

Incised-valley fill in the Nakagawa Lowland, Kanto Plain, based on sedimentological analysis and interpretation of drilling logs

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A Latest Pleistocene to Holocene stratigraphic framework of the Nakagawa Lowland, Kanto Plain, Japan, has been established based on the sedimentological analysis of 2 cores (GS-MHI-1 and GS-SK-1) and the existing around 2000 drilling logs investigated for construction works. The GS-MHI-1 core was obtained at the axis of the incised-valley while the GS-SK-1 had been obtained near the western edge of the valley. The distance between them was 1.5 km. We correlated these cores on the basis of close-interval radiocarbon dating and high-resolution sedimentological analysis. Moreover, these sedimentological information were applied to the existing drilling logs were correlated to these cores on the basis of the sedimentological information of the grain-size, fossil shells, colors, and N-values. On these results, a clear difference of the depositional pattern between the axis and edge in the incised-valley was determined; in the GS-MHI-1, a rapid (2.2 cm/yr) accumulation of delta front sediments was recognized during a periods when the sea-level was stable (5500-4500 cal BP); on the other hand, in the GS-SK-1, an intermittent (0.9 cm/yr) accumulation of tidal flat sediments was recorded during the periods of sea-level rising (10000-7000 cal BP). Moreover, we identified sand bar in the east of the valley, it may provided from the Middle and Late Pleistocene Shimosa Group, which located in the eastern parts.