

Research Themes

by Nigel Brown, Peter Murphy, Brian Ayers, Stewart Bryant and
Tim Malim

I. Introduction

Following the format of the *Resource Assessment* (Glazebrook ed. 1997), so far the *Research Agenda* has been divided into period-based chapters. However, the steering committee felt it would be appropriate to set out some areas of research which cut across period boundaries and/or address issues highlighted in a number of the chronological chapters. Accordingly this final contribution to the agenda presents a range of research themes.

II. Origins and development of the agrarian economy

Agriculture and agricultural landscapes are a major feature of the present day perception of the eastern counties, and research targeted at agricultural developments is therefore to be appreciated at a popular level. Moreover this is an issue of considerable archaeological importance.

Information on hunting, wildfowling, fishing, shellfish collection, pastoral farming, plant food collecting and arable farming derived from bones, shells and plant macrofossils, together with palynological evidence, is unevenly distributed both chronologically and spatially within the region (Table 1). Table 1 presents a simplified synoptic picture, based mainly on published sources already outlined in the *Resource Assessment* (Glazebrook ed. 1997). In some ways it conceals as much as it reveals. Almost all of our information on early Neolithic crops, for example, comes from one site: Blackwater Site 28 (The Stumble). Furthermore data are not evenly spread geographically: for example, there is some good information on later Bronze Age crop

production in Essex, but little from elsewhere for that period.

An understanding of the development of the agrarian economy is an issue of the utmost importance in a range of topics which include:

The Mesolithic/Neolithic transition

The nature of late Mesolithic economy, landscape and society and the initial adoption of elements of farming, monuments and novel artefacts (*e.g.* pottery) are key areas of research. The notion of a sudden switch from Mesolithic to Neolithic economies has long been abandoned, and indeed it is apparent that the adoption and development of farming was a protracted process taking place throughout the Neolithic and into the earlier Bronze Age. The eastern counties are well placed to study the way in which these changes were brought about.

Development of a fully agricultural economy during the Neolithic and Bronze Age

The eastern counties are well placed to examine the protracted process by which farming came to dominate the economic base, and the highly mobile communities of the Neolithic transformed themselves into the more sedentary groups of the later Bronze Age. Whilst faunal remains, pollen and a wide variety of other plant remains are vital for an understanding of economic developments, an integrated approach is required to address this problem. The first burials known within the region occur at this time, as do monuments of various kinds. For much of this period settlement appears to have remained shifting or semi-permanent; in the later Bronze Age a range of enclosed settlements were created alongside the widespread continuance of unenclosed settlements, both kinds of site were often integrated into field systems. These developments can be used to explore changing

	Faunal remains				Botanical remains	
	Mammal	Fish	Bird	Shellfish	Wild plants	Crops
Lower/Middle Palaeolithic	(x)	o	o	o	o	n.a.
Upper Palaeolithic/Mesolithic	o	o	o	o	(x)	n.a.
Early Neolithic	(x)	o	o	o	x	x
Late Neolithic/Early Bronze Age	(x)	(x)	o	(x)	x	x
Middle/Late Bronze Age	(x)	(x)	o	(x)	(x)	x
Iron Age	xx	(x)	x	(x)	(x)	xx
Roman	xxx	xx	x	xxx	xxx	xxx
Anglo-Saxon (rural)	xx	(x)	x	o	x	xx
Anglo-Saxon (urban)	xxx	xxx	x	xxx	xxx	xx
Medieval (rural)	xx	xx	x	xx	xx	xx
Medieval (urban)	xxx	xxx	xx	xxx	xxx	xxx
Post-Medieval	xx	xx	xx	x	(x)	(x)

Note: n.a. = not applicable. o = no information. x = significant information from 3 sites. xx = significant information from 3 - 10 sites. xxx = significant information from 10 sites. Entries in parenthesis indicate that some data are available, but they are poor in quality or quantity.

Table 1 Synopsis of economic data

perceptions of landscape and environment which allowed the development of a farming economy.

Agricultural developments during the Iron Age

A greater knowledge of the agricultural economy of the region is likely to be a key to understanding the social, economic and cultural processes which took place during the Iron Age. Some problems and inadequacies associated with earlier studies have been outlined by Wiltshire and Murphy (1999). So far as palynological studies are concerned, the main problem is chronology: many pollen diagrams are not dated at all by radiocarbon; at others dates are interpolated on the assumption of constant sedimentation rates, and at others, sediments are dated by dubious cross-correlation with other sequences. At future investigations, coherent strategies to obtain dates suitable for mathematical modelling (Bayliss 1998) are needed for all periods, but especially the Iron Age. The charred plant macrofossil data have mostly come from small-scale sample excavations of settlement sites, and may not be typical of these sites as a whole. Similar problems apply to animal bones, with the added problem that at many sites there was no bone preservation at all. These problems need to be addressed, by sampling suitable sites on a large scale. Interpretation will also need to take account of the fact that deposits sampled are the results of complex cultural processes rather than simple residues of straightforward economic practices.

Fluctuations in the agricultural economy during the first half of the 1st millennium AD

It seems clear that there was agricultural exploitation of a very wide range of environments in the region by the end of the Iron Age, and there was probably a continuum into the early Roman period. Possibly the later Roman period saw greater specialisation (including large-scale sheep farming in some areas) and pressure for higher outputs (*e.g.* for grain export) followed by sharp reduction in the 5th century. The eastern counties region is a key area for examining the inter-relationships of social and economic change during this period.

The impact of the development of towns on the surrounding countryside

Production and processing of food for urban markets is a key element in understanding the relationship between towns and their rural hinterlands. The eastern counties, historically largely rural with few large towns, are well placed to study this problem.

Development and impact of the 'agricultural revolution' and Victorian High Farming

The eastern counties region was at the centre of these developments. Evidence of their impact should be sought in both plant and animal remains, and the changing form of fields and farms.

The origins and development of field systems; their change and continuity

A number of co-axial field systems have been identified in various parts of the region, potentially of very early origin. The field systems of East Anglia have long been recognised as distinctive and different to those of the midlands. Extensive hedgerow destruction in the second

half of the 20th century has had a severe impact on the ancient field systems of the region.

III. Urban development

The towns of East Anglia are examples of a social process which has evolved, often in an haphazard manner with numerous mutations, for well over a millennium, accelerating in the last 250 years. This process is the pan-European phenomenon of urbanisation whereby the increasing affluence, sophistication and centralisation of societies enables the fostering of an urban culture.

Study of urban culture, therefore, needs to be undertaken within a context which seeks to investigate, elucidate and interpret the urban process. It needs to explore the following themes:

- Urban origins and development within contemporary social and economic frameworks
- The complexity of towns as social and economic constructs
- The development cycle in towns and its impact upon society
- The influence of the urban process and market upon society in general
- The role of towns in the development of society specifically with regard to technology, economic, cultural and political innovation

In addition, archaeological study must recognise that the urban resource remains dynamic and that constant renewal of urban environments poses a challenge to research. Study needs to be targeted so that it informs understanding and thereby makes a positive contribution to the ongoing social process. Examination, assessment, synthesis and interpretation of the urban resource are activities which form part of the development of a modern urban society, helping to ensure vitality through informed awareness. In short, a research theme which seeks to understand the complexity of the urban process through time will contribute to that process in the future.

IV. Finds studies

Typological studies, scientific dating and physical characterisation of artefacts remains, for many periods, central to an understanding of chronology, and the agenda has highlighted a number of periods for which greater chronological precision is required — *e.g.* Iron Age ceramics. Such studies also offer opportunities to explore ethnicity, patterns of trade and manufacture. Topics of particular importance include:

Development of artefacts within the Neolithic and Bronze Age

The changing patterns of lithic technology, the acquisition of raw materials, developments in ceramics and the adoption of metallurgy together with the use, discard and deposition of artefacts, can be used to explore the changing attitudes and practices which created the dramatic transformations of this period. Amongst other things, artefact studies may also explore interaction within the region, between the region and other areas of Britain, and around the North Sea basin.

Production and exchange in the Iron Age, Roman and Anglo-Saxon periods

The origin and variable development of aspects of market economy during these periods is important for understanding social organisation within the region. Evidence for regional workshops, access to/acceptance of continental imports, the impact and development of iron production and the development of agricultural production, are important topics for investigation throughout the period.

Trade and industry in the medieval and post-medieval period

Study of patterns of trade within and beyond the region, particularly with regard to the role of ports and other towns as centres of consumption and distribution, together with contrasts between urban and rural industries, could be used to elucidate social and economic developments. Studies of production centres and the distribution of their products — most obviously potteries such as those at Harlow and Lowestoft, but also other industries including cloth manufacture, fulling and dyeing, leather working and tanning, horn/bone working and metal-based industries — should also provide useful information in this regard.

V. Human remains

The principal limiting factor for the study of human bone is preservation. It is unfortunate, for example, that the most extensively excavated Early Anglo-Saxon cemeteries (e.g. Spong Hill, Mucking) were on sands and gravels where unburnt bone did not survive. Should funding be available in future for extensive cemetery excavations, then retrieval of human skeletal remains should be given at least equal weight with artefact retrieval when sites are being selected for excavation. Where a choice exists, sites on base-rich soils should be targeted. Human bone from the region has been reviewed by Mayes (1994). His principal conclusions are:

- The rarity of prehistoric human remains is even more marked in East Anglia than in other parts of the country, and this needs to be remedied.
- Material from the Roman period is dominated by burials from cemeteries at Colchester. Cemeteries elsewhere in the region require large-scale investigation.
- Compared to other regions, Anglo-Saxon human remains are plentiful, though over half of those known are cremations, and hence are of limited value.
- Medieval urban cemeteries, at Ipswich and Norwich for example, have been studied but more material from rural sites is required.

In addition, high precision radiocarbon dating of Middle Saxon cemeteries has been successfully undertaken at Stratton, Bedfordshire, just outside the region. More extensive application of this technique to human remains may help to clarify chronological problems.

VI. Selective survey

Particular geographical zones and types of deposit throughout the region, where the nature, extent and date of

archaeological deposits and sites is unclear and/or likely to be well preserved, should be selected for investigation. Amongst the most important areas/topics for such studies are:

Survey of claylands

The origin, nature and development of settlement on claylands throughout the region is not well understood. Recent work such as that at Stansted and surveys around Haverhill and in the Waveney valley have suggested that settlement of these areas is more complex and of earlier origin than has often been assumed. Field survey using a variety of techniques should be undertaken to address these issues.

Palynology of sediment sequences

It is important to recognise that much palynological research in this region was, until relatively recently, undertaken by Quaternary Ecologists, who have a different research agenda from archaeologists. Commonly, they are concerned with the early stages of post-glacial vegetation change, and with the establishment of long pollen sequences spanning most of the last 10,000 years. In consequence, radiocarbon determinations (where available at all) are often widely spaced within sediment cores, and few determinations are available for sediments post-dating about 3000BP. Frequently, published pollen analyses do not have sufficient chronological or spatial resolution to address the types of archaeological question specified above in the Period chapters. Priorities for future palynological study of deep sequences, based largely on comments by Patricia Wiltshire, include:

- The analysis of sediments from palaeochannels and other contexts directly related to archaeological sites.
- Focusing analysis on sections of cores which relate to specific archaeological questions or projects, rather than dissipating resources on outline analysis of entire sequences.
- The submission of series of radiocarbon samples, at close vertical intervals, from sediments of relevant date, and application of statistical techniques to enhance the precision of calibration.
- Multiple coring, so as to evaluate spatial heterogeneity in vegetation and avoid the unrealistically homogeneous picture of ancient landscapes commonly presented in the archaeological literature.

Buried land surfaces

In Cambridgeshire, a considerable soils database has been established by Dr Charly French, for buried soils in the lower Nene, Welland and Ouse valleys in particular; but elsewhere data are patchy and sparse. Similarly, buried soil palynological studies have been undertaken in the fenlands of Norfolk, Cambridgeshire and Lincolnshire, with some work on the Essex coast but buried soils elsewhere have scarcely been analysed. Molluscan analysis of buried soils is clearly less widely applicable, being mainly suited to calcareous soils.

Land surfaces buried beneath, or intercalated within, sedimentary sequences, or beneath earthworks, represent one of the most important sources of palaeoenvironmental and economic information. Palaeosols are commonly present, and these have potential for studies of soil micromorphology, pollen or molluscs; semi-terrestrial

surfaces representing mires over which structures such as wooden trackways were laid are known; and surface-intact archaeological sites frequently occur.

Urban excavations are generally concerned with Roman and later deposits. It is, however, important to recognise that many urban sites are in river valley locations overlying earlier sediment sequences, sometimes associated with prehistoric material. The pressure to examine urban deposits should not lead to the underlying prehistoric material being neglected or ignored.

Topics of particular importance include:

- Continued micromorphological, palynological and molluscan studies of palaeosols intercalated within sediment sequences or beneath earthworks, particularly within the less intensively-studied parts of the region.
- Modelling palaeosurfaces beneath or within sediment sequences by borehole or geophysical survey. This enables sites located during quarrying or construction operations to be related to sub-surface topography, placing them within the context of a buried prehistoric landscape of palaeochannels and interfluvies. Furthermore, if the depth and three-dimensional form of palaeosurfaces is known, then the likely effects of any developments involving removal of sediment cover and/or affecting hydrology and water-table levels may be assessed reliably and appropriate mitigation strategies developed.
- Evaluation of the scale and rate of damage to palaeosols under earthworks by tree roots and burrowing animals, especially at Scheduled Ancient Monuments, with mitigation where possible.
- Buried soils under linear earthworks such as defensive dyke systems provide an opportunity to examine transects across ancient landscapes, by using soil, pollen and/or molluscan studies to reconstruct local environments at a series of locations. Research projects involving spatial studies of this type would significantly enhance understanding of such systems.

River valleys

Changes in hydrology, channel morphology and sedimentation, particularly the date at which large-scale alluviation began, are related to changes in base-levels and climate, but also to land use within the catchment. However, in general, studies in the region have been development-led and funded, so that isolated sections through palaeochannels have usually been examined rather than entire drainage systems, apart from in the lower Welland and Nene valleys. The main priority is:

- extensive study of entire catchments, employing aerial photography and a suite of sedimentological, geochemical, palaeomagnetic and palaeoecological techniques to reconstruct the alluvial histories of river valleys elsewhere in the region.

Wet site survey and evaluation

Coastal sites

These provide unusually good palaeoeconomic and palaeoenvironmental data, but are extremely vulnerable to loss by erosion, and to damage or destruction associated with improvement of sea defences and Managed Set-back. Site types include pre-transgression (earlier prehistoric)

‘dryland’ surface-intact sites with palaeosols, ‘submerged forests’, waterlogged wooden structures and artefacts, midden deposits, salterns and long sediment sequences with intercalated palaeosurfaces. Survey and limited follow-on investigation of sites on the Essex coast has been undertaken. Within the eastern counties, priorities include (see also Strategy p.52 below):

- Extending survey along the coasts of Suffolk and Norfolk. Information on the coastal archaeological resource in these counties is needed in order to define sites requiring immediate recording prior to inevitable destruction by erosion and for the development of management plans for significant sites which may, potentially, be preserved.
- Building on the survey work undertaken in Essex. A detailed research agenda for much of this area is provided by the Greater Thames Estuary Archaeological Research Framework (Williams and Brown 1999).

Wet river valley sites

Many sites are directly threatened by water-table lowering associated with quarrying and river management, whilst in some areas eutrophication of sediments by nutrient-rich effluent is probably causing enhanced microbial activity and hence degradation of organic deposits.

Two river valley systems requiring further survey are:

- The nationally important Upper Palaeolithic and Mesolithic sites of the Lea Valley and other rivers in Hertfordshire and Essex. Hertfordshire County Council is taking the lead role in developing a Thames Northern Tributaries Project to evaluate these sites within their stratigraphic context (see Appendix, p. 2).
- The Norfolk/Suffolk Broads. Despite extensive medieval and later peat-cutting, areas of uncut peat, potentially including waterlogged prehistoric sites, still survive. They are threatened by eutrophication and by modern peat excavations. Definition of surviving uncut peat areas and evaluation of their state of preservation is necessary.

In addition to the above, despite the success of the Fenland Project, the Fens remain a key area for future research. Little is known about the early development of fen river systems, and few deeply buried sites have been investigated, consequently their nature and extent is not well understood.

VII. Political and social development within territories

The eastern counties region as defined for the purposes of this document contains a diverse archaeological resource outlined in part 1 of this framework (Glazebrook ed. 1997) and differential developments within the region offer considerable scope for investigation. For instance during the Bronze Age essentially similar cultural elements were used in markedly different ways, and in the Iron Age there is the opportunity to study developments within different tribal territories. Two such territories, those of the Icenii and Trinovantes, lay entirely within the five counties region, and the west of the region includes parts of a number of others. Similarly two Anglo-Saxon kingdoms, Essex and East Anglia, occupied most of the region, whilst a number of other territorial groupings occurred to the

west. There is thus the potential for examining the origins and development of these neighbouring, but rather different, social and political groupings.

Bibliography

Bayliss, A., 1998 'Some thoughts on using scientific dating in English archaeology and building analysis for the next decade' in Bayley, J. (ed.), *Science in Archaeology*, 95–108

Glazebrook, J. ed., 1997 *Research and Archaeology: a Framework for the Eastern Counties I. resource assessment*, E. Anglian Archaeol. Occ. Pap. 3

Mayes, S., 1994

'Archaeological research priorities for human remains in East Anglia', Ancient Monuments Laboratory Rep. 30/94

Williams, J. and Brown, N. eds, 1999

An Archaeological Research Framework for the Greater Thames Estuary, (Essex County Council)

Wiltshire, P. and Murphy, P., 1999

'Current knowledge of the Iron Age environment and agrarian economy of Norfolk and adjacent areas' in Davies, J. and Williamson, T. (eds), *The Land of the Iceni: the Iron Age of Northern East Anglia*, 125–161