INTRODUCTION TO SECTION IV
(with a special appreciation of the scientific work of Elisabeth Schmid and Hans R. Stampfli)

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Our host city Konstanz, lying as it does in the heart of Europe, provides me with the opportunity to focus our attention on the central European contributions to the field of archaeozoology. Central Europe is the birthplace of one of the major traditions of modern archaeozoology. Already in the last century, Ludwig Rütimeyer, of the Natural History Museum in Basel, gave an initial impulse to archaeozoological research with his paleontological investigations of animal bones from prehistoric sites (for example: Rütimeyer, 1878). Because his work handled animal remains largely in a paleontological style, subjects like the form and size of domestic animals were in the forefront of his interests. It is no longer enough to have this single research question in current archaeozoological research. The purely paleontological consideration of prehistoric bones is today only one of many approaches. The past decades have seen the addition of a number of new research questions and perspectives. Ignoring for a moment all of the new analytical and methodological advances (for example, chemical analyses, DNA analyses, tooth thin-sectioning, etc), which I will not deal with here, animal bones from prehistoric sites are today analyzed from economic, ecological, taphonomic, social or social-geographical and culture-historical perspectives. This is not meant as an exclusive list of approaches, but only shows the dominant research directions. A good example of the diversity of approaches to prehistoric animals can be seen in our list of papers, which includes contributions from animal geography and ecology to economy, social geography and culture history. Every one of us knows how difficult it is to extract these diverse interpretations from assemblages of animal bones. Basic knowledge of a number of disciplines is required. In addition to zoological training, we need a foundation in archaeology. This sounds obvious to us, however, a basic training in the archaeology of Europe today requires knowledge of more than two million years of human history in a variety of environmental contexts. The relevant research questions can be completely different, depending on whether the bones studied come from a Middle Paleolithic cave in the Alps, or if, in connection with classical or provincial Roman archaeology, the butchering debris from a Roman villa is analyzed. These few examples suffice to show that we all need an extensive archaeological training in order to avoid the danger of interpreting animal bones from prehistoric human settlements in a purely paleontological frame of reference.

In 1990, in his introductory talk at the last ICAZ meeting in Washington, Sebastian Payne asked members of the audience to show who among them had zoological training, who had an archaeological background, and who had a foundation in both fields. Many were trained in zoology, a lot fewer came from a basic archaeological background, and only a few individuals were trained in both fields. Like him four years ago, I see this as an important indication of the direction required for future training in our discipline. Naturally, we can each broaden our personal knowledge in the context of our own research projects, and it is in many cases immaterial if one comes to this field from zoology or archaeology. However, it would be much easier for future archaeozoologists if they could receive an education with a foundation in both fields. Such a training would encourage true interdisciplinary research from the start, rather than giving one field priority over the other, which is often the case today.

When we consider the kinds of ecological and economic interpretations often based on animal bone assemblages, it becomes apparent that, even combined, archaeological and zoological training is not always enough. We also need the additional knowledge derived from archaeobotany and plant evolution. Only this kind of general archaeobiological

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frame of reference allows us to make paleoecological and paleoeconomic conclusions from our identifications of animal bones. The role of paleoecology is especially critical in current discussions of our modern environment. Archaeozoologists and archaeobotanists must acknowledge their common responsibility in current environmental studies. It is not clear to many biologists and ecologists that already by the Neolithic, prehistoric humans had a serious impact on the natural environment. During the course of the Holocene, humans gradually transformed their natural surroundings into a cultural landscape. Escalating raw material needs and steady intensification of food production were the driving forces behind this transformation. Archaeobiological and paleoecological knowledge can provide the information necessary to illustrate this prehistoric and historic process of landscape evolution, and can help to identify strategies to conserve ancient cultural landscapes. These cultural landscapes are not natural phenomena - they are the result of hundreds and sometimes thousands of years of evolution. They cannot be preserved by being left alone. If we want them preserved, they must be managed with the technologies and techniques which led to their creation in the first place. In this respect, it is easy to see how important it is to have a historical perspective in modern environmental studies. As archaeozoologists and archaeobotanists, it is our duty to introduce this perspective into current discussions about environmental conservation. To carry out this duty, it is important to make sure we are training not just archaeozoologists and archaeobotanists, but archaeobiologists. With this in mind, we are in the early stages of developing a new educational plan at the University of Basel in Switzerland. Like the English “archaeological sciences”, it will have its roots in prehistoric archaeology. In the initial stage, students will receive basic training in zoology and botany, in addition to the traditional archaeological foundation. In the second stage, the fields of archaeozoology and archaeobotany will be emphasized. Specialization in these fields will be possible, but not mandatory, in the context of a practical analysis.

The idea of an interdisciplinary curriculum is, of course, not entirely new in Basel. Two very influential people behind this idea were Prof. Elisabeth Schmid and Dr. Hans R. Stampfli, both of whom I was privileged to have as my teachers. Unfortunately, both of them passed away in 1994, leaving a large gap in not only Swiss archaeozoology, but in the discipline as a whole. I won’t go into the many contributions of both of these individuals here - I have already done this in the latest ICAR newsletter. However, I would like to underscore the importance of both of these scientists as pioneers in the realms of paleoecological and paleoeconomic research in Europe. Hans Stampfli’s contribution in this direction is already apparent in his publications from the early 1970s, Elisabeth Schmid had integrated many of these concepts in her teaching beginning in the 1960s, and showed her interdisciplinary expertise in many publications. I think we can without reservation consider the work of both of these individuals as examples for our own research. This applies not only to their scientific contributions. Both set general scientific goals and priorities above their personal ambitions, and never hesitated to use their influence to support important projects and encourage younger colleagues. If we can follow their examples, both scientific and personal, in our own research, the significance and contributions of archaeobiological and archaeozoological research will never be overlooked.

**Bibliography**