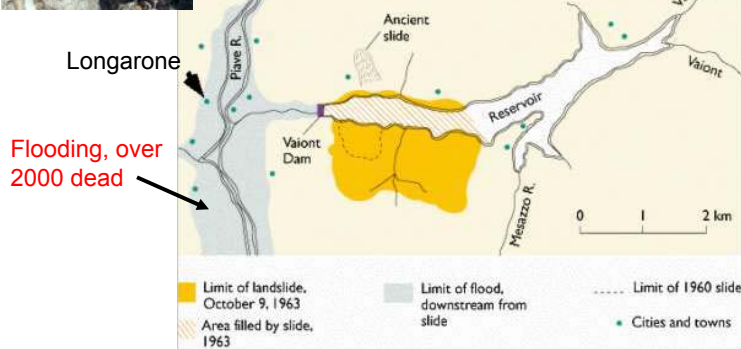


## Vaiont slide, Italy, 1963

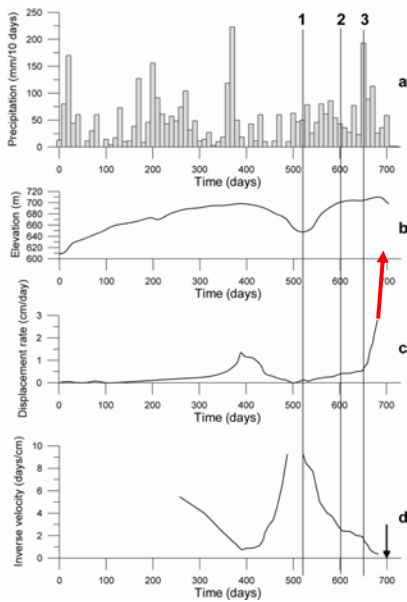


Longarone  
Flooding, over 2000 dead

EOSC 434

1

## Vaiont: Pre-failure observations

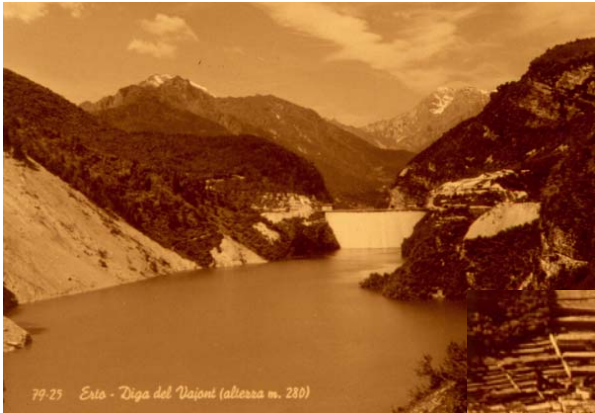


- Slide identified 4 years before failure
- Three acceleration episodes
- Piezo level fluctuated with reservoir
- Potential for brittle (rapid) failure not recognized

EOSC 434

2

# Vaiont disaster - before



Town of Longarone



EOSC 434

3

# Vaiont disaster - after



Town of Longarone



EOSC 434

4

## Vaiont – rupture surface



Limestone bedding planes, filled with bentonitic clay, pre-sheared to residual strength. Brittle, extremely rapid failure was probably due to internal shearing of the strong limestone rock mass.

## Vaiont slide: failure mechanism

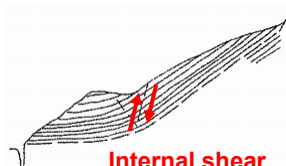


Side  
shear

*Sctn. 2*



Internal shear



## Vaiont slide: stability analysis

