



## **New methods and dissemination models for risk education at INGV(Italy)**

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As regards the natural hazards, it grows more and more the awareness of the necessity of the transition from being exclusively prepared in the field of the disaster response, to the culture of prevention in tackling disasters. The culture of prevention is accomplished giving responsible and balanced information and continuous education to the citizens. Preparedness of people, knowledge on how to deal with natural disasters is a powerful resource for risk reduction.

Geosciences researchers, working in the field of the natural hazards, more and more develop plans and focus energies not only devoted to scientific projects but also to disseminate the scientific results within the local population, the ultimate stakeholder, with the goal of diffusing basic geo-hazard knowledge of the territory studied.

In the process of building a culture of prevention it is very important for the Geoscientists to be able to propose innovative projects of scientific teaching, for both schools and general population.

The Science Teaching Laboratory (Didattica e Divulgazione Scientifica) of the Istituto Nazionale di Geofisica e Vulcanologia (INGV) have been engaged for years in projects of scientific dissemination. During the first edition of the Week of the Planet Earth in 2012 organized by Geoitalia (<http://www.settimanaterra.org/>), the INGV lab has proposed two original and innovative events for the general public combining science and music.

The first: "A musical journey among the Italian earthquakes", aims to raise the knowledge of the great historical earthquakes of the Italian peninsula, making an historical and musical journey through the seismic regions and using the local folk music to revive the popular traditions.

This is a science communication event that combines scientific information with historical and musical expressions typical of the regions affected by earthquakes, and leads us to rediscover our "historical memory". The collective memory is fundamental to understand how strong is the link between territory and natural hazards (e.g. earthquakes) and the importance of accurate information about the risks for those who live in those territories. This knowledge will hopefully encourage actions for the reduction of the risk, and for the proper management of the territory.

The second event: "Waves, sympathy and music (Hunstad et al., 2012), offers the public a physical explanation of the earthquake through interactive experiments and similarities between seismic waves and sound waves. This innovative approach combines a natural phenomenon to every day experiences, and through the emotional experience of the music promotes the learning of concepts seemingly distant from our lives. During this event we explain the relationship between the frequency of a seismic wave and the damage that buildings can suffer due to their natural resonance.

We found that this way of communicating the science besides having real-time results, can be also the basis for future projects in the seismic hazard prone areas.