Archaeozoology at the CRFJ

Pierre Ducos
From the end of the Paleolithic period, a succession of cultural changes led the human societies from an organization of mobile hunter-gatherer groups to the beginnings of urbanization. Among the most decisive of the changes were undoubtedly: sedentarization, plant and then animal domestication, the invention of pottery, and lastly the use of metal. The period during which domestication of animals began extends over more than a millennium. It began in the early PPNB (Pre Pottery Neolithic B, which corresponds roughly to the seventh millennium), where situations of predomestication are attested for. The study of the zooarchaeological material in the Near East, a geographical area where the process known as neolithization began, and then developed and diffused towards Europe, with or without a population movement, obviously inscribes itself within the research that can contribute in a decisive manner to our knowledge of this period.

This field of study in zooarchaeology is highly developed today. A number of French research units, as well as teams from many other countries participate in it, for a given geographical area or period. Many research institutes from countries in the Near East are involved in this field. Ranking among the first are: Israel, offering the Laboratory of Paleontology at the Hebrew University, set up by Professor George Haas, today the Department of Evolution, Systematics and Ecology headed by Professor Eitan Tchernov, which has been in existence for about forty years; and also Jordan; and more recently Bir-Zeit University, in the autonomous Palestinian territory.

Since 1994, a more in-depth research on the southern Levantine zone integrated in a same problematic the sites of Damascene excavated by the Henri de Contenson mission, the excavation sites of the French Research Center in Jerusalem, and finally, the material of the Israeli excavations themselves thanks to a close association with the laboratory of Professor Eitan Tchernov: an association materialized by the creation by the CNRS of a PICS (International Program of Scientific Cooperation № 403 “Zooarchaeology of the Neolithic of the Southern Levant”) in June 1995.

On the international level, a working group on zooarchaeology of the Near East and of the adjacent regions (ASWA) was created in 1990 by the
International Council for Archeozoology. This group meets every two years. The last meeting took place in Budapest in 1996. The PICS 403 was involved in organizing this meeting and two papers were presented.

Research conducted in 1996-1997

The study of the bone assemblages of the preceramic Neolithic was pursued. Two specific studies must also be added: one on the modern animal population of the species involved in the process of domestication, the other on the application of techniques for DNA sequence recognition on modern and fossil material.

The results obtained over the last two years confirmed that a predomestication economy established itself in the south Levantine (southern Levant), perhaps for a number of species, but certainly and mainly for the wild goat. This species is only represented today by a few specimens preserved in Crete. A mission was organized in the framework of the PICS 403 in November 1996 involving L. Horwitz (Israel Antiquities Authority) and Armelle Gardeisen, a French zooarchaeologist recipient of a grant to study in Israel. A collection of 18 skeletons of individuals of both sexes were gathered, from the Island of Theodoranou (which has been subject to detailed ecological studies) on the one hand, and also from the Samaria reserve. These specimens, which will complete the Hebrew University's collection, will serve as an osteometric reference. They will also undergo an examination in order to study the DNA.

Research on the DNA of wild or domestic forms, of modern or fossil, is conducted in the framework of the PICS 403 by Gila Kahila (Alexander Silberman Institute of Life Science, Department of Evolution, Systematics and Ecology). Samples of the sites of Abu-Salem, G VIII and Abou Gosh were taken. For the time being, no significant result was obtained because of the bad state of preservation of the bony material or because of the preparation techniques that have been applied to it at other times.

Pierre DUCOS

(Translation: Lisa Anteby)