

GEOLOGICAL HERITAGE IN THE FINNISH LANDSCAPE ART

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**SAIMAA
GEOPARK
FINLAND**

The author of the article, Kaisa-Maria Remes (M.Sc), works as a geologist at the Saimaa Geopark Association and is interested in cultural heritage in addition to geology. This article combines these two areas of interest to highlight how to view landscape paintings from a geological perspective.

Cover image:

Ferdinand von Wright (1822-1906): Fighting Capercaillies, 1886 (124x188.5 cm), Ateneum Art Museum.

Photo: Finnish National Gallery.

What is the Finnish soul landscape and does it convey the geological features of the landscape? Finnish landscape art, whether it be late 19th century landscape paintings or more recent photographic works, has depicted lakes, sparkling rapids, rocky cliffs, winding esker ridges, erratic boulders and bouldery insides of the woods. Many of the works also quite accurately depict the geology of the subject being illustrated, even if the artist did not intentionally attempt to do so. So geological heritage is irrevocably part of our landscape art, when we can only look at it in the eyes of a geologist.

Geological heritage – the story of the landscape

So what does geological heritage really mean? Cultural and natural destinations become part of our shared heritage when they are understood and interpreted so (UNESCO World Heritage Center, 2019). In other words, we humans define what cultural and natural heritage are. It involves what we want to preserve for future generations and what we want to tell about our accomplishments and the wonders of nature. Geological heritage can be different sites and areas of terrain and bedrock. In addition to the World Heritage Program, the United Nation's Educational, Scientific and Cultural Organization UNESCO has a program for the protection and conservation of geologically important areas of international importance (UNESCO Global Geoparks, 2019), in which Saimaa Geopark from Finland is pursuing. The geological natural heritage is expressed by landscape paintings and on the spot in the Saimaa Geopark area, for example, by the sparks of the Imatra rapids and the surrounding rocky cliffs (Figure 1).



Figure 1. August Weger (1823-1892): According to a painting Imatra by B. Lindholm. Illustration for "En resa i Finland" photo 7 - 1874. Ateneum Art Museum. Photo: Finnish National Gallery.

Traditionally, it may have been thought that landscape paintings do not tell a story like historical paintings. However, the landscapes have their own story to tell. The understanding of geological heritage places the landscape in a real time perspective, that is, a whole new level of interpretation is created as we understand the geological processes in the environment. If, in interpreting the landscape, we take into account also the geological dimension in addition to the cultural heritage of our human activities, traces of time can extend back billions of years. Thus, a viewer or experienter of illustrated or true scenery of the rocky cliffs will have the opportunity to "see" the formation of the rock, deep in the earth's crust billions of years ago and when admiring esker islands to understand the power of

melting water flowing under the ancient glacier. Then the relationship between man and geology becomes apparent. We have taken advantage of the bedrock in the construction or quarrying channels, and since ancient times have travelled along esker ridges and ice-marginal formations.

In Finland, the rise of landscape painting into one of the most popular subjects of the late 19th century art was partly influenced by a colored edition of Zachris Topelius's *Finland framstäldt i teckningar*, published in the 1845-52, which presents the eight provinces of Finland with 120 lithographs. The book was reprinted in 1995 (Klinge & Reitala, 1995). From the Saimaa Geopark's sites the book illustrates Imatra rapids, Savitaipale and Porrassalmi. For example, lithography of the Savitaipale church and its surroundings illustrates the geology of the area - the smoothly sloping terrain of the Second Salpausselkä and its associated esker system, and the lake's back, spotted by esker islands, play a major role with the church in the work. The Ateneum Art Museum's collections contain a sketch of this lithography (Figure 2). Lithographic prints were made in Biedermeyer style, which was already old-fashioned at the time of publication. New winds began to blow in Finnish landscape painting in the 1850s, when Werner Holmberg began his career in Düsseldorf and created a new framework for presenting the Finnish landscape (Klinge & Reitala, 1995: 11).

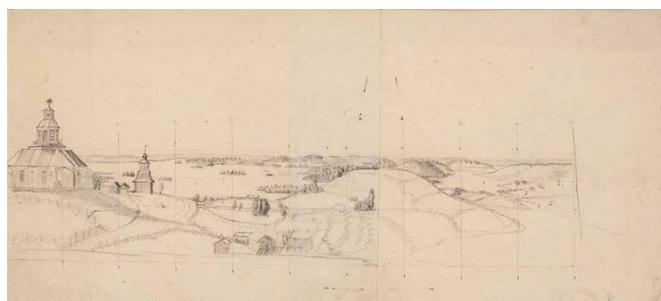


Figure 2. Pehr Adolf Kruskopf (1805-1852): Landscape from Savitaipale, sketch (18.5x40 cm), Ateneum Art Museum. Photo: Finnish National Gallery.

Werner Holmberg travelled to Düsseldorf in the early summer of 1853. The city was famous for its art academy, which Holmberg, however, could not attend because of the landscape painting class was already full. Thus, Holmberg was a private student of the Academy's professor, Hans Guden. At the Düsseldorf Art Academy, nature was considered a teacher. This meant that students' summers were spent on sketching trips and winters in studios where oil paintings were made from summer sketches. The sketches resulted in carefully composed works that did not slavishly portray a particular landscape. During the 1860s, Paris began to attract Finnish artists. It became the most popular travel and study destination, and the authority of Düsseldorf began to decline. In the 1870s, Düsseldorf was gradually overshadowed by Paris. (Lukkarinen & Pennonen, 2017)

Finnish landscape and its interpreters

The reason for the softly undulating and smoothed outlook of the Finnish landscape lies in geology. The landscape is based on ancient bedrock, for example the oldest rocks of the Saimaa Geopark bedrock, ie the mica gneiss, were created about 1.9 billion years ago when sand and clay sediments deposited on the bottom of the ancient sea were compressed together in mountain-folding and transformed into mica gneiss after being subjected to high pressure and temperatures. There are even older rocks elsewhere in Finland - the oldest rock in Finland and the European Union is the 3.5 billion year old Siurua gneiss of Pudasjärvi (Geological Survey of Finland, 2019).

During the millions of years after the bedrock formation, weathering occurred, and the high mountain range eroded until during the last glacial period about 20,000 years ago, the continental ice sheet first cleared the bedrock from excess rock material and later, as the glacier melted about 13,000-10,000 years ago, different kinds of soils covering the bedrock were deposited. It is possible to think that the geological time scale of Saimaa Geopark and at the same time the whole of Finland is like a very thick book, with thousands of pages scattered to dust, leaving only the front and back covers of the book. With this scaling, a brief postscript at the back cover of the book could mark the human life. More information on the evolution of the Finnish bedrock can be found, for example, in the publication Precambrian geology of Finland: key to the evolution of the Fennoscandian shield (Lehtinen et al., 2005) and the origin of the Finnish soil and its various formations, eg esker ridges in the book named Jääkaudet (Koivisto, 2004).

Geology has been a discipline for only a couple of hundred years. However, texts describing the characteristics of Finnish soil began to appear already in the 18th century. They describe boulders and esker ridges as well as different soil types, but no attempt is made to explain the deposition of different formations or geological processes (Rainio, 2004). The actual first theories describing the origin of the soil involved biblical floods. People thought at that time that the erratic boulders were transported by huge masses of water, the roche moutonnées and striations were abraded by slurry flows, and the potholes were created by turbulent water flows.

Finally, in the mid-nineteenth century, when landscape painting was

valued, the glacial theory of the Swiss Louis Agassiz was published in geology. It was strongly opposed in the beginning. In Finland, the opponents' front included philosopher and social activist J.V. Snellman and geologist N.G. Nordenskiöld, who, at the excavation site of the Saimaa Canal, during the study of the structure of the First Salpausselkä ice-marginal formation, declared that it cannot be glacial in origin (Rainio, 2004). At that time, the pressurized ice flow and the water masses of the glacial melting stage were not yet known, so esker ridges, ice-marginal formations and potholes were not considered to be the result of the work of hard and rigid glaciers alone. Gradually, however, the ice age theory was accepted and continues to guide the ideas of geologists studying quaternary deposits. However, the extent to which it has influenced artists cannot be defined without research.

The conditions were favourable for Finnish landscape painting in the 1860s and 1870s. Domestic subjects were popular and corners of the country seemed to be waiting for artists to capture the uniqueness of the landscape (Reitala, 1989). At that time it was popular to depict various universally valid Finnish landscapes. The following three images feature landscape paintings from the late 19th century that attempt to express this ideal Finnish landscape (Figures 3-5). The geological story of the landscape described above is transmitted with varying degrees of accuracy. The main aspiration of the artists has been to express the atmosphere and patriotism conveyed by the landscape, and the exact geological features of the landscape have not been so important.

Werner Holmberg, the painter of the landscape painting in Figure 3, is considered a pioneer in Finnish landscape art. His artistic career ended already in 1860, when Holmberg died at the age of 29, of pulmonary tuberculosis. Holmberg made several masterpieces during his short artistic career and served as a role model for many later Finnish landscape painters. Holmberg spent most of his career in Düsseldorf, and the romanticized image of the rugged Central European mountain landscape is reflected in many of his works. Holmberg liked the nature of Finland, which he described as untouched compared to the Central European cultural landscape. During his Düsseldorf season, Holmberg made two trips to home to sketch in the Finnish summer. However, most of his trips were to the Düsseldorf area. He made one longer journey that extended to Vienna and Prague. (Lukkarinen & Pennonen, 2017)

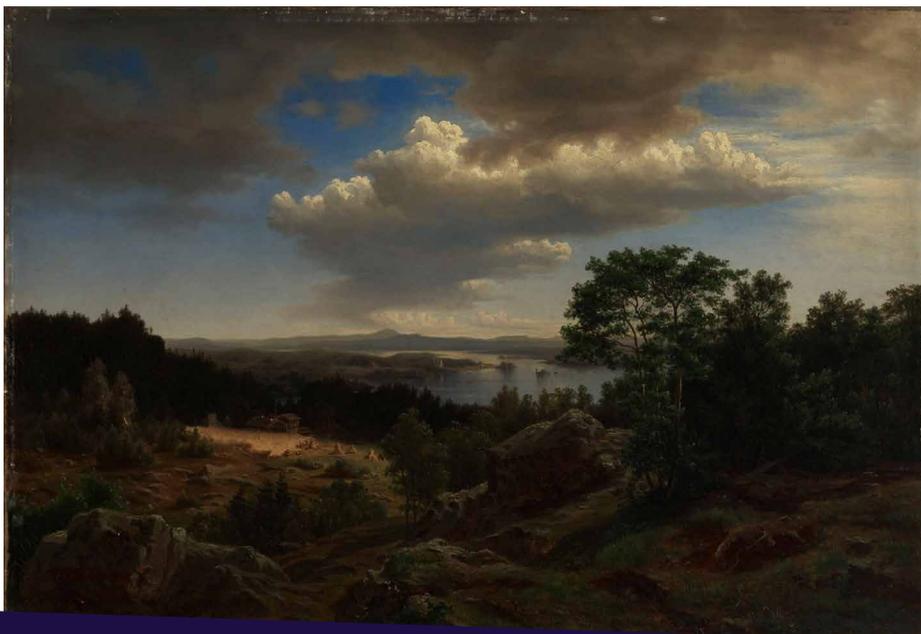


Figure 3. Werner Holmberg (1830-1860): Finnish landscape, 1855 (50x71.5 cm), Ateneum Art Museum. Photo: Finnish National Gallery.

Almost all elements of the Finnish landscape are featured in this painting. In the foreground, an ancient bedrock peeps as rock outcrops from a glacier-bedded till, and in the background the lake's back is split by a ridge, possibly esker? On the horizon we can still see the roots of the ancient mountains. The painting has been influenced by sharp German landscapes. Nevertheless, geological features characteristic of Finnish landscapes can be discerned.



Figure 4. Fanny Churberg (1845-1892): *Finnish Summer Landscape*, 1879 (60x90 cm), Ateneum Art Museum, Boman Collection. Photo: Finnish National Gallery.

This summertime rural idyll characterizes the roche moutonnées in the foreground of the few buildings. Rocky surfaces have been polished during the last glacial period as continental glacier flowed over the area. There and here, the boulders that travelled along the glacier also stand out. The pine tree rising in the middle of the painting is associated with patriotic imagery. Stubborn and unyielding pine has been considered a reflection of the Finnish people (see Lukkarinen & Waenerberg (2004: 20-34) and Majjala (2017: 109-110) for the politically allegorical role of trees).

Fanny Churberg, the creator of the Finnish summer landscape in Figure 4, was one of the women painters who specialized in landscape painting. Churberg did not receive her worth in her time, but is now considered one of the most important landscape painters in Finnish art. Churberg's works were not strongly regarded by the contemporaries as she painted with fierce style and strong colors, although motifs in her many paintings are typical patriotic Finnish landscapes. Fanny Churberg was trained as a landscape painter in Germany, and like Werner Holmberg's works, Churberg's landscapes are influenced by the nature of Central Europe. Fanny Churberg began her career as a landscape painter in the early 1870s and abandoned it as early as the 1880s. The decision to quit was influenced by her art's lack of attention and illness. (Konttinen, 2012)

Hjalmar Munsterhjelm, the painter of *Road in Finland*, shown in Figure 5, studied for a moment in Düsseldorf as a private student of Werner Holmberg and graduated from the Art Academy in 1865 as the first Finnish student to complete the course. Munsterhjelm thus received



Figure 5. Hjalmar Munsterhjelm (1840-1905): *Road in Finland*, 1865 (72.5x100.5 cm), Ateneum Art Museum. Photo: Finnish National Gallery.

At the end of the 19th century, Finnish highways were really just sand roads, and there was not much traffic. This landscape depicts a road through an esker ridge and shows an erratic boulder that has fallen off a glacier ride. The esker ridges were deposited in glacial river tunnels formed at the bottom of the glacier. They can form fragmentary esker systems of hundreds of kilometers in length. In the background of the painting, there may be another such esker system on the other side of the lake.

a thorough training, being technically very skilled. However, he is not been respected on the same scale as other contemporary painters, as Munsterhjelm repeated endlessly the same themes in his works, and some paintings from the late stages of his career are considered carelessly done. (Reitala, 1989)

From National Romanticism to national landscapes

At the end of the 19th century, a national-romantic style emerged in various arts in Finland, which glorified and portrayed the mythical past of the Finnish people. Literature of the time, Visual arts and compositions mirrored the Finnish mentality taking Finnish nature as a source of inspiration. During the oppression period of 1899-1905, various works also reinforced the idea that Finland is its own nation among other nations and that it has its own national characteristics (eg Majjala, 2017). In the visual arts, symbolic works from the period of national romanticism received their themes from Kalevala (Finnish national epic). From the international styles, Finnish National Romanticism resembles Art Nouveau style. The Arts and Crafts movement is also closely associated with it. Finnish artists travelled extensively and became acquainted with these artistic flows from different countries, and were influenced by them. Throughout the 19th century and onwards, sketching and painting trips were directed at home and abroad to the nature and tourist attractions, many of which are still popular destinations. It can be said that artists developed a "tourist gaze" as they composed views for their landscape paintings (Lukkarinen & Pennonen, 2017).

As a result of long-standing national identity work, the Ministry of the Environment set up a working group in 1992 to make a proposal on Finland's national landscapes. The working group named 27 national landscapes that "represent the special environmental and cultural features of the country" (Finland's environmental administration, 2019). More national landscapes were selected from southwestern Finland –only Imatrankoski, Olavinlinna and Pihlajavesi, Punkaharju, Heinävesi route, Väisälänmäki, Koli and North Karelia hill villages were selected as national landscapes from eastern Finland. Koli and Imatrankoski are especially prominent in the landscape paintings of the Golden Age of Finnish Art (1880-1910). Koli's national landscape and its impact on painting is comprehensively covered in the book *From Finnish National Landscapes to Mindscapes – National Landscapes in Late 19th and 20th Century Finnish Painting* (Lukkarinen & Waenerberg, 2004).

Generally speaking, Finnish nature appears in landscape paintings or portraits, first colored by German Romanticism and Realism, then French realistic outdoor painting (En Plein Air), and finally by Symbolism during National Romanticism. As we approach modernity, the perspective on landscape art has changed. Today, the works seek to comment on the state of the environment, how the use of natural resources and climate change have changed the landscape, and to awaken humanity to our responsibility to preserve the natural heritage.

The following contain some of the landscape paintings of the late 19th and early 20th centuries and their geology from the perspective of Finland and Saimaa Geopark. All but one of the works can be found in the collections of the Ateneum Art Museum.

Rocky cliffs, taluses and erratic boulders

One of the internationally significant geological features in Saimaa Geopark is rapakivi granite. Rapakivi granites in Lappeenranta and the surrounding area are part of the extensive Vyborg rapakivi area, which is globally considered to be the type area for this type of rock. In the Saimaa Geopark area, rapakivi granites form the youngest unit of the bedrock. They were crystallized about 1.6 billion years ago in the upper part of the Earth's crust. Rapakivi granites form a group of rapakivi variations with different properties, for example, the most common rapakivi modification in the Vyborg rapakivi region is viborgite. It is identified by the presence of pink, K-feldspar mineral grains surrounded by light-coloured plagioclase mineral circles. Viborgite is a popular building stone. So it's very durable, while some other rapakivi granites tend to crumble into a gravelly substance. Rapakivi is named after the Finnish term for "crumbly rock" and is known by its Finnish name in all languages of the world. A comprehensive picture of Finnish rapakivi granites can be found in the aforementioned Precambrian geology of Finland: key to the evolution of the Fennoscandian shield, section of the book dealing with rapakivi granites (Rämö & Haapala, 2005).

Rapakivi granite is the subject of a painting by Fanny Churberg (Figure 6). The work depicts a steep rapakivi wall with the vertical and

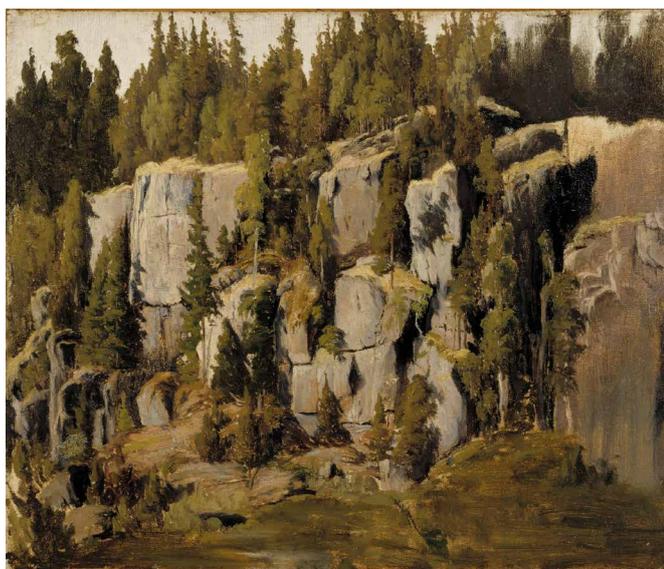


Figure 6. Fanny Churberg (1845-1892): *Rapakivi Cliffs*, 1871 (29.5x34 cm), Ateneum Art Museum, bequest of Edvard Richter and Mandi Karnakoski-Richter. Photo: Finnish National Gallery.

horizontal fracturing typical for granites. Fanny Churberg painted another work on the same subject in the 1870s. The Ostrobothnian Museum's collections include the work *Rapakivi cliffs in Southern Savo from 1874*. The dominant element of the landscape is similar, if not the same rapakivi wall as in the previous work of 1871 (Figure 6), which is probably done for practice. From the painting of *Rapakivi cliffs in Southern Savo*, completed in 1874, it is known that the rapakivi rock depicted in it is located in Valkeala and the view has been developed to reflect the grandeur of Central European mountain landscapes (Konttinen, 2012).

In many places, the bedrock of Finland is covered with till, which is the most common soil type in Finland. Till is transported and piled up by continental glacier, so it can contain ingredients from clay to large boulders. The formation of various moraine formations, such as the drumlins presented later on in the text, is described in the publication *Nationally Valuable Moraine Formations* (Mäkinen et al. 2007). During the Ice Age, the continental glacier flowed under pressure and the water freezing in rock cracks quarried large pieces of rock, which were carried along with the flowing ice. Such large rock boulders carried by the glacier are called erratic boulders and are a common theme in Finnish landscape paintings. Figure 7 shows Magnus von Wright's study piece on boulders. The sketch depicts a broken erratic boulder along a dirt road. A similar set of splintered boulders can also be found at one of the Saimaa Geopark sites, namely the Rakokivi Stones in Puumala.

Magnus von Wright's career as a landscape painter began in the 1840s in his home landscape of Haminalahti, Kuopio. During his career, he painted a number of high-altitude lake sceneries and studied boulders and rocks. Probably these exercises helped in the composition of the larger landscapes. Magnus's brothers Wilhelm and Ferdinand were also artists and often is referred to collectively as the von Wright brothers when it comes to their art. The brothers also have a role in the history of science in Finland and Sweden in the 19th century. They made scientific illustrations, especially of birds, and Magnus von Wright is considered a pioneer in Finnish ornithology. (Anttonen & Pennonen, 2017)

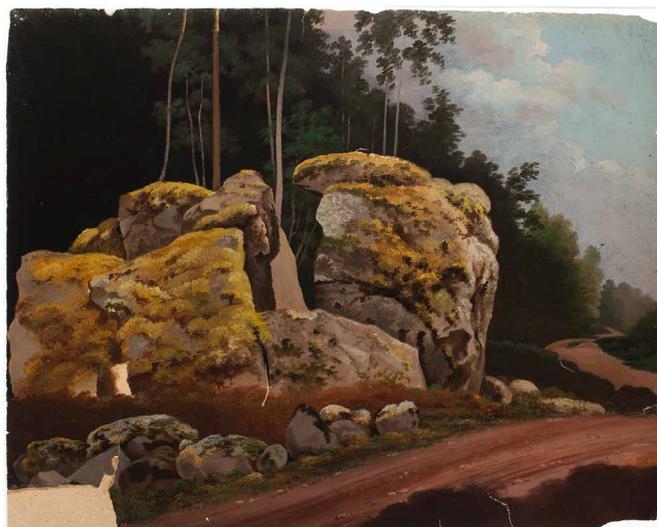


Figure 7. Magnus von Wright (1805-1868): *Landscape Study, Road and Mossy Rocks* (32.9x41.4 cm), Ateneum Art Museum. Photo: Finnish National Gallery.

Esker lines, sand pits and even drumlins

At the end of the last glacial period, about 13,000 years ago, the glacier's edge had been divided into separate fan-like ice lobes, at the bottom of which melt water flowed in glacial river tunnels. In these tunnels sand and gravel carried and sorted by water deposited into long and fragmentary ridges. There is a wide network of esker ridges in Finland and they have served as natural pathways for plants and humans right after the Ice Age.

Esker landscapes have been a source of inspiration for many artists. One of the most famous esker ridge paintings in Finland is Albert Edelfelt's *Kaukolanharju at sunset* (Figure 8). The dark-colored esker of the work stands out well from the lake landscape gilded with afterglow. The impression of wilderness would be even greater if there was no stump in the foreground of the landscape where the traces of work of human hands could be seen. *Kaukolanharju* is located in Tammela on the strait between Kuivajärvi and Pyhäjärvi. Edelfelt made the first drafts of *Kaukolanharju* while staying in the area in October 1888 (Lukkarinen & Waenerberg, 2004).

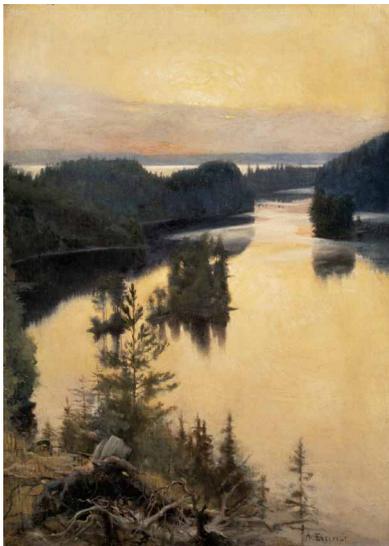


Figure 8. Albert Edelfelt (1854-1905): *Kaukolanharju at sunset*, 1889-1890 (116.5x83 cm), Ateneum Art Museum. Photo: Finnish National Gallery.

So people have used esker ridges as pathways, but also in other ways. Soils have been taken from the ridges and are still being extracted for various purposes. As a result, many esker are no longer natural and small and larger sand pits can be found on the ridge slopes. In order to preserve the unspoiled nature of the eskers, the state's nature conservation programmes also include esker ridges. The Finnish Esker Conservation Programme has 159 ridge areas with a land area of approximately 97,000 hectares (Ministry of the Environment, 2020). 19th century artists have also been interested in various sand pits. Figure 9 shows Werner Holmberg's practice painting of the sand pit and Figure 10 shows Maria Wiik's landscape study illustrating the edge of the sand pit. It is difficult to assess whether the models of these works have been found in Finland. At least Holmberg was already studying landscape painting in Germany at the time he made his painting (Reitala, 1989).



Figure 9. Werner Holmberg (1830-1860): *Sand pit, study*, 1854 (26.5x35 cm), Ateneum Art Museum. Photo: Finnish National Gallery.

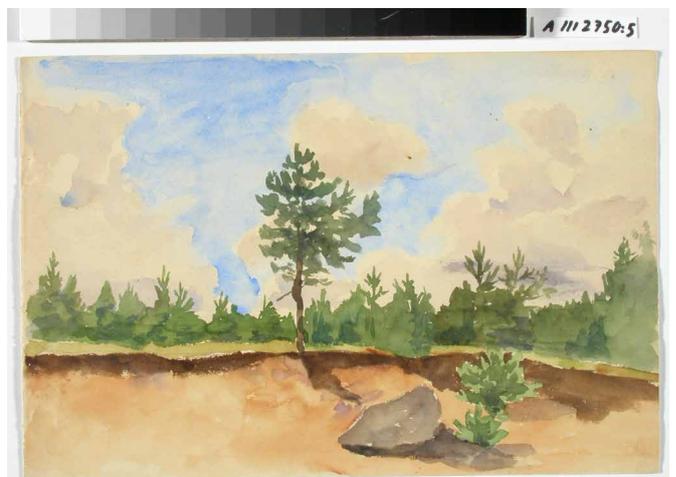


Figure 10. Maria Wiik (1853-1928): *Landscape study; edge of sand pit, shallow forest* (17.4x25.5 cm), Ateneum Art Museum. Photo: Finnish National Gallery.

In Werner Holmberg's practice painting of the sand pit, the quality and structure of the esker ridge soil are well reflected (Figure 9). The painting shows that the material in the sand pit is mostly sorted sand, with only a few rocks rounded by melt water at the bottom of the pit. The sand material seems to be quite fine because of the grooves eroded by water at the edges of the pit, and the layered structure of the esker sediments can almost be discerned from the left side of the work. Maria Wiik's watercolor study is sketchier (Figure 10). However, it forms a flat sand formation with one large block of stone. The levelness of the surface would indicate that the subject of the work is a glacial river delta, that is, a formation deposited in the water on the mouth of the glacier river tunnel. The sand pit may have been excavated on the glacier side of the delta because boulders are also present. The forest is also characteristic of sandy and gravel soils, ie pines. Fredrik Wiik, brother of Maria Wiik, was professor of geology at the Imperial Alexander University (now University of Helsinki) (Konttinen 2014). Did the brother's career as a geologist affect his sister's views and interpretation of the landscape?

As previously mentioned, esker ridges were formed at the bottom of ice lobes in tunnels in the same direction as the flow of melt water in them. Glacial river currents ended at the edge of the glacier, and sand and gravel deltas formed at the mouths of tunnel channels. Such adjoining deltas and moraine ridges pushed by the glacier at the edge of the ancient glacier are called ice-marginal formations. In the Saimaa Geopark area, the First and Second Salpausselkäs bounded by the waters of Saimaa are ice-marginal formations.

When the Salpausselkäs were deposited about 12,300-11,600 years ago, streamlined moraine ridges called drumlins formed under the glacier in the central part of the ice lobe. They were created as the glacial flow modified material below it and laid material behind rocky hills into long ridges. In the present landscape drumlins are the most distinctive feature in hilly and undulating countryside - farms are often built on the glacier side of the drumlin, where the glacial flow had encountered a rocky barrier and the fields were cleared on gently sloping slopes of the drumlin. From the 19th century landscape art is quite difficult to find drumlins. Hjalmar Munsterhjelm's Lake Landscape may be the rare exception in which drumlin is depicted in landscape painting (Figure 11). Potential drumlin is in the work between the woods in the background and the mid-section. The back of the drumlin is slightly sloping from the right edge of the painting to the left edge. The glacier has thus flowed from right to left in the landscape of the painting and the rock head of the drumlin remains outside the right edge of the work.



Figure 11. Hjalmar Munsterhjelm (1840-1905): Lake landscape (30x49.5 cm), Ateneum Art Museum. Photo: Finnish National Gallery.

Lake backs, sandy beaches and rapids

Finland is the land of thousands lakes. We create such an image both domestically and abroad, and the visual arts also play their part. Savon Sanomat newspaper reported on its website on February 1, 2017 under the title: This Finnish work is queued for viewing at the National Gallery. The work in question is called Keitele and painted by Akseli Gallen-Kallela in Konginkangas in 1905 (figure 12). Today it is in the collections of the National Gallery of England and has become one of the museum's most beloved works.

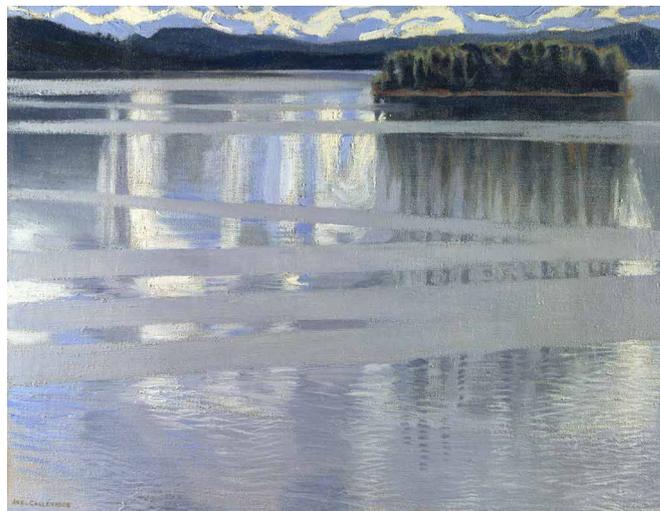


Figure 12. Akseli Gallen-Kallela (1865-1931): Lake Keitele, 1905 (53x66 cm), National Gallery, London. Photo: National Gallery, <http://www.nationalgallery.org.uk/paintings/akseli-gallen-kallela-lake-keitele>

The Saimaa Geopark presents through its work the Saimaa and its geological history. There has been much research on the Saimaa and its various stages of development. Geologist and geographer Aaro Hellaakoski was one of the first scholars to study Saimaa but he is more familiar to many Finns as a poet. Hellaakoski's publications (eg 1922) have served as a basis for the work of later researchers. A comprehensive scientific summary of the Saimaa stages can be found in Matti Saarnisto's research (1970). A more general description of Saimaa can be found both in geological and cultural terms in Matti Hakulinen's book series about Saimaa and River Vuoksi (2009, 2012, 2015 and 2018).

The development of the Lake Saimaa have been most influenced by the uneven land uplift that began at the end of the last ice age after the continental ice sheet melted. This means that the land is still rising faster in the glacial time ice accumulation area, ie around the Gulf of Bothnia, and less in southern and south-eastern Finland, where Saimaa is located. As a result of uneven land uplift, the earth's crust and lake basins are tilted to the southeast. Due to the uneven rise of the land and the tilting of the lake basins, Saimaa's outlet channel has changed its location several times and there are different kinds of raised beaches inland at different altitudes above the present shoreline. They have been created especially on the sandy slopes of esker and ice-marginal formations.

Various formations typical to shores are mainly the result of waves, the surf and coastal currents which erode the ridge and the loose material is sorted and transported along with the water lower down the shoreline, where it is deposited. Shores are also shaped by wind and the movement of ice. The thrusting and movement of ice play a significant role, especially in the formation of shore walls. When the water level falls as a result of land uplift, for example, new land for shore forces to erode and deposit is revealed. This is how the shorelines form one below another in the terrain. (Mäkinen et al., 2011)

Figure 13 illustrates a sandy beach artwork by Hugo Simberg, outlining a wide shoreline. The sandy beach seems to be gently undulating. Perhaps it has low beach ridges formed by waves one below another.



Figure 13. Hugo Simberg (1873–1917): *Sandy beach, Niemenlautta* (46x53 cm), Ateneum Art Museum. Photo: Finnish National Gallery.

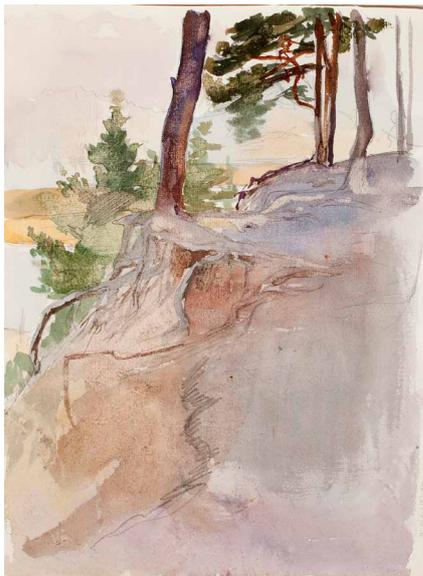


Figure 14. Albert Edelfelt (1854–1905): *Beach Landscape, Tree Root*, 1887–1892, Ateneum Art Museum. Photo: Finnish National Gallery.

Albert Edelfelt's watercolor work on the beach, on the other hand, depicts a steep erosion beach bank eroded by shore forces (Figure 14). Such erosion banks can be found in the Saimaa Geopark sites, such as Pistohiekka in Puumala and Rastinniemi and Päihäniemi in Taipalsaari.

Saimaa's current outlet channel is River Vuoksi, which broke through the sandy part of the First Salpausselkä at Vuoksenniska about 5,700 years ago due to the uplift of the Earth's crust and the subsequent flooding of the Saimaa. The waters of Lake Saimaa sought their way into fragmented part of the bedrock, a fracture, and eroded a deep gorge. A whirlwind rapids were created there – called Imatra. Today, rapids only rage in the shows, but before the rapids were dammed, it was a wild and mesmerizing sight. Tourism in Finland began at Imatra and many artists from the Golden Age visited Imatra rapids, which were flowing freely at the time. One of the best known works is probably Akseli Gallen-Kallela's large-scale work *Imatra in winter* 1893 (Figure 15). In the same year, he also completed another painting on Imatra, *Imatra in Electric Light*, which can be found in the collections of the Joensuu Art Museum. Akseli Gallen-Kallela was invited to paint at Imatra, in the winter of 1893, together with his artist friends Louis Sparre and Albert Edelfelt, in connection with the opening ceremony of the wooden hotel (Rossi, 2006). The inauguration ceremony of the hotel culminated in a light show, where colour-changing floodlights lit the surges of Imatra.



Figure 15. Akseli Gallen-Kallela (1865–1931): *Imatra in the winter, 1893* (153x194 cm), Ateneum Art Museum. Photo: Finnish National Gallery.

In Akseli Gallen-Kallela's winter themed painting of the Imatra, the rocks bordering the rapids do not stand out. In Figure 1, August Weger's copy of Berndt Lindholm's painting, they, in turn, stand out well. The west slope of the channel, or the mica gneiss cliffs on the left side of the work, descends towards the channel in accordance with the schistosity of the mica gneiss. Schistosity refers to the direction in which the rock breaks into plate-like pieces. On the other side of the channel there is a more durable layer of granite on top of the mica gneiss. The mica gneiss beneath it has eroded deeper as a weaker rock type, so that the granite rock has formed a rock ledge over the old river bed. This asymmetric profile of the channel is now well visible due to the damming of the river. At the bottom of the current river bed are large granite boulders, which have detached themselves from the eastern slope in the direction of vertical cracks typical for granites.

Although several paintings have been made of the Imatra rapids, it was still considered to be a rather unsatisfactory subject for painting. The river bed is quite narrow and there is not enough variation in the flow and levels of its rapids. In fact, Vallinkoski, which flowed below the Imatra rapids, was considered to have a better landscape. (Klinge & Reitala 1995)

Today Vallinkoski no longer exists as a rapids due to the damming of Vuoksi. Before damming water flowed on a wide front and the landscape of Vallinkoski was varied. Figure 16 shows the view of Vallinkoski as interpreted by Berndt Lindholm. At the foreground of the work there are men working on the riverside and children playing. The presence of people in the scenery puts the surges of rapids on the right scale! This Vallinkoski work, painted by Lindholm in 1872, is closely related to the early 1870s project *En resa i Finland* (Traveling in Finland), which was a continuation of the 1840s landscape collection *Finland framstäldt i teckningar* (Reitala, 1989). Lindholm painted ten landscapes for *En resa i Finland* which was published in booklets. Illustrations were based on oil paintings, which were engraved in black and white on steel plates. Lindholm made, for example, the original painting of the Imatra engraving shown in Figure 1.

A couple of exceptions from the landscape

There are yet two works that cannot really be called landscape paintings but there is, however, a recognizable presence of geology in both works. Figure 17 shows one of Albert Edelfelt's best-known paintings, *Women of Ruokolahti on the Church Hill*. Geology is manifested in the rocky foot of the Ruokolahti Church behind the women. The foundation of the church in the painting corresponds quite well to reality. The stone base is distinguished by gray gneiss and reddish granites and other light-colored deep rocks typical for the surrounding area.

Edelfelt sought genuine Karelian people from Ruokolahti and sketched them on the spot. However, he finished the actual work at Haikko, at the family's summer villa, where Edelfelt had a studio. The *Women of Ruokolahti on the Church Hill* received much attention and Edelfelt was awarded with it and ten other works the Grand Prix at the World Expo in Paris (Catani, 2004). Behind the Ruokolahti Church, where the women of the painting are sitting, there is a monument today telling us about Edelfelt's visit to Ruokolahti. Ruokolahti Church and Church Hill are also Saimaa Geopark sites.

The last piece will present the *Fighting Capercaillies* (fig. 18), surely known to all Finns and copied many times and varied in various techniques. The painting can be considered as Finnish version in popularity to the one of the most famous paintings in the world, the *Mona Lisa* by Leonardo da Vinci. Painted by Ferdinand von Wright, the *Fighting Capercaillies* depicts two birds staring at each other wildly. At the background hiding in the forest edge is the object from which these two brave birds battle. The work can indeed be considered as a landscape painting too as the view from behind the capercaillies continues over the misty depression all the way to the shore of a lake glittering on the horizon.

Then we get back to the matter itself - geology. Just look at the lower right corner of *Fighting Capercaillies*. There's a crack in the rock or two boulders facing each other, the shape of which is almost exactly like the birds in battle. It looks like two ghost versions of the actual capercaillies are hitting their rocky heads together. Would that mean that we Finns have, throughout history, been through tough times like granite, Finland's national stone, but at the same time retained granitic durability and hardness?



Figure 16. Berndt Lindholm (1841-1914): *Vallinkoski*, 1872 (127x216 cm), Ateneum Art Museum. Photo: Finnish National Gallery.



Photo 17. Albert Edelfelt (1854-1905): *Women of Ruokolahti on the Church Hill*, 1887 (129.5x158.5 cm), Ateneum Art Museum. Photo: Finnish National Gallery.

Landscape paintings as tourist catalogs of their time

High-altitude lake landscape is one of the most common themes in Finnish landscape art, for example works featuring Koli hill by Eero Järnefelt. Such landscapes are made from a high perspective from a viewer's point of view. Depending on the composition of the picture, the artist has made the landscape easily accessible or wild. If the scenery from the painting's vantage point flows uninterrupted towards the lake shore, the viewer will feel the terrain easy and attractive, but if the image is cut off by a steep slope or cliff, the mood becomes immediately wild (Lukkarinen & Waenerberg, 2004).

Scenes that are recognizable from landscape paintings may have attracted tourists at a time when photography had not yet reached its prime position in advertising. The first actual travel posters also depicted Finnish nature. Finland's first travel poster was made by Akseli Gallen-Kallela in 1893. It depicts the sights of Imatra and the surrounding area. The poster is decorated with eg. Vallinkoski and Imatra rapids and the Saimaa Canal. The poster appeared in the same year as the winter opening ceremony of the above-mentioned hotel, and Gallen-Kallela was invited to paint there, and Imatra appears in the poster specifically in her winter outfit.

In addition to their educational endowment, Finland framstäldt i teckningar and *En resa i Finland* mentioned earlier in the text act as tourist catalogs, which attracted people to visit various landmarks in Finland. For international audience Finnish attractions and achievements became familiar at world exhibitions. At the 1900 Paris World Exhibition, Finland had its own stand, even though it was still an autonomous Grand Duchy of Russia. The main attraction of the Finnish pavilion was gypsum copy of a meteorite crashed near Porvoo at Bjurböle in the spring of 1899, and Akseli Gallen-Kallela's Kalevala themed roof frescoes (Enroth, 2018). Other parts of the pavilion showcased paintings by various artists on the Finnish landscape and folk life.

Werner Holmberg, before leaving to Germany, made a tour of Eastern Finland, which he planned to travel through famous sights. These included e.g. Imatrankoski, Monrepos Park in Vyborg, Olavinlinna castle and Punkaharju esker (Lukkarinen & Pennonen, 2017). While painting in famous landscapes, artists often depicted their objects using the same angles; creating iconic views that have survived in popular culture. For example, one can take the Imatra rapids, which are often depicted from downstream as in Figures 1 and 15 and also in Akseli Gallen-Kallela's Imatra travel poster.

An old landscape painting on the wall of the museum can also attract contemporary viewers to visit the place where the painting was made. At least that's the way to catch up with time. Namely, it is possible to evaluate how the landscape has changed since the painting was completed. In modern abstract art, this is not the case, and perhaps this is why advertising still uses the old imagery with its sparkling rapids and clear lakes. In the Saimaa Geopark area, in the provinces of South Karelia and South Savo, Lake Saimaa is the exclusive advertising target. It attracts visitors from home and abroad.

Since 2011, the number of overnight stays by travelers in South Karelia has been over 0.5 million. Although there are more domestic tourists (476,844 in 2018), the number of foreign tourists has increased significantly (73,392 in 1995 and 230,322 in 2018). There is a lot of travel from Russia to South Karelia, and the number of Asian tourists is growing both in South Karelia and South Savo. In South Savo, the number of overnight stays has already exceeded 0.5 million in 1995. The number of overnight stays by domestic tourists is higher (522 275 in 2018), compared to 155 409 overnight stays by foreign tourists in the same year. Russian tourist overnight stays are influenced by fluctuations in the exchange rate of the ruble. In both provinces, Russian tourist nights peaked in 2013. Since 2017, the cities and municipalities of South Karelia and South Savo have been developing tourism through the new Saimaa Convention. The aim is to package Saimaa for different target groups, add local food to tourism products and commercialize nature and adventure services. (Regional Council of South Karelia, 2020)

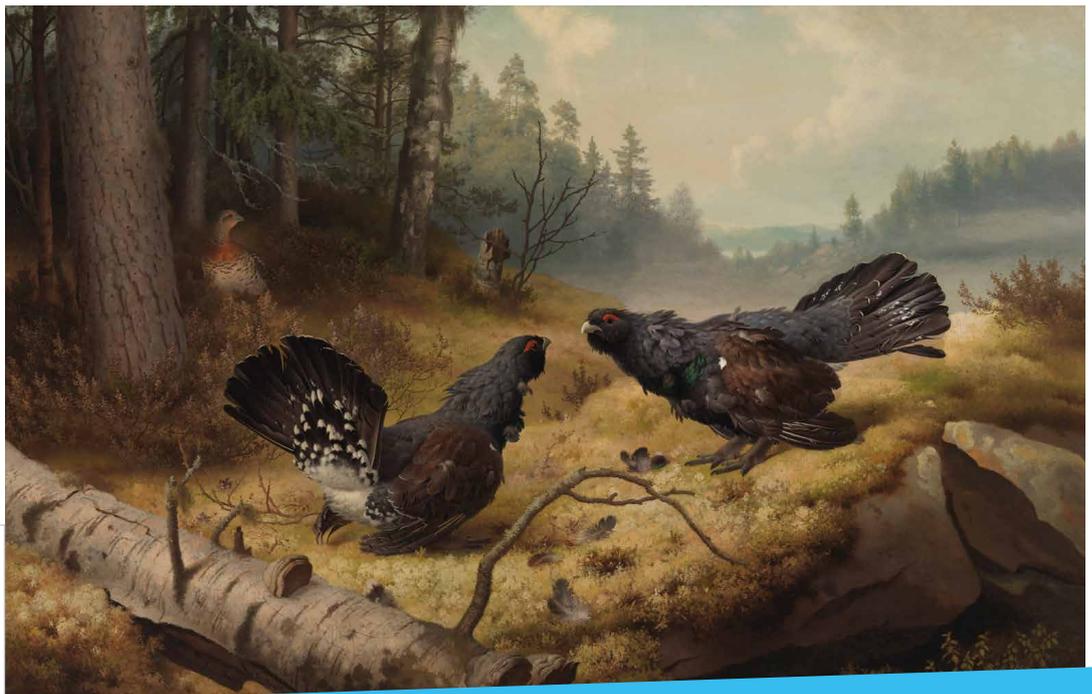


Figure 18. Ferdinand von Wright (1822-1906): *Fighting Capercaillies*, 1886 (124x188.5 cm), Ateneum Art Museum. Photo: Finnish National Gallery.

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