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Distribution and chronology of buried terraces in the Arakawa and Menuma Lowland and correlation with surrounding rivers

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Distribution of basal topography of the latest Pleistocene-Holocene incised valley fill (the Alluvium) was revealed based on analysis of more than three thousand borehole data and boring core samples in the middle and upper part of the Arakawa Lowland and the Menuma Lowland, central Kanto Plain (Ishihara *et al.*, submitted a,b). We will discuss the forming processes of the basal topography of the lowland and their correlation with those in the Tokyo Lowland, and other alluvial lowlands such as Naka, Tama, Obitsu, and Yoro River lowland.

The basal topography beneath the Arakawa lowland can be divided into five buried landform surfaces: buried fluvial terrace surface I (S-I) to IV and incised valley bottom (S-V) which basal gravel (BG) of the Alluvium at the bottom. S-I to S-IV are widely distributed in the Arakawa Lowland, whereas their distribution are less clear in the Menuma Lowland. S-V ranges from the Arakawa Lowland to the Menuma Lowland and extending to the western bank of the current Tone River. S-I, II, III are partly covered by the Kanto loam and As-YP tephra was found in the Kanto loam of S-III.

Six buried landform surfaces are identified in the lower part of the Arakawa Lowland and Tokyo Lowland (Matsuda, 1974; Ando and Watanabe, 1996): buried terrace surface Ar0, T₀, Ar1 (T₁), Ar2 (T₂), T₃, incised valley Ar3 (T₄), in descending order. S-I, II, III, IV, and V are correlated with surface Ar0, Ar1 (T₁), Ar2 (T₂), T₃, and Ar3 (T₄), respectively. Considering above correlation and recognition of As-YP from S-III, S-I can be correlated with the Musashino terrace surface, and S-II to S-IV are correlated with the Tachikawa terrace surface group. In the Arakawa and Menuma Lowland, the buried terrace surfaces can be recognized up to 65 km upstream from the present river mouth and the incised valley can be recognized up to 85 km upstream indicating that the influence of sea-level drop in the Last Glacial extended far inland in the central Kanto Plain, resulting in formation of several fluvial terrace surfaces.

Buried Tachikawa terrace group and incised valleys are also identified in Nakagawa, Tamagawa, Obitsugawa, Yorogawa, and other alluvial lowlands in the Kanto Plain (Kaizuka *et al.*, 1977; Kashima, 1982; Endo *et al.*, 1983). Correlation of basal topography of the Alluvium between in the Arakawa and Menuma Lowland, and in above other alluvial lowland, is discussed.

Ando and Watanabe (1996) the Quaternary Research (Japan),35,281-291. Endo *et al.* (1983) URBAN KUBOTA,21,26-43. Ishihara *et al.* (submitted a) the Quaternary Research (Japan). Ishihara *et al.* (submitted b) Geomorphology. Kaizuka *et al.* (1977) Quaternary Research,8,32-50. Kashima (1982) Geographical Review of Japan,56,679-694. Matsuda (1974) Geographical Reports of Tokyo Metropolitan Univ.,9,1-36.

Keywords: the Arakawa Lowland, the Menuma Lowland, buried terraces, the Last Glacial