

OUR SUMMER TIP

ALWAYS A SPECIAL
EXPERIENCE IN THE
PAST TOO –
THE EVENING GLOW
OF THE MOUNTAINS

The Erzhorn

The secret landmark of Arosa

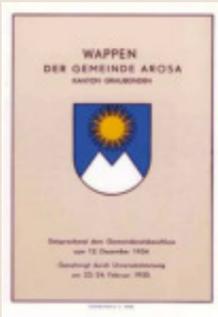
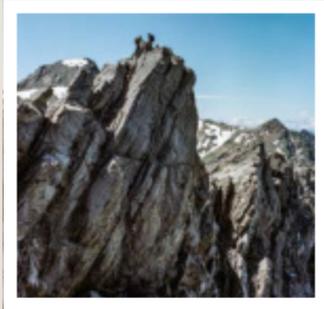
If you cast your gaze from the balcony of your room onto the surrounding mountain landscape, you will easily spot a towering group of twin peaks. At 2,924 metres, the Erzhorn is the second highest peak in the Plessur Alps in the canton of Graubünden after the adjacent Aroser Rothorn.

Coat-of-arms mountain since 1935

Its impressive appearance makes it one of Arosa's landmarks, and it also appears on the Arosa coat of arms. The municipal coat of arms was designed by Paul Ganz, an art historian at the University of Basel, and by Friedrich Pieth, a history teacher at the Cantonal School of Graubünden. After thorough examination by other experts, it was approved by the municipal council resolution of 12 December 1934 and in the municipal vote of 22 February 1935. The sun is considered the emblem of the coat of arms. The twin mountain symbolises the high altitude of the mountain community, the mining industry between the 15th and 16th centuries, and the holiday resort with summer and winter seasons. Blue represents the sky; the combination of blue and yellow symbolises the former affiliation with the League of the Ten Jurisdictions.



THE SECRET LANDMARK OF AROSA



Iron-ore mining in the Middle Ages

As its name suggests, iron ore and other mineral resources were mined on the Erzhorn, as well as on the Rothorns, the Guggernellgrat and at the Tschirpen in the Middle Ages and smelted in the furnaces in Isel near Arosa. Iron ores are mixtures of naturally occurring chemical compounds of iron and non-ferrous or barely ferrous rock.

Iron mines at the Erzhorn

The iron deposits at Erztzuschuggen, north of the Erzhorn, extend from Erztzuschuggen at 2,560 to 2,700 m above sea level up towards the Arosler Rothorn and over the ridge of the Pizza Naira, but are mostly buried under rubble and scree. As you climb the scree slopes, you can collect alternating pieces of red hematite, limonite and ochre. The ore-bearing rock layer is a heavily fractured, partly brecciated dolomite. Some of the iron ores fill fissures and crevices, some form thin coatings, but most are distributed diffusely in the rock.

Isel smelter: On the road from the Untersee Arosa to the wastewater treatment plant is the iron smelter in the "Yssel", where iron ore from the Tschirpen and Erzhorn was smelted from time to time from about 1440 to 1560. The material was hematite and red hematite with an iron content of up to 68%. In 1928, the remains of the iron smelter were uncovered in Isel. The iron ore was smelted in a charcoal-fired furnace. The location of the smelting furnace in Isel stemmed from the availability of sufficient wood and the available hydropower to operate a so-called water drum blower, a water-powered air compressor that could heat the furnace to the smelting temperature needed for iron production.

Arosler Dolomiten

The Arosler Dolomiten are a series of mountain peaks of main dolomite near Arosa in the Plessur Alps. Their highest peak is the Erzhorn (2,924 metres). The mountain group lies between the Schanfigg/Welschtobel and Landwasser valleys in the area of the Strelakette mountain range as well as the Erzhorn Lenzerhorn range.

From the Strelapass, the two parallel rows of peaks of the Strelakette can be seen in a south-westerly direction. the north-western range runs via Strela, Chüpfenflue, Mederger Flue, Tiejer Flue, the Furggahorns and Schiesshorn to the Leidflue at the entrance to the Welschtobel valley. It forms the north-eastern part of the Arosler Dolomiten. These continue on the opposite side of the Welschtobel from the Schafrügg via Schaftälli, Älplisee and Gamschtällhorn to the Erzhorn at the south-west end. In geological terms, the Arosler and the Parpaner Weisshorn as well as the Schiahorn and the Weissfluh are also considered part of the Arosler Dolomiten. The Arosler Dolomiten, as the main nappe of the Central Eastern Alps over the Penninic nappes, lie directly over the Arosler Schuppenzone. They have similar characteristics to certain mountains in the Montafon (Drei Schwestern, Schesaplana or Zimba). The peaks are mostly devoid of vegetation, sloping towards the south-east in crags and scree slopes, towards the north-west in jointed rock faces. The rocks are only moderately difficult to climb, but they are unstable and covered with debris in many places.

Like the other dolomite areas, the Arosa Dolomiten were formed on shallow tropical coasts in the tidal zone. They formed around 210 million years ago in the Triassic period and are part of the deposits crystalline bedrock of the Silvretta nappe from the African continental margin. At that time, the original continent of Pangaea began to expand, causing the earth's crust to sink over a wide area and the primeval Tethys Ocean to slowly expand from the east into the area of the later Alps. For many millions of years, therefore, shallow marine conditions with a tropical climate prevailed, and very thick dolomite rocks were formed. Unlike, for example, in the Italian Dolomites, where the same rocks occur in even greater thickness and mostly horizontal stratification, the rocks of the Arosler Dolomiten are folded, subject to décollement and broken by the shift in the nappes. This is why they have formed solid climbing rocks only in exceptional cases.

The mineral dolomite was first studied by the French naturalist Déodat Gratet de Dolomieu (1750–1801), which is why it is called dolomite. Dolomitic rocks, or dolomites, are carbonate rocks consisting of at least 90% of the mineral dolomite. Rocks with a lower dolomite content are known as dolomitic limestone. Dolomitic rocks are rarely white. They are often ivory, light grey, grey-yellow or green-grey.

Dolomite was also used to obtain burnt lime, which was then used for lime plaster, such as at the Bergkirchli Arosa church, or as masonry mortar.

The evening glow of the mountains

It is a magical moment when the sun emits its last rays of the day. Even more magical when the mountains catch on fire. We have always been fascinated by moments like that. Let us pay proper tribute to it by using a word that is as beautiful as the phenomenon itself: alpenglow.

As beautiful as it is to witness on hikes in the mountains, the scientific explanation behind it is straightforward. The scattered light of the setting sun is what produces the alpenglow. The rays hit mountain peaks towering against an already night-dark background, reflecting the light. This phenomenon can be observed particularly well when it has rained shortly before sunset, leaving the rocky slopes still wet and shining in the light of the setting sun. The red is created by the different degrees of lateral deflection of the blue and red sunlight components when the sun is low. It is possible to divide the natural spectacle into different optical phases, depending on the progress of the sunset. When the setting sun is still visible in the sky, the peaks of the mountains often appear in a bright red. It dims steadily as the sun dips lower and lower. When it has finally disappeared completely, a pink veil envelops the rocks. Even though the colour is now somewhat fainter, this sight is no less fascinating. By the way: the same game applies to sunrises when the sky is clear, just in reverse.

The most intense evening glow was probably observed in the 19th century. As a result of the eruptions of the volcanoes Mount Tambora in 1815 and Krakatoa in 1883, the dust transformed the area into a deep red evening glow. It took several decades for this phenomenon to recede.

As a rule, high mountains with rock faces made of light-coloured rock are a good place to watch the light show. High because they stand out so clearly from the rest of the landscape and catch the last rays of the sun. The Dolomites are particularly well known for watching the alpenglow phenomenon. The mountains in the north of Italy are nicknamed "Monti Pallidi" (pale mountains) for good reason. A similarly beautiful spectacle can also be seen in the Arosler Dolomiten. In good weather and with a bit of luck, you can enjoy a special kind of alpenglow here. Caution: addictive.

