

## **Collaborative Doctoral Award: Livestock and Landscape: changing husbandry, livestock improvement and landscape enclosure in late and post-medieval England**

Research area: Zooarchaeology and Environmental Archaeology

Supports: NHPP 4F2 - Field Systems

### **University Partner**

University of Sheffield

### **Project Summary**

Field systems are the most extensive heritage asset in England, but an understanding of their origins remains incomplete, and we know little about their economic and social function and value. Although there is a relatively good understanding of the morphology of medieval and post-medieval field systems, there is a commensurate void in terms of our understanding of their impact on agricultural practices. Livestock improvement in England has been documented archaeologically since the 13th C AD and it continued in various forms until modern times. The dynamics that led to such improvement are, however, still only partially understood. Historians have suggested that the enclosure of open fields was part of a set of changes associated with the Agricultural Revolution and that increase in animal size was part of this general phenomenon.

This seems reasonable, as limiting animals' movement may have led to a greater control of their reproductive cycle, which will be reflected in biometry and ageing patterns. No hard evidence is, however, currently available. This project aims to test this hypothesis archaeologically, by comparing evidence of change in livestock management with available data on the timing and nature of the enclosure of fields. Various zooarchaeological methods will be adopted and the scope, scale and form of field enclosures will be examined through both the historical record and a landscape archaeology approach. The project will mainly rely on a new analysis of existing data, but a few regional case studies will be investigated in particular depth. These will require first-hand analysis of animal bone assemblages from relevant sites, selected mainly on the basis of the concurrent availability of historical and/or archaeological information concerning the development of field systems in the relevant geographic area. The biometrical approach will be integrated by other lines of zooarchaeological investigation.

Age-at-slaughter, proportion of sexes, and health conditions of animals are all factors that can be dictated by husbandry strategies, which in turn depend on land-use. Consequently, all these aspects will be recorded and analysed, as well as the relative proportions of the main livestock. The project will explore changes to field systems and land-use over time using various existing archaeological, historical and cartographic sources. Potential sources include data from the Historic England-funded programmes of aerial photographic interpretation and Historic Landscape Characterisation, data held by the Archaeology Data Service (ADS), in particular Williamson, et al.'s 'GIS aided study of agriculture and landscape in

Midland England', and an ever-increasing number of digital copies of historic maps, primarily supplied by local record offices (e.g., Worcestershire and Norfolk) or by The National Archives. Where possible, it is expected that the zooarchaeological and landscape data will be combined and analysed using Geographic Information Systems (GIS) software. A wide variety of spatial, tabular and image-based data can be mapped and visualised together using GIS, helping to identify patterns and changes in the data over space and time. Where appropriate, spatial analytical tools available in GIS may be used to test associations between the zooarchaeological and landscape data.

It has long been surmised that changes in field systems and land-use in the post-medieval period - in particular the shift from open and commonly-held fields to enclosed and individually-held ones - went hand-in-hand with changes in livestock management. This project will, for the first time, test that hypothesis using primary evidence and an interdisciplinary approach. The aim will be to identify and explain the nature and geography of the interrelated changes in the landscape and in the livestock raised on it. These issues represent important historical questions that concern the way the countryside, as we know it, gradually took shape.

### **Contact Details**

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