BASINGSTOKE ARCHAEOLOGICAL SOCIETY

Newsletter

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CALENDAR

Saturday 21st January	Annual Meeting of Berkshire, Hampshire and Surrey Borders Ceramics Research Group. Farnborough Town Hall. 10.00 a.m. - 5.00 p.m.
Thursday 26th January	Further Excavations in Advance of the M3. Lecture by Peter Fasham, Archaeological Director, M3 Archaeological Rescue Committee. Chute House, Basingstoke. 7.30 p.m.
Saturday 28th January	Education for Industrial Archaeology. See page 5.
Wednesday 8th February	The Somerset Levels: Archaeology in a Waterlogged Landscape. Lecture by Dr. John Coles, Reader in Archaeology, University of Cambridge. Lecture Theatre 1, Medical & Biological Sciences Building, Boldrewood, University of Southampton. 7.30 p.m. Aspects of Antiquity Series.
Saturday 11th February	Industrial Archaeology: Recent Developments in Wessex. See page 5.

'FURTHER EXCAVATIONS IN ADVANCE OF THE M3'

Peter Fasham, Archaeological Director of the M3 Archaeological Rescue Committee, is no stranger to this Society. He gave us a fascinating and informative progress report lecture on excavated sites along the path of the M3 Motorway extension in April 1975. He dug an M3 site at Popham which involved some of us and he has turned up as a speaker at a number of meetings in Hampshire over the years. Most recently he spoke on Roman Fields at the one-day CBA Conference at the Vyne School.

His approach to archaeology is both academic and scientific but above all practical. He is a firm believer in the use of computers as a scientific aid to archaeological analysis while at the same time having his feet sufficiently firmly planted on the ground to avoid involvement with the extremist, lunatic fringe archaeologists.

He is a clear and convincing speaker whose views are always worth hearing and deserve one's attention. His lecture to us this season will be on Thursday 26th January at Chute House, 7.30 p.m.

RURAL SETTLEMENT IN SOUTHERN BRITAIN (TUDORS TO 20TH CENTURY)

The last of a most successful series of non-residential annual weekend conferences on rural settlement ranging from the Prehistoric to the present will be held at Southampton University during the weekend 3rd-5th February. To conclude the chronological development from where last year's conference ended, this year's theme will cover the period 'Tudors to the 20th Century'. Topics to be discussed are the Enclosures, and subsequent developments in the landscape and settlement pattern, rural industries, roads and canals and the railway towns. A brief anticipation of the future will be attempted.

The conference fee which includes the sherry reception on the Friday evening and teas and coffees throughout is £4.50. Further details for application to attend and a complete programme are available from:

Mr. D.E. Johnston, M.A., Department of Adult Education,
University of Southampton, Southampton, SO9 5NH.

INTRODUCTION TO ENVIRONMENTAL ARCHAEOLOGY

For many centuries, historians have collected pots or carried out 'treasure hunting', whilst speculating upon the conditions in which the owners lived. With the advent of a scientific method for the study of natural phenomena, a few individuals saw a means of unravelling the puzzle of palaeoenvironments. Today with an increasing awareness of the environment on the one hand and the wider application of theoretical science on the other, archaeologists are able to create more accurate reconstructions of past conditions. However, while this is fine in theory, in practice there are relatively few environmental archaeologists.

This article is the first of a series which aims to outline the basic concepts that are used and their importance to the final analysis of archaeological sites. The series is not intended in any way to be definitive, rather, I hope to point out some of the key areas in which people are researching so that the non-specialist can comprehend the arguments for the particular branch of study and the methodology behind it. With increasing awareness of diverse aspects of environmental

archaeology this 'cri de coeur' from specialists will hopefully become less common:

> "..... archaeologists take endless pains during the excavation of our ancestors' material produce and remains, whereas they simultaneously treat the skeletons of these ancestors as rather 'irrelevant' foreign bodies." (Møller-Christensen V. Medical History 17 p412).

What is the environment? A simple enough question to start with: or so it seems at first glance. Unfortunately, the movement which brought the 'environment' to the public's attention in the early 1970's also laid the foundation for the word to become debased and abused. Technically the 'environment' of any organism is the sum of all the components with which it interacts. If Man is the organism there are three such components - physical, biological and cultural. This can be more easily explained with reference to the diagram (p4).

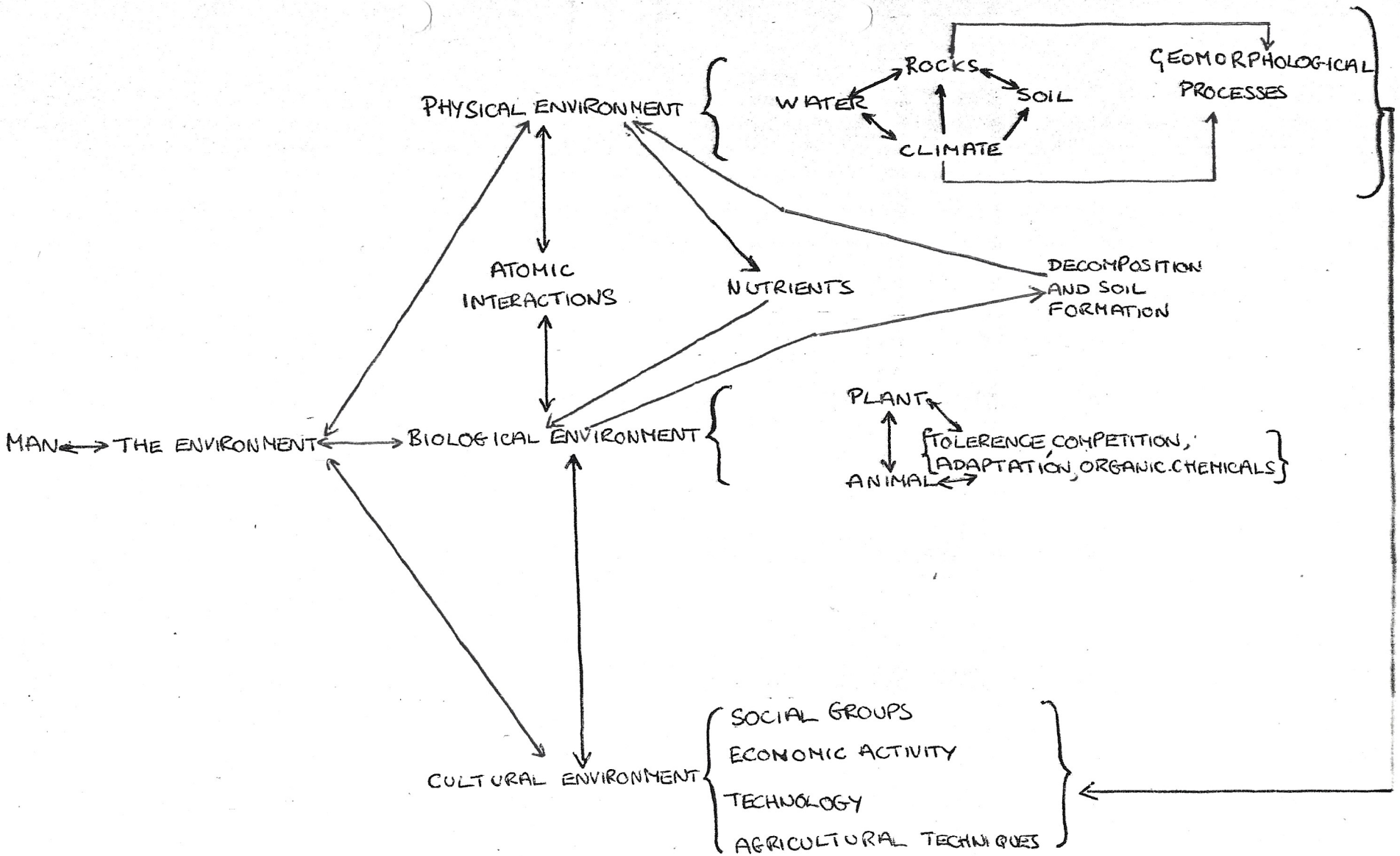
'Energy' is a major unit but it is not mentioned as one of the 'components'. This is because it is common to all three and is often used as a common currency to enable scientists to obtain a more complete understanding of the environment.

Why bother with it? A study of the modern environment is essential in that it helps us to see the results of human action. Can the same be said of palaeoenvironmental analysis? Results of human action have presumably been experienced but their study adds little except knowledge-for-knowledge's-sake. This dilemma can be further complicated by the fact that cultural and environmental analyses on a site frequently require different methodological approaches. One has to bias an excavation one way or the other unless a great deal of time is taken in the planning stage (which unfortunately is all too rare a case).

However, there are three arguments which one can use apart from the case for the increase of knowledge. Consider for a moment, the drought of 1976. After a few weeks of dry weather 'scientists' were quoted by the media as saying that we were entering a 50-100 year drought phase similar to that experienced in the 12th - 13th centuries. The fact that the drought hypothesis is no longer in vogue today shows the flimsiness with which some statements are made. The excavation of a site under a comprehensive scientific methodology could yield both cultural and environmental information to make the drought statement more accurate. In other words there is a modern scientific need for palaeoenvironmental data.

Secondly, economic arguments can be used to support environmental analysis. When money is in short supply it makes good economic sense to maximise results and minimise expenditure. All that is required on a site is a little extra effort to gain a considerable increase in information - information that may change ideas about socio-cultural patterns.

One hears a great deal about conservation in archaeology. Correctly defined, conservation is the 'wise' management of a resource. Wise in the sense of extracting maximum benefit from it. Archaeological sites are a finite resource that is being attacked every day. One cannot talk about site conservation if one is only concerned with cultural evidence, as so much environmental evidence will have been destroyed. One day we will require detailed environmental knowledge from our sites. It would be a tragedy if too many sites were irrevocably destroyed.



N.B. ARROWS SHOW THE DIRECT LINKAGES.

INTERACTIONS IN THE ENVIRONMENT

Whatever methods of analysis are being discussed, or sites excavated, the 'digger' is the basic research assistant. Unfortunately the digger is often the last person to be told the aims of the experiment. To remedy this, practical information will be included in this series so that individuals will know why a particular method is chosen and how best they can help. A suitable shortlist of questions they could ask would be:

1. What do I want to find out?
2. What methods do I use?
3. How do I collect my material and what precautions must be observed?
4. How do I interpret my results?
5. How does this fit into the known information?

There are no doubt others that could be added but these are the basic ones - the ones most archaeologists ask themselves. By concentrating on these fundamental questions I hope to demonstrate a wide number of techniques available today to increase our knowledge of history.

PAUL GANDERTON

Paul is clearly trying to be controversial. I would have hoped that excavations in recent years might have shown archaeologists in general to be more aware of the environmental issues and their significance than he gives credit for. However, he is entitled to his views and we look forward to an informative series of articles in forthcoming Newsletters which should bring palaeoenvironmental archaeology into sharper perspective for us all.

Editor

DAY COURSES IN INDUSTRIAL ARCHAEOLOGY

The Department of Adult Education, University of Southampton , is holding two meetings in the near future which should appeal to the 'above ground' archaeologist.

Education for Industrial Archaeology Saturday 28th January 2.30 - 6.00 p.m. University Centre, Building 14. Fee £1.00.

For those wishing to study industrial archaeology, there is a limited number of courses with a wide range of standards. This meeting is arranged for both teachers and students of industrial archaeology classes in order to exchange ideas about the teaching of the subject.

Industrial Archaeology: Recent Developments in Wessex
Saturday 11th February, 10.00 a.m. - 5.30 p.m., University Centre, Building 14. Fee £2.00.

Many important developments have taken place in the field of industrial archaeology during recent years. Presentations will include surveys of water mills, smithies, floating bridges and other features. The meeting is arranged in association with the Southampton University Industrial Archaeology Group.

Further details of both meetings may be obtained from the Department of Adult Education, University of Southampton, SO9 5NH.

THE FUNCTIONS OF PALAEOLITHIC STONE TOOLS

A recent article in the journal 'Scientific American' by Dr. Lawrence Keeley (November 1977 p108-126) describes a scientific breakthrough in our understanding of prehistoric man. A new technique known as microwear analysis, which is the microscopic examination of the working edges of stone implements using high magnification, has made it possible to reveal their functions. Evidence of use is recorded for posterity in the form of microscopic polishes, wear patterns and striations along a stone tool's working edges, provided it has been taken care of since excavation. Different uses cause distinguishably different wear markings or palaeolithic 'hallmarks'.

If we take modern replicas of ancient stone tools and use them exclusively for cutting wood, skinning hides, slicing meat, and so on, it causes distinct microwear to occur along their edges which can be seen and identified microscopically. If these are then compared with genuine palaeolithic implements it is possible to establish their functions with considerable accuracy. Once the different wear markings can be identified easily it is then no problem to work through an assemblage of implements from an excavation to deduce their functions.

Keeley has been able to identify six different polishes according to the various materials being worked on:- wood, bone, hide, meat, antler and non-woody plant polishes such as from reeds, grasses, bracken, etc. In addition it is possible to discern whether the tool has been used for cutting by chopping, or by being drawn across like a knife or saw or for scraping or boring.

He has applied his technique to large numbers of assorted stone tools including palaeolithic flint artifacts from three classic British sites: Clacton-on-Sea; Essex; Swanscombe, Kent; and Hoxne, Suffolk. To quote an example from his description of a bifacial tool from Clacton, he deduced that the wear damage "could only have come from a rotary motion such as boring; the tool had been turned in a clockwise direction at the same time that downward pressure was being applied". He also deduced that the Clacton operators were predominantly right-handed.

Thus microwear analysis of work polishes on the edges of these British Lower Palaeolithic implements gives us for the first time concrete evidence of the types of human activity taking place somewhere in the region of 250,000 years ago. Previously we could only guess.

ORDNANCE SURVEY

To begin our 1976/7 lecture season we invited David Ball of the Archaeological Division, Ordnance Survey, who gave us a most interesting account of government funded archaeology. In particular he demonstrated the importance of the Ordnance Survey in their mapping, surveying and indexing activities, maintaining records of the innumerable sites and stray finds, and keeping a watchful eye on the archaeological literature for yet more records.

It comes as a great shock, therefore, to learn that the Ordnance Survey plans to disband its Archaeological Division, to discontinue archaeological record keeping, redeploy the archaeological staff and run down its library. Already the correspondence columns of the press have been kept busy with protests. The archaeological fraternity obviously sees the proposal as disastrous and is doing everything possible to get the decision reversed. At the time of writing there seems to be little possibility of this happening but the fight will continue.