active tectonic movements of wider fault zones of Predjama (Postojna cave), Ravne (Polog cave) and Brežice Faults (Kostanjevica cave).

Note on the evolution of a Miocene composite volcano in an extensional setting, Zărand Basin (Apuseni Mts., Romania)

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Bontău is a major eroded composite volcano filling the Miocene Zărand extensional basin, near the junction between the Codru-Moma and Highiş-Drocea Mts., at the tectonic boundary between the South and North Apuseni Mts. It is a quasi-symmetric structure (16-18 km in diameter) centered on an eroded vent area (9x4 km), being buttressed to the south by Late Jurassic to Late Cretaceous ophiolites and sedimentary deposits of the South Apuseni Mts. The volcano was built up in two sub-aerial phases (14-12.5 Ma and 11-10 Ma) from successive eruptions of andesite lavas and pyroclastic rocks with a time-increasing volatile budget. The initial phase was dominated by emplacement of pyroxene andesites and resulted in scattered individual volcanic lava domes associated marginally with lava flows and/or pyroclastic block-and-ash flows. The second phase was petrographically characterized by amphibole-pyroxene andesites and was a result of a succession of pyroclastic eruptions (varying from strombolian to subplinian type) and extrusion of volcanic domes that resulted in the formation of a central vent area. Numerous debris flow deposits have been emplaced at the periphery of primary pyroclastic deposits. The end of the magmatic activity was most probably intrusive as recorded by several andesitic-dioritic bodies and associated hydrothermal and mineralization processes in the volcano core complex area. Distal epiclastic deposits are associated with terrestrial detritic material and coal, filling the basin around the volcano in its western and eastern part. Chemical analyses show that the lavas are of calc-alkaline type and are all andesites (SiO_2=56–61%) in composition. The petrographical differences between the volcano evolution stages, showing an increase in amphibole content at the expense of two pyroxenes (augite and hypersthene), are slightly mirrored in the major element compositions of the rocks; only CaO and MgO contents decrease with increasing SiO_2. In spite of a ~ 4 Ma long evolution, the compositions of calc-alkaline lavas suggest insignificant fractionation processes, resulting from the extensional setting in which they occur that did not favored prolonged magma chamber processes.

Geochemistry and U-Pb zircon age of low-grade metavolcanic rocks from the Biga Peninsula, Northwestern Turkey

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Northwest Anatolia and especially the Biga Peninsula is the area having special important in the case of understanding of geology of Turkey and its surrounding. The Biga Peninsula has a Variscan basement affected by Alpine tectonics which is mainly composed of metavolcanic rocks. NE-SW-directed metavolcanic rocks occur in the basement of Çamlıca