3-D models of N-values and sedimentary facies of the incised-valley fills under the northern part of Tokyo Lowland

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The latest Pleistocene to Holocene incised-valley fills, under the northern part of Tokyo Lowland, deposited since after the last glacial maximum. In this study, we created a new method to construct a three-dimensional geological model based on sedimentary facies, grain size, and N-values of the subsurface valley fills.

The procedures to create a model are as follows. (1) digitalize borehole data, (2) standardize N-values and grain-size data, and (3) interpolate lacked N-values and grain-size data horizontally to obtain regularly grided data. We examined the relationships between the N-value, grain size, buried depth, and sedimentary environment to construct the model, since these parameters strongly influence the interpolating method of (3).