

Chapter 1

**Socio-economic change
in ranked societies**

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The wide range of societies archaeologically documented in early Europe is first stressed, and the potential of this rich data base for the understanding of social and economic processes of ranked societies in general is emphasised. But what exactly is meant by 'ranking'? The limitations of the so-called 'evolutionary' sequence of egalitarian, ranked and stratified societies are reviewed. The available archaeological criteria which offer potential for the investigation of different degrees of socio-economic complexity are then discussed in terms of the evidence offered by settlement studies, by a consideration of monuments and mobilisation, and by indications of individual status and property, notably from funerary remains.

Socio-economic change and its causes are reviewed under two broad headings: intensification of production, whereby the potential resources of society are developed and actualised, and interaction. It is stressed that interaction between polities of approximately equal complexity (peer polity interaction) is often as significant a factor in promoting change as are the more frequently discussed consequences of contacts with societies more developed economically. The significance of the societies of the early historic period (e.g. the Anglo-Saxon kingdoms) for the understanding of these processes, alongside the more commonly studied prehistoric cases, is underlined.

Good archaeology, it would be agreed by all those who think of themselves as processual archaeologists, should be problem-oriented. And at first sight contemporary archaeology is just that. Many interdisciplinary expeditions have been mounted in different parts of the world to investigate for instance the origins and development of food production, and it can reasonably be claimed that the 'neolithic revolution' has been a well-defined subject of research. Much the same may be asserted for the question of the origins of the state, and the often concomitant issue of the development of urbanism. This too has given rise to well-conceived field projects in many areas.

But if 'agriculture' and 'civilisation' are both relatively well-defined concepts (at any rate until they are examined more closely), the same can scarcely be asserted for the study of those food-producing yet non-urban societies which, on any simplistic evolutionary trajectory, are conceived as lying 'between' these two. The problems are often less clear-cut and the concepts less clearly formulated for egalitarian or ranked societies, to which the term 'the state' cannot properly be applied.

In fact students of such societies have not yet succeeded in defining the issues with any great clarity. Only recently have archaeologists squarely faced the difficulties of recognising ranking on the basis of the archaeological materials, or of establishing the archaeological correlates of ranked societies (Renfrew 1974; Peebles and Kus 1977). Attention has moreover focussed rather more on the problems of demonstrating the existence of ranking than on endeavouring to explain it.

These criticisms apply with equal force, I believe, to the practice of processual archaeology upon the ranked societies of any area: certainly they are true of North America and of Europe. The situation is yet worse in regions where fully fledged state societies developed relatively early – such as Mesopotamia and Mesoamerica. Interest in these lands has often, quite naturally, focussed upon the early states. The less complex societies which preceded them are often dismissed as 'Protoliterate', or 'Protodynastic', or 'Formative', and sometimes accorded less respect than the 'Classic' or 'Dynastic' phase which frequently follows. Only a few studies (e.g. Flannery 1976) deal with the formative stage in its own right, without regarding it as merely some muted prelude already overshadowed by the splendours yet to come.

Early Europe offers a vast scope for the consideration of ranked societies. When Julius Caesar described the customs of the native inhabitants of France in his account of *The Gallic War* he was writing of a land where agriculture had been practised for nearly five thousand years without the formation, until his own time, of anything approaching the societal organisation of the state. And in the Scandinavian lands to the north it was a further millennium before such an organisation finally emerged. Caesar and the other Roman commentators, notably Tacitus, have left ethnographic

accounts which are as lucid and careful as the narratives of voyagers to North America, such as Thomas Harriot in the sixteenth century AD. There are thus ample opportunities here for the study of both egalitarian and ranked societies.

Many of the problems which emerge are, however, of a significance which goes far beyond Europe.

What is ranking?

The use of the term 'ranking' in the title of this volume, or of 'ranked society' at the head of this introductory chapter, should not be taken as asserting firm adherence to any preconceived evolutionary or other typological scheme of social organisation or social structure, such as those of Service (1962) or Fried (1967). The focus of our interest is in *change* in society and economy, and in its *explanation*.

But these terms do help to focus our attention upon the wide range of societies which do not have the well-differentiated institutions of the state. Anthropological theory was for too long content to retain the old dichotomy, set out by Plato and Aristotle and followed by Hobbes, between ordered government (the state) and primitive disorder ('warre'). So it is that what remains the best general book on African political systems (Fortes and Evans Pritchard 1940) employs the same simple dichotomy between 'primitive states' and 'stateless societies'.

Service (1962) set out clearly the useful distinction between 'tribe' and 'chiefdom', and the latter in many ways remains a valid term, albeit a rather general one. The tribe has, however, been shown to be a rather inadequate general category (Cohen and Schlegel 1968), since many food-producing societies do not in fact group themselves into tribes, or display what is normally regarded as 'tribal' behaviour. This realisation underlies the present scepticism surrounding the archaeological concept of the 'culture' as a socially meaningful category (Renfrew 1978, 94; S.J. Shennan 1978). While it may still be useful for some purposes to define archaeological cultures, they can no longer be assumed to represent the material remnant of ethnic groups or tribal units. The recognition in the material culture of features characteristic of specific ethnic groups remains an interesting problem which is now being examined afresh (e.g. Hodder 1978): it is an empirical matter and not one to be dismissed by a procedure of defining taxonomic units and then calling them 'cultures'.

The recognition of ranking from the archaeological record may be little easier than detecting ethnicity, and has certainly been less carefully thought out. The root of the matter may in fact be the absence of any very clear definition of exactly what is meant by ranking, in the living ethnographic present, even before its archaeological correlates are sought in material culture. Fried (1967, 109) certainly starts clearly enough: 'A rank society is one in which positions of valued status are somehow limited, so that not all those of sufficient talent to occupy such statuses actually achieve them.' He later (1967, 186) defines a strati-

fied society as 'one in which members of the same sex and equivalent age status do not have equal access to the basic resources that sustain life', and asserts (1967, 109) that a rank society 'may or may not be stratified'.

There are clear risks of confusion here, for many archaeologists have tended to equate state societies with stratified societies, and chiefdom societies with ranked societies. The concept, which Fried clearly entertains as meaningful, of a stratified rank society cannot be reconciled with such simplistic notions. Fried adds to our perplexity by asserting (1967, 224): 'Societies that are stratified but lack state institutions are not known to the ethnographer.' Yet most ethnographers would regard the chiefdom societies of Polynesia, for instance, as lacking state institutions, but there are many indications that the chiefs often enjoy privileged access to basic resources.

Rank is defined by the Shorter Oxford English Dictionary as 'A class in a scale of comparison; hence relative position or status.' But it is a task for the ethnographer or archaeologist to make clear exactly what is the nature of the *variable* in terms of which individuals are being ranked. Fried refers to 'valued status', but goes on to speak of 'sufficient talent to occupy such statuses', implying apparently that talent may be a relevant factor. Both prestige and status seem in reality rather vague concepts unless it is made clear precisely how they may be measured.

The fundamental confusion here, in my view, is to define or classify *societies* (as ranked, stratified etc.) on the basis of the differential *status of individuals* within those societies. For although differential status is indeed of the greatest interest, so too are the institutions of the society and the processes at work within them. Hierarchy of settlement, for instance, or of organisation, may be documented archaeologically in the absence of clear indications of personal ranking – and are indeed used by Wright and Johnson (1975) to define state organisation. And great numbers of people may be mobilised for monumental works – it has been estimated that eighteen million man-hours were expended upon the British neolithic monument of Silbury Hill within the space of two years – in circumstances where personal ranking may perhaps be inferred but not necessarily documented. Surely a more fundamental question is the degree to which a society was *centrally organised*? And is it not a matter for empirical investigation, by the ethnographer as much as by the archaeologist, to determine to what extent such organisation correlates with the presence of salient personal ranking and of stratification within the society? Clearly we shall expect that in general the correlation will be a strongly positive one, but the relationships have to be explored in detail. Contemporary archaeology has in fact taken three different routes to explore ranking within society: only one of them relates to personal ranking.

1. Settlement ranking and political structure

I take here as my text (while not specifically embracing

his concepts of tribe and chiefdom) the words of Service (1962, 142) about the chiefdom: 'the society is also more complex and more organised, being particularly distinguished from tribes by the presence of centers which coordinate economic, social and religious activities'. For it is the existence of the centre, and of the *central person* who generally goes with it and actually does much of the coordinating, which establishes the asymmetry which is surely the crucial element of ranked societies, distinguishing them from the essentially symmetrical, mechanical solidarity of egalitarian ones.

If we wish to study organisation and complexity, it is logical to look for a spatial representation of the undoubted asymmetry which these terms imply. The most welcome indications would testify directly to the nature of the organisation – for instance in the storehouses of goods, or the craft-specialist workshops, or the palace or residence of the chief – which we might hope to document. But these can in general only be revealed through excavation, and we cannot readily excavate an entire settlement pattern. I would claim, however, that there is a very general and strong positive correlation between size and centrality. The organising centre of a polity is nearly always (with the exception of some rather recent anomalies associated generally with federal government) the largest settlement or site of that polity. Geographers rightly caution us not to confuse organisational or urban or central place functions with size as such, but the correlation remains. It has moreover been shown to apply more strongly to less highly industrialised societies, with their primate cities, than to the industrialised and urbanised nations of the twentieth-century west (Berry 1961).

At the same time, simply to plot a frequency distribution of site size, and to seek to divide settlements into size classes (conceived as corresponding to first, second and third order centres of Central Place Theory), as Johnson has done (1975), is not appropriate. Within a given region, while it remains the case that the largest site of each polity is generally its centre, the centres of smaller polities will often be smaller not only than the centres of larger polities, but than those of other non-primate sites in those larger polities also. The frequency distribution approach makes assumptions about spatial behaviour and about conformity with classical Central Place Theory which are not appropriate to a region containing several independent polities, however these assumptions may work *within* a given nation.

The problem for the archaeologist seeking to identify a pattern of centres from the archaeological record becomes one of deciding which sites or settlements are large enough to dominate (in the political sense) their smaller neighbours. It also entails deciding which are sufficiently large, and sufficiently distant from larger sites, to be able to maintain their own autonomy.

A recent paper (Renfrew and Level 1979) sets out a procedure by which these questions may be investigated. The input consists simply of the locational coordinates of sites,

and of some appropriate measure of their size or scale. This may be expressed in terms of settlement area or population, but other measures are possible (such as the number of coins struck by a mint). The output is then a series of maps, showing the hypothetical political configuration, making assumptions based on those indicated above. The most important variable is the 'slope' – which is a measure of the radius of influence of a site of given size. The XTENT model will produce a different map for each slope selected. The map indicates the independent centres of the hypothetical polities, the subordinate sites, and the notional boundaries of the polities.

Naturally no model is better than the assumptions which sustain it, and several here are open to question. Yet within these limitations the model allows a transition from archaeological data set to socio-political map. It has already been used to suggest possible chiefdom territories on the basis of the size and distribution of iron age hill-forts, and the extent of urban territories (the equivalent of early states) in Mesopotamia during the Uruk period, and in early Susiana. A test run with twentieth-century Europe, using the location and population of the hundred largest cities, yields a series of interesting political maps.

This approach is simply a tool, a means of investigation, but it makes more explicit some of the procedures which have led a number of archaeologists (notably Johnson 1975; Earle 1976; Blanton 1978; Sanders, Parsons and Santley 1979; Alden 1979) to seek to reconstruct political organisation from settlement data. Nor is it necessary for settlements and sites to be urban for such treatment to be applicable, as Cunliffe (1976) has shown, and as Bintliff (this volume) demonstrates.

The key notion underlying the XTENT approach is not simply that of ranking – i.e. of relative size – but of *dominance*. For it is dominance which establishes hierarchy, which generates the different levels or strata within a system of ranking, thereby establishing it as one of stratification. The assumptions underlying such approaches must be questioned at each stage, particularly when applied to non-state societies. Indeed they should not be accepted as assumptions, but as postulates which test some of the real issues which are validly in question.

2. Monuments, mobilisation and organisation

A second approach to the social organisation of ranked societies has been through the scale and distribution of non-residential sites. Although in some cases it may be possible to relate a given monument to an individual (for example, in the case of a burial within a funerary mound), the focus of interest here is in the first instance with the scale of communal endeavour seen as a product of the society, and as a measure of social integration, rather than of personal eminence.

Such matters have been considered in south Britain (Renfrew 1973), in Ireland (Darvill 1979), in Malta (Renfrew

1974), in Hawaii (Tainter 1973), for the Mississippian (Peebles and Kus 1977), and elsewhere. In some cases a hierarchy of monuments, in terms of scale (measured for instance, in man-hours of constructional labour) can be established. The relationship between an observed ranking or hierarchy in the monuments and any organisational aspects of the society itself is of course a matter for analysis (Renfrew 1981a). There can be little doubt, however, that aspects of social organisation are monitored and in some cases these are hierarchically structured. But it certainly does not follow that such structuring can be equated directly with a hierarchy of persons or of statuses within the society: some relationship may be inferred but not a direct equivalence.

In the case of funerary monuments, further inferences may be possible about the land rights of corporate descent groups (Saxe 1970; Chapman, this volume), since one purpose of monument building can be the establishment of territorial claims in visible and durable form. The monumental funerary and ritual constructions of Europe and elsewhere are currently undergoing reassessment from this perspective by a number of workers.

Monumental works can of course have a very much more direct bearing than do tombs upon land utilisation. This has long been perceived for the major irrigation projects of the Near East. And recently several land boundaries in the landscape of south Britain have been dated back to the bronze age (Bowen 1975; Fleming 1978). Such features constitute social statements about control of, and access to, land, as well as serving more utilitarian functions such as field clearance.

Further features in the organisation of non-state societies are reflected in other monumental works: the complex pattern of roads linking the various sites at Chaco Canyon in the American south-west give indication of aspects of organisation which cannot be inferred from the study of individual sites. And of course the scale and manner of construction of fortifications, from pre-pottery neolithic Jericho or the British iron age (Cunliffe 1976) to the *burhs* of Saxon England and the cities of the Middle Ages, offer data by means of which the sites and societies in question may be ranked.

3. The ranking of individuals

Ranking, in the sense which Fried, in common with most anthropologists, uses the word, relates to the status of individuals. The individual is, however, difficult to catch in archaeological terms: so far there are two major approaches. The first is in terms of his handiwork, where stylistic variation offers the opportunity of identifying individual hands (Hill and Gunn 1977). The second approach is the obvious one of locating the individual's mortal remains. Here the various practices associated with the disposal of the dead, including the deposition of artefacts, may allow the establishment of ranking (Renfrew 1974; S. Shennan 1975; Randsborg 1974; Peebles and Kus 1977; Tainter 1978;

Shephard 1979; Wells 1980; S. Shennan, this volume; Arnold, this volume). The extent to which this ordering, established by the archaeologist on the basis of the material remains, may be related to the ranking of statuses within the society in question is always a matter for careful consideration (O'Shea 1979).

These three very different approaches illustrate that there are indeed different ways of ranking societies, and of ranking individuals within societies, ways which have in the past been too readily lumped together. The term 'ranked society', like 'chiefdom', lacks precision and hence coherence, although it remains very useful for purposes of generalisation and description. But the analysis cannot be a dynamic or explanatory one until these aspects are clarified and linked with other variables and processes.

Socio-economic change

The explanation of change is not an easy undertaking. As Whallon (this volume) reminds us, it requires the construction of theory, rather than the mere suggestion or demonstration of a correlation of variables. I have come to feel that many of the most fruitful approaches hitherto can be reduced, in effect, to the study of the effect of two processes upon social structure and upon each other, and of the influence of social structure upon both. The processes in question are the intensification of production, and the interaction between polities. The papers for this volume (and for the symposium which gave rise to it) centred upon the consideration of these two processes.

1. Resource and intensification

A decade ago, under the influence of Boserup's book (1965) *The Conditions of Agricultural Growth*, population pressure came to be regarded widely as a possible 'prime mover' in the emergence of ranked and stratified societies. Some of the most persuasive explanations for the emergence of the state thus now use population growth as the initial driving mechanism, which is seen as giving rise to the other significant changes. (Many of these are reviewed in Spooner 1972). The possible effects of population growth upon pre-historic Europe were well outlined by Sherratt (1972).

Objections have emerged, however, to the notion of demographic pressure operating, in effect, as an independent variable (Cowgill 1975; Hassan 1978). So that while carrying capacity remains a useful concept in many ways (Glassow 1978; Bayliss-Smith 1978), social attitudes and relationships within the societies in question are seen as governing, or at least significantly influencing, the demographic variables.

Agricultural intensification remains, however, a major research focus, for it is widely felt to correlate closely with social complexity (Gilman 1981). The correlation is generally assumed rather than demonstrated, but seems logical in that only through intensification can the larger population density be supported that is necessary for urban life. Intensi-

fication of agriculture is necessary also to support the craft specialists and the non-productive elite required for the differentiation of roles indispensable to complex society. Recent work on such intensifying processes as irrigation (Oates and Oates 1976), plough agriculture (Fowler 1971), and Mediterranean polyculture (Halstead and O'Shea, this volume) has made some of the relevant events clearer.

It is only very recently, however, that the social correlates of these technological advances have been systematically considered, and the social and economic implications of intensification (Bradley 1978; Bradley and Hodder 1979; Renfrew 1981b) explored more fully in relation to other aspects of society. The most promising area of exploration at the moment seems to be land use. The study of ancient field systems, as our Scandinavian colleagues (Lindquist 1974; Widgren 1979) have long realised, offers the possibility of considering farming practice in its totality. This should allow an examination of the scale of the farming group, and of the relationships between groups. The work of Fleming (1971, 1978), Wainwright, Fleming and Smith (1979), Bowen (1975), Bowen and Fowler (1978), Fowler (1971) and Bradley (1978; n.d.) is now addressing itself profitably to the relationship between farming practice, as attested on the ground, and social structure, as inferred from these and other aspects of the archaeological record.

Already for the neolithic period of Britain, consideration of the distribution of the monuments allows the formulation of models of farming practice (Barker and Webley 1978). And with the developed bronze age, and the construction or formation at that time of field boundaries, including the so-called 'Celtic fields', a mass of new evidence is available about the organisation of the land.

Much of this work is at present at an exploratory phase, and Whallon's demand for theory has not yet been effectively met. But until a decade ago, the data was so limited and so little understood that there were in reality very few observations which theory could be called upon to elucidate or to relate to each other. Theories are not possible, or at least they are not useful, in the absence of data, and progress was not feasible. It may well turn out that the data relating to land use in north-western Europe will now offer scope for important theoretical developments which will succeed in relating intensification to social structure and to ranking.

2. Exchange and peer polity interaction

The second popular 'prime mover', to be set alongside population pressure as a favourite ingredient in many current theories about the growth of complex society, is trade. Internal trade and exchange have been used by several writers who, following Service (1962), see redistribution as a fundamentally important process in ranked societies. Although the 'functionalist' view of the chief as an altruistic redistribution agent has been criticised (Earle 1977) – not least by those wishing to emphasise the repressive and exploitative nature

of some ranked societies (Gilman 1981), sometimes as an exemplification of a Marxist class-struggle – the role of redistribution in the emergence of some complex societies can hardly be doubted (Halstead and O'Shea, this volume).

External trade has at times been used by exponents of the diffusion of culture in so vague a way that the explanatory content of their arguments has seemed weak. For simply to demonstrate the existence of external trade at a period of rapid change is hardly to explain that change. More specific, and hence more interesting models (Webb 1974) have been formulated in recent years, and some of them are reviewed later in this volume. Some of them may be classed as dominance models (S.J. Shennan 1982), where the exchange relations of a ranked society with a more developed state society secure for the elite of the former a whole range of sophisticated prestige goods which they can use to consolidate their social position (Frankenstein and Rowlands 1978; Wells 1980; S. Champion, this volume; Haselgrove, this volume).

Other workers (e.g. Flannery 1968) lay stress on inter-regional trade, which can exploit the distinction between ecological zones. This need imply no 'secondary' relationship for the society in question, since no more complex social system need be involved.

Both these are perfectly acceptable models in themselves, but in many instances they are not in practice particularly appropriate, since no inter-regional exchanges need be involved, nor any contacts with more complex societies. Yet in many cases the archaeologist working with the materials in question nonetheless feels that one of the crucial processes leading to the development of ranking or of other indications of complexity has indeed been exchange. In my own work in the Aegean, as described in the introduction to Part III, I have been led by this feeling to put forward a peer polity interaction model, where the interactions in question operate within the region, and do not involve contact with more advanced societies (Renfrew 1981b). As Shennan (S.J. Shennan 1982) has pointed out, this view is close to the 'cluster interaction' model of Price (1977). Indeed it comes close to what he has himself been arguing as an explanation for the Beaker phenomenon (Burgess and Shennan 1976).

An important feature of these models is that they lay stress as much upon the information which flows along the network between the various nodes as upon the exchange of material goods (Renfrew 1975). The effects of the interaction are therefore seen as much in stylistic uniformities or resemblances (Wobst 1977). The implications of such models, as Hodder (this volume) implies, remain to be explored. There can be no doubt, however, that they will add a new dimension to the already illuminating and influential work on early exchange in Europe (e.g. Phillips, Aspinall and Feather 1977; Sherratt 1976) which has already contributed to our understanding of prehistoric social change.

The difficulty still remains, however, that it is the

specific social structure in each case which participates in such processes, and the response of the society to this interaction will depend very much upon the nature of that structure and on its past history. Despite the efforts in this direction by Rowlands and his co-authors (e.g. Rowlands 1980), the archaeological evidence cannot often convincingly be deployed to document the details of such features of social structure as kinship organisation, in the manner of Ekholm (1978) in her anthropological study of exchange relations in the Kongo.

Notwithstanding these undoubted limitations, one may detect in much current literature a feeling of optimism that progress is being made, and that new concepts are now being developed which will permit more adequate interpretation of much of the evidence currently available. Some of that progress will come about in Europe. For one important asset of the European case is the great time depth which it offers in the study of ranked societies.

In Britain, farming (which is, of course, the defining feature of what we still like to call the 'neolithic') begins around 4300 BC on a calibrated timescale. Evidence of ranked society, in the form of major monuments requiring a labour investment of around one million man hours (the large 'henges'), is seen around 2500 BC. Large stone or 'megalithic' tombs, which need not be interpreted as indicative of ranked society, occur at least one thousand years earlier. A widespread metal industry (defining the 'bronze age') begins by 2000 BC, and it is from this time that individual burials with distinctive prestige goods are found. The British 'iron age', which is associated with the development of a more highly ranked society, and of the hill-forts, may be said to begin around 800 or 700 BC.

The story does not end with the Roman invasion in the first century BC, consolidated in the next century with the effective imposition of a state society within the Roman empire. For Roman rule in Britain collapsed around AD 400, and the emergence and subsequent development of Anglo-Saxon society is highly relevant to our theme. That episode ends with the appearance of the later Saxon state, which is often equated (for south Britain) with the reign of King Alfred at the end of the ninth century AD. We thus have some five millennia of non-state agricultural societies to discuss. There is plenty of scope.

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PART I**The emergence of hierarchical structure**

Until recently archaeologists concerned with the neolithic and bronze age of prehistoric Europe have devoted most of their time to the ever-increasing refinement of space–time systematics in their area of interest. This work was carried out within the theoretical context developed by two key figures, Childe and Kossinna. It was Kossinna who developed the idea of archaeological cultures as the framework for the understanding of European prehistory, and who by his identification of cultures with peoples presented the replacement of one people by another as the explanation for the cultural changes observed in the archaeological record (Neustupný 1976). These cultural changes, however, were essentially static and repetitive, and it was Childe who developed the framework for understanding the technological, economic and social trends which also seemed to characterise the European past, with his clearly formulated processual thesis of the irradiation of European barbarism by oriental civilisation (for example, Childe 1958).

In those parts of Europe dominated by the German archaeological tradition this traditional framework still remains largely intact, but elsewhere both its fundamental theses have been rejected in the last fifteen years (Clark 1966; Renfrew 1973a; Neustupný 1976) and since then the attempt has begun to develop an adequate replacement. This endeavour has been heavily influenced by the neo-evolutionary framework of Service (1962) and Fried (1967),

and the problems on which it has focussed have been Childe's legacy rather than Kossinna's: the processes of technological innovation and adoption, subsistence change and social evolution (cf. Childe 1951). Inasmuch as a great deal of the work in European prehistory has been carried out within the Kossinna paradigm, one result of this reorientation is that much of the material collected by European archaeologists in the past has come to be regarded as irrelevant, of no help to the solution of current problems (cf. Bradley and Hodder 1979). It still remains unclear how useful it will be in the future, as orientations change once more (cf. Hodder 1982), but what is certain is that data collection in response to current questions has barely begun.

The importance of the influence of neo-evolutionary theory in redirecting the attention of European archaeologists to general questions cannot be overemphasised (see Renfrew 1973a, 1974) but the narrowness and rigidity of its framework are now being found restrictive, since it follows from it that the only changes of importance are those organisational ones involved in the sequence from band to tribe to chiefdom to state. In certain areas and periods, particularly those in which early states were developing, this sequence plausibly represents the critical dimension of change. In prehistoric Europe outside the Mediterranean this seems not to be the case, especially prior to the later iron age: over a period of about six thousand years the sole change which

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occurred in terms of Service's evolutionary typology was that from tribe to chiefdom. This realisation has led on the one hand to the feeling that European prehistory must inevitably be on the sidelines when the major prehistoric transitions in human socio-economic organisation are being investigated, and on the other to the more positive, and in a sense Childean, reaction that the processes of change, and particularly hierarchisation, in European prehistory must be investigated in their own terms, although it is necessary to make use of a wide comparative framework. The papers in this section are examples of such investigations, all concerned with the emergence of hierarchies, whether from the point of view of describing the process, examining its effects, or attempting to explain the reasons for it.

One of the major problems remains the archaeological documentation of hierarchical organisation. This is so for several reasons. Much of the European evidence is very poor, especially when the attempt is made to draw comparisons between different regions and periods; settlement data in particular, so successfully exploited in the Near East (e.g. Wright and Johnson 1975), are very often lacking. The theoretical basis for comparative studies using burial data is not as secure as it might be. Furthermore, it is increasingly clear that to adopt a unitary concept of hierarchy is not entirely helpful: the way in which different hierarchies maintain and legitimate themselves varies, and this variation has a considerable effect on the way in which they operate and on the social trajectories which result (cf. S.J. Shennan 1982).

Despite the difficulties, certain broad socio-economic trends are apparent. The first agricultural economies of temperate Europe do not seem to have been based on slash-and-burn agriculture but on the small-scale static hoe cultivation of a restricted number of zones of high productivity (Kruk 1973; Willerding 1980). Gradual expansion of the cultivated zone occurred, on to soils less able to sustain continued cultivation, so that in some areas at least fairly large areas had been cleared by the later fourth millennium, and settlement was becoming less permanent. It seems to be in this context that what Sherratt (1981) calls the 'Secondary Products Revolution' occurred, involving the first use of animal traction for pulling ploughs and carts, as well as exploitation of cattle and sheep for milk and wool. In the Mediterranean parts of Europe this mode of intensification may be paralleled by the introduction of Mediterranean polyculture at around the same time (Renfrew 1972; Gilman 1981). There is much to be said for the argument that it was in the context of this changing subsistence economy and the continuing expansion of settlement that a major change in social relations began to occur which had important repercussions in the succeeding bronze age (Gilman 1981; Sherratt 1981).

In the early neolithic there is no evidence for other than egalitarian social relations, whether one looks at the Bandkeramik of central Europe (Sherratt 1976) or the early megalith building societies of the west (Renfrew 1973a). By

the later fourth millennium BC, however, there are indications that this situation had changed, in some places at least, and that hierarchies had begun to develop. Milisauskas (1978) has suggested that settlement hierarchies were present in Poland at this time, while Renfrew (1973b) has based an argument for the presence of hierarchies in Britain on developments in monument building (see also Randsborg 1975; Shennan 1977); this is the period when the regular use of secondary products seems to have begun. Prior to this it is likely that the societies of prehistoric Europe were little different from those of hoe agriculturalists elsewhere in the world, many of whom have a relatively accessible source of animal protein. The use of secondary products, however, led to the development of an integrated and expansive subsistence economy in which the plant and animal elements were complementary to one another, and which did not occur outside the Old World.

Subsequently to these developments, much of central, northern and north-western Europe underwent profound changes, with the disappearance of monuments and settlement hierarchies and the emergence of a dispersed settlement pattern with small-scale settlement units, associated with cemeteries which include graves containing male status items such as battle-axes. This system formed the basis out of which the ranked societies of the early bronze age developed, except in parts of western Europe, where hierarchies and monumental traditions had continued and developed, until the latter disappeared and the hierarchies changed in nature, converging in form with those of central Europe (S.J. Shennan 1982). Gilman (1981) has argued for a direct link between the processes of agricultural intensification and the development of what he regards as stratified societies, as a result of the new potential for exploitation of producers created by the fact that the capital investment now required for agriculture meant that it was no longer so easy for groups to split up in response to attempts at domination by powerful individuals (cf. Neustupný 1967 for a similar argument from the new importance of 'capital investment' in agriculture). It seems likely that there is indeed a link but it is regarded here as more probable that it is indirect and relates to processes of competition between the new household units which had formed (cf. Rowlands 1980), competition which depended heavily on the maintenance of distant contacts for the obtaining of prestige goods. At all events, it seems difficult to escape the conclusion that in general hierarchies became far more prevalent in Europe in the aftermath of this subsistence intensification phase than they had been earlier, and particularly in the full bronze age, which developed at the end of the third millennium BC.

The papers in this section constitute specific case studies within the general framework of social and economic development just outlined. Most of them are concerned largely with the developments of the late fourth millennium BC and later, but Sherratt's paper, which begins the section, is an examination of the earlier cycle of hierarchisation in