

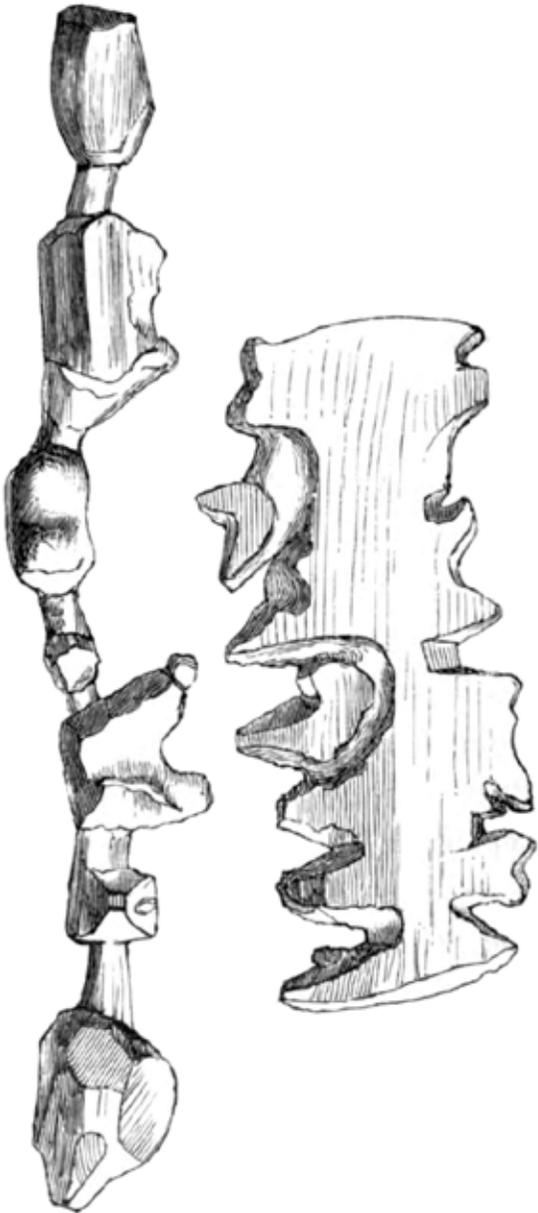
# BORDERLANDS

**CONCEPT DOCUMENT**  
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**GAGARIN**  
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## **INTRODUCTION**

As a part of preparing for the design phase of the exhibition, our staff visited Greenland to meet Artists, craftsmen, stakeholders, politicians and tourism industry professionals. We sought the advice of experts in the fields portrayed in the exhibition - among them experts on Greenlandic history and culture, anthropology, linguistics, and cultural heritage. Following the research phase we started the concept creation phase which consisted of multiple brainstorming meetings and design work which led to a concept which will be described on the following pages.

## GREENLAND

Greenland is a land of contradictions – it is a landscape of extraordinary beauty, but one that finds itself threatened by global warming and human influence; it is a country actively thinking about its future, but its culture and language traditionally has not made a distinction between the past and the future; its people are hardy, resilient, and independent in their way of life, but they struggle for the independence of their country.

The world has a tendency to think of Greenland as a prehistoric natural museum, but its people, like all people, strive for a good standard of living and yearn to be a part of the global economy. There are many challenges facing Greenland – environmental, social, and economic challenges – in many ways the Greenlandic people could be considered to be trapped in a long, slow detonation not of their own making, yet they are full of extraordinary hope for an improved future, and an improved way of life.

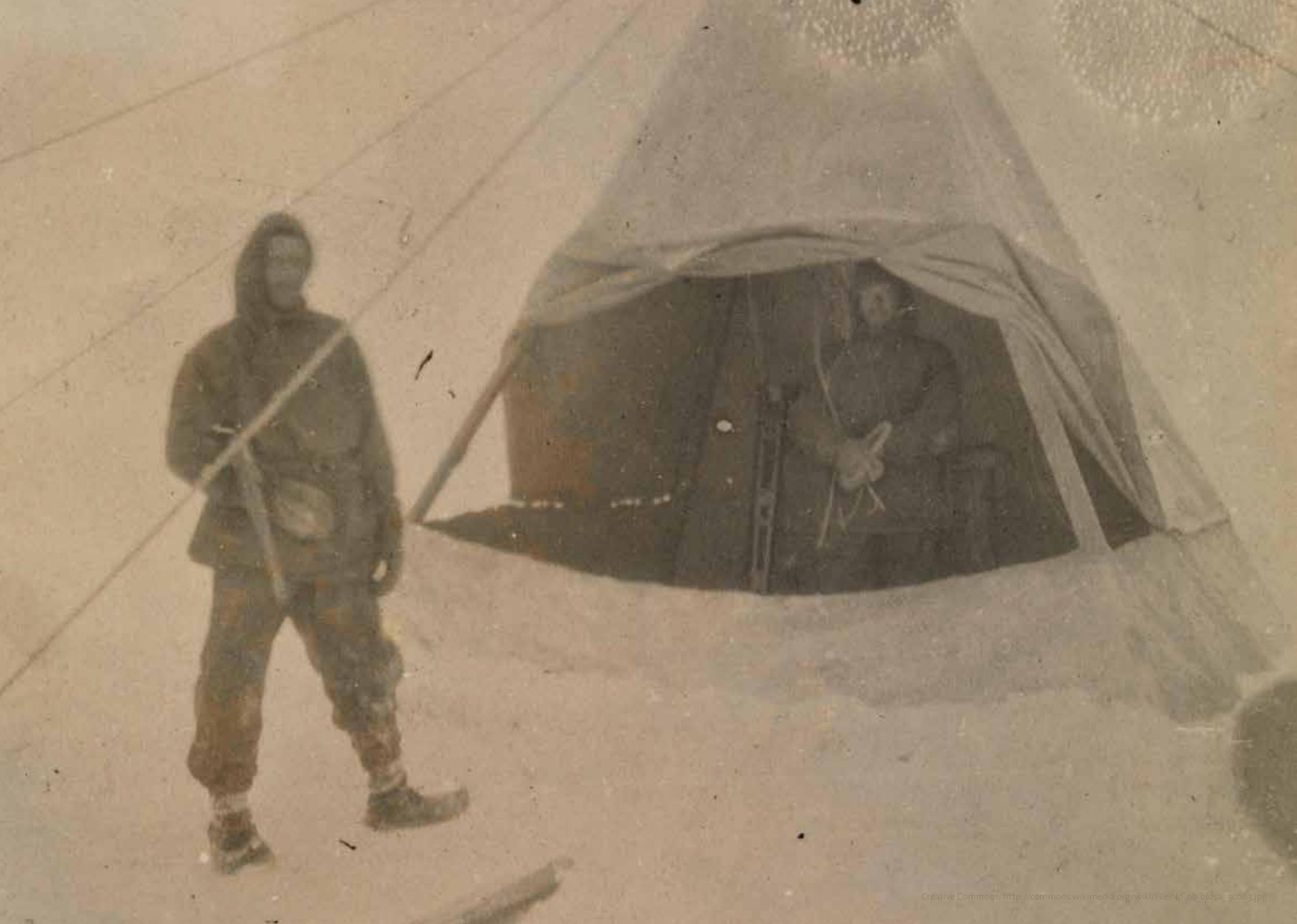
Greenland is on the precipice of remarkable environmental, social and economic change and development – change that brings the

promise of unparalleled wealth and prosperity, and of independence. But this change may also bring new challenges and new problems – the destruction of pristine land, the introduction of resistant diseases, the growth of income inequality – all of which deserve conscientious study and debate regarding their potential impact.

As if this were not challenging enough, influences from outside Greenland such as international mining companies, environmentalists, and socio-cultural institutions have created a pressure cooker of complex issues and a quagmire of competing interests.

How can we navigate these challenges with nuance and understanding? How can the wisdom of our past inform the decisions we make in the present about our future? Through open debate and an exploration of where we have been, where we are, and where we are going; will an *isumataq* emerge – a person who can create the atmosphere in which wisdom reveals itself?





## **PAST, PRESENT & FUTURE**

As long as you don't subscribe to the idea of progress, futures and pasts become a very interesting tool to think around the present. Especially keeping in mind that there is no difference linguistically between past and future in Greenlandic, and in West Greenlandic there is not even any difference between past, future or present. This opens up some very provocative philosophical doors and paves way for incredible storytelling opportunities. With putting past and future next to each another one changes the conversation and perspective on both.

## **MISE-EN-SCENE**

In order to accurately portray this past, present and future one has to go beyond mere scientific conclusions and the academic discourse pertaining to the issues of the Greenlandic society. We will use an idea from the history of Greenlandic storytelling to portrait Greenlandic society. We do this through a set of stories all transcending mere literal historic accords of Greenland. Instead we will employ poetic and thought provoking narratives. Four of these stories come from the, sometimes mythological, history of Greenland and three from possible futures of Greenland.

The stories of Greenlandic myth and history come from a people relying on the spoken word. Therefore the stories, that had vast arrays of knowledge embedded in them, had to have emotional salience and strike a chord with people to be able to keep being retold.

They capture more than mere facts on the ground; they capture a world of ideas, of values and of what people found beautiful and interesting.

Greenland is uniquely very much lacking archeological ruin site findings due to their nomadic nature, so instead we choose to focus on artefact. The one thing a nomadic culture has as cultural identifiers are their artefacts. In nomadism they become especially important since so much story are embedded in them for the simple reason that a nomadic culture has to be able to travel with all their belongings.

As a result the few things they choose to take with them has to be very significant as technology or as symbols.

**”THE ACTUAL LIMITS OF  
WHAT IS ACHIEVABLE  
DEPEND IN PART ON THE  
BELIEFS PEOPLE HOLD  
ABOUT WHAT SORTS OF  
ALTERNATIVES ARE VIABLE”**

**(ERIK OLIN WRIGHT)**

## **NARRATIVES**

The stories that are told are at the centre of our approach to the subject matter here. They have to be told, selected and curated by the Greenlandic people themselves. We cannot and should not curate the history of the Greenlandic people which is why we would leave that in their hands to select the specific topics that are to be covered.

However for the purpose of clarity we here exemplify with three stories that we think represent the three peoples of Greenland and one of inter-inuit mythology. Pertaining to the futures we outline three examples we consider particularly interesting in relation to issues facing Greenland in a not so distant future. The way they are presented though is more in the spirit of unipkaaqs: Greenlandic mythology's oldest known myths, legends, and folktales which took place "back then" in the indefinite past (taimmani). Stories will be told in a variety of narratives: with the language of science, with that of myth and that of aesthetics.

### **SOUTHERN STORY**

The story of the south could be represented by the lives of the Inuit who were living alongside, and in relative harmony with, the early Viking colonizers.

It is very telling how they were able to live in harmony with nature whereas the Vikings tried to tame (farm) nature. Later when the small ice age arrived, the Vikings could no longer grow the plants or farm the animals they were used to. The Inuit however had grown resilient and even anti-fragile by adapting to these borderlands for thousands of years. These extra hard winters were within what was manageable for the Inuit but not for the Vikings. Their society collapsed whereas the Inuit adapted, moved and learned from the experience.

We foresee having a historian retell this story which juxtaposes in a very obvious way two distinct approaches to nature. One the taming of nature and one the adaptation to it.

**A NORTHERN STORY**

In the hunters' society of former times the aborigines of Canada and Greenland were totally dependent on nature.

They believed and still do that the land and the animals had a soul. Those souls must be respected. If animals were ill-treated when hunted there was a danger that the protective spirits of the animals would see to it that the hunters would not find them. The aborigines were grateful to the animals when they were caught and they believed that every animal would reincarnate. If the animals and nature were not shown due respect it would result in hunger.

Respect for the environment was therefore always a matter of life and death. This attitude to nature is still prevalent both among the Greenlanders and the aboriginal peoples of Canada. That is why there have always been great doubts and often hostility towards mining and other mineral processing.

In recent years the aborigines of Canada have emphasized that profits from mineral processing in their territory shall belong to themselves more than before. The Greenlanders are now facing similar challenges.

Environmental questions are always high on the agenda and will be the main influencing factor in future policies in these matters. One thing is clear, though. Greenlanders and Canadians were conservationists long before this became a fashionable in the Western countries.

### SNOW SLEDGE NOMADS A CANADA-GREENLAND TALISMAN STORY

*Qattaq, accompanied by his two sons and a fosterson, once travelled on the ice to catch eider. The hunt was a success but the ice drifted to land (Nunavut) which then was called Akilineq which simply means „on the other side“. When the father and sons had arrived in Akilineq the fosterson was murdered by an unknown man.*

*This man had always murdered all strangers but Qattaq managed to kill the murderer. He was able to save his sons and bring back his fosterson with the aid of a talisman. On the way back the father and his sons bumped into a giantess who tried to kill them.*

*The father and his sons managed with the help of another talisman made from the skin of a bear to turn themselves into polar bears. The fosterson had a snow bunting on him as a talisman.*

*He was fearful of escaping but the polar bears encouraged him to fly away so that the giantess would not get him.*

*Finally he turned himself into a snow bunting and they succeeded in getting back to Greenland.*

**EASTERN STORY**

The following legend from East Greenland about the origins of human habitation on Earth shows clearly how the harsh environment has considerably influenced the tales inherited by the East Greenlanders. Also it is a fine example of their belief that in nature as well as in life itself there are great forces that you cannot always see but these should not be underestimated since they cannot be managed by most people.

*A very long time ago all men lived together in heaven and they were immortal. However once it happened that a man fell from heaven and on to the earth. He and the earth had a daughter together. The descendants of the man and the earth were quite fertile and soon the earth was full of people.*

*Time passed but one day a powerful earthquake occurred so that many large cracks were formed. Many people fell into the cracks and they settled down underground. An underground state was established and eventually the inhabitants were called Ingnerssuit or the fire people (the inhabitants of the fire). The state of the fire people is both mysterious and marvellous and only those who have the talent to observe hidden phenomena can be permitted to go there.*

*The entrance to the state of the fire people is in a crack where land and sea meet on the beach. The fire people resemble the people on the surface of the earth for the most part. They live in similar houses and live by hunting. On the other hand they do not have noses.*

*Only the powerful sorcerers (aandemaner) are permitted to see the fire people. The sorcerers often exploit the fire people as sort of auxiliary spirits when they are working in the spiritual field. The East Greenlanders believe that most underground events can be traced to the fire people.*

*The East Greenlanders believe that all of them are the descendants of only few families. The reason is that when all land had become overcrowded the ocean flooded all countries. Only the highest mountain peaks remained above the waves but most of them were almost impossible to climb. On the other hand in the fjord of Ammassalik there was huge mountain called Qerrorsuit which was easier to climb. The only people that were saved from this ordeal were those who managed to escape to the peak of Qerrorsuit and all the East Greenlanders are the descendants of these fortunate people. There are many people who believe that some day the ocean will submerge all dry*

*land but only sorcerers know exactly when. When observing global warming which the Greenlanders have felt on their skins it is clear that it is probable that this prediction will come true.*

This is the story of the first people according to the legend from the East Greenlanders. After people settled down on earth they lost their immortality. The East Greenlanders believed that after death people returned to heaven and when the Aurora Borealis billowed back and forth it was because of spirits playing ball using skulls instead of balls.





### UUMASORSIORPOQ

*The Lunnatukk family was one of the first Greenlanders to take advantage of the new Uumasorsiorpoq Oil hunting law. Like the previous hunting laws it disallowed searching for oil with the use of industrial machinery such as engine based transport. It went in to effect immediately after the Greenlandic independence Denmark.*

*Ungaq, the youngest son of Lunnatukk tribe, was clever in finding the obvious opportunity in the law. The law had cleverly focused on banning industrial machinery but not computing machinery. Much like the paragliding reindeer hunters he had found a way to hunt, albeit oil. In a way that was in harmony with nature and the inuit ethos. It was believed that one should not kill with the aid of machinery only with the sweat of ones brow and the cleverness of ones head.*

*So what Ungaq, named after the god who misguided fishermen who over fished, had cleverly done was equip his Qajaq with an inwater sonar that continuously sent out pulses as he travelled north up the east coast.*

*This was in the first spring of the great thaw, which was the name of the glaciers melting as a result of global warming. The quajaq enabled him to go places where ships with engines could never. It also put him closer to the water so he could look out for underwater ice blocks without hitting them.*

*But more importantly it had allowed him to experience the echoes of the sonar physically. And this is how he stumbled upon the first great oil find in the new borderland of the north. It would now become his and his tribes' and forever remain the emancipatory occasion that told all Greenlandic independence sceptics what people truly were the masters of the wild north.*



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Example of 3d Printed objects that can work together with a transparent screen on top (as outlined on pages 22-28)

## DUBAIAQ

*Aljaik Okalik was a Lawyer from Greenland he is the son of a wealthy oil refinery owner. He has long since stopped any labour. He lives most of his live in his yacht with Chinese chefs and servants.*

*He had his yacht custom made and especially designed for the arctic region with ice-breaking ability, a helicopter platform and a submarine. As a memento he always wares a necklace from gold and an arctic ruby stone which he got from his father on his 18th birthday. Despite this memento of where their wealth came from he has lost all connection to his cultural heritage. He doesn't give much credence to his Greenlandic roots in spirit, only in costume. He thinks that oil and global warming saved Greenland and is now wreaking eternal benefits from it.*

*He occupies himself with sailing between fjords on his yacht and partying. Only to take some time of to serve on the boards of various companies owned by his father.*

## AURORA BOREALIC ELECTRICITY

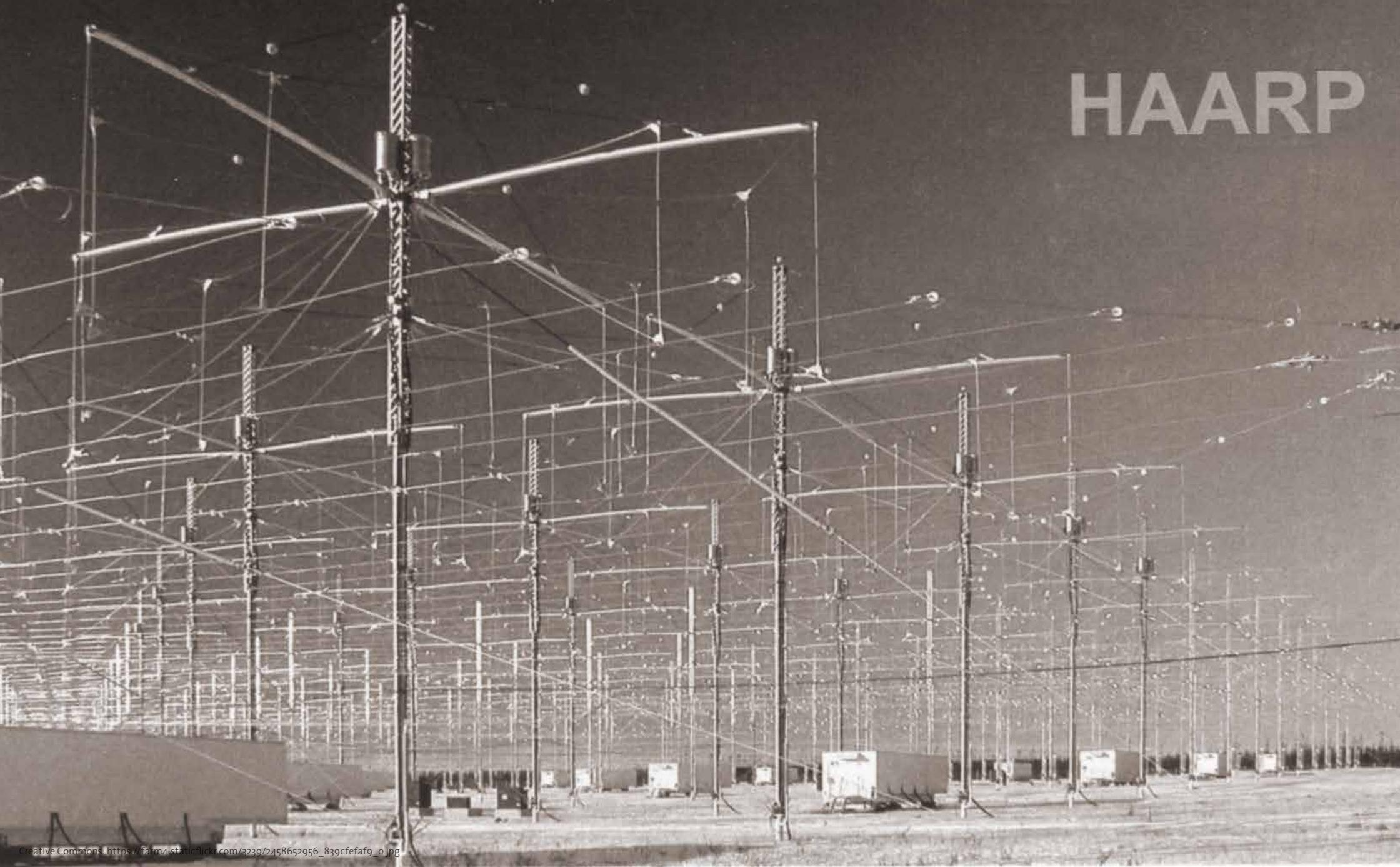
*Apak Andersen is a Greenlandic/Danish who is the founding director of HAARP Greenland, (High Frequency Active Auroral Research Program). They managed to harness northern lights and produce electricity from it. They got a contract from the Defense Advanced Research Projects Agency (DARPA) to set up a HAARP Station north of Kulusuuk to extend the possibilities of this new field of research.*

*She spends her time commuting weekly between Denmark and Kulusuuk. She is very concerned about environmental issues which often conflicts with her job. After her studies she became tired of living in Copenhagen and saw this job as an opportunity to move to Greenland where her ancestors on her mother side are from. She is very proud of her cultural heritage and is very unhappy about how young people in Greenland have become greedy and lost*

*connection to their roots. In the summer time she helps her sister out in a cafe and a guesthouse which she runs in the for tourists, oil industry and cargo-ship workers. This is the true dream of hers to be able to run a small scale business in her homeland but the forces of industry and the scarcity of renewable energy is making her remain at the HAARP program even if she doesn't think it will solve the threatening global warming which is melting her motherland.*

# High Frequency Active Auroral Research Program

## HAARP



## TECHNOLOGY AND STORYTELLING

An excellent implementation for these stories is to use transparent lcd-screens over physical artefacts. In this way we are able to do the artefacts narrative qualities justice but at the same time make the truly epic nature of their intrinsic power come alive. By having an entire display window a transparent touch screen one can work with a manifold of narrative techniques, all of which we wish to employ.

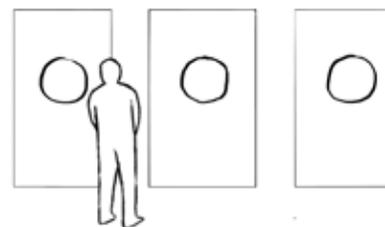
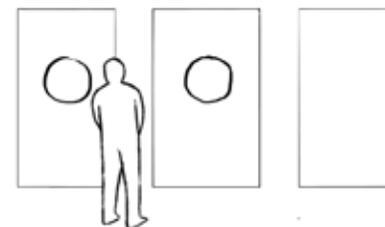
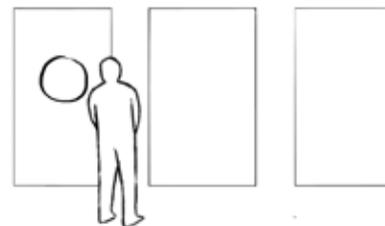
By having the screens shift between opaque and transparent we can start by revealing only one artefact and then showing more of artefacts related to the first one. Or it presents the opportunity to show only a part of an artefact. Thus we are able to work with the *reveal* metaphor, building up tension and creating dramaturgy to the story. By not immediately showing the visitor everything that actually is on display, the visitor is tempted to take part in this revelation, undressing the future of its opaqueness and peeling back the layers of history.

Of course these layers can be filled with augmentation (arrows, text, and motion graphics) as well pointing out distinctions in an artefact.

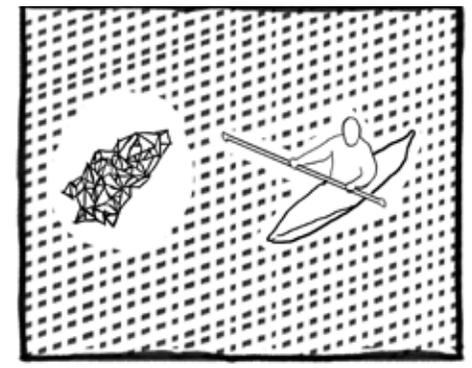
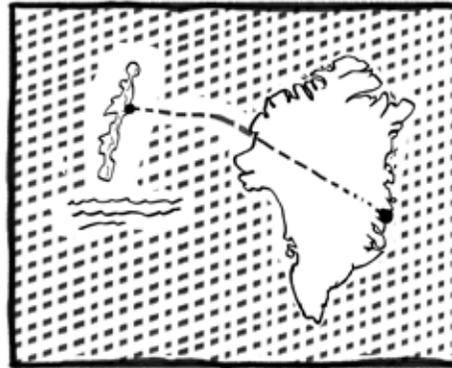
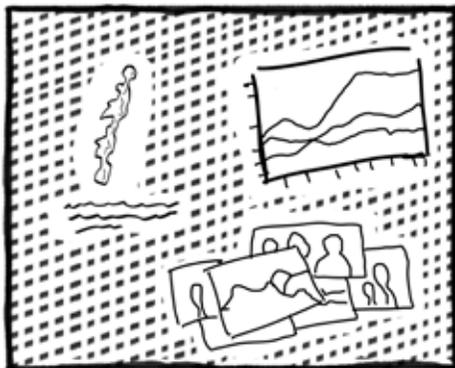
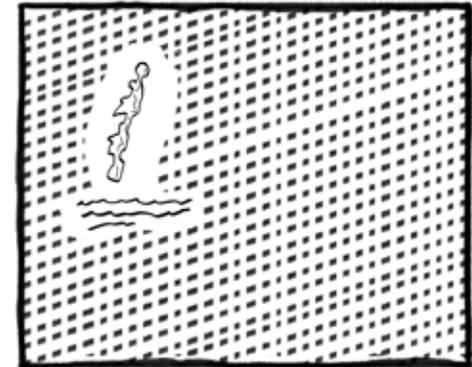
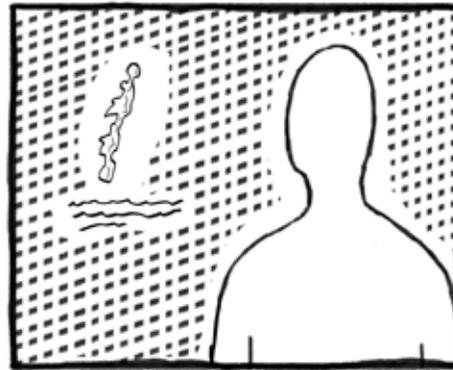
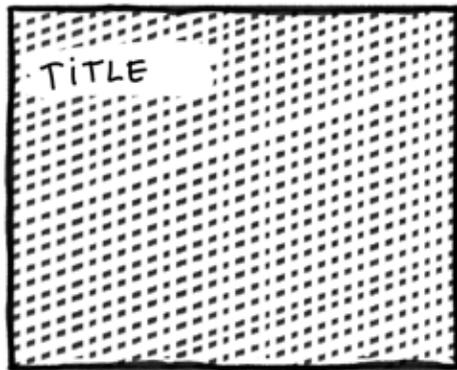
We will be able to show relations between them and animate them in 3-dimensional videos. On top of them one can easily envision videos portraying interviews with people whom have relationships to the specific stories as well as scientists analysing them.

Maps showing where they came from and how those artefacts tell a geographical story of the movement of the inuit people from the time they first came to Greenland; to the present day and in to the future. The future objects should be clearly not "real" instead they should be out of scale, in build white texture and hyperbolically designed.

For the three future narratives we here suggest in order of appearance: a ruby necklace/A miniature Chinese settlement (Aljaik Okalik); An aurora borealis energy conversion engine (Apak Andersen) and a qajaq equipped with a sonar (The Lunnatukk tribe).



By having transparent screens we can reveal artefacts one by one, thus creating a dramaturgy in the story.



Example of how transparent screens can integrate real artefacts with storytellers, videos images and maps, all in a sequential narrative.

## POSSIBILITIES WITH ON-ARTEFACT AUGMENTATION

The use of transparent screens might at first glance seem over-technological and obfuscating the underlying artefact. On the contrary however this technology will be of empowering quality. Instead of having for example an artefact explained by printed text, which is the most common use of explanations, or have the artefact mounted in a showcase and a small interactive kiosk next to it, this technology will work *with* the artefact.

If one puts an interactive story and object in different places the object has a tendency of appearing static in relation to the interactive content. And the interactive content itself will have to rely on imagery for pointing out specific details of the artefact. However if one overlays the digital on top of the real, one can do the deixis indications directly on the artefact.

One can show details and changes directly on top with uncomplicated augmented reality. Imagine for example the case of a Greenlandic stone age axe head. The differences of the various axes found around the west coast of Greenland tell the story of the movement, development and technological improvement in Greenlandic society. The aesthetics, the

wear-and-tear and the mobility (i.e. where they were found) is an enthralling story that speaks volumes about the paleoeskimo.

With a sidelined printed text this story would have to be told separately and out of context of sorts, perhaps with numeral indications and indexes to refer to different types of axes. If one were to tell it in a standalone kiosk one would naturally resort to an interactive linear narrative of some sort that uses images to compare the artefact with others. If one layers the digital on top of the physical, one can put several axes next to each other and state where they were found on a map and when.

Further one can point out details by hiding the rest of the axe with opacity. One can build dramaturgy in choosing not to reveal the entire axe at once. And one can layer digital imagery on top of the real axe, for example stacked axes forward in time. Then the visitor can peel off these layers in an interactive narrative with him scrubbing back and forth between different axes to magnify the regression or development; and then finally in a moment of prestige reveal the final "real" object behind the curtain.



Example of an actual view of an interface. A storyteller narrates and can talk about an object that is visible in reality behind the screen.

## PLACEMENT

We foresee the exhibition to be able to be located alongside existing exhibits in existing museums in Greenland or the arctic area. The installations can also be designed as standalone boxes that just plug in and therefore allow for mobility, something that we think would be apt for the story of a nomadic people.

Artefacts can be placed behind glass like in the rest of the exhibition but with technological augmentation of transparent screens. In this way the usual storytelling of a museum can still take place but can be aided by the power of digital technology and storytelling.

The artefacts behind the screen can be able to come alive and the stories, myths and culture they represent can truly be communicated to visitors and future generations of Greenlanders.

The screens can be of the same size as the existing glass walls and the placement of artefacts can be similar as is. But the added layer of digital narrative can enhance them and put them into context.

The linkage between artefact, technological development and cultural difference between them can finally be contextualised. Interviews with people who used them, scientist who discovered or researched them or narrators with stories or myths about them can be told alongside the artefacts themselves. with people who used them, scientist who discovered or researched them or narrators with stories or myths about them can be told alongside the artefacts themselves.

## INTERACTION

There are multiple ways to create interaction for these types of screens. In this instance we are envisioning a touch based solution but much poetic leverage could also be generated from using other modes of interaction. For example a deictical interface where the user points to the screen to generate a hole in it, which in turn starts the narrative. This solution would be optimal for larger objects like an entire kayak for example.

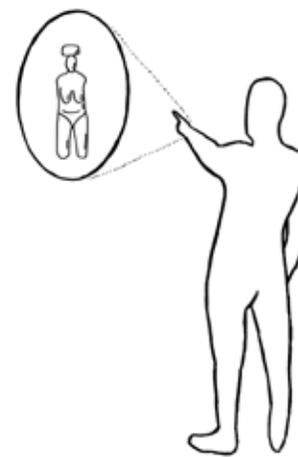
The same effect could be achieved with a "flashlight", the direction of which creates a "hole" in the otherwise opaque screen through which one can see the artefact.

This would also benefit from having a larger dark glass surface on top hiding the outlines of the screens but rather creating a large homogenous area. A tangible interaction where one moves one's hand along a carved out map, like the once used by the inuit people while navigating in kayaks. The visitor might also toggle the map itself which in turn toggles the different locations on a Western map.

## DIFFERENT MODES OF INTERACTING



Pointing with a "flashlight".



Pointing to reveal what's behind the screen.

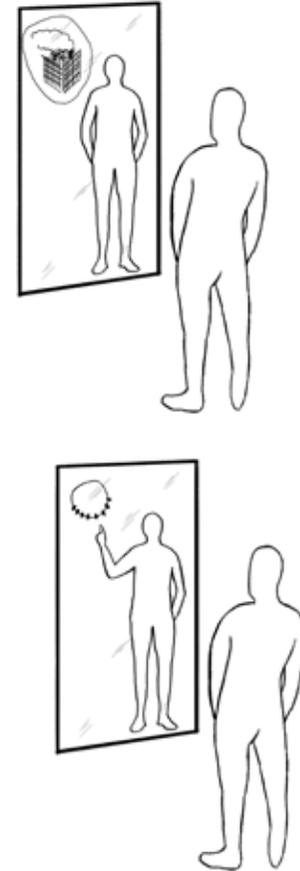
## OBJECTS IN DESIGN FICTION

The use of objects or "diegetic prototypes" as a tool for design fiction is crucial to them functioning. In order to make fiction credible enough to create a plausible world one needs to strike a balance between making that world too overt and making a too small part of it.

Creating physical prototypes serves this purpose. It's a design fiction, an object whose mere representation calls in to question the world we are in by evoking another one. The object implies having an *umwelt* around it. A world consisting of social, political, economic and technological realities we would have to assume to exist.

The thoughts of what kind of world would have to exist to make this product a reality is the inevitable question the onlooker will ask themselves. It is this implication of a different world that does the work of design fiction.

The reason of course is to open peoples eyes to different possibilities and to have a common ground for discussing the future, not to suggest a probable or desirable future. Having a "real" object there makes this task a lot easier. "The actual limits of what is achievable depend in part on the beliefs people hold about what sorts of alternatives are viable" (Erik Olin Wright). For this reason we want to support the fictions with 3D-printed "real" objects.



A narrator in the screen can talk about an artefact and show actual actual details on the real object.

## **GAGARIN**

At Gagarin we create highly interactive media solutions that allow people to experience stories vividly, understand interesting content and share their discoveries with others. Our customers are museums, companies, municipalities and institutions that utilize our work in showrooms and visitor centers, at events and online.

We have vast experience working with a multitude of media, interfaces, devices and technologies. In every project our primary objective is to create intuitive solutions, focusing first and foremost on the story to be told and the experience it creates.

*[www.gagarin.is](http://www.gagarin.is)*

Gagarín  
Fiskislóð 31  
101 Reykjavík  
gagarin@gagarin.is  
S. 510 9300

