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Mark's corner

Environmental archaeology:

The Study of Man and Environment

It is not possible to separate the study of man from the study of his environment, their interaction and the subsequent resulting evidence of that interaction. All ecological systems are dynamic, all components influencing each other to varying degrees. Human communities affect this balance probably more than any other life form on earth. Since early prehistoric times man has modified the natural environment to suit his own purposes. This exploitation of nature or "conquest of man over nature" has had a dramatic effect on the appearance of the landscape within which we all live. During early prehistoric times man was limited by his environment, however the development of food production, tool-making and complex societies has led man to a situation whereby he can to a large extent control it.

Environmental archaeology aims to document the occurrence of such human actions on the environment and on the organisms (animals and plants) living within it through time. Environmental methods in archaeology have become increasingly a feature of modern archaeological analysis. During the past thirty years a whole range of techniques have been developed to examine a variety of bio-archaeological data.

What sort of environmental data can we recover from archaeological sites? A whole range of information may be studied, including the following: sediments and soils, micro-organisms, pollen analysis, wood and charcoal, seeds, fruit and nuts, molluscs, insects, parasites, animal bones, and human bones.

What information is provided by the study of these different bio-archaeological remains? This falls broadly into three different categories:

(1) Environmental - analysis may provide information on the general climatic, environmental or ecological conditions prevailing on or near an archaeological site.

(2) Economic - environmental archaeology can make an important contribution to our understanding of the economy of a particular archaeological site or period. At a simple level, what was eaten on a site (a list of plants and animals identified among food waste), at a more complicated level, such data being used to reconstruct the contemporary agricultural economy or to illustrate social differences across a site or between sites.

(3) Behavioural - biological remains contained in layers or pits and their distribution across an archaeological site may relate to various aspects of the contemporary human behaviour, e.g. the threshing and winnowing of cereal crops on agricultural settlements produces recognisable patterns among the botanical assemblages, and the practising of crafts or commercial activities such as bone working or butchery yields characteristic assemblages of animal bones. It may be possible in optimum situations to make an interpretation of the function of specific rooms, structures or features, and to recognise the common patterns of disposal, however this may often prove difficult although it is potentially attainable on some sites.

Environmental archaeology is a multi-disciplinary field, and this is reflected in the backgrounds of most specialists involved within the discipline, who may often have been originally trained as agricultural scientists, anthropologists, archaeologists, botanists, geographers, geologists, vetinarary scientists, zoologists, etc. There has been a great increase in environmental knowledge from archaeological excavations over the past two decades, and along with this there have been similar methodological developments, e.g. improved methods of retrieving environmental remains, new methods of identification and quantification, and new approaches to the analysis and interpretation of environmental data. Environmental archaeology is still a relatively young discipline, nevertheless it now forms an important part of modern archaeology. It provides not only the documentation of information from the past but may also be considered as a valuable tool in the development of strategies towards natural and environmental management. We must know and understand what the environment was like in the past and how man has affected it to ensure the success of our future plans for its protection and management.

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subsequent - následný
contemporary - současný
cereal crops - obilná zrna
butchery - řeznictví
background - pozadí, minulost
tool - nástroj