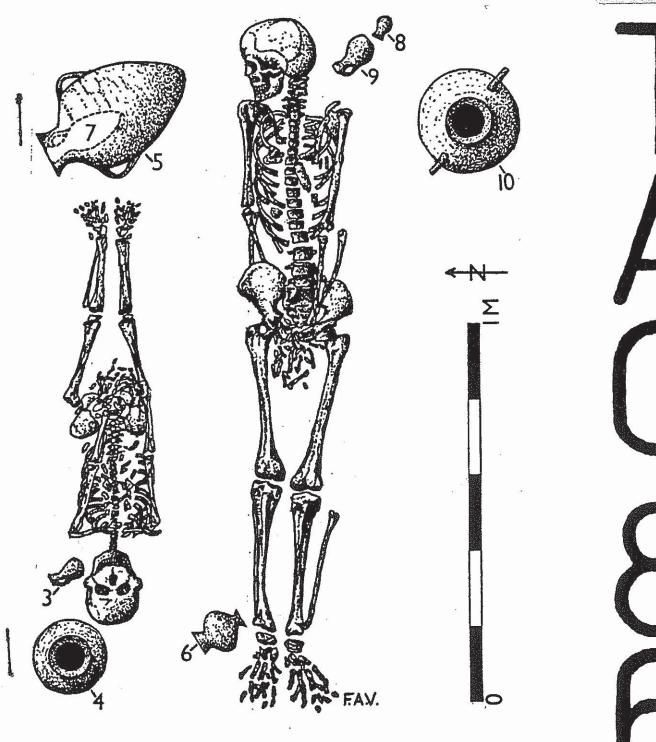
# 86 TAG 86 TAG 86 TAG 86 TAG

WINFRID & NICOLA SCUTT
1, HILL COTTAGES
BRIXTON TORR, PLYMOUTH
DEVON PL8 2BE

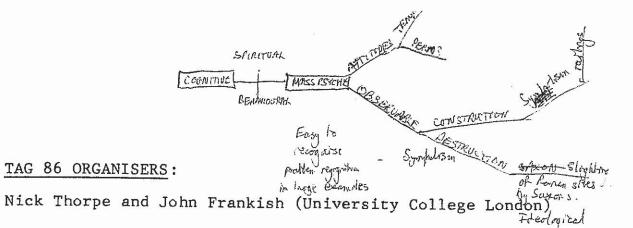
PLYMOUTH (0752) 880279



UNIVERSITY OF LONDON UNION

15-17<sup>th</sup> DECEMBER

36 TAG 86 TAG 86 TAG 86 TAG 86 TAG



The organisers would like to thank the following for their help in arranging this year's conference:

Prof. J. D. Evans (Institute of Archaeology), Prof. J. N. Coldstream (UCL), Dr P. Burnham (UCL), Pat Connolly (Institute of Classical Studies), Peter James (UCL), Franco Vartuca (Institute of Archaeology), Julia Clayton (Kings College London), Amanda Rumley (University of London Union), Peter Ball (UCL), William Ford (UCL), Keith Andreetti (UCL), Anna Burnet (UCL), Judy Medrington (Institute of Archaeology), Louisa Gingell (UCL) and Natasha (Institute of Archaeology).

Decorative styles/Moral of Notro Tired Bored of Empire

figgretions, unified revival of

by Tange postwar

postwar

mut: The Mappy - shored

**TAG 86** 

University of London Union, Malet St, London WC1 15th-17th December 1986

## FINAL PROGRAMME

## Monday 15th December

Site and Non-site Analysis and the Interpretation of Manning Hall Field Survey Data

Organisers: S. Keay & J. Schofield

Chair: R. Foley

J. Schofield: Archaeological 'Sites' and Short-sighted 2.00 - 3.30 pm

Archaeology: an Introduction M. Wagstaff: The Archaeological 'Site' from a

Geographical Perspective J. Richards & R. Entwistle: The Physical and Chemical Properties of Soils as an Aid to Functional

Interpretation S. Keay & M. Millett: The Ager Tarraconensis Survey,

Eastern Spain

-Tea Break 3.30 - 4.00 pm

G. Astill & W. Davies: East Brittany Survey - Oust/ 4.00 - 5.00 pm Vilaine Watershed

M. Bowden & V. Gaffney: Skimming the Surface or Scrapin the Barrel: Observations on the Nature of Surfac and Sub-surface archaeology

M. Allen: Finding sites and Analysing the Landscape: A Geographical Approach to Archaeological Problems DISCUSSION

Expert Systems and Archaeological Classification Badminton Court Organiser: S. Ross

Chair S. Ross 2.00 - 3.30 pm

S. Ross : Expert Systems in Archaeology: Roman Potter as a Case Study

K. Baker : Archaeology and Expert Systems: Some Proble Encountered During Practical Work

T. Taylor: Experts: Archaeologically Unique Objects an Supertaxononomy

- Tea Break 3.30

DINNER: 5.30 pm at Palms Restaurant, ULU

## Tuesday 16th December

Transcending the Palace and the Polis: Field Survey Manning Hall in Greece

Organisers: L. Foxhall and H. Forbes

Chair: L. Foxhall

9.45 - 11.00 am C. Gaffney: Archaeogeophysics and Field Survey: Context or Contention?

P. James : The Application of Mineral Magnetic Analysi to Soil Studies in Methana

J. Prag : How Diagnostic is Pottery from Surface

Survey? Archaeologist's Flair and Chemist's Wizardry 11.00 - 11.30 am - Coffee Break 11.30 - 1.00 pm R. Osborne & L. Foxhall: Document or Artefact: Inscriptions in the Context of Field Survey J. Bintliff & A. Snodgrass: Off-site scatters - a Detailed Comparison of Greek Survey Data and from elsewhere in Europe and the Eastern Mediterranean H. Forbes : Commando Anthropology: Ethnoarchaeology and Field Survey DISCUSSION Badminton Court Now that the Past is Gone - Some Contemporary Approaches to Swedish Prehistory Organiser: T. B. Larsson Chair: T. B. Larsson 9.45 - 11.00 am M. Malmer : Archaeological Typology - Gone or Comin{ E. Arwill Nordbladh: Oscar Montelius and the Liberat of Women DISCUSSION - R. Bradley 11.00 - 11.30 am - Coffee Break 11.30 - 1.00 pm H. Lundmark : The Growth of Hierarchies in Low-Centralised Societies - Some Archaeological Problems M. Widgren : Geographical Approaches to Field Syst in Swedish Prehistory and Early History DISCUSSION - R. Bradley LUNCH: 1.00 - 2.00 pm Manning Hall The Archaeology of Context and Structured Deposition Organiser: N. Thorpe Chair: N. Thorpe 2.00 - 3.30 pm B. Attewell & V. Denham: The Proper Study of Context Practice and Theory N. Thorpe : Putting Meaning into Context M. Johnson: The Domestic Unit in Rural England, 140 - 1700 AD C. Richards: Rub, Rub, Rub; Scrub, Scrub; Scrub: Rituals of Everyday Life 3.30 - 4.00 pm - Tea Break 4.00 - 5.00 pm J. Thomas : West Kennet in Context A. Herne : Monuments, Material Culture and Social Form: Bandkeramik and Beaker at Les Fouaillag DISCUSSION Badminton Court Island Archaeology - Microenvironments and Macrosystems Organiser: J. Frankish Chair: J. D. Evans 2.00 - 3.30 pm J. Frankish & J. Lambrianides: Island Interaction: T Case for Piracy in the Aegean Bronze Age M. Patton : Cultural Change in an Insular Context: A Channel Island Case Study J. G. Evans: Island Field Systems in Western Britain

Badminton Court Miscellaneous Organiser: TAG 86 Organisers Chair: J. Frankish K. Dark : A Method of Classification 4.00 - 5.15 pmO. Ortman : Problems and Possibilities when Working with an Ethnical Concept in Archaeology T. Steele : Evolutionary Perspectives in Comparative Psychology: Language and Society in Hominid Evolution DISCUSSION

DINNER: 5.30 pm at Palms Restaurant, ULU

## Wednesday 17th December

Manning Hall Towards a Cognitive Archaeology Organisers: J. Bell and C. Peebles Chair: J. Bell 9.45 - 11.00 am C. Renfrew: The Mental Map as a Theoretical Entity E. Melas : Emic Approach, Empathy and Objectivity in Archaeological Research C. Peebles: Rooting Out Latent Behaviourism in Prehistory 11.00 - 11.30 am - Coffee Break 11.30 - 1.00J. Bell : Methodological Individualism in Cognitive Archaeology M-S. Lagrange: Knowledge Integration Processes within

> the Framework of Expert Systems: Some Epistemological Issues Raised by a Case Study in Seldjukid Iconography E. Zubrow: Cognition and Generative Grammar: an Archaeological Case Study

DISCUSSION

Badminton Court This is Medieval Archaeology? Organiser: D. Brown Chair: D. Brown 9.45 - 11.00 am S. Driscoll: Texts as Artefacts: Implicit Meanings in the Book of Deer

S. Roskams: Medieval Towns and the Social Definition of Space - the Example of York

O. Lunde : The Medieval Town as a Single Site

11.00 -11.30 am - Coffee Break

11.30 - 1.00 pm C. Gerrard : Central Places in Medieval Somerset

A. Vince : Problems of Reconstructing Trade Patterns from Archaeological Data

P. Graves : Literacy and the Liturgy: Religious Reading and Practice in Medieval England

LUNCH: 1.00 - 2.00 pm

#### CONFERENCE ENDS

DISCUSSION

- Tea Break

3.30 - 4.00 pm

#### ABSTRACTS

## SITE AND NON-SITE ANALYSIS AND THE INTERPRETATION OF FIELD SURVEY DATA

John Schofield (Dept. of Archaeology, Univ. of Southampton): ARCHAEOLOGICAL SITES AND SHORT-SIGHTED ARCHAEOLOGY: AN INTRODUCTION

In the introduction to this session, I shall attempt to define three main problems:

- 1. The question of why we need to isolate 'sites' at all assuming for the moment that 'site' is an archaeological correlate for the settlement unit. Is there not a viable alternative which places an emphasis on the distribution of artefacts rather than the discovery of 'sites'?
- 2. The question of chronology, as the whole concept of 'site' is in fact a declaration of temporal unity within a scatter. Can we really talk in terms of 'dating' surface scatters? Might we suggest that the class of material is the all important variable upon which chronology depends? Do post— prehistoric ceramics for example allow a finer chronology to be used than may be the case for chipped stone?
- 3. The final problem which we need to discuss is whether a standard methodology might not be advantageous for the interpretation of regional land-use systems. One of the major advantages of field survey over more traditional methods of archaeological recovery is that it demonstrates the range of human adaptations between regions. Surely this is only really of value when comparisons can be made between regions and hence invariably between projects and project designs. If five projects are compared and all apply very different ideas of what represents a 'site', then any further analysis is made very difficult. Furthermore we need to be aware of what our results actually represent. Is there a standard relationship between surface and sub-surface archaeology, or will the geomorphology of an area dictate the overall pattern of settlement?

The main idea therefore in this brief presentation is to 'set the scene' for the various papers and discussions which are to follow, raising a number of points which I consider may be worthy of further discussion towards the end of the session. My intention will be to raise points which are particularly significant in terms of the cross-cultural emphasis which this session has tried to produce.

Malcolm Wagstaff (Dept. of Geography, Univ. of Southampton): THE ARCHAEOLOGICAL 'SITE' FROM A GEOGRAPHICAL PERSPECTIVE

Despite the obvious geographical connotations of <u>site</u> and its widespread use by geographers there has been almost no writing about it either as a concept or as a component of landscape. Meaning has been assumed and apparently taken for granted, though definitions are offered in the standard geographical dictionaries. Accordingly, this paper will advance a largely personal view of how geographers have used the term <u>site</u> and what operational steps have been taken to define it. Much seems to depend on the nature of the problem being investigated and the choice of an appropriate scale on which to examine it. For geographers there may be the additional complication of their favourite source, namely the topographic map. Throughout the paper reference will be made to the author's own experience

in trying to study aspects of human, chiefly rural settlements.

Julian Richards (Trust for Wessex Archaeology) & Roy Entwistle (Dept. of Archaeology, University of Reading): THE PHYSICAL AND CHEMICAL PROPERTIES OF SOILS AS AN AID TO FUNCTIONAL INTERPRETATION

Comparative geophysical and geochemical data recovered from surface lithic scatters in the Stonehenge area have facilitated the construction of a range of site formation models based on recoverable patterns of accumulation and discard.

This paper will demonstrate the capability of such data to provide an independently valid assessment rather than merely acting as an adjunct to solid artefactual data.

Simon Keay (Dept. of Archaeology, Univ. of Southampton) & Martin Millett (Dept. of Archaeology, Univ. of Durham): THE AGER TARRACONENSIS SURVEY, EASTERN SPAIN

The aim of this survey is to study the development of the settlement pattern in the hinterland of Tarragona, North-eastern Spain, throughout antiquity. Especial attention is being paid to the impact of the foundation of the Roman Provincial capital of Tarraco on the distribution and intensity of the pre-Roman settlement pattern. Given the large size of the selected area (893.15 sq km), the area of survey is being systematically sampled by six 1 km wide transects. These run from W to E at 3 km intervals, taking in contrasting topography and vegetation between Tarragona and Sierra De Miramar.

At the moment, most field-surveys in the Western Mediterranean are content to identify sites subjectively on the basis of occasional potsherds, or what 'seems' to be a lot of pottery. In the Ager Tarraconensis, the chronology of certain categories of pottery dating to between the third century BC and the sixth century AD are well defined. Thus, the pottery was divided into four broad chronological categories. The aggregate picture was used to establish the background 'picture' of pottery loss throughout the transect. Abnormal densities of pottery for each period were then separated out. These are conventionally defined as 'sites', and are calculated by measuring the density of pottery in each period as an octile value. This is similar to the arithmetic, except that it does not allow the density pattern for the transect to be distorted by excessively high densities — or its total absence — in certain fields. In this way for instance, more ephemeral sites of less dense Iberian pottery are not obscured by more substantial sites of far denser Roman Republican Amphorae.

Grenville Astill (Dept. of Archaeology, Univ. of Reading) & Wendy Davies (Dept. of History, UCL): EAST BRITTANY SURVEY - OUST/VILAINE WATERSHED

This project is designed to investigate the relationship between landscape, land-use and settlement in eastern Brittany, during the last two thousand years; it is focussed on the communes of Ruffiac, Treal, St-Nicolas-du-Tertre and Carentoir, as a core for intensive study (192 sq km), while the seven communes surrounding the core will be sampled to include the whole of the Oust/Vilaine watershed. The project is multidisciplinary, and draws upon the expertise of geographers, soil scientists and toponymic and architectural specialists, but primarily involves the study of published and

unpublished archive material and archaeological fieldwork; the integration of field data with evidence drawn from written archives, demographic as well as agricultural, is fundamental to the methodology of the project.

We are interested in the complex of spatial relationships: we do not therefore merely look for 'sites' and we believe in the value of detailed analysis of all data gathered in the field. Further, we believe strongly that surface collection alone is not enough: surface patterns must be tested by excavation and associated with a systematic programme of environmental work.

Mark Bowden & Vince Gaffney (RCHME, Newcastle): SKIMMING THE SURFACE OR SCRAPING THE BARREL: OBSERVATIONS ON THE NATURE OF SURFACE AND SUB-SURFACE ARCHAEOLOGY

All too often field survey results are regarded as complementary to those provided through excavation. This view appears to spring from several rather confused notions concerning the nature and relationship of such studies. In separating these two data sets, archaeologists appear to infer that either surface data in some way represents a different type of information to excavation, or that post-depositional processes at work have irrevocably divorced the two techniques, confounding integration, except at the simplest of levels. Such views are fallacious. This paper will argue that they result both from a naive conception of what constitutes 'archaeology' as well as an inadequate understanding of the nature of post-depositional processes. It will be contended that this situation has resulted in a field methodology that is constrained by an obsession with the primacy of sub-surface features, and an inability to utilise the information potential represented by so-called 'residual' material.

Using results from survey and excavation carried out on a number of sites of varying periods, an attempt will be made to provide a context for the integration of surface and sub-surface data. It is suggested that such an approach allows the use of interpretative models of great power and provides a more realistic approach to post-depositional processes — processes which should be regarded, not as a hindrance to explanation, but as an integral part of the archaeological record.

Although this paper appears in a session devoted to field survey, it uses excavated evidence without apology, on the basis that the present distinction between survey and excavation data is largely imaginary. Whilst such a situation has in the past provoked much lively debate, it is rapidly becoming sterile. To allow the status quo to continue would be at best unproductive, but it might also become fruitlessly divisive.

Mike Allen (Dept. of Archaeology, Univ. of Southampton): FINDING SITES AND ANALYSING THE LANDSCAPE: A GEOGRAPHICAL APPROACH TO ARCHAEOLOGICAL PROBLEMS

It is becoming increasingly obvious that settlement distribution maps are highly biased by a multitude of factors and processes; one major element being geomorphological. This bias is further compounded by a history of archaeological thought leading us to look and concentrate in the wrong places! Not only is this work based on surface finds which originate from eroding and eroded parts of the landscape, but it is then emphasised by excavation there too. Little attention is paid to areas receiving this eroded material. In southern England it has been shown that colluvium is

widespread in Downland valleys, furthermore, as it has been demonstrated that colluvation is greatly accelerated by anthropogenic activity, colluvium itself can be seen as a crude indicator of past interference with the landscape.

Prime areas of the archaeological landscape are now hidden and blanketed by colluvium, thus valleys contain no settlements! Recently five dry valley excavations in Sussex have produced two Beaker settlement sites (66% of the known sites), one Iron Age site and a Medieval farmstead.

There is now a real necessity to examine the landscape itself in detail. It is the landscape that was being exploited by prehistoric farmers, and domestic settlement, although attracting archaeologists because of the lure of 'goodies', only occupies a very tiny percentage of that landscape and also provides a centre for only a small selection of the farming activities undertaken. The prehistoric 'farmhouse' and 'farmyard' will provide an archaeological record biased towards small scale domestic activities which do not reflect Man's use of the landscape/farm as a whole.

The answer to some of these problems can be seen in valley sediments. Here the example of Downland landscape in SE England during the Early Bronze Age provides not only an ideal opportunity to demonstrate landscape and site bias but also reveals disturbing facts about settlement location. Thus studies of colluvium and colluvation provide useful additions to the archaeological record that need not only be applied to southern England but can be seen as effective in Europe (especially Italy) also.



## EXPERT SYSTEMS AND ARCHAEOLOGICAL CLASSIFICATION

Seamus Ross (Institute of Archaeology, Univ. of Oxford): EXPERT SYSTEMS IN ARCHAEOLOGY: ROMAN POTTERY AS A CASE STUDY

This paper examines the potential applications of one sub-field of Artificial Intelligence (AI) research to archaeology and presents a demonstration of a prototype system for assisting in the identification and classification of Samian Ware. A major problem in archaeology is the identification and classification of artefacts. Usually a significant amount of research is necessary to acquire the expertise to identify and interpret a single class of artefacts. Once the skills are acquired they have a low transferability and subsequent researchers in the field must undertake the same learning task. One application of expert system technology would result in a range of intelligent knowledge-based systems to assist in the study of material culture. These systems would not replace the expert but would act as an aid by allowing the majority of identifications to be done by non-specialists. In addition such systems would have high portability and thereby allow archaeologists to obtain identifications quickly and in many cases on-site where this information can aid in hypothesis confirmation and reformulation.

The essential underlying concepts are quite simple and recent developments (the proliferation of highly portable expert system shells and languages) make it reasonable to expect specialists to be capable of constructing highly portable domain specific applications. The paper begins

with a brief and distilled explanation of the basic concepts of expert systems and describes how an expert system language works. This is followed by a description of this particular application which was built using the expert system shell/language KES (which was kindly provided by Software A & E of Chichester). The paper will conclude with a demonstration of the prototype expert system for identifying Samian Ware pottery and mention some test cases which might be pursued to assess the potential successes expert systems are likely to have in archaeology in the next couple of years.

Katharine G. Baker (Dept. of Archaeological Computing, North Staffs Poly.):
ARCHAEOLOGY AND EXPERT SYSTEMS: SOME PROBLEMS ENCOUNTERED DURING PRACTICAL

This paper will discuss the development of an archaeological expert systems project. This project is designed to provide a classificatory system to help non-specialist users conduct a preliminary analysis of some of their environmental data before handing the material over to a human specialist. Discussion will centre on the theoretical problems, especially those of user acceptance and machine status, which have arisen during the construction of the system. The need for a standard methodology will also be raised.

Tim Taylor (Institute of Archaeology, Univ. of Oxford): EXPERTS: ARCHAEOLOGICALLY UNIQUE OBJECTS AND SUPERTAXONOMY

It is almost a truism that 'experts disagree'. The statement is amusing because it appears contradictory. In fact, experts mostly agree; they disagree at certain levels only. The nature of the levels where disagreement occurs is open, theoretically, to analysis. 'Archaeologically Unique Objects' are defined here as those for which there is an incomparability of intrinsic components within a single category. An object is Archaeologically Unique because there is no other object with which it can be comprehensively compared. Examples include Stonehenge and the Gundestrup Cauldron. Such objects provoke controversy, a.k.a. disagreement among experts. Analysis of particular cases demonstrates that disagreement arises because experts work through different taxonomic hierarchies. The development of Artificial Intelligence in computers makes taxonomic failures in such classification explicit.

I will argue that archaeological taxa are fundamentally different from natural (e.g. biological) taxa. The classification of material cultural artefacts can be taxonomic, but only within a higher level taxonomy, termed here Supertaxonomy.

TRANSCENDING THE PALACE AND THE POLIS: FIELD SURVEY IN GREECE

Chris Gaffney (School of Archaeological Sciences, Univ. of Bradford): ARCHAEOGEOPHYSICS AND FIELD SURVEY: CONTEXT OR CONTENTION?

During the last 10 years the nature of the evidence studied by archaeologists in Greece has changed dramatically. Due to historical reasons the information that has accumulated from surface survey is

incompatible with traditional excavation policy in the area. As very few small scatters have been excavated, the archaeologist has been left to use conceptually simple models to analyse the nature of the sites. One technique that has an important role to play in this field of explanation is that of archaeogeophysics. This paper will consider the potential of geophysics and compare the successes, and the failures, of the discipline in the light of archaeological knowledge and post-depositional disturbance. A broad approach to intra-site study will be proposed.

Peter James (Dept. of Geography, Univ. of Liverpool): THE APPLICATION OF MINERAL MAGNETIC ANALYSIS TO SOIL STUDIES IN METHANA

The Methana Archaeological Survey includes an earth science section covering dating and geochemical analysis of lavas, geomorphological survey and analysis of soils and of soil erosional effects. This presentation is a statement of the aims and report of progress on aspects of the soils work to which mineral magnetic analysis may make a contribution, namely the estimation of soil age and the extent of soil erosion.

John Prag (Manchester Museum, Univ. of Manchester): HOW DIAGNOSTIC IS POTTERY FROM SURFACE SURVEY? ARCHAEOLOGIST'S FLAIR AND CHEMIST'S WIZARDRY

Any pottery expert working with a survey team knows the hope that rises in his (or her) breast as someone proudly tips out the latest bag of finds, and the sagging gloom that follows as he (or she) acknowledges that this is just another bag of battered, unrecognizable and apparently undiagnostic grot. Yet the accurate identification of sherds from survey is perhaps even more important than it is on excavations, because there is generally so little 'additional' evidence. The problem becomes particularly acute in some of the backwoods areas where surveys tend to operate, where diagnostic imported fine pottery is rare, and the coarser fabrics are often locally produced, perhaps with an idiosyncratic typology. Yet because the 'expert' is theoretically able to tell not only when but also where his awful little sherds were made, he is supposed to hold the key to the political, social and economic questions that his colleagues are trying to answer.

At the end of the 1982 season at Megalopolis I felt able to distinguish some half-dozen different black-glaze fabrics (the coarse wares and later pottery remained a mystery). After the 1983 season even the black-glaze bewildered me: at least one could now justify the project we had set up in Manchester to produce a data-bank of neutron activation analyses of black-glazed fabrics from sites in Greece. Although it met with willing co-operation from excavation directors of all nationalities and from the Greek Archaeological Service, that project has only been progressing slowly, for lack of funds and manpower, but even the preliminary results show that, for chemists at any rate, accurate diagnosis is possible, but with great labour.

Robin Osborne (Oxford) and Lin Foxhall (Dept. of Anthropology, UCL): DOCUMENT OR ARTEFACT: INSCRIPTIONS IN THE CONTEXT OF FIELD SURVEY

Inscribed material can be treated like any other class of archaeological artefact, i.e. plotted for distribution or subjected to quantification studies. However, inscriptions are also texts which can usually be quite closely dated. They can, therefore, also be placed in very specific social, economic and often political contexts. Such texts give glimpses of the past

through narrow windows, as opposed to the broad ranging views provided by archaeological survey data. Even so, inscriptions can further elucidate the territorial relationships revealed by archaeological survey, if properly used. Case studies from Methana, Boiotia and Kea will be used to show how surveys can best exploit their epigraphy and their epigraphers.

John Bintliff (School of Archaeological Science, Univ. of Bradford) and Anthony Snodgrass (Museum of Classical Archaeology, Cambridge): OFF-SITE SCATTERS: A DETAILED COMPARISON OF GREEK SURVEY DATA AND DATA FROM ELSEWHERE IN EUROPE AND THE EASTERN MEDITERRANEAN

In recent years field surveys in Europe and the Middle East have been showing increasing interest in artefactual finds that are located between recognisable occupation sites. These frequently carpet whole landscapes. This paper seeks to investigate the possible origins of this phenomenon, paying particular attention to variability in 'off-site' pottery scatters paying particular attention to variability in 'off-site' pottery scatters from region to region. The role of the regional environment and dynamics of landscape change are two factors to be highlighted in the subsequent establishment of a general model for the 'off-site' phenomenon.

Hamish Forbes (Dept. of Prehistory, Univ. of Liverpool): COMMANDO ANTHROPOLOGY: ETHNOARCHAEOLOGY AND FIELD SURVEY

This paper compares the exigencies of ethnoarchaeological fieldwork (ethno-work) conducted as part of archaeological survey programmes with (a) traditional ethnographic fieldwork techniques, and (b) the normal practices of archaeological survey. Several points of disjuncture are noted. It is argued that ethno-work associated with regional survey is best undertaken by a social/cultural anthropologist, preferably with a prior knowledge of the language of the survey region. It is therefore particularly important that survey directors spell out their hopes/expectations of the ethno-work ab initio if archaeologically (rather than anthropologically) useful results initio if archaeologically (rather than anthropologically) useful results inserted to be achieved. With a view to better integrated research design, some useful sources of information from the Peloponnese of Greece are noted, and some previously successful field-work methods are outlined. Finally, a few results of such ethno-work are discussed.

NOW THAT THE PAST IS GONE -SOME CONTEMPORARY APPROACHES TO SWEDISH PREHISTORY

Mats Malmer (Univ. of Stockholm): ARCHAEOLOGICAL TYPOLOGY - GONE OR COMING?

Type is the central notion of archaeology. A single artefact (or design, ancient monument or trace of human activity in the natural environment) cannot be discussed at all - not until it is classified under a type. Like other notions a type does not exist until it is defined. Proper discussion and evaluation of types is called typology. Typology is thus by no means only a chronological method, but simply the logic of types. In recent years archaeological typology and typological chronology has often been despised. This is quite unjustified. Earlier generations of archaeologists perhaps made the mistake of being too cautious in formulating their hypotheses. But

their careful and logical study of artefacts, ancient monuments and all other traces of human activity must be maintained and further developed.

Elisabeth Arwill Nordbladh (Institute of Archaeology, Univ. of Gothenburg): OSCAR MONTELIUS AND THE LIBERATION OF WOMAN: AN EXAMPLE OF ARCHAEOLOGY, IDEOLOGY AND THE EARLY SWEDISH WOMEN'S LIBERATION MOVEMENT

This paper is an attempt to discuss an example of ideology and especially gender ideology in an archaeological context. Two articles by Oscar Montelius are discussed ("How long has Woman been the property of Man?", 1898 and "About the conditions of Woman in Sweden", 1906). After a short presentation of the social background and the dominant gender ideology, some of the most important issues for the liberation of the Swedish woman are shown. The articles are viewed from this background, as well as from Montelius' main anthropological sources.

Two aspects are of particular importance. It is well known how deeply Montelius was under the influence of the evolutionistic theory. It was fundamental to his way of looking at archaeological questions concerning typological seriation and chronology. In the same way it formed both his view of the social situation of woman and his method to show that situation. By the means of evolution he used prehistoric conditions as an argument for future progress concerning women's problems. The other aspect is Montelius' own gender ideology, which sometimes is surprisingly modern. In this paper, special focus is put on Montelius' own opinion of 'the nature' of woman, gender-related social spheres and especially social power relations between women and men.

With his articles, Montelius took an active part in the attempts to improve the social situation of women. They are an early example of archaeological knowledge used in a socially progressive way.

Hans Lundmark (Dept. of Archaeology, Univ. of Umea): THE GROWTH OF HIERARCHIES IN LOW-CENTRALISED SOCIETIES - SOME ARCHAEOLOGICAL PROBLEMS

This paper discusses some problems concerning the study of the initial growth of hierarchical structures in low-centralised societies. A large-scale spatial analysis of a Swedish settlement pattern from the Early Iron Age gives some evidence of this kind of development and provides a basis for a hypothetical model of the process. Starting from the model the possible forces behind the patterns are discussed as well as some source-critical aspects. The main emphasis is on methodology, and how this kind of event possibly be can identified and studied.

Mats Widgren (Dept. of Human Geography, Univ. of Stockholm): GEOGRAPHICAL APPROACHES TO FIELD SYSTEMS IN SWEDISH PREHISTORY AND EARLY HISTORY

The study of prehistoric field systems has in Sweden by tradition mainly been carried out by geographers. Retrogressive approaches have therefore played an important role. Starting with the 17th century cartographic evidence the origins have been traced by morphogenetic, metrological and (from the 1960s) archaeological field methods. The paper will present the most important contributions. During the 1970s most studies of field systems leaned on explanatory models in which changes in field layout and settlement were seen as mainly caused by the progression from one farming

system to a more intensive one. Two factors are now working against this explanatory approach. First, there is not yet - in spite of much research the empirical evidence to interpret the late Iron Age (AD 500 to 1000) development as mainly caused by intensification. Secondly, most of the new localities now found in southern and western Sweden do not conform to any stage in this unilinear model. In future theoretical work more emphasis will have to be laid on social structure, field systems as manifestations of property rights and on the regional dimensions of farming system development.

THE ARCHAEOLOGY OF CONTEXT AND STRUCTURED DEPOSITION

B. K. Attewell and V. W. Denham (HBMC, Central Excavation Unit): THE PROPER STUDY OF CONTEXT: PRACTICE AND THEORY

For the purposes of this paper the term context is taken to mean a structural or compositional unit defined during or after excavation. The paper suggests that inadequate attention is currently given to the relationships between different types of contextual characteristics, and that this is due principally to the limitations of many recording systems. A system which facilitates the manipulation of all forms of excavation data in an integrated manner is described and a model is proposed for the restructuring of post-excavation research.

The paper is divided into three parts:

1. An examination of the process of context interpretation - the problems of manipulation of a large data base - elementary recording requirements which are generally not met by most systems.

2. 'Delilah' - the system that reaches the parts other systems cannot reach - the hard and software of an integrated data base, and its potential application by other organisations.

3. Post-excavation design - an historical perspective comparing the limited, low-level, but integrated, approach of the earlier part of the century with the many facetted, increasingly specialised, but fragmented, approach of the last two decades.

Conclusion: Excavation research is currently a multi-disciplinary process where it should be an inter-disciplinary process. Catalogues of highly specialised data are rarely considered in conjunction at the basic level of context, and all too often an archaeologist whose own specialisation lies in the interpretation of stratigraphic evidence is responsible for the integration of the various specialist components to his report. The ease of access to all types of information for all personnel involved in a project made possible by the use of an integrated data base should result in the development of an extended period of truly inter-disciplinary research within the post-excavation design. It would be wiser for attention to be focussed upon the wider implementation of methods which allow a more thorough study of data in favour of the development of yet further avenues for the collection of information which is unlikely ever to be utilised to its maximum effect.

Nick Thorpe (Dept. of Anthropology, UCL): PUTTING MEANING INTO CONTEXT

This paper seeks to examine the question of how far meaning is dependent on social context. While it is clear that the symbolic significance of particular artefact types is dependent on context in the broadest crosscultural contacts (as forcefully demonstrated in the role of material culture in the post-contact Pacific) the relationship is less clear elsewhere. Recent debate has focussed on the changing meaning of artefacts as they cross ill-defined social boundaries in prehistoric Europe. Such debates are central to questions of regional study and interpretation at the regional level.

Matthew H. Johnson (Dept. of Archaeology, Univ. of Cambridge): THE DOMESTIC UNIT IN RURAL ENGLAND, 1400 - 1700 AD

In a period with written records, archaeologists may approach the study of the domestic unit at a number of levels. This paper will seek to identify and discuss the broader trends observed by household and family historians such as Laslett and Stone, and attempt to correlate the wider picture drawn from the documentary sources with the archaeological evidence provided by vernacular architecture. Houses are seen as more than simply responses to the family's physical needs: through the organisation of space within and between houses, and architectural detail, they express ideas about social relations within and between households. Therefore, the changes seen in vernacular architecture over this period may be correlated with social and religious changes to provide a detailed picture of the composition, structure and ideology of the medieval and early modern domestic unit.

Colin Richards (Dept. of Archaeology, Univ. of Glasgow): RUB, RUB; SCRUB, SCRUB, SCRUB: RITUALS OF EVERYDAY LIFE

This paper discusses the nature of ritual activity in the light of recently available evidence from Gordon Childe's excavations at Skara Brae and Rinyo. Both sites show complex but clear evidence for structured deposition. The occurrence of such patterning in the most famous British prehistoric domestic sites forces a re-examination of the nature and scope of ritual activity.

Julian Thomas (Dept. of Archaeology, Univ. of Sheffield): WEST KENNET IN CONTEXT

The recognition that the attribution of 'meaning' to material items, symbols or monuments is the consequence of specific historical circumstances rather than general laws poses considerable problems for the archaeologist. A 'contextual' approach provides some hope of circumventing these difficulties, but provides the further paradox that one has often only archaeological material available in order to develop a context for archaeological material. The dangers of circular argument are obvious. Possibly the most rewarding avenues of research lie where conflicts and contradictions can be discerned between the meanings which we would attribute to different classes of information.

The West Kennet long barrow provides a useful case study in addressing these questions. During the Neolithic period the area around Avebury

appears to have been one in which artefactual and monumental traditions from a number of different points of origin were adopted and manipulated. Hence it is possible to consider the monument in the context of both local and broader regional sequences of development.

A. Herne (Dept. of Anthropology, UCL): MONUMENTS, MATERIAL CULTURE AND SOCIAL FORM: BANDKERAMIK AND BEAKER AT LES FOUAILLAGES

The paper is an essay in contextual archaeology. The complex Bandkeramik and Beaker site formats at Les Fouaillages are unique in their abundance of associated cultural deposits. Contrasting structural principles of material representation are demonstrated through the analysis of connections between monument design, depositional process and artefact formal structure. A linkage to Linear Bandkeramik and Beaker social forms is outlined.

ISLAND ARCHAEOLOGY - MICROENVIRONMENTS AND MACROSYSTEMS

John Frankish (Dept. of Classical Archaeology, UCL) and J. Lambrianides (Institute of Archaeology, London): ISLAND INTERACTION - THE CASE FOR PIRACY IN THE AEGEAN BRONZE AGE

This paper explores the link between piracy and warfare diachronically in the Aegean Basin with the objective of developing a theoretical framework for the role of piracy in state formation.

It contends that piracy represents a determining factor in the initial period of state formation whereas by the period of state maturity it has become a determined factor and the nature of warfare had changed dramatically.

The paper argues for a more dynamic definition of piracy better suited to explaining developments in the Bronze Age Aegean. It suggests that early island farming communities seeking to supplement their local resources with a little judicious raiding were instrumental in the development of the palatial centres of Crete; through state sponsored buccaneering a thalassocracy was established which itself was but a precursor of Mycenaean militarism and trade.

Mark A. Patton (Dept. of Anthropology, UCL): CULTURAL CHANGE IN AN INSULAR CONTEXT: A CHANNEL ISLAND CASE-STUDY

The paper will look at the archaeological evidence from the Channel Islands during the Neolithic and the earlier part of the Bronze Age. It will focus in particular on the relationships between the islands and the Armorican mainland, and on differences between the insular and mainland cultural sequences.

Distribution maps of Neolithic monument types show the Channel Islands to be in a particularly interesting situation, for in the islands are a considerable number of monuments of types which are rare or non-existent in adjacent areas of Normandy and north Brittany, but which are relatively

common in southern Brittany. The question will be posed as to why these 'exotic' cultural elements should find expression in an insular context and not in adjacent mainland communities.

The paper will then go on to explore the transition between the Neolithic and the Bronze Age and to look at the ways in which analysis of the distinctive insular sequence can provide clues which can contribute to our understanding of cultural change during this period in the Armorican area as a whole.

It will conclude with a brief theoretical discussion on the effect of insularity upon cultural trajectories, and on the significance of islands in archaeological research policy.

J. G. Evans (Dept. of Archaeology, University College Cardiff): ISLAND FIELD SYSTEMS IN WESTERN BRITAIN

Studies of field systems on two islands in South-west Britain have been made, one on Skomer Island, Dyfed, the other at Bar Point, St Mary's, Isles of Scilly, Cornwall. On Skomer the field systems and other settlement traces are virtually complete in plan, and they have been surveyed but not excavated. At Bar Point, the remains are fragmentary. Little of their plan remains, but excavation showed a complex stratigraphy. The two different approaches to these sites are used to complement each other and to establish the processes involved in the history of the field systems.

The primary land divisions were laid out on cleared ground that had not everywhere been cultivated. Field clearance of stones, and lynchet growth took place on a small scale upon the initial cultivation. Later there was more substantial field clearance, and the lynchets were often formalised with stone banks or walls. In both islands, the boundaries may have been either a convenient way of dumping stones or land markers, but it is unlikely that all were physical barriers to stock or people. Subdivision of the primary units took place.

The good preservation on Skomer is due to the marginal nature of the island since prehistory. But in prehistory it may be seen as a typical settlement, similar to those on the adjacent mainland.



## MISCELLANEOUS

Ken Dark (Dept. of Archaeology, University of Cambridge): A METHOD OF CLASSIFICATION - Abstract not received.

O. Ortman (Gothenburg): PROBLEMS AND POSSIBILITIES WHEN, WORKING WITH AN ETHNICAL CONCEPT IN ARCHAEOLOGY

This paper will deal with the problems that will occur when working with a theoretical concept such as ethnicity. If the ethnical concept is to be of any help it must be put in the context of the present day, because it is in this connection that ethnicity has its main value to archaeology.

The paper will try to give an example of how the connection with the present day must be carried out. To begin with, a choice must be made amongst several aspects. The aspects chosen here are:

- 1. What relationship does the new research on ethnicity have to the older tradition of ethnical studies. Reference will be made to the new ethnical research by Ian Hodder and Fredrik Barth.
- 2. It is assumed that this new interest in ethnicity widens the gaps between the concept of ethnicity in archaeology and the other historical disciplines and popular literature.
- 3. It is also assumed that an interest in ethnicity, amongst people in general, is the very basis for ethnical research in archaeology.

These aspects will be used to discuss the problem of the ethnical status of the Lapps in Northern Scandinavia - a problem which has recently been discussed in Norwegian Archaeological Review Vol. 18, No. 1-2 (1985).

T. J. M. Steele (Dept. of Archaeology, Univ. of Cambridge): EVOLUTIONARY PERSPECTIVES IN COMPARATIVE PSYCHOLOGY: LANGUAGE AND SOCIETY IN HOMINID EVOLUTION

This paper reviews recent research and theory in evolutionary biology and comparative psychology, as potential sources of insight into the hominid fossil record. Concepts such as 'intelligence', 'adaptation' and 'social behaviour' are analysed, in particular with regard to the evolutionary biology and psychology of human language. It is contended in a concluding polemic that such evolutionary perspectives are of greater relevance to archaeologists of anatomically-modern human populations than they tend to allow.



#### TOWARDS A COGNITIVE ARCHAEOLOGY

Colin Renfrew (Dept. of Archaeology, Univ. of Cambridge): THE MENTAL MAP AS A THEORETICAL ENTITY

The status of the mental map as a theoretical entity, in the same sense as the electron, a virus, etc. is considered. It is argued that the concept can usefully be introduced into archaeological reasoning and the nature of the shared mental map or mappa of a community in a specific instance investigated empirically. In favourable cases this allows the analysis of behaviour in the cognitive sphere to be considered in a manner which at once avoids the banal over-simplification of 'behaviourism' and the reductionist circularity of contemporary 'idealist' approaches including many structuralist ones. The systematic investigation of mental maps is seen as a necessary step in the development of a coherent cognitive archaeology.

E. Melas (Institute of Archaeology, London): EMIC APPROACH, EMPATHY AND OBJECTIVITY IN ARCHAEOLOGICAL RESEARCH

The basic assumption behind both the emic and the empathetic perspective is that the archaeologist and the people (past or present) whose material

culture is studied, share a common language of experience. The only difference is that in ethnoarchaeology this kind of sharing is direct, while in archaeology itself (wherein historical agents are no longer alive) it is achieved indirectly, by means of mental processes, through speculation and imaginative re-enactment.

The role of these approaches is critical for archaeological research (both field survey and excavation). It will be argued that any attempt to understand, explain or predict aspects and patterns of human behaviour (past or present) necessarily involves emics and empathy.

However, objections to this position do exist, and these will be reviewed, especially the view that there is only one mode of explanation, the conditional or causal, which employs a deductive methodology and is best expressed by the cover law model; and that the model of empathetic approach is thus reduced to a means of generating explanatory hypotheses. Others emphasise the non-scientific character of this (methodologically inductive) perspective by pointing to interpretative bias it may involve since — in explaining an artefact in that way — the choice is arbitrary and dependent on the observer and his view or model of the mind of the people under study. But — it could be counter-argued — the etic and non-empathetic explanatory approaches may often be, in the same sense, far more subjective and distortive, especially in the case of 'experience-distant' ethnoarchaeological perspective.

Christopher S. Peebles (The Glenn A. Black Laboratory, Univ. of Indiana, and Institute of Pre- and Protohistory, Univ. Amsterdam): ROOTING OUT LATENT BEHAVIOURISM IN PREHISTORY

Some influential archaeologists in North America have tended to treat philosophy (and philosophy of science) as a box of intellectual tools from which unrelated and contradictory concepts can be selected to fit the job at hand. The canons of logical positivism were used to evaluate archaeological constructs and, consistent with this stance, metaphysics was banished as unworthy of consideration by scientists. History was exorcised from prehistory and the concept of mind banished from all theoretical discourse. In their place behaviourism, operationalism and instrumentalism were adopted as regulatory notions of scientific method. The consequences of these choices included not only poor archaeological arguments but mutually contradictory philosophical pronouncements. Mind and metaphysics were smuggled back into archaeology under the mantle of paradigms and history was demoted to descriptive statements about limited aspects of prehistory.

Recent work by philosophers, computer scientists and psychologists has shown that explanations of human behaviour cannot be reduced to the neuronal level and brain physiology or subsumed by cultural and historical factors. They posit the necessity of a cognitive level in which mental representations are central to much of human action. Likewise a metaphysical warrant for the existence of mind has been presented and argued in depth by Popper and Eccles. Thus with an objective model of "the self and its brain", Popper's ontology of "Three Worlds" - the material, the self and objective knowledge - and his epistemology of critical realism, methods for a cognitive archaeology can be constructed.

Once behaviourism is banished, several areas of archaeological research can be opened up. These areas include an exploration of the co-evolution of brain and mind and the possible independent development of different mental

faculties (such as spatial judgements and language acquisition). Such an approach demands that the functional architecture of the brain and necessary mental limits be taken into account. Within these functional limits, representations can be treated as 'real', and knowledge can be counted as objective and itself a product of evolution. Finally, contemporary constructs about prehistory can be judged against products of a real past that, to quote Collingwood, are "encapsulated in the present". In this way the triad of mind, knowledge and history can be reincorporated in the notion of prehistory.

James A. Bell (Dept. of Philosophy, Univ. of South Florida): METHODOLOGICAL INDIVIDUALISM IN COGNITIVE ARCHAEOLOGY

Prehistory commonly means history without the benefit of written records. That fact has encouraged archaeologists to sidestep, or at least deemphasize, speculation about the thoughts of prehistoric peoples. This tendency has dovetailed with the holistic approaches to explanation that dominate the social sciences, i.e., with the assumptions that super-human forces underlie social structure and that humans have no cognitive agency over them. To postulate theory about static structure or dynamic change with holistic method is to search for forces transcending humans. Cognitive archaeology, the goal of which is to make statements about the thoughts of prehistoric people, rests on the assumptions that thoughts do have agency they are not just reflections of, or 'superstructure' upon, underlying forces - and that statements about groups are best understood when reduced to statements about individuals composing groups. These and related ideas constitute individualistic method, or methodological individualism. To offer new theories about prehistoric people, then, cognitive archaeologists are breaking away from holistic method and embracing individualistic method. That drama and its ramifications are the focus of this paper.

Part I outlines methodological individualism and contrasts it with holism. Numerous examples are offered along with a discussion of the advantages and disadvantages of each. Though different and inconsistent, it is not fruitful to become entrenched in a debate about the supposed truth or falsity of each method; like all methodological views, they are tools and not empirical statements. The discussion will thus focus on how and in what contexts they are worthwhile assumptions for theory building. Part II is devoted to identifying both the specific benefits of methodological individualism for cognitive archaeology and the limits it imposes on cognitive archaeology. While statements about thought can be made, and a partial structuring of cognitive processes is conceivable, it will not be possible to 'reconstitute' prehistoric minds. It is not just that the available record is scant or non-existent - which it is - but that it would breach the limits of individualistic method. Individualistic method will also be contrasted with empathetic method. They differ markedly despite sharing some common purposes. The conclusion will offer practical guidelines for employing individualistic method, speculate on the ramifications of it on other areas of theoretical archaeology, and implore archaeologists to use it and holistic method as helpful tools rather than impose them as dogmas.

Marie-Salome Lagrange (CNRS, Paris): KNOWLEDGE INTEGRATION PROCESSES WITHIN THE FRAMEWORK OF EXPERT SYSTEMS: SOME EPISTEMOLOGICAL ISSUES RAISED BY A CASE STUDY IN SELDJUKID ICONOGRAPHY

The experiment described here has been conducted in collaboration with Monique Renaud, research engineer in computer science, from the Laboratoire d'Informatique pour les Sciences de l'Homme (LISH), CNRS, Paris. The inference engine with which we have worked is SNARK by Pr. Jean-Louis Lauriere, from the University of Paris 6 (see Lauriere 1986). This system, recently commercialised on IBM PC, is implemented at the Centre Inter Regional de Calcul Electronique (CIRCE) at Orsay.

Expert systems have recently been used to simulate archaeological reasoning in various case studies (see Lagrange and Renaud 1983 and 1985, and Gardin et al. 1986). The purpose of the present application is to model cumulation (integration) processes in the case of a synthesis of several divergent interpretations published a propos of the same archaeological object.

Data used for this experiment are six already existing expert systems, reproducing different iconographic interpretations of an engraved Seldjukid stele (13th century AD, Konya, Anatolia). The rough application of all six rule bases, merged into one, to the common fact-base (i.e. approximately 80 rules, applied to a 160 lines fact-base) functions without mishap, but produces no new information whatsoever.

The operations needed in order that the cumulated expert - called SUPERIKON - might synthesise information, and thus produce additional interpretations, are described. An automated 'conciliation' between divergent interpretations is proposed. This example involves the building up of an elaborate association network between concepts in order to rationalise decisions relative to the compatability (or incompatability) between concepts. The elicitation of such networks is not only necessary for the sake of AI procedures, but also a convenient manner to measure the reliability of archaeological inferences, in a context of plausibility and controversy.

(Refs: Gardin, J.-C. et al., 1986 - Systemes experts et sciences humaines. Le cas de l'Archaeologie (Eyrolles: Paris, in press). Lagrange, M.-S. & Renaud, M., 1983 - "L'interpretation des documents figures en archaeologie et histoire de l'art", in Image et Ceramique Grecque (Publication de l'Universite de Rouens, No. 96). Lagrange, M.-S. & Renaud, M., 1985 - "Intelligent knowledge-based systems in archaeology", Computers and the Humanities 19. Lauriere, J.-L., 1986 - "Un langage declaratif: SNARK", Technique et Science Informatiques 3.)

E. Zubrow (Dept. of Anthropology, SUNY, Buffalo): COGNITION AND GENERATIVE DESIGN GRAMMAR: AN ARCHAEOLOGICAL CASE STUDY

This paper considers some recent advances in cognitive studies which are relevant to archaeology. Presently, there are two distinct approaches. One is based upon linguistics and cognitive psychology while the other is based upon Artificial Intelligence and modelling human cognitive processes by machines. From the former this paper examines Lakoff on categorisation and irregularities and Schank and Abelson on scripts and understanding. From the latter, Hopfield's linear threshold functions, Boltzman's teachable

machines, and Bellman's machine learnable path-finding are noted.

These models can be applied to either members of the prehistoric culture or to the archaeological analyst. The paper is concerned with the application to the archaeologist and archaeological process. Archaeologists use preconstructed scripts to reconstruct walls, pots and other archaeological artefacts from incomplete fragments. These scripts are based upon generative design grammars and are shared to a greater or lesser degree by practitioners of the field. A case example using Philippine ceramics is included.

#### THIS IS MEDIEVAL ARCHAEOLOGY?

Stephen S. Driscoll (Dept. of Archaeology, Univ. of Glasgow): TEXTS AS ARTEFACTS: IMPLICIT MEANINGS IN THE BOOK OF DEER

The conventional distinction between archaeologist and historian rests upon the division of a society's material legacy into separate analytical categories of text and artefact. In this paper I would like to suggest that such a division is theoretically untenable and historically counter productive through the consideration of a specific text.

The text in question, the Book of Deer, is an illuminated manuscript of the Gospel from the tenth century, which comes from northeastern Scotland. Because of the rarity of such texts any tenth century Gospel book would be of immense interest to Scottish historians, but this Book is particularly important because of a series of Gaelic notitiae added in the twelfth century. These notes record the possession and privileges acquired by the monastery over its history and they provide unrivalled evidence about the social organisation and land tenure practices in the northeast.

My discussion will focus on three issues: the first being the composition and content of the Gospel text. These provide insights into the contemporary value of the Book as a relic with healing properties, which are not expressed directly in the content of the Gospels. Second, I consider the nature of the notitiae and the circumstances of their composition. These reveal a crisis involving the alienation of land held by the kindred to the church and suggests why records of land transactions were introduced into the text. Lastly I will look at the more general qualities of literacy as the enabling technology which facilitated the subvention of traditional rights to land to the advantage of the church and nobility.

S. P. Roskams (Dept. of Archaeology, Univ. of York): MEDIEVAL TOWNS AND THE SOCIAL DEFINITION OF SPACE - THE EXAMPLE OF YORK

The 13th century stone walls enclosing York are well recorded in the documentary history of the period. Archaeological investigation has mainly been content to attempt to back up the historical date of their construction and to produce typologies of their physical features — gateways, buttresses, even arrow slits. Such work has been set against the implicit assumption that we already understand the defensive context in which they were built.

In this talk I will suggest that, not only is it extremely difficult for archaeology to be used in this way, but that documentary history does not, in fact, indicate unequivocally a defensive function for the walls. Rather than use the documents in this way, it would be better, an analogy with other archaeological studies of settlement enclosure, to look at social and political change within York at this time, for which there is considerable historical evidence. This can be approached at the general level of the changing relationship between royal power, ecclesiastical power, and that of the citizens of the town and, more specifically, in terms of the changing political structure of the ruling families in Medieval York.

Oivind Lunde (Univ. of Oslo): THE MEDIEVAL TOWN AS A SINGLE SITE

1. The medieval town, i.e. the hidden monument below the surface, is an irreplaceable source which primarily has to be protected, secondarily competently handled by archaeologists.

The protection is ensured through a co-operation between the planning-authorities and the conservation-authorities, the latter contributing with maps showing:— the extent of the monument, the archaeological deposits, the original ground surface, known archaeological data and possibly, in addition, maps which give information of protection-priorities and hypothetical reconstructions of the medieval town. The planning-authorities have to take all this information into consideration. The primary aim is to protect the archaeological deposits for the future. If an excavation is unavoidable, the conservation-authorities must immediately ensure a research strategy which takes into consideration that an excavation is tantamount to a destruction of the primary source.

2. The medieval town as a research-potential through its archaeological remains.

The mere size of a medieval town implies a research-potential of nearly unlimited amounts of data. Alternative choices have to be decided on site; the archaeologist has to work from a given approach that decides appropriate methods of excavation and documentation. But the amount of data from the last decade with urban excavation can give the impression that the documentation has become an aim in itself. The fear of future criticism has resulted in the collection of almost limitless amounts of data, which, consequently, has led to the research-potential often being neglected.

Perhaps one of the most important premises to formulate profitable objectives about the medieval town is a total survey of all archaeological data and other relevant information. This interdisciplinary approach can form the basis to formulate a research strategy in urban archaeology.

C. Gerrard (Univ. of Bristol): CENTRAL PLACES IN MEDIEVAL SOMERSET

The evolution of the medieval socio-political framework of a county has been conveniently defined solely through documentary evidence, in spite of its importance for the understanding of archaeological distributions. It is argued here that greater attention could be paid to basic geographical concepts of settlement size, spacing, density and hierarchy, more usually applied to the study of prehistory. These features are considered with respect to medieval Somerset, where the rise and decline of centres can be charted through analysis of taxes and centrality indices. It is suggested

that applications of this sort have dual implications because they mark a shift away from narrative presentation of historic data and also bring the documents and techniques under scrutiny. This, in turn, could be of benefit to the prehistorian.

Alan G. Vince (Dept. of Urban Archaeology, Museum of London): PROBLEMS OF RECONSTRUCTING TRADE PATTERNS FROM ARCHAEOLOGICAL DATA

Evidence for the transport of artefacts may often be taken to indicate cross-cultural activity, whether it be on a very local or an international scale. The discovery of 'imported' objects into an area can be taken as evidence, for, amongst other things, migration, invasion or commerce. In medieval archaeology there is often enough data of sufficient variety to allow a more considered, and thus hopefully an accurate reading of such evidence.

However, the different types of evidence available to the medieval archaeologist are not always complementary. What the archaeology suggests the documentary evidence may refute, and vice versa. Historical sources are valuable for recording the mechanics, as well as the items, of movement and trade and thus provide clues by which to interpret the archaeological evidence.

With specific reference to work carried out in London and the Welsh Border Counties, this paper will examine the broad themes of artefact movement. It will draw on a variety of evidence, and a variety of methods of retrieving such evidence. These themes are considered to be of interest to archaeologists of any period, and this paper will likewise hopefully put across points of similarly wide-ranging relevance.

C. Pamela Graves (Dept of Archaeology, Univ. of Glasgow): LITERACY AND THE LITURGY: RELIGIOUS READING AND PRACTICE IN MEDIEVAL ENGLAND

Medieval archaeologists should awaken to the special advantages inherent in a documented period. We are not dealing merely with a prehistory which is closer to us, and should not, therefore, expect to apply the methodologies of prehistory. Neither can we expect the complexity of medieval social history to be read straight from documents. They were not writing their own history for the benefit of posterity, but were rather using documents as an integral part of their whole material culture. The difference is that in documents lie a key that one literary society may use in understanding the material remains of another. In my paper I shall looked at the English parish church and how an understanding of the liturgy, derived from texts, opens a more specific understanding of how these structures operated and were integrated into the wider social context. Liturgy is the time and the space and the action in which social relations are made manifest. I will show how, in a specific context, liturgical texts and associated documents are instrumental in the revelation of relations of power, and hence a means of reproducing them.

The restrictions of prehistory cause to be written broad technological sequences and general statements of history, but we should realise that our data gives the potential for specific, detailed contextualisations. The archaeological study carried out here will show how the combination of factors time, space and action are the unique interpretation and response of a past community in making their own lives.