

Long-term migration and deposition of dumped sediment on the Kashima Coast

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It is important to understand offshore sedimentation processes for predicting long-term morphological changes in the nearshore zone. In this study, we investigated the whereabouts of sediments, which were dumped into the sea in large amounts in the past on the Kashima Coast, by dating radiocarbon ages of shells contained in the seabed to understand the offshore sedimentation processes. The older-than-normal shells specially contained in the dumped sediments were used as tracers, because the sediments were derived from excavating the ground. We estimated the amount and the history of depositions, caused by dumping sediments, in some depths of water. The result confirmed that the dumped sediments were deposited on offshore seabed, which had potential to migrate onshore, and would influence the morphological changes in the nearshore zone.

Keywords: dumped sediment, Kashima Port, the Kashima Coast, offshore, sedimentation rate, radiocarbon dating