the development of good rheological properties of the Kimolian bentonites implies that these materials can be also used successfully in the traditional industries.

THE KEFALOS TUFF RING (W. KOS): DEPOSITIONAL MECHANISMS, VENT POSITION AND MODEL OF THE EVOLUTION OF THE ERUPTIVE ACTIVITY

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Vent areas and caldera collapse structures of the recent highly explosive eruptions of W. Kos region which deposited the Kefalos tuff ring (0.5 Ma) and the Kos non welded ignimbrite (0,14 Ma) have been immersed into the sea. This makes very difficult the evaluation of the volcano-tectonic processes. On this purpose the characteristics (grain size analysis, thickness, composition of pyroclastic components. Stratigraphic position and areal distribution, depositional mechanisms) of the Kefalos tuff ring pyroclastic sequence have been studied and presented.

Three principal types of deposits have been recognised and described: i) subordinate perlitic pumice fall deposits with very low dispersion values, ii) pyroclastic flow deposits with characteristic lenticular accumulation of well rounded lithic fragments near vent (lag breccias) and iii) very thick surge deposits with thinly bedded sandwave facies forms near vent. Lithic fragments ejected from various depths of the substratum indicates a progressive increasing of the depth of the contact between magma and seawater.

The vent position has been determined into the sea, in the central part of Kefalos bay, using isopleth lines of a basal fall layer, directional characteristics and proximal deposits distribution of the surge and flow units.

Depositional facies characteristics and distribution as well as the principal tectonic lineaments and the topography of the area lead us to conclude that the present upper limit of the semi-circular depression of Kefalos basin has nothing to do with a caldera rim. The major part of the probable calderic collapse is immersed into the Kefalos bay. Only a west edge of the collapsed structure can ba observed in the NW area of Kefalos basin.