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Multi-approach characterization of the Rhodope marbles, Greece used in monuments

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Northern Greece has many archaeological sites featuring buildings and objects entirely or partly constructed from marble whose provenance is doubtful. In Northern Greece, the most probable source of such marble is the Rhodope Mountains. For the purpose of supporting further provenance studies, these marbles are fully scientifically characterized. The sampling took place in several ancient quarries which were on trade routes of Hellenistic, Roman or Byzantine settlements. Trade of marble in N. Greece is proved to have been equally important as in S. Greece, comparing the qualitative marble of Thassos with the best marbles of the south (e.g. Paros, Naxos etc.). The techniques used are petrographic and geochemical (microscope, X-Ray diffraction patterns, Scanning Electron Microscope) methods and stable isotope ratio analysis (13C and 18O). The use of a multi-technique approach with combined parameters allows the best possible discrimination. This scientific investigation both supplements the isotopic database and proves that in N. Greece people used also imported marbles.