

## Sedimentary environmental changes in the Pleistocene to Holocene based on boring cores in Ise Bay, Central Japan.

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To reconstruct the sedimentary environmental changes after the Pleistocene, GS-IB18-1 with 36 m of core length and GS-IB18-2 with 65 m were obtained by drilling in Ise Bay off Shirako, Suzuka City. The drilling sites are located across the Shirako-Noma fault and GS-IB18-1 was obtained from the uplifting side, GS-IB18-2 from the subsiding side. These boring cores were described and analyzed radiocarbon and OSL dating, diatom and pollen. As a result, GS-IB18-1 was divided to 6 sections; sand to silt deposited in a fluvial channel and floodplain at 25.15–36.00 m of a core depth, sand to silty sand in a brackish to fresh water environment at 17.37–25.15 m, sandy gravel in a alluvial fan or transgressive lag at 15.40–17.37 m, silt in a bay at 11.00–15.40 m, sand in a transgressive between 9.9 and 8.1 cal kBP at 7.55–11.00 m, silt in bay after 8.1 cal kBP above 7.55 m from the bottom. The sand to silt in the lowest section contained the pollen of *Liquidambar* which became extinct in MIS 13 and OSL dating in this layer showed older than 305 ka. These results indicated that the lowest section of GS-IB18-1 corresponds to Tokai Group in the early Pleistocene to Pliocene. GS-IB18-2 was consisted 7 sections; sand and silt alternated layer deposited in a brackish to marine environment at 63.0–65.0 m of a core depth, sand to silt in a fluvial environment at 61.0–63.0 m, sandy gravel as transgressive lag at 59.00–61.00 m, sand to silt in a delta to bay at 35.10–59.00 m, sandy gravel including silt with charcoal fragments in a fluvial between 11.3 and 12.2 cal kBP at 24.55–35.10 m, sandy gravel in the transgressive between 11.0 and 10.2 cal kBP at 21.00–24.55 m, silt in a bay at Holocene above 21.00 m from the bottom. The OSL dating showed that the silt and sand layer at 35.10–59.00 m of a core depth deposited in 111–131 ka and this result indicated that this section corresponded to the lower part of Atsuta Formation formed in the late Pleistocene and the three sections from the bottom to Ama-Yatomi Formation in the middle Pleistocene.

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