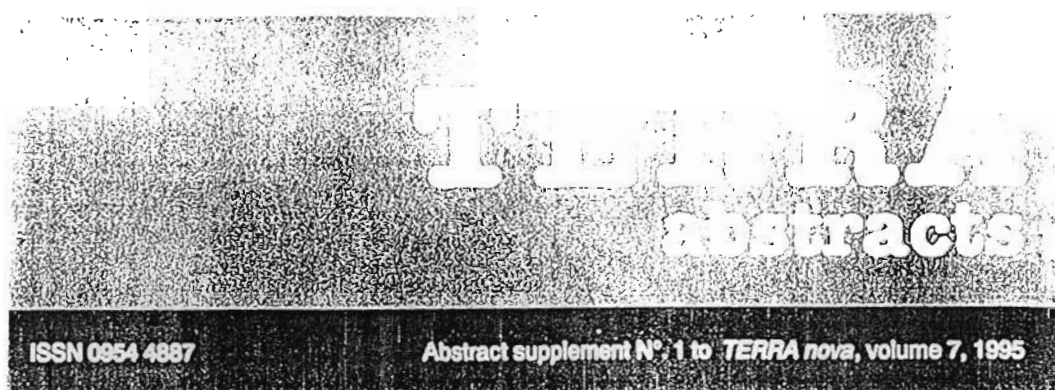


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**GEOMORPHOLOGICAL CHANGES AT THE AREA OF PYRGOS (WEST PELOPONNESE, GREECE) DURING THE EARTHQUAKE OF THE 26<sup>th</sup> MARCH 1993**

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The western part of Peloponnese and especially the area around the city of Pyrgos is characterized by the presence of an active stress field due to convergence between the European and African plates. The earthquake of the 26<sup>th</sup> March 1993 (Ms=5.2 R) and the following seismic activity affected the thick Quaternary deposits, which fill the tectonic graben of Pyrgos. They caused extensive geomorphological changes, which are listed below.

- Landslides – Rock falls. There were observed 10 large falls sandstone blocks (100-100.000m<sup>3</sup>). the falls were situated along Vounargos – Katakolo “geomorphological discontinuity”. The geomorphological discontinuity coincides with a fault zone, which gave small earthquakes. Note that along other geomorphological discontinuities, which do not coincide with major fault zones there were no falls observed.
- Seismic Fractures. They were observed in the Pyrgos built up area and can be connected with known active faults. Their length is a few meters and their width is up to a few centimeters.
- Subsidence. It was observed along the Katakolo – Zacharo coastal zone, near the delt of Pinios River, and extended over an area of 2km<sup>2</sup>. maximum subsidence was at the order of a few tens of centimeters. The main reason of the subsidence is thought to be the loose unconsolidated soil formations.
- Liquefaction phenomena. It was observed along the Katakolo – Zacharo coastal zone, 3km away from Alfios River. The liquefied formations underlie the superficial deposits and distributed them extensively. The liquefied formations were ejected upwards and, in a few sites formed small mounts.

All the geomorphological changes described here, have affected the topography and are going to play a key role in the long term urban planning of the region.

