

Examination of the paleo-sea level inferred from emerged wave-cut features along the west coast of the Noto Peninsula, central Japan

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In the west coast of the Noto Peninsula, the crust deformation in Holocene has not been revealed because of lack of the reliable indicator of paleo-sea level. The wave-cut notch is able to be the indicator, but it is difficult to distinguish them from features formed by salt weathering which are abundant on surface of sea cliffs in this area (Kobayashi et al., 2015). In addition, the distribution of the wave-cut notch is controlled by rock types and cracks, and they formed above sea level because of wave convergence due to surrounding landform. Therefore identification of paleo-sea level is not easy.

Ito et al. (2002) revealed that the height of the retreat point of the notch in sea caves was almost equal to paleo-sea level recognized from erosive features around the cave in the Echizen coast, central Japan. In the west coast of the Noto Peninsula, notches in sea caves are also formed and most of them are not constrained by geological structures. Moreover, these features are well preserved from weathering. Therefore, the present study aimed to reveal the height of wave-cut notches in sea caves and that on the sea cliffs which coexist with benches and are not controlled by geological structures along the west coast of the Noto Peninsula. The measurement of the height was demonstrated not at the recess but near the entrance of sea caves to avoid influence of convergence of waves.

The investigation revealed that paleo-sea level records estimated from wave-cut notches were around an altitude 2 m. These features are considered to form at the same time from vicinity of them. Therefore, the crustal tilting from the time these features formed to the present is not seen in this area.

Reference

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Kobayashi, W., Hamada, M., Yamaguchi, H., Takayama, T., Ishigami, S., Hiramatsu, Y., 2015, Shapes and origins of notches and caves on sea cliffs, the Noto Peninsula, central Japan. Abs, Sub, JpGU, meet, 2015, HGM22-P04.

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