

The Belgian calcites of the Cesàro collection

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Giuseppe Cesàro was born on September 7th, 1849, in Naples, Italy. He moved to Belgium in 1865 and enrolled as a mining engineer student at the *Ecole des Mines* in Liège. When Gustave Dewalque retired from his position as Geology Professor, in 1891, Cesàro obtained the charges of Mineralogy and Crystallography. He was a good friend of King Albert I of Belgium, and was asked to give private mathematics lessons to the young Prince Leopold III during World War I.

Cesàro investigated in detail the morphology of calcites from Belgium, particularly samples from the Rhisnes quarry. The Mineralogy Laboratory, University of Liège, has preserved more than 200 calcite samples from the Cesàro collection. Some of them are of very good esthetic quality, and show crystal faces annotated by Cesàro. The most interesting morphological feature of these crystals is the dominance of a rare form called “isoscelohedron” by Cesàro. This form was described for the first time in the Rhisnes quarry; its Miller notation is $\{88.3\}$ (for the sake of simplicity, the third Miller index has been omitted). It can be compared to a hexagonal bipyramid (Fig. 1a), while the morphology of the more common $\{21.1\}$ scalenoedron is composed by 12 faces with irregular triangular shapes (Fig. 1b). The morphological features of several crystals from Rhisnes is described herein, underlining the significance of tiny crystal faces on the description of twinning features.

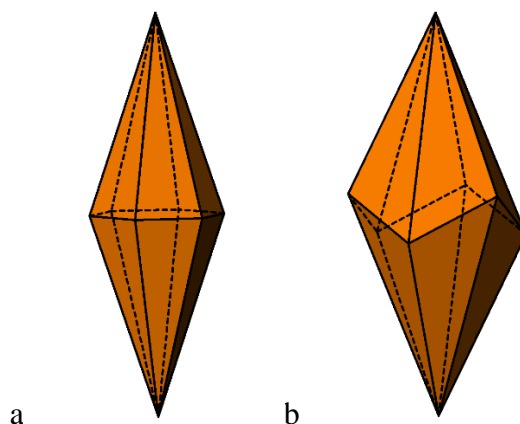


Figure 1. Morphologies of the $\{88.3\}$ isoscelohedron (a) and of the $\{21.1\}$ scalenoedron (b) in calcite crystals.