ARCTIC TERRITORIES

SVALBARD AS A FLUID TERRITORY
The Arctic is changing, not only in terms of climate and environment, but also in terms of demography, urbanism, and landscape. These changes have led to intense debates and extensive research. Through a series of studies, the Tromsø Academy of Landscape and Territorial Studies, have investigated landscapes and their development in a variety of Arctic Territories, demonstrating that there is a major global influence on local communities and territories.

This publication outlines the process of how the studio course approached a new territory - Svalbard. This studio course, in conjunction with the Future North research project (www.futurenorth.no), has examined Svalbard as a fluid territory. The studio primarily explored different methods to map a territory. The mapping, conceived as a series of layered, interlinked chronologies, has explored quantitative (data-driven), historiographic (archive research) and qualitative (memory and oral histories) aspect of this territory.

Course leader: Janike Kampevold Larsen
Guest teacher: Kathleen John-Alder (Rutgers University)
Assistant teachers: Mats Kemppe and Eimear Tynan
Cartographer: Riccardo Pravettoni
GIS specialist: Ellen Oettinger (Rutgers University)
The studio began with a one week visit to Svalbard at the end of August 2015. Students and teachers from AHO Oslo, AHO/UiT Tromsø Academy of Landscape and Territorial Studies and invited guests combined forces to carry out research in Svalbard. The group was based in Longyearbyen, the administrative centre of Svalbard.
Excursions were made to areas in and around Longyearbyen and to the Russian towns of Pyramiden and Barentsburg.

Excursions to Pyramiden and Barentsburg were by boat. The journey to Pyramiden travelled along Isfjorden - a fjord that is very rich with cultural heritage remains that span centuries. The fjord is also extensively researched by scientists studying marine flora and fauna.
Cartographer, Riccardo Pravettoni, accompanied the group on the study trip and showed the students how to use a drone as a method for mapping the terrain. It became a very useful tool for inaccessible and potentially dangerous areas such as those around the disused mining sites. In addition, it could fly at a height of up to 200m that allowed for a great panoramic range and contextualised the details from ground level.

Exploring the territory involved trips by foot, car and boat. This allowed the group to engage with the landscape in different ways and at different speeds. Each place offered very different perspectives of Svalbard as territory. The settlements, for example, uncovered very different cultural layers but all contained industrial pasts that contrasted strongly to the outside environs that gave a sense of wilderness and purity.
Fieldwork involved looking at the territory in different ways. We visited sites that allowed for vast views across the landscape where, for example, patterns of vegetation or contaminated soils from the mining industry could be observed. Students were continuously encouraged to look at the elements that the territory was composed of. Consideration on where rocks, bits of timber or metal came from were discussed to begin to contextualise the forces that brought them there and changed them.

Fieldwork practices varied. In and around Longyearbyen, teachers and students could wander freely. However, outside this zone it was necessary for the group to stay together and to be accompanied by a rifle holder. Student, Hans Eriksson, kept everybody safe during our fieldtrips!

“Due to the polar bear danger in Svalbard, any person travelling outside the settlements shall be equipped with appropriate means of frightening and chasing off polar bears. We also recommend to carry firearms outside the settlements. Carrying loaded firearms within settlement areas in Longyearbyen is prohibited. The firearm must be visibly empty of ammunition.”

http://www.sysselmannen.no/en/Shortcuts/Firearms/
Personal interaction with the territory involved close up and distant observations of the materials and conditions that the landscape was composed of. This engagement inspired curiosities which have surfaced in the students’ work, in different ways, throughout the semester. Gathering of material took the form of photography, sketching, writing and model-making.

Finding materials of interest, whether they were natural or man-made, helped students identify the interacting dynamics and conditions that shaped these materials.
The section line as a tool for exploring and discovering a new territory was used extensively during the semester. During the study trip the students were asked to look at an area that intrigued them most and to illustrate their findings through 1m, 10m and 30m sectional drawings. Prior to this exercise, the idea of ecozones was introduced. Instead of adopting it for large scale territories, it was tested on these smaller section lines. It allowed for a more intimate engagement with the material of that particular line. The students were then asked to consider how this line would connect to a larger territory.
Microscale: Minature microhabitats, dry to moist, cv soil to micro-pockets, three of mammal and plant components.
1:5
1:5

Below 1:5
BijouVK.
1. Woodden beam for reeyer law
2. Rude rockpanie
3. Lichen on rock
After returning to Tromsø, the studio progressed to expanding new sections to a territorial scale, based on their personal topics of interest. Defining exactly why the lines were placed where they were and where the lines should start and end were of paramount importance during this phase. The direction of the line was guided by selected narratives that the students wished to follow and research further.
A central theme dictated the trajectory of each line and this was researched thoroughly by the individual students. As the themes became more informed, layers of information began to develop. This palimpsest of information that began to develop further explained the logics of the section. In this way, a visual narrative began to emerge. The students were reminded to regularly take a step back from their section lines and to look at its position in a wider context — that of the territory. Texts on the subject of the sublime were an important backdrop to the sections during this phase. Human, corporate, economical, political, strategic impacts were beginning to relate to all of the projects. Emphasising these forces had the potential to evoke awe/fear/excitement within these new layers of knowledge like that of the sublime. It was apparent that these forces contributed to the fixed and fluid elements that were being mapped along the section lines. Titles for the work were developed to add both focus and intrigue to the narrative being explored. Some of these titles changed as new discoveries were made.

Audrey - Invisible boundaries
Brona - Retracing failure
Charlie - Svalbard shorelines
Hans - Svalbard Infratone
Jerome - Ordering disordered memories
Matt - From physical to digital - Science and Landscape in Svalbard
Rasmus - Exploited geographies

To inform and charge the sections further, the dimension of time was introduced. This allowed the students to explore and make sense of some processes that were or are influencing the territory. The time-frames varied enormously — from tracing Svalbard’s geologic time-frame to mapping satellite trajectories over Svalbard in a 24 hour period. Adding the impact of time on the spatial dimensions of the territory strengthened the narratives of the section lines but it also made an invisible element (i.e. time) a very predominant element along the section. The following images illustrate how some students dealt with the subject of time and space to inform their narratives.
A very short exercise was carried out after the mid-semester critique to vocalise and share some of the themes and subjects that the individual students were using regularly. Some interesting and unexpected overlaps began to emerge with this very simple tool of developing a glossary of words.

In the course of research, we appropriate terminology from subjects such as geology, botany or fortification engineering to be able to discuss landscape and landscape architecture in more precise terms. Borrowed words enrich our design vocabulary, as do words and phrases of their own invention.

Günther Vogt, Distance and Engagement, 2010
The following pages shall illustrate the territorial-scaled sections done by each student. The length of each section varied according to the narrative being followed.

Audrey Touchette
Matt Poot
Jerome Codere
Charlie Laverty
Rasmus Pedersen
Brona Keenan
Hans Eriksson
RETRACING FAILURE
BRONA KEENAN

This page contains a visual presentation related to the theme of failure, featuring a map and various diagrams. The map illustrates a network of connections and routes, while the diagrams provide detailed views of specific scenarios or events. The text appears to discuss the implications and historical context of these failures, offering insights into the causes and consequences. The visual elements are designed to complement the narrative, enhancing understanding through a multi-faceted approach.
PART III

Based on assignments that the students had done, the studio progressed to expanding sections to a territorial scale based on their personal topics of interest. Contextualise the sections that you have produced during assignment #1 by connecting your sections to a larger territory. Defining exactly why the lines were placed where they were and where the lines should start and end were of paramount importance during this phase. The direction of the line was guided by selected narratives that the students wished to follow and research further.
The intersections created by overlapping section lines were very interesting points on the territory to examine. They were random points on the landscape that questioned what was happening in these places and what forces were at play there. As a group exercise, the students sketched their themes and associated forces on a map and let words emerge from these intersection points. The words reflected what they had researched along their individual section lines but also allowed speculations on what was there too.

The group exercise continued by sub-dividing the group into smaller teams. The three teams examined three intersection points each. These points were explored through model making. Each team was encouraged to be abstract and speculative in their approach.
Bellsund

The British Northern Exploration Co. had a number of huts around Bellsund that were supposed to be used for mining operations. Most were not, and were actually built to underline claims to the territory. Norwegian trappers were happy to use the comfortable huts and the NEC paid them to do so under the pretense of maintaining them, but in fact to maintain their territorial claims.

Longyearbyen

Longyearbyen is the gateway to Svalbard; it is the principal connection to the mainland as well other settlements in the archipelago. Also Svalbard’s administrative centre, Longyearbyen, manages various activities related to industry, research, logistics and tourism.
INTERACTION POINT 03: NY ÅLESUND

Team #1: Audrey Touchette and Charlie Laverty

During the last decades, Svalbard has seen an increase in polar research and an intensification of international presence. Ny-Ålesund is at the forefront of arctic research, where many countries have established their research stations. Fieldwork, long-term monitoring, remote sensing, modeling, education, outreach and data management figure among all the experimentation activities that are taking place in Svalbard’s northernmost permanent settlement.

Ny Ålesund international research

INTERACTION POINT 04: VIRGOHAMNA

Team #2: Brona Keenan and Hans Eriksson

“...It is a little strange to be floating above the Polar Sea. To be the first that have floated here in a balloon...” Andreas

The balloon lost its equilibrium shortly after takeoff and jettisoned ballast to sustain the flight, which ended after 65 hours.

VIRGOHAMNA balloon journey
Marine strata are revealed, territorial and resource claimed beyond the ocean floor.

Interaction point in a pristine landscape where snow scooters cut through the reindeer paths in the valley.
INTERACTION POINT 07: PYRAMIDEN

Team #3: Jerome Codere, Matt Poot and Rasmus Pedersen

“So it was absurd to imagine the town (Pyramiden) without its people”
Persistent memories _ p113

“In the body of the ruin the past is both present in its residues and yet no longer accessible, making the ruin an especially powerful trigger for nostalgia”
Nostalgia for ruins - Andreas Huyssen _ p.7

Pyramiden

INTERACTION POINT 08: JAMES I LAND

Team #3: Jerome Codere, Matt Poot and Rasmus Pedersen

This area contains no permanent settlements, no history of human habitation, and would seem to be empty wilderness to most who observe it, and remote for those who pass through it.
Yet, 24 hours a day, this piece of land is monitored by an array of observational satellites which allow access to observe and interact with it from any point on the globe, revealing a hidden dimension to the landscape otherwise invisible to the naked eye.

James I Land satellite observation
Glaciers cover approximately 60% of the Svalbard Archipelago. These immense white spaces of seemingly pure nature retain a trajectory of cultural and natural phenomena and processes which have materialized in the ice through centuries. Scientists drill ice cores in the field and bring them back to the laboratory to analyze their contents to bring forward knowledge of previous and present environmental conditions.

Pavlina Lucas collaborated with the studio for a one week workshop on model making. It was decided that a large topographic model would be created for the exhibition at the end of the semester. The main material for the model was plaster. The model was to show the large extent of the Svalbard territory with the section lines and interaction points highlighted on this surface.
MODEL MAKING: PREPARATION / MEASUREMENT

MODEL MAKING: PLASTER WORK
Starting the semester using section, rather than plan, forced everyone to think differently on how to illustrate time, space and narrative in and across a territory. Unexpected links and layering were uncovered that enriched the research carried out by the students. However, there were limits to solely using the section. Many ephemeral qualities such as sea currents, migration routes, wind etc. were challenging to show in sectional view. Returning to plan view the students were precise in knowing what information needed to be expressed - information that was difficult to illustrate in sectional view. The students chose to illustrate 3-4 layers of information in plan view that would complement their sections. Overlaying this information showed areas of intense use across Svalbard. It is apparent that the western coast of Svalbard, in particular, has seen a more human presence and use compared to the eastern side.
Base plan showing Svalbard in its Arctic context. Audrey's section line cuts through the entire Arctic.

Arctic EEZ (exclusive economic zone) boundaries
Base plan showing the section line that was followed by Brona. The journey begins in Virgohamna on Svalbard’s north coast. The narrative follows the fateful expedition of the Swedish balloonist S. A. Andree in 1897.

Andree’s intended journey to the North Pole and the fateful expedition that unfolded.
Base plan showing the section line that was followed by Charlie. The section line follows the western coastline and examines the settlements that were there.
HANS: MIGRATION AREAS OF BIRDS VISITING SVALBARD

The global map contextualises Svalbard as a haven for several bird species, many of whom, travel long distances to breed here.

Base plan showing Hans’ section line. The section line cuts through Pyramiden and Kongsfjord and follows through to the deep ocean ridge off Svalbard’s western coast where birds feed.
HANS: SEA ICE AND TEMPERATURE CHANGE

HANS: MICROPLASTICS RESEARCHED AROUND SVALBARD
MATT: BOAT AND HELICOPTER ROUTES USED FOR MARINE AND GLACIOLOGY RESEARCH

MATT: INFRASTRUCTURE SCIENTIFIC RESEARCH
Rasmus’ section line passing through Ny Ålesund - once a coal mining town, now a significant research centre.
The exhibition, held on 15 December, included work that spanned the semester with an emphasis on the sections and models. The posters were displayed on the periphery of the space along with the small “interaction points” models. The topographical model took the central position in the space with red section lines indicating where the students had based their work.