

Stratigraphy records of 1883 Krakatau eruption and tsunami in Java coastline Indonesia Stratigraphy records of 1883 Krakatau eruption and tsunami in Java coastline Indonesia

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During the paroxysmal stage of 1883 Krakatau event, a series of eruption and tsunami occurred and destroyed more than 250 coastal villages along the Sunda Strait. We reported the result of our field works in Java coastline located to the east of Krakatau volcano. Around 30 cores and pits were observed and samples were collected. We described and examined the cores and pits of tsunami-related deposits and primary tephra deposits. In general the stratigraphy of the 1883 eruption and tsunami in coastal Java composed of intercalation of sand, pumiceous sand and tephra. The stratigraphic record is unique and very complex and was formed by successive deposition of tephra and tsunami deposit and also erosion by tsunamis. The tsunami layers sometimes contain pumice and/or ash. These pumice and/or ash had been carried up inland together with the beach sand from their original position by the tsunami run-up. To understand the sedimentation processes and chronology of eruption and tsunami during the 1883 paroxysmal stage, we used the stratigraphy characteristics in conjunction with historical record account. At some locations, the stratigraphic records observed in the field and historical account are correlated.

キーワード: 1883 Krakatau, tsunami, eruption, stratigraphy, sedimentology, historical account

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