

# Sulisjælbmá

*A TRANSFORMATION OF THE REMNANTS  
OF A MINING SOCIETY*

CENSOR BOOKLET

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## Intro

The theme of my diploma is reuse of abandoned mining facilities. In my project I propose the transformation of Knuseriet, a remaining structure from the mining industry in Sulitjelma.

My approach to this project will be to work with the existing structure in a way where it will be appreciated for what it is. This strategy can be justified both by the costs to remove such large concrete structures, while at the same time deleting a part of their local history.

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## Sulitjelma

*and its mining past*

Sulitjelma is situated in a lush valley in Fauske commune. Easily accessible due to its proximity to Bodø, where air, train and waterborne traffic make the rest of the world feel close. But the journey hasn't always been this simple.

The first Norwegian family settled in 1848, and ten years later the first discovery of copper was done. Without the tunnels that later opened the area to the outside world, the area was difficult to access and the mining operation was delayed until 1891. The business grew rapidly, and after the turn of the century it was Norway's second largest industrial company, with 1750 employees.

The population in Sulitjelma had grown from 45 to almost 3000 from 1885 to 1910. Such a huge increase in the population caused a huge housing shortage. There were people living in the loft, in the basement, on the brackets, in the workshop and in the machine house.



## The new industry

*- the potential for tourism*

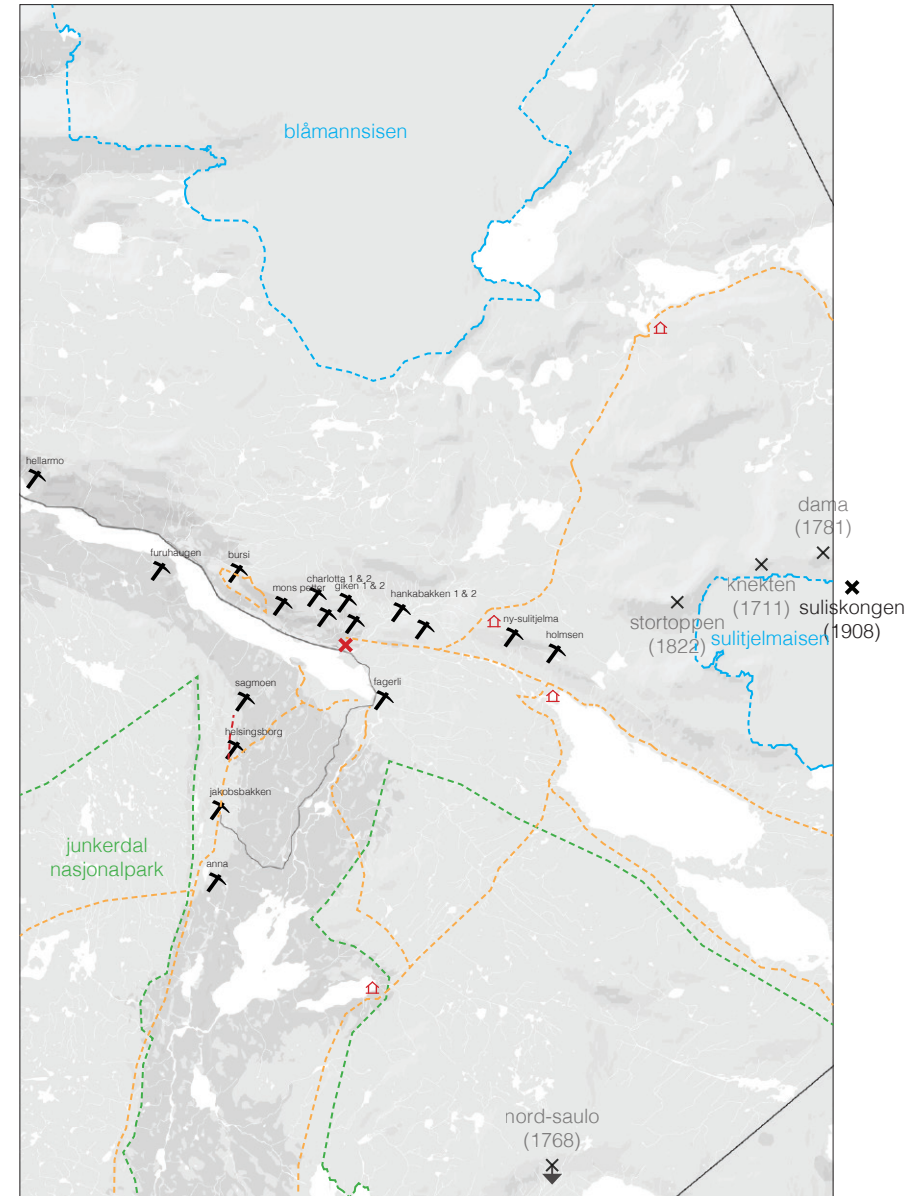
After the mining operation was closed, the locals have been waiting for a new industry that can generate jobs in Sulitjelma. From the very beginning, mountain tourism has been considered as one of the possible solutions, but 27 years later they are still waiting for things to happen.

Sulitjelma has great potential with its combination of mountain tourism and industrial heritage. With a variety of different eras of the mining industry being represented, one can visit numerous locations of unique industrial heritage.

### Approach

This combination of mountain tourism with industrial heritage makes Sulitjelma unique, and it is inside this reality I want to transform Knuseriet into a hostel/ vandrerhjem for travelers who will go hiking in the mountains or go sightseeing in the multiple sites of mining heritage.

The location as the southern starting point of the Arctic Trail is a huge unfulfilled potential, and it is in this situation I want to design the first phase of transforming Sulitjelma into a site for mountain and mining tourism.





## The situation

### *sandnes industrial area*

Sandnes industrial area was the last development in the 1960s in a effort to effectivise. After the operation was closed in 1991, the building lot has been unused. As the buildings are good examples of the periods practice of building industrial buildings, I consider Sandnes one of the areas to visit on your journey through Sulitjelmas industrial heritage. Among the buildings still standing today is the worlds first electrical copper smelter, part of the once biggest wooden structure in Northern Europe (the old flotation) and Sulitjelma train station.

### Approach

In my diploma I look at the restoration of Knuseriet into a hostel as the starting point for a development of Sandnes as a whole. With the tourism industry growing, industry can once again return to the industrial area. The visitor mine who was shut down last year due to low visitor numbers, will be the first to reopen.

Being connected with Siloen and Flotasjonen through conveyor belts, this is a natural next phase of transformation of the area.



## The structure *and its inherent qualities*

Knuseriet is built up by a 150 mm thick layer of poured concrete, with a 100 mm layer of wood wool cement plates (faststøpt). The building is constructed to house large machines that crushed the stones to finer masses. These machines were removed at the closure, and what is left is big rooms out of scale for human proportions.

### Approach

I want to preserve the industrial character of the building, while at the same time creating spatial feelings related to the mining past.



## The program

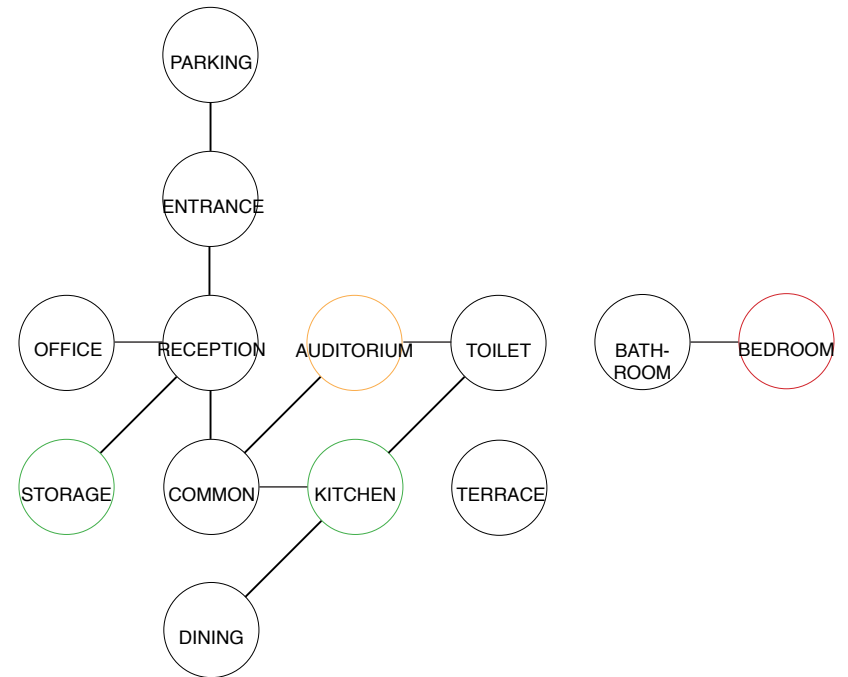
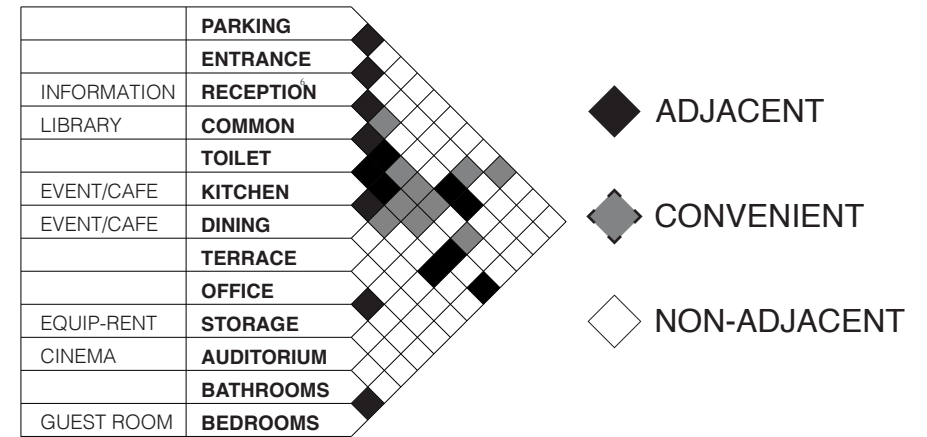
*sulisjælbmá vandrerrhjem*

The program is intended as a destination for overnight stays in Sulitjelma, before traveling on a mountain trip, or embarking on the arctic trail. It can also be used as a base for trips and excursion in the area.

### Approach

I want the social programs to double as a social arena for the local community. The auditorium can turn into the local cinema once a week. The dining hall can turn into a café, pop-up restaurant or a place to host bigger events like weddings and such (up to 200 people). The bedrooms can be an extension of your guesthouse possibilities.

By doing this the local population can finally enter the empty building lying like a wall in their neighbourhood.





## Materiality and reuse

Through my project I work with reuse of materials. Either found in the industrial area, or as I myself demolish to reuse the building for the hostel. By doing this I preserve a part of the local history, while at the same time adding a new layer to it, with the introduction of a selection of new materials.

### Concrete

The concrete I remove in the building has either been cut to pieces I reuse as elements in the hostel, or crushed and reused as gabions. In the main room there is also two new elements added in concrete. The auditorium/cinema seats and screen. The latter is thought as a translucent concrete mix, as an element that can be used for effects on the outdoor / indoor stage.

### Railroad

On the industrial there is a pile of the old railroad track I reuse as the main structural element in the main room. They are bolted together in pairs and attached to the concrete wall.

### Added materials

Plywood has the same fine surface as solid wood, at the same time as it has stratified edges. The even layering of dark and light gives a crisp, linear detail and reminds the guest that it's both natural and industrially man-made.





## Concept

### *a hierarchy of light and structure*

I want to preserve the existing industrial mood of the building, while trying to draw associations to the mining past. Gravity is one of the concepts I have worked with, as if the room was caving in. It is also reflected in the hierarchy of columns in the main room, where the structure gets thinner the closer to the top of the room you come, where there is finally a rope that keeps you up.

This transition from basement to ceiling is also linked to the rooms mood change seasonally and with solar conditions. The later in the year, the lower the sun angle, and the sun hits higher inside the main room. Therefore, the guests draw higher up in the main room if they want light, while being pulled down into the cave if they seek heat.

This draw between getting out of the daylight mines and getting to the bottom of the heat also happens daily at twilight



## The layout

You arrive<sup>1</sup> at the hostel by entering the northern conveyor belt, where you find the reception<sup>2</sup> at the top.

### Main room

The main room is a large open room without shielding walls, with 6 different levels. It can be categorized as a multipurpose space. The large staircase<sup>3</sup> that extends from the 2nd to the 4th floor serves as the seats for the cinema and stage<sup>4</sup>. On the fourth floor there is a bookshelf that is Sulitjelma's new library. In the bottom of the room you will find the very essence of the room - the firepit<sup>5</sup>, which is the center of the big room on cold evenings.

### The sleeping units

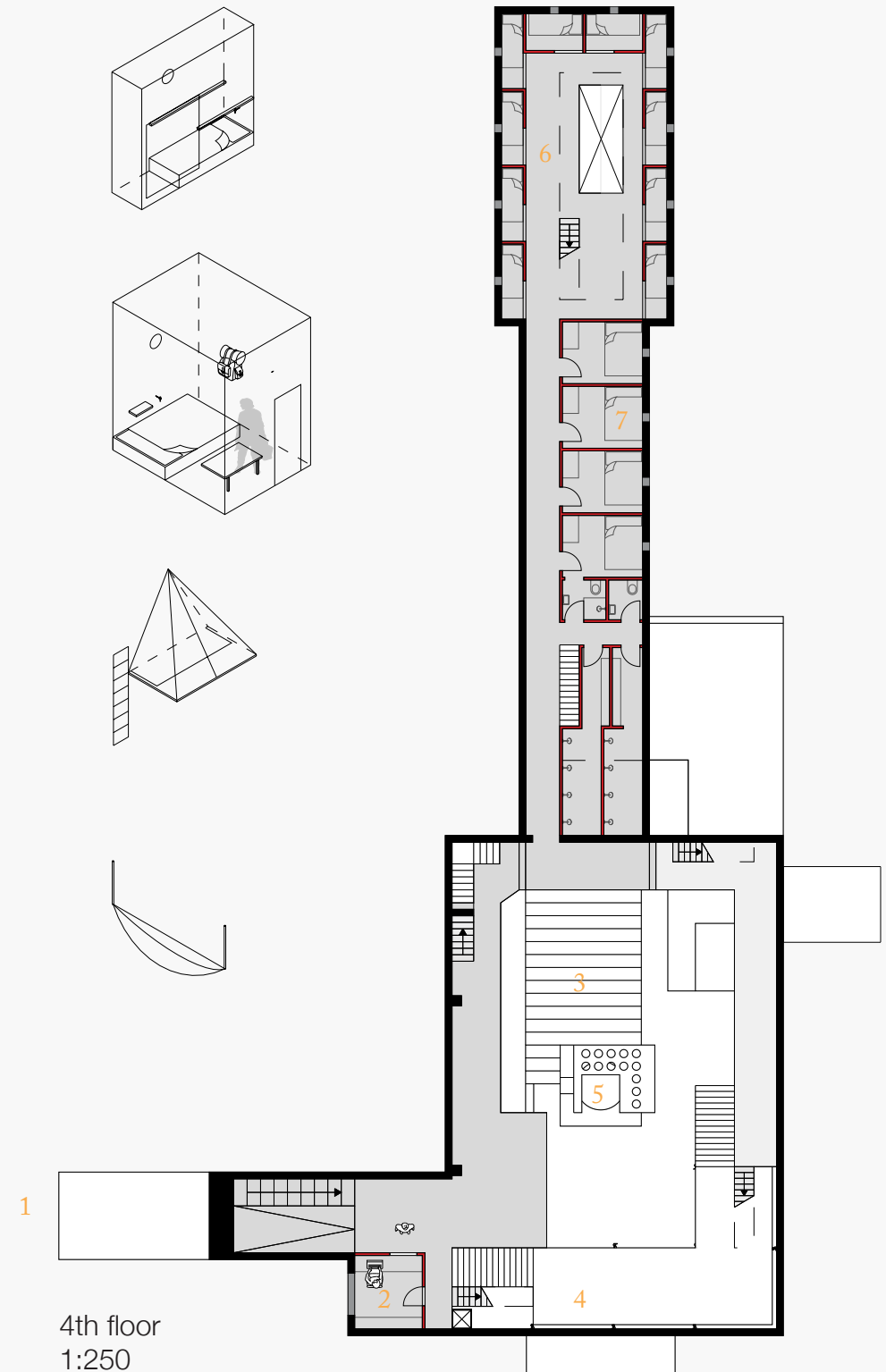
In the eastern volume there is 40 single bed units<sup>6</sup>. In the corridor leading to the main volume there is 14 double bed units<sup>7</sup>. In the main room there is the option to sleep in a cliff cabana or a hammock.

### Wet core

In the wet core of the building there is a total of 10 bathrooms, showerrooms, a sauna and the two kitchens. One for personal use for the guests on the second floor, and one for breakfast preparation and arrangements in the basement.

### The basement

the basement is the only fully insulated and heated room in the building. This is a dining hall for the guests, and can host events with up to 200 guests.







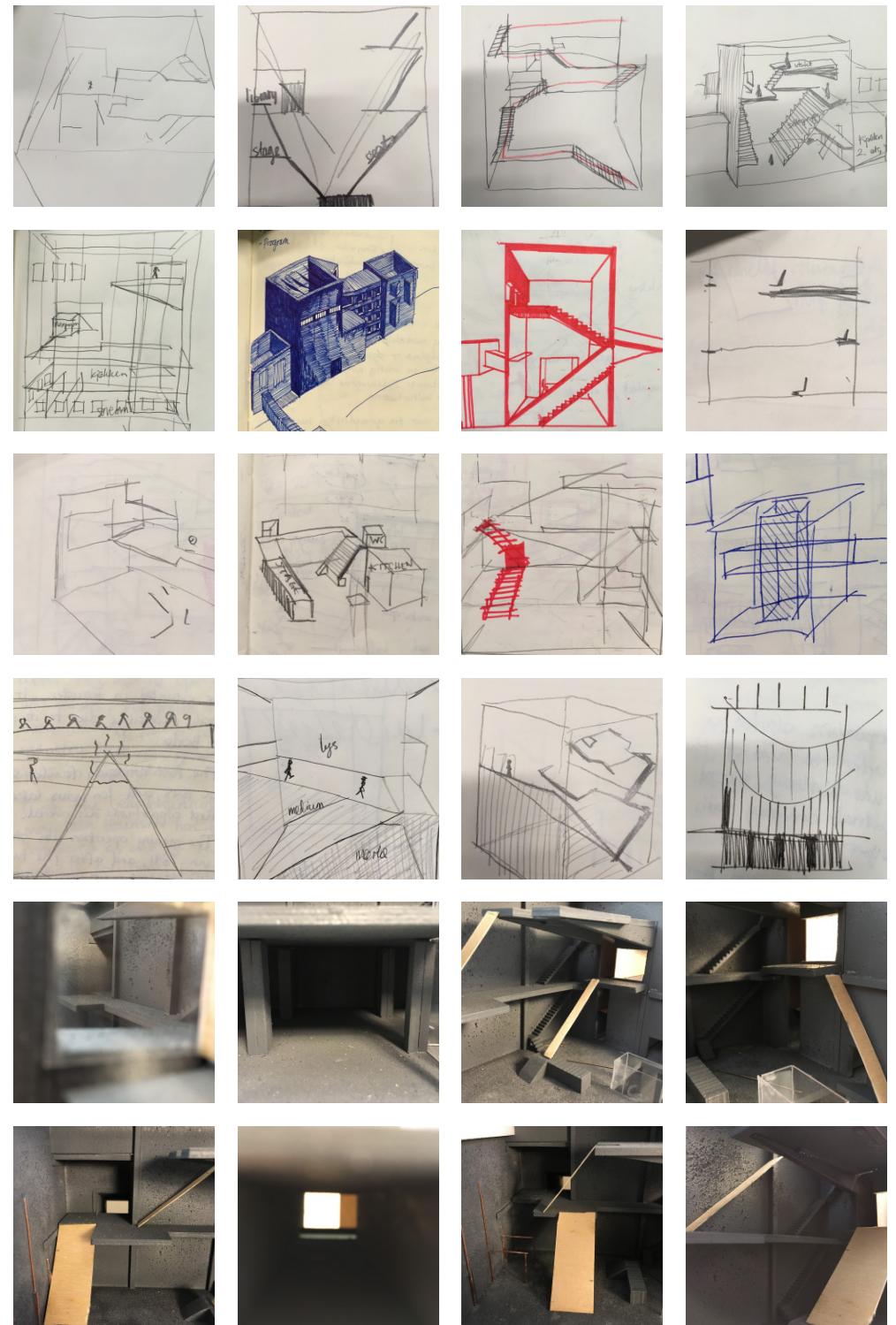
## The process

### *main room*

It was clear from the moment I walked into Knuseriet, that the main room was a wonderful space. I therefore aimed at keeping this atmosphere from the start. At the same time, I had to facilitate for human scale by adding a new floor between each of the original ones. Linked to the idea of light being filtered down into the structure, these plateaus stretch further into the volume the lower down they are.

It is this movement in height that makes the room interesting, and this arrangement of stairs has been a major part of the project. I occasionally thought of replacing new stairs with a lift that could facilitate all floors, but decided against it as I think a movement along all the walls makes it more interesting.

While being interesting, each floor also serve a purpose beyond opening the spatial feeling of the visitor. The idea of the big staircase/cinema seats as a element that complements the original movement in the structure came early. At the same time it had to be placed in such a way that it was hit by natural daylight, and did not block other features of the room.





## The process

### *sleeping units*

Based on the idea that the project should relate to Sulitjelma's former overcrowded sleeping arrangements, I initially wanted to accommodate as many bedrooms as possible in the building. This was also justified by the low level of comfort, considering that the main room was likely to be the highlight. Then the bedrooms were left for sleeping only.

In order to really experience the natural qualities of the building, I would also create the opportunity to sleep in all the different spatial situations. That's how I ended up with the situation where the bedrooms range from the most private single rooms to the hammocks in the top of the main room.

I have nevertheless tried to be realistic and arranged for three of the rooms to be connected to a private bathroom. This was also a reason why I walked away from the single corridor solution, as it simply became too messy to use steep stairs and ladders to reach the bedroom.

