

The mineralogical collections of the Earth Sciences Department, University of Milano: history, heritage, and research perspectives

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The Mineralogical section of the Museum of Earth Sciences of the University of Milano holds a remarkable and historically significant mineralogical heritage. Officially established in 2004, its roots date back to the foundation of the Institute of Mineralogy in 1931. The museum's foundation was laid by Professor Emanuele Grill through the acquisition of the prestigious collection of Eugenio Bazzi. Over the decades, the mineral collections expanded through important contributions from Magistretti, Sigismund, Piccinelli, Traverso, and others, now comprising over 4,000 mineral specimens.

Among the highlights are exquisite examples of twinned orthoclase from Baveno, demantoids from Val Malenco, amethysts from Traversella, and rare minerals such as bazzite. These specimens have long served scientific research and university teaching, contributing to pioneering studies in feldspar crystallography and in the chemistry of rare earth elements in pegmatitic environments (Fagnani, 1950; Andreoli, 1936). The museum also houses an important collection of ornamental stones and historical petrographic samples.

Recent efforts have focused on cataloging, preservation, and valorization, including the development of high-resolution 3D models for selected specimens. These digital tools—particularly useful in education—complement but do not replace the physical experience of the collections, which remain central to their scientific, didactic, and cultural mission.

The collections today represent a valuable resource for the scientific community and a bridge between the historical foundations and future developments of mineralogical research especially in the Milano University.

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