

THE NATURAL DISASTERS AND THE URBAN ASSET MODIFICATIONS: THE MELITO IRPINO CASE HISTORY

portant floods occurred

in the February 1938 and in the October 1949 and

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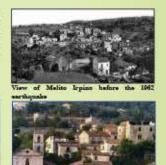
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INTRODUCTION

The history of Melito Irpino, a small village in southern Italy is particular, though not unique in its genre. The development of its urban asset was, in fact, strongly affected by natural disasters such as hydrogeological and seismic events, which determined its transfer to another location.







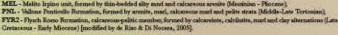
HYDROGEOLOGICAL EFFECTS

Due to its landslides and flooding it has been included since the beginning of the twentieth century among the unstable centers to be consolidated. The landslides were caused by peculiar geological characteristics of which the substrate essentially origins from different consistency Flysch



Irpino (F. 433; 1:50.000 scale, 1994 field survey)

complex landslides (2002 landslides updating) updating)



Geological map of the Old and New Melito Slope instability inventory map according to IFFI Irpino villages, in which the active geological Project (ISPRA, 2016). In yellow there are ability phenomena are outlined. The territory rotational / translational landslides type; in light Skeech of the current geological map of Ariano is characterized mainly by rotational slides (black green, mudflows, in dark green earthflows, in brow criangle), by earthflows (black half-moon) and by the complex landslides type (2005 landslides



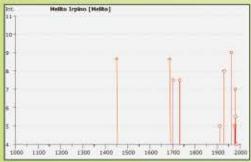
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SEISMIC EFFECTS

From the seismic point of view, Melito Irpino is included in the first category of the new seismic classification of the Campania Region. The most devastating earthquakes that damaged Melito date back to December 1456, which hit central and southern Italy and 5th June, 1688 which had the Sannio as epicentral area, both with Io = XI MCS and M> 7 [1456: Io = XI MCS, Mw 7.2; 1688: Io = XI MCS, Mw 7.0].

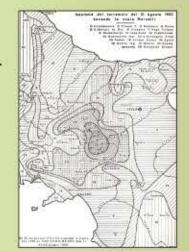


Historical seismicity of Melito Irpino village since year 1000 versus inten-

During the twentieth century, it was involved in two other disastrous earthquakes that caused serious damage to the village in 1930 with an intensity VIII and in 1962 with I = IX MCS and VIII ESI-07 intensity.

On August 21, 1962 a violent earthquake of Mw = 6.15 struck the Campania, in the border between the Sannio and Irpinia regions, with epicentral intensity of IX MCS. The most affected villages were Ariano Irpino, Casalbore, Melito Irpino, Montecalvo Irpino, in the province of Avellino; Apice, Ginestra degli Schiavoni, Molinara, Reino, S. Giorgio la Molara in the province of Benevento. The event was characterized by some premonitory shocks that induced people to stay out of their homes, effectively reducing the number of deaths that were seventeen.

After more than half a century and considering the effects of two important earthquakes in 1962 and 1980, Melito now features as rebuilt 2 km far from the original historical centre.



rismal lines of the August 21, 1962 earthquake. The number 16 indicates the old Melico Iroino, which is in the epicentral area evaluated with the DCMCS (Jaccarino 1964).

The earthquake of 21, August 1962 was fatal for the village of Melito. In December of the same year it was left with 2182 inhabitants and 800 houses, most of which were unstable, 300 were to be demolished, 50 unrepairable and 200 were still uninhabitable yet repairable.

From a geological point of view the situation turned even more dramatically when the whole valley area stretching from the old Ufita River bridge and the historical center of Melito was affected by a series of large slope instability such as rock falls, complex rotational slip, de facto complicating an extremely compromised situation. This was sufficient to encourage the transfer of the entire village in another



Map of the old Melito Irpino drawn up immediately after the 1962 earthquake in which they are highlights the landslide areas (dotted red), and in brown, the locality called Quarto Civico, identified for the reconstruction of the new Melito Irpino village (Nicotera et al., 1968).















The new Melito Irpino: Corso Italia and Piazza degli Eroi (photo by E. Spiga, 2017)















The knowledge of the territory should be not only the base of the urban, social and economic development of any town, but it should be considered also the necessary systematic approach in order to minimize the so-called "natural disasters", and the risks relative to them. The transformation of the physical and urban environment due to floods, diffuse landslides, hydrogeological instability phenomena, as well as due to violent earthquakes, cause often inevitable upheavals, or sometimes also avoidable, if the regulations were fully respected and applied to protection of the community.

The iconographic collection presented in this work is a contribution to the knowledge of the territory of Melito Irpino (Irpinia, Southern Italy), which due to its adverse geological structural and urban conditions, have determined the forced variation of its urban settlement. This paper could also be a contribution and a tool for the local community that still want to recognize itself deep in its history and in its origins

"This beautiful country is radicated deep in my heart even if you do not see it, but I feel it". These words by Nicolino Di Pietro, a nonagenarian Melito citizen who lives as a guardian of a rich photographic and cinematographic heritage, synthesize in an exemplary way the feeling of regret and longing that animates the older generations who lived before in the old village, and now live in the new village.

However, all measures of reconstruction have limits, positive and negative aspects. The modern urban aspect seems to be far away from the original rural connotation, which is a loss for the identity of the village. The aims of the issue is to pay attention to the reconstruction of other villages affected by similar natural disasters. How and when this should be done is a delicate and complex priority of reconstruction, which should consider the entire social and economic aspect. Last but not least, the ethical intervention of technicians in the decision to relocate a village must be very important.



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