

MARINO SORRISO-VALVO (*)

NATURAL HAZARDS AND NATURAL HERITAGE - COMMON ORIGINS AND INTERFERENCE WITH CULTURAL HERITAGE

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The combination of high-rate morphodynamics and high-rate geodynamics makes several areas of the world appealing from the point of view of their scenery, but also dangerous for human beings and their property. In southern Italy relief-building by tectonics and intense seismic activity are the two principal causes of a widespread mass-wasting that affects almost all the mountains and hills. The other most relevant factor is climate, which is comparatively aggressive. On steep-sided rocky slopes, and on the gentler flysch slopes of Calabria, mass-movement, intensive erosion and channel mass-transport are the predominant morphodynamic processes. The combination of the rugged-slope morphology of deeply-dissected valleys and the huge debris stocks produced by mass-movement generated a set of ephemeral streams, locally called *fiumara*, which impart to the Ionian side of Calabria a peculiar and attractive aspect, making these areas very difficult for village settlement, agriculture, forestation and cattle-rearing, but very attractive for tourist activities and wilderness. More importantly, they produce the debris budget necessary for natural beach nourishment. On the other hand, seismic mass-movement and flood hazards are very high in the *fiumara* zone. This makes it evident that the *fiumara* is a striking example of duality: high hazard and gorgeous landscape.

The development of such areas requires heavy intervention aimed at substantially reducing mass-movement and erosion activity. This, however, would result in the destruction of the natural environment in at least the lower reaches of the *fiumara* basins, in extremely high cost for the building and maintenance of intervention measures and in the high probability that such interventions might prove of short duration and low efficiency, as tectonics and climate are still strongly active. Some believe instead that land managers could take advantage of natural *fiumara* lands by exploiting the wilderness attractions of their territory, promoting compatible tourist, agricultural, and even industrial, activity and reducing hazards just to an acceptable level. The author prefers the second solution. Cultural heritage has been subject to widespread piracy enacted by local people of all social levels who thought that their own interest preceded public interest. This attitude is under correction by right-thinking elements, but the process is far from finished, so that another contradiction is created. The cases of *Apollo Aleo* and *Hera Lacina* temples illustrate the duality of human attitudes towards cultural heritage. Natural processes alone represent a threat to these significant archaeological sites, but human activity has resulted in their almost total destruction. The attitude of the local population with respect to the preservation of such an important cultural heritage reveals its dual nature: some people are concerned about the need for preserving them from destruction, others act contrarily. It is hard to regard this duality as a manifestation of the intelligence and wisdom of humankind.

(*) CNR-IRPI, Cosenza unit, via C. Cavour 4, 87036 Rende, Italy.

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