

# **Research Plan**

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He 'speaks' not only with things, as we have already seen, but also through the medium of things: giving an account of his personality and life by the choices he makes between the limited possibilities. The 'bricoleur' may not ever complete his purpose but he always puts something of himself into it.

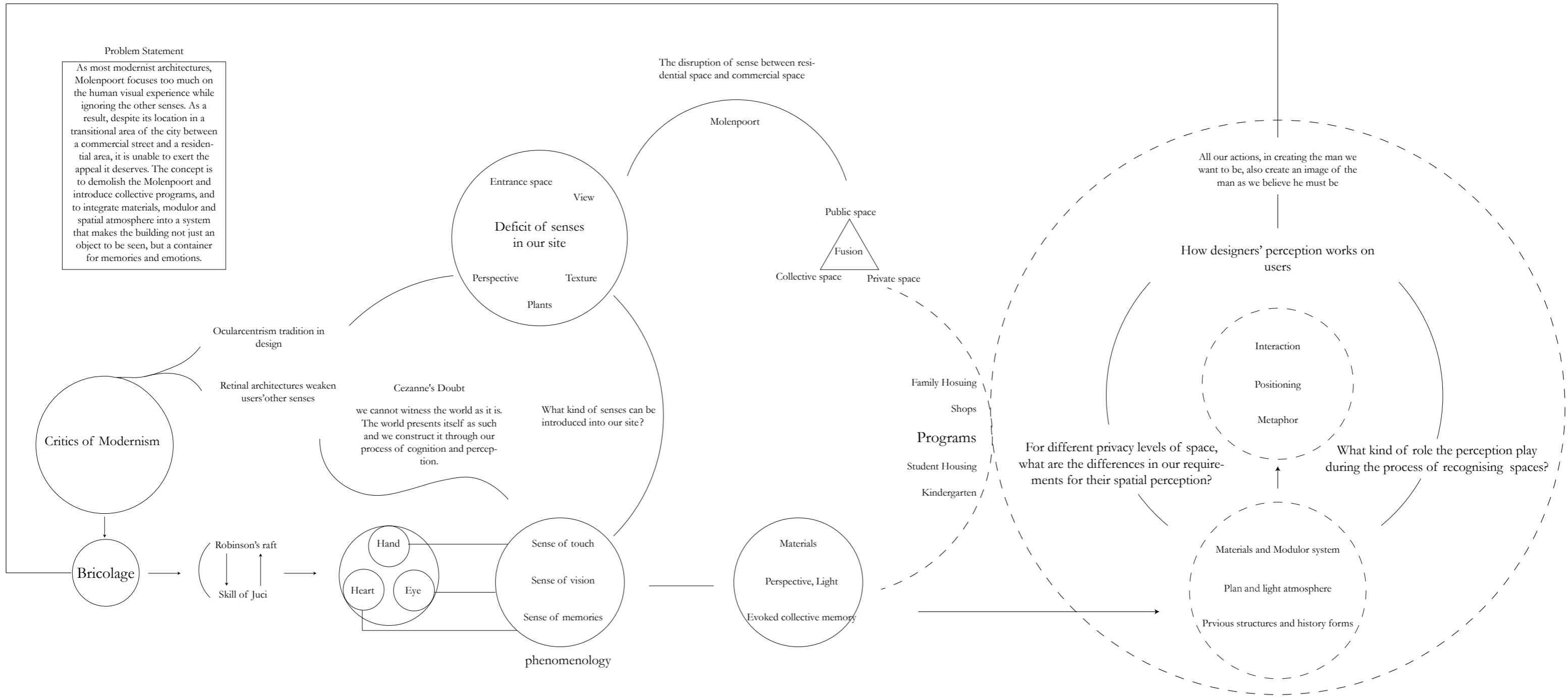


Diagram of research plan

# Introduction

## From Bricolage to Phenomenology

The main topic of this studio is bricolage, which is always related with the story of Robinson. When we talk about this topic, one can not help himself to consider it as an opposite of modernism. Is it true that bricolage is just an antonym of modernism? If not, what is the relation between modernism and bricolage? Further more, in such a high-tech time, when human start trying to export brain thoughts to computer and the whole world looks like being virtual step by step, we may ask what is the meaning of recalling the concept of bricolage

This concept was recalled frequently this years by Tom Emerson, who thought there are two problems of modernism, one is that it separated nature and culture, and another one is it anticipated growth but didn't decay. For the topic of how city growth and decay, in his book *The Architecture of the City*, Adolf Rossi points that city can be seen as a man-made object, a complex project growing overtime. He also used the word 'urban artifacts' to describe not just a physical thing in the city, but all of its history, geography, structure, and connection with the general life of the city. [1]So from him, we can get a sense that city is an dynamic and metabolic object, which absorb all the facts happened in the area and transform them into space or memory.

If Rossi critiqued modernism in terms of collective memory, Pallasmaa, in his own writings, elaborated on modernism's neglect of the senses, thus questioning it from a phenomenological perspective. He uses the term *retinal architecture* to describe certain modernist buildings. And says that: 'Modernist design at large has housed the intellect and the eye, but it has left the body and the other senses, as well as our memories, imagination and dreams, homeless.'[2]

One can see that he places great value on the evocation of memory in our heart by perception. And also as the antithesis of modernism, bricolage is described by Levi Strauss as an extremely personal act: 'The 'bricoleur' may not ever complete his purpose but he always puts something of himself into it.'[3]

There seems to be an subtle link between bricolage and phenomenology, a link that connects the designer and the user, perception and memory, and seems to explain the natural rejection that arises in our mind when we confronted with Molenpoort.

## Statement

Thus my statement is that, as most modernist architectures, Molenpoort focuses too much on the human visual experience while ignoring the other senses. As a result, despite its location in a transitional area of the city between a commercial street and a residential area, it is unable to exert the appeal it deserves. The concept is to demolish the Molenpoort and introduce collective programs, and to integrate materials, modulator and spatial atmosphere into a system that makes the building not just an object to be seen, but a container for memories and emotions.

## Research Question

What kind of role the perception play during the process of recognizing spaces?

For different privacy levels of spaces, what are the differences in our requirements for their spatial perception?

How designer's perception works on users?



Tenome is a Japanese mythical creature illustrated in the first book of Toriyama Sekien's series, *Gazu Hyakki Yakō* (画図百鬼夜行, "The Illustrated Night Parade of A Hundred Demons") as a man-like creature with its eyes not in its face, but in the palm of its hands.

# Reading of 'The Field'

## A Modernism Context: Ocularcentrism Tradition and Cézanne's Doubt

Molenpoort, as an American-style shopping mall, firstly we can read it from its modernism context. According to Pallasmaa, the modernism shows a strong preference on the dominant sense of vision, which called ocularcentrism tradition.

The ocularcentrism tradition origins from the Greek time. At that time philosophers see vision as a symbol of knowledge. Such as Plato's famous cave, people should perceive the existing of themselves by observing. When one-point perspective skill was invented at renaissance time, ocularcentrism has more meanings. It aims to depict the world vividly, representing a spirit of science. We all know that at this period architects usually are painters as well. So the painting start influencing architecture design, even have impact on the theory hundreds years later, Like Colin Row was inspired by Piranesi's plan drawing and wrote down his collage city. The next fusion of architecture and vision art is modernism movement. There is no doubt that the double role of Le Corbusier, painter and architect, have an effect on his design. Since then vision expression is not only a tool of design, but also a representation.

As architects and painters came closer and closer, new debates arose within painters about the meaning of painting. What do we want to express when we paint? If depicting vividly is the only purpose of painting, is it necessary for painting to exist after the invention of the camera? In his famous essay 'Cézanne's Doubt', Maurice Merleau-Ponty said: 'he was pursuing reality without giving up the sensuous surface, with no other guide than the immediate impression of nature, without following the contours, with no outline to enclose the color, with no perspectival or pictorial arrangement. This is... aiming for reality while denying himself the means to attain it.'[4]

Merleau-Ponty's comments on Cézanne is in fact a critique of the tradition of oculocentrism. He argues that we cannot witness the world as it is. The world is presented in such a way that we construct it through our cognitive and perceptual processes. Reality, therefore, is also more than the thin visual picture that oculocentrism emphasizes. He further explains in his essay: '...the lived perspective, that which we actually perceive, is not a geometric or photographic one. The objects we see close at hand appear smaller, those far away seem larger than they do in a photograph.'[4]

This passage explains that even from a purely visual point of view, what we depict is far less rich than the real world.

As in Plato's allegory of the cave, we are at our most ignorant when we are in a cave, with only a faint torch to awaken our vision and our other senses shut down. It is also

worth noting that in the cave there are two sources of light, one artificially created by the fire and the other by the natural sunlight outside the cave. Plato uses the metaphor of the two light sources to make a prophecy, the former is, in my view, the modernism situation of the ocularcentrism. And the latter is representing the natural world, which is full of other senses.

When the architect abandons the scent of flowers and the warmth of light for the compositional game of height and short, light and dark, they are trapped in a two-dimensional plane like Cézanne; the real world emerges, its shadows and contours already visible on paper, but just lack of something. Our brains answer this question instinctively, even if we sometimes do not realise it. The dividing line between reality and visual images is the perception of the world by different kinds of senses, and it is what distinguishes art from simple painting. Whereas Cézanne was doubted by his inability to cross this dividing line with his brush, modernist architecture voluntarily chose to stay on the shore from which Cézanne wanted to escape.



Plato's cave[5]



Mount Sainte Victoire 06[6]













## The Deficit of Senses in Our Site

Like most of modernist architecture, Molenpoort is also a production of ocularcentrism. This makes such a deficit of senses in our site. Around Molenpoort, there are some streets where you can see the windows with old wood frames telling their stories, you can even feel the roughness without touching it. There are streets where you can see the glass of shop windows reflecting golden sunset and clouds, suddenly you smell the sweet of ice cream from the shop in next corner. But, there are also some streets, especially in Molenpoort, have tedious ceramic brick floor pattern continuing, huge entrance with non-human scale like a big mouth of a monster, tries to swallow everyone passing by.

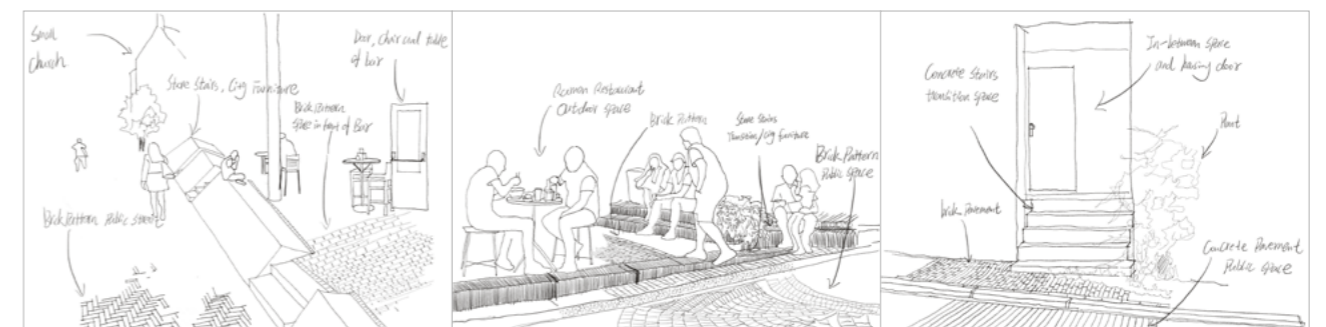
This is an impression mapping of Molenpoort, from which we can see most of streets have a strong identity. When I left Nijmegen and made this drawing on train, I found that I even couldn't remember what is inside the shopping mall, because it didn't bring me a strong sensory stimulation.



We can compare Molenpoort with Molenstraat to see why we cannot stimulate our senses inside the shopping mall. The analysis at top left is about sight elements in two street. We can see that the space in Molenpoort is not as diverse as in Molenstraat. People's eye sight cannot be guided well. This analysis will be done in terms of street plants, entrance space and the texture as well.

<p>Street sight analysis of Molenstraat. Made by Aleksandra Wróbel</p>	 <p>Walls are clearly defined by compact building blocks, and therefore, trees function here only as division points in between sidewalks and the main route and not as walls.</p>	 <p>Unified material for the pavement, dark red brick, and lack of division lines separating pavements from the road gives priority to pedestrians.</p>
 <p>There is a fusion between the public floor and a commercial ground floor of buildings, and the private, residential part above it.</p>	 <p>Signage elements which emphasise the commercial function of the street: shops' signs and pattern on the pavement to emphasise the entrance to the mall.</p>	 <p>Landmarks of the street which help with the orientation on the street and which create a certain dynamic of the street.</p>
<p>Street sight analysis of Molenpoort. Made by Xiaoyue Shi</p>	 <p>Spaces are defined clearly by walls and ceiling. There is no natural elements showing in the mall. In the end of the street, a shop stops people's sight.</p>	 <p>Ceramic material for the pavement, gives misunderstanding between indoor and outdoor spaces. There are three colours for the brick, orange, white and green.</p>
 <p>Pillar and beam divide street surfaces into several equal parts, therefore break the continueness. People feel that each shop is the same one.</p>	 <p>Two floors are all for commercial. Because of the height of the ceiling, people's sight are guided in ground floor, seldom noting the first floor.</p>	 <p>There are so many signs in the mall, in such a small space, thus people have no ideas to focus on which place.</p>

The analysis below is focusing on how pavement texture, topography and public activities work together. Those three scenes were all from our site, representing public space, commercial space and private space. Those drawings should also be done in the perspective of Molenpoort, and compared. I want to find what the meaning of pavement materials in public life. How they put impact on our perception.



# Theme

## Curium Porcelain and Robinson

Concrete is a key word for bricolage, which is also from the book *The Savage Mind*<sup>3</sup> first chapter's headline, *The Science of The Concrete*, from where the term bricolage was known by the public. We can find that the most frequently words shown in the book are names of all kinds of objects and materials, such as canvas from shipwreck and woods from island. They are not abstract and have specific usages. By collecting and using those objects, Robinson learns the regulations of island.

This fascination with old objects reminded me of a traditional Chinese craft, curium porcelain (a technique for repairing broken porcelain). In front of the brokenness, curium porcelain can be seen as a summary of Robinsonian craftsmanship, as both are surprisingly consistent in their use of materials at hand and in their understanding of the status (what has happened has already happened, and since it cannot be changed it should be accepted as the new status). Here I copy a passage of Robinson's raft making to compare it with the process of curium porcelain, trying to find commonalities between bricolage.

Here I would introduce the process of Juci. A craftsman firstly **observe** the broken china, and **conceive** in which position he put nails on and how can they look in a harmonies proportion. Then he use a **drill** with diamond head to make hole on the surface of china. After that he takes hand-made nails from his tool box, which sometimes have various shapes but all hold fragments tightly, and **bash** them into china. The last step is to **check** out the crack and **use** china powder or egg whites to fix it, which make it waterproof as well.

### *Process of Curium Porcelain*

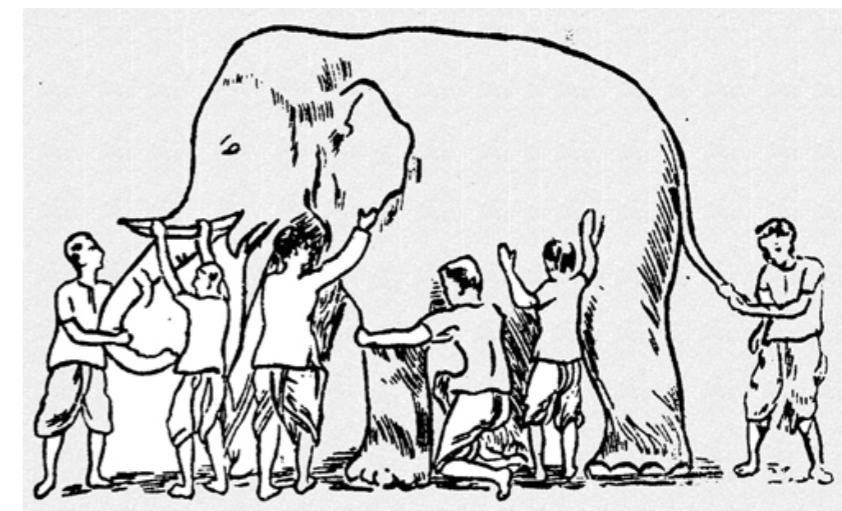
It was in vain to sit still and wish for what was not to be had; and this extremity roused my application. We had several spare yards, and two or three large spars of wood, and a spare topmast or two in the ship; **I resolved to fall to work with these**, and I **flung** as many of them overboard as I could manage for their weight, tying every one with a rope, that they might not drive away. When this was done I went down the ship's side, and **pulling** them to me, I tied four of them **together** at both ends as well as I could, in the form of a raft, and laying two or three short pieces of plank upon them crossways, I **found** I could walk upon it very well, but that it was not able to bear any great weight, the pieces being too light. So I went to work, and with a carpenter's saw I **cut** a spare topmast into three lengths, and added them to my raft, with a great deal of labour and pains.

*Defoe, Daniel. The adventures of Robinson crusoe. Gale and the British Library, 1872.*

## Eye and Hand

As can be seen, for Robinson or the curium craftsman, seeing with the eye is the beginning of their work. While oculo-centrism deserves to be criticised, we cannot deny that vision is still the best way for us to understand the world. As the proverb says, seeing is believing. Back in the Plato's cave, another layer of vision is seeing us who are seeing. When a prisoner is freed from the cave and therefore realises that the world he lived in before was just a cave and that what he thought was real before was just an shadow, he walks back. At this point he see his companions (or rather at his former self) who are watching the shadows. As Peter Sloterdijk said: 'The eyes are the organic prototype of philosophy. Their enigma is that they not only can see but also able to see themselves seeing.'<sup>[7]</sup> This perception of the self gives vision a philosophical significance different from the other senses.

The second step in the bricoleur's work is to use the hands to gather materials, From Juhani Pallasmaa, it is a media between human and nature.<sup>[8]</sup> He further explains that through touch we understand the world around us. It is worth noting, however, that touch usually occurs after seeing, as a complement and checking. As the painting depicts, the doctor confirms the patient's symptoms by the touch of the hand. There is a Chinese story talking about several blind people who perceive an elephant by touch; the one who touches the leg thinks the elephant is a pillar and the one who touches the body thinks the elephant is a wall. From this story we can see that the sense of touch can sometimes be unreliable without the cooperation of sight, just as the panic that naturally rises in our minds when we are groping in the dark.





Another meaning of the sense of touch is to demonstrate our trust in the Other. Just as the alien and the boy's fingers touch each other in the film ET, and this scene also appear in classical painting as a symbol of intimacy. It is easy to understand that when we touch the hair of a loved one, a warm board in the sun and a lush summer bush, it is a completely relaxed love that flows.

The ancient Greek philosophers used to divide human perception into several classes, the highest was vision and the lowest was touch. But as a bricoleur, the sense of touch becomes the most important sense apart from sight. This is where the bricoleur differs from the philosopher. The philosopher is concerned with the metaphysical, whereas bricolage, on the other hand, is a concrete science. Theories can be talked about and listened to, but the bricolage can only be done with the hands. Bricolage is therefore a process of designing and creating, and of engaging one's full senses. Most of the time he has to use his hands and eyes to perceive and coordinate, and sometimes he has to use other senses, such as hearing sounds and smelling smells, but all this is based on sight and touch.



Poster of Movie E.T.  
The Extra-Terrestrial  
Directed by Steven  
Spielberg,1982

## Heart

Yet there is a crucial step before the work is done. Just as Robinson thinks in his mind that he can make the raft better and the curium craftsman makes the nails into the shape of his favourite flower, the perception becomes a more abstract thing in his mind. For Robinson it is the future of the raft, and his own preference for the curium craftsman. Such abstractions are derived from our memories and past experiences, and often give objects a deeper meaning. The perception of this deeper meaning is most moving when it is evoked.

Antonio Jiménez Torrecillas once told a story: A son, on whom a father had placed all his hopes, died in an accident. Before the burial, the father stayed by his son's body. He spent the night in great pain, but his face remained calm. In the morning, the first rays of sunlight came. The father saw his son's coat hanging outside the house, fluttering in the breeze. He burst into tears, flowing down his face. The father could resist the literal subject (his son's body) all night, but he could not resist the evocation of the subject.[10]



The story from John Hejduk is also a good example to explain the relation between objects and evocation: 'During a certain season in Texas, the trees are completely covered with discarded shells that once were the outer bodies of certain insects. The inside has left, leaving the outer form, which looks like an x-ray.....Suddenly we hear a chorus of sound coming from the dark leaves above. It is the sound of the insects hidden in the tree in their new metaphysical form.'[11]

## The Designer and The User

For the concept of bricolage, Levi-Strauss, the pioneer of structuralism, focuses on the system to explain how it differs from the engineer, who represents modernist thought. In approaching the question of structure, he said: "The scientist uses structures to create events and change the world. While the bricoleur creates structures by means of events."<sup>[3]</sup>

But it is worth noting that he also writes: "he always puts something of himself into it."<sup>[3]</sup>

There is a subtle shift created here, where the identities of the designer and the experiencer are temporarily swapped. The craftsman or bricoleur is working without thinking about whether others can feel what they want when they use the object, because at the moment they have substituted their own perceptions, as an ordinary person, into the design. The same thing happens when phenomenology is applied to architecture. As a representative figure, Zumthor always describes his feelings or memories from his own point of view in his book "Thinking Architecture". The descriptive language in the famous sequence about the aunt's kitchen is a world far away from the modernist manifesto-like text.<sup>[12]</sup>

How can one transcend one's perception when one cannot break through the limits of one's present perception? Renaudie once said that he did not know who the future tenants of his building would be. His own response to this difficulty was that he was designing for himself. The design of an apartment is complete when he was willing to live in it. Sartre also used to say that all our actions, in creating the man we want to be, also create an image of the man as we believe he must be. Irénée Scalbert comments that we put in practice the idea that what is good for us must also be good for all.<sup>[13]</sup>

Perhaps the shift in identity between designer and experiencer is not such a big issue, but the above argument demonstrates how, just as Cezanne took up the brush in confusion, the introduction of phenomenology has helped architecture to escape the visual dilemmas of modernism. We have always lived in the world as people with multiple senses. Theories can be acquired, but our senses are born with us. So in putting our own feelings into the design, a dialogue between architecture and people begins.

## Methodology

### Phenomenology

According to Stanford encyclopedia of philosophy, phenomenology is the study of structures of consciousness as experienced from the first-person point of view. The central structure of an experience is its intentionality, its being directed toward something, as it is an experience of or about some object. An experience is directed toward an object by virtue of its content or meaning (which represents the object) together with appropriate enabling conditions.

So my methods is mainly based on the study of human's perception of space, and follow the perception process of Eye-Hand-Heart.

Also for three research questions:

**What kind of role the perception play during the process of recognizing spaces?**

**For different privacy levels of spaces, what are the differences in our requirements for their spatial perception?**

**How designer's perception works on users?**

They are highly relevant with my methodology. The first question is more relevant to the theory of phenomenology. By answering this question, I can get a clearer idea of the extent to which perception can intervene in the design process. I plan to answer this question by reading the literature. The current bibliography is

Zumthor, Peter. *Thinking architecture*. Lars Müller, 1998.

Zumthor, Peter. *Atmospheres: Architectural Environments. Surrounding Objects*. Birkhäuser, 2006.

Pallasmaa, Juhani. *The thinking hand: Existential and embodied wisdom in architecture*. Chichester: Wiley, 2009.

Pallasmaa, Juhani. *The eyes of the skin: Architecture and the senses*. John Wiley & Sons, 2012.

Pallasmaa, Juhani. *The embodied image: Imagination and imagery in architecture*. John Wiley & Sons, 2011.

Merleau-Ponty, Maurice, and Michael B. Smith. *The Merleau-Ponty aesthetics reader: Philosophy and painting*. Northwestern University Press, 1993.

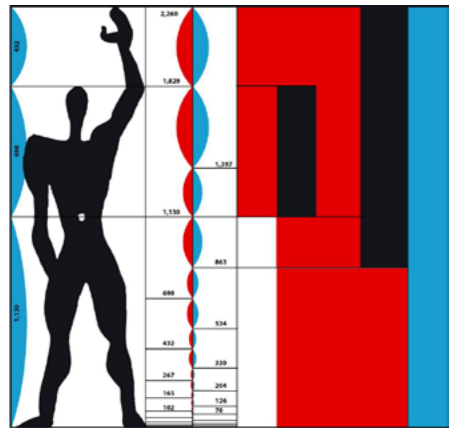
Lvi-Strauss, Claude. *The savage mind*. University of Chicago Press, 1966.

The second and third questions are more relevant to specific designs and need to be answered through specific program and spatial studies. I will therefore explain this in the next page.



## Methods-Hand

The sense of touch is not just about the surface of the material, it is also the process by which we become aware of the outside world. Man is the measure of all things. Modulus therefore plays an important role in the way we perceive space. I plan to work on a modal system that can be applied to the whole project. In this modal system, private, collective and public spaces correspond to different scales and therefore bring different spatial experiences to people. The type of the materials, colours and so on are also incorporated into the system. The system is therefore not just a collection of math numbers, but is more about the human perception.



Modular system by Le Corbusier



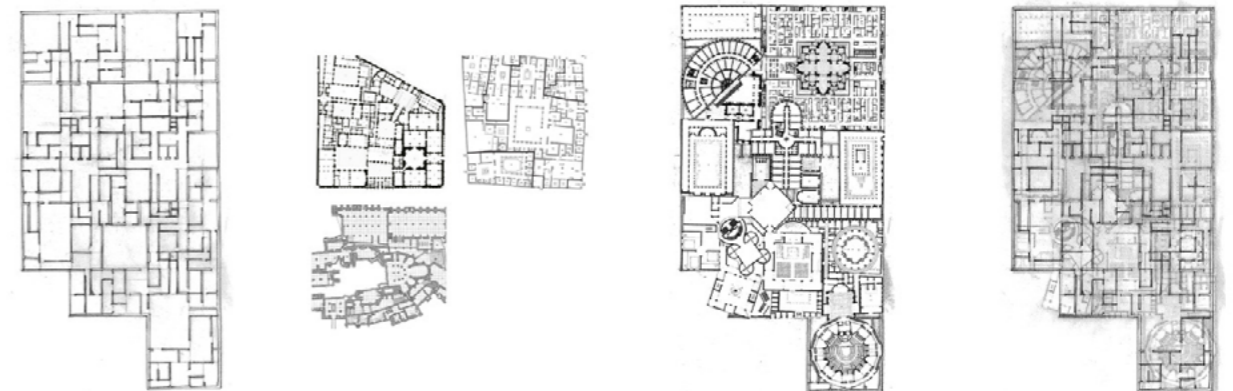
A sample of material catalogue

## Methods-Eye

The study of vision has two aspects, perspective and light.

Perspective is about what we see and can therefore be reflected in the study of architectural planes. In this part I intend to make research on several planes (the specific cases have not yet been decided) and place them in the project in a collage way, to test the spatial perspective of the different planes and to determine the final plan.

For the study of light, I plan to make models to test the effect of different light atmospheres. Then take photos to compare.



A sample of plan collage, made by Pablo Stadelmann and Cyrill Wechsler



A sample of model comparison, made by Christian Cotting and Patrick Holzer

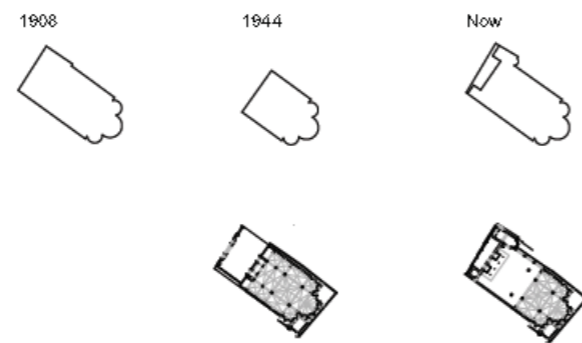
## Methods-Heart

For the evocation of a collective memory, I plan to focus on how to use the structures left over from the old building. The original concrete columns of the Molenpoort have their own modular system, if they are kept, how can they coordinate with the new modular system?

At the same time, the site has a deep history, such as the bombings of World War II and the former church guest house, and whether their form and program can influence the new building will also be a point of consideration.



Concrete pillar in Molenpoort



Sample of Church form-changing research from Traces group

## Notes

[1] Rossi, Aldo, and Peter Eisenman. *The architecture of the city*. Cambridge, MA: MIT press, 1982.

[2] Pallasmaa, Juhani. *The eyes of the skin: Architecture and the senses*. John Wiley & Sons, 2012.

[3] Lvi-Strauss, Claude. *The savage mind*. University of Chicago Press, 1966.

[4] Johnson, Galen A. "The Merleau-Ponty aesthetics reader: philosophy and painting." (1993).

[5] Hellerman, Jason. "Listen to Orson Welles Narrate Plato's Cave to Inspire Your Screenwriting." No Film School. No Film School, July 14, 2020. <https://nofilmschool.com/platos-cave>.

[6] Cézanne, Paul. "Mont Sainte Victoire 06." 651mm by 838mm, 1904. Musée d'Orsay.

[7] Sloterdijk, Peter. "Critique of cynical reason." (1988).

[8] Pallasmaa, Juhani. *The thinking hand: Existential and embodied wisdom in architecture*. Chichester: Wiley, 2009.

[9] Zhang, Weiwei. *The process of scientific research versus the blind man feeling the elephant*, 2013. <http://blog.sciencenet.cn/blog-847068-692745.html>.

[10] Antonio Jiménez Torrecillas' lecture in Tongji University

[11] Hejduk, John. "Evening in Llano." *The Architect* 4 (2007): 17.

[12] Zumthor, Peter. *Thinking architecture*. Lars Müller, 1998.

[13] Irénée Scalbert's lecture *Difference matters*, Delft University of Technology, 2020