

How domestication changed animals and humans

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Q. What is the one thing you want to know the most right now?

I investigate how prehistoric humans exploited animals. I study animal bones excavated from Neolithic sites in Southwest Asia, namely present-day southern Turkey, Syria, and Iran. Major domestic animals—cattle, sheep, goats, and pigs—were domesticated there around 12,000 years ago, as well as crops such as wheat and legumes. I am especially interested in the changes of human-animal relationships in the process of domestication. Domestication is a co-evolutionary process of both humans and animals or plants. Changes occurred in the behavior and morphology of animals because of human intervention. Human subsistence and society also changed. In the process of domestication of animals, the focus shifted from the use of meat and hide, which were obtained from animal carcasses, to the management, breeding, and maintenance of living animal herds. Use of the so-called “secondary products” such as milk, wool, and labor, that can be harvested repeatedly made animal herding economically worth.

Q. What do you consider to be a challenge at the moment?

The idea of “Neolithic Revolution,” that maintained that the innovation to produce our own food brought about a major change in human history, comparable to the Industrial Revolution is still pop-

ular. Recent excavations of Neolithic sites in Southwest Asia, however, revealed that social systems with a strong leader had developed around 10,000 BC, before the use of domestic plants and animals. Sedentary hunter-gatherers constructed large-scale structures (“temples”) where community rituals were performed. Also in Japan during the Jomon period, complex social structure appears to have developed. These Neolithic hunter-gatherers had a high level of knowledge about natural resources to use them effectively, but they did not engage in full-scale farming or animal husbandry. Then, how was the process of domestication initiated, and what were the consequences from the perspective of evolution of animals, plants, and humans?



Q. Could you share your thoughts on the future prospects of this field?

There is still so much we do not know about how animals' behavior, reproductive systems, and cognitive functions changed during the process of do-

mestication, that resulted in the changes in relationships with humans. Biological changes occurred in animals as the results of human intervention, while psychological and social changes occurred in humans when property rights and social hierarchies emerged. I hope multidisciplinary research on domestication will elucidate the mutual relationship between animals and humans in the process of domestication.



Q. What was the most enjoyable moment and the most challenging moment during your research?

During fieldwork (excavation of archaeological sites), various problems and misunderstandings due to cultural differences may occur, but I enjoy communicating and working with researchers, students, as well as local villagers. The most difficult thing in working in the Middle East is conflicts and war, that interrupt research activities.

Q. What are your interests outside of research?

My hobby is horseback riding. When I was a child, I always kept various animals and birds at home, The subjects of my research are the bones of various animals (including horses) excavated from archaeological sites. I enjoy observing live animals and reading literature and academic papers on animals, which is also beneficial for my research. It would be a good idea to choose something that you like for their research.