

IRIS: A SIGNIFICANT ELEMENT OF THE MEDITERRANEAN LANDSCAPE

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ABSTRACT - The Southern European species of *Iris* growing in dry, rocky places, stony ground, terra rossa, sandy, basalt and/or calcareous hills, maquis and coastal rocky slopes, are a neglected bioplasm resource of the Mediterranean landscape. These species have traditional uses and cultural significance and have inspired artists. Both natural and naturalised ornamental *Iris* species may help to improve and maintain the Mediterranean landscape by avoiding land erosion, fixing dunes and preserving coastal zones. These *Iris* species are a significant component of Mediterranean floristic diversity. Their conservation and use in traditional Mediterranean landscape gardening are emphasised.

KEY WORDS - Mediterranean landscape, cultural and artistic value, *Iris* species of dry environments

INTRODUCTION

Iris (*Yreos*) is one of the most representative plants of the traditional Mediterranean landscape, and may be regarded as a symbol of this landscape. It is very variable (indicated by the Greek name *Yreos*), and has a high specific biodiversity, with many sympatric species and hybrids. *Iris* species are suitable for cultivation; in ancient Roman gardens irises flowered in flowerbeds, formed the border of peristyles and were reproduced on paintings. In countries of the eastern Mediterranean region, such as North Palestine, Syria, Lebanon, Cyprus and Israel, irises are widely cultivated: for example *Iris mesopotamica* Dykes and *Iris albicans* Lange can be found in Moslem cemeteries (Feinbrun-Dotham, 1986) (Fig. 1). *Iris florentina* L. and *I. germanica* L. have formed part of rural and monastic gardens since the Middle Ages, as the Capitulare by Charlemagne (since c. 812) and the Hortulus by Strabus (841-842) testify.

MEDITERRANEAN CULTURE

People of antiquity, both in the East and West, attributed to the *Iris* flower a magical, divine power. *Iris* is historically and symbolically significant. Known to



Figure 1 - *Iris albicans* Lange (x *Iris florentina* L.) from the Latium coast (Idroscalo near Fiumicino near the monumental building by Michelangelo) in dry coastal meadows. (Photo by E. Dominici)

Egyptians, it decorated the funeral ornaments of Syrian and Etruscan tombs. In Greek mythology, *Iris* or *Yreos* represents the Rainbow Goddess, connecting the earth and sky. The Classics took natural habitat as a model for the description of this plant: meadows with flowering *Iris* and other spring bulbs on Mount Ida in Crete represent the nuptial flower bed, offered by the Earth to Jupiter when he falls asleep into Juno's arms, as Homer described (Iliad, lib. XIV). "We can get a better knowledge of the flora of coastal and mountain meadows of Greece through Greek poetry than by reading Theophrastus or Dioscorides texts" (Borchard, 1968). During the Middle Ages, *Iris* species were often represented as symbol of Christianity (Trinity).

The plant has great importance for ornamental use. The stylised form of the flower is a model for heraldry. For example, the "fleur-de-lys" was the symbol and emblem of the French kings, the Farnese Family and the coat of arms of the city of Florence, representing the solid and independent city-state in the heart of the Mediterranean. An *Iris* flower was engraved on coins, not only in Florence, as described from Dante, Borghini up to Dickens and others.

MEDICINAL USES

Its properties made *Iris* one of the most important medicinal plants of antiquity. It is one of the earliest species depicted in ancient texts: the first representation lies in the most ancient codex of plant species described by Dioscorides (1st Century A.D.): Anicia Juliana codex (6th Century). Descriptions of medicinal plants known to ancient Greeks started with *Iris* species. During the 16th Century, P.A. Mattioli used *Iris* as the starting point for his book on the plants of Dioscorides, by describing and illustrating *Iris germanica*, *I. pallida* Lam., *I. graminea* L., *I. florentina* and *I. pseudoacorus*. Clusius (1601) distinguished 22 "species and varieties" of *Iris*.

The rhizome of *Iris* contains active biochemical compounds which have been widely used in medicine. The best therapeutic qualities are obtained from rhizomes of *Iris illyrica* Tomm., endemic to and characteristic of dry, calcareous rocky slopes of ancient Illyria (from which it obtained its name) of the Balkan peninsula.

Since ancient times *Iris* has been utilised as spice plant: for flavouring (the Romans added it to beverages in order to scent them), perfume and dyes.

IRIS SPECIES IN NATURAL ENVIRONMENTS

The *Iris* species in Italy and the Mediterranean occur in two distinct types of environment: (1) moist environments of ditches and marshes (*Iris pseudoacorus* L., a circumboreal species), and (2) dry environments from sea level to 1800 metres in altitude, e.g. typical Mediterranean garigues and maquis with rocky hills and slopes, or dry coastal meadows. Rikli (1943) published a nice illustration (Fig. 2) of a group of *Iris* species (defined by him as "*Iris germanica* L.") under a *Platanus orientalis* L. tree and *Styrax officinalis* L. bushes near Preveli monastery in South of Crete. *Iris* species belonging to this second group take part in different plant associations only as "sporadic" and "accompanying" species.



Figure 2 - Rikli's (1943) illustration of a group of *Iris* species (see text).

Iris sensu lato is represented by about 140 species in the Mediterranean area (Colasante *pers. comm.*, 1998), most of which occur in western Asia and southern Europe and 20 per cent in north Africa. A few *Iris* species cultivated in small areas for ornamental purposes or in entire fields (still at present in Tuscany) have escaped and later taken refuge in ecological corridors. In dry environments of Italy there are about twenty species, some of them endemics. The eastern Mediterranean is rich in endemic *Iris* species.

Adaptations of these species to their dry environment are expressed by: (a) life form: they are perennial geophytes bearing rhizomes which can survive fire and heavy grazing; (b) phenology: they flower during the humid period of the year from October to February or at the end of winter or spring, depending on latitude; (c) natural vegetation: associations of dry Mediterranean meadows, e.g. garigues, phrygana, maquis, matorral, or on cliffs and rocks; (d) ecology.

CONCLUSIONS

“There are only a few plants able to give to their environment the appearance of a natural garden. One of these is the dwarf *Iris* living sparsely or gregarious on rocky or coastal slopes covered by grasses, in mediterranean garigue” (Fenaroli, 1985).

Iris species represent a currently neglected genetic resource in Italy: until the last century *Iris germanica* was extensively cultivated. *Iris germanica* is included on the list of natural and cultivated species of landscape and cultural interest in Portugal (Alves *et al.* 1997). *Iris petrana* is of cultural interest in Jordan, and *Iris* spp. in Turkey (Monti, 1997). Some *Iris* spp. are protected, for example *I. atropurpurea* is a protected species in Palestine.

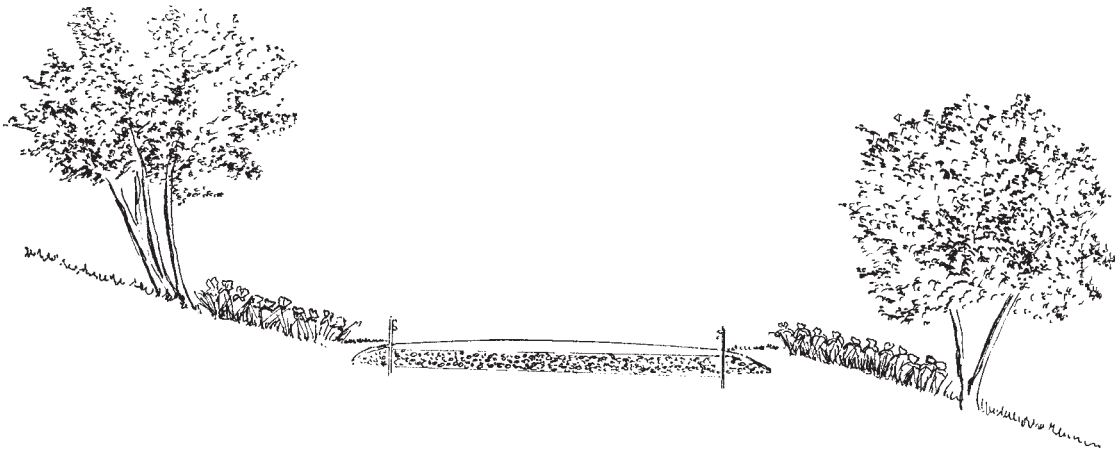


Figure 3 - A project for arrangement of road edge in Mediterranean environment: bushes of *Cercis siliquastrum* L., roadside with *Iris germanica* L. and *I. florentina* L. (original design by Varoli Piazza).

When planning landscape garden models for the Mediterranean region as “semi-natural” gardens, we should emphasise the environmental character of the region, together with historical aspects, in order to capture the imagination of designers and people in charge of nature conservation. In this way we can establish a Mediterranean identity in management of open spaces in cities, gardens, parks, road embankments and railway infrastructures. The use of *Iris* becomes significant as a model for this (Fig. 3).

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