

The Gran Sasso d'Italia on the move

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Summary

by Massimo Pecci

A great rock fall occurred, suddenly, on the morning of the 22nd August 2006, around 08:30 local time. A volume of about 30.000 cubic meters fell down from the toe of the Fourth Pilaster of the "*Paretone*" (Bigwall) on the north eastern slope of the Eastern Peak of the Corno Grande (Gran Sasso d'Italia mountain range, central Apennine), with a drop height of about 1500 metres falling on the underlying wood.

On this occasion there were no victims nor did any big damage occur and the spectacular gravitational movements were followed "on the air" by tourists and people travelling on the A24 highway beneath. At the same time, the shaking off of the wall reminded us of the problematic relationships between natural processes and human presence, developments and risks. Since the beginning of September 2006 a series of multidisciplinary research and studies have been promoted in co-operation among the "Gran Sasso e Monti della Laga" National Park and Universities Sapienza of Rome and "G. d'Annunzio" of Chieti and Pescara.

The preliminary but detailed results have been presented in the *workshop Il Gran Sasso "in movimento"* (San Pietro d'Isola del Gran Sasso d'Italia – Teramo, 1/12/2006) as a tool for further monitoring and decision making activities. This book presents the preliminary results, discussed during the *workshop* in an elaborated and well organised framework, enriched by further data, unpublished documents, reconstructions and models, collected on a special CD Rom.

The contents deal with the outline of the high altitude of the Gran Sasso d'Italia, the contribution of archive and historical research and of the mountaineering techniques, to the present knowledge of the "physical state of the Paretone", field surveys and monitoring (with Laser-GPS technologies and GIS environment) and, finally, the results of data modelling in terms of rock volumes detached and possible scenarios.

The risk prevention and mitigation strategies have been also presented and discussed in order to look at the best way for the future and necessary monitoring activities, to be practically translated, in the Authors' opinion, as soon as possible, in the studied area.