

## Age of Kyodogawa fan deposits in southeastern Kofu basin, central Japan

Yusuke Arai<sup>1\*</sup>, Reisuke Kondo<sup>2</sup>, Hidetsugu Yoshida<sup>2</sup>, Yosuke Miyairi<sup>3</sup>, Yusuke Yokoyama<sup>3</sup>

<sup>1</sup>Graduate student, Meiji Univ., <sup>2</sup>Meiji Univ., <sup>3</sup>Univ. of Tokyo

Many alluvial fans formed terraces in the Kohu basin after Late Pleistocene. Previous studies have examined the relationships among alluvial fan deposits and Kurohuji pyroclastic flow (0.6 Ma), Nirasaki mud flow (0.3 Ma), and On-PmI tephra (100 ka). However, the age of alluvial fans formed after the fallout of On-PmI tephra has not been determined yet. Thus, this study aims to clarify the age of fan deposits on the Kyodogawa fan, as a representative one in the southeastern Kofu basin.

In this study, we analyzed aerial photographs and topographic maps at a scale of 1/5000. Then, we described fan deposits and collected for tephra samples analysis and AMS<sup>14</sup>C dating.

The Kyodogawa fan is divided by the younger, then lower alluvial fan surface at the downstream and the older alluvial fan surface. The fluvial terrace is distributed on the upstream of the older alluvial fan, topographically correlated with each other because of their continuity of geomorphic surfaces.

From the above geomorphic interpretation, we considered that the older fan deposits and the terrace deposits are the sequential ones. The older fan deposits and the fluvial terrace deposits are covered by volcanic ash. These volcanic glasses are identified as Aira-Tanzawa tephra (AT; 30 ka) on the basis of refraction index. In addition, the <sup>14</sup>C age of organic material in the layer covering the fan deposits supports that the fan deposits dates back to at around 30 ka.

Therefore, we conclude that the older alluvial fan and fluvial terraces were formed around 30 ka.

Keywords: Kofu basin, alluvial fan, Aira-Tanzawa tephra (AT), Late Pleistocene, AMS<sup>14</sup>C dating