

Eco-sustainable reuse of “Costantinopoli” quarry in Sala Consilina

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Summary

“Costantinopoli” quarry is located in the hearth of “Vallo di Diano” in the Province of Salerno. The reuse of abandoned quarries in the “Vallo di Diano” is aimed to define a number of small “environmentally friendly” projects in order to counterbalance the current environmental impact. The project provides a “new green economy” through the development of a *bio-agriculture*, a *bio-factory* and a *eco-sustainable research* and combines ecology, horticulture, science, art, architecture and traditions of “Vallo di Diano”.

The scheme is composed by five areas: *the Greenhouse*, *the Visitors Centre*, *the Lake*, *the Tensile Structure* and *the Outdoor Biome*. It is aimed to educate visitors about the importance of a sustainable environment through the study of plants and sustainable strategies. The solution were inspired by looking through nature, fractal geometry and the landscapes of the site.

Keywords: *bio-agriculture*, *bio-factory*, *eco-sustainable research*, *Greenhouse*, *Tensile Structure*, *Outdoor Biome*, fractal geometry.

1. Introduction

The “Comunità Montana Vallo di Diano” comprises 15 towns, located at the most southern part of Campania, in Italy. In the valley 70 abandoned quarries have been approximately recognized. “Campania’s Regional Authority” has recently defined the “Regional Plane for quarrying activities”. This Plane provides the reuse of abandoned quarries through the creation of new areas for cultural and sports events and also for the development of a *bio-agriculture* and a *bio-factory*. The objective is the promotion of the territory and the appreciation of the cultural and natural heritage through the creation of a “new eco-sustainable green economy”.

2. “Costantinopoli” quarry



The quarry is located in the south-east part of Sala Consilina. The site is visible from central area of the valley. It is inserted in an ancient tray that has a value for its landscape and cultural heritage. This tray, called “Frassati pathway”, is characterised by a number of religious places: *Sanctuary of S. Michele Arcangelo*, *the ruins of the Monastery of S. Angelo* and *Baptistry of S. Giovanni in Fonti*. The quarry is developed over 24434 m². The site is characterized by the presence of an ancient chapel dedicated to the Costantinopoli Virgin Mary, which is located along the southern boundary of the quarry.

Fig. 1: Aerial view and frontal view of the quarry