Utopia In A of Consumerism

CHALMERS

In A Utopia of Consumerism

- Exploring on Distorting the Grid of Efficiency

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Abstract

This thesis aims to explore the homogeneity and the universal system under the aim of efficiency in architecture as a revolt to urbanism and consumerism. By manipulating the homogenous grid space, it illustrates the significance between identity of space and individuality.

When looking at this kind of ubiquitous homogeneous space in modern urban environment, it is common to see an efficient square grid for efficiency and functionality under the drive of consumerism. And as the demands of unlimited development, the space also expands unlimitedly with the support of all kinds of facilities. I exaggerated and simplified the background and made an extreme situation, a continuous utopian megastructure as the context.

From the background, the grid is extracted as I see it as an outcome of pursuing efficiency. With manipulating the grid space, a sensory experience is designed attempt to recall people's self-consciousness and awareness on the significance of identity.
With distorting the grid, it changes people's perception and feeling on the space. Vision is domestic among perception, but it can make mistake, so people need to use their body to confirm what they see and also confirm their own existence.

By using mirror and glass, I first distort the grid in optic. It creates illusions and make people feel their surroundings has changed but find not, thus have confused feeling and start to question the surrounding environment they are in. By physical distortion, I create a space various from the generic space. And in this area, the surrounding environment is really distorted. People can sense the surrounding with body and get confirmation.

A series of narrative scenarios is designed to lead people to reflect on the surrounding environment. There's a sequence of view from simple reflection of the generic space gradually to a fragmental scene of this space. It leads people to notice and reflect the daily environment they have always ignored. And then it moves to the scene distorted by mirror. By keep questioning and noticing the illusion, people feel lost in the space and can not believe the scene the see until they step into the physical distortion part and confirm the environment with body.

Exploration

Through looking into modern urban environment and reflecting on the current convergence tendency, an extreme situation is created to show how our life could be like with pursuing fully development in an effective way.
As exposing of individual's mental issues, an sensory experience is designed to call back people's self-awareness from numb daily life.
Through manipulating with grid, this thesis tries to challenge the existing universal system of modern buildings.

Methods

After analysis on the generic space and extract universal grid as a main conceptual element, which can be seen as one of the embodies of generic space, the method is mainly narrow down to the manipulation of the grid.
Through distorting the grid, I want to explore on breaking homogeneity of space. I mainly focus on two approaches which is mirror and distorting the form. They each correspond to different perception- Optic and hapticity. Together they can create a sensory experience.

Consumerism

Modernism

Material Demands

Effeciency

Generic Space

Homogenity

Grid

Extention

Mental Loss

Exaggerate

Context

Architectural
Universal System

Enormous Volumn

Continuity

Break

Distortion

Emotion

Perception

Optic — Reflection&Refraction

Body Experience

Haptic — Geometry

Tactile — Texture

Sensory Experience

Self-Conciousness

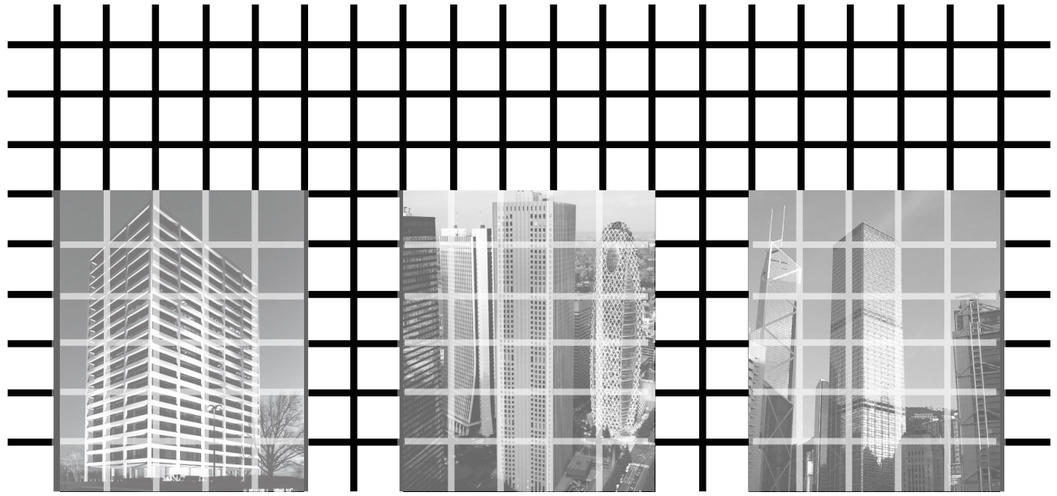
Background

Nowadays to some extent, architecture is regarded can be consumed. Lots of buildings are designed simply responding to people's material demands. Architecture is driven by market economy, and we are being willing victims of market economy and accepting the spaces marketing economy choose and bring to us.
Modernism has created a system under consumerism, and urbanism makes us all have to accept these.

When our buildings and cities are designed to simply respond to the market and demands, space becomes continuous and we can fit all our material needs by facilities and furniture and so on. When even space is no longer necessary, that would be the time architecture disappears.

The spaces designed under consumerism are like what described in "Junkspace" and "No-Stop City", which have continuous space and expand both horizontally and vertically. Or like a game you just need to put blocks people need, and they can expand unlimitedly. Walls are no longer walls, and windows are no longer windows. They all just be seen as same as those functional furniture.

When buildings are considered just as containers for all kinds of functions and they are only driven by people's demands for function. There is a detachment between people and space. With furiniture satisfying demands, buildings could be totally homogeneous and it can expand unlimitedly with the unlimited development.



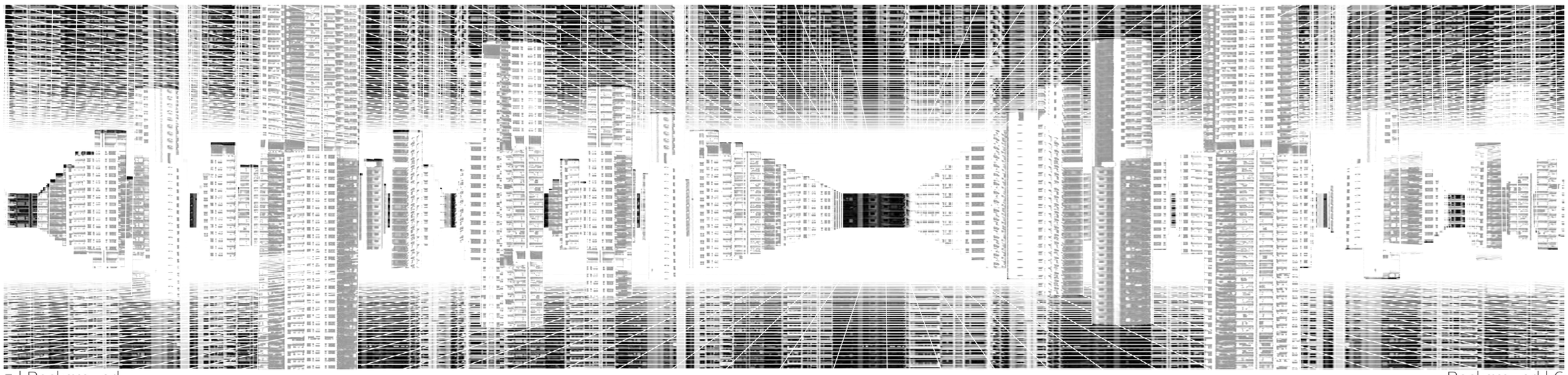
Business Men's Assurance Company Building
Missouri, USA

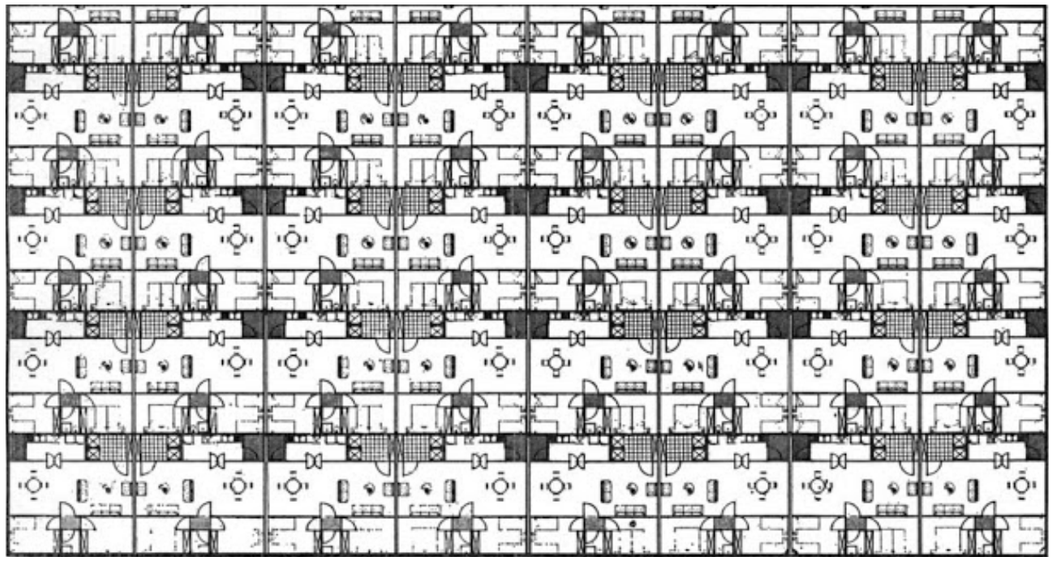
Shinjuku Center Building
Tokyo, Japan

Cheung Kong Center
Hong Kong, China

Above (from left): Fig.1, 2, 3

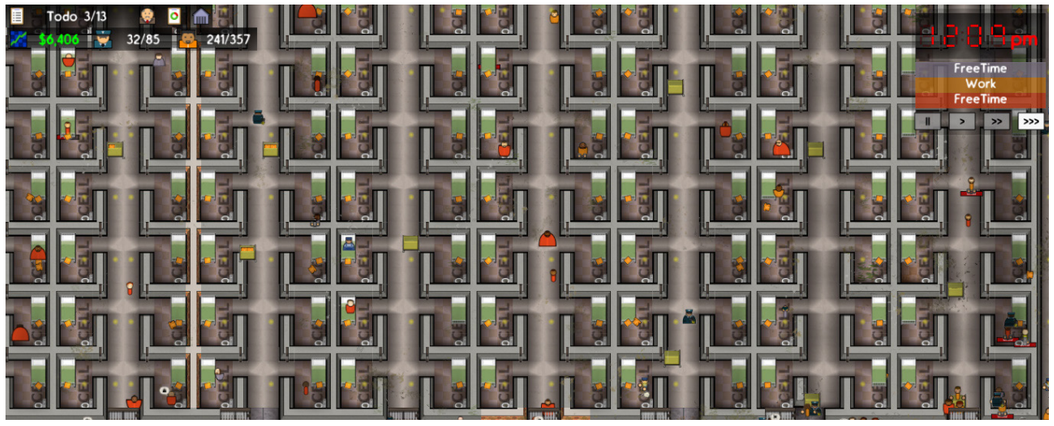
BATCH MANUFACTURING
UNLIMITED EXTENDING



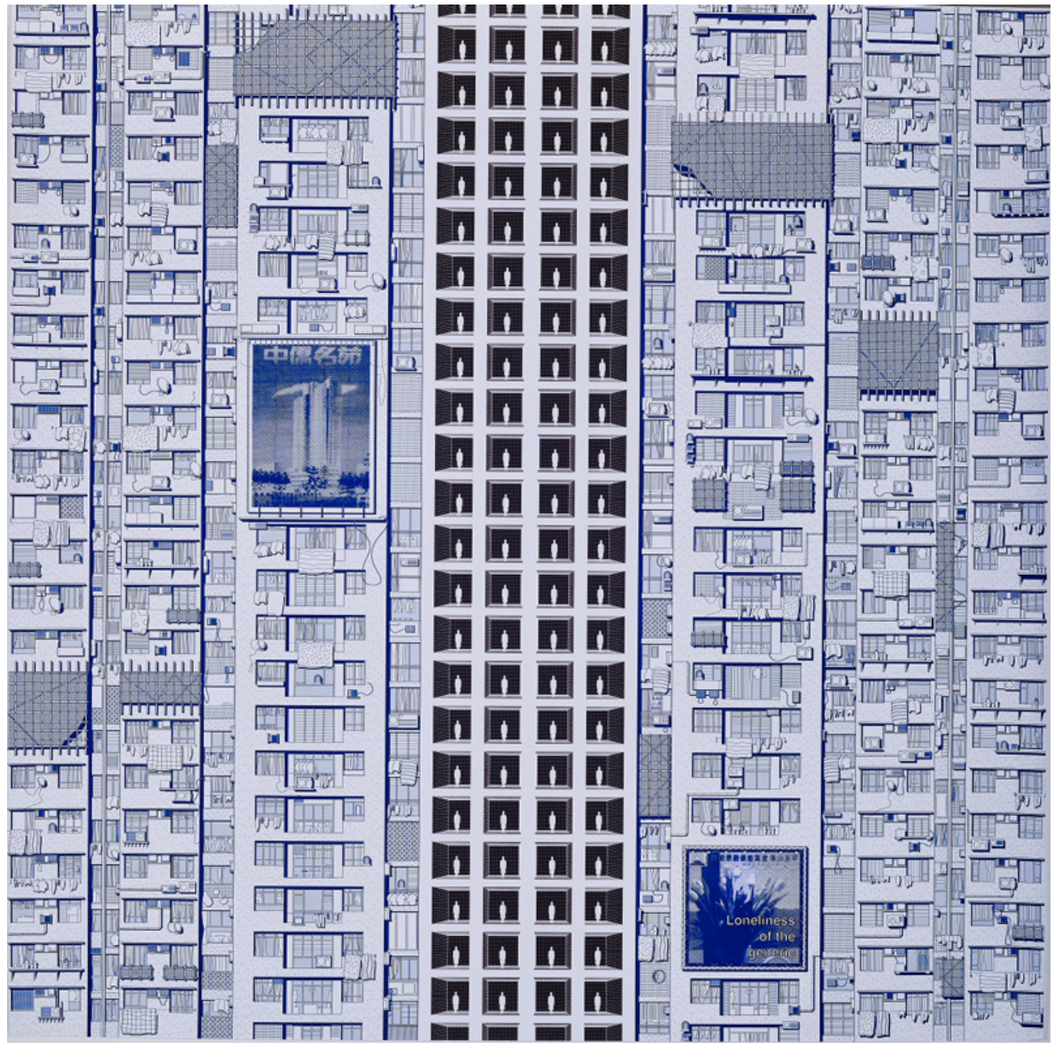


No-stop City -Archizoom

Above: Fig.4
Below: Fig.5



Game: Prison Architects
Building space expand unlimitedly responding to demands.



Special Mention
Guya Di Bella & Boris Hamzeian

Fig.6

Fig.7

Fig.8

Reference:
Playtime
Film, Jacques Tati , 1967

The background of the film shows an extreme situation of modernism. It not only reflects on city and building, but also on people's psychology and lifestyle. It shows the weird situation how our life would be in this generic modern environment.

Theoretical References

Vertical City

Ludwig Hilberseimer, 1927

The Vertical City is a typical ideal city under International Style Modernism. It shows the context of 1920s socialist ideals and during that period how people devoted to make design become a series of calculation to solve problems in an effective way. In this model, the whole city becomes a continuous system of duplicates instead of the outcome of all kinds of social aspects.
Hilberseimer himself also admitted: "The repetition of the blocks resulted in too much uniformity. Each natural thing was excluded: no tree or grassy area broke the monotony... the result was more necropolis than a metropolis, a sterile landscape of asphalt and cement, inhuman in every aspect."

Fig.9

The Generic City

Rem Koolhaas, 1995

The Generic City introduces a type of modern city, which has no identity, no history, no center and no program. Based on the analysis on 15 different aspects, this type is seen as a proper type for progressive city development.
It reveals the current tendency of homogenization, and we are facing a global movement: "down with character". That's also the reason why intentional convergence is encouraged.
A question is raised in the essay: "What are the disadvantages of identity, and conversely, what are the advantages of blankness?" It seems that it is not that necessary to take the cost to pursue identity.

Junkspace

Rem Koolhaas, 2002

"Junkspace" is a space designed under consumerism.
Forms search for function, and function search for demands.
With using modern infrastructures like escalator and air-conditioning, "Junkspace" can expand everywhere and become a hallow megastructure.
The continuity, as the essence of "Junkspace", can be related to people's material demands which is also unlimited. They influent each other and become further stronger.

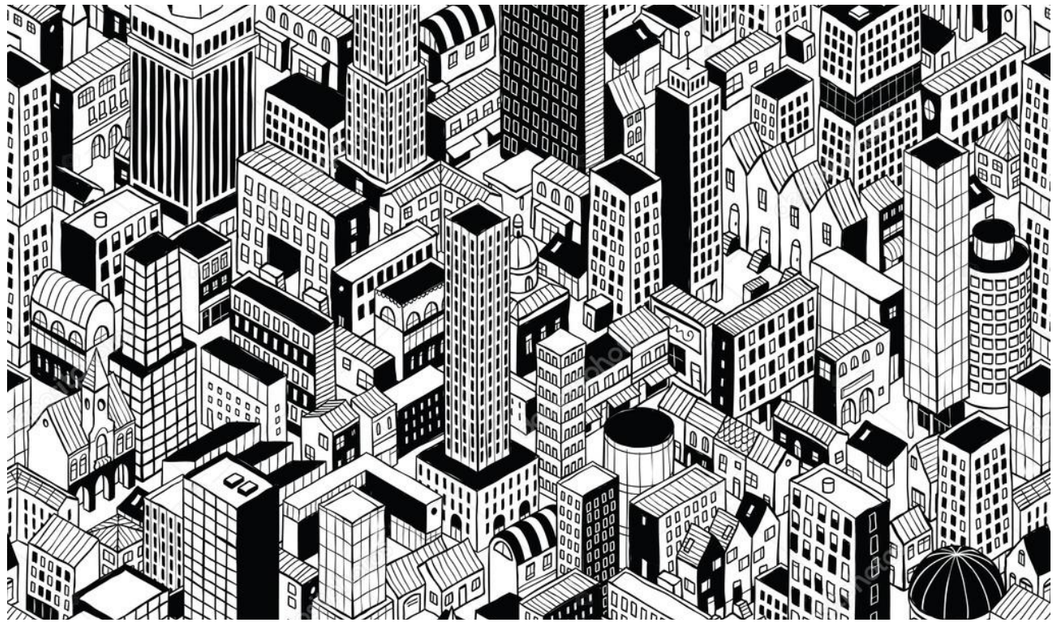


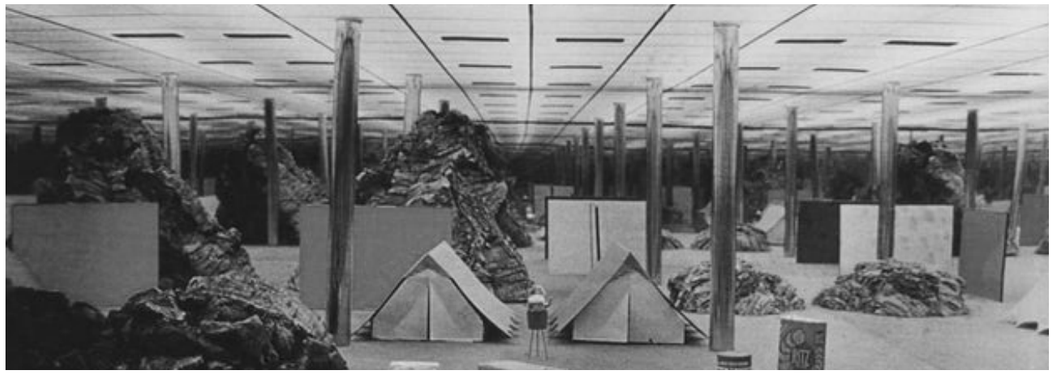
Fig.10

No-Stop City

Archizoom, 1969

No-Stop City is a utopian assumption of extreme situation of homogeneity.
It describes a space with continuous interior space and homogeneous units, only with floor and ceiling held together by structure. Furnitures and all kinds of equipment intersperse among this huge space, light and air can be guaranteed by electrical ventilation and light. People can choose the place where they live and take activities freely.
It is a huge horizontal network which can unlimitedly expand. The space doesn't have identity, so people won't be limited by place but rely on furniture and live like camp.
This project represents present-day reality and shows a critical concern on the modern highspeed development and create an extreme situation of progress.

Fig.11



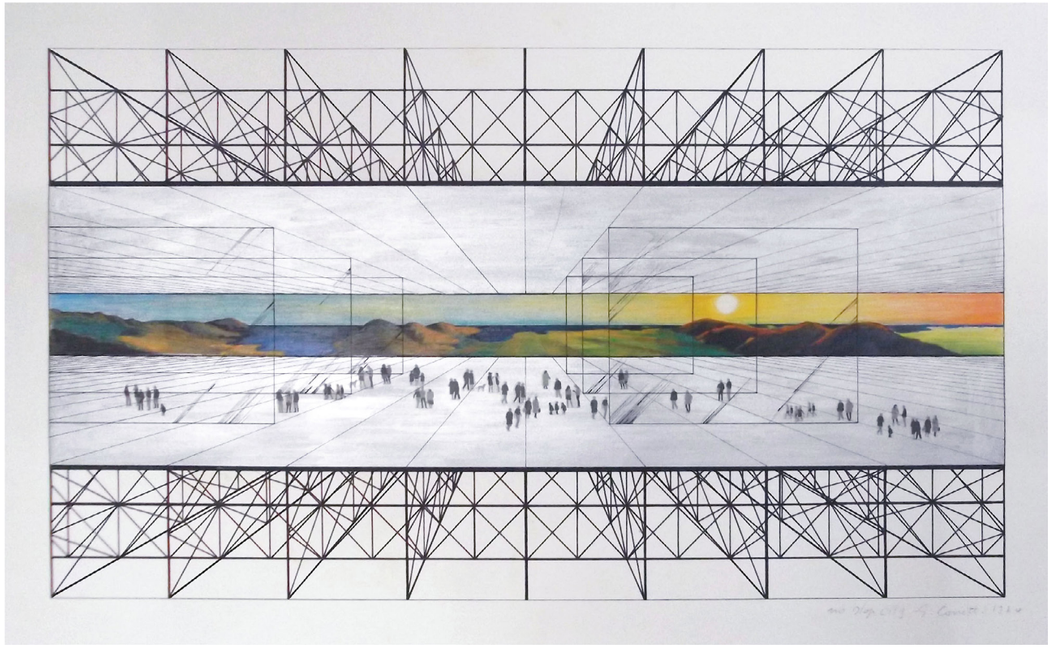
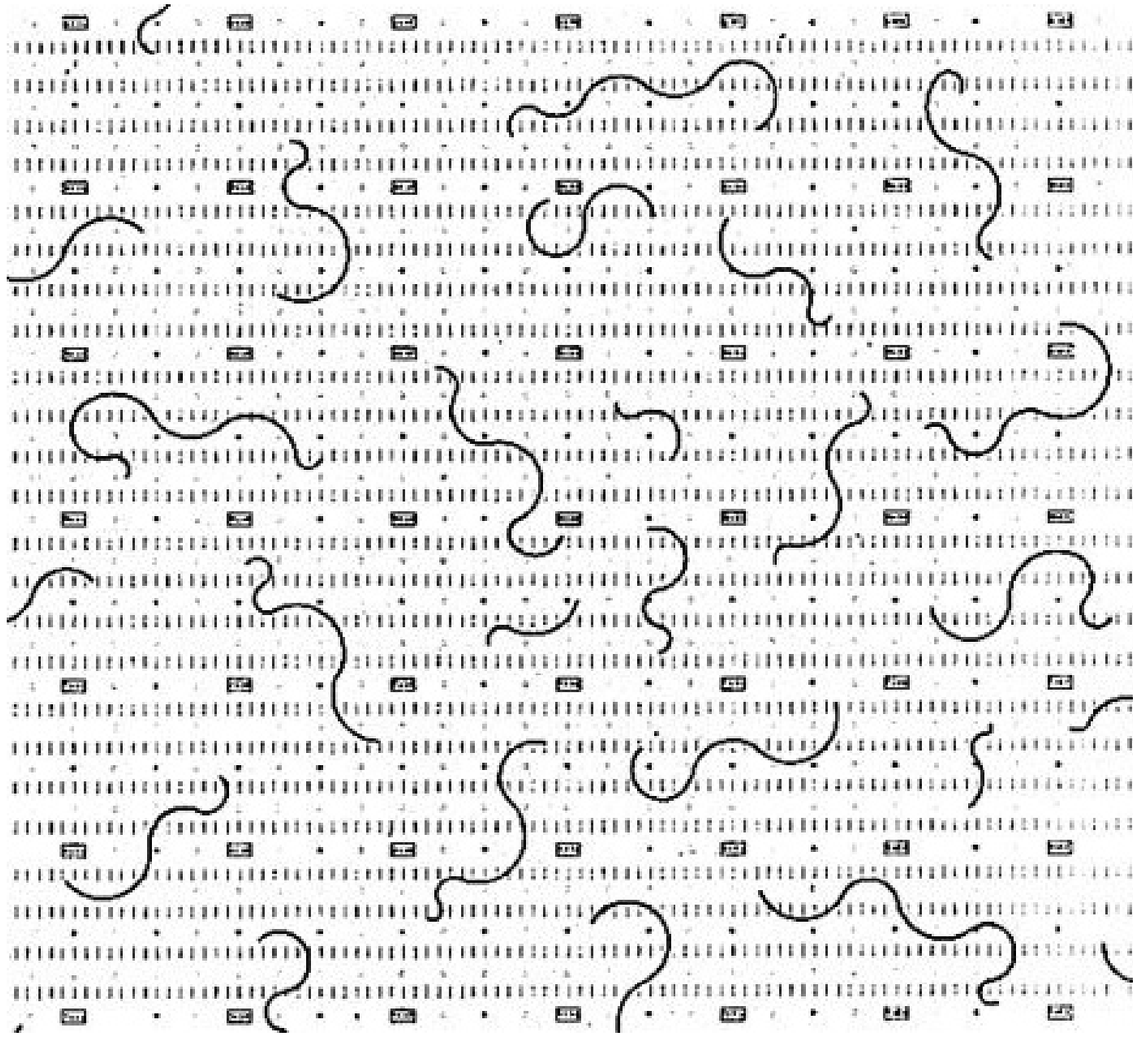


Fig.12

Fig.13



Universal System

Frame Structure

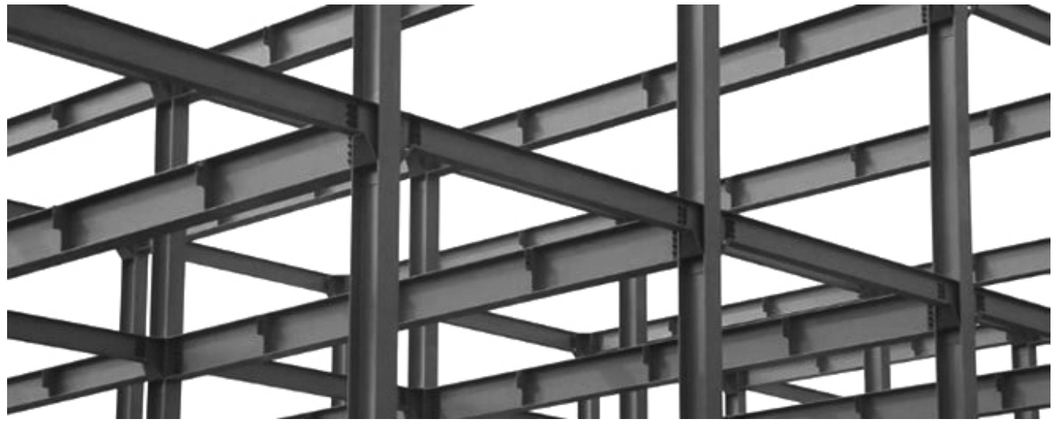
With Le Cobusier coming up with the famous "Five Points of Architecture" in 1920s, buildings can exist only rely on frame structure without walls and arches. This has made modern building can be more open and free on plan, as long as it fits in the grid of column and beam.

Grid

Grid system is the outcome under the pursue for economical consequence. It has always be used as a measurement. It is an index for the universal building system. For the purpose of efficiency, we calculate to use more efficient grid. For example, when designing a shopping mall, we use the 8.4m x 8.4m grid in order to create more parking space in lower cost. Architecture has always been served for function.

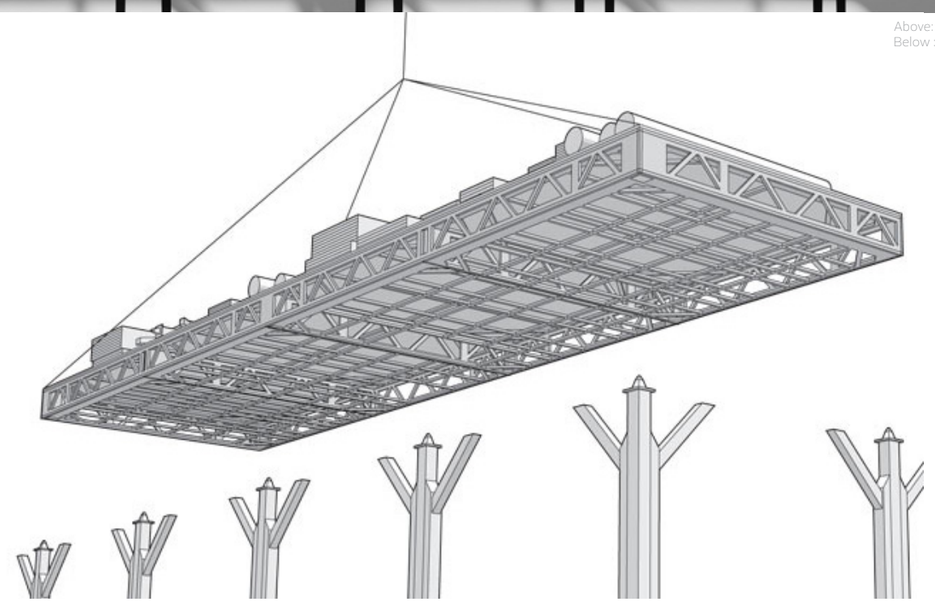
Prefabrication

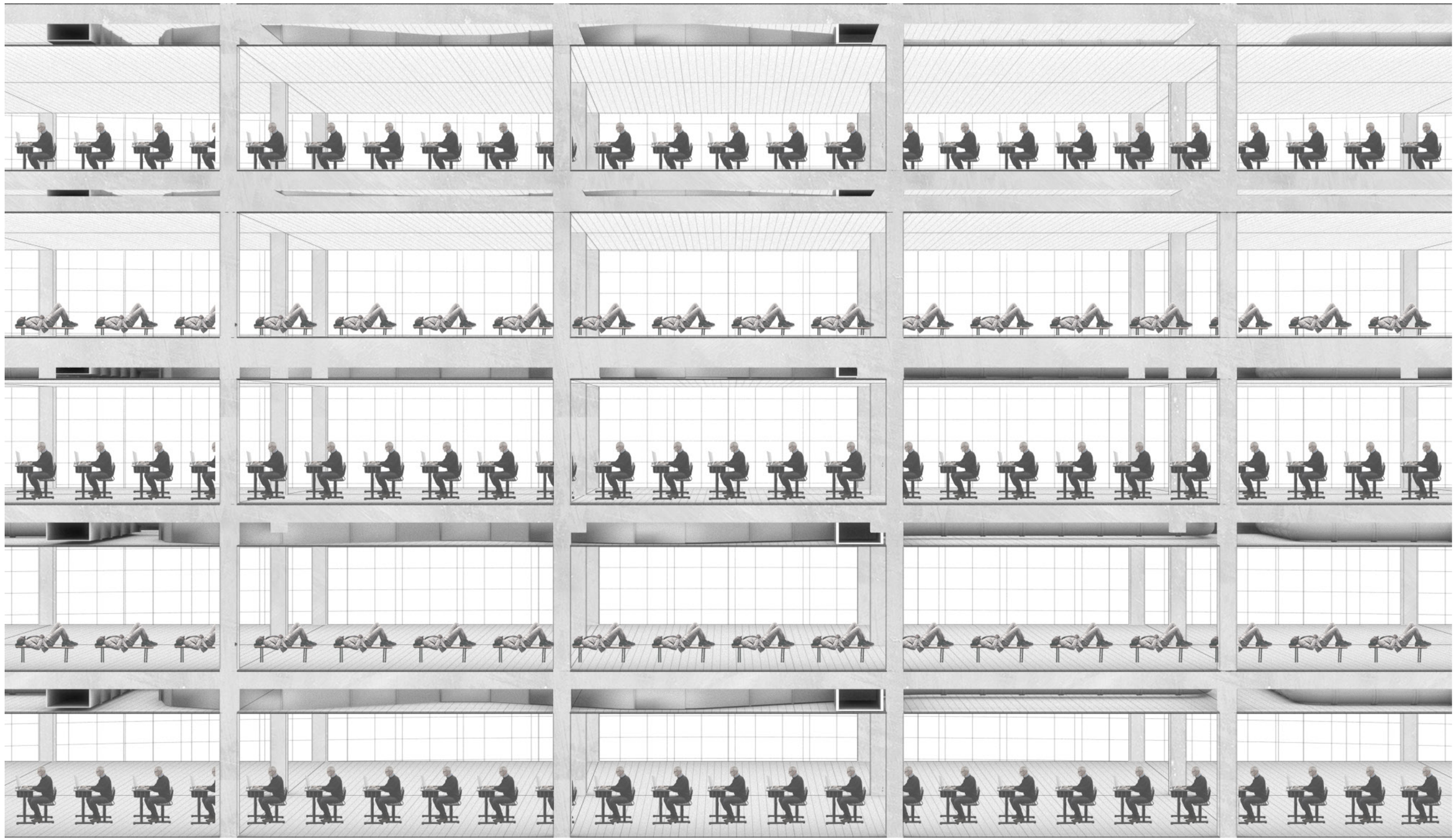
Prefabrication accelerates the tendency of convergence.
It is true that prefabrication is influential for building industry. It now makes us can build like fabricate any kind of production. But also like production, it is more economical efficient to have batch manufacture at once than producing multiple times. It makes our buildings more and more like units can be batch manufactured and assembled together.



Above: Fig.14

Above: Fig.15
Below : Fig.16





This is the most usual system of building. It is consist of frame structure system with regular columns and beams, and with acoustic ceiling tiles hide all the ventilations, pipes, wires, together with floor tiles they consist the universal system. This system is actually based on the pursue for functionality and economical efficiency. Functions just need to be fit in this system and extra stuff is not necessary.

Discourse

The title of this thesis is "In a Utopia of Consumerism". Here "consumerism" represents a radical attitude the society towards architecture that regards it as a kind of consumer product.

When buildings and spaces become products, construction becomes production, people only care about efficiency, then what we need is only a container for activity, and architecture would no longer exist by that time.

When buildings are designed to satisfy material demands, is that all the demands can be satisfied? Is it worth well to take the cost of losing identity to pursue efficiency?

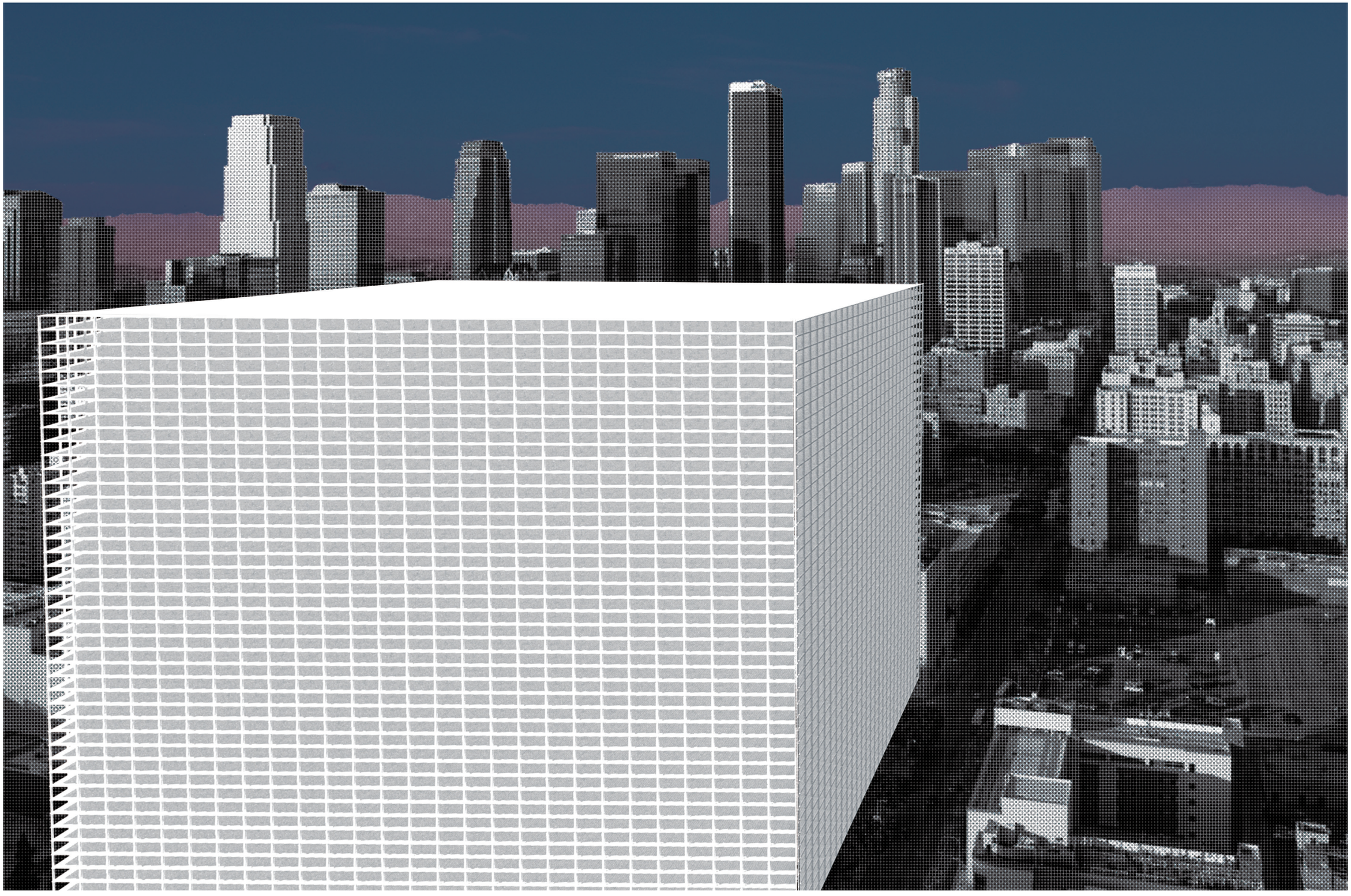
From "Junkspace" and "Generic City", I see Koolhaas's, to some extent, passive attitude towards this unstoppable converging tendency. Architects create our urban environment, but architects can't fully control what they create. Instead, the urban environment is more like an outcome of the hole society, and economic and technique take a great part in it.

Although we are under this tendency, it doesn't mean we should pursue economical development and efficiency at any cost.

Actually nowadays especially in cosmopolitans, people always has a feeling of being lost. The generic space to a great extent blame is to blame for causing the anxiety of being in urban environment, which results in people's mental loss.

So in this thesis, instead of having an architectural design to explore solution, I'm more willing to reveal this reality and create narrative scenarios to lead viewers to reflect on our surrounding environment and the society and evoke awareness of identity.

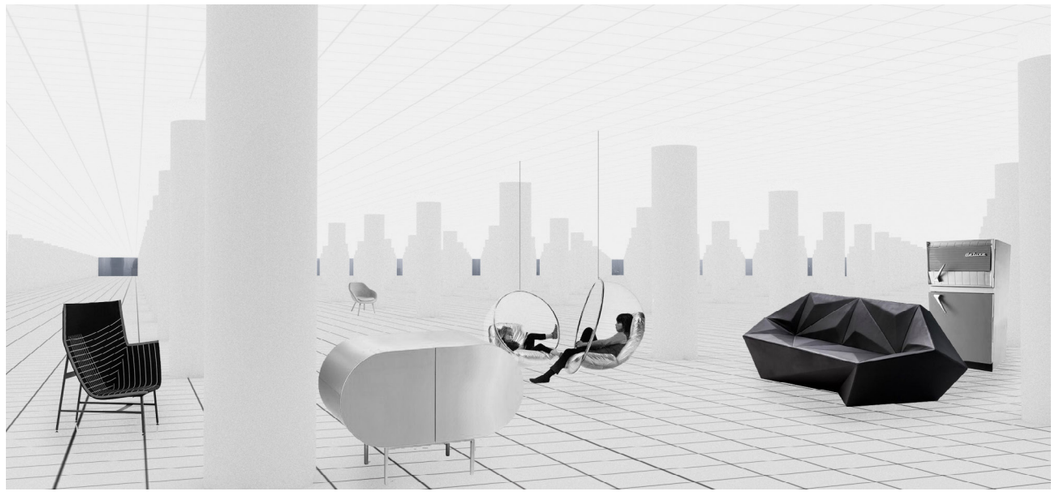
How to get rid from this homogeneous environment?



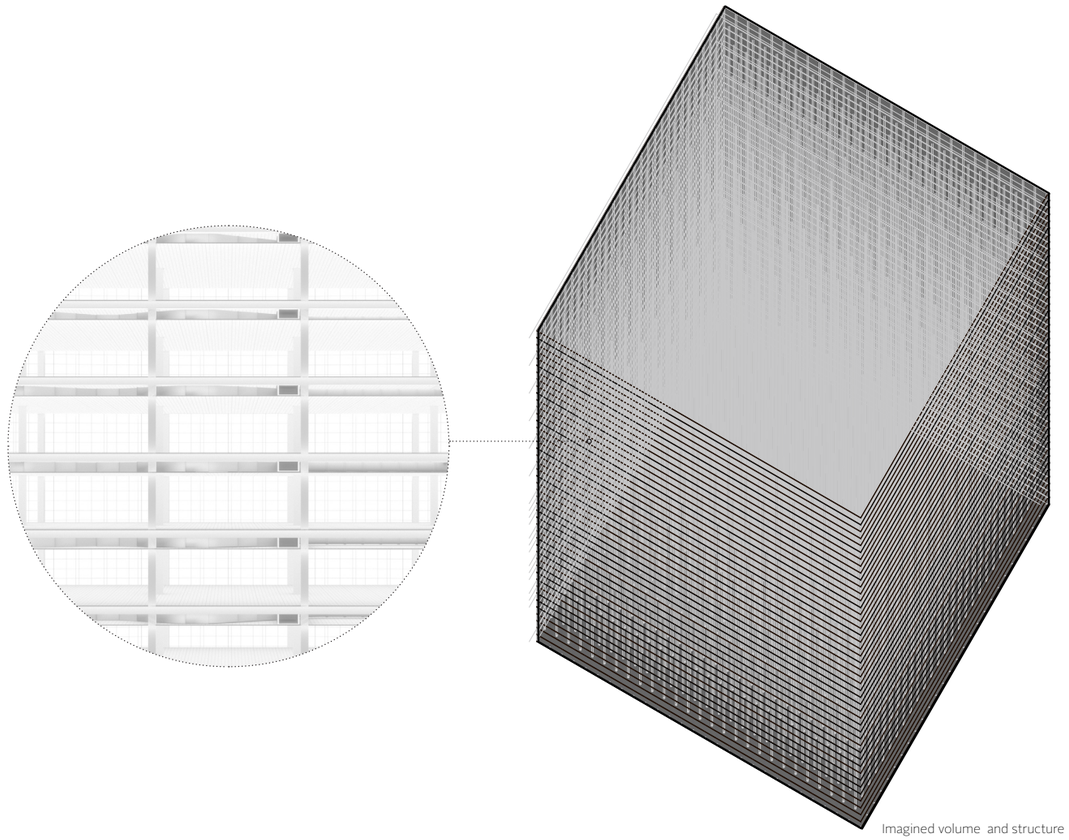
Context

The context of the project is a megastructure with simplified continuous space. It has efficient frame structure and a huge volume. It has bright, homogeneous interior space. The air conditioners and ventilation keep an appropriate temperature and humidity as well as sufficient air. Vertical transportation is guaranteed with elevators. The plan of the building is open and free. People just need furniture to support their activities.

It is an extreme fictional situation of modern building development.



interior perspective of the context

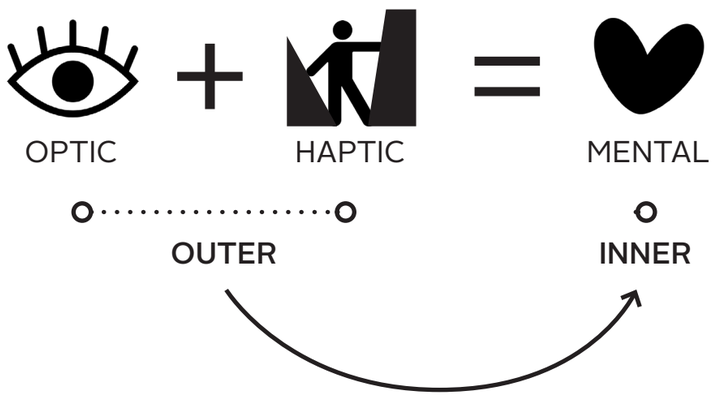


Imagined volume and structure

Perception

> The timeless task of architecture is to create embodied existential metaphors that concretize and structure man's being in the world.
>
> -Pallasmaa, An Architecture of the Seven Senses

Architecture can evoke people's experience about time, space and body. Perception is the approach people use to sense the world, thus they can be led to certain emotion.



Distortion

As we always take the grid as an index of measurement, the distortion on grid can change people's feeling on space from aspects such as distance and length.
Through distortion, I want to challenge the grid through people's perception. That is to say, the space still can fit in the structural grid but become different with people's feeling.

View distorted by glass
Photo taken at Casa Mila

Vision

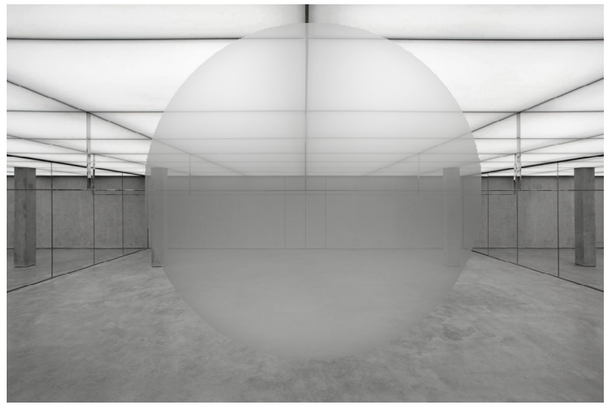
Vision has always been regarded as the most significant sense among the five senses. And even with the progress of modernism and the development of technology, vision is taking a more and more vital role now.

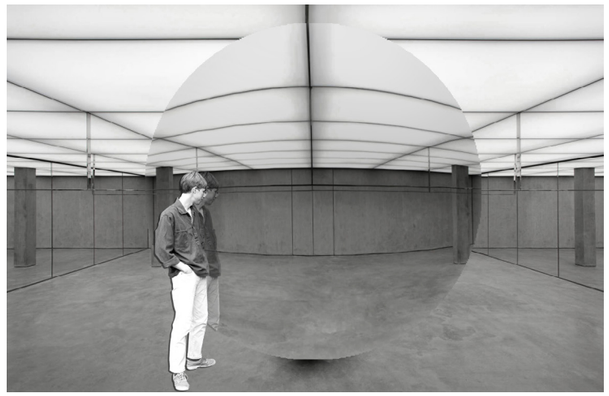
"The reality has come to seem more and more what we are shown by camera." People are more and more tending to believe in what they see and to depend on regarding it is the actual reality.

The gradually growing hegemony of the dye seems to be parallel with the development of Western ego-consciousness and the gradually increasing separation of the self and the world; vision separates us from the world whereas the other senses unite us with it.

Fig.17

> In the mirror, we are at once divided into self-consious creatures, autonomous beings, and passive observers.
>
> -Emerson Rosenthal, Lee Bul's Labyrinth of Infinity Mirrors: Via Negativa II

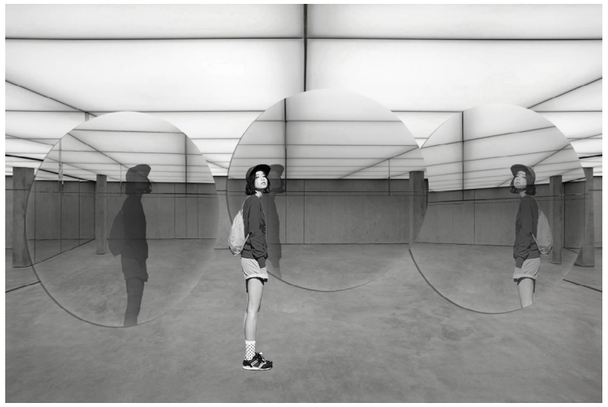


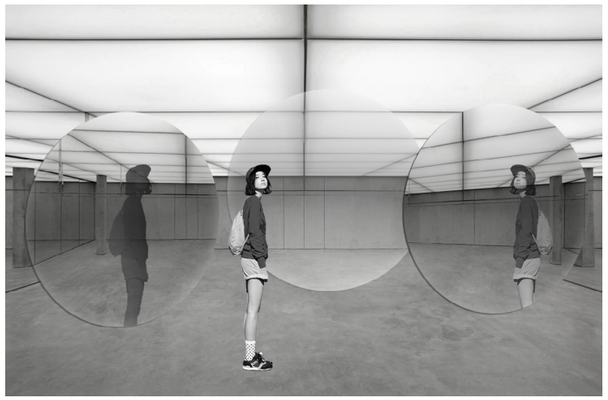


Mirror

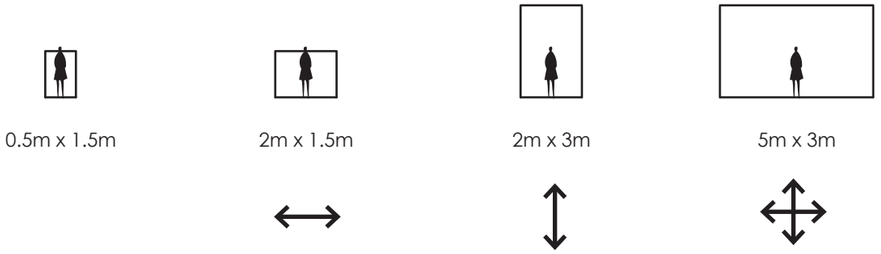
Visual distorting effect

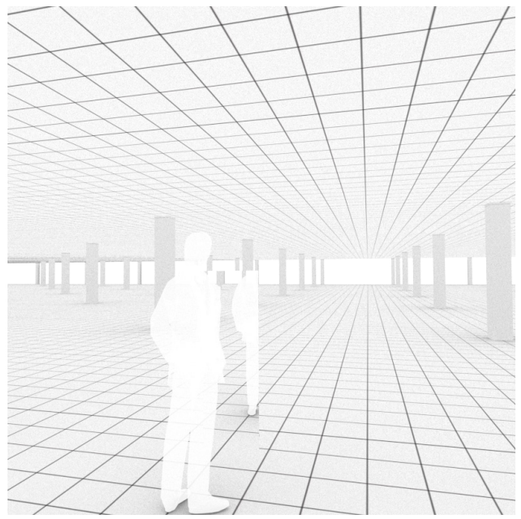
Mirror create distortion in space.
It not only act as a reflecting surface to make viewers have a chance to look at themselves, but also distort the surrounding environment and make illusional view to let viewers start to question themselves thus evoke self-awareness.
When combined with glass, together they can further exaggerate spatial ambiguities to make confused feelings. Viewers



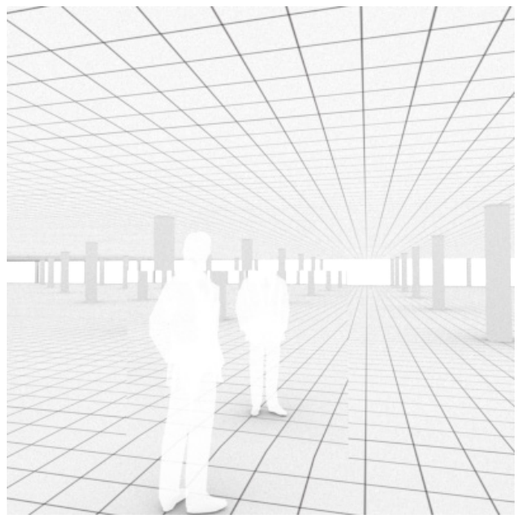


SIZE

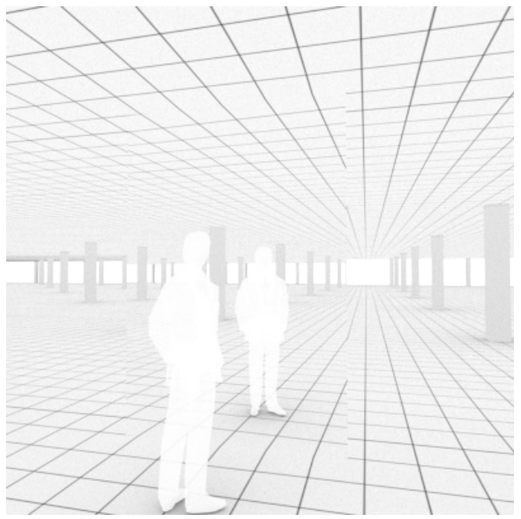




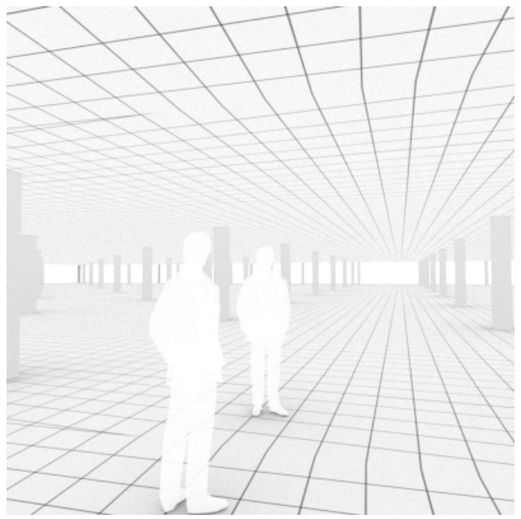
0.5m x 1.5m
fragmental view



2m x 1.5m
clear distortion
comparing with background

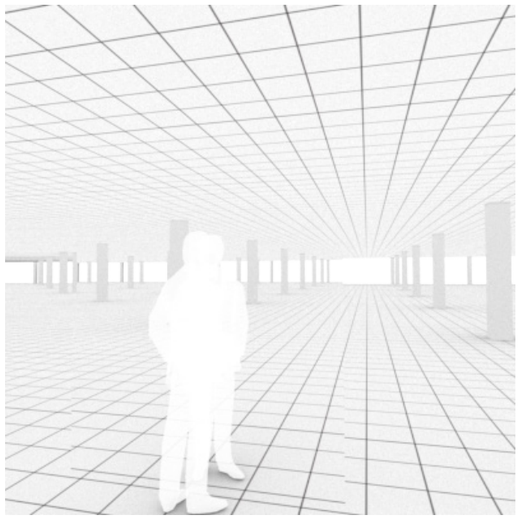


2m x 3m
distorted environment

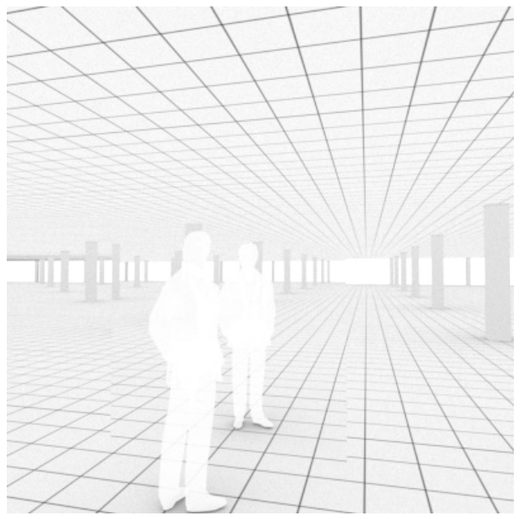


5m x 3m
lead view and movement

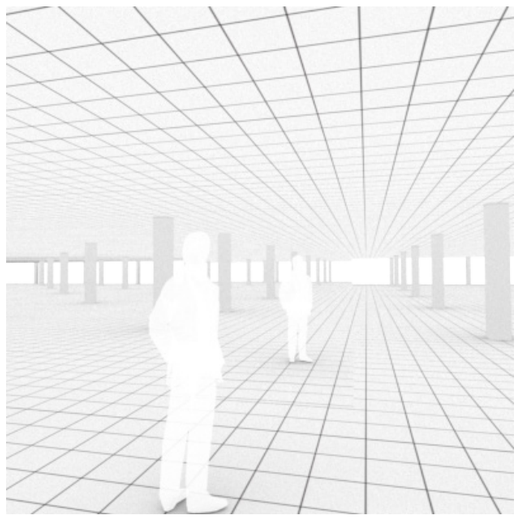
DISTANCE



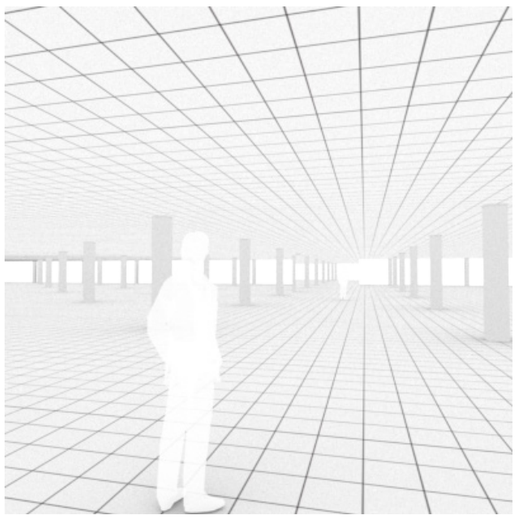
0 m



0.5 m



2 m

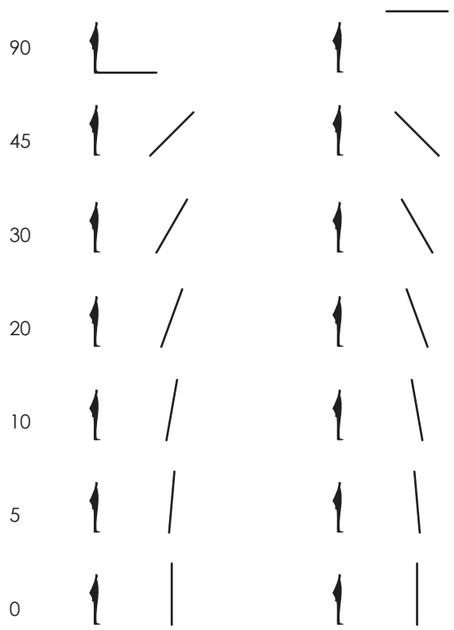


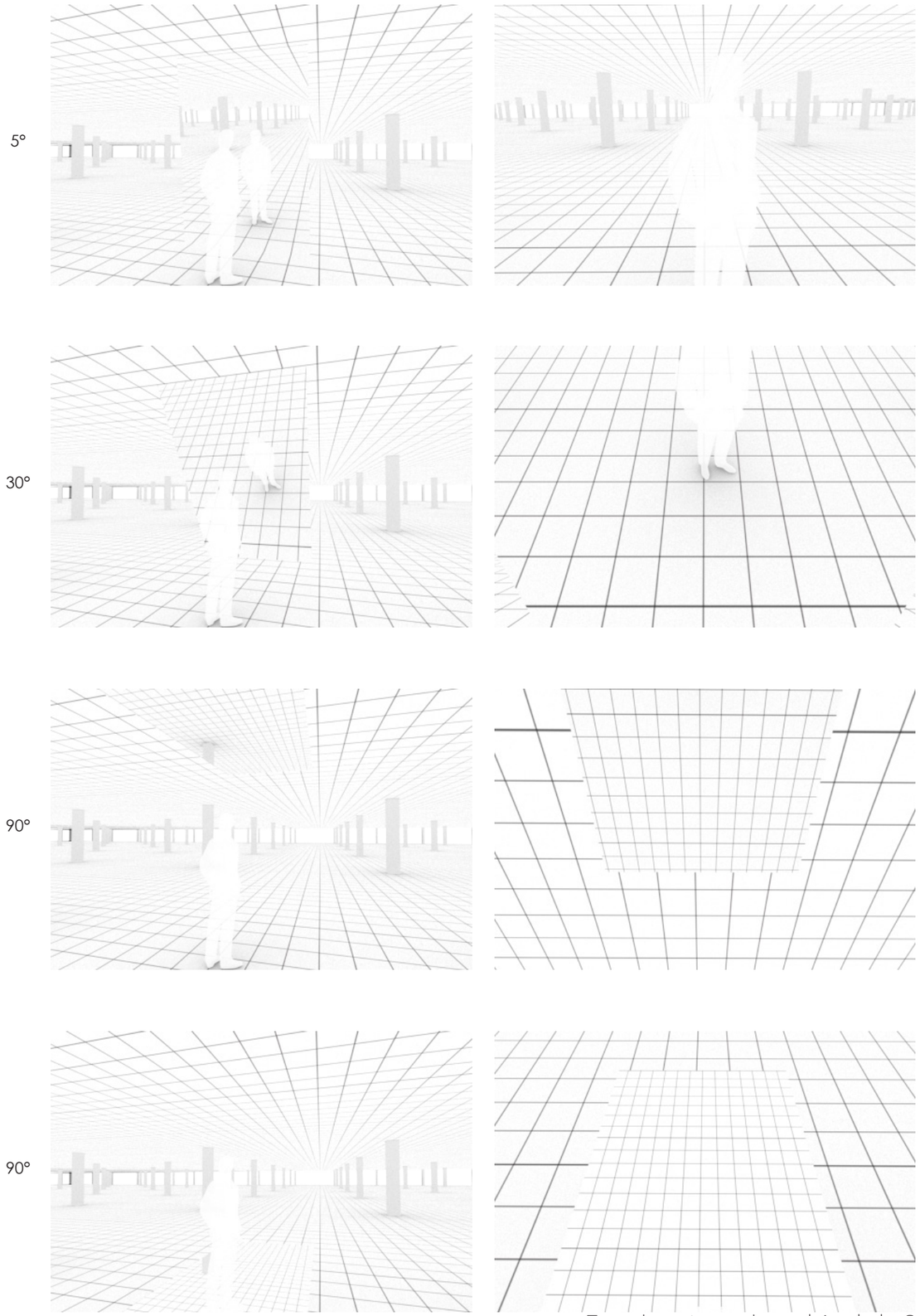
10 m

far- more notice on the environment
near- more notice on self

ANGLE
VERTICAL

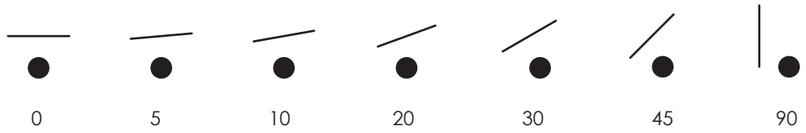
grid being interupted vertically
see self from different view





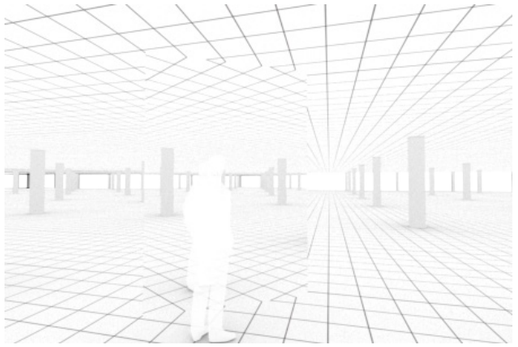
ANGLE

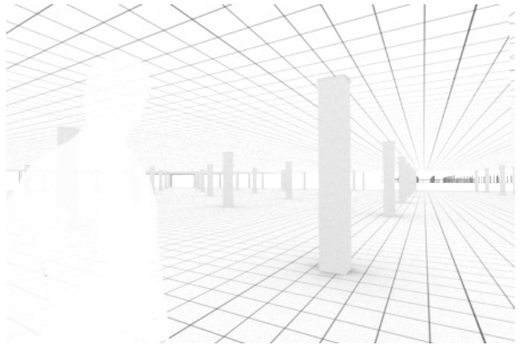
HORIZONTAL



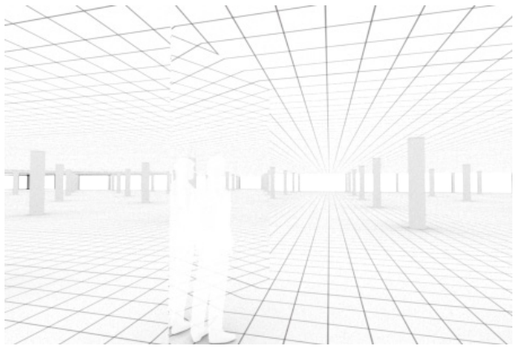
grid being interupted horizontally
see self from different view

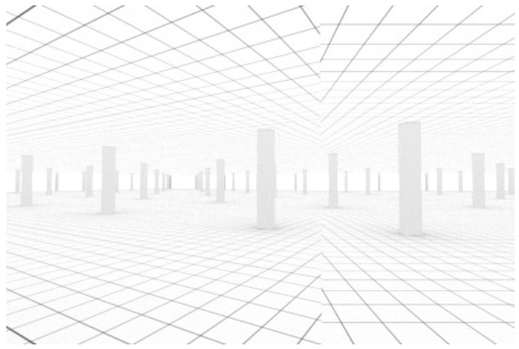
45°



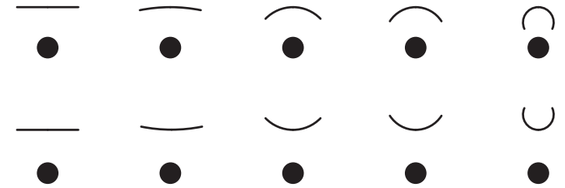


75°



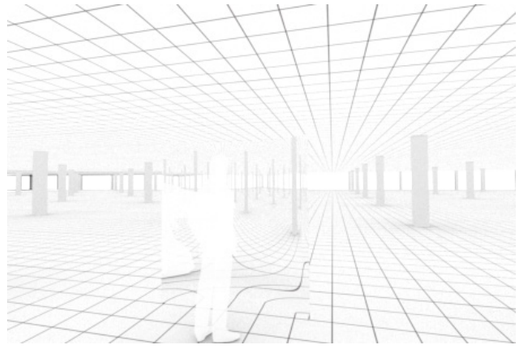


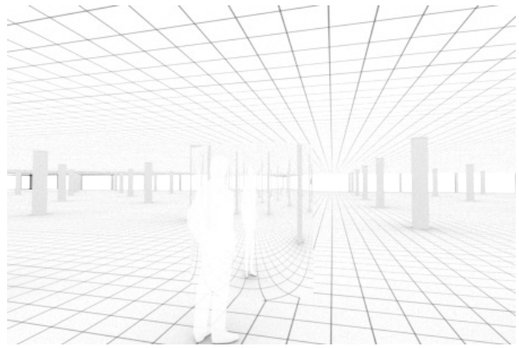
BEND

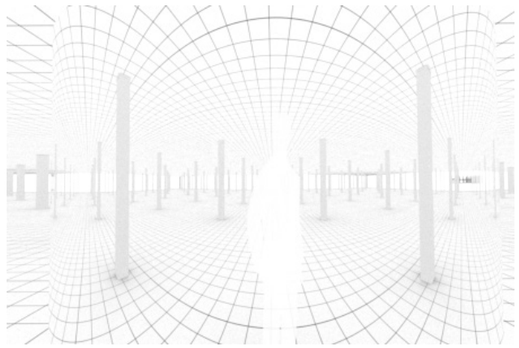


less view
objects become wider
Distance becomes shorter

more view
objects become thiner
Distance becomes longer



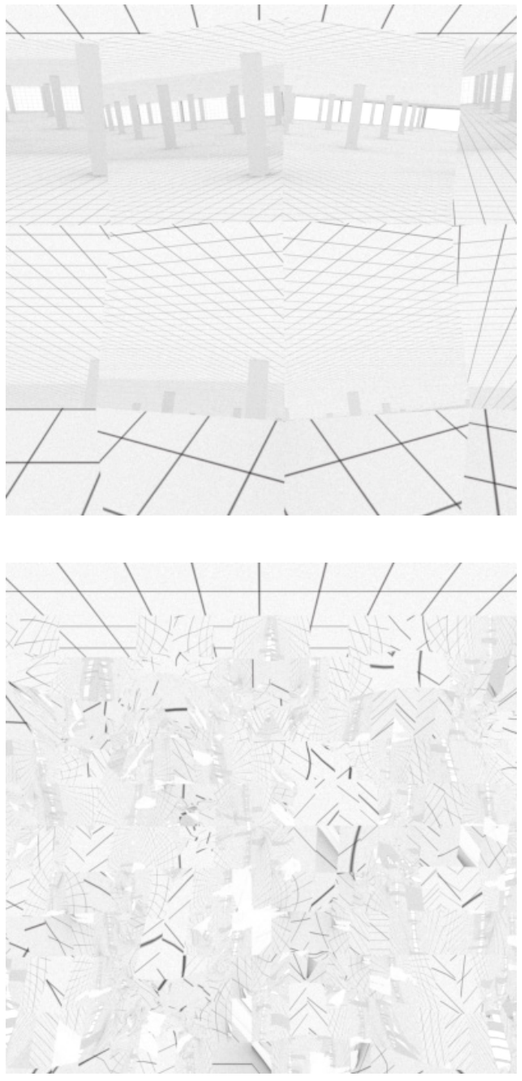




DISTORT

fragmental flat pieces

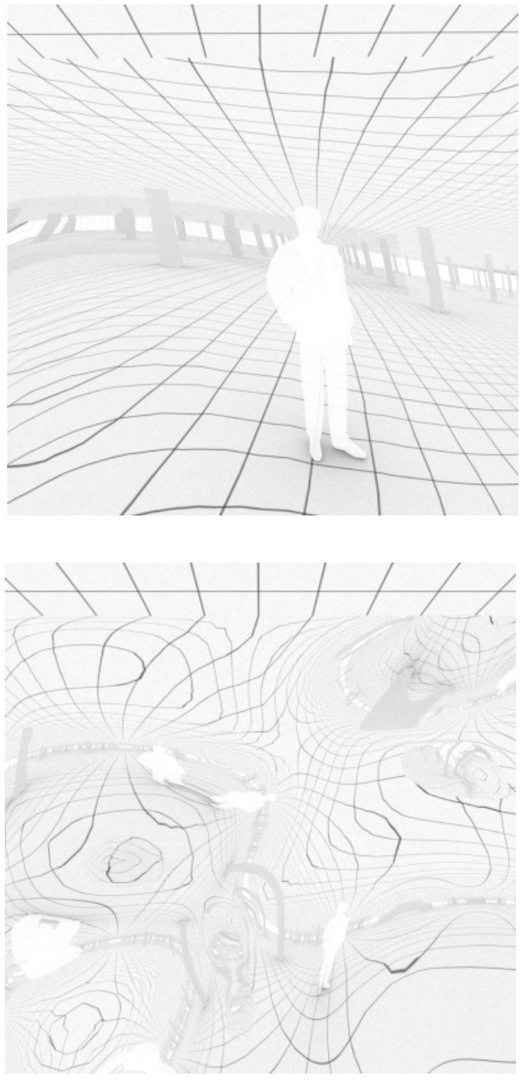
fragmental view



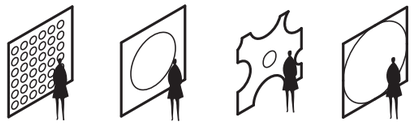
DISTORT

smooth distorted surface

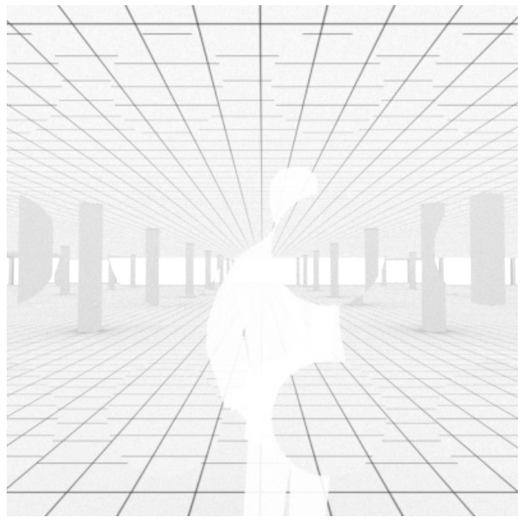
distorted view

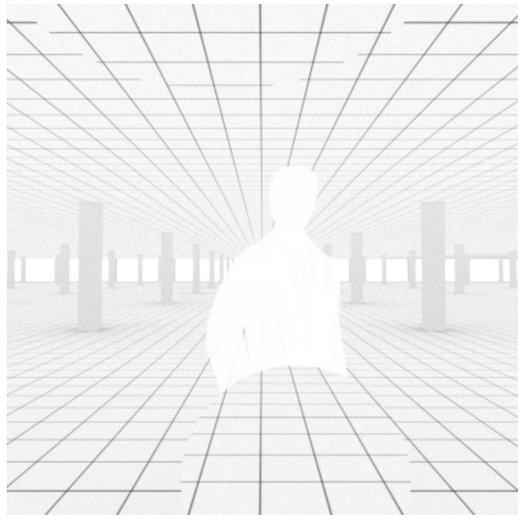


APERTURES



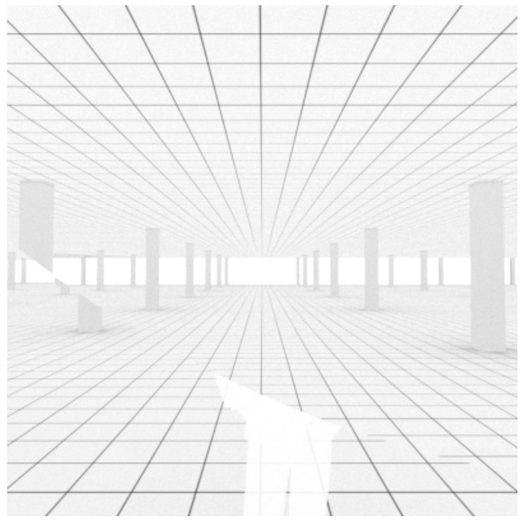
fragmental mirror view combine with background

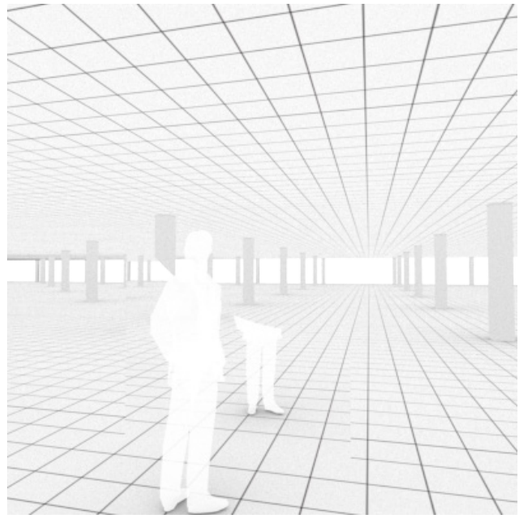




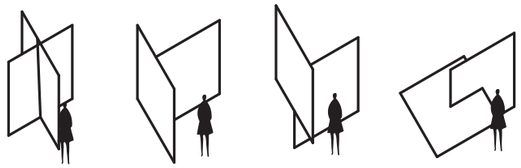
CUTS

grid being broken combining with background

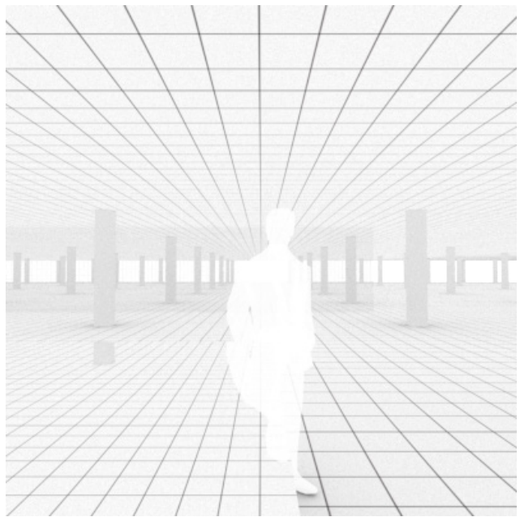


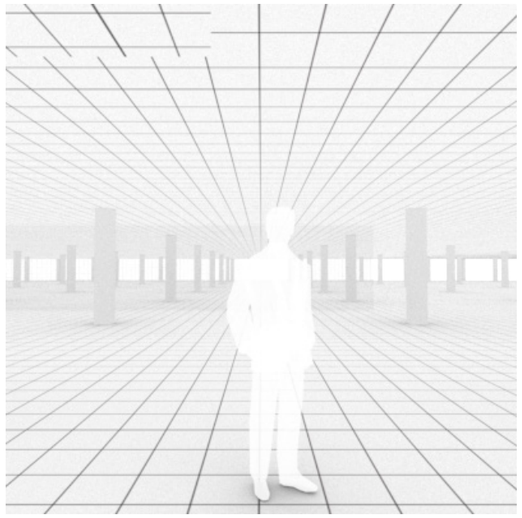


INTERSECT

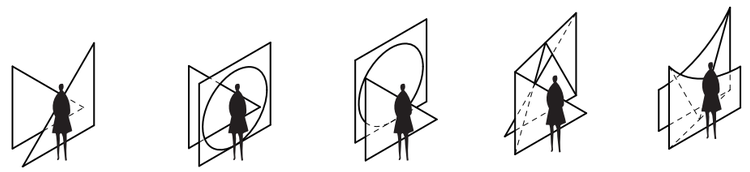


grid being broken with different angles

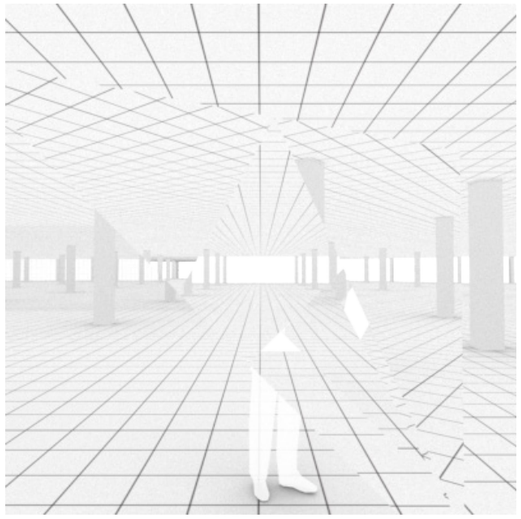


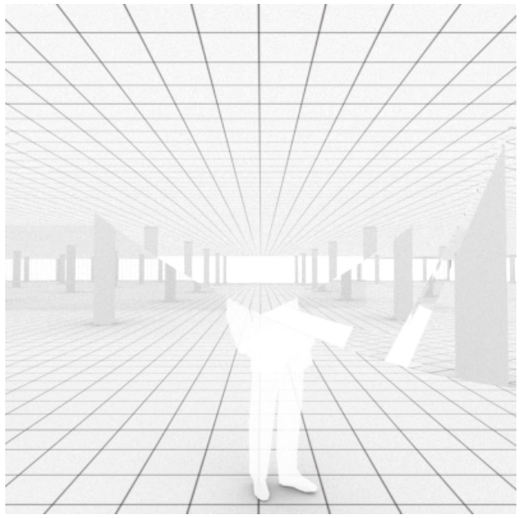


LAYERS

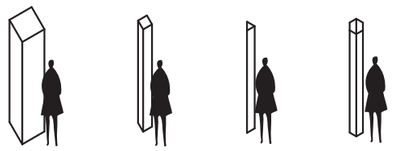


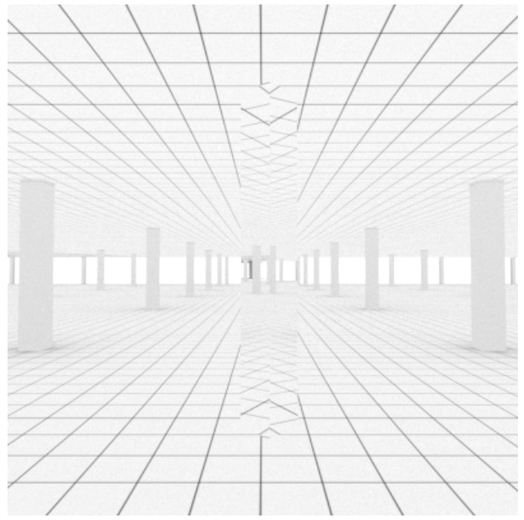
grid being broken in severeal layers

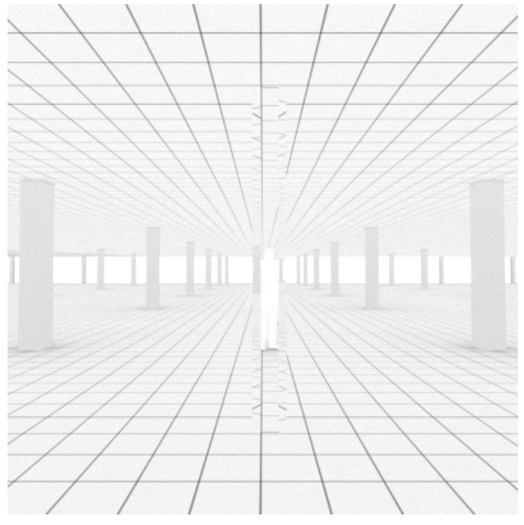




PRISM







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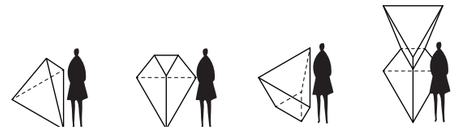
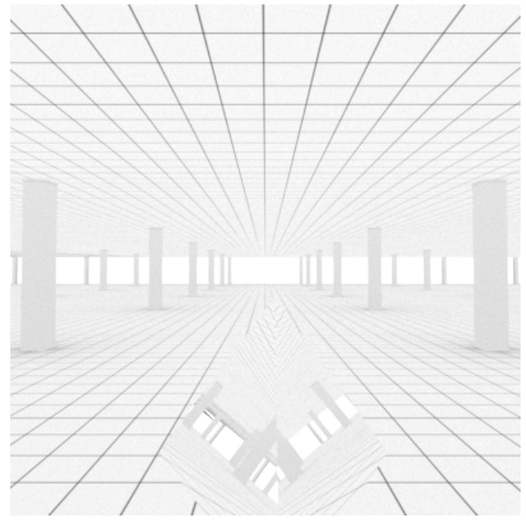
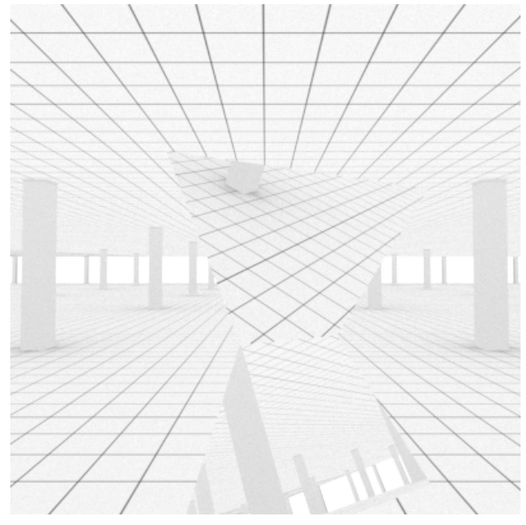
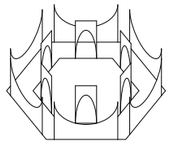
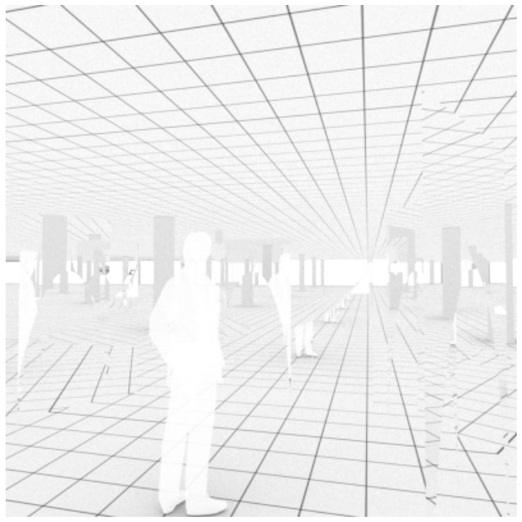


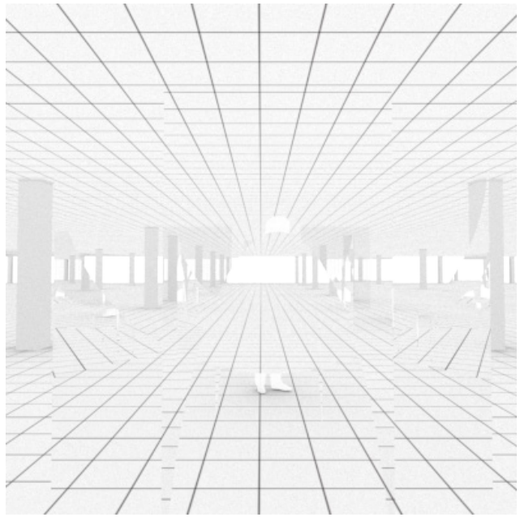


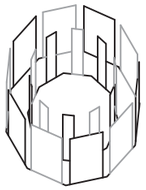


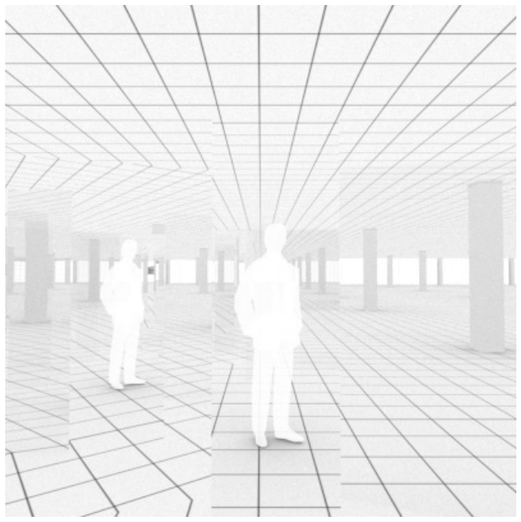
ENCIRCLE

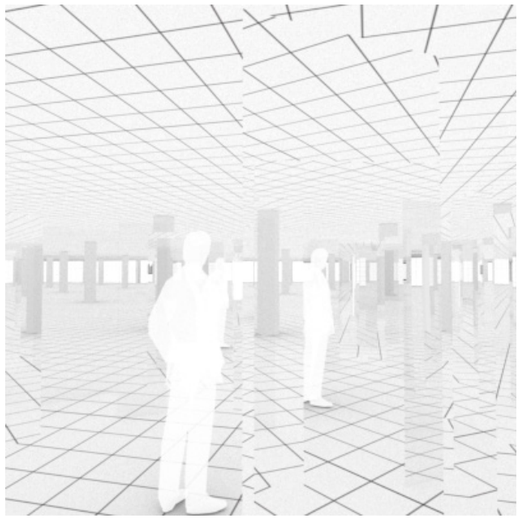


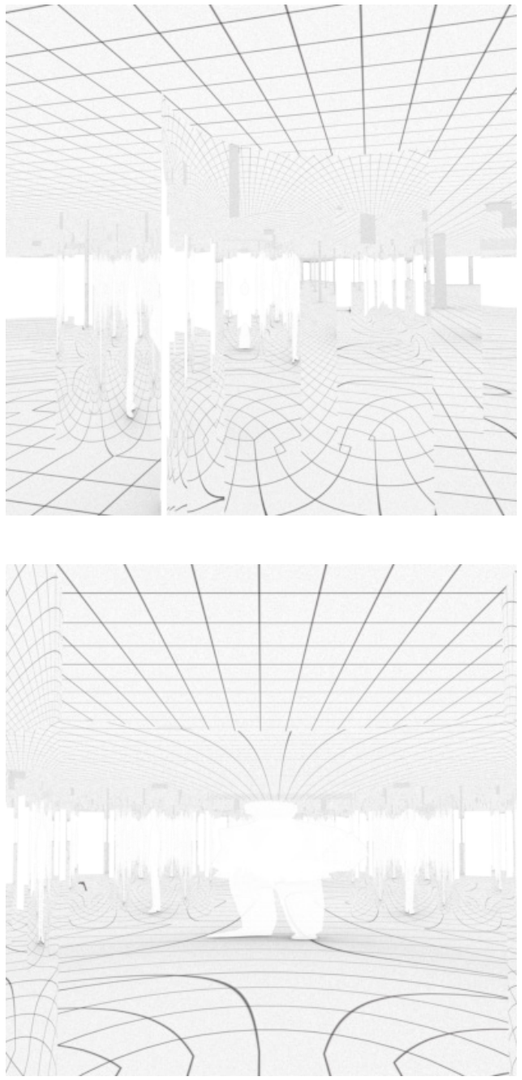












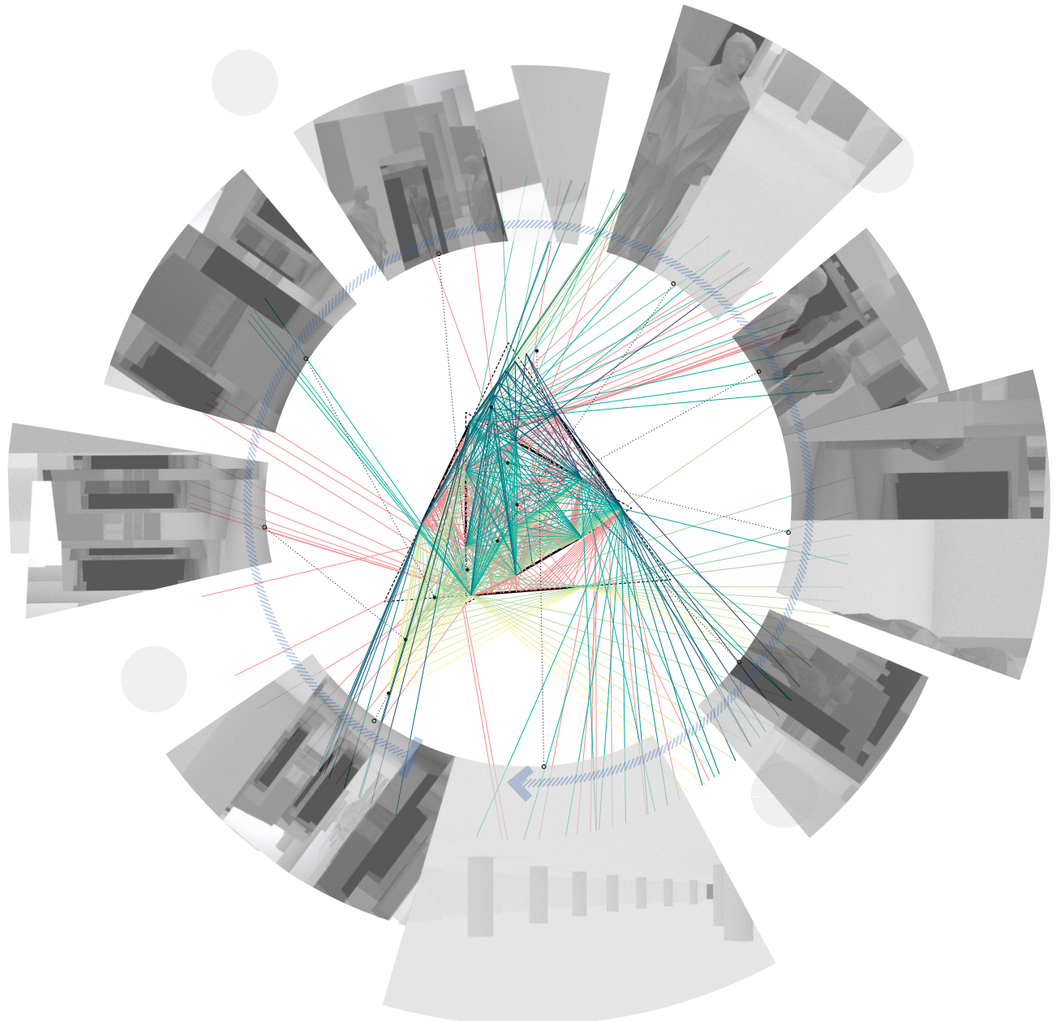


Diagram of analysis on sightline with reflected
and the sequence of view changes

Hapticity

We experience the built environment through a form of bodily cognition, as a medium through which we experience the task we happen to be engaged in.
At the same time when we see something, we also use our body to confirm our vision. Through this confirmation, people can strengthen the sense of existence.
In the generic environment, stimulating hapticity is helpful for calling back self-consciousness and erasing metal loss.

Fabric Tunnel
Sofia Chang

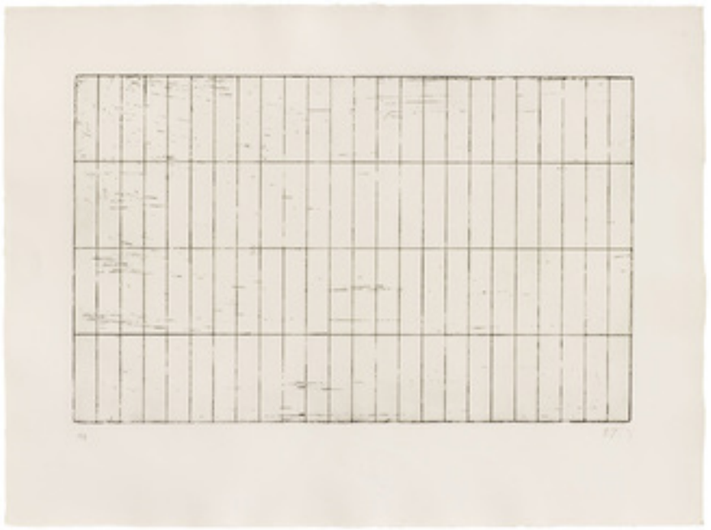
Fig.18

Form

For the physical distortion part, it creates feelings different from the generic space, but the variation still takes part in the grid thus provides an "unfamiliar familiar" feeling. Compare with the mirror distortion, it make

Inside Out
Richard Serra

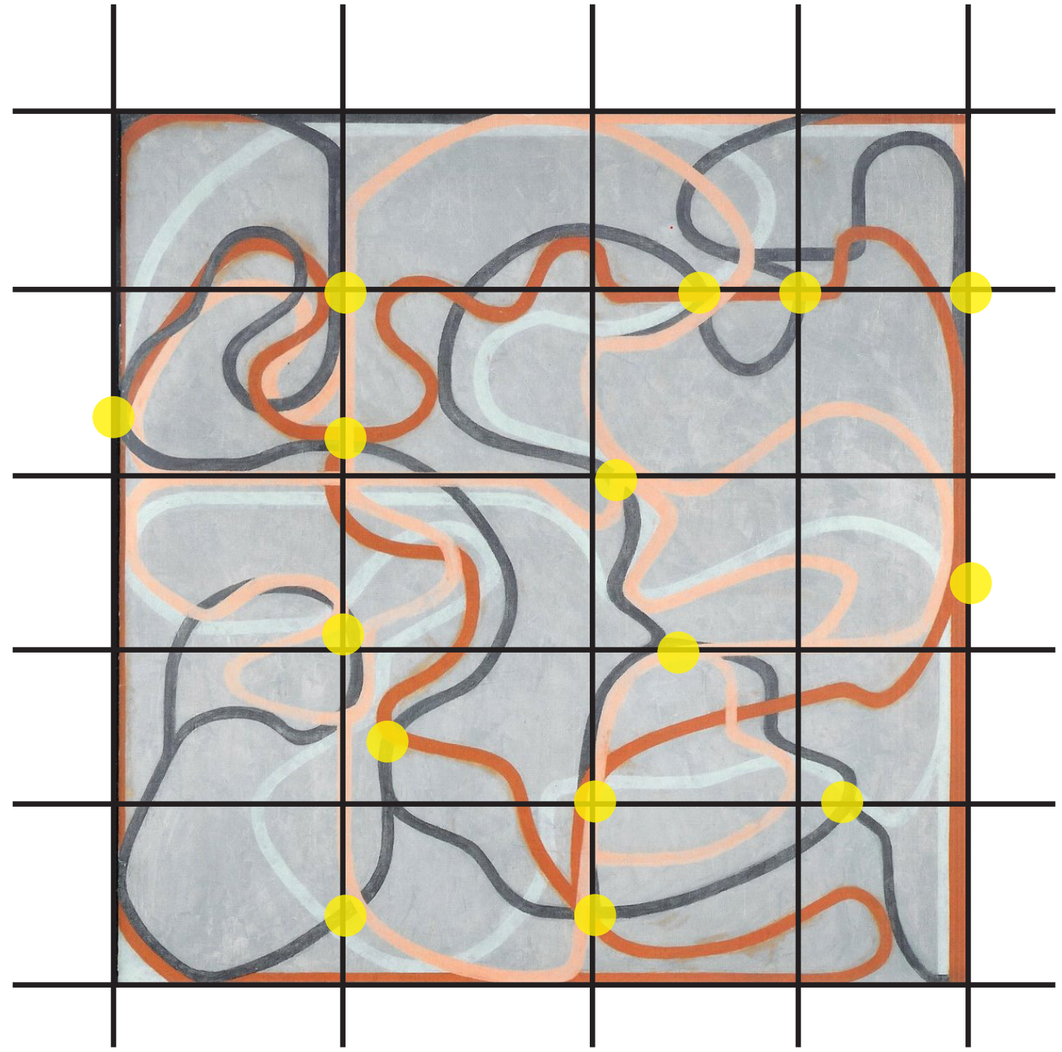
Fig.19

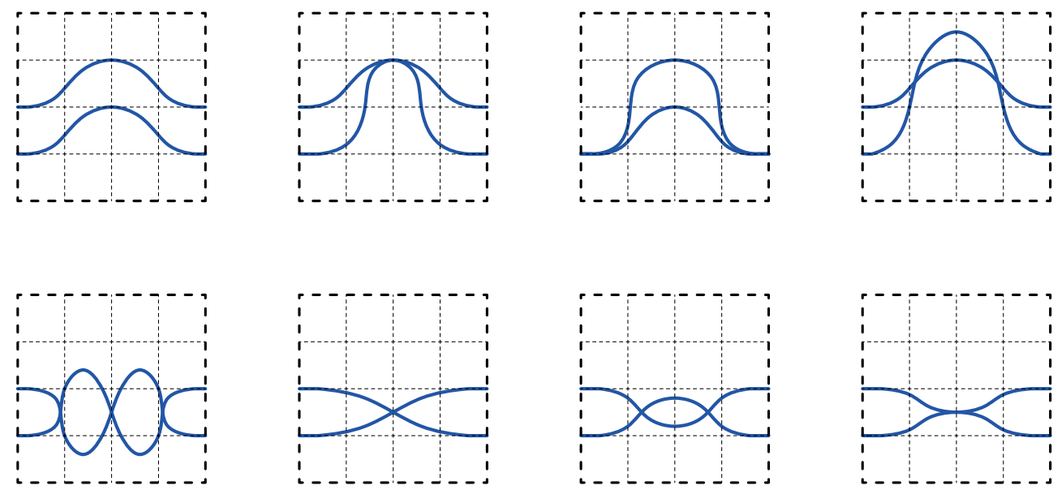


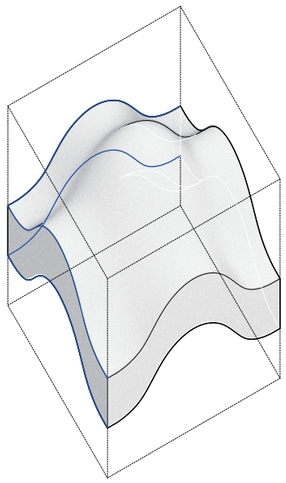
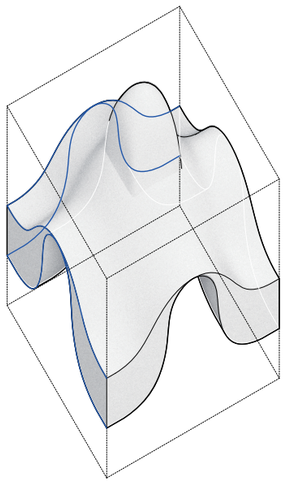
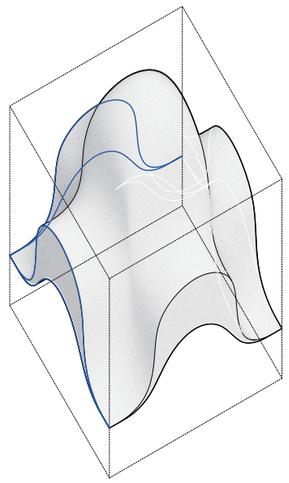
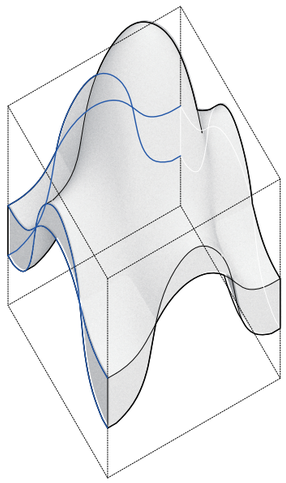
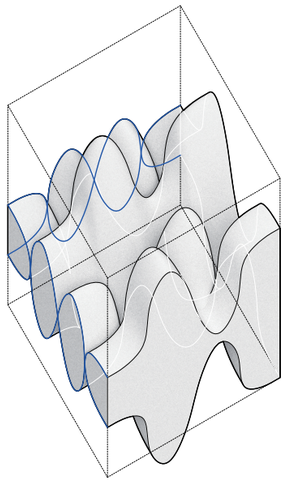
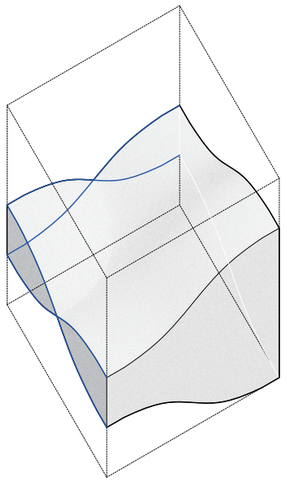
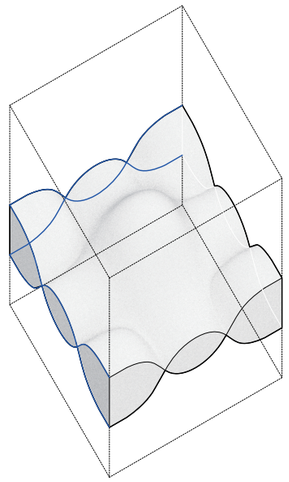
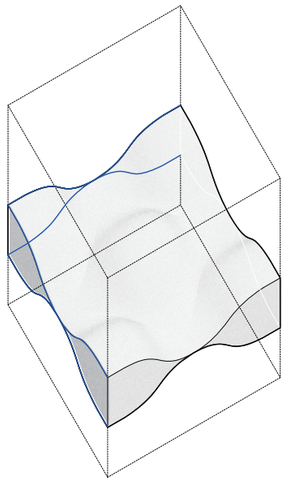
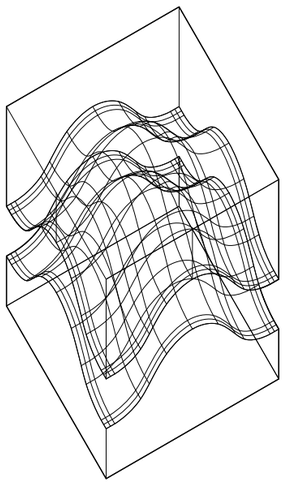
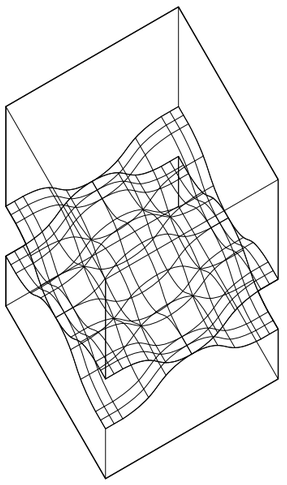
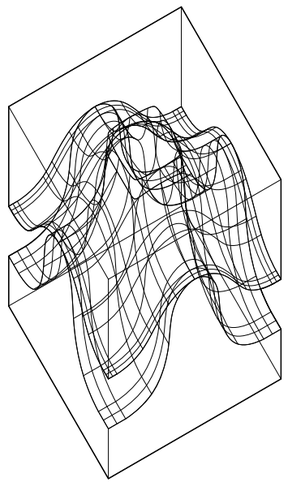
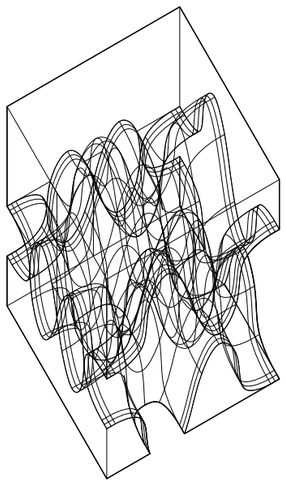
Above: Fig.20
Below: Fig.21

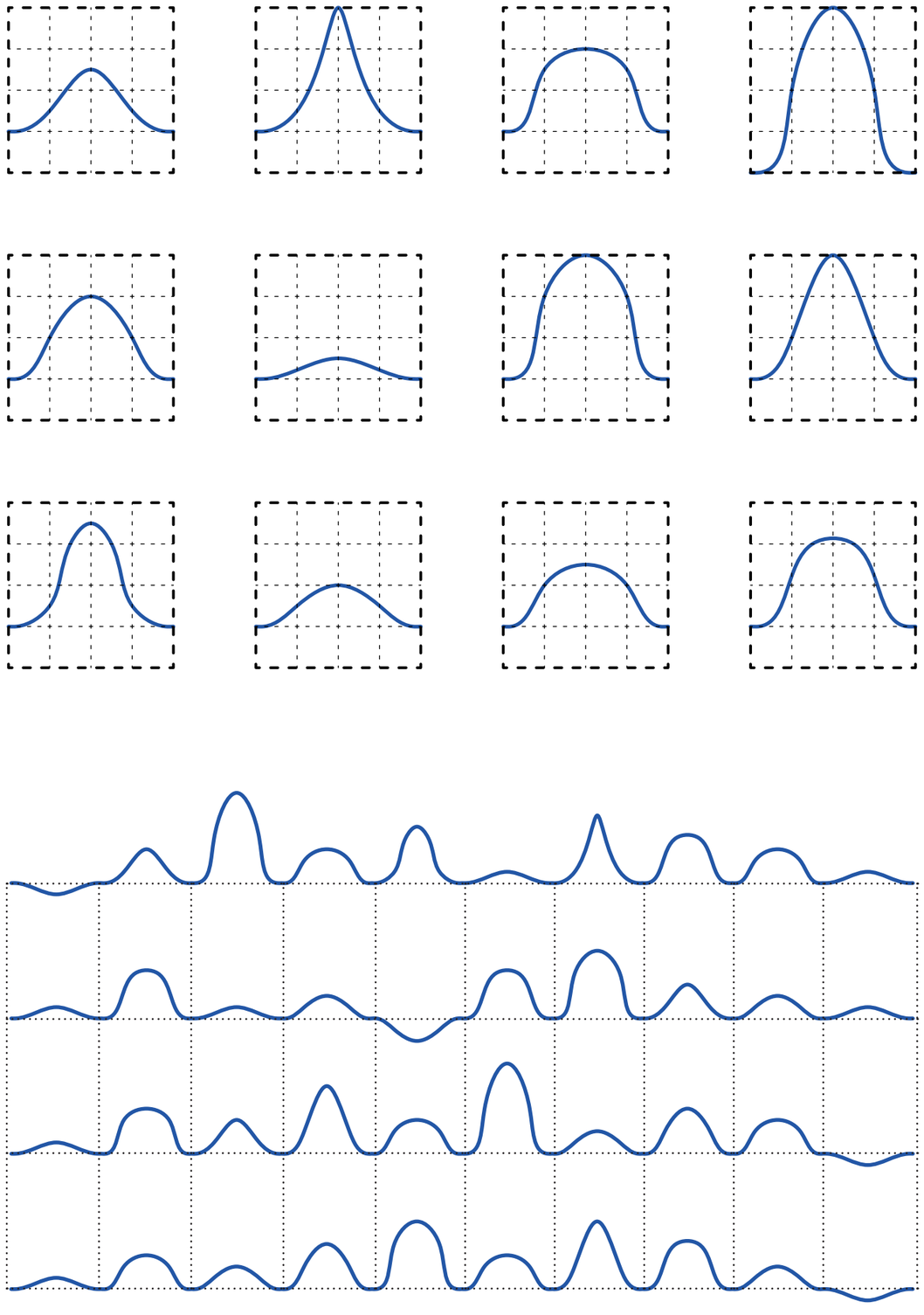
In order to break the grid, I refer to Brice Marden's work. In his early work, we can see the grid was his primary subject in the 1960s and 1970s. Although in his paintings he breaks the grid by using dense curves, it still can be seen the influence of the grid.
Marden said, "I've always thought of the grid as a measure or a way of measuring a space, and each different grid makes a completely different space, but they're all very similar spaces. Like I think of these drawings as, say, details of that space. I see space as infinite — an infinity with lots of changes, permutations, shifts, plays happening in it. And lots of tension. And I try to get that into the work."
To distort the grid with form, I also want to keep the grid as a measure and a frame and create figures from the grid.

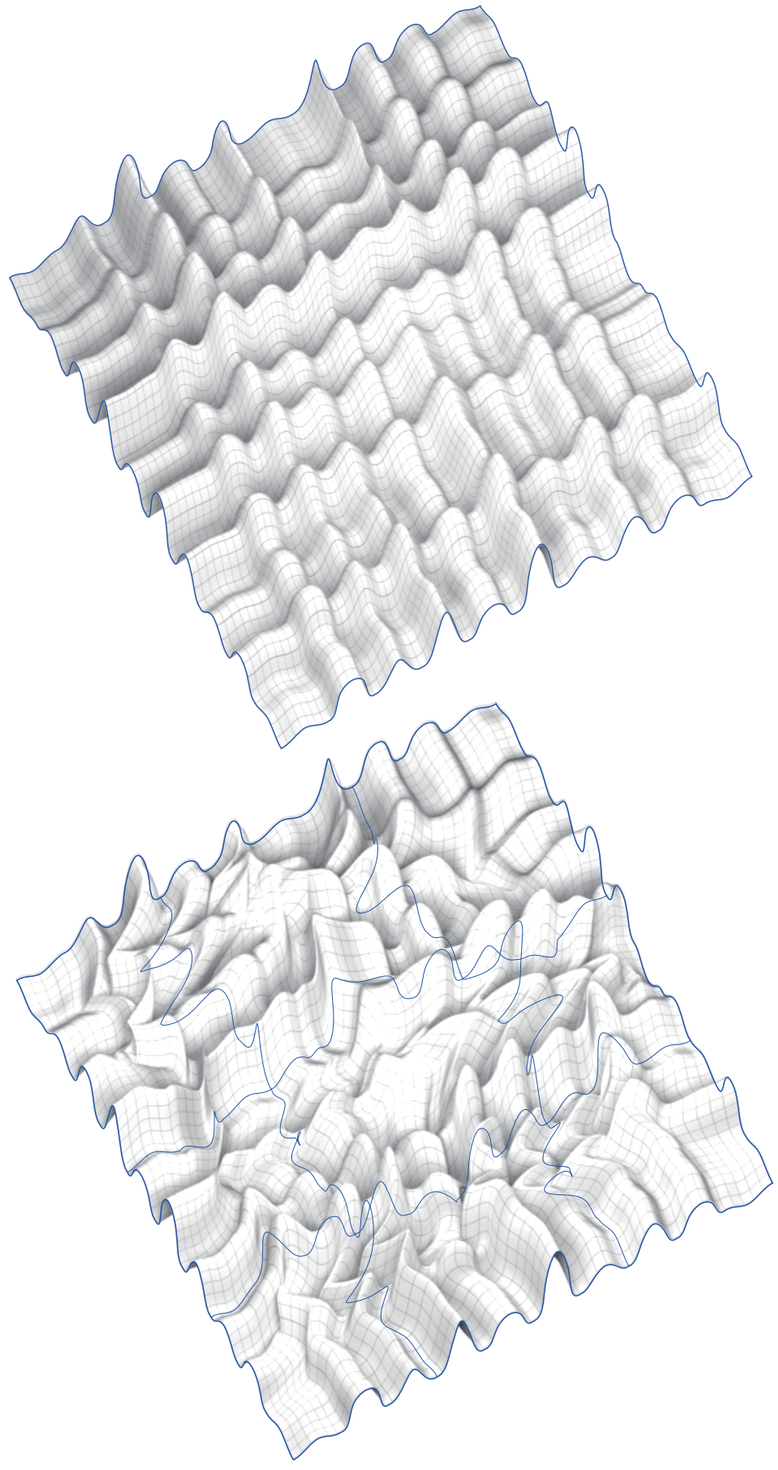
Fig.22



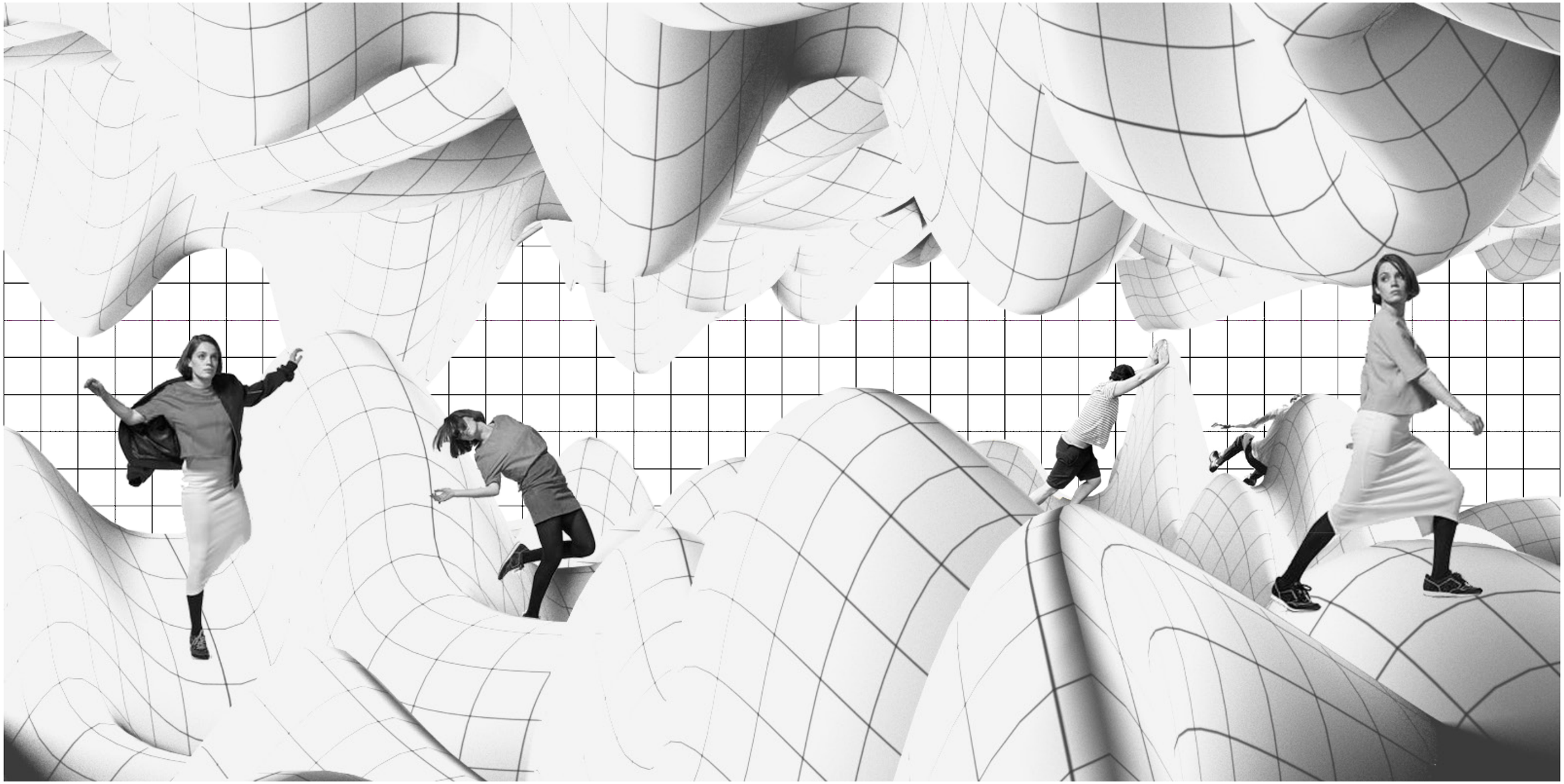


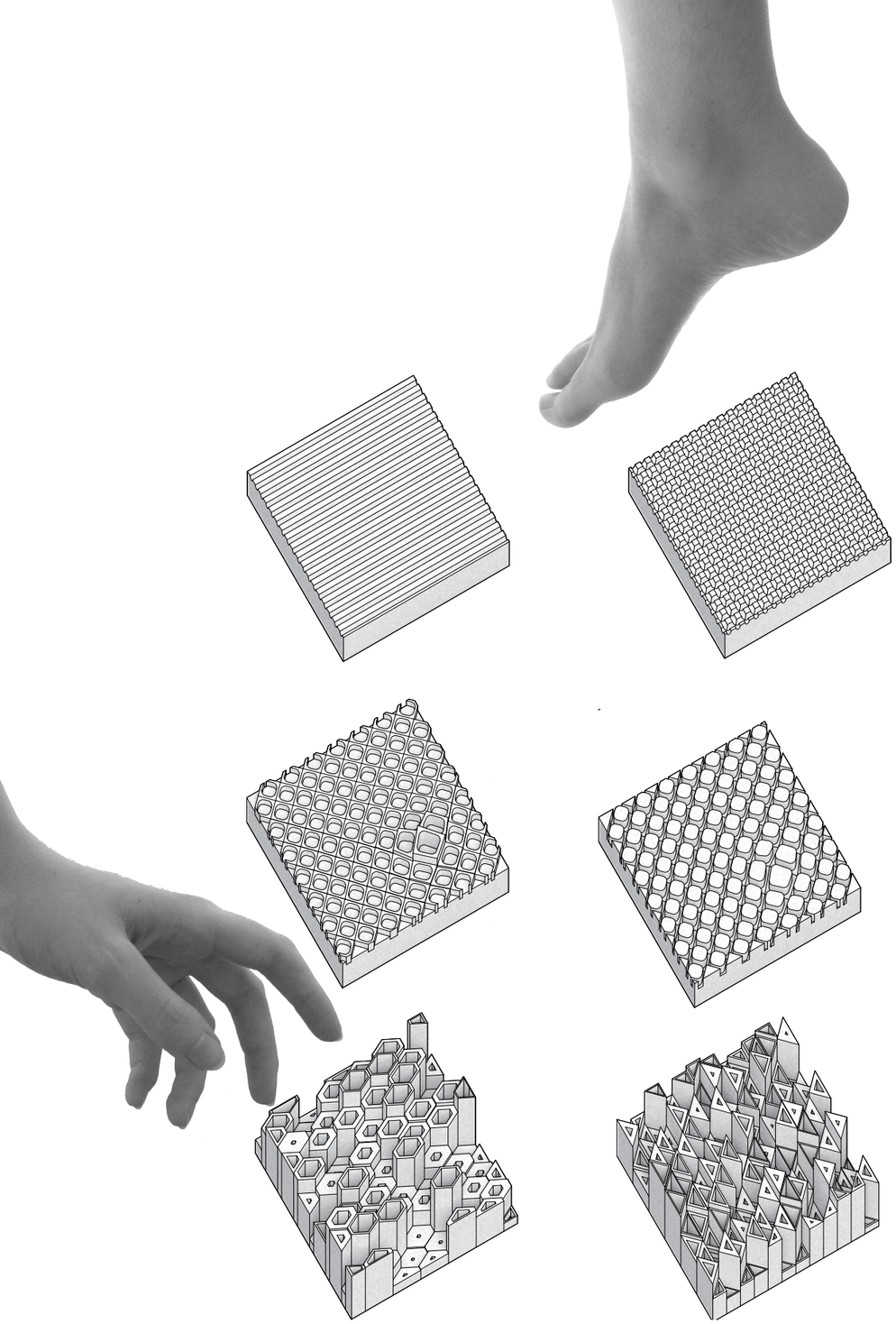




Distort 3D geometry by
distorting 2D curves

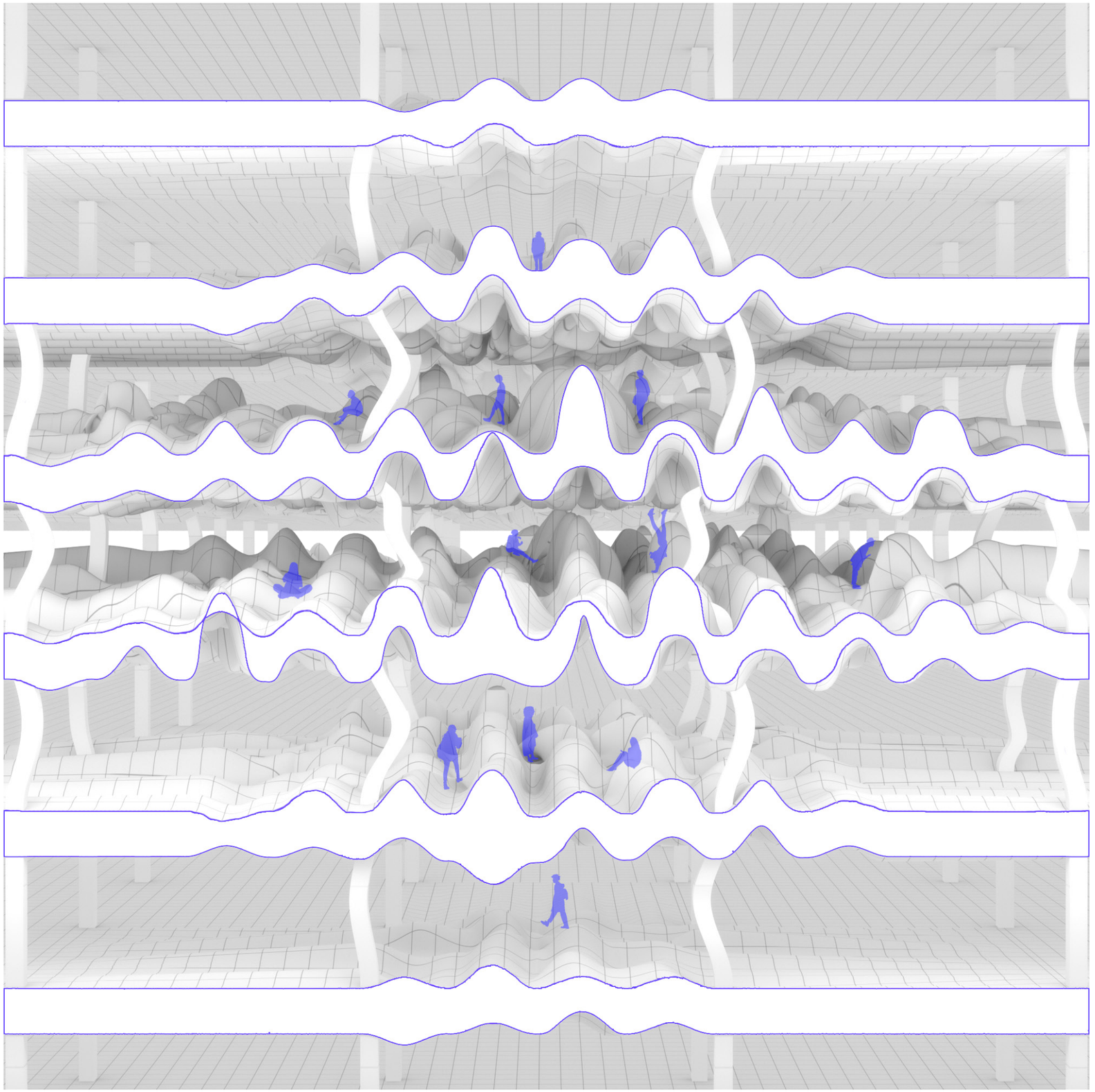


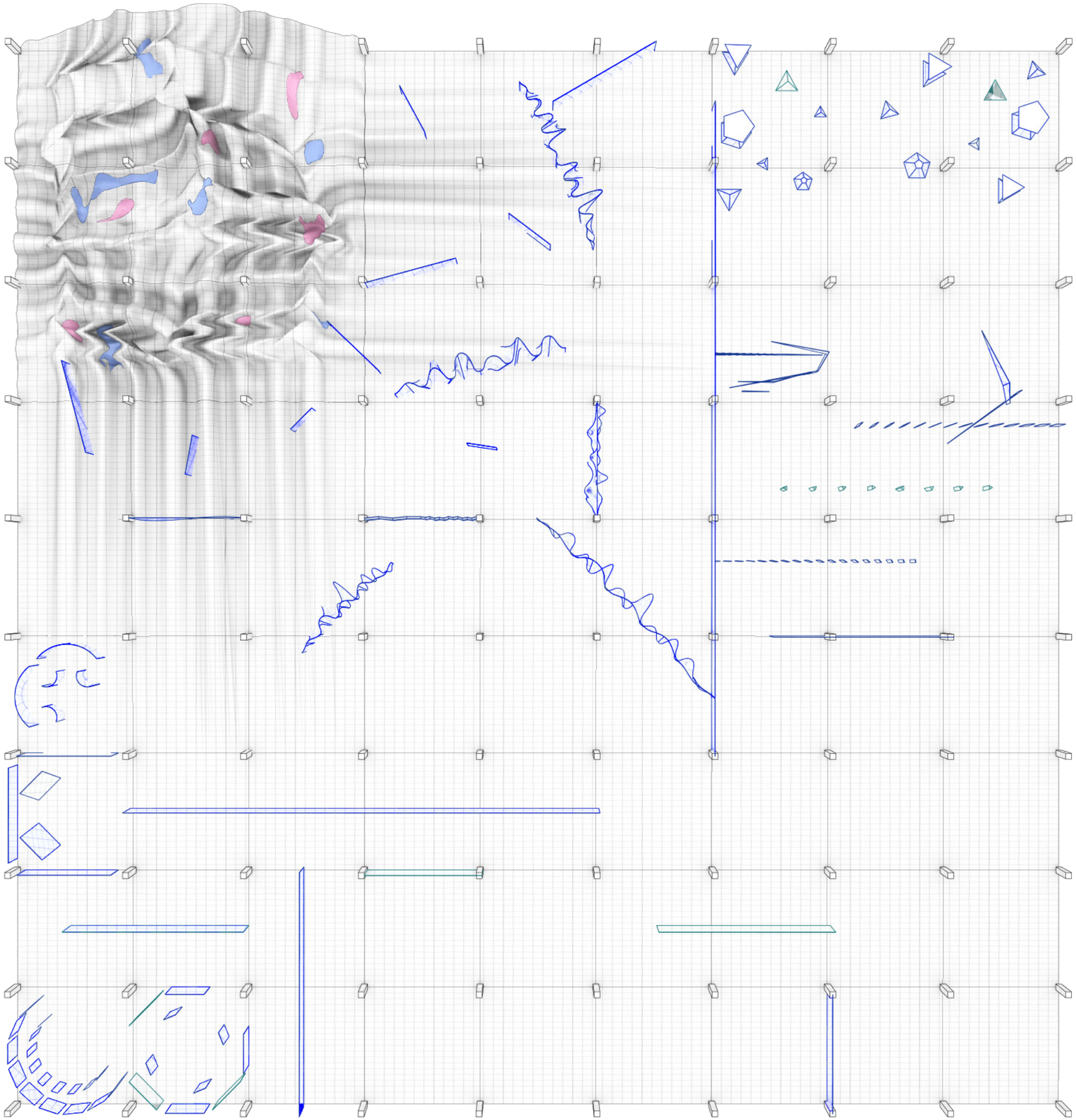
Interaction of human body with distorted space



Here I see tactility together with hapticity as respondence of human body to surrounding environment.
And texture can be seen as the space distortion on a smaller scale. That can be sensed in a further step.

Interaction of human body with texture



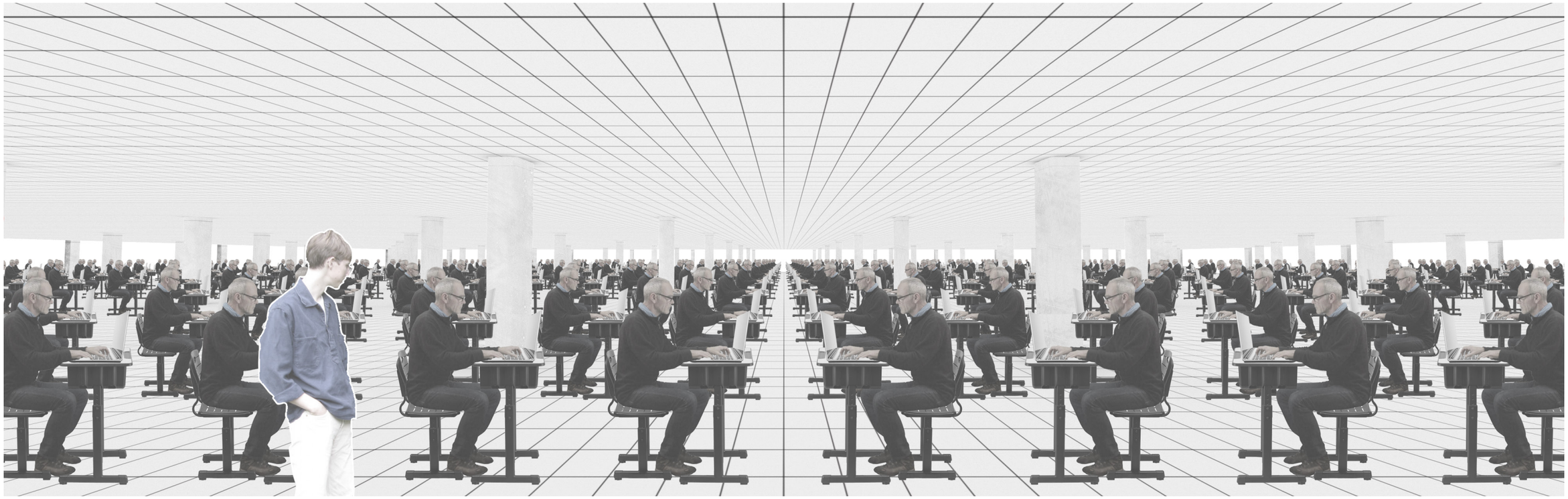


Narrative Scenarios

PART.1

Being in the generic space, you can never get rid of the daily routine.

A guy is standing there, looking at the scene he has been used to. Everyone stays in their position does the same thing everyday in this generic space.
Although it seems boring, but he thinks there's nothing wrong with this universal system as long as it keeps the world run efficiently.



This scene shows how this utopia looks like. While the space is exemely generic and continuous, people under this environment also lose their identity and everyone becomes just similar with each other. The activities are also simply just need to fit the efficiency of the society running so there could be lots of people do the same repetitive work and get lost in this kind of daily routine.

PART.2

Do you really believe what you see?

He feels something unnormal, but it seems the view of surroundings doesn't change. except the inverted reflection of himself standing in front. He doesn't realize he is in front of a mirror wall until he notices the inverted reflection of himself standing in front.
Then he goes past the wall and looks from the other side. He feels confused but still the view of surroundings seems doesn't change.
This confused feeling forces him to look at his everyday living environment.

mirror side

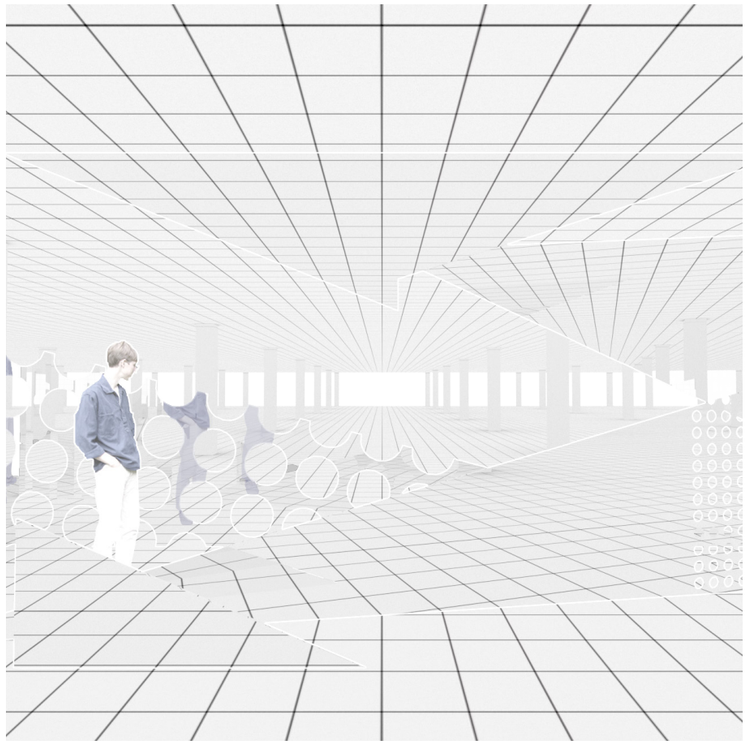
glass side

This outer side of the double-sided mirror reflect the generic space and the inner side is glass so people can see the same scene from different position. It enhances the feeling of being surrounded by this kind of space.

PART.3

Welcome to the mirror maze.

He feels lost in the mirror maze. All the fragments piece up together and form a new world.
He walks among the mirrors and feels more confused.
Is it still the world I'm familiar with? He thinks.
He tries to remember something but cannot recall anything.

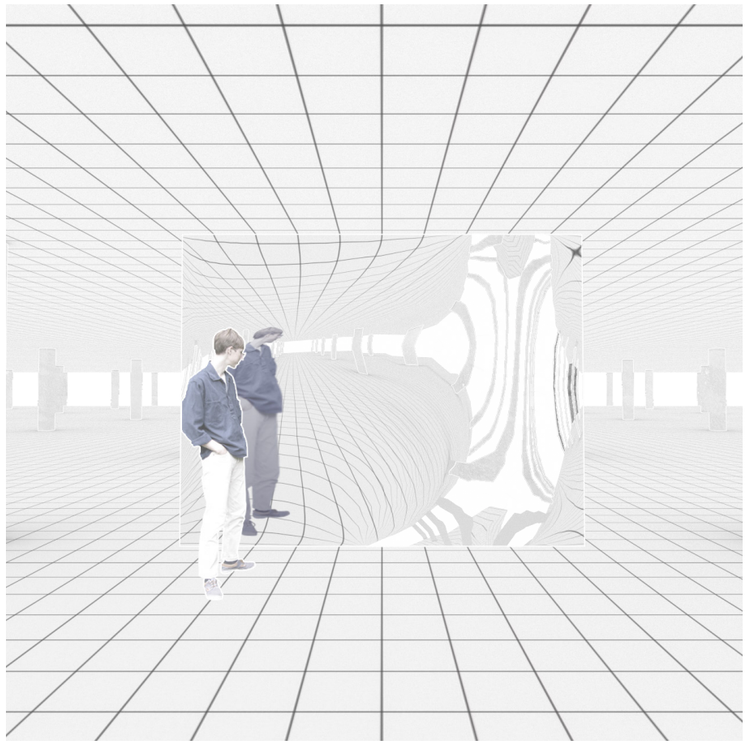


The fragmental scene of generic space creates further confused feeling. It makes the place looks fragmental by interrupting the familiar scene. And in some parts, the interrupted parts combine with the normal parts together make up even more complex scene.

PART.4

Distorted or undistorted?

He is looking at the mirrors, the scene begins to become distorted. The ground, the ceiling, the columns, even himself are distorted. He feels dizzy, feels unbalanced. But when he looks down to the ground he is standing, it seems everything doesn't change at all.
"It's all illusion. Maybe I will be trapped in this generic space forever." He thinks.

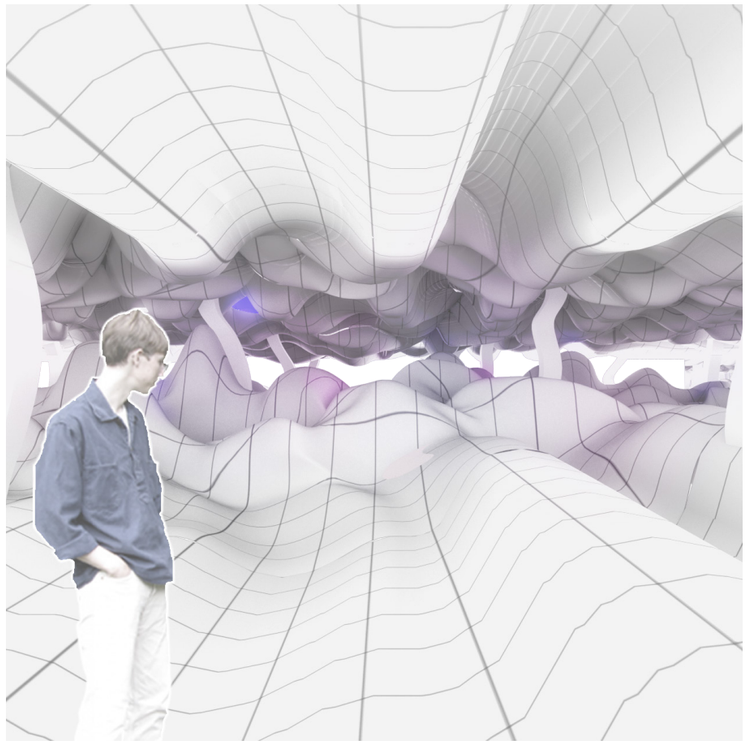


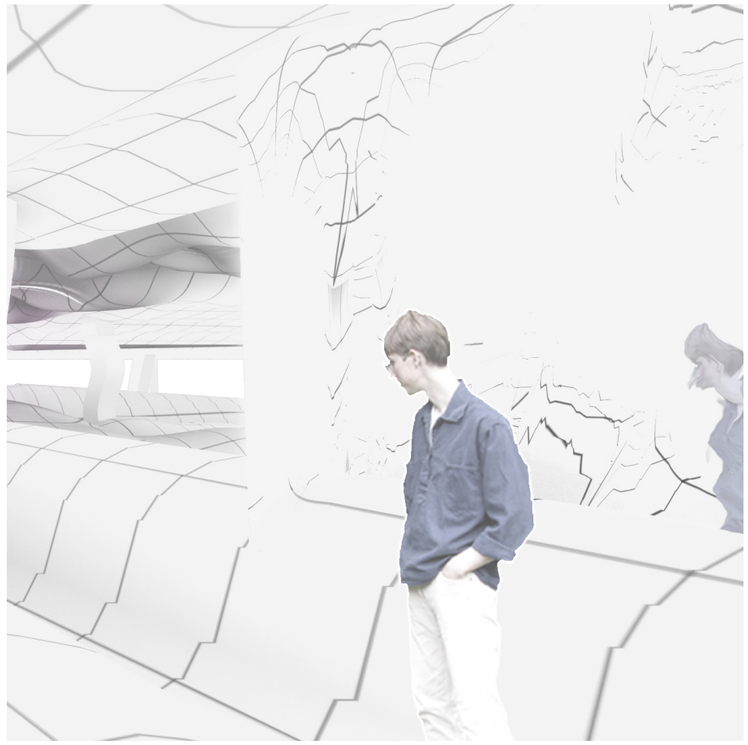
The generic space is distorted by mirrors. In the mirrors, the grid as well as the reflection of people are distorted. It is hard to identify distance and orientation. The space looks no longer generic although it still is the generic space.

PART.5

Illusion or real?

The surroundings are distorting again.
"Is it mirror effects or it's real? Am I still in the familiar environment as usual?" He thinks when looking at the reflection of himself in mirrors.



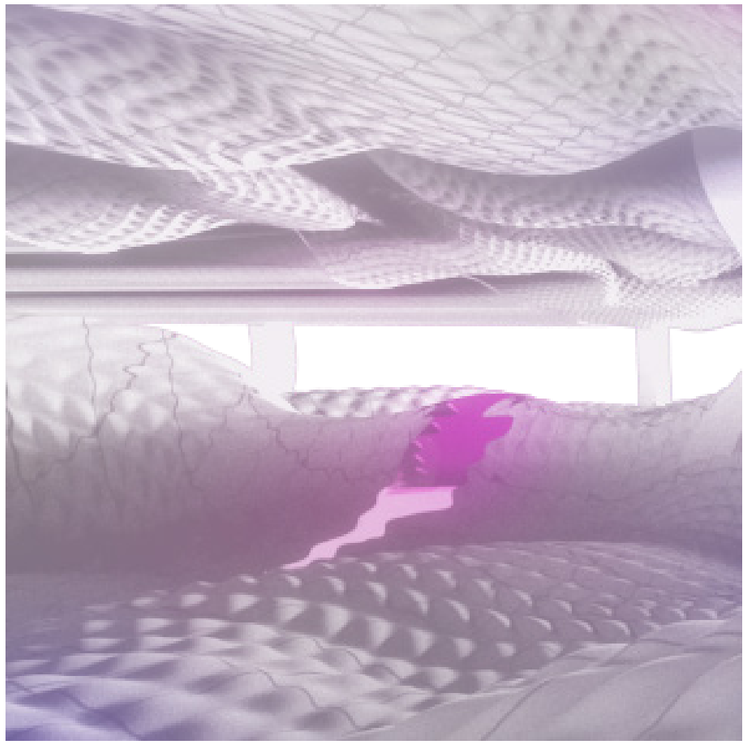


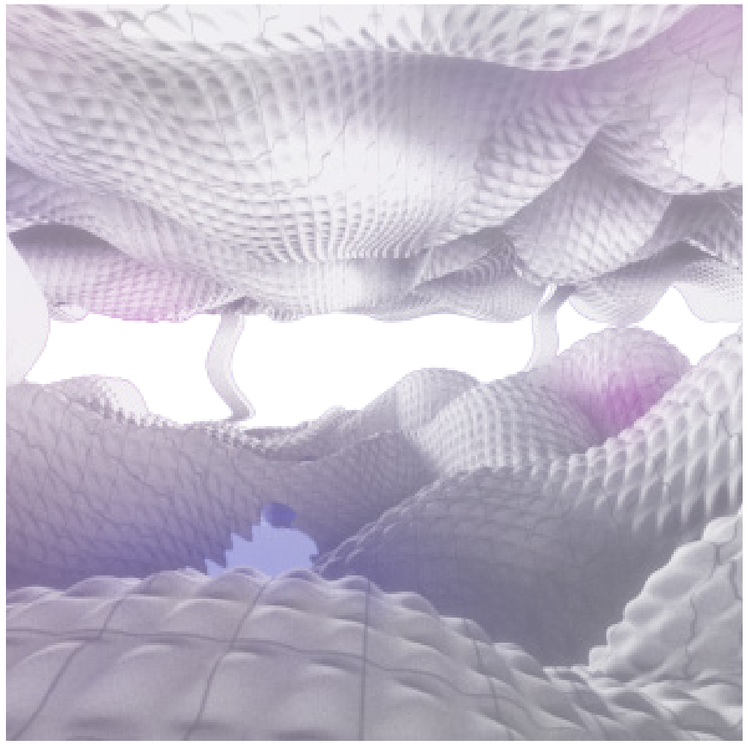
The mirror distortion and physical distortion parts overlap and the scene through the 2D distort and the 3D distort mix together. When people approaching the real distorted area, there are still some mirrors nearby so it's kind of hard to distinguish which part is just distortion with mirror and which part is the real distorted part.

PART.6

Out of reality.

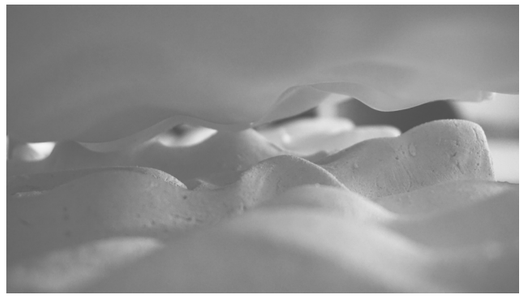
Now he can feel he is walking upward. He feels walking the tilted floor tiles. He can touch the unsmooth surfaces. His body confirms it's not illusion, and he is finally no longer in the everyday unchanged environment.

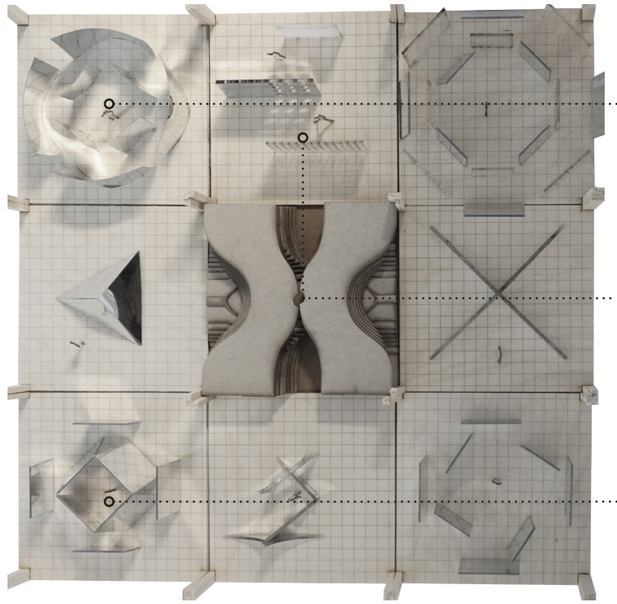


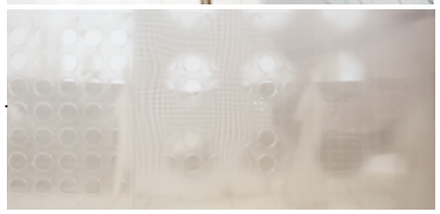


While being in the real distorted area, people not only can use their eyes but use their whole body to feel the form and have the confirmed feeling.
From the numb feeling at the beginning to the confused feeling to question self-being and the surrounding environment, finally to the confirmed feeling, people can experience the whole sequence to reflect get more awareness on the identity of self and the environment and find back the sense of existence.

CNC milled styrofoam vacuum formed plastic mould plaster model







1. Physical model making process
2. Sprayed plastic surface with mirror
3. Plaster surface
4. Physical model of mirror studies
5. Photo of the final exhibition

Discussion

I began to look at the issue of generic space for my own internship experience in China. There was a lot of complex building projects with functions of office and commerce that time. And when getting start one project, the first thing to do was to make a column grid of 8400x8400mm without thinking any condition, for that is the most efficient grid for underground parking lot as well as commercial and office space. That makes me started to question the exist universal system of building design under the pursue for efficiency and functionality

At the beginning stage when I started to plan this thesis, the aim was to find a proposal on breaking the architectural grid. However, with the research gonging on, I started to reflect on the reason behind this grid.

With economical and technical progress, our life becomes more and more convenient. But material demands cannot be simply satisfied. On the contrary, it even would be stimulated. People always want to occupy more with less cost. That's why we always pursue efficiency. Under this situation, convergence has become the outcome of efficiency.

In terms of construction, there could be thousands of kinds of proposals. But generic space is an outcome of the whole society rather than an architectural issue. And it is the choice of market economy. So instead of attempting to figure out how to deal with it in an architectural way, I tried to take this issue in a different way- to evoke people's awareness.

It is actually quite pathetic when I found what we architects can do is so little. Under this background of consumerism and market economy, what we create need to be selected by "consumers".

Although this topic has been discussed since 100 years ago, now we still can see the unstoppable tendency towards convergence.

Through this thesis, though I couldn't find any practical solution to break the generic universal system, I want to reveal the reality and show the consciousness on keeping individual identity.

This is also my exploration on taking architecture as a expression approach. Through the narrative sequence I tried to lead viewers to feel the anxiety of being in the modern urban environment and reflect on the situation we are facing.

Bibliography

Books and texts

Koolhaas, R. (1995). The generic city. Sikkens Foundation

Koolhaas, R. (1994). Delirious new york: A retroactive manifesto for manhattan (New ed.). New York: Monacelli Press.

Hale, J. (2017). Merleau-ponty for architects. London: Routledge.

Pallasmaa, J., Ebook Central (e-book collection), & ebrary, I. (2012;2013;). The eyes of the skin: Architecture and the senses (3rd;3; ed.). Chichester, West Sussex [U.K.]: Wiley.

Hays, K. M., & Ebook Central (e-book collection). (2010;2009;). Architecture's desire: Reading the late avant-garde. Cambridge, Mass: MIT Press.

Holl, S., Pallasmaa, J., & Perz-Gomez, A. (2006). Questions of perception: Phenomenology of architecture (3rd ed.). San Francisco: William Stout Publishers.

Lefebvre, H. (1991). The production of space. Oxford: Basil Blackwell.

Davidson, C. (2006). Tracing eisenman: Peter eisenman complete works. London: Thames & Hudson.

Murakami, H. (1991). Hard-boiled wonderland and the end of the world. Tokyo: Kodansha International.

Cases

No-Stop City, Archizoom
Continuous Monument, Superstudio
Twelve Ideal Cities, Superstudio
Exodus, or the Voluntary Prisoners of Architecture, Rem Koolhaas
Labyrinth of infinity mirrors: via negativa II, Lee Bul
Mirror Maze, Ev Devlin
Mirror series, Jeppe Hein
Your Lost Outside, Olafur Eliasson

Websites

http://megaestructuras.tumblr.com/

https://relationalthought.wordpress.com/

http://ndlr.eu/utopie-realite/

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Figure.11 : http://architizer-prod.imgix.net/media/1375994445192Archaeologia_9.jpg?q=60&auto=format,compress&cs=strip&w=1680
Figure.12 : http://mainprjkt.com/mainprojekt/series-11-weeks-archizoom-1971
Figure.13 : http://megaestructuras.tumblr.com/post/67067015666
Figure.14 : https://theconstructor.org/structures/construction-steel-structure-foundations-columns-beams-floors/18648/
Figure.15 : https://mcachicago.org/Exhibitions/2015/Johnston-Marklee-A-Grid-Is-A-Grid
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Figure.22 : http://www.idepaint.com/brice-marden-paintings-and-drawings/

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