

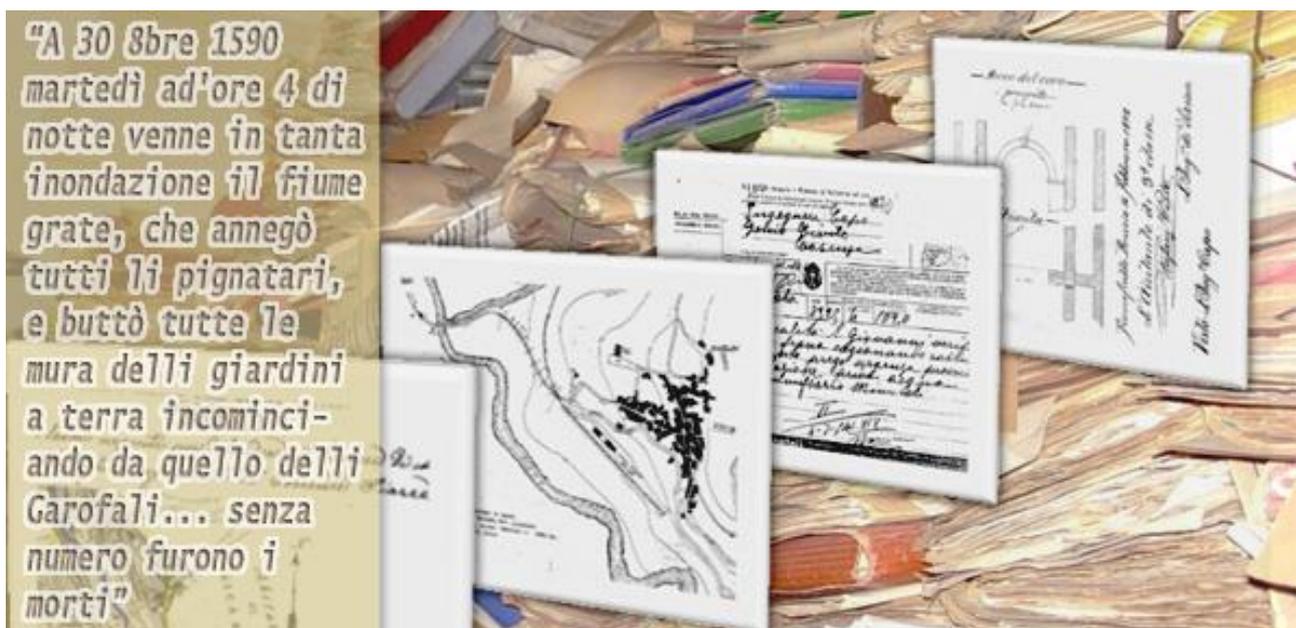
Research Institute for Geo-Hydrological Protection

in the Department of Earth System Sciences and Environmental Technology

an Institute of the Italian National Research Council (CNR)

Historical landslides and floods in Calabria

We study historical landslide and flood events in Calabria,
and their impact from the nineteenth century until today



Landslides and floods tend to hit places that by their nature and geographic location are more likely than others to be damaged. Knowing the location of these places, and how they have been affected in the past by landslides and floods, allows to draw damage scenarios for possible future events.

For years, we have studied historical landslide and flood events in Calabria. Our investigations have allowed us to reconstruct a unique historical record of particularly significant events that have affected Calabria in the period from the nineteenth century to today.

We have organized the historical information that we have collected in an historical archive kept at the headquarters of the Institute in Cosenza. The historical archive contains local history books and text, copies of archival collections of the State Archives, and copies of national and regional newspapers. Most of the documents we obtained from the archives of public bodies, some of which are still unexplored. The documents contain descriptions of historical landslides and floods in Calabria, descriptions of the damage caused by landslides and flooding, and on countermeasures implemented to face the geo-hydrological hazards.

Our research on historical landslide and flood events is of scientific and applied interest. From a scientific point of view, we use data and information on historical landslides and floods, along with other data and information, to study the characteristics of the rainfall that can trigger landslides and cause flooding in Calabria, and what were their geographical and temporal variations.

From the application point of view, in addition to keeping alive the memory of events and sites damaged by past events, the analysis of historical data allows us to provide information on the damage caused to people, and to private and public properties. This information proves useful for the identification of areas exposed to the geo-hydrological risk, and for the design of future damage scenarios.

Results

The main result of our research efforts consists of:

- Collections of historical data, available on-line and in books and texts, available to the scientific community interested in natural hazards and landscape evolution. The collections are for specific areas and periods, as in the book “Frane e alluvioni in provincia di Cosenza agli inizi del 900” that lists flood and landslide events in the northernmost province of Calabria at the beginning of XX century, or encompass the entire region for selected periods, as in the book “Gli eventi alluvionali in Calabria fra il 1971 ed il 1980” that lists information on flood and landslide events in Calabria between 1971 and 1980.
- Scientific papers on (i) the analysis of past landslide and flood events to improve the management of future events, and (ii) the use of the historical flood and landslide record to determine the rainfall conditions that have resulted in past inundations and landslides.

Granting institutions

Research supported by internal funding, and by grants from various regional agencies.



To know more

[Link to the Product “Historical ARchive of COsenza” in IRPI website »](#)

[Palmieri W., Petrucci O., Versace P. \(2011\) La difesa del suolo nell’Ottocento nel mezzogiorno d’Italia. IV Quaderno dell’Osservatorio di Documentazione Ambientale, UNICAL. 183 pp. ISBN 978-88-95172-02-6.](#)

[Petrucci O., Versace P., Pasqua A.A. \(2009\) Frane e alluvioni in provincia di Cosenza fra il 1951 ed il 1960: ricerche storiche nella documentazione del Genio Civile. III Quaderno dell’Osservatorio di Documentazione Ambientale, UNICAL\). 316 pp. ISBN 978-88-95172-05-7.](#)

[Petrucci O., Versace P. \(2007\) Frane e alluvioni in provincia di Cosenza tra il 1930 e il 1950: ricerche storiche nella documentazione del Genio Civile. II Quaderno dell’Osservatorio di Documentazione Ambientale, UNICAL. Pubbl. GNDCI N. 2913. 247pp. ISBN 978-88-6093-029-3.](#)

[Petrucci O., Versace P. \(2005\) Frane e alluvioni in provincia di Cosenza agli inizi del ‘900: ricerche storiche nella documentazione del Genio Civile. I Quaderno dell’Osservatorio di Documentazione Ambientale, UNICAL. 172pp. ISBN 88-7740-391-8.](#)

[Petrucci O., Chiodo G., Caloiero D. \(1996\) Gli Eventi alluvionali in Calabria nel decennio 1971 1980. Pub. N.1374 del GNDCI, Rubbettino Arti Grafiche, Soveria Mannelli \(CZ\), 142 pp. ISBN 9788890508820.](#)

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