



The railroad

Ispra Railway Station was opened in 1882. So the transport not only of the material produced by the furnaces, but also of the coal needed for the production processes became easier and cheaper than the transport by lake. Thanks to this innovation new quarries were opened along the south-east slope, easier to be reached by the wagons that connected them with the station. As a result, the roads were improved and the whole town took advantage of this. The quarries in the area of the lake produced whiter lime than those on the South-East slope, whose lime was darker.



The changing in the economy of the town

At the beginning of the twentieth century about 100 workers were employed in different specializations with regular wages and this had a significant impact in the economy of the town. In 1912 the furnaces of Ispra produced almost all the material needed for the buildings in Milan area and in most of Piedmont. The production of lime was accompanied, hand in hand, by that of gravel. The strong affirmation of cement, from the first half of the twentieth century, started the decay process that led to the gradual shutdown of all the furnaces. On 16th December 1960 the last furnace ceased operation. However a profound transformation of Ispra began with the transition from lime industry to that of research. The opening of the Euratom Centre with hundreds of people arriving from abroad and hundreds of hirings since the first time let the town make a great leap into modern time. Nowadays the furnaces are the testimony of a past that seems very distant, much more than the six decades from the stop of their activity. It is up to us the duty of remembrance and gratitude.



The historical photos come from the Santacatterina archive.

Design on the cover by Cesare Ottaviano.



Municipality of Ispra presents



ONCE UPON A TIME... THERE WERE THE FURNACES

Guided tours to immerse yourself in the history





The lime Kilns

Lime, well known since ancient times, was not only used for buildings, but was also an excellent disinfectant and fertilizer in agriculture. It was essential for the tanning of the leather and also

used to produce pottery.

Limestone is the raw material from which lime is derived. It is a sedimentary rock, rich in calcium carbonate (CaCO_3), and is the same rock the promontory on which Ispra stands is made of. We know that in the fourteenth century a furnace from Ispra formerly provided lime to the Fabbrica del Duomo di Milano.



The quarries

Around the mid-nineteenth century the first quarries along the slope towards the lake and in correspondence of these, further down, on the shore, the furnaces, with the related dogs for transportation barges, were

built. In the quarry miners, qualified to manage explosives, broke the rock into big boulders, that were broken into smaller pieces and worked afterwards with *firecrackers*, smaller exploding charges. Hand tools were also used and eventually the limestone was sorted by its quality and sent to the kiln.



The kiln

The kiln, that is the burning heart of the furnaces, was in a convenient location with regard to the position of the quarry so that it was easily reached by the heavy-duty iron railed trolleys,

which, once arrived to the loading door, put the mineral into the kilns. In order to reach the operating temperature of $900/1100^\circ\text{C}$, the stokers loaded the system preferably with coal.

The lime was driven, three times a day, in blocks or clods, out of the mouths at the base of the kiln, where the combustion chambers were also located.

- hard path
- easy path
- route Park Monte del Prete
- oooo ripa solitaria (solitary path)

