

frankfurt uas
urban context design
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PLAZA IM HOLZGRABEN

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1421730
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How to deal with the center of a city that has already been planned for the most part- and works for its participants? At first glance, every street and every square around Frankfurt am Main's market hall seems to be occupied with a function; traffic, greenery and people have their place to be and to stay. Yet the area in the middle of Europe's financial capital has received shockingly little attention when one is within a 50-meter radius of the main shopping arteries of Zeil and Markthalle. In between, urban wounds of the most diverse origins gap. It is now the approach to give one of those gaps a function and an identity that sharpens the center's urban environment.

The area between Konstablerwache and Hauptwache, especially in the direction around 100 to 200 meters south, does not justice to its advantageous position. Some streets and some plazas work well or are at least a public space even

if not developed in a pretty way. Holzgraben is the longest and most narrow street in the area around Kleinmarkthalle - undoubtedly inappropriate in such a central and important location in Frankfurt. As the street nearest to Zeil, it serves

back entrances and shop delivery. However, the architecture and use of the first floor zone do not allow the street to live up to its name of a moat. Individual supermarkets, clubs and restaurants give a hint of the big city around the corner.

There are problems to be solved which can be done by most simple measures - instead of making serious interventions in the structure of the street and formulating a foreign figure. An analysis of Holzgraben leads in the following to

simple observations and a simple handling of the site. It proposes an identity-forming design that let people cross, develop and participate within their city. Central elements are - the elements. Water, earth, air as the protagonists of

the plaza become part of the people's participation. Aspects of privacy and publicity are central for the development of the plaza and surroundings. There is a proposed connection of spaces that are yet hierarchical.



view of Holzgrabenplaza

context

site analysis

Holzgraben is located in the northern east of the site between Zeil and Berliner Straße, covering a long passage. It is currently living up to its name - not considering the historic cause, the narrow street resembles a ditch one does not want to fall into. The street seems to be the



east direction

small and quiet sibling of Zeil, a rather unseen connector of two plazas: Liebfrauenplatz as the equivalent to Hauptwache and Carl-Theodor-Reiffenstein-Platz equivalent to Konstablerwache. The connecting purpose then as well shows in north-south direction with direct access to a passageway and Schärfengässchen. Regarding architectural approach, the buildings mostly stand alone even if they are direct neighbours, but there is no visible consistency or regularity



corner schärfengässchen

in the construction method. The vertically urban context of Holzgraben is as undefined as the use and the overall architecture. There could be a roof line, but it is very much alternating, the gaps are weirdly random and one can not directly tell why that is. The building's entries cover a wide range of aesthetics. As above, some are hidden next to a big garage. Others are sharing an entry with a restaurant or a shop, are only located in the yard of

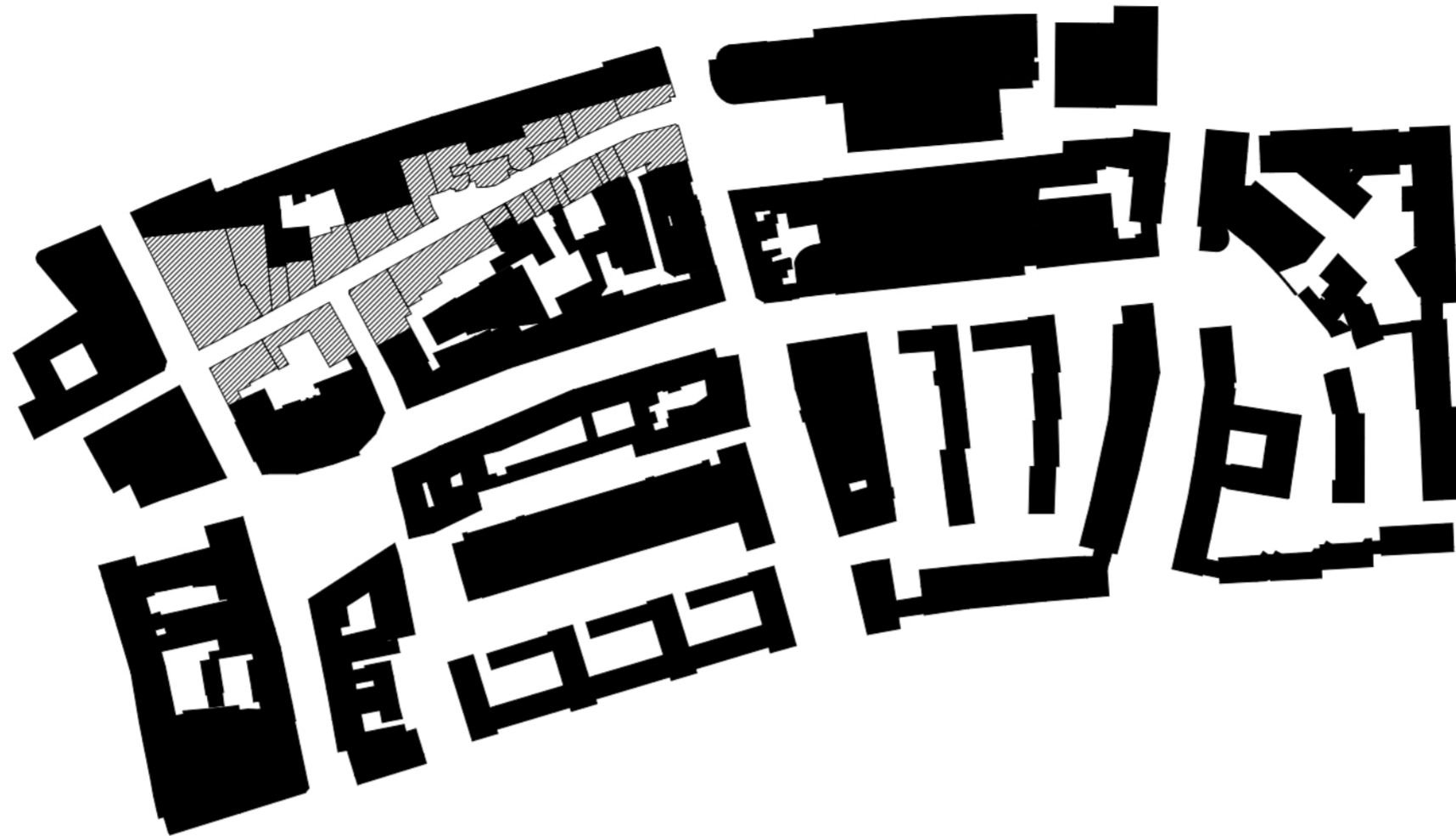


corner liebfrauenengasse

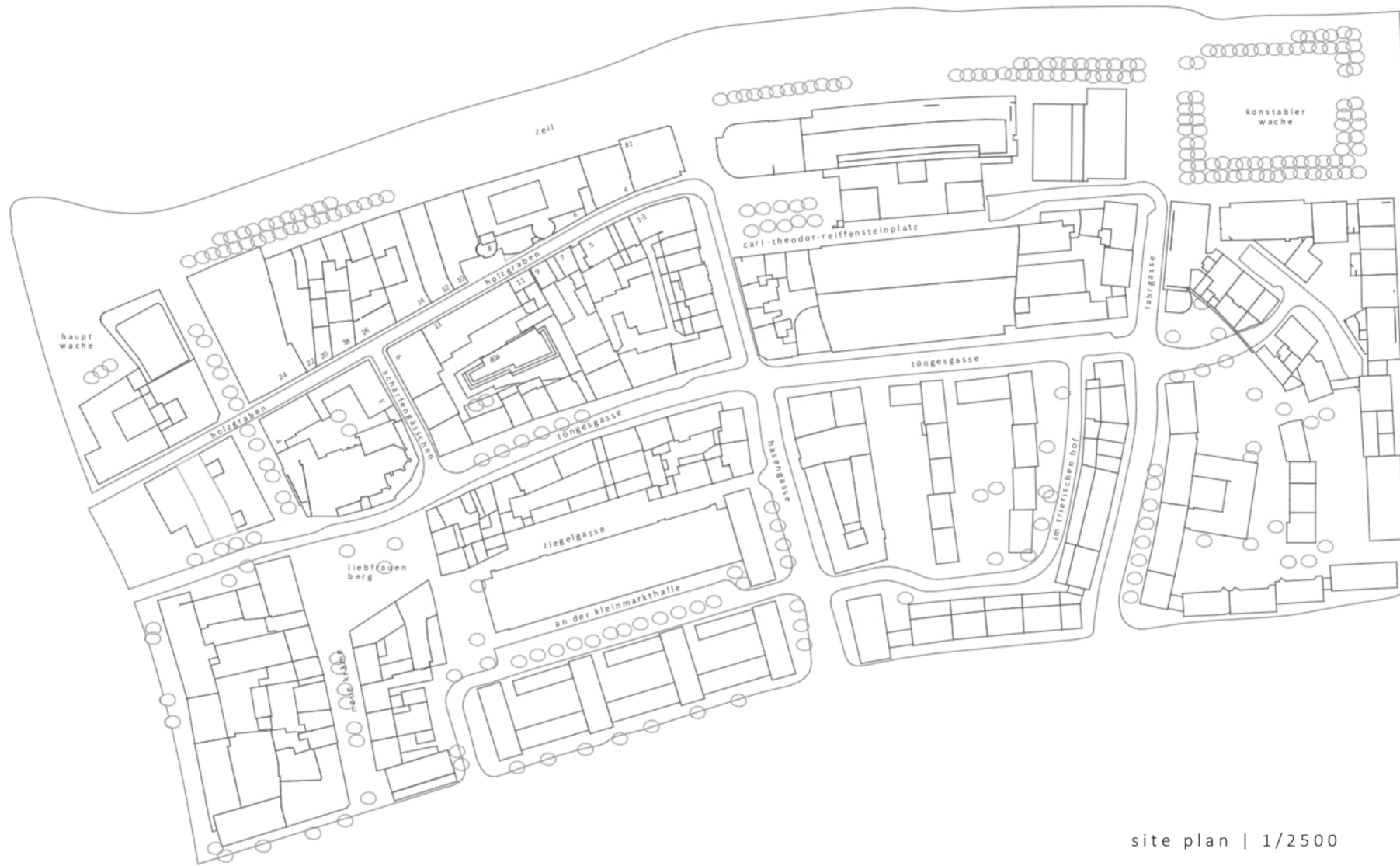
the rear house or have an actually welcoming shape. However, Holzgraben is quite frequented by any vehicle and pedestrians. It is for sure not comparable to the big neighbour Zeil, but glancing around the corner reminds one of the European center that you are walking. With Liebfrauenstrasse, Holzgraben is divided by a nicely developed street. Everything that makes that street working - greenery, a simple bench, a store, a bike stand, a moving



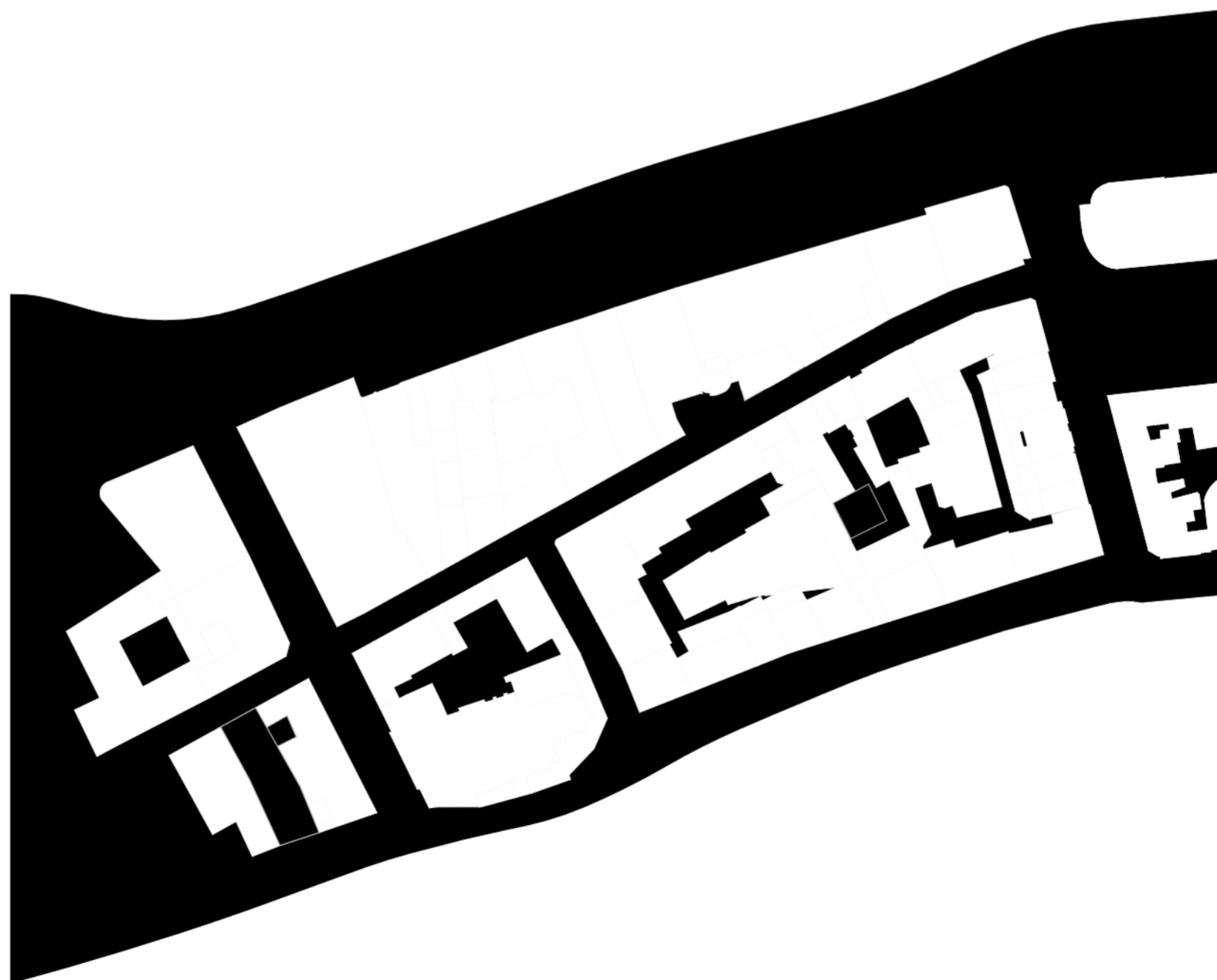
view through schärfengässchen



ground figure plan | 1/2500



site plan | 1/2500



holzgraben | 1/1500



passageway zeil

topography - is missing in Holzgraben.

Also Schärfengässchen, the crossing street that connects Zeil with a passageway with Töngesgasse, has high potential to be developed more pedestrian-friendly due to its shorter length and the existing infrastructure. Concluding this part of analysis, developing Holzgraben in terms of urban planning means strengthening the connection between the Zeil and Kleinmarkthalle by activating two more parallel streets. The infrastructure is completely in place, the only thing missing is



densification + public space potential

user-friendliness. The street plan shows all at once what makes Holzgraben a potential experience instead of a ditch. One output opens the long, straight line. This one belongs to a building quite well-preserved and with a half-public use of trade. The yard itself does not have a use besides storing waste. Around the plaza, the use of the first floor is around 25% delivery service of Zeil shops, 45% public such as restaurants, bars or shops and



densification potential

30% residential. This also works for the rest of the street, however the upper floor's use is residential. Only the addresses with the corner Schärfengässchen and Liebfrauenengasse are belongings of the church and therefore part of public action, for example a public breakfast for homeless people that is held in front of the building. In a first attempt of designing a streetscape, it appears that storage is a topic to deal with: storage of people,



west direction, skyline view

storage of vehicles, storage of waste, storage of greenery and also storage of the moving part. The fundamental decision to redensify here seems sensible in view of the wide variety of aspects that this street has to offer. Some of them are protagonists, some are negligible disruptive factors. To sum them up with the generic term storage is to help getting an overview of the issues that Holzgraben can easily deal with, keeping an urban identity to its users and visitors.

issues

problems to solve

Greenery, circulation, furniture - those are the qualities that make the Holzgraben neighbours a pleasant space. None of them are too difficult to achieve. They do not need a highly challenging urban concept. Organizing the greenery of the surrounding site, one sees that Holzgraben seems



street damage + trash issue

to be a place where no greenery can grow. It is the only street with no single tree except on top of the roof of a bar. Is it the size of the street, the use (or non-use) or that no tree would grow in the building shadow - Holzgraben is way more packed with potential than delivery cars and the lack of urban character suggest. It is as Holzgraben is the center of Frankfurt, yet neither old town nor downtown, not possible to make it a pedestrian street. Not



different pavement figures

many private cars need to cross the street, but delivery serving the back entrances of Zeil and Töngesgasse need to make their way. For bikes, Holzgraben is not yet a real alternative to Zeil - but bringing the cyclist to this neighbour, it could relieve Zeil's overcrowdedness pretty much. However, there is more than cars and the lack of greenery that make Holzgraben the dark and lost passage that it currently is. The pavement has suffered in time



damaged separation of pavements

until the separation between pedestrian lane and car lane is only to guess. Lost tourists walk in the middle of Holzgraben, slowing down cyclists and package delivery. It is no aim to increase the tempo of vehicles here, but to divide between uses again. Parking bikes and cars wherever possible does not help the street to gain organisation. The concrete itself is completely closed and will not allow water to sink in if



no visible pedestrian walk

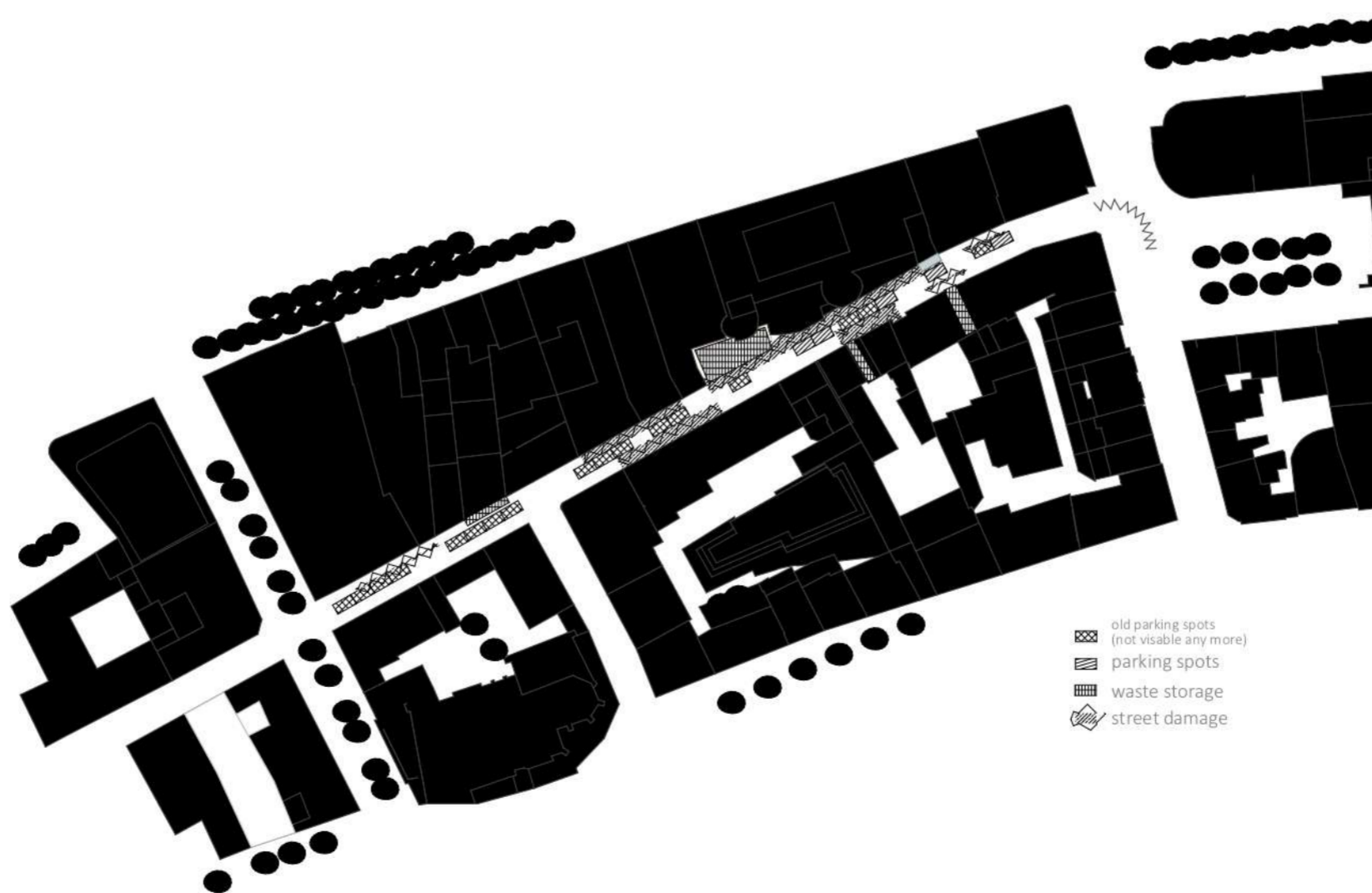


greenspace analysis | 1/2500



cars + delivery
bikes
pedestrian

circulation analysis | 1/2500



old parking spots
(not visible anymore)
parking spots
waste storage
street damage

problematic issues | 1/1500



mostly delivery and back entrances

needed. Still, the issues to solve here are of doable nature. The next issue will be parking lots. As mentioned before, parking is here to handle as in storage - not only for vehicles as cars and bikes, also for people and waste issues. Firstly, parking cars are banned of Holzgraben. However, the back of Zeil and Töngesgasse cannot do without delivery services. In the meantime, there are also people who can't ride their



bike parking

bike to their front door and need a ride. However, there are no bicycle parking spaces along the entire length of the street, nor is there an appropriate substitute in the neighboring streets. Due to the less frequented situation, there is no need for a whole bicycle parking garage here. However, a better way to park your bike than at the no parking-sign.



storage waste

Storage of waste is the biggest issue. Packed with packages of clothing shops, containers are the protagonists of street furniture - even fenced apart from the „more public waste“ - an easily (re-) movable issue. What is to emphasize no serious problem in Holzgraben are the facades, even



parking

if of no specific urban interest. Concluding - parking spots that are either not used or not visible anymore, waste storage and street damage are the most severe issues to deal with. The street has to be reorganized apart from resetting the standard of the street's surface.



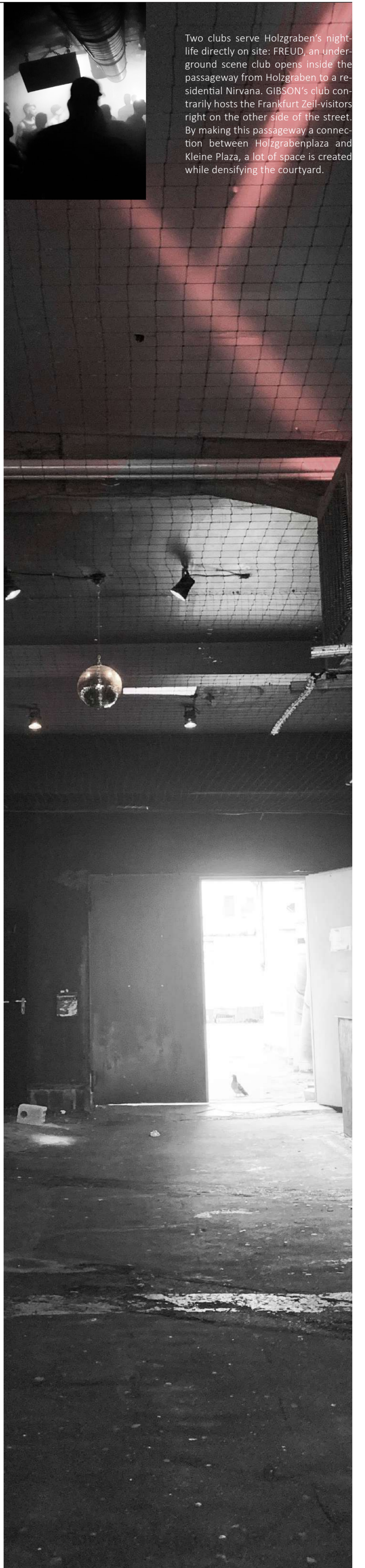
parking lot colliding with an entry

potential

Graffiti paint is found all over Holzgraben and it does not have to be removed to give the street an identity. Entries stay the way they are, improved by urban addition and furniture.



It is the lightest measure possible but with a huge effect. Replacing the trash spots through bigger underground-trash cans makes storage a main topic of the design - and afterwards a less recognizable thing in the bigger context. This passageway serves the rear houses in the southern part of Holzgraben. Opening it to Kleine Plaza will avoid situations like these and make space to store bulky waste somewhere else.



Two clubs serve Holzgraben's nightlife directly on site: FREUD, an underground scene club opens inside the passageway from Holzgraben to a residential Nirvana. GIBSON's club contrarily hosts the Frankfurt Zeil-visitors right on the other side of the street. By making this passageway a connection between Holzgrabenplaza and Kleine Plaza, a lot of space is created while densifying the courtyard.

design

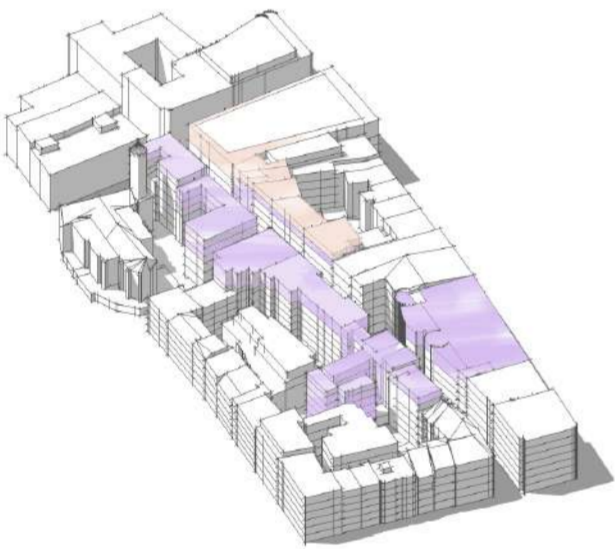
+ development

Densifying Holzgraben is a measure that should happen as simplified as possible. The area neither needs a protruding urban figure nor an exciting and changing use. The use is of course best if flexible, but in the center of Frankfurt am Main a straightforward residential program is the most flexible and reasonable use the street needs.



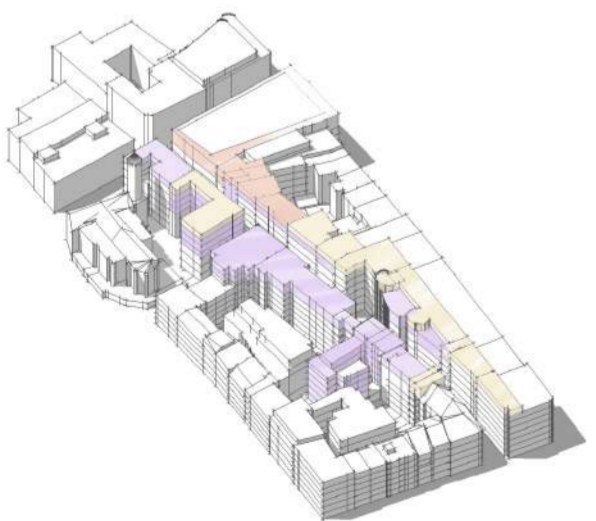
densification version one

In a first attempt, gaps are filled wherever needed due to a lack of building activity. These are especially the addresses Holzgraben 7 - 11 and 20. In a second step, the streetscape deserves a homogenous roofline. This on one hand means an even more narrow street and shortened view between the pla-



densification version two

zas. On the other hand, the additional program gives the street the simplest shape possible and yet a shape So the second version includes the whole length of Holzgraben for one roofline. The third version adds another storey



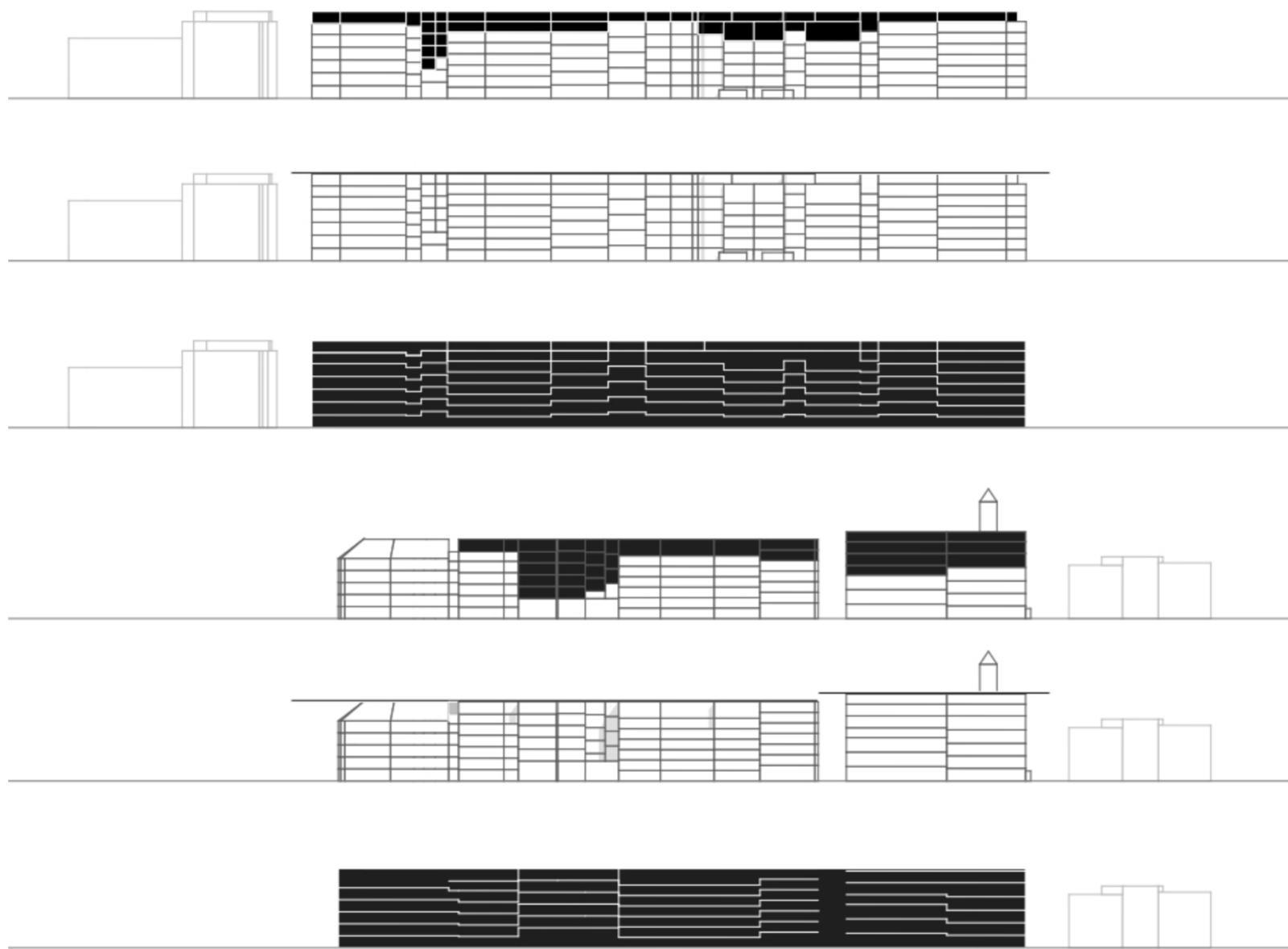
densification version three

wherever the roofline of 26 meters (in the northern part) and 23 meters (the southern part) is not yet achieved. The roofline then is on one level, but the built diversity is not disturbed by that: Almost every neighbour has a different number of floors and can deal with that in its archi-

densification program: V3

address	ground floor area [m ²]	number of floors	gfa [m ²]	height [m]	volume [m ³]	densification ground floor [m ²]	densification number of floors	densification gfa [m ²]
Zeil 81	168,67	7,00	1.180,67	20,00	3.373,33	168,67	1,00	168,67
Holzgraben 4	136,33	6,00	818,00	20,00	2.726,67	136,33	1,00	136,33
Holzgraben 6	52,00	6,00	312,00	18,00	936,00	52,00	2,00	104,00
	71,00	5,00	355,00	12,00	852,00	71,00	2,00	142,00
	140,00	5,00	700,00	15,00	2.100,00	140,00	2,00	280,00
Holzgraben 8	1.235,00	5,00	6.175,00	20,00	24.700,00	1.235,00	1,00	1.235,00
Holzgraben 10	278,00	6,00	1.668,00	20,00	5.560,00	278,00	1,00	278,00
Holzgraben 12	226,00	5,00	1.130,00	20,00	4.520,00	226,00	1,00	226,00
Holzgraben 14	348,00	5,00	1.740,00	20,00	6.960,00	348,00	2,00	696,00
Holzgraben 16	289,00	8,00	2.312,00	20,00	5.780,00	289,00	2,00	578,00
Holzgraben 18	133,00	6,00	798,00	19,00	2.527,00	133,00	2,00	266,00
Holzgraben 20	108,00	2,00	216,00	6,00	648,00	108,00	4,00	432,00
Holzgraben 22	285,00	6,00	1.710,00	20,00	5.700,00	285,00	2,00	570,00
Holzgraben 24	1.720,00	6,00	10.320,00	20,00	34.400,00	1.720,00	1,00	1.720,00
Holzgraben 1-3	353,00	5,00	1.765,00	16,00	5.648,00	353,00	0,00	0,00
	122,00	5,00	610,00	16,00	1.952,00	122,00	0,00	0,00
Holzgraben 5	216,00	6,00	1.296,00	16,00	3.456,00	216,00	1,00	216,00
Holzgraben 7	78,00	1,00	78,00	16,00	1.248,00	78,00	5,00	390,00
	33,00	1,00	33,00	16,00	528,00	33,00	5,00	165,00
	59,00	1,00	59,00	16,00	944,00	59,00	6,00	354,00
additional GFA	60,00					60,00	6,00	360,00
							0,00	0,00
Holzgraben 9	79,00	1,00	79,00	6,00	474,00	79,00	5,00	395,00
	39,00	1,00	39,00	6,00	234,00	39,00	5,00	195,00
	116,00	2,00	232,00	6,00	696,00	116,00	5,00	580,00
Holzgraben 11 (garden plaza)	62,00	1,00	62,00	3,00	186,00	62,00	0,00	0,00
	23,00	3,00	69,00	6,00	138,00	23,00	0,00	0,00
	59,00	2,00	118,00	9,00	531,00	59,00	4,00	236,00
	26,00	1,00	26,00		0,00	26,00	3,00	78,00
Holzgraben 13	570,00	6,00	3.420,00	15,00	8.550,00	570,00	1,00	570,00
Schärfengässchen 6	415,00	5,00	2.075,00	15,00	6.225,00	415,00	1,50	622,50
Schärfengässchen 3	270,00	3,00	810,00	14,00	3.780,00	270,00	3,00	810,00
	77,00	3,00	231,00	14,00	1.078,00	77,00	3,00	231,00
	57,00	3,00	171,00	14,00	798,00	57,00	3,00	171,00
Liebfrauenstraße 4	322,00	4,00	1.288,00	16,00	5.152,00	322,00	3,00	966,00
=	8.226,00		41.895,67		142.401,00	8.226,00		13.171,50
gfa in total			55.067,17					
densification factor			1,31					

calculation on version three



schematic elevations: roof line 26 meters



public use in first floor



potential of plaza design

tectural expression. Where there is a public use on the first floor or in the immediate vicinity, the homogeneous roof line is sometimes interrupted: A roof terrace above the bar and club-rich arcade introduces the addition of the

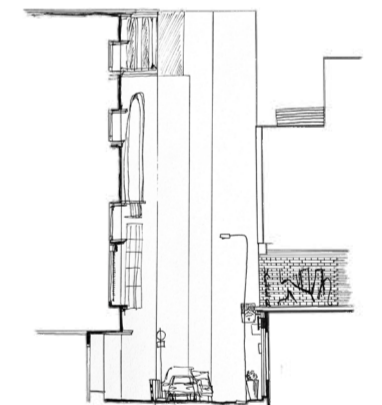


gastronomy use

rear buildings. This measure also distracts from the fact that the addition of several floors could create an allegedly dark alley. The addition is created not only in height, but also in width. At the level of the restaurant bet-



ween Holzgraben 7 and 11, the backyard, currently consisting only of garages and shacks, is extended by four-story residential buildings. Above the restaurant „Shai Curry“ there is a bar located that uses parts of the roof. Ruins of an old floor are left the-



cut-out terraces with an own identity

re and can used for a garden that is partly public and private with a great atmosphere of dining and drinking between old brick walls. Around the space of new Holzgrabenplaza, the visual axis to Carl-Theodor-Reiffenstein-Platz will be opened as well as the view to the upper terrace bar.



bar „Huq-Up“ opposite to cut-out plazabn

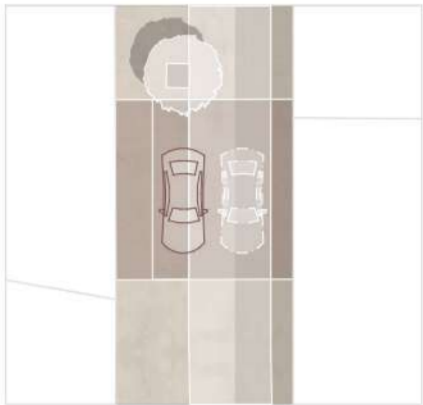


neighbouring plaza

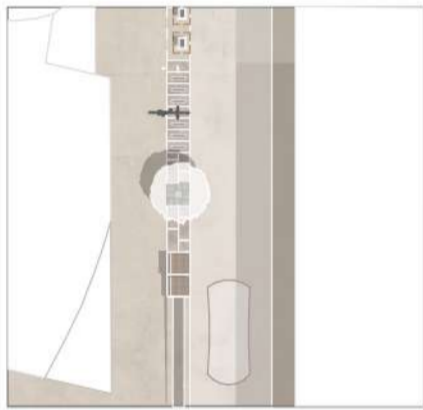
plaza aqua

a new organ

Holzgrabenplaza is a place of contradictions that work together: The densification ratio of 1.3 creates a tighter but more defined streetscape. Nevertheless, the design strives to give the Holzgraben and its new Plaza Aqua a new, identity-creating lightness. Plaza aqua is of light measures that do not hurt the basic skeleton of Holzgraben but strengthen the identity of this street other than the neighbours.



It is no longer an approach to have a small Zeil where only the stores get a room that cannot afford the more northern street. The image is to calm down and take advantage of the space that is already there, it does not need to be created or designed. The plaza interacts with the terrace above the public first floor on the opposite. The furniture that



shapes the plaza is a repeatable module for the whole street. The reorganized, eight-meters-wide Holzgraben consists of a *fast lane*, a *participation lane* and a *pedestrian lane*. The fast lane is not supposed to be sped up, it is supposed to have delivery cars and cabs as well as cyclists. Over the length of the straight street, this fast lane is interrupted by parking spots. Here, the three lanes are of the same surface to show the change. A car or a taxi can stay here for quarter an hour without disturbing the waiting vehicles behind, but they have to slow down automatically. The participation lane then consists of various furniture within a width of one meter that includes the pedestrian more. Trees, benches and a thin and shallow water basin as well as bike stands and trash cans divide the pedestrians and the fast lane: or safety as one aspect and for giving the visitor or inhabitant a certain way of entertainment along the street. It can be considered to leave the arrangement of the furniture to the users of the street to strengthen their street identity even more. The pedestrian lane at last is a 2,50 meter wide space in the same surface as the plaza to extend it over the whole street.



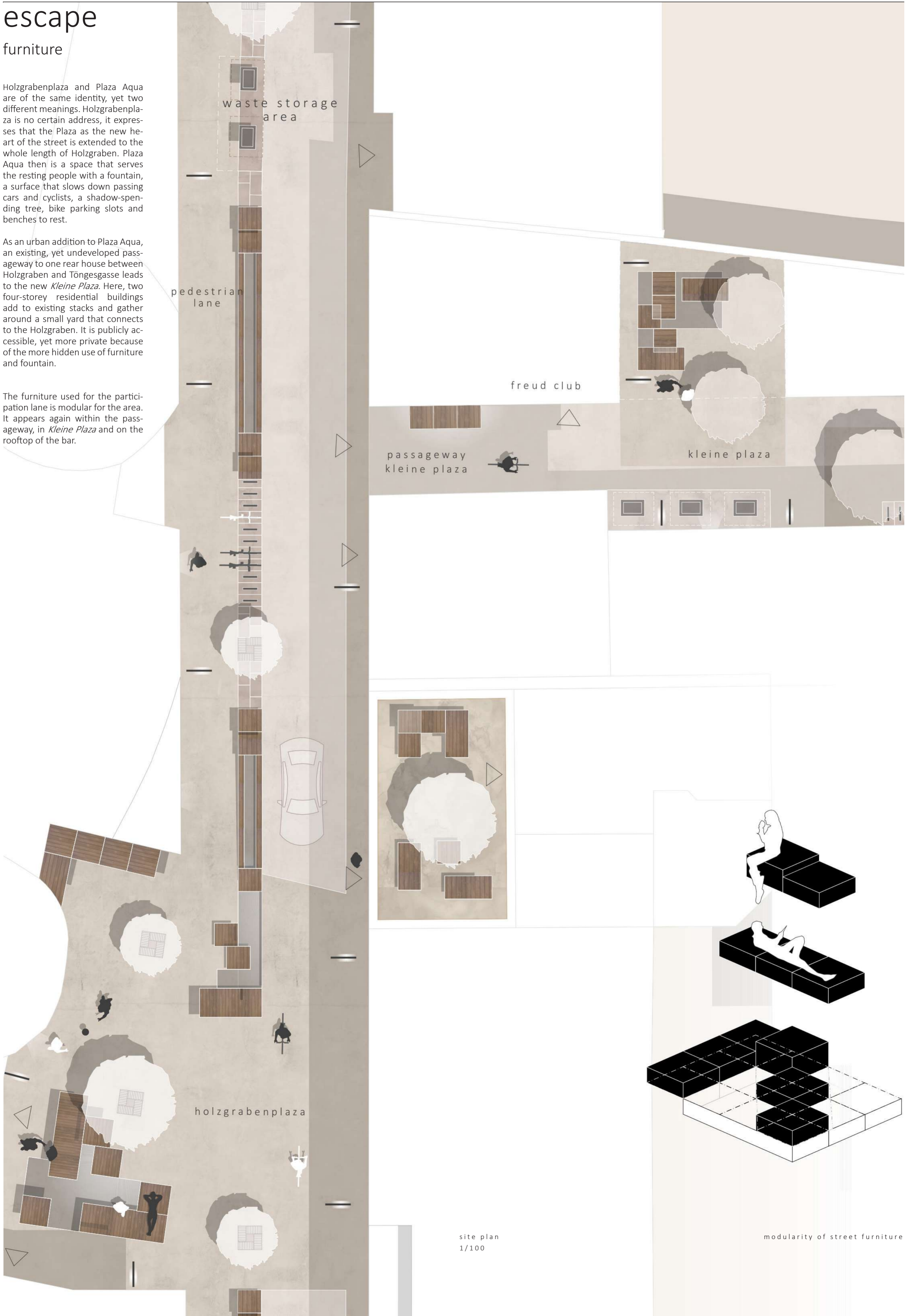
escape

furniture

Holzgrabenplaza and Plaza Aqua are of the same identity, yet two different meanings. Holzgrabenplaza is no certain address, it expresses that the Plaza as the new heart of the street is extended to the whole length of Holzgraben. Plaza Aqua then is a space that serves the resting people with a fountain, a surface that slows down passing cars and cyclists, a shadow-spending tree, bike parking slots and benches to rest.

As an urban addition to Plaza Aqua, an existing, yet undeveloped passageway to one rear house between Holzgraben and Töngesgasse leads to the new *Kleine Plaza*. Here, two four-storey residential buildings add to existing stacks and gather around a small yard that connects to the Holzgraben. It is publicly accessible, yet more private because of the more hidden use of furniture and fountain.

The furniture used for the participation lane is modular for the area. It appears again within the passageway, in *Kleine Plaza* and on the rooftop of the bar.



site plan
1/100

modularity of street furniture

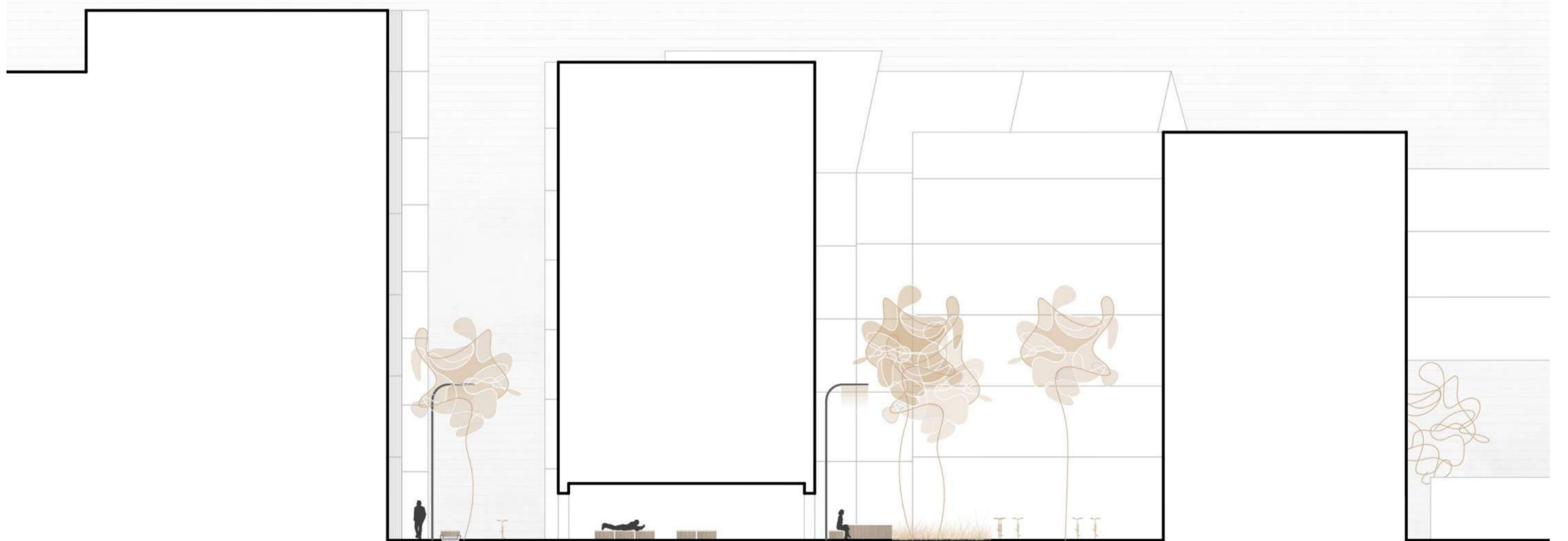
horizontal streetscape



Holzgraben 6

Holzgraben 9
Bar Huq-Up

section rooftop garden
1/200



Zeil 85 / Holzgraben 8
Gibson's Club

passageway
Shahi Curry Restaurant

kleine Plaza
public access, but less frequented

section passageway and yard
1/200



Zeil 105/ Holzgraben 10
Fitseveneleven

Plaza Aqua
open vehicle zone, no differentiation of pavement
middle lane is broken up to lower the moving speed

Holzgraben 13

private yard

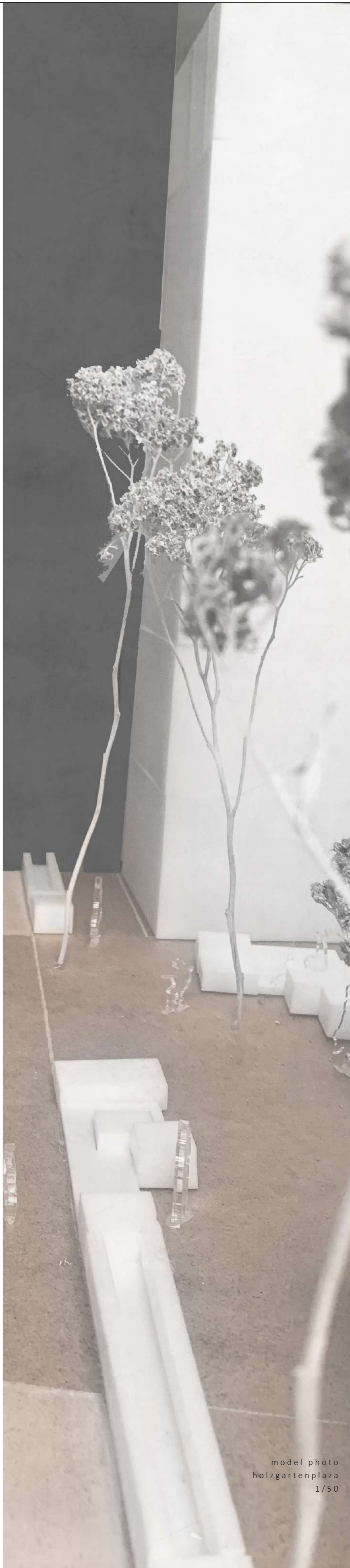
rear house Töngesgasse

section plaza aqua
1/200

identity



model photo
rooftop garden
1/50



model photo
holzgartenplaza
1/50

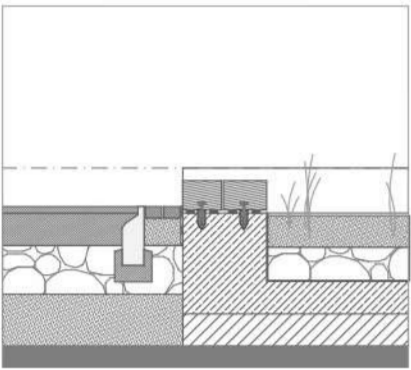


model photo
plaza aqua
1/50

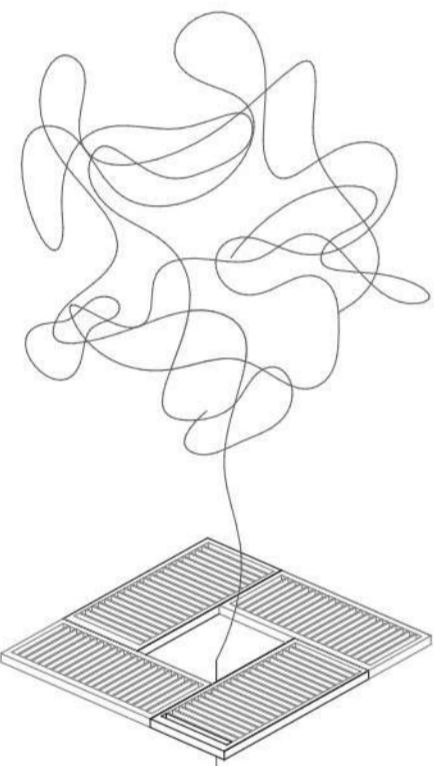
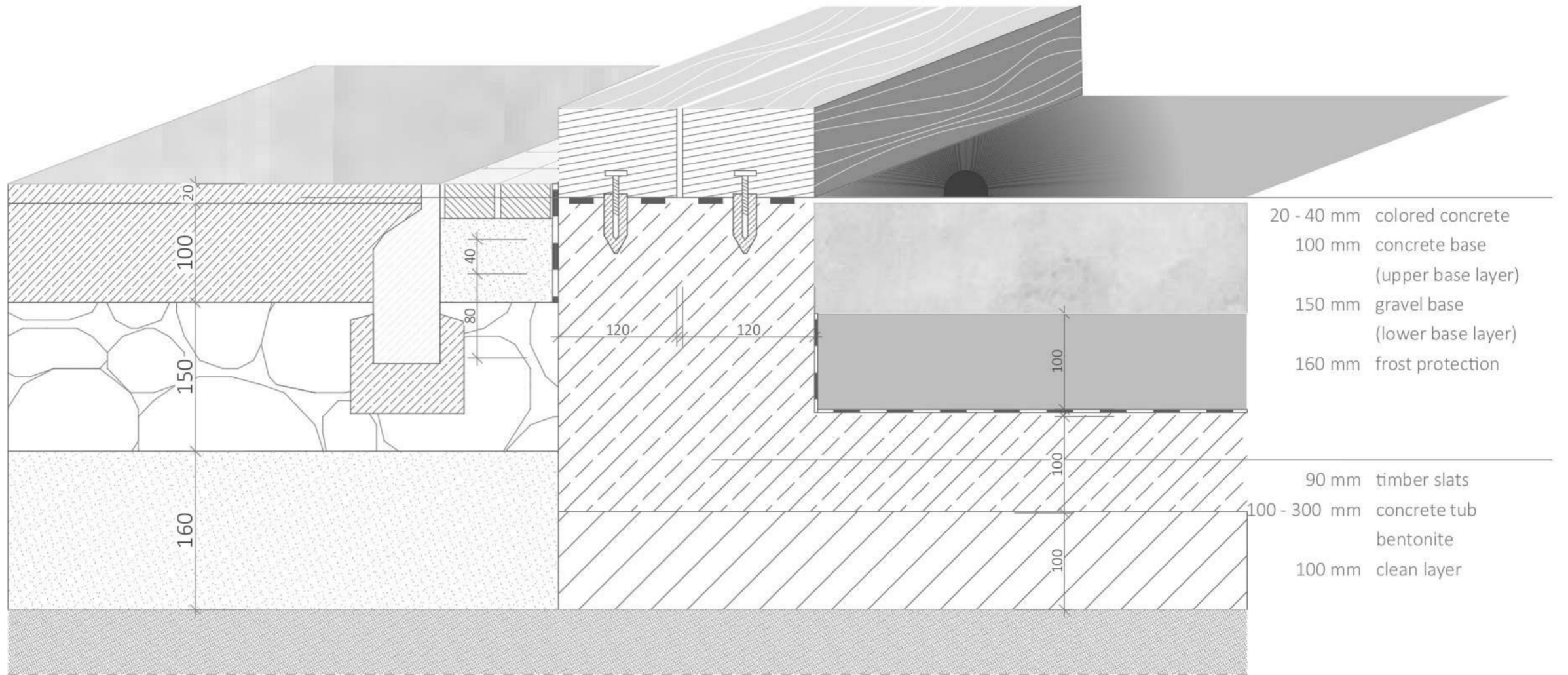
surfaces

shaping the street

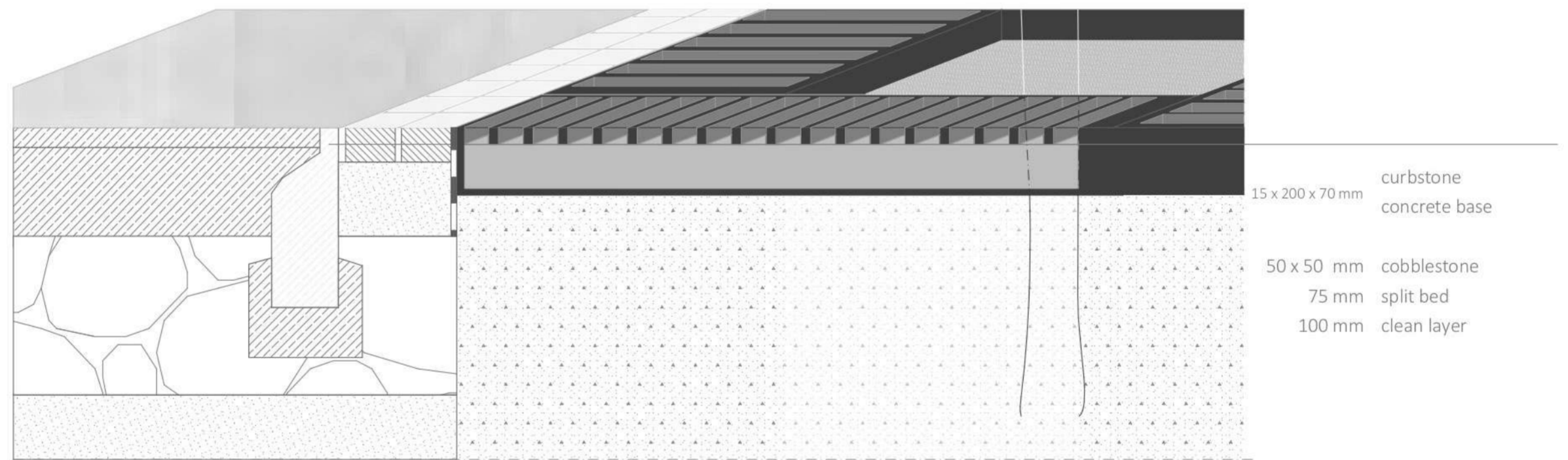
For the public part of the design, coloured concrete covers the street for a soft and homogenous lane. The advantage is then to change the colour due to the purpose and the achieved tempo in the street. The resting and parking areas for delivery cars are darker than the rest of Holzgraben. Where pedestrians are supposed to be the most important participant of traffic, the street cover runs through the complete width.



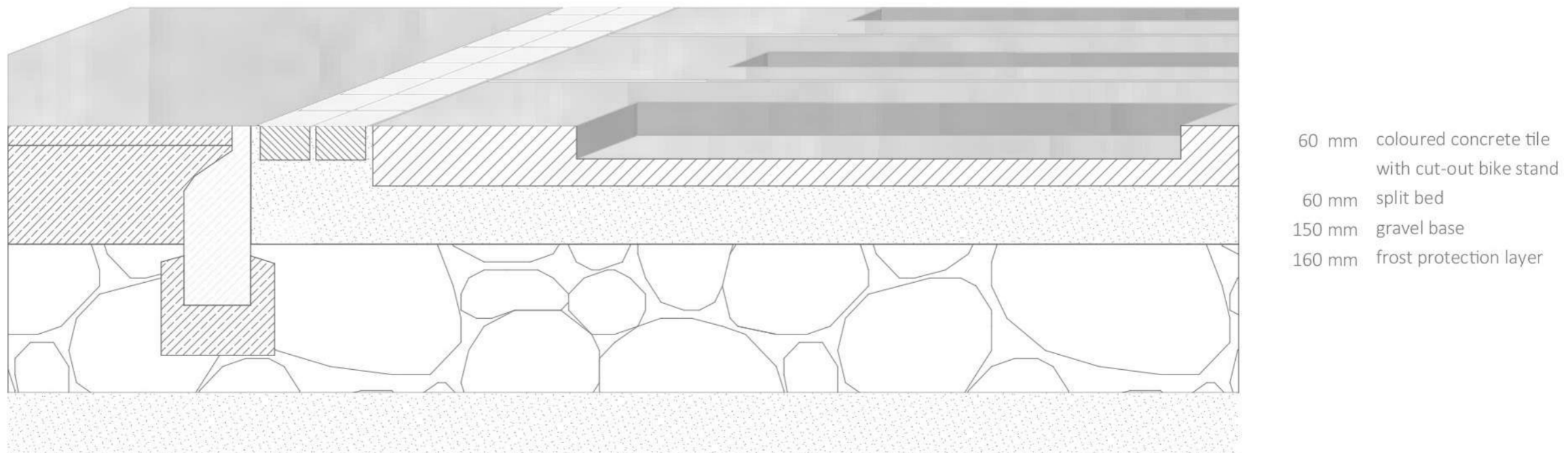
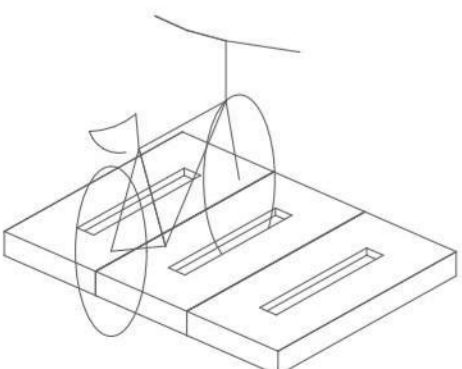
The water channels are realised as a shallow concrete basin in a brown tub. Timber planks are then screwed on top for the seating. The concrete base can be turned into a gardening tub if the users would ask for that. The seatings vary in their height from 40 cm for



a comfortable seating to 70 cm for a more playful ground considering the fact that it is right next to the roadway. Between the concrete surface and the furniture or the grating for the trees, two rows of cobblestones mark a new lane.



For the bicycle stands, a cut-out concrete tile is used. The cycle tile can easily be attached to the gap. The bicycle is secured to itself.



vertical streetscape

a hanging garden.

Vertically, the streetscape continues as a simple garden - that is private and accessible by the users and the visitors of the bar only, but visible from everywhere to a certain degree. It is variable to any urban approach that the user might have. Horizontally, it opens up the streetscape and relieves the densification by strengthening the plaza figure.



model photos

1/50





