

Submerging mechanism of Yokoshima Island, Nagasaki, Japan

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There are many traditional stories that disappearing of land or islands on the sea all over the world. People have been attracted such stories regardless of scientific premises. There are few descriptions, maps or photos with modern scientific manners to record such “disappearing islands or land” .

The authors report the Yokoshima island case in Nagasaki, Japan, which is concrete disappearance phenomenon of island with modern records. The island was developed due to coal mining, but consists of Paleogene hard sedimentary rocks. According to the local chronicle, ca 700 people living with various facilities on ~20,000 square meters. The past scenes were recorded as surveyed maps and photos around 1900. The coal mine and facilities were discarded after short operation of 1894-1902. Aerial photographs of the island available after 1947, show the island gradually submerged until at least 1982.

Although it is suspected that extensive coal mining cause subsidence of the island, it is also suspected that a large slow rockslide caused disappearance of island. Because there are many large rockslides on sedimentary rocks around Yokoshima. Local divers witnessed large angular boulders on the sea floor around the island.

This talk shows our investigations and result to clarify the submerging mechanism of the island.

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