

THE SERNIO LANDSLIDE FAN

Observation point: from Baruffini, near to the graveyard

Now you are near the hamlet of Baruffini; from here, look down in the valley, in front of you: an ordered, peaceful landscape appears, with orchards and vegetable gardens, the town of Sernio in the center and the hamlet of Cologna to the south, with their buildings and churches... but the rows of apple trees radiate outward, while the roads run as concentric arches, suggesting the shape of a huge, quite steep fan: its narrow, more than one kilometer long apex begins well into the Valchiosa gorge, which in turn opens at its head in a very small catchment basin with extensive landslide scarps on its flanks. Immediately to the north, a second wide fan with the same features joins to Sernio one, coming out from an other too small catchment basin, surrounded by steep scarps.

Sernio and Cologna settlements lie on a so-called landslide dominated fan: an enormous bulk of debris, mud and boulders fallen down from the ravines at its back, during quite instantaneous catastrophic events. The fan debris dammed the valley, creating an ephemeral lake upstream; boreholes in the valley bottom show at least three distinct lacustrine levels, that is as to say three main successive landslides, which obstructed Adda river flow.

We could imagine a bucolic landscape with quiet, picturesque small lakes... but it wasn't so.

A muddy pond started to rise up, while perhaps new rockfall went down, splashing into the water and raising rovinous waves, something like a little tsunami, able to sweep out everything on the lakesides.

Every time, Adda river broke the barrage, opening its way through the valley and perhaps swamping it downstream; from here you can see the steep scarp at the toe of fans, sharply cut by the river; along it, landslide deposits outcrop, showing their features.

Sernio landslide fans are an amazing example of a widespread morphology in this section of Valtellina; they exemplify the standard characteristics of great alpine valleys sides, with steep slopes and deeply fractured rocks; other examples are the landslide fans of Migiondo, near Sòndalo, and the great, imposing fan of Ponte in Valtellina.