

Gneisses (Serizzi and Beole) of the Verbano-Cusio-Ossola district (Piedmont, Northern Italy): possible candidates for the designation of "Global Heritage Stone province"

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The Verbano-Cusio-Ossola quarrying district (Piedmont, northern Italy) produces many different ornamental stones (granites, gneisses, marbles): two really important categories are represented by Serizzo and Beola gneisses. Several varieties of Serizzo and Beola crop out in the upper and middle Ossola Valley: Serizzo derives from the Antigorio, Monte Leone and Monte Rosa Penninic Units, whereas Beola from the Monte Leone, Orselina-Moncucco-Isorno and Monte Rosa Penninic Units, as well from the Fobello-Rimella schists (Austroalpine).

The Serizzo, represented by a group of foliated granitoid orthogneisses (Serizzo Antigorio, Serizzo Formazza, Serizzo Sempione and Serizzo Monte Rosa varieties), is probably the most important and extensively exploited ornamental stones from the VCO province (about 70% of the VCO stone production). The quarries are mostly concentrated in the Antigorio and Formazza valleys, where the Antigorio nappe has a sub-horizontal attitude and reaches its greatest thickness (up to 1000 m). This stone was largely used to produce columns since the end of XV century (e.g. the old Ospedale Maggiore in Milano, now University of Milano) and later on it was replaced with granites. It was also used in the building structure of the Duomo di Milano, for the plinth and the piers. Nowadays, thanks to its good wear resistance and low cost, it is mainly used in polished slabs for paving: a recent application is the Frankfurt airport floor.

Beola is the name of a group of heterogeneous orthogneisses with mylonitic foliation and strong mineralogical lineation (Beola Grigia, Bianca, Ghiandonata, Striata varieties), easy to split into thin slabs with hammer and chisel, occurring in the middle Ossola Valley, between Vogogna and Montecrestese. The quarries of Beola are probably the oldest of the Ossola Valley, although the precise period in which the stone started to be exported is unknown. The Beola trade probably started at the end of the XIII century, with the opening of the Naviglio Grande channel (a Leonardo da Vinci's project) connecting the Ticino river to Milano. However, during the Roman Empire, these stones were already exploited and exported, as testified by the ancient Roman road, visible near the village of Beura.

In general, Beola and Serizzo gneisses have also been used for ornamental purposes and for the construction of churches, palaces and monuments, widely documented in many towns and villages of the Ossola Valley (San Gaudenzio church, Montecrestese bell-tower, rural villages, Domodossola city center, etc...) and in the north of Italy (Milano and Torino).

The trade of these stones, which characterized (and still characterize) the VCO territory, was affected by the recent economic crisis in the national and international market, so that in the recent years lot of quarries, even if active, are not productive. Due to the global economy situation and the strong competition with other countries (China, India, ...), the risk of a collapse in the serizzi and beole production is tangible. The present contribution aim at evidencing the history and peculiarity of these materials, their importance in local culture, and the necessity not to obliterate less famous, but culturally important, stone materials.