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BRØSET: Diaries from a Live Case in Carbon Neutrality

Eli Hatleskog

The planned future suburb of Brøset in Trondheim, Norway, has a strong vision. It aims to make environmentally friendly living easy, cut the carbon emissions of its residents and become Norway's first carbon neutral neighbourhood. As a pilot project of the Framtidens Byer initiative, it hopes to become a model for multidisciplinary planning processes in Norway.

The site itself lies some 3km from the city centre, it has been home to an asylum, which explains why there is a green buffer zone around the existing hospital buildings. Where the hospital used to sit in countryside, it is now enclosed by suburbs to the west and industry to the east.

Instead of selling the site to the highest bidder, the local authorities decided that the municipality should take charge of the development and, in collaboration with a multi-disciplinary research group, begin work on a carbon neutral suburb. The environmental targets for Brøset will go beyond today's regulations. Designing carbon-neutrally is not just a matter of technology, material and energy use, but also of lifestyle.

These diaries describe two years of the process from the point of view of an architect in the research group.



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TUESDAY 8 NOVEMBER 2011
PLANET EARTH EXPLODES

As I sit and write this, it is dark and it is raining. There should have been some snow by now, that would have made things lighter. The days are getting shorter, soon we will only have four hours of daylight, so there isn't much to anticipate now, except snow.

The local newspaper has written that this is the warmest autumn in a hundred and twenty years; there is a mild weather warning. To demonstrate the issue, the paper published a picture of an old man in blue overalls standing on the top of a mountain with a measuring stick in one hand and a sad expression.¹

Is this how the Earth dies? Will there be hundreds of sad old men on mountaintops across Norway? We were expecting floods, famine and mass migration. They promised us untold dangers, but are we simply going to slide into dark, warm, winter days instead?

In these dusky days, I have turned to Lefebvre, who shouts at me about life and revolution. He laments the modern condition, the coolness and lack of emotion. He says: «It does not matter whether terror reigns, [...] or that Planet Earth explodes. What is important? Who thinks?»²

He wrote these things, however, when terror didn't reign and the Earth was not dying, perhaps he wished them true. But the questions still remain:

«What is important? Who thinks? Who acts? Who still speaks for whom?»³

Some problems are just too big, like the Earth, how do we fix it? I doubt I can, but I must try to do something, since if we don't try then we stop and I can't stop here.

FRIDAY 25 SEPTEMBER 2009
PRE-ARRIVAL

I was never known as being particularly eco-friendly, so there was a touch of irony to me getting the position. Jools, my flatmate, sneered that it was, «just ridiculous, there is nothing green about you! Are you sure you're not really going up there to build nuclear warheads?»

No. I thought I'd seen the future. We had to reclaim intrigue, the environment and the city and I had found the perfect site:

«A New City of the Future:

The new suburb of Trondheim, Brøset, will be carbon neutral. Built from healthy materials and using little energy, [It] will make an integrated and future-oriented suburb [and] will be given full priority in Cities of the Future and should become a model for future urban development.»⁴

MONDAY 16 NOVEMBER 2009
VITENSKAPSMUSEET: THE SCIENCE MUSEUM

I've agreed to design an installation piece about future cities at the science museum. The whole place is getting done up for jubilee celebrations, which the King will be opening. It should be cool.

The museum wants a fjord-scape with urban toy blocks and a map. I can use the CNC and a few students to do that. I'll also install a touchscreen with a script for data collection. The installation will focus on a single day. If you had one day in a future city what would you like to do?

FRIDAY 12 MARCH 2010
THE KING'S VISIT



© Bruce Sampson/NTNU Vitenskapsmuseet.

The grand opening wasn't half as exciting as I'd imagined, thick lumps of snow smothered umbrellas, the King was late and the neatly assembled brass band only knew one tune, which they played over and over.

TUESDAY 23 MARCH 2010
SCHOOL CHILDREN AT THE MUSEUM

«Lots of them want skateparks», says Lise Mariann who is a teaching assistant at the science museum. Frida Polle (9) and Julian Wisnes (9) are students from Nypvang school and are in the last group of children who are expressing wishes for their future city. «I have decided that I want nice, green parks and more shopping centres», says Frida. [...] 2000 children have visited the exhibition in the past term [...] One child stated that «Yes, we must have lots of windmills, but we have to cover them so that eagles don't fly into them».⁵

TUESDAY 22 JUNE 2010
FRAGMENTS

Between March and June, 507 complete responses were gathered. As such, I know that 52% of the respondents were under 16 years old. 43.8% preferred to live in the city centre. 76% of those who wanted to live in suburbia would like a detached house. 51.7% want modern design. 56% would like to be near a park. I know each individual's thoughts on: household size, power supply, free-time activities, food and waste management. Yet, not one of them chose the exact same things as any other, each completed response was unique. I have nothing but fragments.

THURSDAY 2 SEPTEMBER 2010
URBAN LIFE HAS YET TO BEGIN

I asked for a cohort of architecture students, which I got. We have been working through narratives, constructing days in treatments, storyboards and movies. There are twenty-one students, around half of them are foreign and half in their last year of study.

The students were split into groups and sent out into the city armed with video cameras, after a brief introduction to movie-making at the art school, to design and capture one day in a future city.

We held a film showing the evening before we flew here. I hadn't thought that I would've been so concerned about the exact content of their future days. The exercise was supposed to encourage them to think sequentially, corporeally and temporally, using an unfamiliar medium to explore an issue.

Since the screening, however, I have felt an unease. Something is wrong.

WEDNESDAY 15 SEPTEMBER 2010
ARTEFACTS

We filed up the stairs into a room full of boxes, bicycles and papers. The space was too small for everyone to fit in comfortably. Some of the students showed their films and then our host Alex simply said, «So, the future they see is full of stuff, lots and lots of new stuff».

Hearing that the futures the students had recorded were full of stuff make me realise that I'd been looking at the problem in the wrong way. I could try to design any number of artefacts to mediate between people and their surroundings, but that might just result in lots and lots of new stuff.

Architecture is not just an artefact, it can also be process, politics, space, event and play.

Since joining the already established multidisciplinary research group aligned with the Brøset project in October 2009, on a doctoral scholarship, I have had to consider my role as an architect carefully. It has been challenging finding a place for my work which aligned with the other disciplines' modes of thought and intentions.

There are a number of sociologists in the research group, amongst the engineers, scientists, planners and architects. Each of the different subject fields have different ways of thinking, which are different from mine. It does not mean any one of us necessarily has the best way of thinking, even though I am pretty sure that we are all convinced that we do.

«Knowledge must envisage a considerable number of methods to grasp this object, and cannot fasten itself onto a particular approach.»⁶

My problem is that I want some control over the situation. There are, however, too many other researchers and politicians involved for me to gain this. I am going to have to design a process by which I'll be useful.

I'm going to look at things the other way round to the rest of the researchers. If they work with experts at a large scale, then I will work with amateurs at the smallest scale. By setting myself to the side of the process, I'll get room to work.

There have been many discussions about the designs. The brief for a master plan has been written and the municipality has preselected four multidisciplinary teams to design proposals in an open parallel commissioning process. I've suggested that we build a pavilion for the opening meeting of the process. I've sent the students into the city to find stuff we can build with, my only demand is that it is free. To get our minds off new stuff, we are going to build with rubbish!



THURSDAY 21 OCTOBER 2010
EXPERIMENT OF THE POSSIBLE

The students found tyres, timber, pallets, old doors and inked metal plates from newspaper printing. It seems, however, that nothing is free. We can borrow them, but each material has recycling value, so must be returned. The pavilion was built over a couple of days, a simple stage of pallets raised on tyres with a tyre wall to the back. We had wanted to fill it with events and activity, instead it snowed, so we only managed a barbecue in the dark.

I'd quite liked the bounciness that the tyres gave the stage, until one of the assembled experts told me that they emit lots of toxins; the future will not be built from tyres.



THURSDAY 9 JUNE 2011
WAITING

I've had a chance to think. The tyres were not a good idea, they smelt bad and looked too much like tyres and the pallets were obviously still pallets. When I get my site, I'll need to be careful, to make sure that things don't look homemade.

I've been waiting for a long time now. I asked for the site in February, we're now in June. The idea was simple – create an allotment garden with accompanying meeting and dining spaces where future residents and neighbours could come and be encouraged to take collective control of the area.

«The freedom to make and reshape our cities and ourselves is, I would argue, one of the precious yet the most neglected of our human rights»⁷

For all of the talk about what will happen at Brøset, we'll be the first to build there.

FRIDAY 1 JULY 2011
EXPERIMENT OF THE PROCESS

I've just thought of a perfect material. We drink a lot of coffee here, why not build with the used grounds? There is no other value in them. The Urban Physics Garden in London has agreed to let me test coffee construction with them onsite.⁸ I'm going to hold a couple of workshops and then build them a waiting area. They have a café which is collecting grounds for me, we might also stage a coffee amnesty.

SATURDAY 16 JULY 2011
COFFEE BRICK MANUFACTURE

FRIDAY 22 JULY 2011
COFFEE CONSTRUCTION

The coffee brick press worked well. People who you wouldn't think would want to were getting their hands and clothes dirty alongside the kids. Everyone had a view on coffee, sustainability and the future. I came back with a head full of coffee visions, only to find out that I have been given the site for the garden.

TUESDAY 13 SEPTEMBER 2011

I have spoken to the planning department, the neighbours need to be notified.

TUESDAY 20 SEPTEMBER 2011
WHO IS NOT A UTOPIAN TODAY?

The old lady laughed, she was 84. In her own words, she didn't have long to go, her husband had just passed away and she would soon too, which is why she wouldn't object and would sign the neighbour notification form. Her table was strewn with my plans. I explained the intentions for creating an allotment garden and workshop space, constructed mainly by volunteers this spring, which could act as a catalyst for community engagement. She laughed some more and explained to me that it was daft, if not utopian, for me to expect that a garden could restore any sense of community spirit. The values which had existed in the days when children like her used to collect milk from the local farm and could talk to anyone were gone, they had been swallowed by suburban sprawl. «No one talks to each other anymore». Now it was my turn to smile, «It might be utopian, but we can at least try».

SATURDAY 15 OCTOBER 2011
SITE PREPARATION

WEDNESDAY 30 NOVEMBER 2011
THE ARCHITECT IS NO LONGER A MIRACLE WORKER

«What are the real possibilities for you, the architect, in your position in society, not as a hero who is going to save society, but as a worker who is engaging in practices that have the possibility of opening up new ways of doing things here and there.»⁹

During the past two years, I've begun to define a mode of practice which places me in and between the municipality, research group and public. The garden this summer will let me test whether my ideas work.



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I've had to wait for a lot of things and now I must wait for it to snow, until it thaws and then we can build. So maybe I can't control the larger process, but at least I can begin to try. I can think, act and speak. Not every discipline does this with ease. Architecture is perhaps at its most relevant when we test thoughts in action. Lefebvre insisted that the revolution had to be urban. But what if there is no revolution, if the planet doesn't explode? Few of us in the research group can agree on methods, let alone solutions. If we can't agree about 90 acres, then what chance is there of any single solution being agreed upon for the planet?

I'd say a dozen small actions are better than none, after all if we don't try we stop...

- 1 As published on 08.11.11 in Adresseavisen, Trondheim, pp 6 - 7.
- 2 Lefebvre, H.: Right to The City, in: Writings on Cities: Henri Lefebvre, eds. Kofman. E and Lebas, E. Blackwell Publishing, Malden, MA, 1996, pp. 144 - 159.
- 3 Ibid.
- 4 There is a Norwegian initiative called Framtidens Byer, or Cities of the Future. It is a collaboration between the Government and the 13 largest cities in Norway which aims to reduce greenhouse gas emissions and make the cities better places to live. Brøset is a pilot project for Framtidens Byer. The majority of Norwegians live in detached houses, as such, there is a need to investigate how suburbs may become climatically friendly.
- 5 An English translation of part of a news story covering the exhibition in Byavisa, Trondheim, 01.02.11.
- 6 Lefebvre, H.: Right to The City, in: Writings on Cities: Henri Lefebvre, eds. Kofman. E and Lebas, E. Blackwell Publishing, Malden, MA, 1996, pp. 144 - 159.
- 7 Harvey, D.: The Right to the City, New Left Review 53, 2008.
- 8 Over the summer of 2011, a derelict site in Southwark, London was transformed into a pop-up physic garden. The garden was filled with medicinal plants and seeds, sculptures, games, activities and performances. By Wayward Plants, with Heather Ring, Tom Kendall, Stephen Escritt, Jarred Henderson, Helen Babbs, Lizzie Frost.
- 9 Harvey, D.: What is Politically Effective Architecture Now?, in: Reflections on Architectural Practices in the Nineties, eds. Saunders. W et al. Princeton University Press, 1996, p. 104.

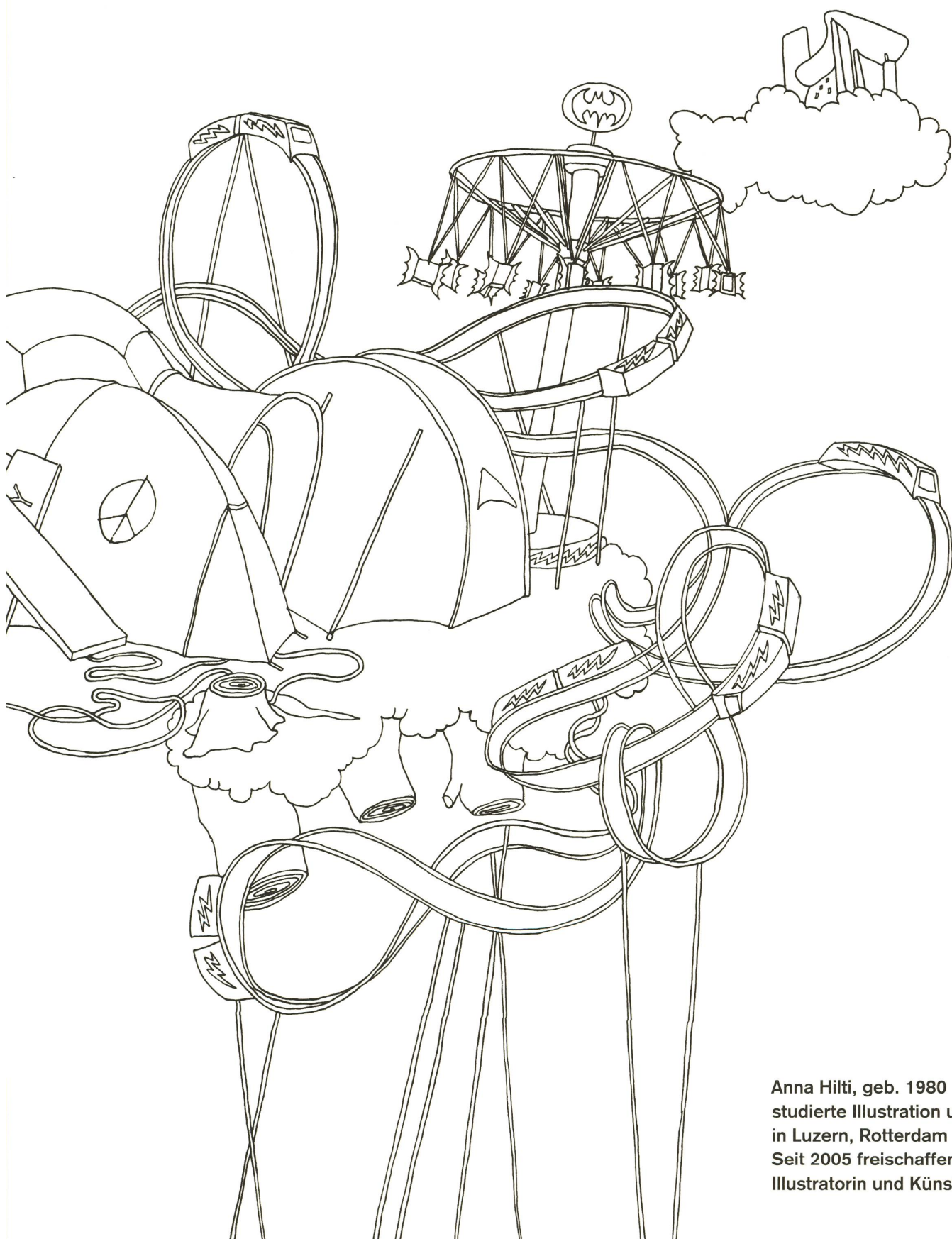


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