

Phreatic explosion deposit formed by the inflow of Aokigahara lava flows at AD 864 to the lake Souji of Fuji volcano

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Aokigahara lava flows erupted at AD 864 from fissure craters with 3 km long at northwestern slope of Fuji volcano, flowed into the lake Souji, which was a part of old lake Seno-umi. Lake Souji has several bays with arc shape. Bottom surface of the lake along the bays have conical shapes, and these shapes are found at another bottom of the lake by the research of topography using echo sounder.

Several levee like mounds with 1 to 3 m in height, about 10 m in width, few tens m in long are found on the land forming flat plane made by pillow lavas at the southern part of the lake. These levee like mounds are distinguished to five groups at least which arrange in same direction on the southwestern part of the land.

The levee like mounds consist of diatomaceous earth and many fragments of pillow lavas in few cm to several tens cm in diameter, and the flat plain between the levees consist of diatomaceous earth and few fragments of pillow lavas in few cm. These lithological faces resemble the cock's-tail jets deposits at the phreatic explosion of the lake (Endo et al., 1984). Pollen assemblage of the diatomaceous earth is similar to the vegetation at Heian period about 1000 years ago in this area. These facts suggest these mounds were made by the phreatic explosion at AD 864 when the Aokigahara lava flowed into the lake Souji. The cock's-tail jets deposits at AD 864 must have reached more than 100 m to the inland from the explosion craters based on the distribution of the levee like mounds.