

Flower Fairies™ by Cicely Mary Barker, a significant experience in education for plant diversity

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Abstract

In May 2008 the Botanic Garden of the University of Salento organized an educational event based on the theme of the Flower Fairies™ by Cicely Mary Barker, as part of the activities of the Project "CERATONIA" (Programme Interreg IIIA Italy - Albania, Axis II, Measure 2.1, Action 3). It had the aim of raising awareness of the interested parties in the conservation status and prospects of exploitation of plant species from Italy, Albania and other Mediterranean countries. This initiative was targeted mainly at primary school children, in order to increase their knowledge and respect of plant diversity in the Mediterranean area; in addition strengthening the conservation of plant species typical to the area. This was achieved by using an artistic approach, which had a great impact on both children and adults, at the same time maintaining its scientific credibility. The event consisted of an exhibition of graphic panels, located at the Fine Arts Academy of Lecce, with the pictorial representations of about sixty fairies and related sonnets representing a set of Mediterranean plant species. Each panel had a framework with botanical information. Participants also took part in a theatrical adaptation of Barker's most well known work which took place in a nearby wildlife park.

Keywords

Awareness, biodiversity, domination, education, fairies, innovation, magic, struggle

The initiative for the activity described in this case study was foreseen in the CERATONIA project (Interreg II cccc), which included in its aims training and awareness programmes in both schools and the local community. This initiative had to overcome both cultural and bureaucratic obstacles in a land which is no stranger both to struggle and domination, literally and metaphorically.

In order to clarify these claims it is necessary to have some background information about the area, geographically, historically and culturally. Salento lies in the deep, south east of Italy. It is quite literally on the heel of the boot which defines Italy. Deriving from the Italian word "sale" meaning salt and "vento" meaning wind, two things that any native of the area are experts in. The name and the direction of the wind can influence the day's activities, whether you spend the day on the Adriatic coast or on the Ionian one. Salento is geographically unique, a peninsula which lies between two seas, an area which for many years was known as the "Terra d'Otranto". Although part of the region of Apulia it is very different linguistically and is very rich in both folklore and traditions (De Martino, 2002), an excellent reason for linking fairies to the botanic aspect of this initiative.

For centuries Salento has been a place where there has been a constant struggle to dominate the land and its natural habitat. It was an area which was entirely covered by forests (native oaks for example, *Quercus ilex* L., *Quercus coccifera* L., *Quercus pubescens* Willd. subsp. *pubescens*) and so in the 15th century a programme of deforestation by the farmers began. The land also had to be cleared of rocks in order to make it usable and this need to keep the land in check continues even today. Fields are neatly and almost obsessively divided and surrounded by dry stone walls. Each field is maniacally cultivated with almost military precision. Today's farmer keeps his land in check by the use of fire, during the long hot summer months it is not unusual to see fires in order to prevent the "natural vegetation" (in this case we are in danger of losing rare species found only in scrubland) taking over the cultivated areas, it is in fact another way of dominating the land (Marchiori *et al.*, 1998). In addition to struggling with the natural vegetation the farmer also has to struggle with natural elements, Salento has long very hot summers, and while it is fertile it can be

the victim of freak weather conditions, summer storms and sometimes tornadoes. The winters are often wet and damp and as there are no rivers or lakes fields can easily become waterlogged.

Until the late 18th century Salento was continuously invaded due to it being the last outpost between the West and the East. It was therefore the stepping stone for the following: the Greeks, the Turks, the French the Spanish etc. In fact remnants of these many invasions can be seen along the coast line, lookouts/fortified towers and almost scattered everywhere around the countryside fortified houses/castles known as masserie. The whole of the countryside is marked by human settlements and dwellings, so despite its isolation from the rest of Italy it is surprisingly densely populated.

Despite the continuous invasions everyone left their mark on the area especially from the botanic point of view. From the East came the principal growing techniques and the know-how on organizing gardens. From the Phoenician merchants came the foundation of commercial enterprise with the buying and selling of fruit trees. From the Far East came the most important species of trees cultivated in the Mediterranean area: the fig tree, the pear tree, the apricot tree, the plum, and the walnut tree. All of these were brought by merchants coming and going from East to West, bringing with them species such as black mulberry, but most importantly the citrus trees, that in later years became the predominant inhabitants of our gardens.

From the economic point of view another very important import was that of the vine, probably brought by the Greeks who colonised the area in the VIII-VII centuries BC. Salento has an emerging wine industry which in the last ten years has produced some excellent and prestigious wines.

As mentioned earlier, the original landscape was covered by huge areas of evergreen oaks, Mediterranean xeric grasslands and marshes. Salento again is quite unique in the fact that there is no surface water, no rivers or real lakes; there are only small areas of coastal lagoons. This is another problem, especially when it rains, as there are no rivers or streams to absorb the excess water and so there is a large amount of underground water.

In addition, Salento is a highly interesting area from the bio-geographical point of view. Its geological history and geographical position mark it as a meeting point between the flora of the Eastern Mediterranean Basin and that of the rest of Italy. This explains the presence of Eastern Mediterranean species such as *Ephedra foemina* Forssk., *Erica manipuliflora* L., *Quercus ithaburiensis* Decne. subsp. *macrolepis* (Kotschy) Hedge & Yalt. and *Aegialophila pumilio* (L.) Boiss. The flora of the Salento is made up of 1,033 specific taxa and 307 sub specific taxa organised into 21 ferns and allied groups, 6 gymnosperms, 992 dicots and 321 monocots, for a total of 115 families and 560 genera. The considerable incidence of therophytes highlights a clear Mediterranean imprint of the investigated area. The endemic species of the Salento represent 3.21% of the total flora: there are 7 endemic species exclusive to Salento and 4 endemic of Apulia, while the others are endemic of Southern Italy and the Balkan Peninsula (Mele *et al.*, 2006).

Over the centuries Mediterranean Man has struggled to tame the wild and savage beauty of the countryside. In taming his environment he eliminated all of Nature's creativity by enclosing it in a walled garden and filling it with fruit trees which were necessary to help him in his survival. This concept is true even today: most gardens are created not for their natural beauty, but to keep the countryside tidy and useful. Perhaps one of the first things a stranger to the area notices is that it is completely lacking in public gardens and open spaces, children have no green areas in which to play. This was another important reason to promote this kind of project, that today's generation are completely ignorant of the great wealth of natural beauty that surrounds them.

It was fortunate for us that one of the main aims of project CERATONIA was the promotion of biodiversity conservation and awareness in the local area. But as always the main thread of this

case study was the struggle to overcome opposition to anything new and innovative. The school system is very traditional, children sit in rows, and the teacher is situated at the front of the class. Group work and a sense of group identity is viewed with fear and scepticism. It is not unusual to stay seated at the same desk for six hours at a time, playtime is usually spent in the classroom and any open areas are ignored and left overgrown. There are no Parent Teacher associations who work together for the promotion of extracurricular activities, in fact “Voluntary” and “Volunteer” are unknown concepts in our society. Everything extra is usually paid for, so a project like ours was initially viewed with suspicion. So from the beginning we really had our work cut out. In addition to this we also had to convince a system which views innovation as a form of anarchy, in fact there was always the risk that our project would become lost in our complicated bureaucratic system. It was therefore very important that we did not lose sight of our aims.

The question now to be asked is why we chose Cicely Mary Barker. The main reason was that most children today are more disconnected from nature than previous generations (Louv, 2005). Also society is developing in such a way that children are having no contact with nature or their own natural environment, preferring to interact with virtual dimensions. The results being, that not only do fewer and fewer children know about wild flora, but they also don't know or recognise the most common species of cultivated flora. Our children are victims of “over structured” time, their every waking moment is filled and their lives are stressful, parents are over protective and have a sense of “stranger danger”. However, all children are fascinated by fairies and a sense of magic in general. Cicely Mary Barker has fascinated generations of children and her magic never fails to attract them. Different to today's generation of fairies which are virtually generated and isolated from the sense of nature, Cicely Mary Barker's fairies were painstakingly drawn and painted by hand, connecting them to both wild and cultivated flowers. So along with Barker's message “the need to believe”, we had found a combination which would meet our aims and would be a sure success.

Armed with the necessary permission from Barker's publishing house our project began to take shape, panels were created using, where possible Barker's original illustrations (Barker, 2010), and in other cases they were adapted to fit our needs. A local theatre group was contacted and venues were chosen. It was decided to house the panels in the local “Accademia delle Belle Arti” (our Fine Arts Academy), a fitting place with its beautiful Baroque cloister to hold such an exhibition. Local schools were contacted and visitors included children and adults alike. The event coincided with another local event, “Cortili aperti”, when private residents living in the historical centre open their gardens to the public. Although a highly successful event, it is another example of the lack of access to gardens and the strong sense of the private owner. Throughout the week two local botanists explained to the children the importance of plant diversity.

Our theatre group worked their magic in the natural park known as “Rauccio”, allowing our young participants to really be in touch with nature (Barker, 2006). The idea for this aspect of the project came from the necessity to create a more hands on activity and to bring our children closer to the immense natural wealth found in the area. The costs of the entire project can be found in table 1. The project was repeated again in 2009 when we were invited to take part in a local book festival, this time we used only the exhibition panels but it proved to be equally popular and successful.

Conclusion

All in all, our project was a success. However, there are things that could be changed. One would be to take our work into the schools and try to make it more hands on, involving the children in actually growing plants and protecting the areas around them. Contact has also been made with the organizers of an International Ecological Film Festival, who have as part of their competition a schools section.

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Fig. 1 – Typical woody vegetation of Salento (*Quercus ilex* L.)



Fig. 2 – Typical dry stone shelter (*pajara*)



Fig. 3 – Rural landscape (*Olea europaea* L. var. *sativa*)



Fig. 4 – Enclosed “orchard-garden”



Fig. 5 – Flower Fairies™ botanical panels

CICORIA COMUNE

♂ *Cichorium intybus* L.
Asteraceae



Planta annuale, biennale o perenne alta da 30 cm a 1 m dal fusto rigido e peloso avente numerose ramificazioni; la radice è a fittone, fusiforme, lunga e ramificata. Le foglie inferiori sono profondamente incise, lobate e pelose; quelle superiori sono invece sessili, piccole e allungate. I fiori, di un tipico colore celeste vivo, sono raggruppati in grandi capolini posti all'ascella delle foglie e si chiudono nel pomeriggio con il brutto tempo. Fiorisce da luglio ad ottobre.

Ecologia e distribuzione:
 La Cicoria comune è originaria nella regione centro d'Europa, dove si coltiva lungo le vie, negli giacchi e nei ruderi o come infestante negli orti, da 0 a 1200 m di altitudine. In Italia è pianta molto comune così come anche nel Salento.



Curiosità
 La cicoria era citata 4000 anni a.C. nel papiro Ebers, uno dei più antichi testi egizi che siano pervenuti. Fino ai giorni nostri, e da allora è un rimedio come per molti fitoterapisti, Benvenuto Galeno è autore del fegato di renna che insieme ricrea nella composizione di uno sviluppo epatico generoso per i bambini.

Utilizzo
 Delle piante vengono usate le foglie a scopo alimentare. Coltivata negli orti ha altri usi e numerose varietà commestibili che oggi vengono usate nell'edilizia e l'edilizia. Vengono utilizzate anche le radici come sostituto del caffè. Ha proprietà diuretiche, depurative e un'attività tonica nel fegato e in cirrosi. È anche una buona piatofarmacia.




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FATA · CICORIA

Lungo la strada chiara e polverosa e secca, guarda, c'è la cicoria, che, azzurro-cielo, spicca!

O dove il sentiero si spinge nel frumento, guarda il suo fiore chiaro, nato in questo momento!

Se se ne vanno in fretta, tu non ti dispiacere, altri, nati domani, tu ne potrai vedere!



OFRIDE APULICA

♂ *Ophrys apulica* Danesch
Orchidaceae



Il genere comprende circa 30 specie terrestri, decidue e tuberose. Producono rosette di foglie verdi, oblungo-ovate, ovate o lanceolate. Dalle rosette si originano infiorescenze erette con piccole foglie a braccia e racemi di 2-12 fiori, composti da 3 sepali spessi, 2 petali e un labbro grande (labello), spesso intensamente colorato, simile all'addome dell'ape o di altri insetti. Fiorisce in aprile - maggio

Ecologia e distribuzione:
 L'*Ophrys apulica* è diffusa solo nell'Italia meridionale e specificamente in Puglia, Basilicata, Molise e Calabria, dove si ritrova abitualmente nei prati aridi e nelle gurglie da 0 a 600 m di altitudine. Nel Salento la sua presenza è stata riscontrata nelle località di S. Cataldo, Grotte e Ruscio.



Curiosità
 Lo scudolo appartenente a questo genere ha una struttura del labbro particolare: il labello, come imita l'aspetto dell'addome degli insetti, attirando in particolare i maschi che, in questo modo, trasportano i grandi pollinici e mettendo da un fiore all'altro ne favoriscono la fecondazione.

Utilizzo
 Due sferzi essiccati, macinati dopo il periodo di fioritura di diverse orchidee tra cui anche l'*Ophrys*, si ricava il Saker ricavato dall'erba Khas (genus Salvia, famiglia di volpe) viene fatto assomigliare a un ricettacolo ed utilizzato ancora oggi in Turchia ed in Albania per la produzione di gelati da pasticcieri.




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FATA · ORCHIDEA

Lungo la riva verde o accanto alla sterrata, dove il piede talvolta si perde, se hai fortuna la tua giornata, c'è uno spettacolo proprio perfetto che i tuoi occhi possono vedere: un'Orchidea che sembra un'ape!

E accanto a lei c'è un feroce folletto che assomiglia a quel fiore: e dentro l'erba stanno, però non tutto l'anno, solo se hai fortuna a favore!



Fig. 7 – Flower Fairies™ Book Festival exhibition



Table 1 – Costs of the project

		costs
• Panels including all graphics, printing and production	€	3.550,00
• Educational support, games and entertainment	€	750,00
• Theatre group	€	2.750,00
• Additional costs, audio, lighting	€	2.950,00
• TOTAL	€	10.000,00