The Influence of Sampling Methods on the Reconstruction of Fish Remains from Archaeological Sites

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A large quantity of remains of fish, which caught by Jomon people are found at shell-midden deposit. Detailed research them allows understanding of the problems facing prehistoric fishermen, such as fishing tools, fishing methods and fishing seasons as well as the food problems of the people of this age.

However, it is thought that the collecting methods for such small and fragile remains as fish remains exert a great influence, in terms of both amount and composition.

The results of materials arrived at by two different collecting methods at several Jomon shell piles in the eastern Kanto area were compared. As a result the bones of small or young fish, as herring-like fishes, carps, jack mackerels, etc. were separated by flushing in water from the column sample which was taken from midden-deposit employing 4 screens (The hole sizes of each screen used were. 9.52mm, 4.0mm, 2.0mm and 1.0mm) These materials were not collected in previous excavation methods (Fig. 1).

As given above, the method of separating the remains from the column sample, decreased the sampling errors for fish remains and left them available for reconstruction. The collection point, however, is only a small “spot” from the entire midden site. It is possible that there will be a wide variation in the reconstruction as a result of the sampling point, if the conditions of accumulation are not homogeneous both vertically and horizontally (Fig 5). Further, a careful examination of the size of the smallest hole in the screen used for water flushing is necessary (Table 1). Therefore, in order to grasp the constitution of the fish remains precisely, systematic analysis is needed as well as a careful consideration of the collecting method.