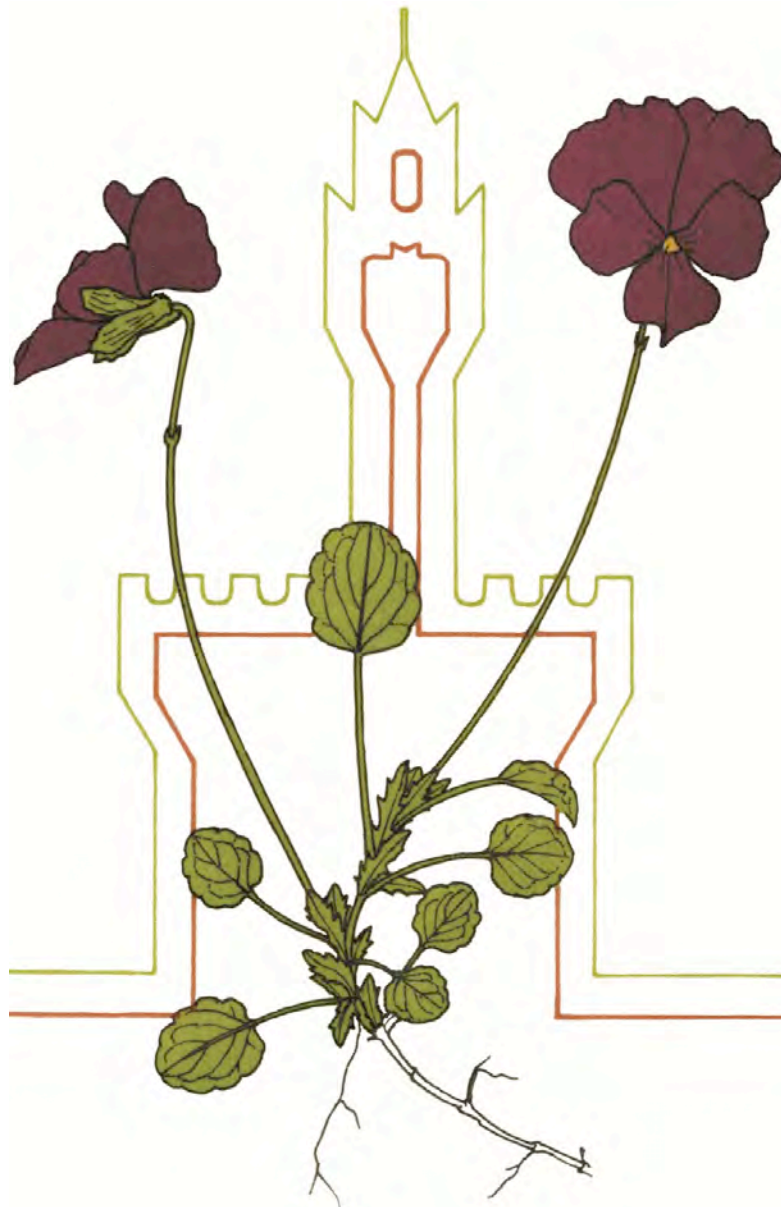


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4.1 = BOTANICAL CONTRIBUTION TO ARCHAEOLOGICAL LAND EVALUATION IN THE FP7 MEMOLA PROJECT

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The Memola Project (FP7-SSH-2013-2), “MEDiterranean MOntainous LAndscapes: an historical approach to cultural heritage”, aims to analyse cultural landscapes basing on interdisciplinary approach to cultural landscapes of Mediterranean mountainous areas, taking as a central axis the historical study of two natural resources essential to generate agro-systems: water and soil.

The different exploitation strategies have resulted in different landscapes and forms of cultural expression throughout Europe and the Mediterranean, but have also produced very important common areas. Agro-systems represent one of their greatest expressions.

The knowledge of the different ways in which the natural resources are exploited and managed over time is crucial for landscape conservation and its adaptation to current global changes: globalization, agrarian industrialization, climate change, loss of peasants knowledge and rural population.

The project is focused on Sierra Nevada (Spain), Monti di Trapani (Italy), Colli Euganei (Italy) and Vjosa Valley (Albania).

The main objectives of the Project are:

- Investigate the logic that rules the process of historical landscapes formation in relation to natural resources within a diachronic framework. Introduce the historical perspective (4th dimension), which we consider to be a powerful interpretation key, in landscape studies.
- Draw context-tailored strategies of preservation, diffusion and valorisation of the cultural heritage (both tangible and intangible) and of the environment. Stimulate sustainable development in rural areas.
- Analyse the efficiency of these systems and the current problems of survival within the context of global climate change and the framework of European policies.
- Develop new methodologies for the study of cultural landscapes, through the creation of scalable working protocols, able to take advantage of the solid background of technologies and analysis methods available to the research group.
- Use a multidisciplinary approach, thus widening the range of specialists involved in cultural heritage study to agronomist, hydrologists, botanists, hydro-geologists, geologists and architects. Promote skills hybridization among researches (humanistic and scientific sides), prompting new forms of job creation.

Diachronic analysis of landscape is carried out using the Land evaluation to reach the objectives of the project. In particular for reconstruction of ancient landscape and for evaluation of the actual landscape structure (e.g. is the vineyard in the mountains around Trapani (Sicily) the best use of the territory in terms of environmental and economic sustainability?)

The techniques of land evaluation refer mainly to “Framework for Land Evaluation” of the Food and Agriculture Organization (1) and this approach has been generally well received and has been used for many surveys. A theoretical framework for Land Evaluation is given by Rossiter (2).

The same approach is used for the reconstruction of ancient landscapes. Van Joelen defined the archaeological land evaluation discipline (3).

The method applied is based on matching and comparing of historical Land Use and Ecological Land Unit taking into account the landscape ecology approaches (4). The natural potential vegetation is used to represent territorial areas ecologically homogeneous useful for evaluating the fitness of a type of land for a specific kind of land use. The phytosociological analysis of semi-natural and natural vegetation is the starting point of ecological characterization. Archaeological, Archaeopedological, Archaeobotanical data, Written sources, Toponymy, Ethnographical data, Monumental Trees, are needed to historical landscape reconstruction.

1) FAO (1976) Soils Bulletin no. 32. FAO, Rome, 87 pp.

2) D.G. Rossiter (1996) Geoderma, 72(3), 165-190

3) E. Van Joelen (2003) PhD thesis, Rijksuniversiteit Groningen

4) C. Blasi, M.L. Carranza, F. Frondoni, L. Rosati (2000) Appl. Veg. Sci., 3(2), 233-242