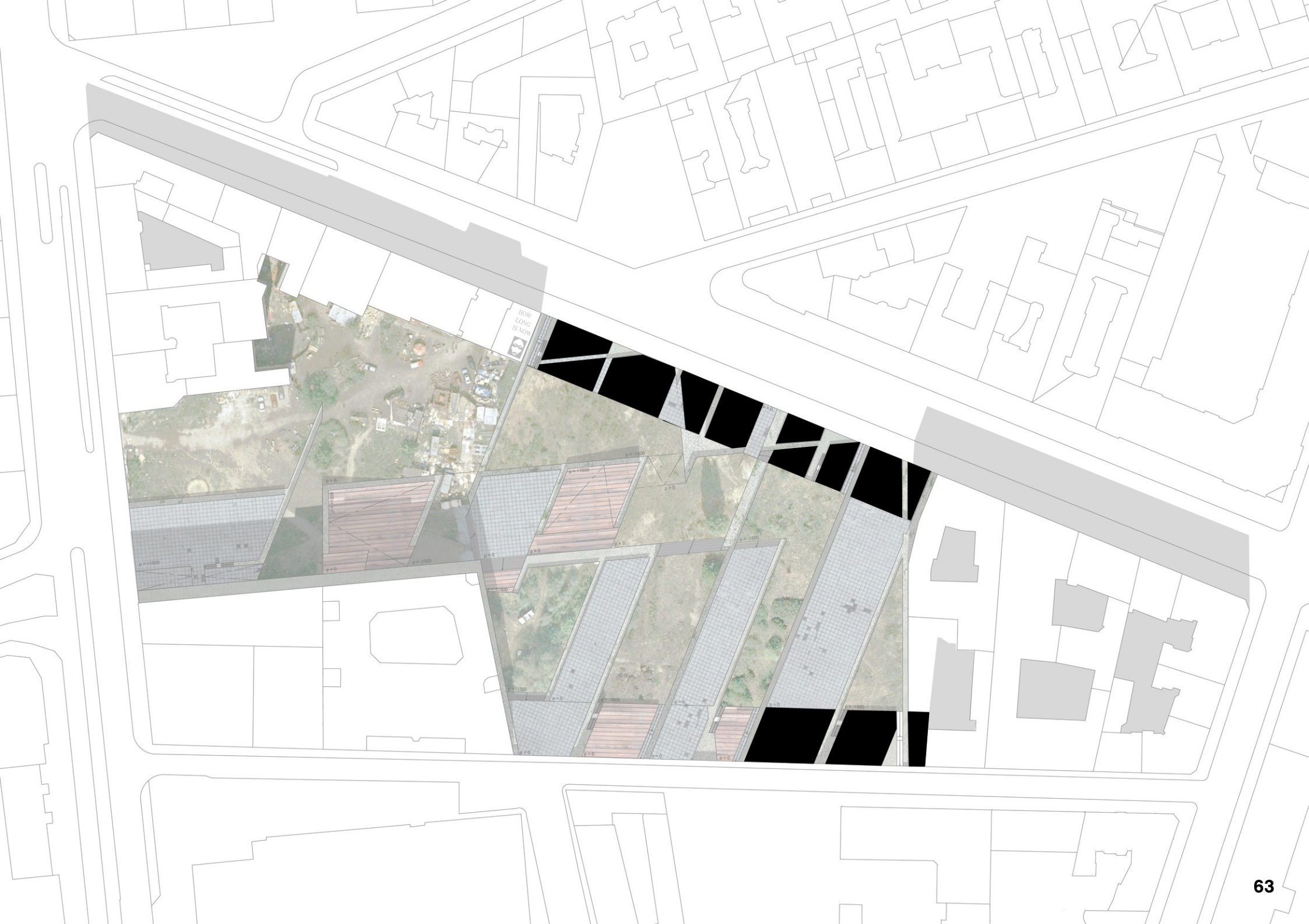
> GROUND FLOOR

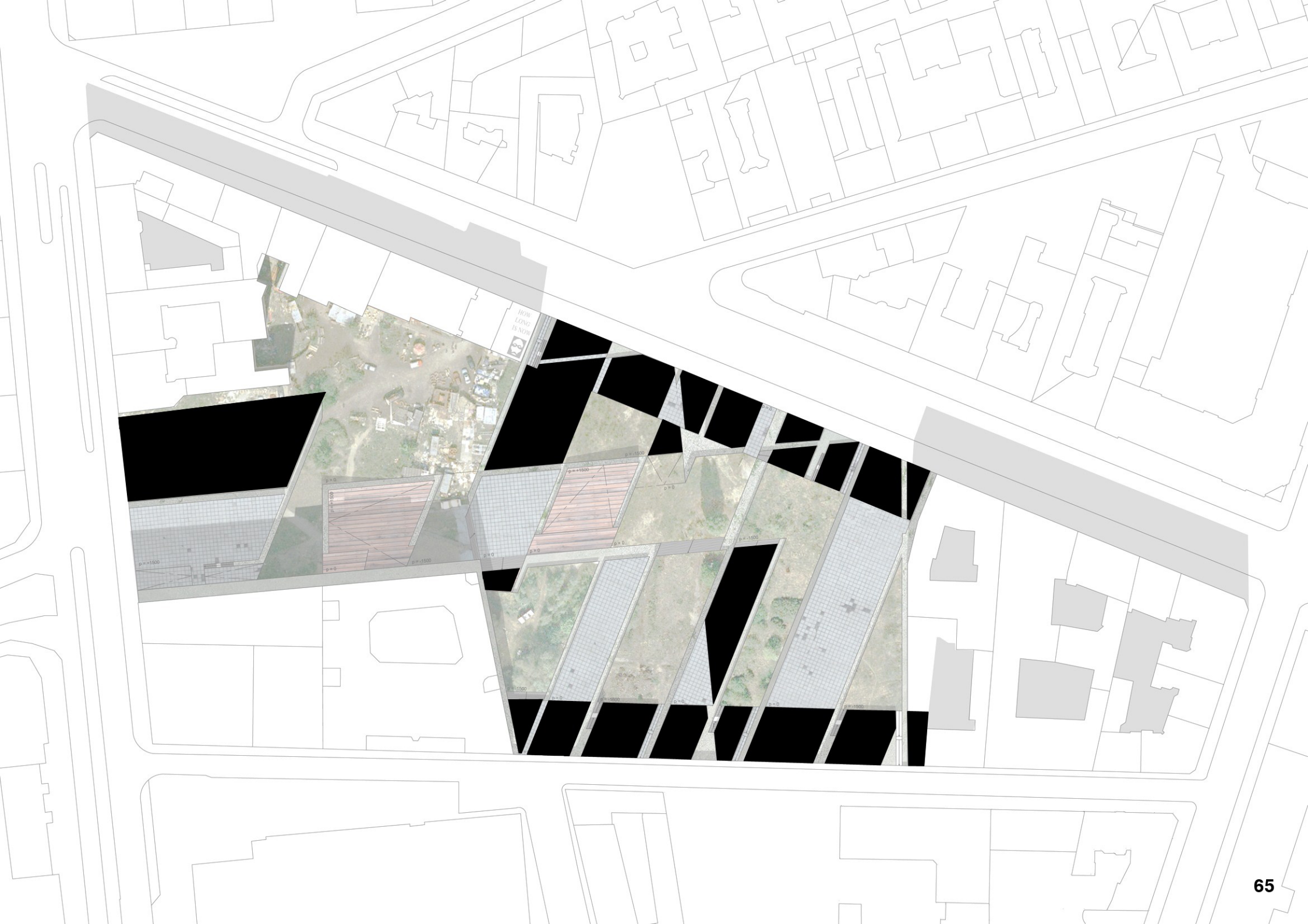








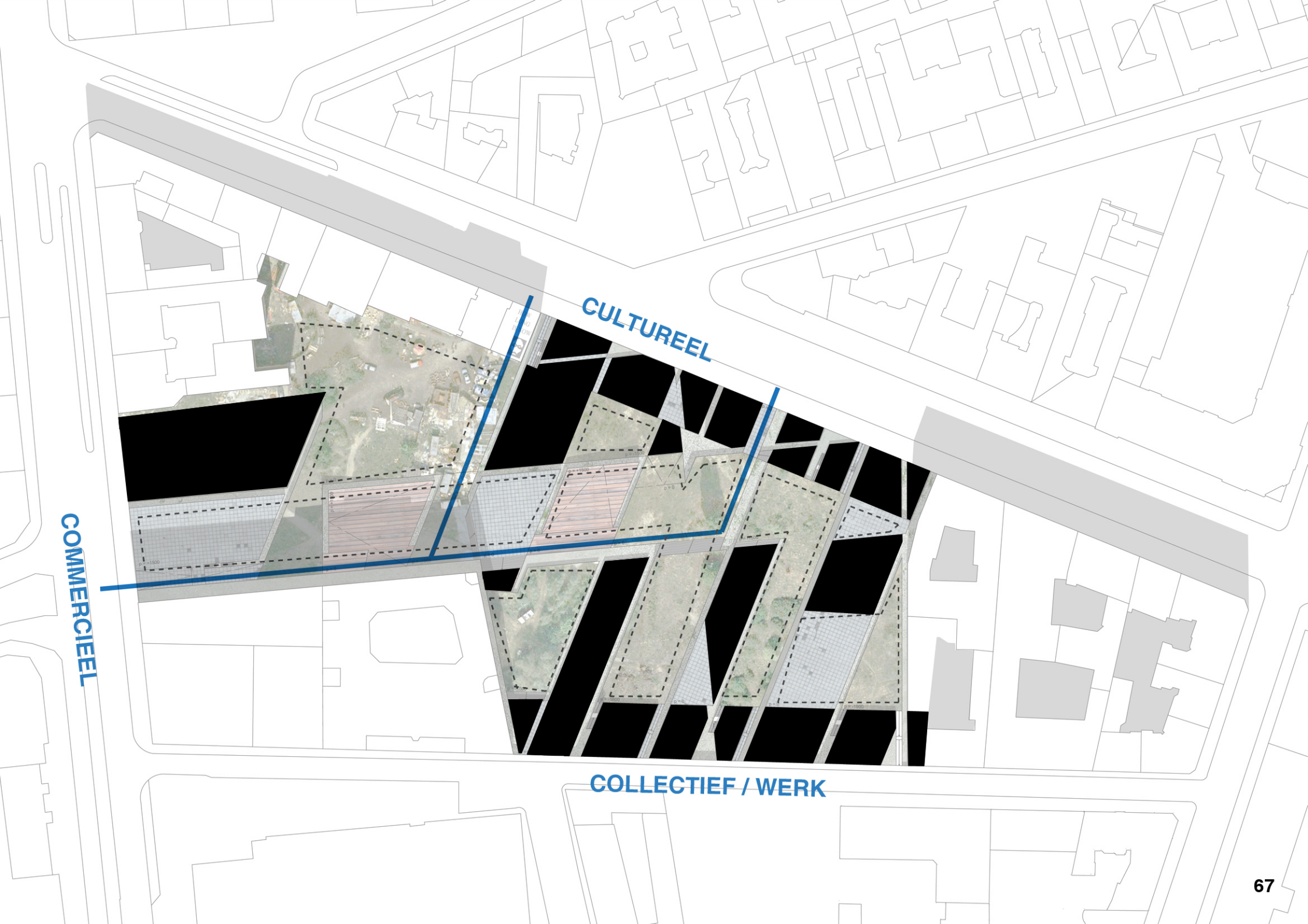


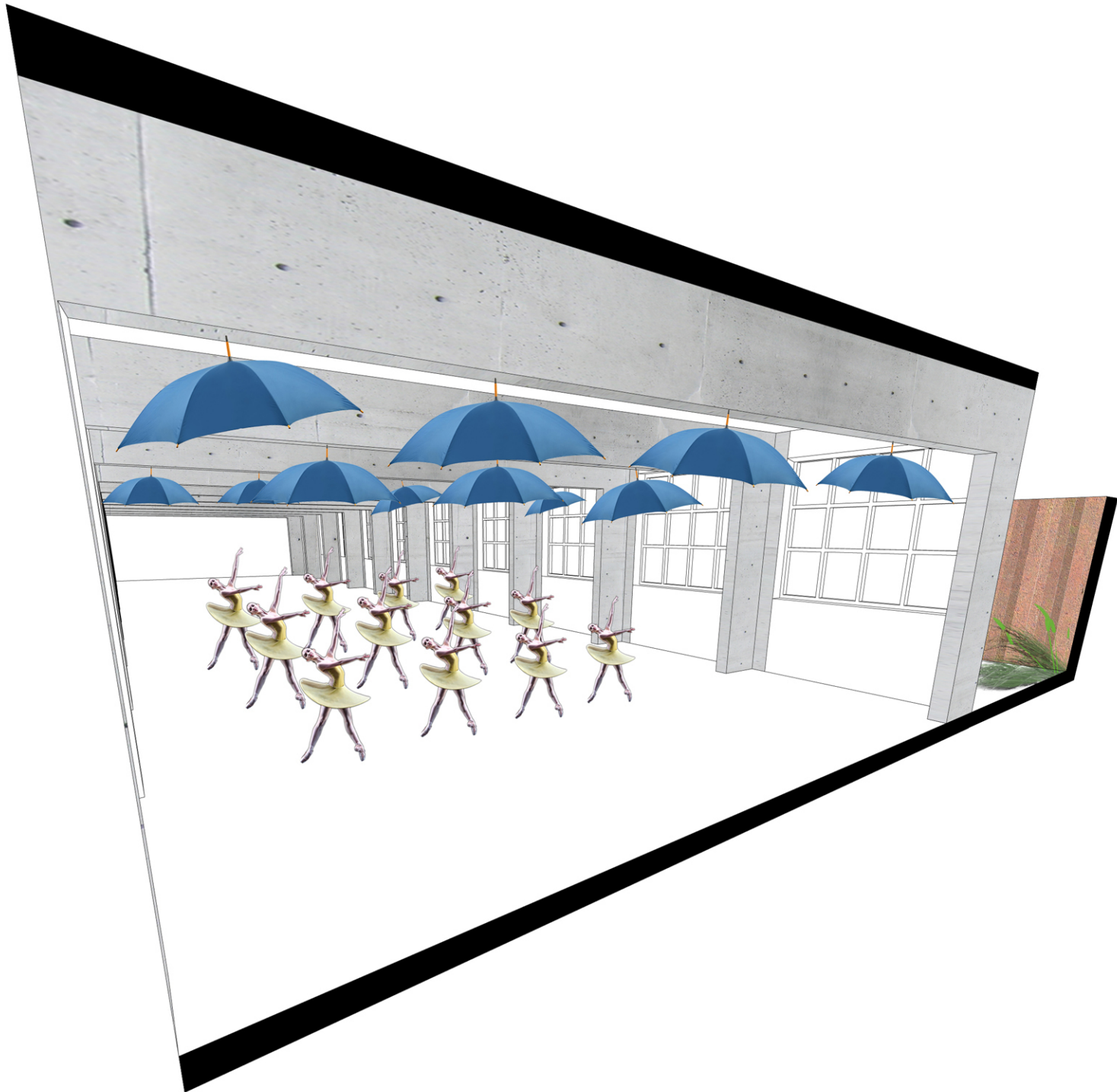


CULTUREEL

COMMERCIEEL

COLLECTIEF / WERK





**‘Berlin ist eine Stadt, verdammt dazu, ewig zu werden,
niemals zu sein’**

Karl Scheffler

