

Reevaluation of the sequence and magma discharge volume of the 864-866 Jogan eruption of Fuji Volcano, Japan.

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On the basis of geological survey and analysis of historical documents, we reevaluated the sequence and magma discharge volume of the 864-866 Jogan eruption of Fuji Volcano, Japan. Detailed sequence of lava effusion during the eruption was estimated for the following three periods:

- 1) Period during two weeks after the beginning of the eruption: the Ishizuka-1 lava poured into Lake Motosuko.
- 2) Period during two month following the period 1: the Nagaoyama-1 lava almost buried Lake Senoumi and separated the lake into two small ones (Lakes Syojiko and Saiko). Another lobe of the same lava approached Lake Kawaguchiko.
- 3) Period during two years following the period 2: Several lava flows effused and overlay the area around the source craters.

By using topographic and geologic data, we estimated the original shape and depth of Lake Senoumi and calculated the volume of the lava flow burying the lake. Total magma discharge volume of the Jogan eruption was evaluated to be 0.8 km³(DRE). This value is about 4 times larger than the previous estimate and is equal to the value of the 1707 Hoei eruption, which is one of the most voluminous eruptions in the past 3200 years of Fuji Volcano.