

Is a magic flute able to remove mountains?

If you not were told, you may not know that the mountains in front of you contain values for billions of dollars.

Man has roamed about in the area for long, and the valley has traces of human activities far back in time. Throughout history, man began to understand that these mountains were something special. Here they could find rare stones. Stones, they could not find elsewhere.

Down in the valley a small brook flows. It flows all year round. It is a hot spring. Something down there deep underground is different here than elsewhere.

This day in September when the sun shines and the mountainsides appear in the beautiful autumn colours, it is difficult to imagine that this landscape over a relatively short number of years will be completely changed.

In the distant future, a couple of mountains will have disappeared: Crushed, chemically processed and shipped to advanced plants in foreign countries. The small South Greenlandic settlement Narsaq, which lies in the neighbour-

hood, will simultaneously having grown big and rich.

Inside these mountains an enormous deposit of what we today call the rare earths elements hides. The deposit consists of for example anthan, cerium, praseodymium, promethium, neodymium, samarium, europium, gadolinium, terbium, dysprosium, holmium, erbium, thulium, ytterbium and lutetium, yttrium and scandium. There are a total of seventeen rare earth elements.

Many of these minerals you probably never have heard of, but nevertheless, many of them are used in energy production and in your mobile phone and other electronic equipment. The deposit also includes thorium and uranium. All these minerals are what we call strategic commodities.

Just as we this day in September day walk around by and enjoy the calm and relatively warm autumn, the German geologist Karl Ludvig Giesecke may also have walked around, when he visited this region during his stay in Greenland

in the years 1806 to 1813. It was while the Napoleonic wars raged in Europe.

Giesecke was aware that the geology of the mountains, Kvanefjeld and Ilimaussaq, was something special. He sent several collections of stones back to Denmark. It was a dramatic time, and part of the collection ended up with geologists in Scotland, because British frigates boarded the transport ships.

But other parts of the collections reached Denmark and the stones were studied in many parts of Europe in the coming decades. Many of the now very precious minerals were in those years for the first time given a name.

The task of Giesecke was to perform mineralogical studies for the Danish government. Like us, he might have gone and whistled on his walk up the river. Maybe it was stanzas from the opera The Magic Flute.

You see, Giesecke appeared as an actor at the first performance of this Mozart opera in Vienna in the year 1791.



Kvanefjeld, September 2015

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