

THE PROTAGONIST AND THE STORY

VITTORIO SELLA (1859–1943) was a key pioneer of Italian glaciology, capable of transforming high-altitude photography into a rigorous tool for scientific analysis. Between the late 1800s and the early 1900s, he documented the glacial masses of Lombardia with extraordinary skill, creating a unique visual archive that is still invaluable today for tracing how the Alpine landscape has changed over time.

His images, combined with the quantitative data of the geographer Luigi Marson, made it possible to establish the first survey protocols in Italy, integrating measurements of glacier fronts and analyses of moraines with exceptionally detailed morphological documentation. This pioneering legacy today represents an essential reference point for modern glaciologists: by comparing Sella's historical photographs with present-day conditions, it is possible to monitor with great precision the retreat of glaciers and the effects of global warming, making his work a fundamental scientific foundation for the study and protection of Lombardia's glaciers.



1981
C. Smiraglia



SERVIZIO GLACIOLOGICO LOMBARDO ODV

A non-profit scientific volunteer organization active since 1992, its goals include monitoring the glaciers of Lombardia and disseminating the collected data.

Glaciological Trail Vittorio Sella to the Ventina glacier



SGL - Servizio Glaciologico Lombardo ODV

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THE ITINERARY

The first part of the Glaciological Trail coincides with the Alta Via della Valmalenco; it is marked with blue markers bearing the SGL logo and by indications along the entire route.

The first panel, **1** which marks the beginning of the trail, is located on the plain beside the Ventina refuge. At this point in 1910, Alfredo Corti, an exceptional mountaineer, naturalist, and photographer from Valtellina, captured an image of the Ventina Glacier, which at that time still filled the lateral moraines of the Little Ice Age (occurred between 1250 and 1850 approximately). Thanks to the historical photo on the panel, it is possible to understand the ongoing dynamic changes and the retreat of the glacier.

Following the signs, walk along the stream until the bridge, which allows to cross one of the branches of the meandering watercourse in the correspondance of the first and most advanced frontal moraine arc, deposited during the initial phases of the Little Ice Age **2**. These moraine deposits were dated through the analysis of the growth of lichens present on the rocks, based on a study conducted by Professor Orombelli in 1987. This point represents the maximum expansion of the glacier in the last 10,000 years.

The trail continues through the magnificent valley, bordered by the imposing moraines created by the glacier; thus reaching the next panel **3**.

Observing the elevation difference between the crest of the historical moraine and the valley floor, it is possible to estimate the thickness of the glacier tongue, which, still at the beginning of the 1900s, was over 100 meters thick in this area.

The trail continues on a gentle slope, where a series of small signs help visitors to observe the rapid frontal retreat of the glacier in recent times and, consequently, to admire the areas left free from ice. However, in the second half of the 19th century, a sudden change in weather and climate conditions led to a temporary advance of the glacier's front, in contrast to the trend observed in the previous decades. The next panel **4** tells the story of the last advance of the Ventina Glacier, which progressed by 115 meters between 1973 and 1989. Continuing along the trail, visitors enter a completely new landscape, freed from ice only in recent years. The trail then leads to panel **5**, where some of the most important and recent traces left by the glacier in this area can be observed, including roches moutonnées.

In a short time, the glacier front with its ablating stream can be reached. This is the highest point and the end of the Glaciological Trail; the return follows the same route.



TRAIL SHEET

- ◆ **Trail length:** 2,6 km round trip
- ◆ **Trail time:** 1h 30min one way
- ◆ **Elevation gain:** 390 m to the glacier front
- ◆ **Trail difficulty:** EE, experienced hikers



The Glaciological Trail is an educational route to be undertaken at the hiker's own responsibility. The trail lies in an alpine environment and presents typical mountain hazards, suitable only for experienced hikers (EE difficulty rating). The path is often steep, rough and unstable, due to the presence of rocks and loose debris. Proper footwear, good physical condition and adequate hiking experience are therefore required.



- 1** Start of the glaciological trail
- 2** Photo comparison
- 3** Lateral moraine of the LIA
- 4** Last glacier fluctuation
- 5** Morainic arc

» RESPECT NATURE

The Glaciological Trail runs through an area of significant wildlife interest. In addition to deer, chamois, and roe deer, the area is home to species such as the alpine marmot, mountain hare and white ptarmigan, vulnerable animals that are highly sensitive to disturbance and reproduce on the ground. For this reason, visitors are asked to remain on the marked trail and not to let dogs roam freely, keeping them on a leash at all times. Please also refrain from picking flowers and respect all wildlife, including vipers. Your cooperation is essential for the protection of biodiversity.