

Piazza Armerina, Villa del Casale

Historical background - Engineering geological conditions and problems:

The building (sited in the Sicilia region) was the residence of Massimo ERCULEO, one of the friend of Diocleziano The Emperor. The building covers a surface of about 3500 square meters. The residence represents an evidence of the way of life of the Roman times thanks to the mosaic floors.

The studies realized pointed out an area with evident hydrogeological disorders. The main geological hazards are represented by floods and the landslides.

During the last flood, part of the residence was involved (see the first image).

All the town is affected by landslides. The movements are mainly falls (see the second image). The last one happened on 17 January 1985.

Infiltrations of water represent another problem especially for the mosaic floor of the residence.

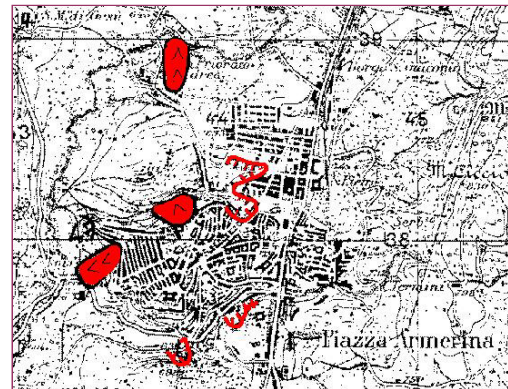


Villa del Casale map (in the red circle the area involved in the last flood)

Investigations and protection measures already realized:

In order to protect the residence the investigation realized are (Consorzio Civita-Enea, 2002):

- Geological, geomorphological and geotechnical analysis of the site;
- Analysis of the pluviometric data and the definition of the “return time” of precipitation;
- Recognition of the instabilities and analysis of deposits;
- Measuring of water flows and related damage to archaeological area;
- Definition of an index of priority of cultural heritage in the archaeological area.



Map with the main landslides in the area (www.gndci.it)



Some examples of mosaics (www.piazza-armerina.it)



References on studies already done:

CONSORZIO CIVITA – ROMA, ENEA (2002) “Linee guida per la salvaguardia dei Beni culturali dai rischi naturali” Progetto MURST.