

research booklet

Jaron Smit

urban architecture

TU Delft

research tutor:

Eireen Schreurs

design tutor:

Sam Stalker

foreword

This research booklet is the result of the urban architecture graduation studio. It contains the research and drawings from my design process.

The research explores alternative ways of representing architectural qualities. The research can be divided into 2 parts. The first part of the research investigates experiential qualities of certain public spaces in Schaerbeek. In the second part of the research the emphasis shifts towards the spatial qualities of the public interiors of corridors.

This booklet curates the process of the research. By elaborating and reflecting on the research the continuation of the process becomes apparent. Not all work is directly relevant for the end-product of the research. This work will be presented in A5 sub-booklets.

thank you for reading

foreword	3
contents	5
introduction	6
research:	
solitude	8
research drawings	28
reflection	56

introduction

the site

The studio is located in the North-East of Brussels, Between Schaerbeek and Evere. The site, La Friche Josaphat used to be a marshalling yard, yet after losing its function in the 1990s most of the railway infrastructure has been dismantled and the terrain was cleaned and levelled with sand. The only remnants of the marshalling yards are 3 tracks and the small station of Everé, these split the site in 2. The area is isolated from the urban fabric by a dense tree line and a height difference ranging from 2-8 metres. The western side has been vacant since the 1990s and nature has rewilded into one of the most biodiverse areas in Brussels. The eastern side is crossed by a single road and is populated by a plethora of smaller industrial buildings. In recent years a debate has arisen on what to do with the land. The ecological minded residents advocate to keep the site as it is and cherish the nature within the city. On the other side the socialist party urges the need for more low-income housing.

The studio raises complex problems such as how to deal with ecology in the city in the face of a climate crisis and at the same time a housing crisis.



Soon after the studio started we went to Brussels to visit the site. Arriving at Brussels Nord-station we walked through low and upper Schaerbeek to the Friche. This journey showed the kaleidoscopic nature of Brussels highlighting multicultural shopping streets, landscaped parks, garden city neighbourhoods, monumental boulevards, to ultimately **la Friche Josaphat.**

A dark, monochromatic photograph of a field of tall grasses. In the middle ground, a small, light-colored bench is visible, standing alone in the vast field. The lighting is very low, creating a somber and isolated atmosphere. The text "research solitude" is overlaid in the bottom left corner in a white, sans-serif font.

research solitude

research solitude

fascination

When exploring topics for my research I was still captivated by the immersive experience I had in the Friche. I felt at peace and experienced a moment of solitude. This moment inspired me to further explore this experience.

While entering the Friche a metal construction gate with a sign; "PROPRIÉTÉ - PRIVÉE" greeted us at the entrance. After slipping past the fence a dense vegetation obscured the view. While making a sharp turn to the left the vegetation opened up and wooden cabin appeared in sight. As we got closer to the communal garden, traces of the bustling city of Brussels seemed to vanish; the sound of the streets muted, the ground become soft, the smell of greenery and the sound birds. The explorative entrance instilled a mystical notion.

While later walking through the open field of the Friche glimpses of the city showed itself but remained distant.



research solitude

literature

To gain a better understanding of solitude and how it is experienced I did a brief literature study. There is little literature linking architecture and solitude directly.

The most notable texts about solitude are phenomenological texts written by Juhanni Pallasmaa. He defines solitude as the opposite as loneliness, both are considered as a mental state instead of a physical one.

“An urban setting or atmosphere can alienate and disconnect us from cultural, social and human context (loneliness), or it can enroot us, and make us feel grounded (solitude)”.

Other literature focuses more on the physiology side of solitude, C.R. Long, M. Seburn, J. R. Averill and T.A. More (2003) distinguishes different types of solitude and links them to 3 different settings.

Another study suggests making space for loneliness (Heu & Brennecke, 2023) instead of planning away negative feelings in the city. Hue & brennecke suggest numerous spaces of solitude such as; spaces to reduce social stigma, spaces to reflect, spaces to foster belongingness and spaces to mentally escape.

The literature studies about solitude are limited yet come from different fields, urban studies, social psychology and phenomenology. The concurring themes are about the difference of loneliness and solitude and how one relates to their environment, is there a feeling of connection or isolation?

	loneliness	being alone	being unsatisfied with ones social relations in quality or quantity.
solitude		being in a remote place	conscious decision to withdraw from others.
physical			
mental			

positive negative

research solitude

problem

During the last decades, the loneliness rates have been increasing. As a result, many contemporary projects focus on community building and the fostering of social connections. Humans are social by nature. It is essential that these places, where people can meet and enjoy each other's company, exist.

Too much imposed sociality however, can be oppressive. We need time alone as a relief from social stressors, an opportunity for reflection and a chance for personal, spiritual and creative development. This positive notion of loneliness is called solitude.

Solitude provides an opportunity for individuals to step back from the hustle and bustle of daily life. It's a voluntary choice to disconnect from those around, creating a space for reflection, introspection and slowing down.

Historically places of solitude have been found in the vast landscapes of nature or religious sites. In contemporary cities these are often not accessible, the landscapes have been pushed out of the city, and the religion has lost its favour

What are places of solitude in the modern city?



research solitude

method

This research proposes an alternative approach to dealing with loneliness. By recognizing the existential need to be alone from time to time and giving loneliness a public place in the city, an opportunity is offered to experience solitude in the urban context. To explore the topic of solitude it is important to note that the experience of solitude is personal. As such most of the research is based on fieldwork and analytical drawings.

To gain a better understanding of how a space can inspire solitude I will be exploring public places in Schaerbeek where one can go alone. Each place will be approached as a scene in which the city serves as the landscape. In a landscape, the events and activities are considered as a set of continuous and autonomous movements.

Recalling the visit I realised the experience of entering the Friche consists of 2 distinct parts; The Journey, building up the tension and leading up to the stay, the panoramic view isolated from the rest of the city.



research solitude

journey

Cullen, G. (1971). *The concise townscape*. <http://ci.nii.ac.jp/ncid/BA01384739>

Historically, places of solitude have been based on physical seclusion from society. The journey towards a remote monastery or chapel embodies the mental withdrawal from society. Simultaneously, the journey creates a tension, an anticipation towards the final destination. Where in nature one might have to cross a river, go through a dense forest or climb a mountain, in the city the journey seems more mundane; cross a road, go through a busy mall, climb up a stair.

The analysis of the Journey is inspired by the concise townscape by Cullen (1971). According to Cullen, the environment is mostly apprehended by the faculty of sight. Besides being able to see what is here and what will be coming, vision can evoke memories and experiences. The art of relationships, weaving all the elements of the environment together in such a way, that drama is released.

The Journey will be analysed following situationist principles and contains drawings of the journey to the space of solitude. These drawings are abstracted to create a mental map of the significant encounters along the journey.

Gates, such as doors and entrances are important signifiers in this journey. Gates function as a checkpoint, they reset or multiply the experienced journey so far. It is a single point which creates a transition from one space to another. After this transition rules or properties of the space changes; A space can become exclusive, restricted or the intended function can change (eg. from street to park). In between gates a path leads you to the next. Walking a path is a smooth transition from one space to another. Objects along the route signify you behave and feel. Narrowness, busyness, material of pavement. During the walking of a path there can be no clear end and a tension or anticipation builds up.



gates and paths



research solitude

stay

¹Hall, E. T. (1966). *The hidden Dimension*. <http://ci.nii.ac.jp/ncid/BA63747784>

The analysis of the stay is inspired by Hall (1966) *Hidden Dimensions*. Despite being quite old, the book suggests humans have territories marking their intimate, personal, social and public space. The distance of these territories affect how humans behave. He points out 2 particular types of spaces: The distanced space; Visual, Audible & olfactory space and the Immediate space; Thermal space, Tactile space.

Despite the book being outdated I was interested in this distinction of distanced and immediate space. These types of spaces assume a particular relation with their surroundings and can locate sensorial experiences in space.

The Stay will be approached in a multifaceted method. A personal description of the experience of the scene forms the backbone. From here onwards a set of drawings explore the focus, the relational layers, the visible layers and the at the scene. Isolating, de-constructing and then reconnecting of these topics will provide a better understanding of what experiential elements instil solitude in an urban context.



layers and focus

research solitude

case studies

The selection of the case studies is based on a qualitative study by Long et al. (2003b). Long distinguishes 3 settings for solitude; At home, In a public place, in Nature. I am interested in how places of solitude could emerge as a public space in the city. And how all the stimuli of the complex city or a vast nature can instil such an experience. Therefore I selected case studies which are publicly accessible and free to visit such as public space and in nature.

On 13 December 2023 I visited Brussels. I planned to visit the Friche, parc Josaphat, Jardin Maison des Arts, a cafe, a library, a church and a museum.

My strategy consisted of taking notes, drawings, photographs and sound recordings. Walking towards each designation I took photographs, and noted down any significant sensorial changes. During the stay I made sound recordings, noted down any significant sensorial changes and made drawings in order to better understand the space.

The intention was to make 6 case studies but I ended up with 4 as the topic of the research shifted after the p4 and these case studies would become irrelevant for the remainder of the research.

in nature:

La Friche Josaphat
courtyard Maison des art

in public space:

cafe Winok
lunch room Maison des art

conclusion

In the research about solitude I explored different ways of drawing non-tangible architectural properties. Drawings of point of view perspectives from the visit are made in order to better understand what is present at the site. Through the act of drawing new information is gained about proportions, directions and sequences. These are then conceptualised in the visible layer, relational layer and road maps drawings, interpreting the information in a new way.

The visible layers separate the environment based on visible boundaries. The drawing lacks perspectives, layering the different boundaries on top of each other. This way the sequence of boundaries is clear and soft and hard transitions become apparent.

The relational layers.

The proximity of each element in the environment has a different relation to the observer.

events and users of each layer can affect the sense of anonymity, safety, comfort, focus, seclusion or separation. By separating these layers from a single point of view the factors such as immediate and distanced space can be mapped.

The roadmap

The gates and paths of the journey are recognised in the perspective sketches. The essence of each step of the journey sequence is extracted and combined in the roadmap. Relevant elements of the journey are enlarged and others shrink. In these drawings the perspectives fold with the turning of a corner.

research drawings

representing architecture by synthesizing different types of perspectives

SPACE VS PAPER

As these conventional architectural drawings are used for the construction they need to be in the correct scale and elements such as doors and windows have to be at the exactly right place. During the design proces the plans, sections and elevation are also often used as design language. Yet by separating these drawings, relations between the elements of a building can lose coherence.

Axonometric or isometric drawings combine elevations, plans or sections to provide a more complete representation of a space. Walls and floors can be exploded to show how the different elements of a building come together and form a space. These drawings comply with the geometrical accuracy of the aforementioned orthogonal drawings but can become cluttered when the complexity or size of the building increases.

Exploring the representation of the corridor
As architecture is experienced in a sequence of spaces these drawings can fail to represent 3 dimensional characteristics of a space. Especially in the interior the sense of sequencing is strengthened by the passing through a corridor. The corridor, a longitudinal hall originating in the 17th century with as primary function to split those who served and those to be served with a direct sequential access between all rooms.

Today the corridor is found in almost every building linking and distributing functions along its axes. In complex multi-functional buildings these corridors can be regarded as an interior street. Many schools are designed with this principle. (Aarhus School of Architecture by ADEPT + Vargo Nielsen Palle, Nantes school of architecture by Lacaton & Vassal, TU Delft faculty of architecture Fokkema & Partners). It provides a logical circulation and can handle peak traffic (after lectures, lunch time etc) well.

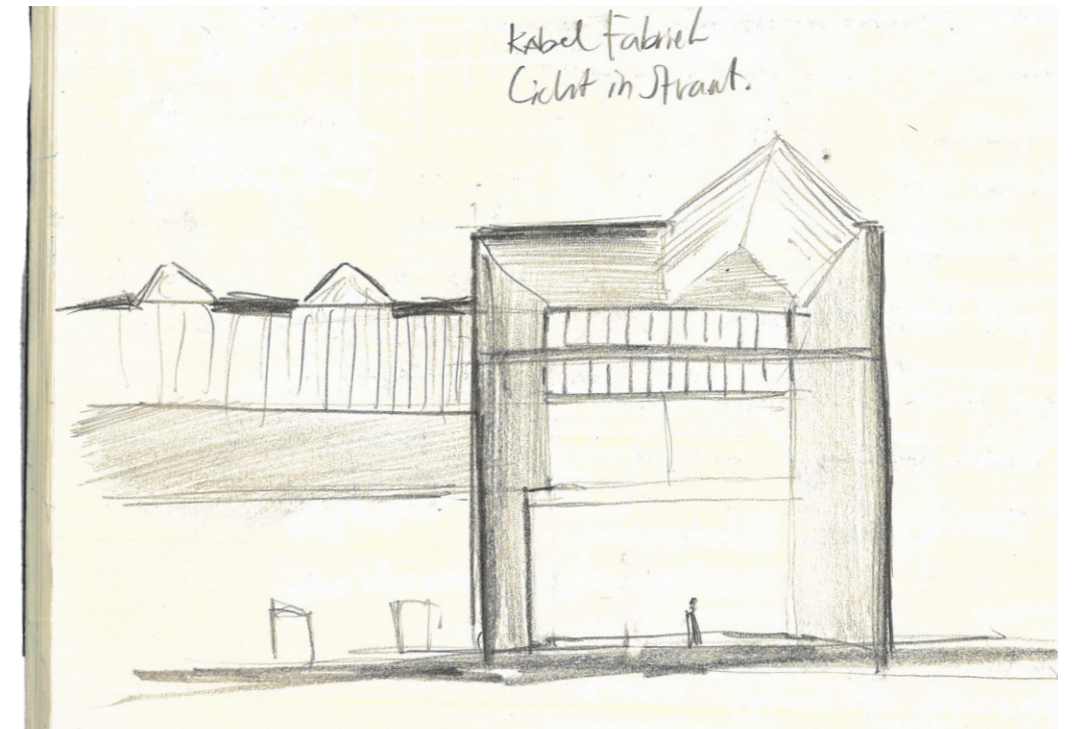
CORRIDOR

In order to gain a better understanding of how interior streets work I take a closer look at the TU Delft Faculty of Architecture. As I have walked these corridors for the past 6 years I know how the spaces are used and which spots are appreciated and which are not. The drawing places the corridor centrally and considers the adjacent rooms and halls as a secondary. Plan, elevation and axonometric are used to show the openings in the corridor and make the sequence of passing through the corridor visible. Openings in plan and wall

research drawings

representing architecture by synthesizing different types of perspectives

in the next pages I will show several drawings in which I experimented how I could combine different perspectives into a single drawing. The goal is to draw the logic of a space in a new way.

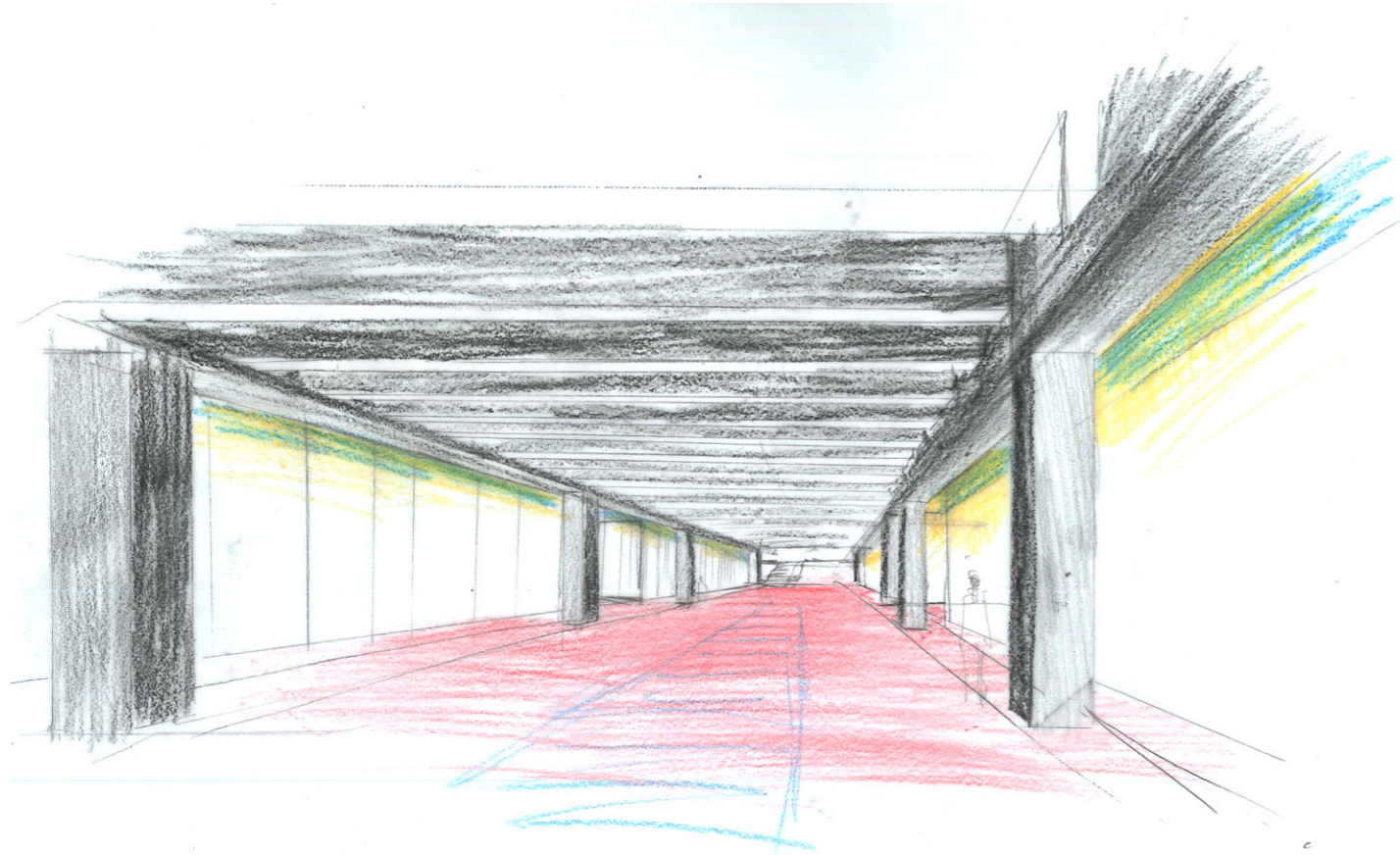


study of the lightstreet of the kabelfabriek, elevation of interior wall and section

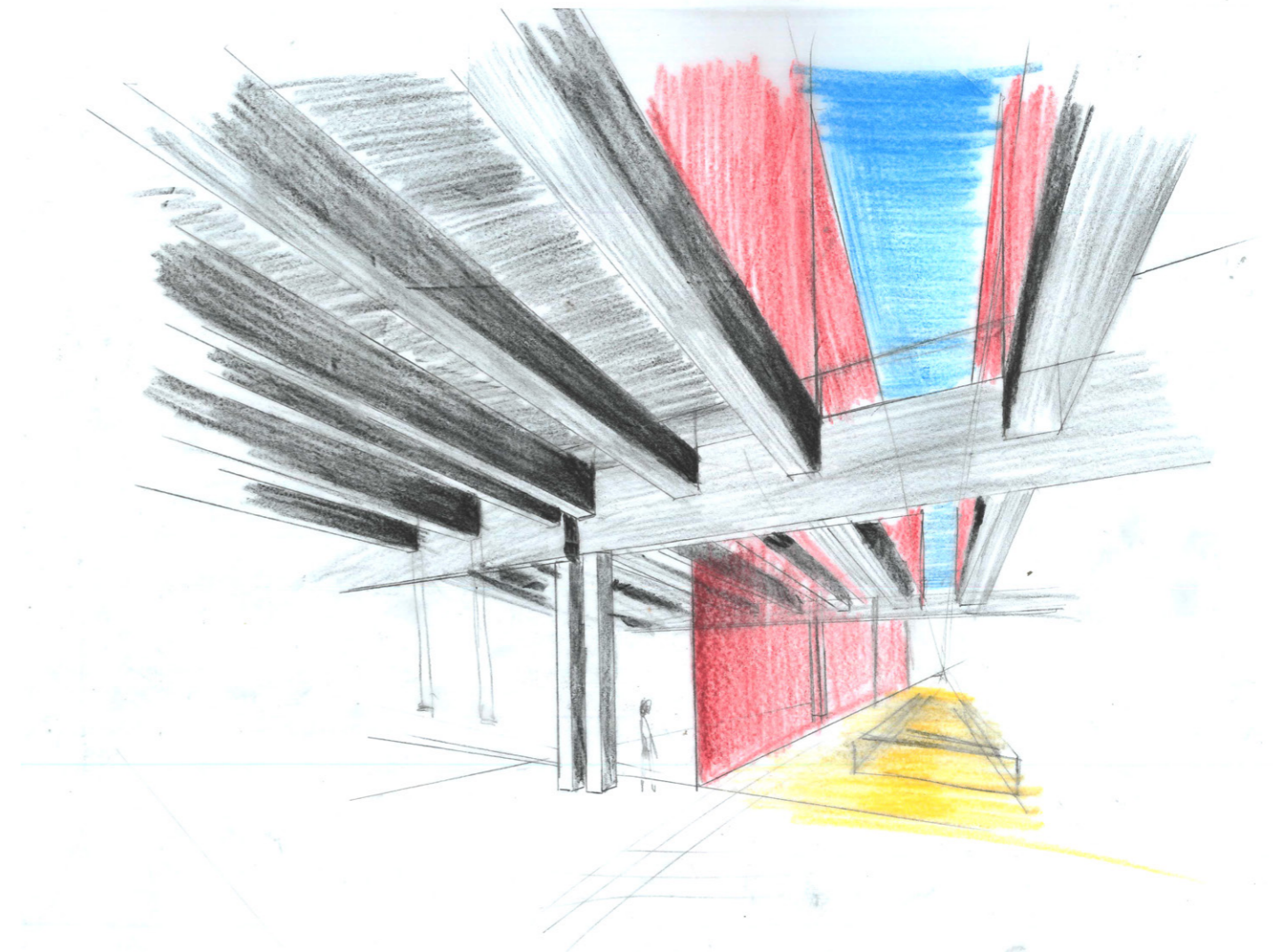
in blue I will make remarks about the choices I made when drawing this set. These remarks will highlight some of the thinking process behind all these drawings, What worked well and what did not.

the drawings are presented in chronological order to the development over time some drawings focus on the site of the design project, others on references.

single point perspectives



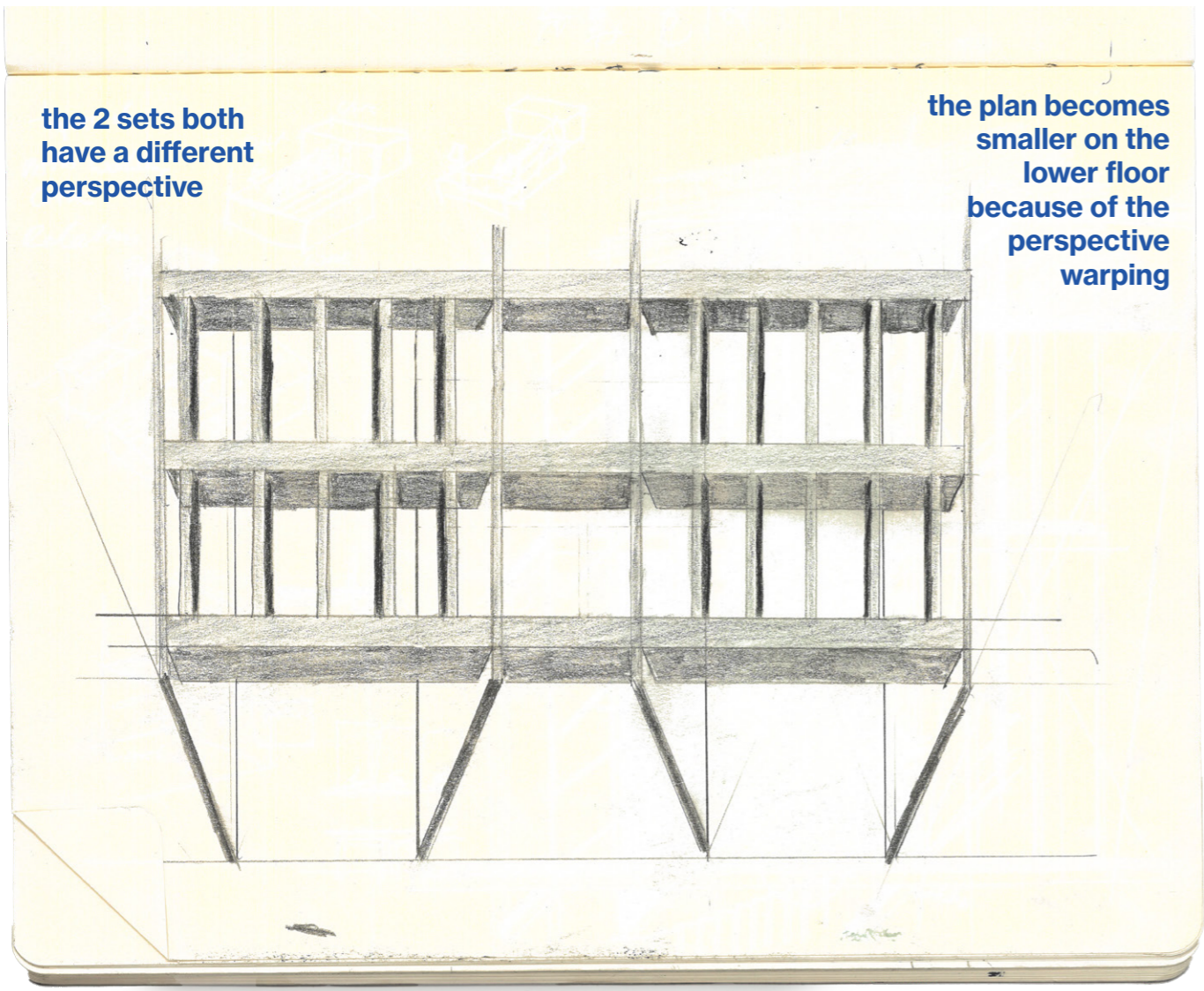
studies of how the direction of the structure changes the way light can come in from the top



research drawings

structure

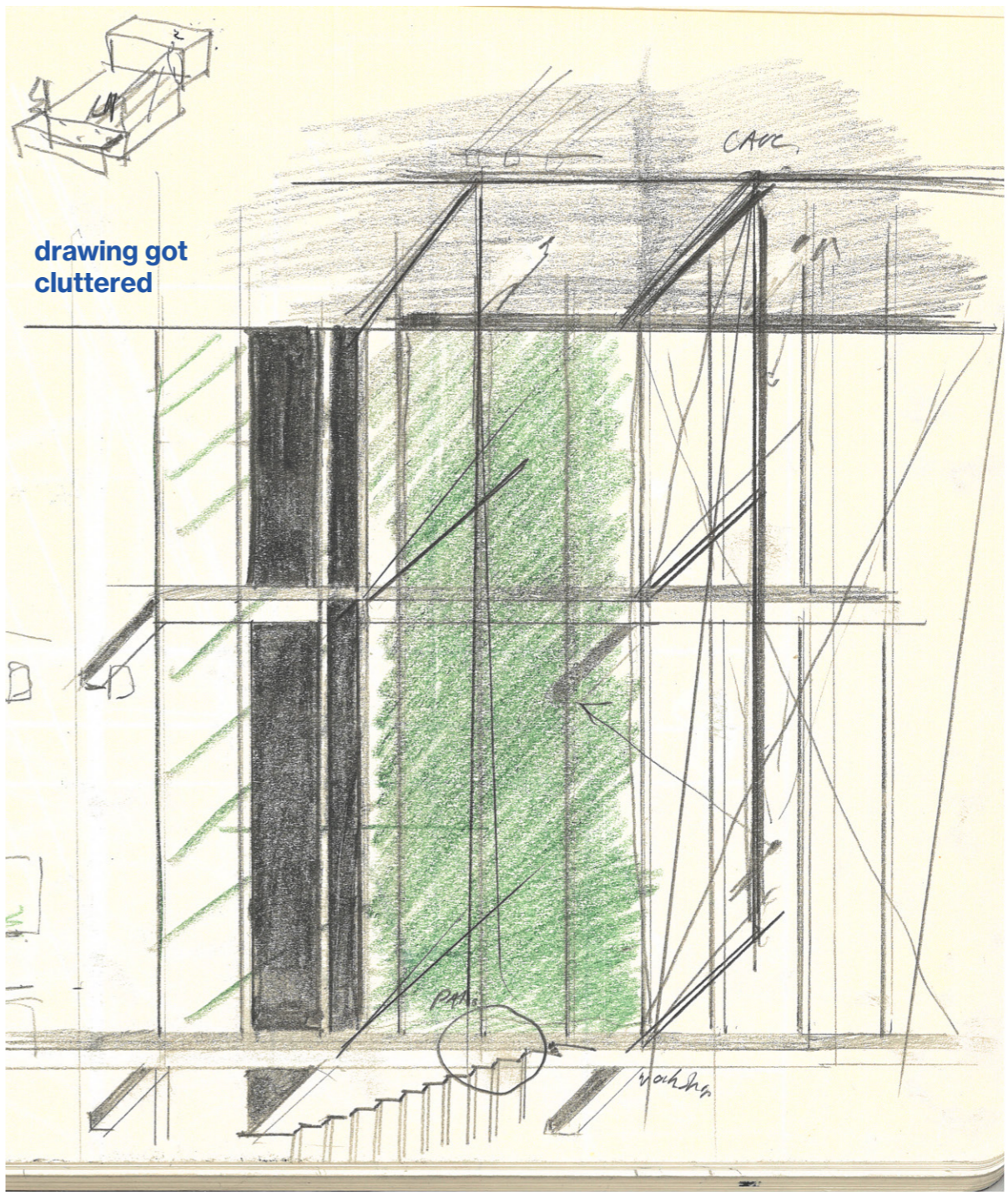
top view with 2 axonometrical directions to show both the walls adjoining the corridors



As I regard the beams as a very dominant aspect of the site I wanted to include them in the drawing, but looking from above, they obscure the view

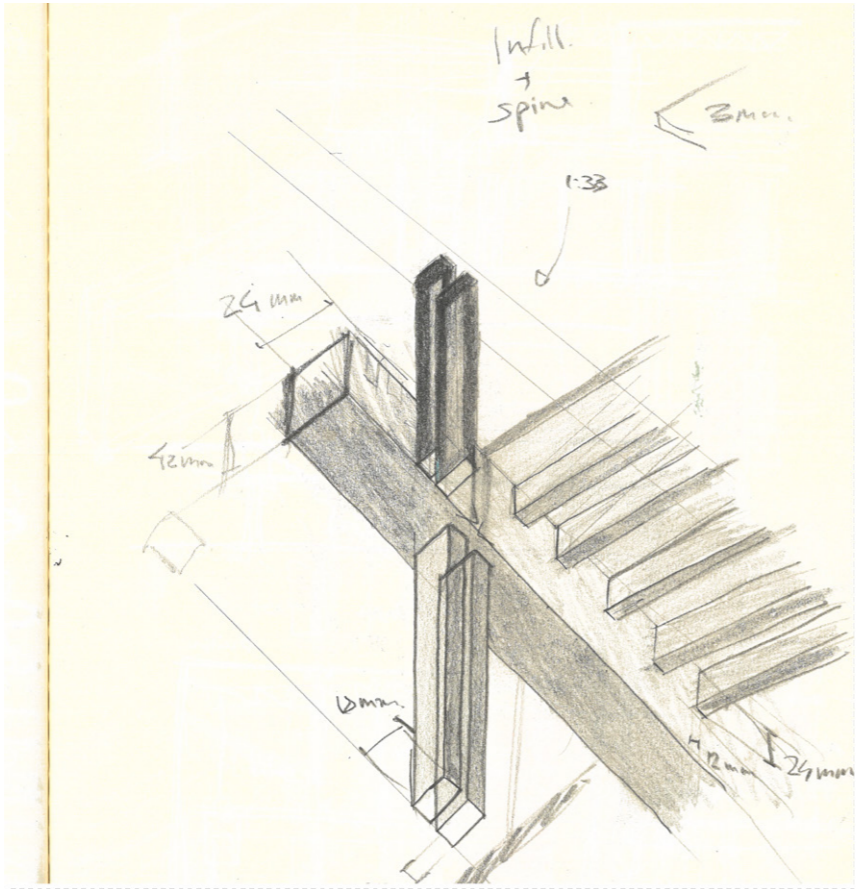
top view axonometric from the relation between a patio and a vide

drawing based on the structure of the EMD building

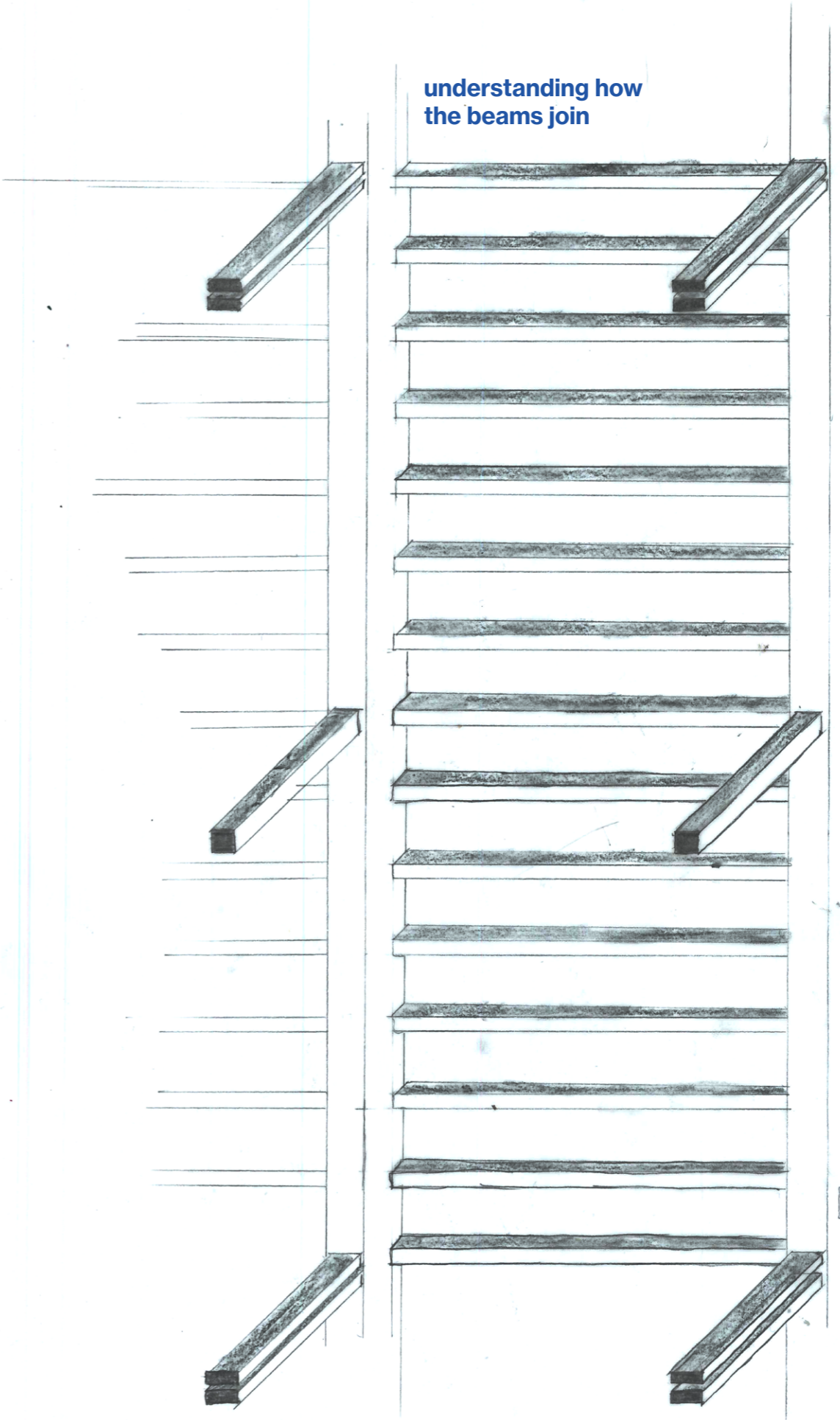


in this drawing I tried experimenting with how the vide, corridor and the patio should relate with each other

structure



these drawings look upwards the ceiling of the. looking at the dimensions but also the 1600+400 rythems of the subbeams



corridor

this is the first experiments of drawing the faculty with the corridor as main element here I looked to find ways to show the sequences of spaces distributed along the hallway whilst keeping the drawing coherent and readable

merging the corner of 2 different perspectives

substructures in thin linework

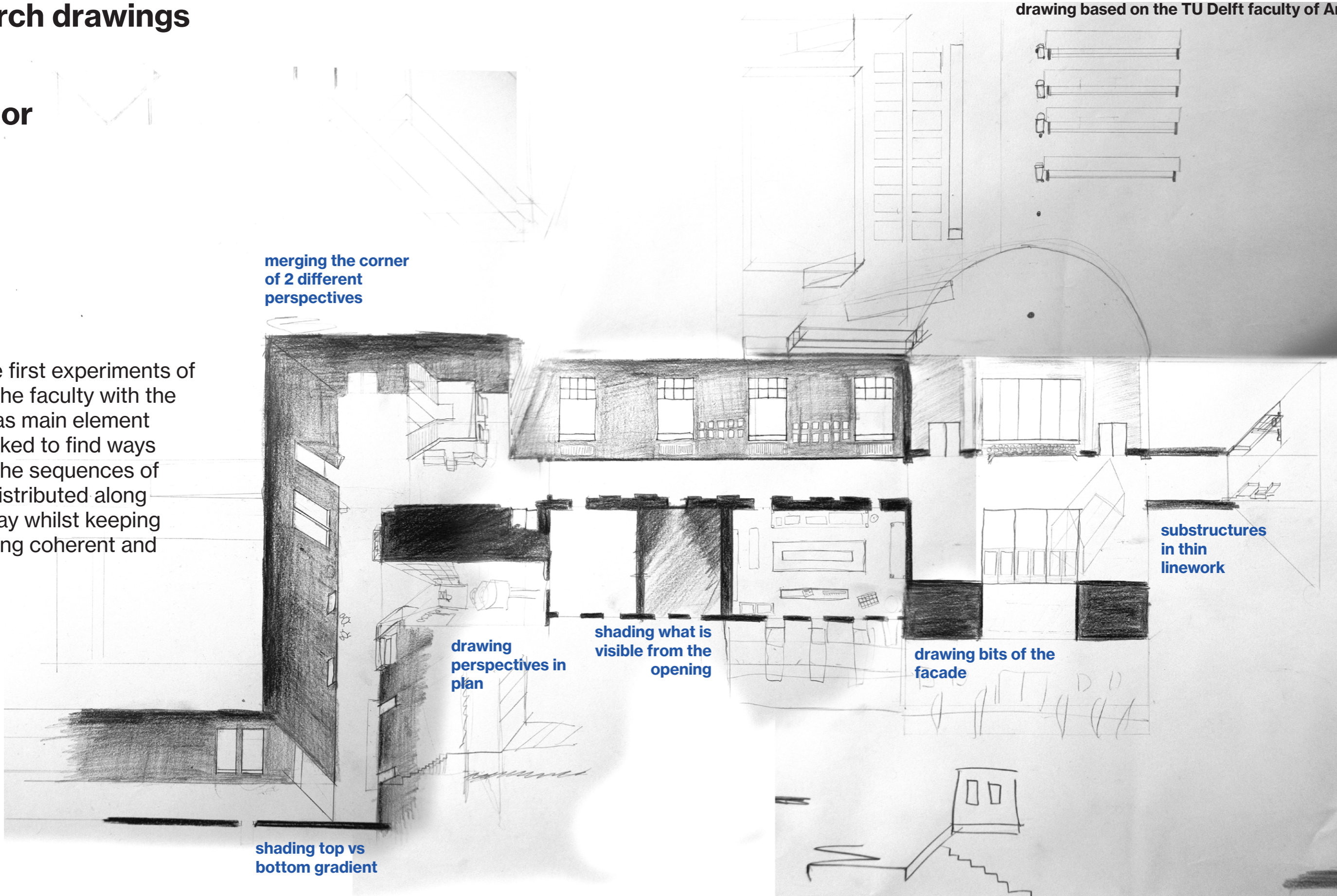
drawing perspectives in plan

shading what is visible from the opening

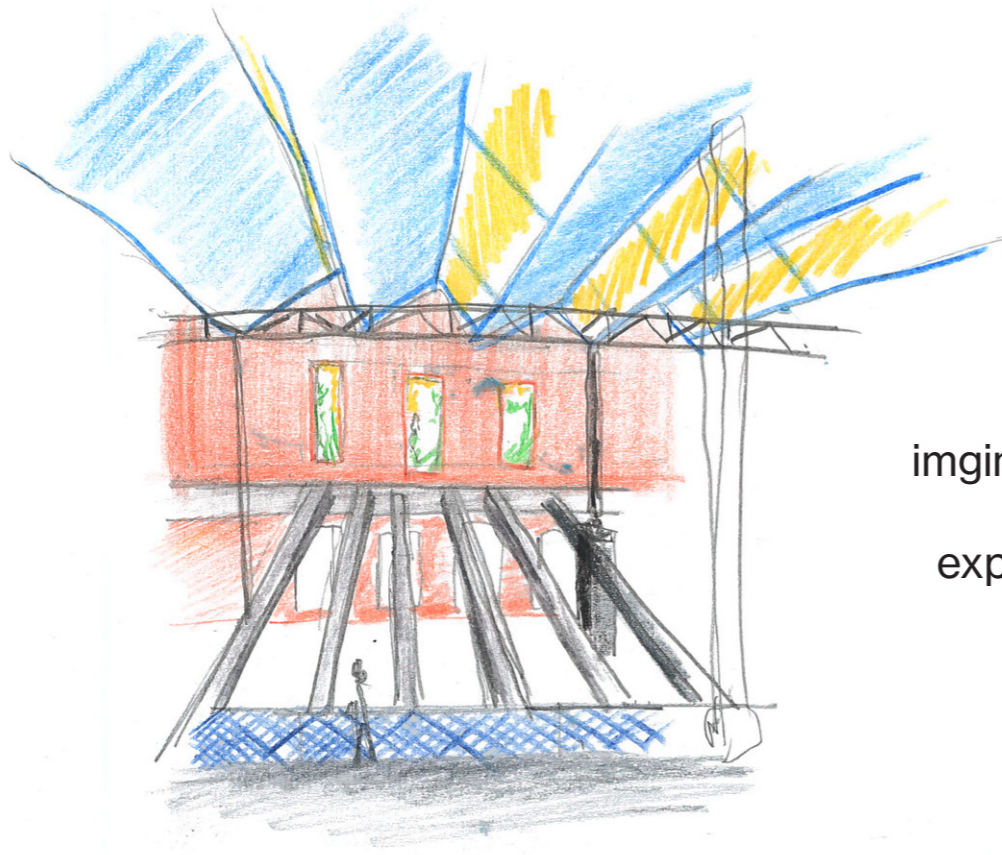
drawing bits of the facade

shading top vs bottom gradient

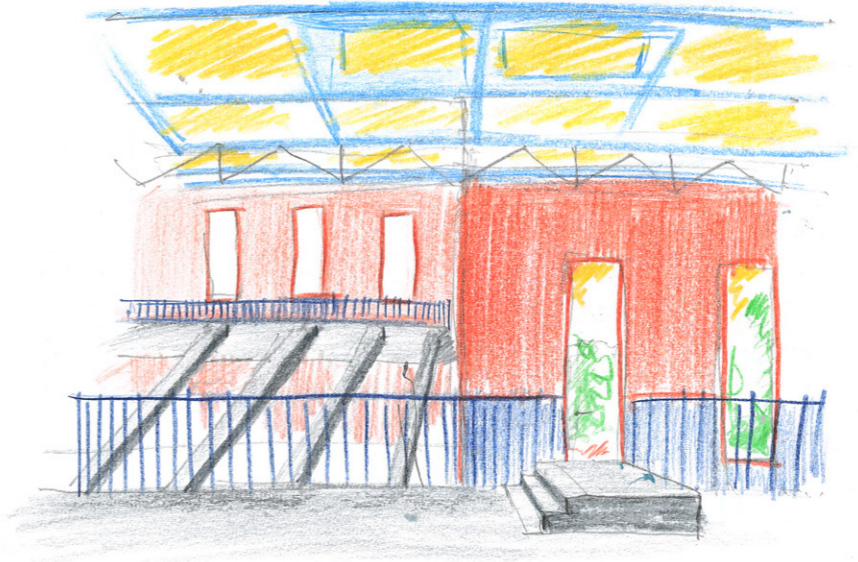
After the linework of the second editon was done I experimented with rough shading, black being closed space, white being open space



perspectives



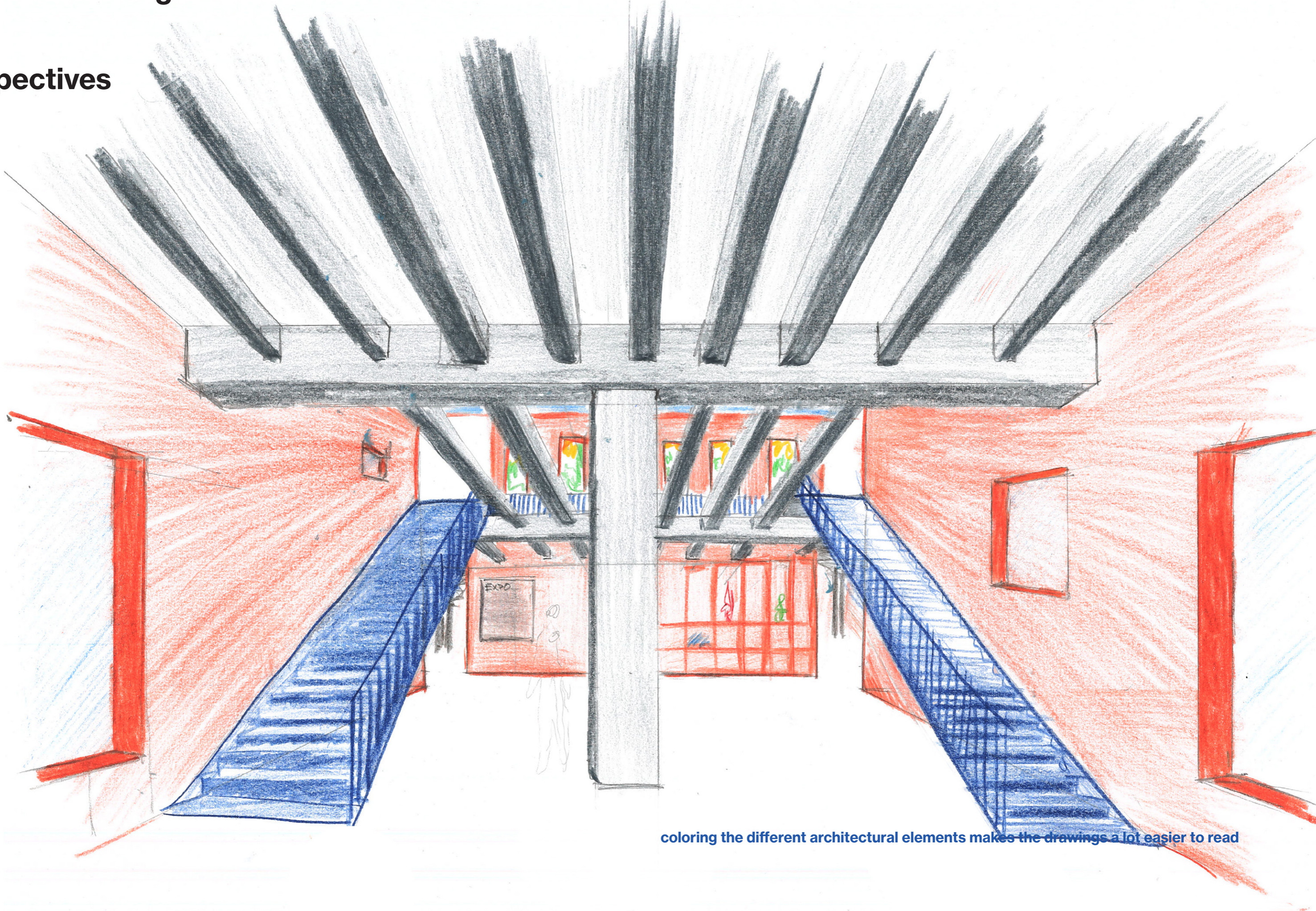
in these drawings I
 imagined ways the patio,
 and vide could be
 experienced from the
 corridor



the perspective of the
 concrete structure is pushed
 upwards to better show the
 floor below

coloring the different architectural elements makes the drawings a lot easier to read

perspectives



coloring the different architectural elements makes the drawings a lot easier to read

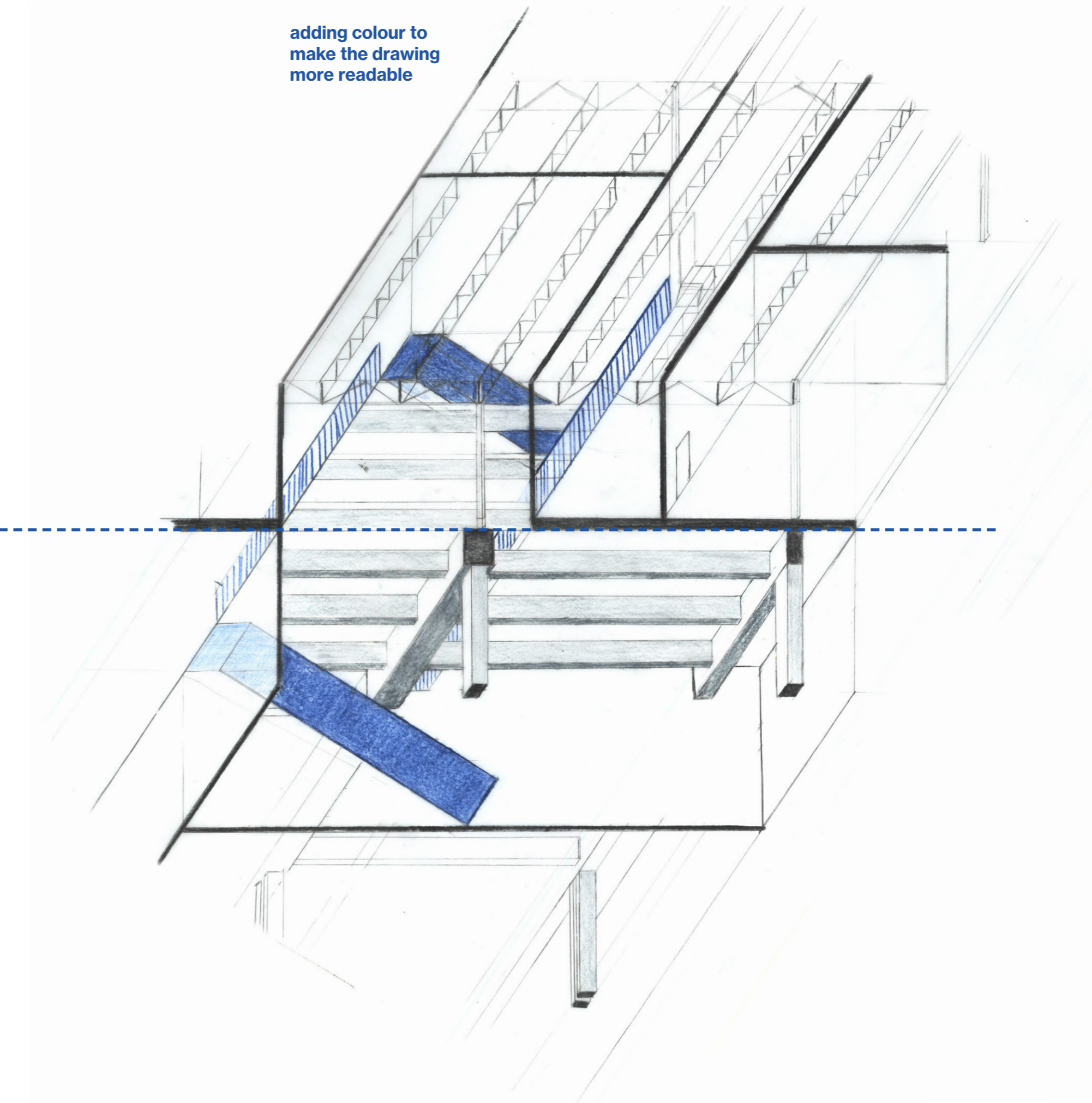
structure

In this drawing i experimented with an oblique projection fom the top and bottom, flipping direction at the section of the beam

as the imagined space is symmetrical it could be read in 2 ways. the space continues but the oblique flips.

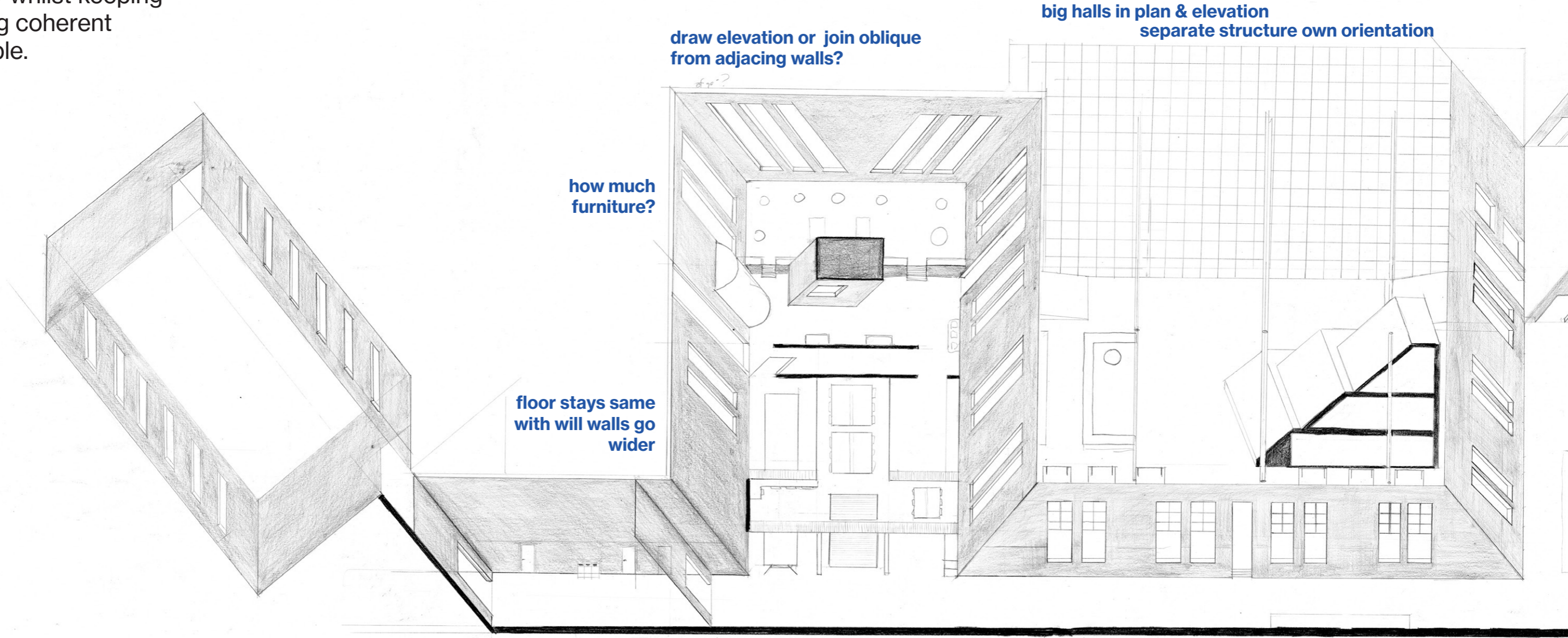
a section with projection changing at the bottom of the first floor slab, showing the same stairs from 2 perspectives

adding colour to make the drawing more readable



corridor 2

this is the second experiments of drawing the faculty with the corridor as main element here I looked to find ways to show the sequences of spaces distributed along the hallway whilst keeping the drawing coherent and readable.



corridor 2

flip perspective
to fit ketelhuis on
the page

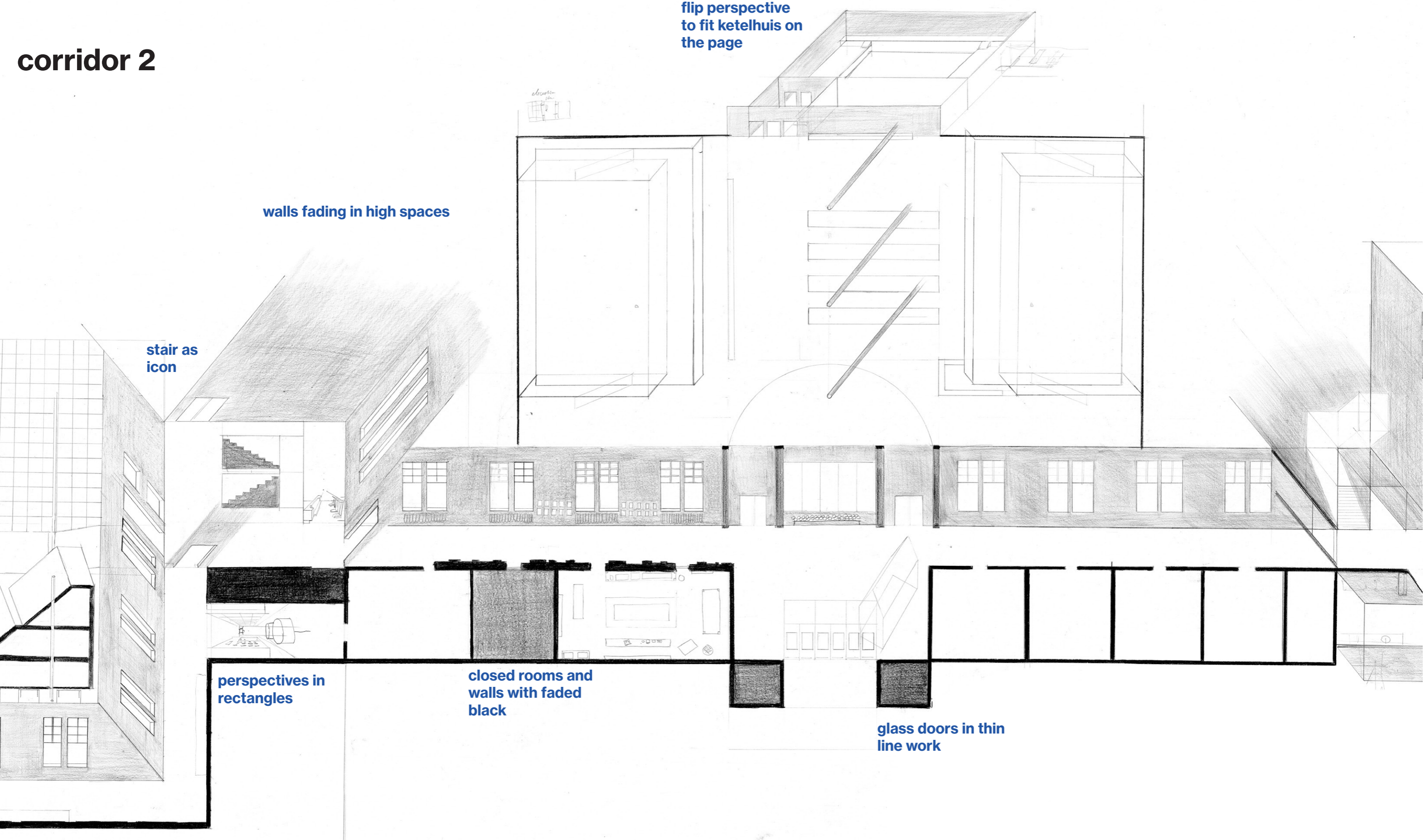
walls fading in high spaces

stair as
icon

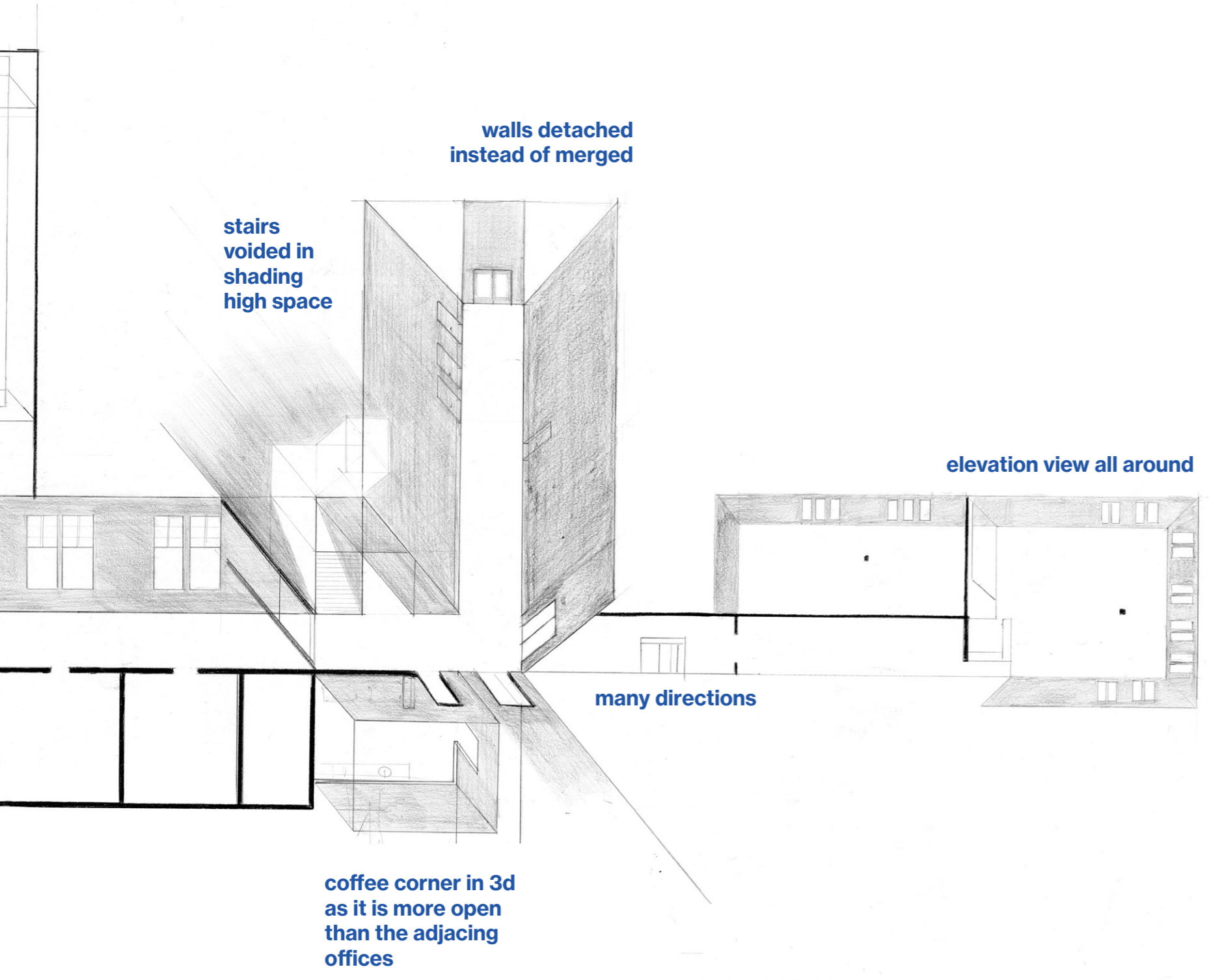
perspectives in
rectangles

closed rooms and
walls with faded
black

glass doors in thin
line work



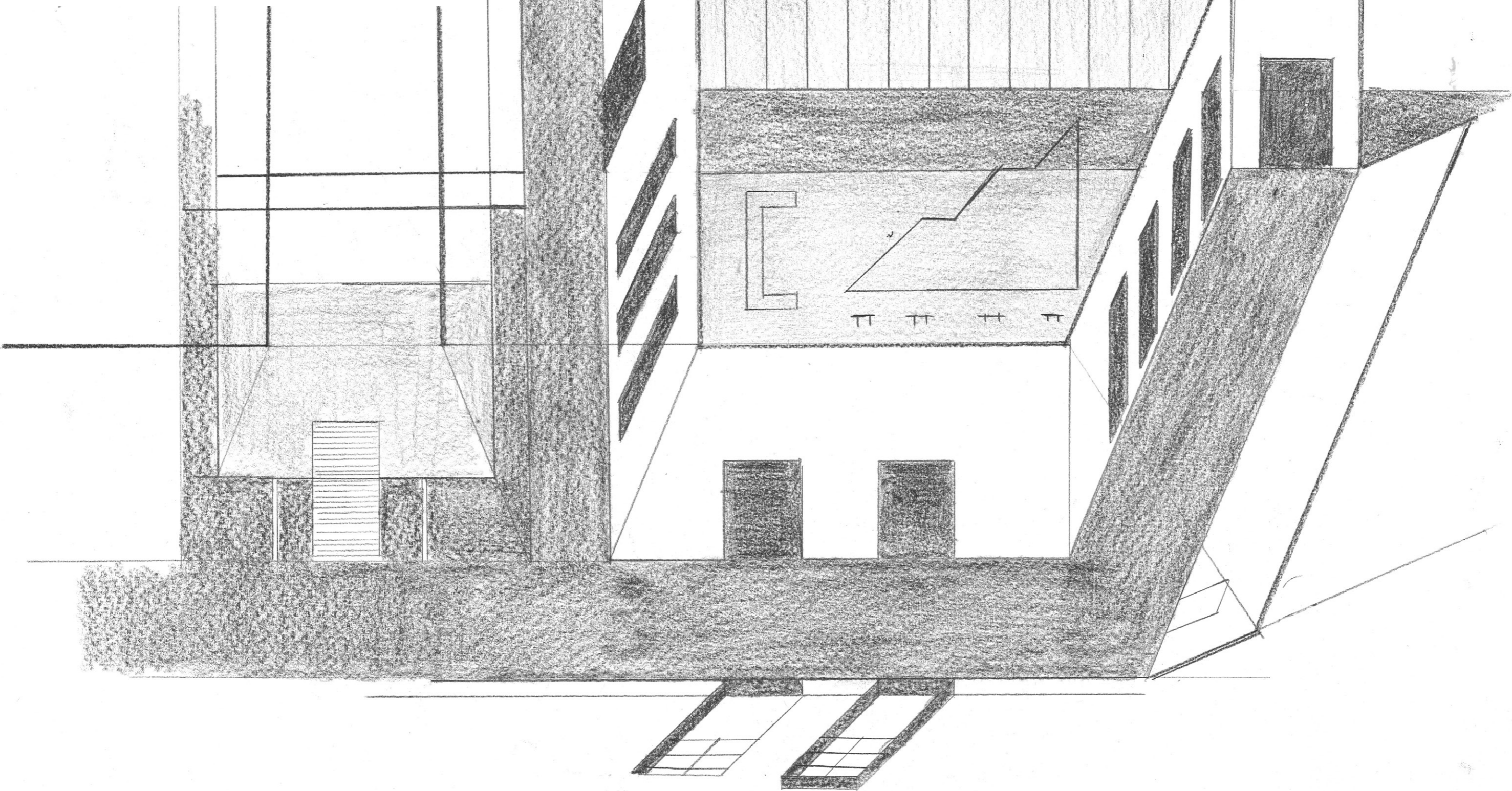
corridor 2



Looking back at the drawing it becomes evident that the corridors have a closed side with classrooms at the bottom. The focal point is through the windows towards bigger, open spaces. Intuitively the attention is attracted to these spaces as they are visible through-out the windows of the building.

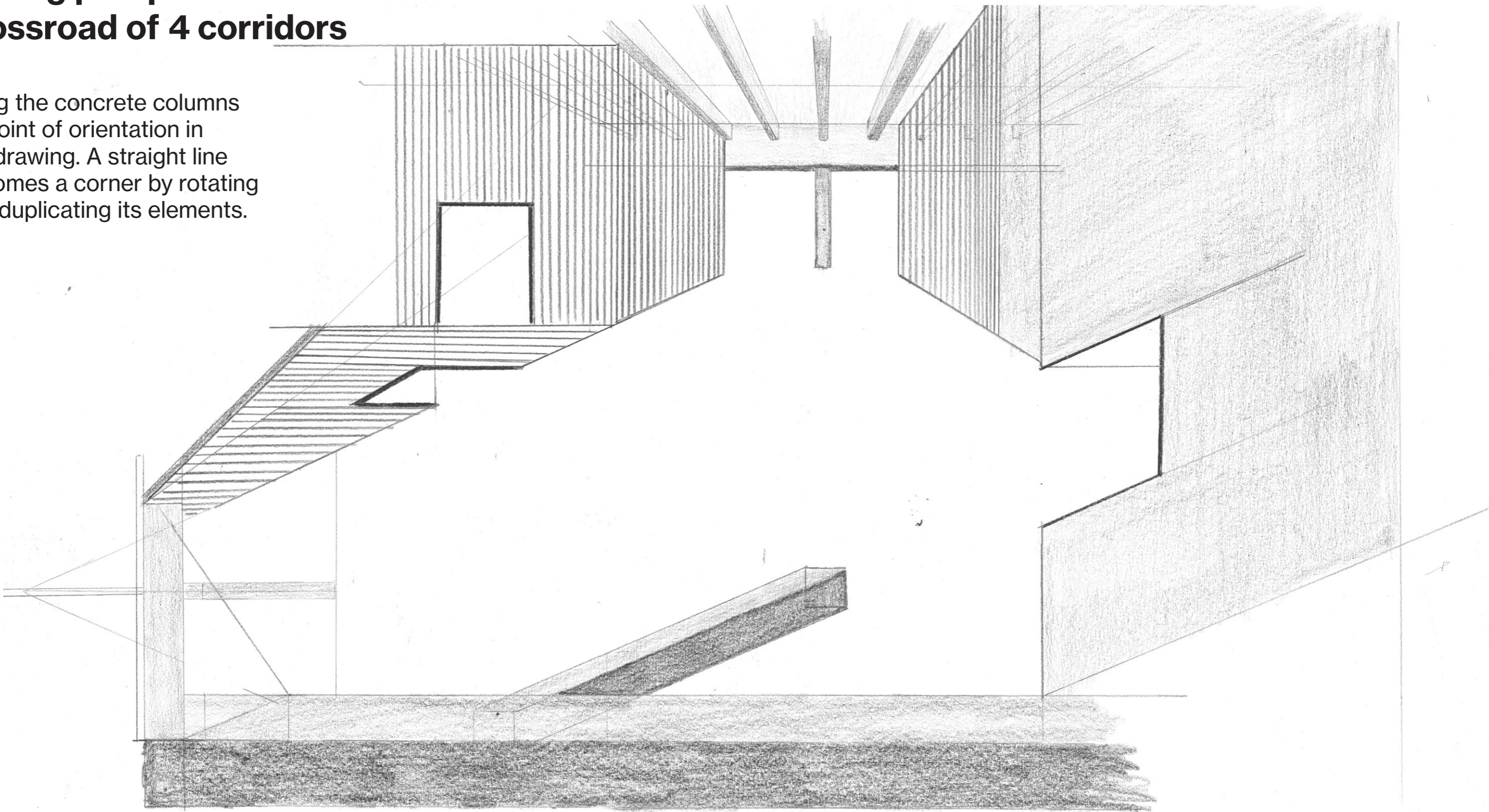
following the corridor and its openings

After making this drawing I was not really sure whether the open and closed spaces were visible enough in white. In this drawing I experimented with making the open spaces dark.



**folding perspectives on the
crossroad of 4 corridors**

using the concrete columns
as point of orientation in
the drawing. A straight line
becomes a corner by rotating
and duplicating its elements.



research drawing

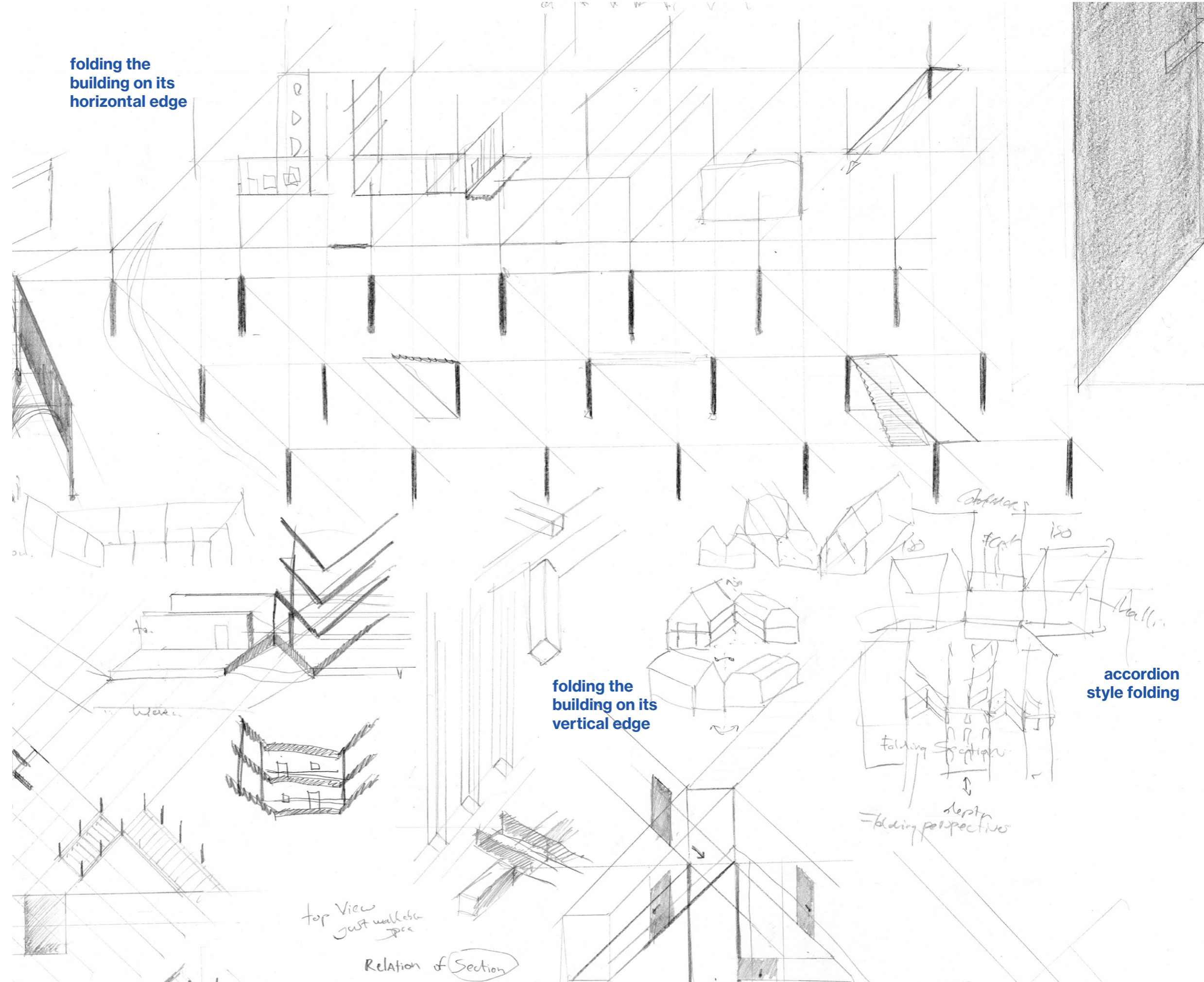
section

sketches experimenting ways to represent the relation between the ground and first floor

folding the building on its horizontal edge

folding the building on its vertical edge

accordion style folding



reflection

Process Reflection

At the start of the year, when the research kick-off meetings were over I was still clueless about what I wanted to look into. As deadlines were approaching I reflected back to the first visit to the Friche. The thing that stuck that stuck to me most was the overwhelming experience of standing in the middle of the Friche having left behind the chaos of Brussels. I regarded this experience as a moment of solitude. An experience I wanted to know more about and thus picked it as my initial research topic.

Throughout the research process I struggled positioning myself regarding the topic of solitude. After studying the limited literature on the topic, I began to understand that the experience of solitude is philosophical, psychological and above all very individual. As such the topic felt very personal and it became difficult to find ways to research the notion of solitude in an architectural context. Could phenomenological experiences in a building or landscape invoke solitude? Or is it more a state of mind that can be enhanced by relating to architecture in a specific way?

As I did not want to stay theoretical I tried negating this by making a framework which, in a more objective way, mapped the properties of solitude. These properties are based on the literature I read but also on the qualities which stood out to me when I visited the Friche. As a result the framework focuses on a wide range of non-tangible aspects such as senses, vocal points and sequences. These aspects would ultimately be combined to show the suspense and release towards a place of solitude. This framework was used in multiple case studies in Brussels

For the case studies I went to Schaerbeek to observe my experience while going to and staying at places of solitude. The act of actively visiting multiple “places of solitude” in a day and consciously observing and mapping my experience seemed in conflict with the notion of solitude itself, which is more about slowing down and reaching a level of introspection.

The result consists of multiple drawings each focussing on different aspects. I spent a lot of time thinking on how to show these intangible aspects in a drawing. I intended to bring these findings together in an overview, but the nature of the drawings are too diverse to converge them into a single representation. As such the result is a set of drawings which lack a type of coherence and do not tell the story which I had in mind.

Arch Urban Architecture P5

Jaron Smit
4719824

mentors
research Eireen Schreurs
design Sam Stalker
BT Anet Meijer

After reflecting on the research with Eireen (my mentor) I realised it was time to step away from the topic of solitude and try to find out what the research was really about. Reflecting on the research I figured it was about how private settings emerge in public spaces (as in the courtyard of jardin de maison). As my programme is that of a school I wanted to continue my research by comparing the spatial aspects of spaces of meeting, eating, moving between cities and school (entrance vs station, corridor vs street, market vs halls). The plan was to make 2 big drawings of a sequence passing these activities. I started working on the drawing of the TU Delft faculty of architecture. As I know the building quite well after 6 years of walking through the corridors I have particular spots I like and dislike. By drawing the corridors and trying to link all the spaces together in a coherent way, the exercise shifted towards the representation of space instead of comparing buildings and cities.

At this point I realised that this is what I was doing in the first research as well

Reflection

Reflecting on the solitude research, I think the drawings revealed more about my actual intentions than the topic of solitude itself. It was an exploration to represent non-tangible architectural qualities. Each of these drawings approach the logic of space in a different way in an attempt to come closer to the essence of the observed space. In the journey-series, the point of view sequence is transformed into abstracted diagrams and then reassembled to form a roadmap of the main markers passed in the route. The focus-series shows the point of view as it was, then relates back to the whole space, and then combines both to show the logic of the observed space.

In the second research the emphasis of the drawing was on the corridor and how openings and closings are distributed along its way. Each of these drawings try to represent the logic of a space focussing on a different aspect.

Both researches are based on observing a space and its activities, trying to draw it in such a way, that it shows how I interpreted the logic of that space.

Generally I start drawing and things unfold naturally. This process makes it difficult to reflect and realise what it precisely is I am trying to visualise. Now I realise reflection is very important in the process of drawing. Looking at the order in which things are drawn, the colours and the type of perspective can help me with this. I think the specific focus in a drawing and reflecting on that are something I can work on in the future.