Kula is located on a block of crystalline rocks of the Menderes Massif, which is delimited by a southward-tilted footwall block of the Simav Graben or a southward-tilted hanging-wall block of the Alaşehir graben. The Kula volcanic area (Burnt Country “Katakekaumene”) is on the main İzmir-Ankara road, which has a number of interesting volcanological aspects. The youngest volcanics of western Anatolia, with widespread plateau basalts and well-preserved craters and lava flows, are excellent examples of an alkali basalt province in an area of active rifting. These older grabens (SW-NE trending Gördes, Demirci and Selendi) have thinner sedimentary fills (less than 1 km). Plateau basalts do not have magnetic signatures. Magnetic anomalies are very distinctive and these are easily correlated with the second and third phase basaltic intrusions (first and second phases of volcanic cones) of the region having the magnitudes up to 3000 nT. The cones of the volcanoes are at the intersections of the SW-NE trending faults separating the grabens of Demirci and Selendi. The depths and widths of these bodies are in the ranges of 100-200 m and about 1000 m, respectively. These intrusions are almost vertical or slightly inclined northwards.

Keywords: Kula volcanics, Basaltic lavas, SW-NE trending grabens