Fractions of an entrance
- A study of doors, investigating lines through movement

Interior architecture
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2017
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Abstract

The door is a critical element when aiming to construct a boundary that separates space and can make us view the world as divided. The door has the ability to connect and divide spaces. When we open a door we fold one room into another.

I have investigated the door, as an object, a border and idea. What defines something as closed or open? How long does it take to walk through a door? What happens to the door when I remove the walls around it?

In Fractions of an entrance I have used movement and the memory of movement to investigate the door. I investigate the door by moving through, filming both me and the door, sketching and building the sequence into frozen frames. Through my investigation, the door has become a passage of doors that unfold movement and time.

The door works as a director, choreographing human movement, deciding how, if and when we enter a space. I have used movement as a method because I believe that it is through movement that we perceive space, we constantly move and experience space from multiple perspectives. I find it strange that the most common way to represent architecture is from a perspective that humans almost never see.

Fraction of an entrance is a representation of my perception of the opening of a door, it is not a new door or a door with a new function. It is a representation based on reflections and investigations of the door. The result is in itself a spacial design, with new spacial qualities. That enhances invisible separations in space, create different patterns of movement an usage of space, creates smaller nooks to pause and gives you a possibility to remain in the moment between two rooms. A space in the threshold.

One can say that it is a physical stop motion, frozen frames where the order and pace of the opening is determined by the one who moves through it. In this installation time is frozen, you can see both present, past and future at the same time.

In Fractions of an entrance - the door’s memory has been made to a physical construction.
Background

“Architectural space is created through perception of the space delimiting objects”.

My project is an investigation of the door, where we enter, cross or move through architecture.

First - I want to tell you about an event that led me to work with the dividing object in architecture. On a trip to Venice, we helped to transport a 60 m long textile from the old military base Lagunari to the courtyard of Theater Marinoni. The fabric had been hanging in the trees and was used as hammocks to sleep in by the group Urbana Biennale. When we entered the site we unconsciously placed the long textile in a circle on the ground, it was so big it only appeared as a circle when we by chance saw it from the terrace above. The circle of fabric not more than three mm high, created a line, a boundary in the grass outside the theatre. By creating a circle on the ground, we had made a space for ourselves in the huge courtyard. We had divided a space that became ours just by placing fabric on the ground. Without a thought we started to inhabit the circle, had our dinner and party the following evening inside the circle of textile.

Through “drawing” a circle on the ground, walking over the fabric a few times and seeing it from above, a space was suggested. The experience made such an impact on me and I’m starting to realize why. It is so easy to create something that we perceive as space. To construct a boundary that separates space and makes us act and move different than we did before.

For me this is a positive experience, but it also alarmed me how easy it was to divide space and start to connect to it. This led me to work with the door, because it is both a boundary in itself and a gap in one, it is an object that divides space.

1. Simmel, George, Bridge and door, p 4
During my time in school and working as an interior architect the line and border has become more and more important to me.

Last year I built an entrance for a festival in Lund. I decided to extend the existing entrance of the festival. By incorporating the existing architecture I could easily attach an extra entrance. This shift of 3 meters made a huge difference in how people moved on the square. People that never would have entered the venue in the first place started to hang out under the attachment. After a while they also started to go in to the venue. By adjusting boarder of the entrance just a little bit, the whole situation around it shifted. I am not sure if it was the temporary change that made the difference, would it have been the same if it became a permanent part of the building? Perhaps not, but I do believe that walking in to a building for the first time changes how you think about it and makes it easier to do it next time.

David Hockeys thoughts have become an important figure in my thesis work, he problematizes the edge in his book Retrospective, and how they cut off more than what they show. He states that the edge is a problem and he is working with trying to soften it or look at it in a different way to create a more complex image².

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². David Hockney, A Retrospective, p 90, 1988
What and why

I have investigated the door, as an object, a boarder and idea. What defines something as closed or open? How long does it take to walk through a door? What happens to the door when I remove the walls around it?

David Bohn writes in “The wholeness and it’s implicate order” about humans ability to separate ourselves from our environment and to divide and apportion our view of the world. How this is both an important and a destructive thing, he criticizes how something that is a result of our way of thinking becomes its own autonomous existence that we start to relate to.

“However, when this mode of thought is applied more broadly to man’s notion of himself and the whole world in which he lives (i.e. to his self-world view), then man ceases to regard the resulting divisions as merely useful or convenient and begins to see and experience himself and his world as actually constituted of separately existent fragments.”

Thinking about Bohms words from an interior point of view makes me curious about the door. We divide the world in many interior spaces, using doors, walls and other space delimiting objects. Does this make us think of the world as divided? Maybe it does, I don’t know but I wish to challenge the thought. One weapon we have against (ourselves) is that we can move, and break those divisions, or at least shift our perspective. I want to use movement as a tool to investigate the door.

The door is an interesting object when you think about dividing. Because it is in a way an opening in a boarder, a relief where the wall breaths. Or as George Simmels says in Bridge and door “A hinge between the space of man and all that lies outside it.” There is something with the design of the door that triggers me. It is an object that has a great importance in architecture, that effect how and if you enter a space, how spaces are connected and how they should communicate.

Kevin Lynch writes in “The image of the city” that an edge might become more than a dominant barrier if some visual or motion penetration is allowed through it. He states that it then becomes more of a seam than a barrier. To think of a door as a seam is a compelling and interesting though, it is just as Lynch writes a place in the edge that allows for visual and motion penetration. But it is more that just an opening in an edge, the visual transparency depends on if and how it is opened or closed. What defines something as closed and open? Can I find a way to variate, tweak this to change my learned way of thinking of the door?


How

I am investigating doors in existing architecture through a method that I started to develop in a previous course inspired by the method David Hockney uses in his photo collages. Hockney wants to come closer to representing space from human eyes taking in consideration that we move when we experience space, we move and time is a factor. He is through his art criticising the fixed perspective. He believes the perspective has hundreds of vanishing points not just one.

We don’t see space as a photograph, we see one side of a chair, and how it’s missing a screw, then the front, moving around we see the other side and the back rest. He believes the perspective has hundreds of vanishing points not just one.

All this together creates our perception of space. The edges in his collages works more as joiners than dividers.

I see a strong connection between David Bohms philosophy and Hockneys art, they are both criticising something that is constructed by humans that we start to think of as the truth. In Hockneys art it’s the perspective, the edge and in Bohms case it is the divisions. These thoughts are related and they both also offer another way of seeing our world. I am curious if I can combine these thoughts, look at the door, the divisions and use a method inspired of Hockney to find another way of seeing and understanding the door.

Led by Hockney’s thoughts I started looking at both human and space in parallel to see how they affect each other. I will start explaining my way of working in the following pages.

5. Hockney, A Retrospective, p 4, 1988
I investigate the door by moving through it, filming both the door and myself. I separate and draw parts in the sequence, as “still” pictures, both the lines of the human and the lines of the space. When I put the sequences together again, the perspective changes, there is now more than one-way to look at it. The line has become more lines and therefore created more ways of looking at the space.
I experience that this way of looking at space and movement is a way of chopping up space and expand it.
Sketches of movement in architecture.
I start to investigate the new spaces that I see in my sketches in plan. Trying to see what is happening in the elevation of me moving through space. I find many qualities that is interesting and I start to name the new found qualities, creating a library of possibilities. When I for example extrude the blades on the double door, make them so long that they collide when they meet, they create a new space in middle of the two spaces. In a way it becomes a space in the boarder, if you stand in it you are separated from the next space, but you are also already inside the next space. You also move differently than you would in a normal "twin door". You push the door to the side but your body is the center.

**Interpret in planar drawings**

Objects meet, create a new space that changes. Here you can stand in one space, looking into the future space. You are standing in the boarder, overlooking two spaces at the same time.

The moving objects becomes so long that they collide, creating a new space in the middle of two spaces. Once again, a space in the boarder. It changes the angle in the bigger spaces.

One of the moving objects becomes a wall. The other thicker moving objects creates a handle. You don't move back when you open the door. You push it to the left. If you come from the other way you are already inside the other space when you open the door.

Wall breaks in in the middle of the entrance, the angle gives you opportunity to sneak in to a space. The movement if you take the right "opening" creates a special movement.

The small black squares, if you walk here you become one of the squares. The gap between the bigger squares and the small ones creates a slower space, here you can pause, watching the moving object, separates the space. It divides the space in different sections. Like a clock.

The movement creates a shape that brushes the opposite wall. Like it's stroking the wall next to it. It becomes a body of moving mass, that you can enter and become a part of mass yourself.

The movement creates a geometry that affect the space you walk into. When it is closed there is a mass and when you open the mass get's pushed away and changes.
Planar sketches
Horizontal lines

Not to lose the human and the movement in architecture I decide to build the plans in 1:1. The scale is how I imagined the spaces in my first plans. Here I can experiment with distance and angles. The lines on the ground creates a spatial experience, but I realize that I need vertical lines to understand them better.
I go back to the computer and start to draw new vertical lines to try to understand what the spaces would feel like. I can continue developing the spaces from this angle. The changes I make here is not something that I could see in plan.

For example I start to tilt the vertical lines sideways, something I would not have done in plan. I like the shifting of angles, going from plan to elevation and how it makes me focus on one thing at the time. The limitation helps me but also wants me to go back and draw the plan again, change it.
While doing the 1:1 study I also worked with my drawings of movement. Transforming the drawing back to 3d again, by welding the different sequences in metal. This translation created a completely different feeling of the object. The drawing represented an undefined, fragmented space with many possibilities. The metal model became fixed and gave a much more closed feeling than I expected.

I tried to see if I could soften the lines and give it another materiality, so I soaked the model in plaster. It did make it softer, the fixed and closed feeling started to disappear. I am also beginning to read it as something different than “lines”.

Transforming lines
To continue on the study of the vertical lines I went back to the early sketches of me walking through doors where the perspective changes. The investigation of the sketches in plan is more a way of changing the function of the door and how to walk through, changing where the boarder is. But I liked the idea of showing how the lines change while we move through them.

So I decide to build my sketches in models. I had to start to connect the lines from the drawing so that they would hold together. Experimenting with different levels of transparency and layers. Filling out some of the empty parts made it easier to read and also more stable. The models that were somewhere in-between only lines and more filled surfaces was the most interesting.

The models are in a way representing the “act of opening”. It is showing a sequence of movement and time, but chopped up, like a stop motion. I have tried to show the “important” sequences that tell the story without being to obvious. Thinking about the shower scene in Hitchcock’s “Psycho”, where you only see the stabs that you need to see to be able to fill out the rest yourself. My first reaction is that it becomes almost scenographic, it tells a story about an everyday movement through a door. It is also as if the door has a memory. It makes me think of “song lines” that the Indigenous Australians use as a map to orient themselves in the Australian landscape. By singing the songs in the right sequence, the people could navigate through the deserts of Australia’s interior. So without ever being there they knew the way from the songs, it was as if they had seen the landscape before they walked there.

The model of the door study is a visualization of the opening, you can see the sequence before you experience it with your body. I have visualized and materialized the passage from one space to another, using the lines of the door in motion.

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6. Bruce Chatwin "Songlines" Documentary
I decide to build one of the models in 1:1. While doing it, I start to move the “parts” further and further away from each other. Placing them with a distance they remind me more of a passage than a door.

Walking through the passage the lines start to blend in to each other and it is not as easy to read the images as still pictures anymore.

In David Hockney’s video “Joiners” he explains the image “Fredda bringing Ann and me a cup of tea” and how he is using his collage method. He takes around 300 snaps of an event in this case; woman walking with her coffee cup. The collage is a fragmented composition of snaps of the event, it is not completely coherent but your eyes fill out the missing parts in the picture. To be able to read the whole image, your eyes travel from fragment to fragment, you have almost looked at the image 300 times before you have seen it all. He also recorded the exact same event with a video camera which gave a completely different affect. In the collage you can look at the whole sequence at once, it is as if time is frozen. In the video you only see the movement at the exact time that it happens. Of course your memory of how she was walking is still in your head but the effect is not the same.

When I look at the video of me walking through a door I experience the same “live” experience as Hockney describes. I am not really registering what is happening, it is a movement that I am so used of doing and the sequence happens so quickly that my eye can’t catch it. But when I start to use the snaps of me opening the door it changes. I can now see the whole sequence at the same time, from closed to open to closed again. By breaking down the movement I am able to see it better. Eadweard Muybridge used photography to study movement. He used stop motion to understand sequences in movement.

7. Hockney, A Joiners, Youtube
Hockney, David “Fredda bringing Ann and me a cup of tea”
He wanted to know if horses always had one hoof in the ground while running, or if they sometimes had all feet up in the air. He created a system to be able to photograph this motion and ended up proving that all feet left the ground at some point. He made it possible to see something that our eyes usually can’t catch.⁸

**Time and movement analysis**

I start to look even closer at the different sequences in the movie, to understand what time the still pictures I created represented. It is no longer a movement with a clear start or endpoint, here the past, present and future all exist at the same time. Just as in Hockney’s collages. Time stopped to appear as linear, they become frozen moments that I could start to move around and rearrange.

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⁸ Eadweard Muybridge, *The horse in motion*
Activating space

Looking at the parts, separating and arranging them, they start to tell more stories than they did when they were all connected. While moving through and around the objects the stories also changed depending on where and how I moved.

I realize in that I can activate space by placing the passage in many different combinations. With activate I mean that I perceive that space gets activated, the space is already there, it is not changing. But my perception of the space that I place my passage in is changing. The doors start to act as a director that choreographs both my movement and the of the space that they activate. I was surprised that even without walls I felt a strong sense of different sized spaces where the doors acted as joiners, bringing space together.

After this exercise i decided to go up in scale. I wanted to try to place them outside, when I did that with the 2,10 meter doors, nothing happened. They where to small to activate space outside. I also wanted to enhance this everyday moment of walking through a door. I changed the color from black to a dark blue, the black became to flat. Working with blue, they started to become more of a shape than a surface.
Scaling up

I continued to use the passage in many different combinations, now in bigger scale placing them both inside and outside. Adapting them to different spaces and patterns of movement, trying distances and angles. Walking through them, and changing again.

The scale that for me seemed huge in an interior, felt much smaller outside. It was interesting to place them between Försäkringskassan and Konstfack, two institutions located next to each other but with so different patterns of movement. I felt that they were both enhancing the invisible division between the institution and the different patterns of movement. They started to create a passage between the two very different institutions - a joint.
In the exhibition I have thought about framing movement, people, but also other peoples work. It was important not to close or block other projects in the exhibition but to use my work as a joiner. Placing them in the big open space they directed a different pattern of movement. Fractions of an entrance also created smaller pockets of space for possible encounters.

For the exhibition I decided to hang them from the ceiling. That worked very well inside, but if I would place them outside I would use a pole climber and cast them into the ground. (See drawings on following pages).
Fasadmodell

Mätas i millimeter

Material:
Ramverk i furu
112x36x300
Björkplywood 9 mm,
infräst 5 mm i ramverket.
Samanfogas med domino 18x8 mm.
Upphängning:
vakjerkonstruktion med vajerlås.

Se ritning 2 för närmare detaljer ang upphängning och sammanfogning.

Fractions of an entrance
Fanny Dorthe
Material:
Ramverk i furu
112*36*300
Björkplywood 9 mm,
infräst 5 mm i
ramverket.
Samanfogas med domino
18*8 mm.
Upphängning:
vajerkonstruktion med
vajerlås.
Material:
Ramverk i furu
112*36*300
Björkplywood 9 mm,
infräst 5 mm i
ramverket.
Sammanfogas med domino
10*8 mm.
Gjuts ner i mark, fästes med metallsko och
gennomgående bult.

Framför sig
Mätes i millimeter

Stålsko, fästes i
dörrben med
genomgående bult och
gjuts ner i betong
under markytan.
Stolpsko
pulverlackas i samma
färg som dörr.
Summary and reflections

Fraction of an entrance is a representation of my perception of the opening of a door, it is not a new door or a door with a new function. The result is in itself a spacial design, with new spacial qualities that enhances experienced separations in space, for example invisible thresholds in public space, divisions that is not physical but just as tangible. They also create different patterns of movement and usage of space, create smaller nooks to pause and gives you a possibility to remain in the moment between two rooms. A space in the threshold. I have used movement to break the door into many small parts that instead of just dividing space starts to blend together and create another way of looking at the door and separation in space.

Inspired by David Hockney I’ve been working with representation and movement, using this as a method to investigating an architectural object - the door. Representations are the starting point when creating architecture. And I believe that the way we use our representations affects how we build interiors. Fractions of an entrance can be read as a drawing that you can experience with your body. A drawing that shows, movement, time and perception, variables that I think are just as important in representation of space as measurements, hatches and angles.

In this thesis I have isolated the door, removed it from it’s walls and surrounding spaces. I have decided not to work with the spaces that it connects. If I would continue this work I would like to investigate just that, the relationship between doors, openings and the surrounding spaces. Expand my focus, but still have the door as a starting point. I would like to look at how doors work together as an ensemble in a building.

It would be interesting to start with drawing the doors when designing space, let the openings decide how the surrounding spaces should look like.

Apart from that I have gotten a lot of knowledge about the door I have also found qualities in it that I never thought about before. For example what a difference it makes if a door opens inwards or outwards. If it is the exterior or the interior that gets folded in. In most cases I prefer it when the interior folds out in the exterior, this creates a softer and more welcoming transition into space.

Realizing how our bodies move when we interact with the door, how completely different it is to walk through a twin door where your body the center of attention, or walk through an electric door where you almost never manage to walk through without feeling a bit uncomfortable, loosing both rhythm and balance. All this matters and should be used in different ways depending on what spacial experience we want to achieve. There is still a lot left to explore and ways to improve the door.

For me as an interior architect it is very relevant to keep investigate, rethink and value architectural objects that we sometimes take for granted. Try to understand both what they do and what they don’t do. To understand what gets lost when we for example starts to remove doors in public space, which is the case in many new interiors today. We build activity based offices where we take away walls to create more open and interactive spaces. When removing walls the doors also gets removed. The door is used for us to be able to walk through walls and without walls we don’t need doors, or? After this investigation I’m starting to question if the door might be an object with so many qualities that it actually makes sense to stand on it’s own. The door is more than a practical devise for keeping out sound and weather. It is a director of movement, an object that frames interiors and one of the few architectural objects that we actually touch with our hands. An escort that accompany us in or out of space.