“Harvesting Memories”: Integrated approaches of Human Ecology and Landscape Archaeology in rural Sicily, the case of Castro Valley and Mt. Barraù (Corleone, Palermo)

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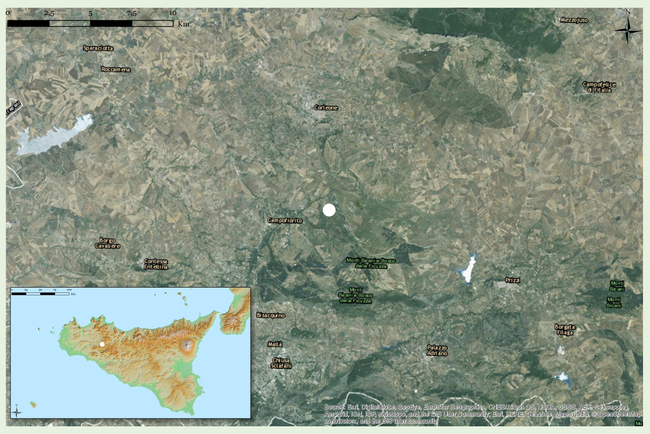
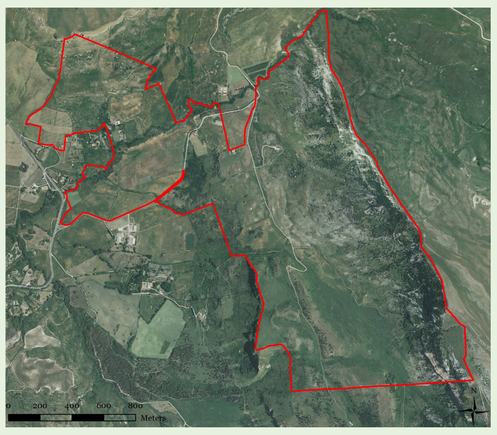
The Project

“Harvesting Memories” project – funded by Bona Furtuna Società Agricola s.r.l. – focuses on the study of the long-term transformation of the historical landscape in a rural area of Central-Western Sicily (Castro Valley and Mt. Barraù, Corleone – Palermo). In order to gain a global understanding of the landscape, which we intend as a diachronic result of the interaction between humans and environment, the common thread running through the project is the reconstruction of patterns of socio-historical and environmental transformation.

The Landscape

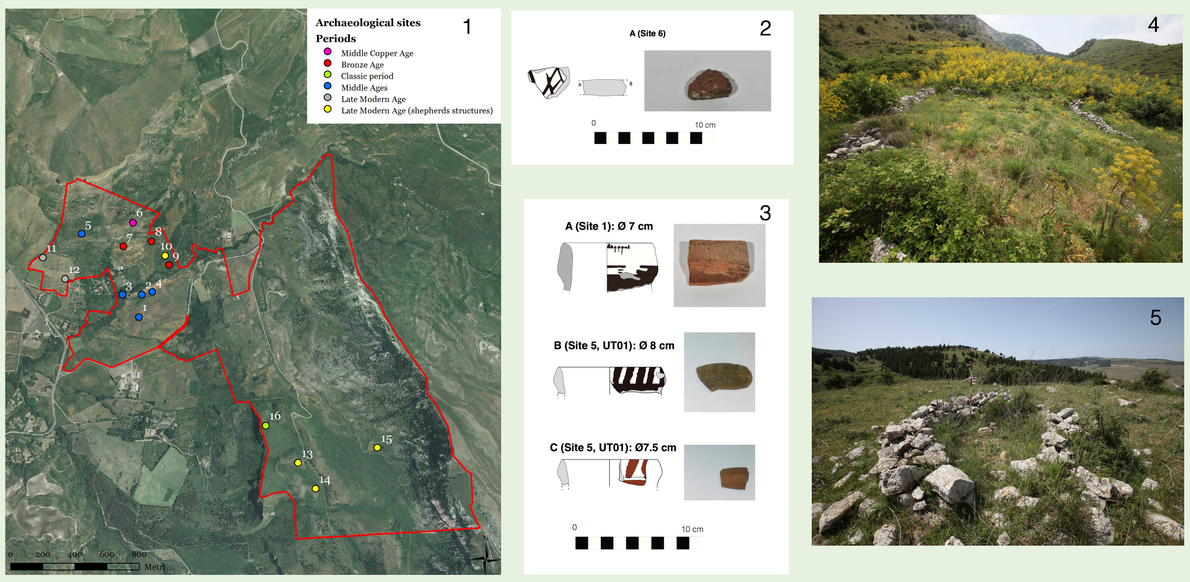
The research area corresponds to the Bona Furtuna estate, which is located 8 km from Corleone in the inland territory of Palermo, close to the SS188dir/c in direction of Campofiorito. The whole project area measures. approximately 300 hectares and includes the districts of Contrada Castro, Contrada Giardinello and Contrada Valle Fredda that slopes up to Mt. Barraù. The landscape is formed by hills with gentle slopes, irregularly interrupted by isolated mountains – with steep, if not abrupt, slopes – which reach the considerable height of 1420 m a.s.l. in the case of Mt. Barraù.





Archaeological Survey

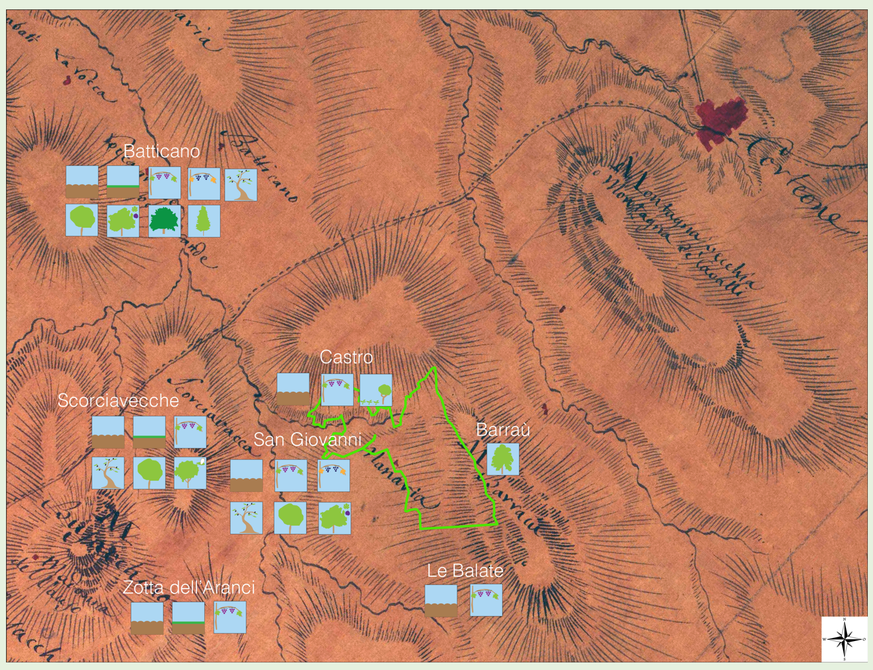
The field survey – directed by the Soprintendenza BB.CC.AA of Palermo – led to the identification of 12 sites featuring pottery concentrations spanning from the Middle Copper Age/Aeneolithic (6), Bronze Age (7-8-9), Classic period (16), Middle Ages/Arab-Norman period (1-2-3-4-5) to the Late Modern period (11-12). Additional evidence for human activities is provided by the presence of architectural dry-stone structures related to pre-industrial pastoral farming (sheepfolds called *mannare* and temporary shelters/huts called *pagghiari*).



1) Map of archaeological sites; 2) Painted pottery of Serraferlicchio facies (2800-2500 BC); 3) Painted amphorae and glazed fineware (10th-12th AD); 4) dry-stone sheepfolds (mannara); 5) circular hut (*pagghiaro*)

Mapping Historical Cadastre

The written cadastre dating to 1811 (*Riveli di beni e anime,* State archive of Palermo) was created by the Borbonic State in order to take a census of Sicilian land owners for tax purposes. This important documentary source has been used to reconstruct the agricultural land use in this rural district.
The types of plants (vineyards, olive trees and other fruit trees) mentioned in the cadastre are almost the same as those cultivated in the modern landscape. Despite the change in agricultural practices – caused by the mechanization – this rural area kept unchanged the characteristics of the traditional agrarian landscape.



Source: General Map of Sicily made by Baron Samuel von Schmettau in 1719-1721 and rectified and published in 1800, provided by Italian Army / Military Geographic Institute (IGM) (Cfr. Revelli P., Intorno alla carta della Sicilia"1719-21 di Samuele Schmettau R.G.I., 1909. Mori A., La cartografia ufficiale dell'Italia e l'I.G.M., 1922. Firenze)

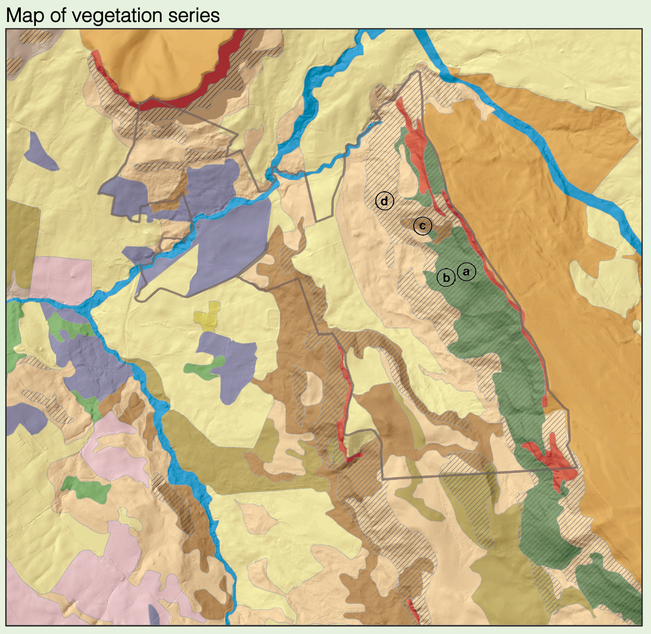
Vegetation Series for Land Evaluation

The main aim is to understand the potentiality of landscape exploitation for agricultural and sylvo-pastoral activities. Many environmental factors influence the land suitability: climate, parent material, slope, soil, etc. The interaction between these parameters affect the floristic composition, structure and distribution of plant communities that can be considered comprehensive indicators of ecosystems.
The natural vegetation has been modified by human activities. Cutting natural forest, animals grazing and fire profoundly transformed the original vegetation in secondary communities, such as shrubland and grassland, or agricultural crops. Therefore, the current vegetation pattern is the result of the ecological characters and land use process.
This landscape dynamics can be recognized in the vegetation series. A vegetation series is defined as the plant community succession developing from its primary vegetal formation to different progressive or regressive stages in an homogeneous ecological context.
In the study area, two different series of vegetation have been identified, respectively formed by:

1) Holm oak forest → Shrublands with predominance of thorny and deciduous species (*Prunus spinosa, Crataegus monogyna, Rosa sempervirens*, etc.) → Grasslands (*Ampelodesmos mauritanicus*) → Grazing lands.

2) Deciduous oaks forest → Shrublands with predominance of thorny and deciduous species (*Rubus ulmifolius, Rhus coriaria,* etc.) → Grasslands (*Ampelodesmos mauritanicus*, *Arundo collina*, etc.) → Cultivated lands.

Map of vegetation series



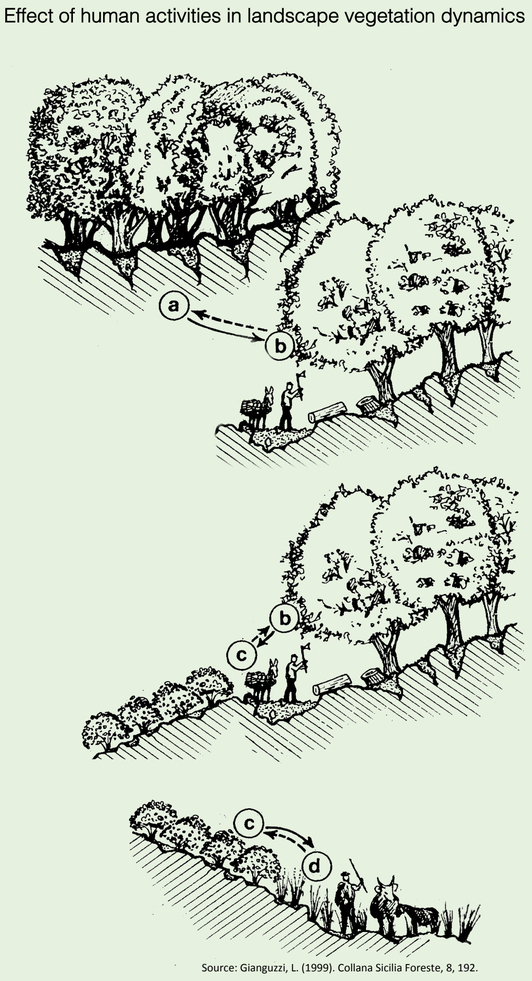
Holm oak woods series (*Ampelodesmo mauritanici - Querco ilicis* sigmetum)
- *Quercus ilex* woods (*Ampelodesmo mauritanici-Quercetum ilicis*) (a) (b)
- Shrublands on forest edges with predominance of thorny and deciduous species (*Euphorbio characiae-Prunetum spinosae*) (c)
- Grasslands of the submountain belt (*Helictotricho convoluti-Ampelodesmetum mauritanici, Carduncello-Thymetum spinulosae*) (d)
- Plantations with predominance (codominance) of *Pinus halepensis* and other conifers (*Stellarietea mediae*)

Deciduous oaks series (*Oleo oleaster-Querco virgilianae* sigmetum)
- Deciduous woods of the Quercus pubescens gr. and other deciduous species (*Oleo oleaster-Quercetum virgilianae*)
- Shrublands on forest edges with predominance of thorny and deciduous species (*Clematido cirrhose-Rubetum ulmifolii* subass. *rhoetosum coriariae*)
- Grasslands of the submountain belt (*Helictotricho convoluti-Ampelodesmetum mauritanici*)
- Grasslands of the xeric-mediterranean belt (aggr. with *Arundo collina*)
- Plantations with predominance (codominance) of *Pinus halepensis* and other conifers (*Stellarietea mediae*)
- Cultivated lands and temporary fallow lands (*Legousio hybridae-Biforetum testiculati*)
- Olive groves and other dry cultural aspects (*Chamaemelo-Silenetum fuscatae*)
- Vineyards (*Chamaemelo-Silenetum fuscatae*)
- Buildings and out-buildings (*Oxalido-Parietarietum judaicae*)

Deciduous oaks mesophilous series (Sorbo torminalis-Querco virgilianae sigmetum)
- Mesophilous and sub-hygrophilous grasslands of the submountain and mountain belts (*Cachryetum ferulaceae*)

Geoseries
- Chasmophitic communities of rocky cliffs (*Anthemido-Centauretum busambarensis*)
- Riparian and dwarf woods of the submountain and mountain river stretches (*Ulmo canescentis-Salicetum pedicellatae*)
- Study area

Effect of human activities in landscape vegetation dynamics



Source: Gianguzzi, L. (1999). Collana Sicilia Foreste, 8, 192.

In conclusion, our research seems to argue in favor of a direct correlation between the distribution of vegetation series and land-use. In particular the Holm oak series was mostly exploited for the forestry and pastoral activity, instead the Deciduous oaks series, was used mainly for cultivations.

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Aknowledgements

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