BACKSIDES / INTERIORS

Tracing a treatment of backsides in domestic interiors

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The matter with backsides

Interiors are often dealing with the notion of “front” and “back”. Physically, with walls facing the occupant and concealing a “behind”, a backside, perhaps an adjacent room. But also, in organization; “the back of the building” meaning the furthest away from the entrance or from the street, the public. There is also a variety of interiors that are backsides themselves. Spaces that, in contrast to fronts or “primary” spaces not are intended to be shown perhaps because they are occupied by functions, or people that for some reason are desired to be hidden. The idea of a backside, though, if it is good or bad, what belongs there and not, has shifted in time. It is truly a cultural issue, defined by social constructions and in some cases established by economy.

Currently, there is a movement going on, especially within entertainment culture, towards an obsession with exposing the private, the ugly, the “backsides” of something, to the public. A wide range of reality tv-shows and behind-the-scenes videos on YouTube, are examples of this ongoing public interest. In a Swedish version of reality-tv, called “dokusåpa”, the reality is more or less directed, for instance by a specific setting or environment for the situation to play out. This makes the backside no longer considered a rational, non-representative but necessary other-side of something, but an image itself that is desired and staged. This is a shift of the idea of the backside.

Architecture can in many ways be a built reflection of ideas, and what has interested me in this project is how these ideas and meanings can be traced in the built matter, by architectural means, such as drawing, modelmaking and full-scale construction.
Introduction

Reconstruction of a backside

One of my previous projects at Konstfack, that I did in the fall 2017, was dealing with the physical backsides of the *Strada Novissima*, an exhibition within the 1980 architecture biennale in Venice. The exhibition was arguing for architecture as a communicative medium, among other architectural issues. A fictive street was set up in the Arsenale, with flat facades built by set technicians along each side of the long venue. A mock-street of coulisses where the constructions, wooden boards and pine studs left bare on the backside, visible to the visitors as they entered the back. The seemingly non-representative, rational backside was the enclosure of another exhibition space. Another interior.

In that project I formulated the concept of “backsides of interiors” - as that what is not designed or planned, but necessary and just as much is part of the interior.

Scale 1:1 model from my project “The Back of Strada Novissima”, 2017
**Method**

**Inverting**
In my studies of existing interiors and existing ways to construct a contemporary apartment, have I used multiple ways of inverting as a method. In that way have I been able to closely consider specific qualities of that part, why it looks like it does and how it is constructed. The method is similar to when one tries to draw another person’s face but upside-down; the pre-understood image of what a general face should look like is kept away and instead the actual shapes as seen by the eye, appear.

**Full scale construction**
I have chosen to apply full scale construction as a method in this project. One of the reasons for that is that when working in real scale with the actual materials and dimensions, requires a consideration of fabrication and construction that informs the process and affects the outcome.

In her practice, American architect Erin Besler has used the 1:1 architectural mock-up as method to investigate disciplinary problems in the gap between drawing and the built matter. One example is the project called The Entire Situation (Erin Besler, Besler and Sons).¹ According to Erin Besler a 1:1 mock-up is “something that can be understood as a representation of something else, a model, but also as something on its own that can work as proof or conviction”.² In my work have I used the full-scale mock-up similarly; it is at the same time a representation of an idea and a test of construction.

²Lecture by Erin Besler at UCLA Architecture and Design. 2014-05-19  
https://www.youtube.com/watch?v=akEh0vOG_ms

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**Notions**

**Backside**
Throughout my work, I have used the notion of backside in the wider sense, but from an interior architectural perspective. As mentioned in the introduction it can be both a physical other-side of something like the construction of a wall or piece of furniture, as well as a whole space or room that is just not meant to be exposed.

**Servant and Served**
Architect Louis Kahn has coined another useful notion to describe the spaces that are backside and front-spaces. He calls them the servant and served. Whereas the servant spaces are the “backsides”, the necessary, but not desired, such as restrooms, staircases, and storage, that support the served spaces. In this report I have used the notions of “servant” and “served” with the same meaning as Louis Kahn.

The Hallwyl House

This is a home for Count and Countess von Hallwyl, that was completed 1895. I choose this as a case study because of its clear separation of spaces for the servant’s spaces – the household activities should not disturb the guests or the owners of the house – from the parlors and reception rooms. It is also interesting because it is built for a bourgeois way of living, which means that the home of the bourgeois class is partly a stage for semi-public, formal events. On the other hand, it is built years before man labor was replaced by technical inventions and the palace was still maintained by a great number of staff. The house was thus occupied at the same time by people of the bourgeois class, and the working class, and the prevalent ideas was that those should be separated from each other. The separation was facilitated by architectural means, and the way the interior is organized.

Villa Snellman

This house is also a private upper-class home, that was completed 1918 and designed by Swedish architect Gunna Asplund for banker Emil Snellman. Compared to the twenty years earlier Hallwyl House, Villa Snellman is not as much designed for a semi-public gaze, nor is the house occupied by a staff in the same sense as the Hallwyl House.

Contemporary apartment

I did also a study of a rental apartment in Årstad (Stockholm), that was just finished this spring (2018) and I got the chance to visit it, just after it was completed and before the tenants moved in. This common rental apartment is just a fraction of the size of the Hallwyl House and much smaller than Villa Snellman, and it is not at all planned to facilitate the separation of people by class, first because the household labor is mainly carried out by the tenants themselves, but also because society has undergone a change; to separate people depending on class would have been taboo.

What is the backside of an interior?

This question has been the starting point in my research and to investigate this, I started with a study of the first floorplan of Hallwyl House from 1893, by architect Isak Gustaf Classon. In the following process have I not focused on the decoration, materials, and details of the actual interior. This is because I saw a connection between what I experienced myself when I visited the house and the shapes of the rooms in plan. In the plan, I observed a disparity between the figures of the reception room and the one of the servant spaces (figure; the distinguishable shape of the outlines of an object, in this case the plan of each room). I redrew the plan and extracted the figures of the rooms to compare the shapes, as objects with no relation to each other. I color-coded servant’s spaces (pink) and parlor and reception rooms (grey). This is done on the plan of the ground floor and of the first floor. See appendix 1-2.

Symmetrical and asymmetrical figures of the rooms in Hallwyl House

What caught my interest was that the reception rooms seemed to have more conscious figures, dealing with unity and most of them having a shape based on symmetry. The shape of servant’s spaces on the other hand appeared to be a geometrical compromise of the figures of the exterior courtyard and the parlor next to it, which results in an asymmetrical shape of the room’s floorplan.
Continuous room

Many of the reception rooms and parlors have got their distinct figures from bays or bulges, bending outwards. Their shape resembling a container filled with pressure that bends outwards, takes place. It seems like the enclosing surface has been shaped to act like a panorama, always facing the rooms occupant, seamlessly. So, is this a specific quality of a "served" space, the opposite of a backside?

To test this, I inverted the rounded corners in plan, so that they bend in towards the center of the room instead of outwards. What happened to the outline of the figures with rounded corners was that sharp corners appear on each side of the curve.

I made the same operations with the figures of the rooms in section; first extracted them and then compared the figures of the servant's spaces and with those of the parlors'. The figures of the parlors in section, shows moldings that appear to smoothen the shift between ceiling and wall. So, similarly to the plan figures, the section figures has rounded corners - on which the same process of inverting was carried out.

More figures and cross section, see appendix 3-4.
Model studies

To study the operations volumetrically I made two section models in plaster, representations of approximately half the room. The mold is made of a wooden box, with a negative volume in solid wood. I made one as represented in the plan and section drawings of Hallwyl House, and one after the intervention where the bulges had been inverted.
Interuptions

The resulting inwards turned bulges remind of an imprint of another body casting its form, in some way a negative shape of an adjacent room. What also happens in the plaster models of the inverted bulges is that kinks, or folds, appear and the space starts to break into smaller fragments. Not physically, of course, but the reading of it. The unity is broken and instead one can read the corner as an object, or part, separated from the wall. As well as the moldings along the meeting of ceiling and wall. The room is still symmetrical, but appears no longer as a sealed box, instead it becomes an assemblage of parts.

So my findings are that in Hallwyl Palace there a clear separation between front and back, both in organization, and in shapes of plan figures and room volumes.
Corner mock-up

The goal was to have one or more full scale models to show at the spring exhibition, so I wanted to start exploring my work in that scale. That is why I choose to build one of the inverted corners of the dining room of Hallwyl House.

The model is a 60 cm high cut out from the corner. Due to material expenses and time constraints, the corner is built in scale 1:2. In the model the original curve of the corner is kept giving shape to the behind support structure. The construction was improvised and done in the quickest possible way. I used standard dimension pine studs (45x45 mm), chip board and 2 mm MDF that I painted with the same color as the interior walls of Konstfack (NCS 0502Y).

In the translation from drawing to construction, from small scale plan figures to large scale 3-dimensional object, sectionality and a detailed treatment of meetings, became absent. But on the other hand, the backside of the corner, the necessary construction, gained a series of details and situations that did not exist in the drawing. How the screws where placed, at what distance the studs are placed, and so on, These are all design decisions. This is the strength and the opportunity of the large scale prototyping. Even though this model of the corner was not developed any further, this was an important experience to learn about my method.

Mock-up of inverted corner, attached to the corner of Traphusgalleriet at Konstfack.
Mock-up, detached.

Isometric drawing, construction

Plan, Dining Room
Villa Snellman

To compare my findings at Hallwyl Palace I made similar operations on the plan of the second floor in Villa Snellman. I redrew the plan and made the same color coding as before, to analyze what spaces could be the “servant” and “served” spaces, to refer to Louis Kahn, equivalent to those at Hallwyl Palace. In the upper floor there are no servants, but there is another type of what Louis Kahn would have called “servant” spaces. And these have been treated in a specific way; the stairs, bathroom and corridor are placed along the north façade, while bedrooms and living room are arranged along the south façade. There has been a clear separation of spaces to spend time in, and spaces to pass through, in the layout of the plan. In the figures of the rooms of Villa Snellman, the symmetry is broken apart by wardrobes and how the windows are placed. Even the living room which is circular in plan, is not perfectly round, but a deformed circle.

There is a division in organization. But there is no clear distinction between the plan figures of the servant and the served rooms, instead all of the rooms appear asymmetrical and ruptured.
**Apartment in Årstadal**

In both Villa Snellman and Hallwyl House, ways in which "backsides" have been treated were visible. But when I repeated the operation of color-coding and comparing the plan figures, it was hard to read any difference in how the two categories had been planned.

Since the plan lacked visible division between the figures in the plan I asked myself whether treatment of the backside is visible in the details and the physical? Luckily enough, I got the chance to visit the actual apartment, as well as getting access to the construction plan and the possibility to ask questions to the staff at the construction site office.

This apartment is an assemblage of different prefabricated parts, from the exterior wall elements to cupboards and wall seals. But what interested me was how these parts that together create the interior, are put together with an attempt to be seamless. Skirtings and wall seals are prefabricated and standardized products to hide the joints between walls, floor and ceiling. So even though the apartment is constituted of different parts and assembled on site, there are standardized products and ways to assemble the parts that aim for a smooth and seamless interior. The function of wall seals is to prevent the backside from being revealed in the gaps between the parts. The backside is still not accepted.

In the apartment, and in the customs of how to build and create domestic interiors today, it is possible to read traces of the bourgeois Hallwyl House – the separation of the backside from the interior.
Inverting the contemporary apartment

To process the drawings and the information I collected about the apartment, I gave myself the task to create a digital 3D model of the apartment (previous page) and then try out various ways to invert with drawing, digital modeling, and physical scale models.

1. Inverted interior wall
Here a standard interior wall has been turned inside out. The construction becomes an enclosing "surface".

2. Inverting / subtracting
This is a cut-out of a niche, where the wall is treated a volume and is inverted by subtracting the cut out from another volume.

3. Inverting / turning inside out
In this exercise the interior is treated as a skin that has a front and a back. I tested to turn it inside out and made models of both the two original cut outs from the digital model I had made, and the inside-out turned version of it. The pieces could be reassembled in different ways, creating new spaces.

Continuation on next page.

1. Cut out fragment of wall and its negative form where it has been subtracted from. 3D-printed PLA, real scale 1:50

Cracks

What had caught my interest the most in the new built apartment was the customs of how to assemble the different prefabricated parts. The wall seals and skirting boards in the apartment are all of standard dimensions both in thickness, height and the radius. I reproduced skirting boards in the dimensions from the apartment (43x12 mm, fillet edge with 3 mm radius) and made a full-scale detail mock-up of a wall corner. But instead of assembling sheets and skirting boards as custom, I inverted the order and duplicated the seals to get a 43 mm wide gap.

Instead of concealing how the parts are coming together it cracks open in the corner and expose the backside. It is a type of crack as details that talk about the backside, the qualities of the standard dimension board and how a wall is put together.
I was intrigued by the idea of using materials and parts of a standard interior wall and putting them together in different ways - namely making "cracks" as interior details.

I used 45x45 mm stud, 12 mm plywood and chipboard, and skirting boards in different standard dimensions. By inverting, reorganizing, and multiplying the parts, I made a number of full scale mock-up details of meetings between two walls and walls and floor. I systematically used different standard dimensions as gaps or profiles that I inverted and milled out from a pine stud for instance.
Full-size construction - structure

To test this in full size, I choose to reproduce a part of the apartment I had studied and apply the cracks onto it where wall seals or putty would have been custom. I choose to reuse the cut-out I had reworked and inverted as a cardboard model. The cut is made where there is a window, an exterior wall and a shaft - three different types of standard walls.

The full-size wall fragment is, just like the smaller tests, made out of standard dimensioned construction material; 95x45mm, 45x45 mm pine studs, 43x10 mm skirting boards and 12 mm plywood.

My aim was to try and not just expose the "back" trough nicely mediation cracks, but also to take care of how the backside, in this case the construction is made, to put it in order. The spacing between the studs systematically follows a standard 60 cm module measurement - based on the standard wall modules and measures of construction material boards. It is then carefully assembled with accurate precision.
Full-size construction - details

When the construction was done I made several tests of different details and meetings in the wood workshop. I ended up with a version of the first test with the inverted skirting boards because its familiarity and trace of something domestic and ordinary.
Result - The wall element
Result - The wall element
Result - The corner detail mock-ups
Reflection/summary

A body of work

I started out this project with an interest in the subject “backside of interiors”, which is quite wide. The way I have investigated is also wide, spanning over different scales and historical moments, different interpretations and meanings of the word “backside”. This is perhaps why it has been a struggle to try and tell the process as one story. I would consider the project as creating a body of work around a specific subject, rather than a process heading for a final design proposal. The result is my research, which is physical, and in that case a kind of “product”.

The subject and the methods I have used, have brought this project to an unexpected destination; starting with the “backsides of interiors” as a subject and ending with closely considering the millimeter spacing between different prefabricated elements of a wall. The connection might not be too obvious, but it talks about the span of this research and the doors it has opened.

Building research

Before the beginning of this project, I had an interest in the built, the physical interior that surrounds us, and a belief that this is medium specific. It differs from drawing and scale models, something that I still think is often ignored in the work of planning and designing interiors.

In this project, especially in the last art of it, I have had the opportunity try out and study the built - an actual contemporary apartment – with its own medium: building. When doing that, powers without author that govern the way interiors are built, have become visible. Powers that are not just economics and function but also past times ideas that have become a preset aesthetic and a way of building.

I think the use of full scale prototyping as a research of the built interior (especially during a time when interiors are much an assemblage of industrially prefabricated products) is a precise method to understand, question and challenge the praxis of interior fabrication, and the parts of it that are not designed but still come to be. Why are interior hollow walls built to look like they are solid, concealing that they are made of studs and sheet boards? I would be interested in carrying on this method and continue the research of the fabrication of interiors, through fabrication of interiors.
Reflection/summary

Exhibition

The challenge of the Konstfack Spring Exhibition is to speak to broad audience amongst 174 others works. This project and its process contains many parts, that would need to be carefully explained in words to become clear. Since a large group show is not a format suitable for the visitors to immerse themselves into my project, I choose to instead display it as a few hints or clues that together with the work label could give a quick impression of what the project concerns.

The first one sees when entering the room is the full-size wall element, that is placed on the floor to allow the visitors to walk around and view it from behind. Next to it is the work label and on the opposite wall, are two photos of interiors; one showing the rental apartment in Årstadal, and one of the Grand Hall at Hallwyl House. Below were 11 experiments of how to assemble the parts of a wall, differently.

I think my decision to display my project as hints instead of trying to edit all parts of my research for the exhibition, was the right. But, the result of that was also that it allowed for a variation of readings and that some people just past by without a closer look. Even an educated viewer from within the field read the project as concerning decoration, from what was exhibited. What the project also would have gained from is to show that the wall element derives from the contemporary apartment, and a study of the actual, the built and the praxis. Without it, in the context of the exhibition of works from different fields, it can be taken for a sculpture, also because is it placed as an object in the space.

My hope with the exhibition was to be able make visitors reflect upon why the ‘ordinary’ interiors that are built today look like they do. I am not sure it did without me talking to them, but for those visitors I spoke to, the elements exhibited where a great help to start a discussion.
List of references

Besler, Erin, *The entire situation*  

https://www.youtube.com/watch?v=akEh0vOG_ms


Kahn, Louis and Twombly, Robert (editor), *Louis Kahn - Essential Texts*,  
WW Norton Co, 2003

Träguiden  
Appendix 2 - figures of rooms - plan
Hallwyl House House, first floor
Appendix 3 - figures of rooms - cross section
Hallwyl House House
Appendix 4 - isometric drawing of wall element