

Processing Phases

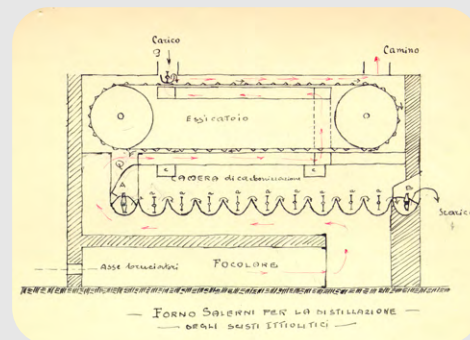
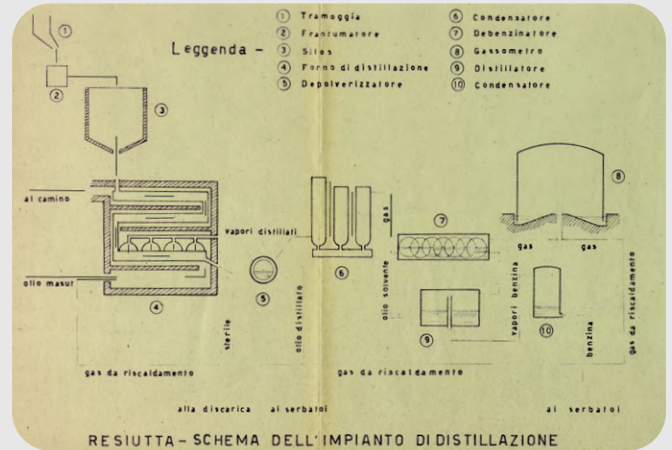


The plant located in Resiutta, on the left bank of the Resia torrent, is **currently inaccessible** due to the serious damage it suffered in the 1976 earthquake.

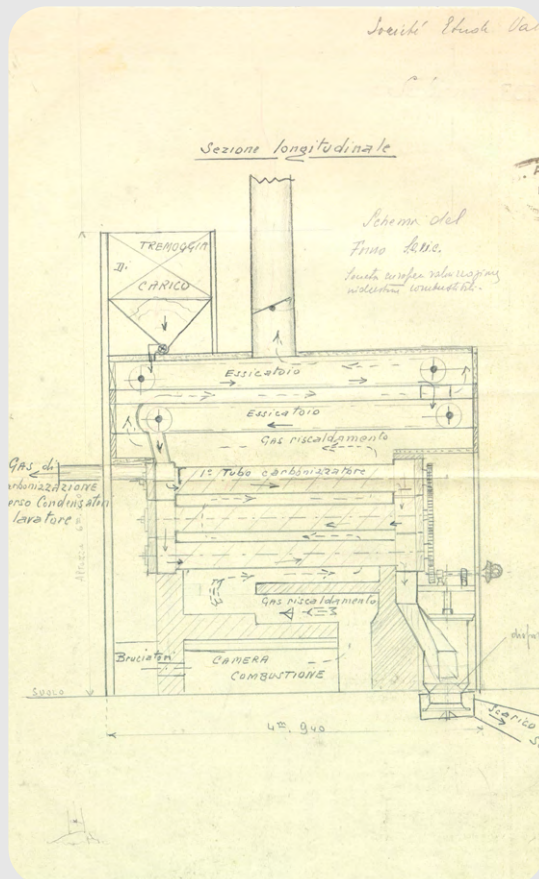
The processing phases in the plant were as follows: **crushing, distillation, refining and rectification.**

Initially, the rock was reduced to pieces less than 10 mm in diameter using a jaw and cylinder crusher. The bituminous shale was then introduced into the Salerni furnace where it underwent distillation at 450° C. The distillation products, in the vapour state, passed through a water-cooled condenser, in which they it condensed into “crude shale oil”. After decantation, this underwent a new distillation, thus obtaining crude shale petroleum.

Overall, from a **ton of oil shale**, approximately **35 kg of light shale oil** were extracted, which, in turn, could provide **12 kg of shale petroleum** that could be used for the denaturing mixture. The entire process involved a loss of approximately 10% of oil for each tonne of shale processed.



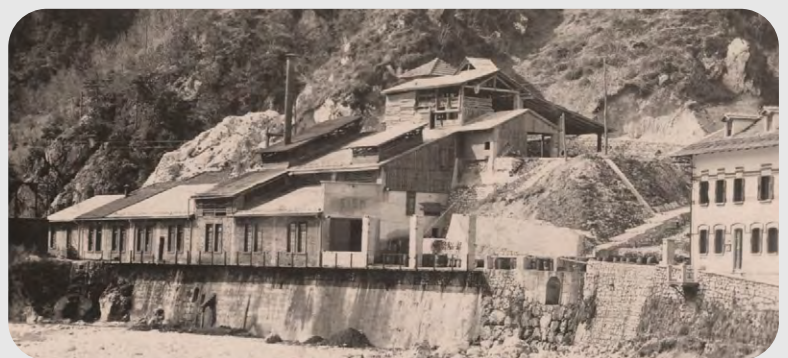
Operating diagram of the Salerni furnace.



A drawing of a longitudinal section through the furnace.



Processing plant near Resiutta, current situation.



Processing plant near Resiutta in a contemporary image.