

**Company:** Lafarge

**Location:** Volos Quarry, Greece

**Objective**

- To homogenize the quarry area with the surrounding environment
- To be able to produce the type of plants needed for the quarry
- To achieve in a quarry environment a rehabilitation using seeds and plants from the area
- To supply other quarries of similar environmental conditions with plants for rehabilitation
- To experiment with plants and trees suitable to those in Milos and Yali islands.

**Context**

The VOLOS Quarry extends over 87 ha of limestone. The quarry started to operate in the late 60's and ended in 2004. The limestone is of Triassic origin and the subbed is white dolomite. The original target was to try to upgrade the visual effect of the quarry. The fauna and flora of the region were studied. Locally harvests of the seeds local plantation were used for the rehabilitation. However, the needs increased drastically and often the required plants or seeds were not available. Then a plant nursery was built in the plant area with all the types of plants required.

**Solution**

- To identify the most adaptable and interesting habitats to be reintroduced.
- To collect seeds from these plants and place them in an on-site plant nursery
- To plant the species according to the rehabilitation plan.

When the quarry started to operate, the quarry benches were 40-45 metres high. However, from the late 70's all benches were gradually reduced to 15 metres high. Since 1985 the fauna and flora of the area were carefully studied and selected seeds and plants were slowly introduced.

**Result**

- Gradually the nursery reached 30.000 plants per year. However, due to technical reasons the nursery was moved to the Platanos limestone quarry producing 18.000 plants per year.
- Better results were achieved when planted in the plant nursery (compared to those obtained from outside sources) since they grow in an environment similar to the quarries.
- The production costs were lower than the outsourcing ;
- Reintroduction of some of the targeted habitats and species on the quarry ground ;
- The vast experience gained regarding the conditions in limestone areas ;
- Since 1990 more than 400.000 trees have been grown in the nursery.

Future ambitions to share the knowledge gained with the local community and organize school trips: School packages and visit programs designed with the local authorities to share and spread knowledge of the botanic and avian species with school children.

**Partners**

Scientific partner: Special advisor for rehabilitation, landscape architecture, and applied ecology. Occasional collaboration with the botanical research centre of the University of Salonica.

