

Study Paleoseismology of Cimandiri Fault, Sukabumi, West Java, Indonesia Study Paleoseismology of Cimandiri Fault, Sukabumi, West Java, Indonesia

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Cimandiri fault lies along the Cimandiri river valley that extends about 55 km from Palabuhanratu Bay to southern part of Sukabumi city. Shuttle Radar Topography Mission (SRTM) and aerial photograph showed lineaments along the valley and associated with the existing of the Cimandiri Fault.

This paleoseismology study is aimed to find out the signs of ancient earthquakes from Cimandiri Fault movement. A trench was dug to ascertain evidence of the ancient earthquakes which can be seen through the wall of the trench. Site of trenching is defined based on field, landform and stratigraphic observations.

Analysis of wall trenching showed a discontinuity of layer (sandy granules, sandy pebbles, sandy clay, clay and paleosols), a minor fault, the deformed of clay and a pattern of the minor of synthetic and antithetic fault. These indicated the evidence of tectonic deformation of ancient earthquakes. Moreover, age analysis of paleosols in the fault zone revealed 2 ancient earthquakes occurred in 1620 moreless 230 BP and 1170 moreless 190 BP (1950). It suggests that Cimandiri Fault can be classified as an active fault.

キーワード: paleoseismology, trenching, paleosols, ancient earthquake

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