

Italian Town Makes Good Use of Solar Mirror

Mayor Pierfranco Midali (left) and architect Giacomo Bonzani in the Viganella town square.



Daniele Miazza

Viganella in Winter darkness, before the mirror installation.

In the tradition of Archimedes, the Mayor of Viganella, a town with a population of 200 in the Italian Alps, decided to use a large mirror to create some sunlight in the town square or piazza. Viganella lies in a valley so steep that each year, from Nov. 11 to Feb. 2, it receives virtually no sunlight! The mayor, Pierfranco Midali, noted that people happily socialize in the piazza in the Summer, and that the deprivation of sunlight for 84 days in a row, was taking a toll on the town spirit. So, he decided to do something about it.

It all began in 1999, when the mayor commissioned the architectural firm of Giacomo Bonzani to construct a sundial



Giacomo Bonzani

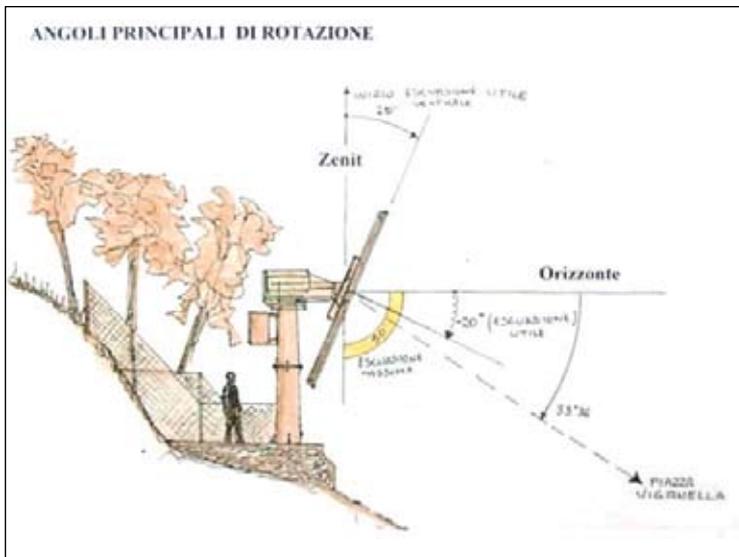


Giacomo Bonzani

Lowering the mirror in place, 3,500 feet up the mountain.

on the church wall, very much of a tradition in Italy. However, the mayor told Bonzani not to bother painting the lines for the Winter part of the dial, because the Sun never shone there.

Then and there, the two men decided to try to raise the money to bring the Sun into the piazza in Winter. Bonzani drew some quick sketches and talked to some of his engineering friends. Other people also got involved and they found three



Giacomo Bonzani

The engineering plan for the mirror.



Giacomo Bonzani

The mirror viewed from the rear.

which works out to about 6 cents/day per capita over the expected 30-year lifetime of the mirror.

Now the city square, the entrance of the church, and the city hall can be bathed in sunlight throughout the Fall and Winter, for the first time in the town's 800-year existence!

Archimedes would be pleased.

—Rick Sanders



Giacomo Bonzani

The mirror capturing sunlight.

sources of funding. Then they located a firm which makes mirrors to see around corners for safety reasons on winding mountain roads, and to light the entrances of the tunnels in the Alps between Savona and Turin.

The work was launched, and a mechanically polished stainless steel mirror ordered.

On Dec. 17, 2006, the 26 X 16 foot mirror was lifted by helicopter up the northern face of the mountain above the town, to a height of 3,500 feet. It is controlled by computer to follow the Sun and keep the light on the piazza. It can also be radio-controlled from the town. The cost was a mere 100,000 euros,



Giacomo Bonzani

Sunlight!