

# Mystical marks in virgin forest explained

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[Society & Culture](#)[1][Cultural history](#) [2][Forest](#) [3][Sami](#) [4][Norway](#) [5][Forskning.no](#) [6]

The mysterious scars on ancient pine trees in northern Norway have been explained. The pines were once used as a food supplement.

During a recent mapping of the rare virgin forest in and around the Øvre Dividalen National Park in Troms, Norway, scientists noticed some scars reappearing on the trees. Many trees had some of their bark cut away on one side, leaving marks that were hard to explain.

Arve Elvebakk of the University of Tromsø (UiT) headed the study. He worked together with Andreas Kirchhefer, an expert in dating old trees by tree-ring analysis. He had already used ancient pines to chart weather and climate conditions.

Could the cuts in the bark have been left by settlers who started farms in the Dividalen valley in 1850? These dalesmen logged the pine forest, but the scars appeared to be from long before this.

Some suggested the cuts in bark could have been made by indigenous Sami herders as markers of reindeer migration routes and indicators of territorial grazing rights – or simply as signs marking footpaths.

A third proposal was that the cuts were made by Finnish immigrants who used the trees for bark bread. In hard times with failed crops and famine at home they could cross over to Norway in search of food and game.

“How wrong we were,” says Elvebakk.

The mystery was solved when the scars in the bark were dated back to the 17th and 18th centuries. This was over a century before the dalesmen arrived. There were also too many of the scars for the footpaths or reindeer routes theory to be plausible.

“It turned out that this came from the ancient Sami practice of harvesting pine bark for food,” explains Elvebakk. “In a laborious process the bark was converted into flour that could be used in cooking.”

This was a tradition that had been lost in Norway. But in Sweden research on the theme has been conducted for the last couple of decades, and the solution to the Norwegian bark mystery was given by studies in the neighbouring country.

## Careful cultivation

Pine bark has been used in times of famine by all the peoples of the High North. Norwegian farmers would chop down the trees and then scrape off all the bark, or simply scrape the bark off trees in continuous rings.

The pines with the strange scars in Dividalen haven’t been so brutally handled. The cuts in the bark are on just one side of the trees, which enables them to survive the injury.

The local Sami, who did not have tools for chopping down large trees, were more careful when they reaped bark.

“The harvesting was done in the spring. We think it was a job for women and children,” says Elvebakk.

Researchers have found five different tools made of bone that were used to harvest bark. The inner bark was the prize they were after.

### **Buried and toasted**

After the pine bark was scraped away from the trees it was packed in birch bark and buried.

“A bonfire was lit on the ground above the buried bark and allowed to burn for up to four days,” says Elvebakk.

The heat slowly toasted strips of the bark and removed the bitter taste.

“The bark flour was mild and tasty. It was considered a delicacy when mixed with other food, such as porridge or a stew with animal fat.”

### **Respect for the tree**

Researchers also think the fine bark flour was healthy.

“Comparisons made with the incidences of scurvy in the Sami and the Norwegian populations show that the disease was much more common among the Norwegians,” he says. “This can indicate that the bark had medicinal effects.”

The bark also protected against tapeworms.

The trees did not suffer from such harvesting. The oldest scrapings are all on the north side of the trees, in reverence of the sun god’s effect on the south side. But Elvebakk says this practice vanished when Christianity was spread to the Samis.

### **Not really virgin forest**

The Sami and mainstream Norwegian farmers and foresters were often at odds with one another, not just in Dividalen, but also elsewhere in northern Norway.

The farmers who logged the forest regarded the scrapings as harmful for their lumber, says Elvebakk. Therefore, the Sami were pressured to stop scraping the trees. This is evident in contemporary articles on forestry.

Around 1860 more flour and sugar became available, and the need for home-made bark flour disappeared.

The tradition was forgotten, and as time passed nobody could explain the scars on the trees.

That is, not until Swedish researchers solved the mystery and the tradition was rediscovered in Norway as well.


“Now that we know what the marks mean and the history they represent, this is an enrichment for tourists and hikers in Dividalen. It also changes our outlook regarding this as a virgin forest area,” he says.


The definition of a virgin forest is that it is untouched by humans. No trees have been logged, and trees that fall down are left to rot.


“But this forest wasn’t untouched after all; what we regarded as a virgin forest was actually part of an ancient Sami cultural landscape.”


The tree marks can be found in many areas of northern Norway. If you are out in these woods this summer and see any of these old scars, Arve Elvebakk would be happy to receive your photos at his e-mail address: [arve.elvebakk@uit.no](mailto:arve.elvebakk@uit.no) [7]

[Read the article in Norwegian at forskning.no](#) [8]

 [Patches of bark have been removed from older pines in the Øvre Dividalen National Park, but not in ways that would prevent the trees from continuing to grow. \(Photo: UiT\)](#) [9]

 [Arve Elvebakk poses next to one of the marked pines at Dividalen. \(Photo: UiT\)](#) [10]

 [A younger debarking mark photographed in Dividalen around 1912. \(Holmgren 1912\). \(Photo: UiT\)](#) [11]

 [Patches of bark have been removed from older pines in the Øvre Dividalen National Park, but not in ways that would prevent the trees from continuing to grow. \(Photo: UiT\)](#) [12]

[Both rainforest and peasants need protection](#) [13] [What happens when the forest turns black?](#) [14]

[Children know little about the indigenous Samis](#) [15]

[Arve Elvebakk's profile](#) [16]

[Nina Kristiansen](#) [17]

Glenn Ostling

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[3] <http://sciencenordic.com/forest>

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