

## Tokyo Formation in Tokyo Upland, and related topography

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Tokyo Formation (MIS 6 to MIS 5.5) in Tokyo Upland areas and the related sediments were investigated based on the analyses of several hundreds of thousands boring data. Along the major roads, more than 30 profiles were drawn and checked by topographic information of 1 m contour map prepared by Q-GIS using 5mDEM of Geospatial Information Authority of Japan.

In the previous studies (Kaizuka, 1964, et al.), Tokyo Upland areas are composed of Yodobashi, Ebara, and Den-en-chofu Uplands (MIS5.5), and Musashino Uplands (MIS5.2 - MIS5.1). However, in the areas of flat surface of Musashino Uplands (old alluvial fans), there are a few remnant uplands, like Ohyama-surface, first proposed by Endo (2017).

These MIS5.5 uplands and small remnants, consist of Tokyo F., valley-fill marine muddy sediments in the lower, and marine sandy sediments in the upper, totally 20 to 40 m in thickness. At the bottom of valley-fill, a gravel layer, named as Tokyo Gravel, is found as a good marker. Marine Tokyo F. is distributed also underneath the fan gravel layers (MIS5.2-5.1). This indicates the MIS5.5 transgression covered the whole areas of Tokyo Upland areas excluding the western fan areas, as valley-fill muddy sediments and wide range of wave-cut topographies and sometimes gravelly sand rich in molluscan fossils.

Near central part of Tokyo, in the areas of Ginza, Tsukiji, Roppongi, more compact sand-rich sediments, older cycle of MIS7, are distributed, and capped by thin MIS5.5 sand or Holocene sands.

MIS 5.5 uplands and the remnants limit the growth of Musashino alluvial fans (MIS 5.2 to 5.1). Original fan (M1a) grew at the central part and went through Yodobashi Upland and Ohyama remnant in the east. M1b went through Yodobashi and Ebara Uplands. Next, S of M2a (MIS5.1) went to SE and through narrow channel between Ebara and Den-en-chofu Uplands. Another M2a went to ENE through Ohyama remnant and Narimasu-Wakoh remnants. M2c-d went to ENE and turned to N, blocked by Wakoh remnant.

Keywords: boring data, Tokyo Formation, Geomorphological division in Tokyo Upland