



From Cosmos to Earth to Life to Culture. A Resilient Strategy for Natural, Physical, and Mathematical Science Outreach activities: the proposal of a “Widespread Museum” for the City of Rome

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In recent years, the development of new media, based on information technologies and the diffusion of multimedia tools, has stimulated the diffusion of scientific knowledge, making it accessible to a large audience. At the same time, the rapid increase in the use of these techniques has seen a progressive decline in experiential practice, particularly important for scientific disciplines such as Geology, Astronomy, Mathematics in Architecture and Botany, which find in direct observation the priority medium for the acquisition of scientific knowledge on our planet and on the Universe. The aspect of direct observation is particularly delicate in the context of urban areas where intense anthropization has drastically decreased the possibility of observing "the earth beneath us and the sky above us" in a context in which the spatial and temporal scales in which the experiences and observations take place have been reduced. These territories are now increasingly "hidden", with the inevitable consequence that global scale phenomena, such as climate change, energy consumption in perpetual growth, natural disasters, are perceived in our society as unexpected, sudden events apparently far from our shared lives.

The present project uses an extraordinary natural laboratory, the territory and history of the city of Rome and its surroundings, to experiment with a new model of the dissemination of scientific culture in the field of Geology, Astronomy, Mathematics in Architecture and Botany. The project is part of the tradition of the Diffused Museum, a model that, moving away from the objective idea of cultural property, extends its look to the cultural and natural heritage. The urban landscape, with its stratifications, its transformations, its "long duration", becomes the object of active observation, through the direct experience of the city and its public spaces. "Scientific walks" become "multipliers of curiosity", offering the opportunity to put some urban resources (museums, parks, documentary memories, squares, streets, libraries) into system so that they represent different but coherent stages of a territorial network. The project includes the Department of Science, Mathematics and Physics and Architecture of the University of Rome TRE. The aim is to define an organizational protocol, based on the collaboration between leaders in the various disciplines, which allows the transmission of scientific knowledge both in the school and in the territorial, capillary, effective and high level. A project to create in the new generations a habit of the holistic perception of cities and the natural context in which they develop.

In the EGU session "Communication and Education in Geoscience: Practice, Research and Reflection" special regard will be devoted to the contribution of the geologists to the project and to the direct experience with several classes of High Schools of the Roman territory. Examples of the feedback work will be presented.