

A man with a beard, wearing a dark long-sleeved shirt and blue jeans, is using a VR headset. He is standing in a gallery space with red curtains and wooden pillars. The background shows a display board with red sticky notes and a white sign. The ceiling has track lighting.

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Northern Periphery and Arctic

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DACCHE

**Best practice for climate stories and  
guidelines for holistic presentation of  
cultural landscapes**

**(2026) Best practice for climate stories and holistic presentation of cultural landscapes**

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## Introduction

How can heritage organisations engage with the theme of cultural heritage and climate change with the use of digital solutions? And how can we present cultural landscapes in as holistic ways as possible, combining perspectives on the landscapes themselves, the people who have lived there and the objects the people have left behind?

In the DACCHE project, we have worked with this question through using a heritage site as a starting point for diving deeper into the past, present and future of the mountainous landscape of the border region between Jämtland and Trøndelag. This site, called Hansmyra, became the foundation of the exhibition **Gaskelaante – the land in between** which was shown simultaneously at Stiklestad Nasjonale Kultursenter in Verdal in Norway and Gaaltije Saemien Museume in Östersund in Sweden from July 2025 to March 2026.

Here we will give you an insight into our process, which we hope can inspire you on how to tackle such a large theme. We will also conclude with some suggestions for themes which are fruitful to use as starting points if you want to start to work with the topic of cultural heritage and climate change.

## The exhibition Gaskelaante – the land in between

Here we will take you through the exhibition process through five steps:

- Choosing the theme
- Choosing the site
- Developing the story
- Developing the exhibition
- Using the exhibition

### Choosing the theme

The mountainous region on the border between Sweden and Norway is one of the Arctic's vulnerable landscapes. Here, climate change is already rapidly affecting both the landscape itself and how it is used.

The mountains have for long been portrayed and viewed as a landscape untouched by human interference, and as wilderness. It is however a landscape which has been shaped by people for a long time, who have used it for their livelihood. For the Sámi, Europe's only recognized indigenous people, the mountains have been the grounds for hunting, fishing and nomadic reindeer husbandry. Reindeer herding is one of the activities which has shaped the landscape the most as the reindeers' grazing has kept the grounds open and fertilised them resulting in a specific flora. In recent years, new archaeological findings suggest that there has been a Sámi presence since at least 800 AD. The mountains have also been used by others – pilgrims and traders have crossed the mountains on their way to and from Trondheim and the forests close to the mountains have been used for summer grazing for kettle (fäbodbruk) and farming. The traces of these activities are not always evident for an untrained eye.

These mountains are still used for reindeer herding, but climate change among other things is putting a lot of pressure on the Sámi communities which are still practicing reindeer herding.

The DACCHE project group saw that these landscapes could exemplify how vulnerable cultural landscapes across the Arctic are affected by climate change. But how do you capture all the different layers of these landscapes? In the project, we chose to zoom in on a specific site in the landscape which could be used as a symbol for the landscape as a whole. Then the next question was – which site?

#### Choosing the site

The project connected with a former reindeer herder and archaeologist who knew the mountainous region very well. He suggested Hansmyra, a place where several archaeological findings have been found which shows a Sámi presence for a long time. This place which today is rather unknown and unused, lays in close connection to Karl Johans way, an old road on the way between Jämtland and Trøndelag which has been used historically and is now part of the official St Olav pilgrimage route. The project hence identified it as a good starting point for conveying the rich history of the landscape. It is also a fitting place as it makes part of existing reindeer herding lands which made it possible for the exhibition to raise the question of how climate change is affecting reindeer herding today.

The project made a visit to the site in August 2024 under the guidance of Jan Persson, the reindeer herder and archaeologist. The site was documented with drone footage and 365 cameras to capture the site as thoroughly as possible. Trials were also made with photogrammetry devices to capture certain elements of the site.



### Developing the story

What can be told about such a place? To start the process of developing the story, Jamtli's chief archaeologist made a general story of the history of the mountains and the people who have been living there. The story focused on a couple of important moments in time which showed shifts in how the landscape was used and in the relationships between different communities.

This general story was then brought to life through an animated story which was created by the DACCHE project team from Nord University with input from all Swedish and Norwegian project partners. The process also included input from Stiklestad Nasjonale Kultursenter and Gaaltije Saemien Museume, the museums which would host the final exhibition.

The animated story took its start in present day, with a frame story of a family father going out in the mountain landscape around Hansmyra on skis but getting caught in a snowstorm and banging his head. He then passes out and makes a time travel back 1000 years back and sees what life looked

like then. Through multiple stops in time, he then follows the history forward and he and the audience gets snapshots of how people have lived in the area over time. The animation ends with him returning to present day and being rescued by a reindeer herder and brought back to his cabin. The story ends with a look into the future – what will happen to these landscapes from now on? How can we take care of their stories while also looking forward?

#### Developing the exhibition

Apart from the animation, the team also explored other ways of using digital means to make the history of Hansmyra and its surroundings come to life.

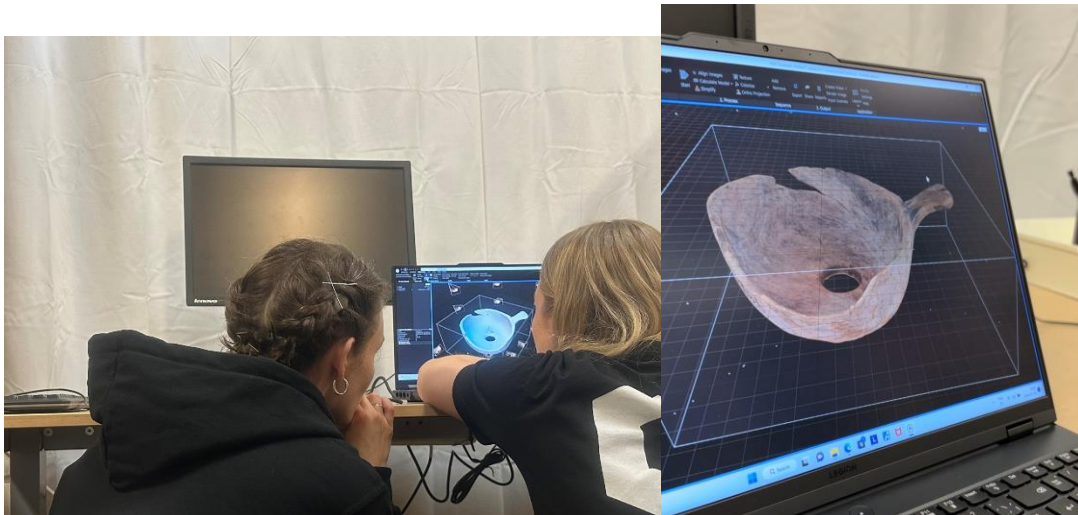
One way forward was to make use of the Sámi objects in Jamtli's collections which had connection to reindeer herding and to make digital versions of them which the visitors could interact with. Having the general story as a starting point, the team looked through the collections to see which objects that could be used to exemplify the different time periods and to further strengthen the story. Then, the method of photogrammetry was used to make 3D models of the objects.

Photogrammetry is the science and technology of obtaining reliable information about physical objects and the environment through the process of recording, measuring, and interpreting photographic images. It involves capturing multiple photographs of an object or a scene from different perspectives and using them to create accurate and detailed 3D models.

The method put some restraints on which objects that could be used – some were too delicate, others were made of materials which proved difficult to capture.

Below you can see parts of the process of making a 3D model out of a milk strainer.





The chosen objects were then exposed in a VR exhibition, which the visitor could engage in using VR goggles. The VR exhibition space took the form of a circle which the visitor would step into to explore the content. In the VR exhibition, the visitor first stepped into a quite classic museum exhibition with the 3D objects standing on pedestals with accompanying information texts about the objects. The big difference in this exhibition was that the visitors were allowed to engage with the objects – they could lift them up and twist and turn them in a way that you are not allowed to do with physical museum objects. The exhibition space and technology were also designed as to allow for interaction between visitors. Four persons could simultaneously go into the exhibition and interact with the objects together.

But how could we make Hansmyra present in the exhibition? This was made through putting a virtual portal in the middle of the VR exhibition space where the visitor could walk through the portal and then suddenly be standing in a winter landscape replicating Hansmyra’s surroundings. The visitor could then walk around in the landscape, also seeing some of the objects in the environment where they were used.

The animation and VR exhibition portrayed the past of the landscape together with the people and objects which have inhabited it. To tie this together with the present and the future, these elements were complemented by an exhibition part called “the library”. In this section, the visitors were invited to deepen their knowledge about the impact of climate change on the vulnerable landscapes in the area and the reindeer herding practices. Here they could look at short film clips with reindeer herders describing how climate change affects their work and read reports on the topic.

The future was also present in the exhibition through the display of texts which had been created through youth workshops in the DACCHE project. The texts focused on what these young people saw as necessary for creating a future where vulnerable cultural heritage is taken care of. These were displayed on the outside of the VR exhibition circle.



Pictures showing the four elements of the exhibition as shown at Gaaltije: From top left the VR circle, the animation, the library and the manifests.

To summarise, the exhibition consisted of four main parts:

- **The VR exhibition** with both 3D objects and landscape
- **The animation** showing the history of the landscape and the people who inhabited it
- **The library** with more information about the pressure that climate change put on reindeer herding today
- **The manifests** which wanted to inspire action and communal dialogue.

These elements combined created a layered image of the landscape at hand – it showed the interaction between landscapes, people and objects and how nature and culture are intertwined. It wanted to challenge the idea of the untouched wilderness of the mountains and instead showcase it as a cultural landscape which has been and continuously will be shaped by interactions between humans and nature – a relationship which needs to be strengthened and developed if we are to combat the effects of climate change.

## Using the exhibition

It was a new experience for the involved museums to host this kind of immersive exhibition. One thing that became clear in the process was that it is a quite staff intense type of exhibition, both in the development and when the exhibition is open for visitors. As an example, the visitors cannot be left on their own to put on the VR goggles – many need guidance on how to use the goggles and how to interact with the objects and landscapes in the exhibition. The goggles are also expensive, meaning that you do not want to leave it without supervision to prevent damage or theft. They also required troubleshooting at times as most technical devices do.

The exhibition at Gaaltije therefor always had an exhibition host present during opening hours. He guided the visitors, helped them with the goggles and made sure that the goggles were charged and made troubleshooting when needed. Stiklestad chose to instead focus the opening hours of the exhibition to specific times or to open it at request from groups.

This is an important lesson for museums or others wanting to engage with digital tools such as VR or XR technology – make sure that you have the capacity to staff the exhibition in a sufficient way.

However, the feedback from the visitors has been overwhelmingly positive – to get to engage with objects and landscapes in an immersive way, in a way that also allows you to do it together with each other has been received with joy and active engagement by the visitors. The staff at Gaaltije witness that they have never had an exhibition which has caused so much joy and activity among visitors.

## Topics to be used for creating climate stories

How can museums and other heritage actors engage with the theme of climate change and create stories which hold bearings on the topic? Here are some suggestions of topics coming from our experiences in the project.

- **Draw on both the past and the present to create a dialogue about the future.**  
The past can be a fruitful tool for creating a dialogue about the future. Heritage can be useful in the sense of introducing longer time perspectives than we normally engage with in our daily lives – if we stop and think about what life was like 300 years ago, can we then also think 300 years ahead?
- **How do we show care?**  
The theme of care has been reoccurring in the project both in relation to cultural heritage and the landscape/environment. The act of slowing down, of taking care of what already exists instead of using new resources, and especially taking care of places and landscapes which carries a lot of meaning to the people who use them has been entries into the theme of heritage and climate change which is less focused on guilt and more focused on relationship building.
- **Objects as symbols**  
Many museums have a vast collection of objects which forms the foundation of their work. One recurring question is then how to use these objects in relation to the theme of climate change. In our case, we have chosen to use the objects as a symbol of traditional Sámi knowledge, which speaks of sustainability, of not taking more than you need and to respect the eco system.

- **The power of intangible heritage**

We started out the project focusing a lot on the tangible heritage at risk of being lost due to climate change – heritage sites, buildings, landscapes etc. What we have experienced however is that it is the intangible heritage that makes people engage with the topic – the question of how our traditions, knowledge, and stories connected to the cultural landscapes are affected by climate change have made people connect on a personal level to a much larger extent. Perhaps because it resonates with us on a deeper level – who are we as human beings when the climate changes?

- **Traditional and local knowledge as a threatened resource**

Speaking of intangible heritage, we can also see that traditional and local knowledge is a powerful tool in climate change mitigation. This is a fruitful topic to dive deeper into – how can traditional ways of using the landscape help us forward? However, the traditional and local knowledge needs to be safeguarded and passed onwards to new generations if it is to be kept as a valuable resource.

- **We need to engage with the division of nature and culture**

We can see that our modern society is obsessed with keeping nature and culture apart – nature is not part of our society, but something kept apart and dealt with on the side. This division, having deep historical roots, can itself be a fruitful theme to dive into when engaging with climate stories.