

Levert materiale
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Posters



Utedoen

Binder 1

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Program

En egen bygning med ett rom hvor du kan gå på do.

(Inkludert en utendørs vask for håndvask, en sti til utedoen, og et system for oppbevaring og kompostering av menneskelig avfall.)

Et sirkulært system hvor ressurser spares, tas vare på, lages og brukes: Materialene i bygget redde fra råte. Naturressursene/det biologiske mangfoldet på stedet/hagen ivaretas. Det som en gang var avfall gjøres til gjødsel. Kompost brukes til å lage flere ressurser.

Program

A separate building with one room where you can go to the toilet.

(Including an outdoor sink for hand washing, a path to the utedo, and a system for storing and composting human waste.)

A circular system where resources are saved, cared for, made and used: The materials in the building are saved from rotting/decay. The natural resources/the biological diversity of the site/garden is cared for. What was once waste is made into fertilizer. The resource of compost/humanure is used to make more resources.

Abstract

When the sewage pipes in Kine's house froze the winter of 2021 a need for another temporary (or permanent) solution for toilet visits occurred. The municipality has sent out an order to upgrade the current sewage system on the plot because it's too old. These facts form the backdrop and starting point of this project.

We wanted to explore and learn by building during our diploma. How are the things we draw as architects actually built? Can building something real, in 1:1 size, teach us something drawing does not?

The need for an alternative toilet led us in the direction of the outhouse, here after referred to by the Norwegian word, *utedo*. An utedo seemed like a manageable size for a building-project for two architecture-students with no real building experience, but with a practical side and a house full of tools. The utedo is built during the fall of 2022 at Holtberget in Nordre Frogn, a 30-minute drive from Oslo. Holtberget is the name of the Homestead where Kine now lives.

The utedo at Holtberget is a small building with an area of approximately 2 square meters. It is placed in a sloping terrain with a small creek below and a hillside and forest above. It is a 30-meter walk from the main house, going north, and a few meters down (west) towards the creek. The utedo has a shed roof opening up towards the creek below and the fields in front of it. The floor of the structure is elevated from the terrain with columns placed on pin-foundations, the pins are drilled and cast into the bedrock. The building has three large windows and hatches that can open above them, one closed wall with two small doors that open towards the path, two levels of flooring where the upper level continues out into the terrain, a continuous "toilet-bench" with two seats and room for buckets below, and a spot for handwashing underneath the protruding roof outside.

To be able to build something within a tight student budget and with a curiosity of what can become of what others have discarded, the entire utedo is built with re-used and reclaimed materials. Some things were already on site from previous building projects, some things were found via *finn.no*, but for the most part we could just go "shopping" at the neighbor's property where quite a lot of stuff has accumulated over the years. The only things bought were screws, pins for the columns and spare parts for tools. The structures and colors of used materials gave the utedo an instant feel of belonging although a completely new structure in the environment.

With the Utedo we wanted to test what happens when you don't draw or plan a project in advance. The materials and the state they were in set boundaries for how we could build. For instance, some elements are oversized, considering the structural strength of materials that have been lying outside for a long time. The tangible and practical exploration and interaction with site and materials helped us identify their potential. A method of trial and error, and intuitive testing in 1:1 was in some ways a slow process. We changed our minds a lot, but the method also made us feel more in control of what kind of room we would end up with and it allowed for specific adaptations along the way. For example when we saw the impact that a low and closed platform had on the terrain, we changed direction and went for a building raised on columns. As we prepared the site we uncovered the shape of the bedrock-shelf and were fascinated by how it collected water and that it mimicked the big river below. By using an elephant grate for parts of the floor, we were able to highlight and see the rock below. It also makes it possible to see how the water gathers in a pool underneath the building on rainy days. When the pool fills up the water travels on down into the creek. The grate continues out of the building and is adapted to the shape of the rock outside. This is done to make a safe entrance to the building and to get the dirt off your shoes before reaching the wooden floor one level down.

The themes of the toilet, the room it sits in and the infrastructure it's connected to have also been explored throughout the semester and the research done has raised a lot of questions. How does the flushing toilet affect how

we relate to our own "waste"? How do visits to the toilet impact our habits and routines and what happens when we take the room of the toilet out of the house? How does the fact that most of us are reliantly connected to sewage infrastructure affect our environment? How have humans "gone" throughout history? What are the systems, rules and regulations we are obliged to follow?

"Throughout history we have moved our toilets from the woods using moss or leaves to wipe our butts, to the inside of our homes, in a separate room where soft paper or even a built-in spray of water can clean your ass. In modern times our regular visits to the toilet have become a non-topic. The shit on the ground was something you had to deal with, the waste in the porcelain toilet disappears with the click of a button and only a lingering smell can reveal the event."

The quote above is taken from our pre-diploma book where we also asked ourselves the following questions.

*Is the Utedo relevant to consider for a society in 2022?
How do we build it? What does it include?*

The question of the relevance of the utedo in a modern society stems from an environmental concern, and an interest in how we are affected when having to leave the house to use the toilet. We settled on these topics the spring of 2022 when a severe drought in Oslo made the environmental theme seem even more relevant. Water supplies were running low and citizens were advised to keep their showers short and to press the smaller button when flushing the toilet. More extreme weather, in terms of

The average toilet uses 6 liters of water for one flush, some use more, and the utedo uses zero.

The municipality of Oslo has approximately 700 000 inhabitants, with a daily average of 6 visits to the bathroom for all of them the result is 25 200 000 liters of (drinking) water being flushed down every day.

drought, but also flash floods flooding our sewage systems, are events we need to deal with in the future.

For anyone familiar with a traditional utedo, where everything winds up in a pit in the ground, you know that the immediate surroundings make for super fertile grounds where weeds and bushes thrive. The key problems of the flushing toilet and its connected infrastructure is that our “waste” is mixed with a whole lot of drinking water and that nutrients in our feces are displaced and end up in our waters instead of back onto land where it came from. Through research into the world of compost we’ve learnt that human feces can be composted like any other organic/ biological matter and can even turn into great manure for agriculture. The composting process will render bacteria and toxins harmless given enough time and the correct conditions.

The topics of sewage infrastructure, toilet history, laws and regulations and compost and humanure are further explored in essays in Binder 2.

Winter 2021, Kine

“Flushing the toilet, taking a shower, doing laundry, starting the dishwasher, these were all actions that could be done by the click of a button or by turning a knob in a seamless web of everyday routines. When the water froze, all of these actions became much more comprehensive, and I realized how much water I normally use and how little I have to deal with my own “waste”. I started thinking about how “easy” my everyday life really is. Throughout the day I

frequently had to step outside to empty a bucket of water. I often stopped to look at the stars or the moon, or to try to figure out which animal made that sound. When the weather was cold, I appreciated the possibility to go back into the warm house. I became aware of how much of my day I spend inside and how disconnected I am from nature. I started dreaming of an utedo and how it could affect my habits and routines.”

How does architecture affect our everyday routines? How can architecture inspire or force us to change our habits? Can unexpected events serve as an opportunity to change habits, routines and architecture?

Besides the obvious function of the utedo – to go to the toilet – we wanted the building to add something more to everyday routines. By removing the toilet and its room from the house, the whole ritual of going outside and walking the path to the utedo and back becomes an experience. During the past century more and more actions and aspects of our lives have moved from outside, to inside our homes and other buildings. We live in houses, apartments and condominiums, go to work at an office, buy all the things we need online while sitting at home or in shopping malls and subsequently spend the majority of our time inside. The outdoors is for most people something they travel through on their way to work/school and possibly spend time in on weekends. The utedo is built with a confidence in the belief that going outside and spending a little time there throughout the day is beneficial for the mind and body. Having spent quite a lot of time outside this semester, gardening, digging, drilling and building we

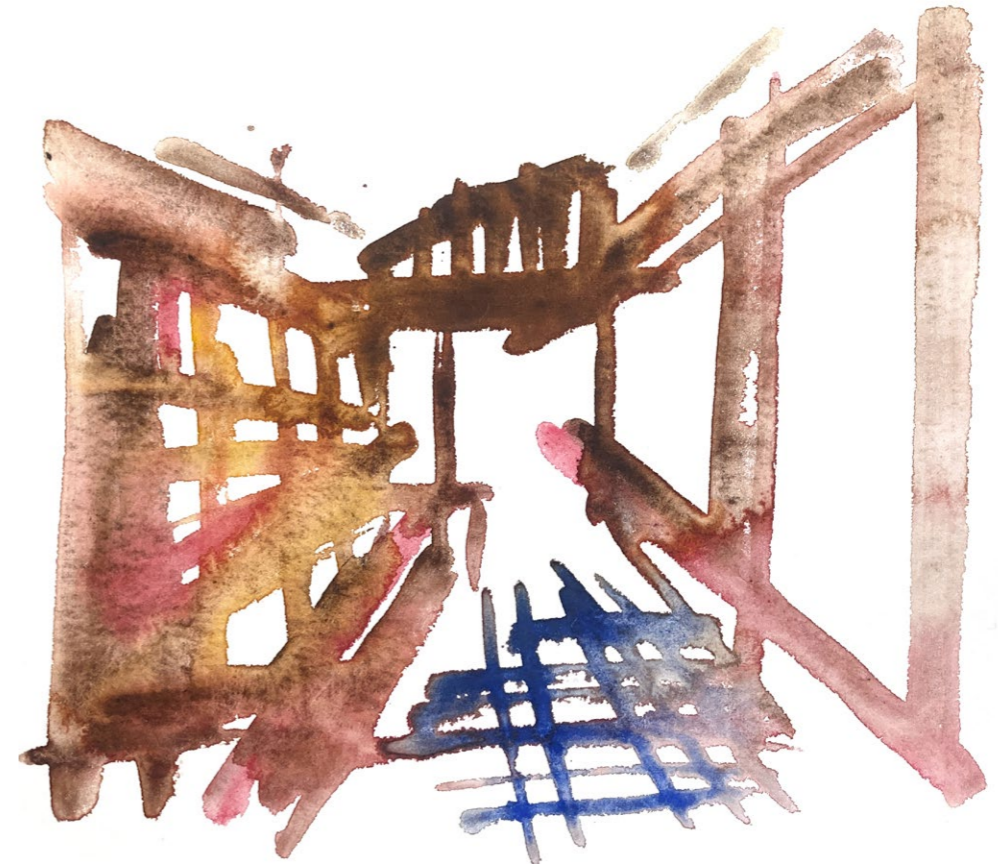
have ourselves felt the effect on our bodies. Getting up, moving around, going outside and using the body jolts the mind into action.

To be responsible for, and to participate in the entire process of a build, although small, has been a valuable lesson that we are sure will serve as inspiration for future work. Nothing would have happened on site and with the build unless we did it, and being pushed into all the different roles of a building process served as a source of inspiration and a generator for a creative process. For instance, figuring out when digging that the very spot where we wanted to place our utedo, a building for relieving the body of what most people consider waste, had previously been used as a dumping ground. Another aspect of the project and the chosen themes has been to find a path we want to continue on as architects. It has been important for us to consider and care for all things impacted by our building and its intended use. To consider a bigger picture than just the building and its immediate surroundings. The use of available and existing resources and materials have been important for implementation, but also for generating ideas on shape, size, joints and details. All options are on the table when using new materials and having all options available can sometimes be more limiting than freeing.

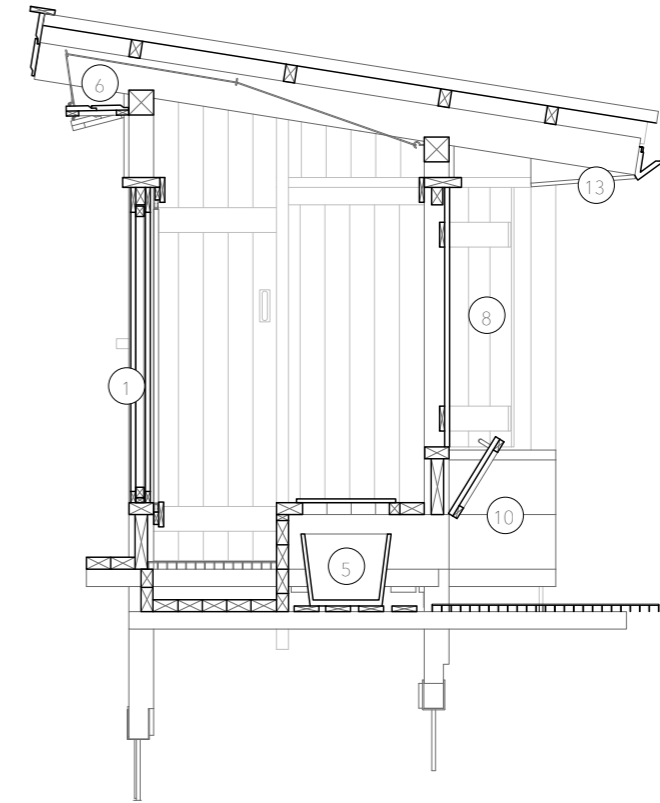
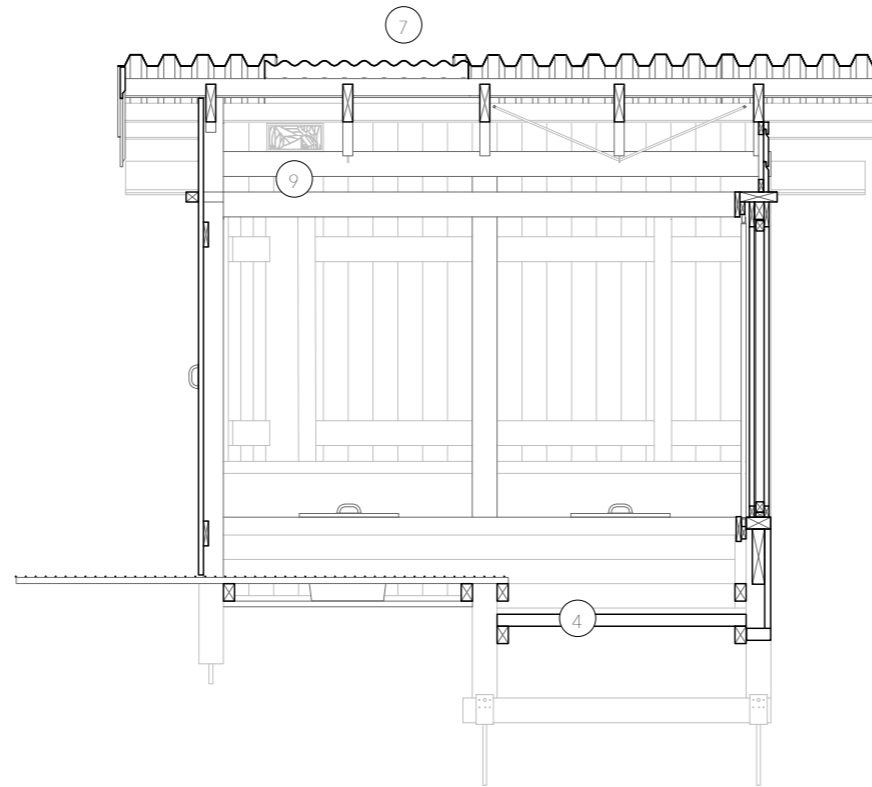
The little shed with a heart-shaped hole in the door is the image most of us connect with the word utedo. It is hated by some, loved by others as an important part of rural cabin life and cultural history. The building and the word bring up a variety of associations in us, depending on previous

encounters. Although smell, flies and spiderwebs might be common associations, so are the more positive ties to cabins and vacations and a simpler and less stressful life where we make do with less. We acknowledge our starting point as more on the romantic side when it comes to the utedo. And we are aware of the privilege we have of being able to choose the utedo in a country where several other options exist.

The simplicity of the utedo serves as a comprehensible entryway to more complex topics. The initial goal of this project was to build something and to learn from it. Throughout the semester we've understood that the topic of the toilet and the utedo is a universal one. And that it connects to cultural, economic, social, environmental and political spheres. Our project does not offer a perfect solution, not for a perfect sewage-system and not for the utedo. For us it has been a tool for learning and a generator of discussions. Discussions connected to the specific topics of sewage and human waste, but also on how we learn, how we want to live our lives and who we want to be as architects.

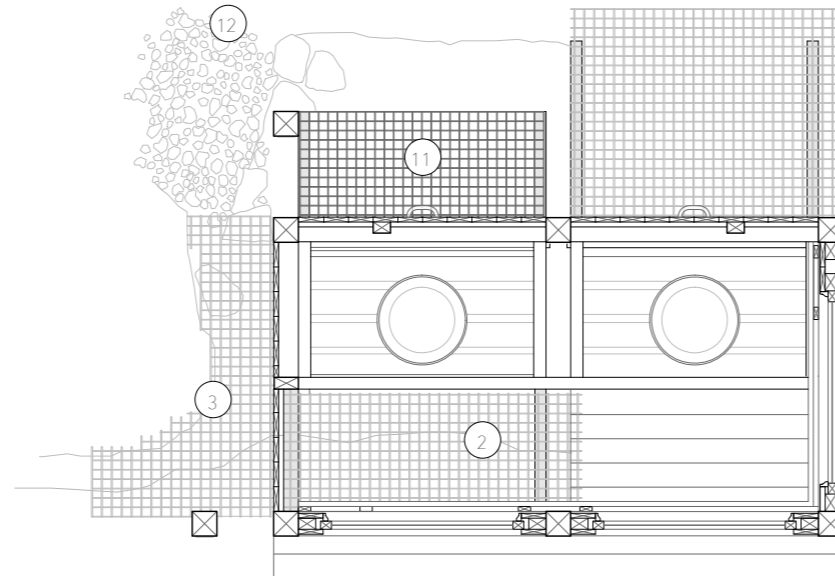


Utedoen snitt
Utedoen sections



- 1 Vinduer i sittehøyde
- 2 Gulvrist som viser fjell under
- 3 Gulvrist fortsetter ut
- 4 Tregulv ett nivå ned
- 5 Do-bøtte
- 6 Luke som åpnes med snor
- 7 Translusent glassfiberplate
- 8 Liten dør
- 9 Glassmaleri
- 10 Luke for bøtte
- 11 Vaskestasjon
- 12 Stein fra rydding av tomt
- 13 Takrenne til vaskestasjon

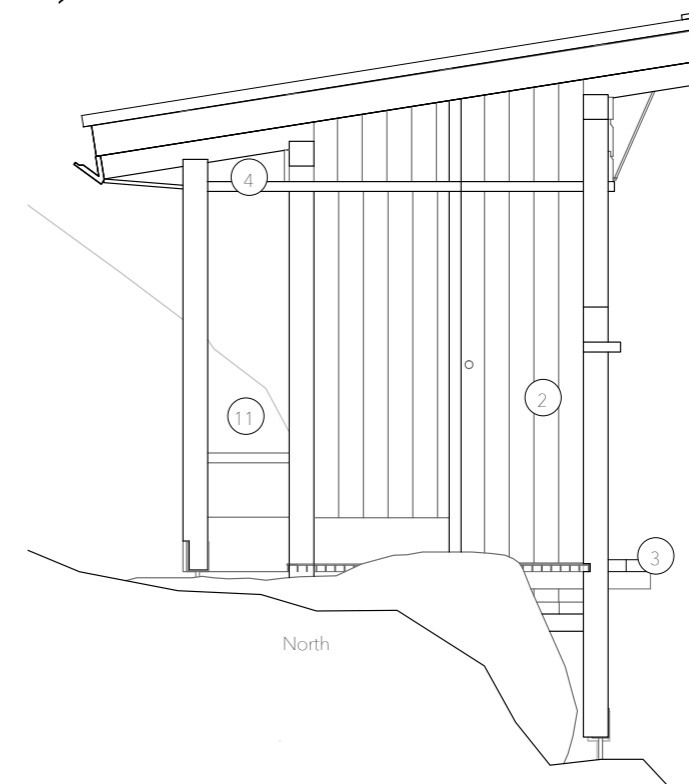
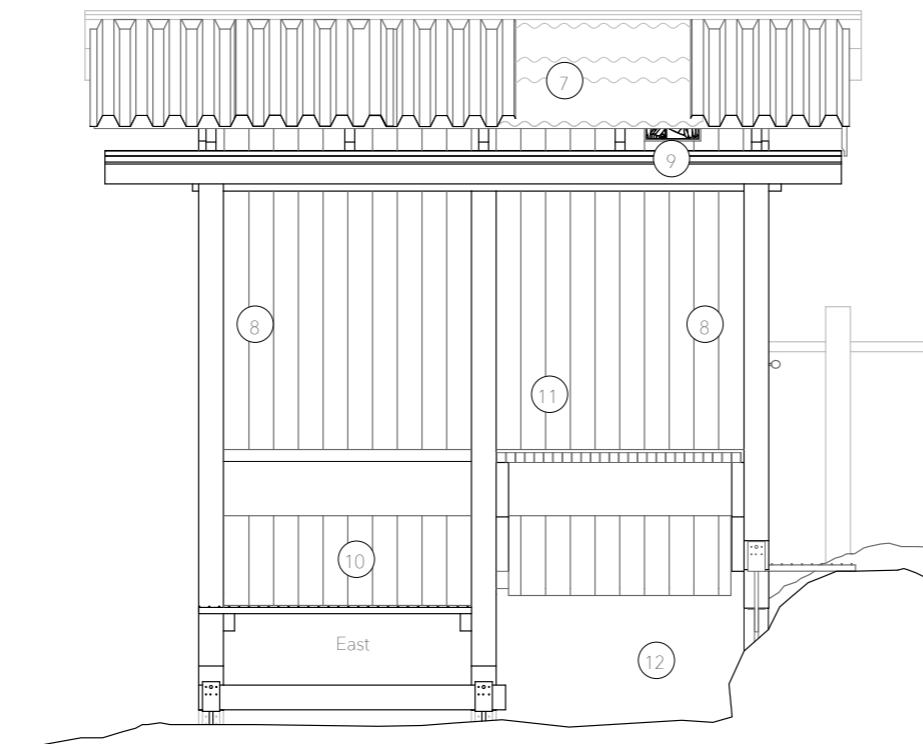
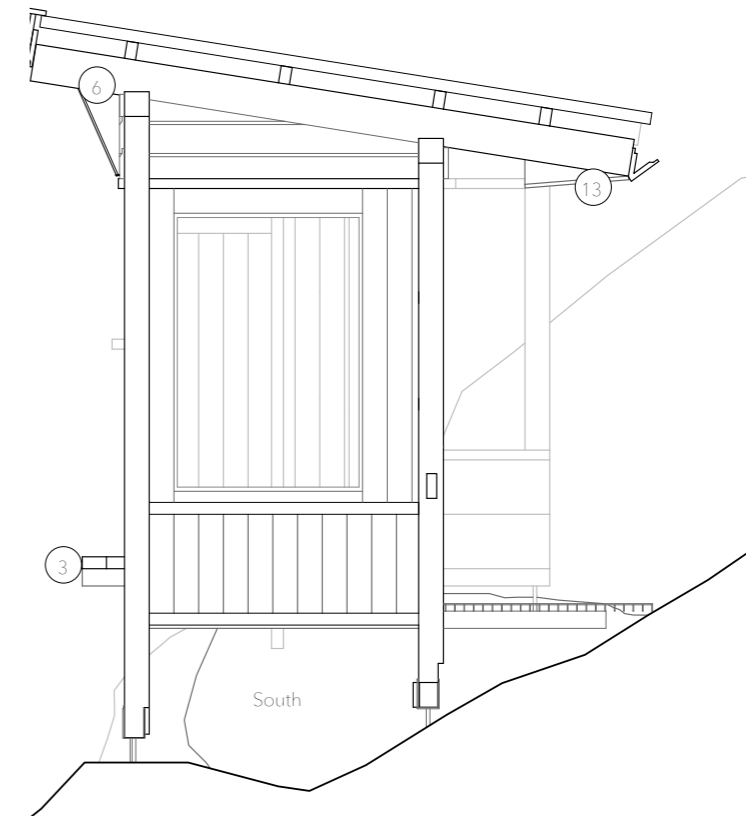
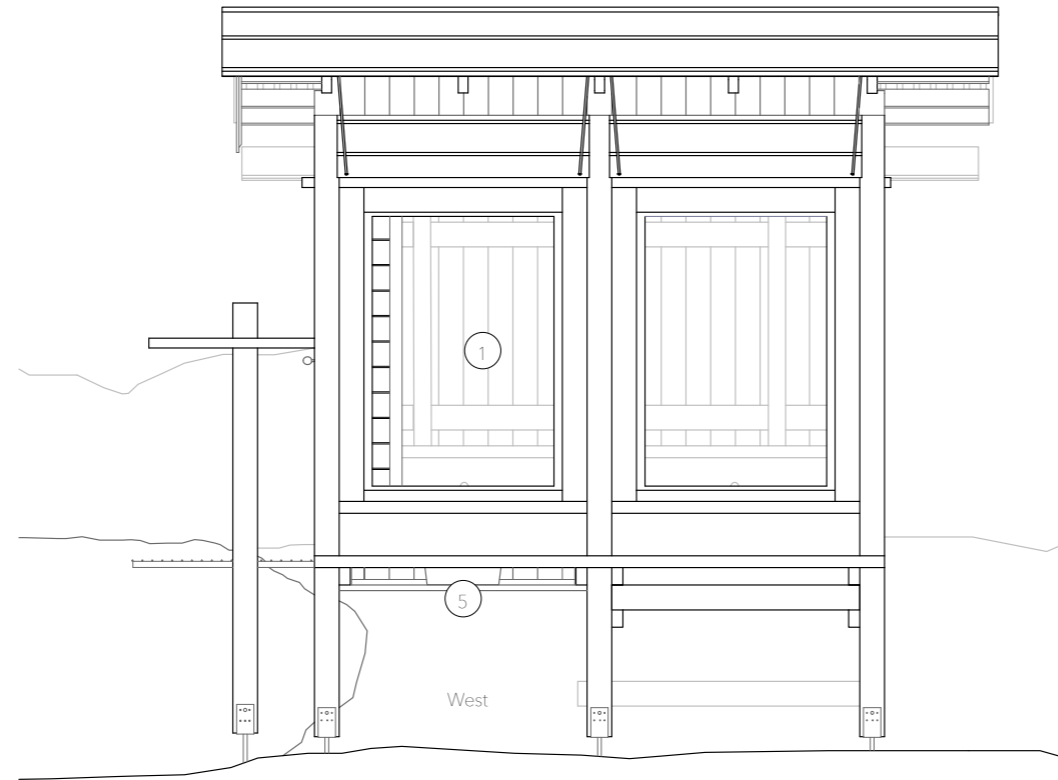
- 1 Windows at seat height
- 2 Grate-floor showing the ground below
- 3 Floor grate continues outside
- 4 Wooden floor one level down
- 5 Toilet bucket
- 6 Hatch that opens with a cord
- 7 Translucent fiberglass
- 8 Small door
- 9 Stained glass
- 10 Hatch for access to bucket
- 11 Washing station
- 12 Stone from clearing the site
- 13 Gutter for washing station



Utedoen fasader
 Utedoen facades

- 1 Vinduer i sittehøyde
- 2 Inngang
- 3 Ståplass for vedlikehold etc.
- 4 Hylle ute/inne
- 5 Do-bøtte
- 6 Luke som åpnes med snor
- 7 Translusent glassfiberplate
- 8 Hemmelig dører
- 9 Glassmaleri
- 10 Luke for bøtte
- 11 Vaskestasjon
- 12 Gjennomsyn
- 13 Takrenne til vaskestasjon

- 1 Windows at seat height
- 2 Entrance
- 3 Shelf for maintance etc.
- 4 Shelf outside/inside
- 5 Toilet bucket
- 6 Hatch that opens with a cord
- 7 Translucent fiberglass
- 8 Secret doors
- 9 Stained glass
- 10 Hatch for bucket
- 11 Washing station
- 12 Open structure
- 13 Gutter for washing station





Situasjonsplan
Site plan

- 1 Utedoen
- 2 Tørkestativet
- 3 Huset
- 4 Jorder
- 5 Do-kompost
- 6 Matavfall
- 7 Havsjødalsbekken
- 8 Eple
- 9 Pære
- 10 Flekk for dyrking
- 11 Bringebær
- 12 Liljekonval
- 13 Einer
- 14 Sisselrot
- 15 Natt og dag
- 16 Furu
- 17 Bjørk
- 18 Ask
- 19 Solbær

- 1 The outhouse
- 2 The drying rack
- 3 The house
- 4 Fields
- 5 Compost
- 6 Food waste
- 7 Havsjødalsbekken
- 8 Apple-tree
- 9 Pear-tree
- 10 Spot for cultivation
- 11 Raspberries
- 12 Lily of the valley
- 13 Juniper
- 14 Polypod
- 15 Night and day
- 16 Pine
- 17 Birch
- 18 Ash
- 19 Blackcurrants



Levert materiale

<i>Utedo 1:1</i>	<i>Dagbok</i>	<i>Brukermanual</i>
Fundament	150 Notater	
Vinduer	324 Fotografier	<i>Videoklipp</i>
Konstruksjon	98 Akvareller	34 fra sov
Tak	74 Håndskisser	32 fra kjøkk
Luker		21 prosess
Gulv	<i>Prosjektbok</i>	23 fauna
Dobenk	19 Tekster	10 sesong
Beholdere	43 Fotografier	
Vaskestasjon	34 Akvareller	<i>Tegningsmateriell</i>
	23 Håndskisser	Plan
<i>Tomt</i>	23 Digitale tegninger	Snitt
Rydding	9 Lister	Oppriss
Sti	2 Arbeidsplaner	Situasjonssnitt
Klargjøring	5 Sitater	Situasjonsplan
Kompost		Kart
Materialer	<i>Konstruksjonsprosess</i>	Artskart
	Fundament	Bergartskart
<i>Essays</i>	Rammer	
Sewage systems	Gulv	
On compost and	Tak	
Humanure	Kledning	
From squatting to	Luker	
sitting	Beholdere	
Rules and	Vinduer	
regulations	Skjermer	
A trip to Åros	Vask	
	Takrenne	

Delivered material

<i>Utedo 1:1</i>	<i>Diary</i>	<i>User manual</i>
Foundations	150 Notes	
Windows	324 Photos	<i>Video</i>
Construction	98 Water colors	34 from bedroom
Roof	74 Hand sketches	32 from kitchen
Hatches		21 process
Floor	<i>Project book</i>	23 fauna
Toilet-bench	19 Texts	10 season
Containers	43 Photos	
Handwash	34 Water colors	<i>Drawings</i>
	23 Hand sketches	Plan
<i>Site</i>	23 Digital drawings	Section
Cleaning	9 Lists	Elevation
Path	2 Work plans	Situation - section
Preparation	5 quotes	Situation - plan
Compost		Map
Materials	<i>Construction - process</i>	Bedrock-map
	Foundation	
<i>Essays</i>	Frames	
Sewage systems	Floor	
On compost and	Roof	
Humanure	Cladding	
From squatting to	Hatches	
sitting	Containers	
Rules and	Windows	
regulations	Screens	
A trip to Åros	Sink	
	Gutter	