Stratigraphy of the alluvial sediments in the Kashiwazaki Plain, Niigata Japan

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The alluvium sediments of the Kashiwazaki Plain in the Kashiwazaki City, Niigata Prefecture show maximum thicknesses about 50-60m. This sediment mainly consists of clay and silt, and thin sand layer. The stratigraphy has been divided into the lower part which mainly consists of clay and silt, the middle part which consists of the sand and upper part which consists of clay, silt and peaty sediment. However, it must examine in stratigraphy and sedimentation age, because there are no data such as tephra and 14C dating. For the purpose of the elucidation of fundamental stratigraphy and facies of the alluvium, facies division and dating, etc. were carried out using boreholes. On the basis of the boring database, the basis landform of the alluvium was restored. As this result, the estimation of fundamental stratigraphy and in sedimentation’s in the inland was possible. The sand dune develops in coast parallel of the Kashiwazaki urban area. It was confirmed that Yasuda Formation (Pleistocene) is distributed under the dune sand sediment by the borehole. Along present coastal dune, it became clear that the Yasuda Formation showed the narrow mound landform. By this landform, the distribution of the marine sediments was narrow area in the inland. The alluvium in the Kashiwazaki Plain were deposited by estuary system in which the sea invades from the narrow inlet and progradation of the river system.

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