Study of paleo-earthquake at many sites of archaeology

Akira Sangawa[1]

[1] Active Fault Research Center,GSJ/AIST

Numerous traces of paleo-earthquakes were found out at many sites of archaeology.

Especially,traces of liquefaction have frequently appeared in alluvial plain, and the formation age of which were easily estimated by archaeological features and remains.

On September 5,1596,a big earthquake called Fushimi earthquake occurred in the

northern part of the Osaka plain. Recent excavation survey revealed that the earthquake was caused by movement of many active faults, distributed along the northern border of the Osaka plain and in Awaji island. Traces of liquefaction caused by Fushimi earthquake were also clearly observed in many sites of archaeology. In this way, about this earthquake, the nature of fault movement was known in company with geological hazard.

Traces of liquefaction were also useful for investigation about the history of Tokai and Nankai earthquakes, which were supposed to have occurred periodically along the Nankai trough. During recent 400 years ,old manuscripts are abundant and the histry of Tokai and Nankai earthqukakes was exactly comprehended. On the other hand, old documents decreased in quantity during the ancient and middle ages, and some important earthquakes were liable to be overlooked. Traces ,found out in many sites of archaeology, sometimes make good the loss of the historical records, assisting us to study the history of these great earthquakes exactly.