

Earth School: Field Seminar for Parents and Children; 4. Stone Hunting

Hidekazu Yoshida[1]; Yusuke Katsurada[1]; Kazuhiro Tsukada[2]; Masao Kametaka[2]; Shoji Nishimoto[3]; Hisao Nakamura[3]; Mamoru Adachi[4]; Katsuhiko Mouri[3]

[1] NUM; [2] Nagoya Univ. Museum; [3] Nagoya City Science Museum; [4] Nagoya University, University Museum

Earth School, a field seminar for parents and children, is operated by the Nagoya University Museum and Nagoya City Science Museum. This work is supported by Japan Science and Technology Agency (JST). It is noteworthy example of cooperation between a university and a local museum. Earth School has been carried out 9 times in 2006: 8 times for general people, and once for curators of science museums. Each event except for event with lodging is composed of two days: One day is for learning/experiment in laboratory and the other is for fieldwork. Here we will describe the outline of the 6th Earth School; Stone Hunting in Unuma, and discuss problem to be solved.

In this event, stone knives are made from pebbles of a river, and then meats and vegetables are actually cut by the stone knives. The aim of this event is 1) to know the variety of rocks of the river pebbles, and 2) to experience making a tool and using it by themselves. This event is applicable to all over the country, because it only needs some pebbles.

The 6th Earth School (Stone Hunting) was carried out in Nov. 3 and 4, 2006. The number of applicants of this event was 69 people (23 families). After the lot, invitations were sent to the elected people. However, some families canceled, and the number of real participants was 24 people (9 families). A special feature of this event's applicants is a lot of pairs of boys and mothers. 6 researchers from foreign museums who took part the 2nd International Forum of the Nagoya University Museum joined this event.

The morning of the first day (Nov. 3) was planned to go to a fieldwork. Pebbles for stone knives were collected by participants from a dry riverbed of the Kiso River at Unuma, Kakamigahara City, Gifu Prefecture. After lunch, we returned to the Nagoya University Museum. A talk about rocks were given, and a quiz game of stone judgment were done for promoting understanding.

The second day (Nov. 4) was set for making stone knives at the Seminar House of the Nagoya University Museum. Steel plates and abrasive powder (#100) were used for polishing a pebble, and whetstones were used for finishing. Pebbles of sandstone, shale, chert, rhyolite, andesite and granite were found at the riverbed of Unuma. The most suitable pebbles for stone knives are shale. Sandstone, volcanic rocks and granite are difficult to make stone knives, because their blades are easily broken. Also chert is too hard for polish. After making the stone knives, the participants cut meats and vegetables, and checked the sharpness of their knives. Meats and vegetables were used for curry for lunch. Staff of the event have to prepare curry and rice simultaneously making stone knives, so we arranged staffs for cooking.

Result of questionnaire survey after the event were generally favorable. The participants checked the items of [Quite Enjoyable] (17 people) and [Enjoyable] (4 people), therefore this event seems to include a lot of entertainment. On the other hand, four people marked on the item of [Not scientific]. How to add scientific features to this event is one of the big problems. Comments from foreign researchers said that participants should collect all kind of pebbles at first. Also they pointed out that the age of the participants should be more restricted. We need to discuss the latter opinion.