## POLYTECHNIC OF TORINO FACULTY OF ARCHITECTURE 2 Degree in Architecture <u>Honors theses</u>

## The environmental requalification of the ex-asbestos mine at Balangero

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The San Vittore mine is at about 30 kilometres from Turin at the entrance to the Lanzo valleys.

It covers an area of about four square kilometres around the mountain of the same name.



Aerial view of the ex-mine workings

The deposit, situated on a ridge between the municipalities of Corio and Balangero, has been strip mined, forming over the years a broad, benched ampitheatre in the mountain, which now, after the mine has been abandoned, has become the bed of a lake.



The lake

Serpentine mineral was extracted from the mine from the 1920s to the end of the 1980s. In addition to the mine workings and the two dumps (one dump on the Balangero side and one on the Corio side), the area contains a large number of buildings and worksheds covering about 25,000 square metres entirely served by an internal transport system extending for about 15 Km.

The deposit, which is the largest in Italy, was discovered in 1907 by the Commander Callisto Cornut.

Successive surveys and studies were made with the object of finding the best possible way to exploit the deposit and led to the foundation in 1918 of the "Società Anonima Cave di San Vittore" (Anonimous Society of the San Vittore Mine), transformed in 1951 into "Società Amiantifera S.p.A di Balangero" (Asbestos Company Ltd. Of Balangero) which had the function of working and marketing the mineral extracted.



Dump on the Corio side

1951 ti 1983 was the most properous period for the mine: the high level of production and the excellent quality of the fiber in the extracted mineral brought brought it to be amongst the first of the asbestos producers in the world.

From the end of the 1960s the use of asbestos started to be a problem. The thousands of tons of rock extracted from the mine, after being worked, were dumped, causing many alterations and damage to the environment. The dust, carried by the wind, polluted the air, the waters and the surrounding territory.

In the meantime, studies carried out by the World Health Organization confirmed that asbestos is a pollutant that causes cancer and for this reason it became necessary to initiate the work of cleaning up all the places that contained asbestos.

The management situation of the mine became desperate. In 1990 the owners declared the "Società Amiantifera S.p.A. di Balangero" bankrupt and the vast area of the mine was abbandoned, causing amongst others, occupational and economic problems at a local level.

With the law 257 of 1992 in Italy it was prohibited to extract, import, export or market asbestos and also the production and use of manufactured goods that contained asbestos.

Article 11 of this law specified, amongst other things, the reclamation of the mine in Balangero and Corio.

In 1994 the R.S.A. s.r.l. "Società per il Risanamento e lo Sviluppo ambientale" (Society for the reclamation and development of the environment) of the ex-asbestos mine of Balangero and Corio was established.

This authority has been working since 1995 together with the Piedmont Region to develop, project and execute the necessary work to reclaim and develop the area. At this moment the work of making the area safe and reclaiming the mine is coming to an end but no final project exists for the final use of this area.

In view of what has been previously stated, my thesis aims to advance suggestions for the conservation of local history, of cultural heritage and environmental resources as well as the reassessment of the area with compatible economic activities. Hypothesis are formulated to maintain and improve the testimony of local history (making an ecomuseum) and to finalize and stimulate the growth of activities that permit a satisfactory economic development of the ex-mine: installing in the area of the old plant a centre for experience in the production of alternative energy, thinking of the lake as a resource of water to utilize for irrigation in the surrounding lowlands, initiating a process to vetrify the asbestos fibers.

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