

The first movements of the slope and the landslide of November 4, 1960

17 - Rockfall of March 1960 at the North Wall of the paleo-landslide

Photo Cesare Manarin, 6 March 1960 | from *Le foto della frana del Vajont* - GS_38



Left: The rockfall of March 1960.
Upper right: Channel of the Massalezza Stream, and below it the reactivated “Castelletto” mass indicated by the presence of light, freshly exposed rock at the back.

To determine ground movements, S.A.D.E. technicians began surveys of the Monte Toc slope in May 1960, shortly after the initial filling of the reservoir. Thereafter, they made measurements regularly until October 9, 1963.

The ancient landslide mass probably began to move slowly in March 1960, as recorded by a notable rockfall along its east frontal wall, movement at “Castelletto” (photograph 17) and the reactivation of a slump on the same cliff (photograph 18).

On November 4, 1960, with the reservoir at 650 m asl, a landslide of approximately 700,000 cubic meters broke away from the rim of Pian della Pozza and slid into the lake, creating a wave that wetted the dam to a height of about 660 m.

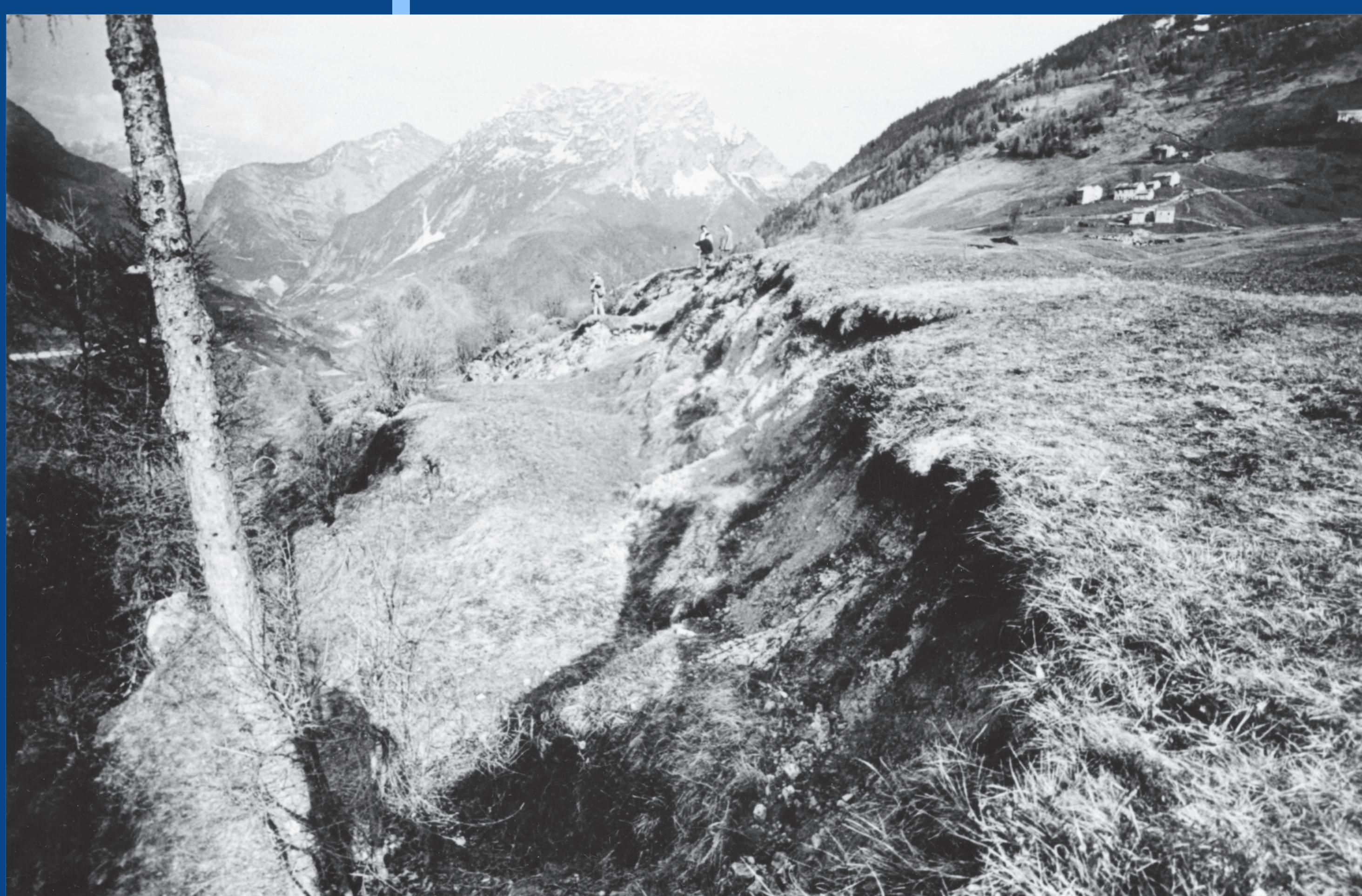
18 - North boundary of Pian della Pozza in April 1960

Photo Edoardo Semenza, 14 April 1960 | from *Le foto della frana del Vajont* - S1_24

A steep failure surface is evident in this photo. The lower block, visible on the left, moved about 10 meters, but it is not known exactly when this happened.

“This small movement cannot be placed in direct relationship to the reservoir. At that time, in fact, the filling had not yet reached the lower limit of the failure surface of the slide of November 4.”

As visible in photograph 20,
“the movement of Nov. 4 was the final phase of that little slide which, however, could be referred to the first movements of the entire mass of the paleoslide.”
(*The Story of Vaiont*, fig. 35).



19 - Panorama of Monte Toc showing the main scarp of the November 4, 1960 landslide

Photo Edoardo Semenza, 15 or 16 November 1960 | from *Le foto della frana del Vajont* - S2_31



Photograph taken from the top of Colle Isolato, with the main scarp in the centre. Edoardo Semenza comments: “On November 4, 1960 [...] from the steep slope north of the Pian della Pozza about 200 m north of the road, a big ‘chunk’, about 350 m wide, of rocky material broke away. Noted previously (photo 18),

it slid toward the valley on a slightly concave surface, crumbling and creating a wave two meters high which, when it hit the dam, reached a height of about ten meters. The mass measured about 700,000 m³ which was only an extremely small frontal part of the total mass in movement”.

20 - Crown of November 4, 1960 landslide

Photo Edoardo Semenza, 9 November 1960 | from *Le foto della frana del Vajont* - S2_16

Upper portion of the main scarp of the November 4, 1960, landslide. This photograph was taken from nearly the same point as photograph 18. The landslide mass lies outside the view of the photograph (see photograph 27 of panel 10).

