

Argonauts of the North Sea - a Social Maritime Archaeology for the 2nd Millennium BC

By ROBERT VAN DE NOORT¹

This paper aims to offer a new analysis of the social dimensions of seafaring in the 2nd millennium BC and a consideration of the role of seafaring in (re)creating the social order at the time through its economic, socio-political and ritual significance. It revisits the sewn-plank boats from Ferriby, Kilnsea, Dover, Caldicot, Testwood Lakes, Goldcliff and Brigg, and aspects of the way in which seafarers signified themselves and their world through their imagined relationship with the environment are illuminated. The study argues that in the Early Bronze Age, sewn-plank boats were used for directional, long-distance journeys, aimed at the 'cosmological acquisition' of exotic goods, and the contexts of these boats link the overseas journeys to the ancestors. In the Middle and Late Bronze Age, sewn-plank boats were used for down-the-line exchange, and fragments of sewn-plank boats were included in structured deposits, within or near river crossings, reflecting the idioms of transformation and regeneration which are well established for this period. Through the reconstruction of the boats' crews, it is suggested that the development of a retinue was a prerequisite for the successful completion of the long-distance journeys, and the social identities that were cultivated during these voyages are recognised as a potentially important element in the rise of elite groups in the Early Bronze Age.

INTRODUCTION

It is now some 120 years since the first sewn-plank boat was discovered in Britain at Brigg in the Ancholme valley in Lincolnshire, and some 70 years since the first such craft was identified at North Ferriby in the Humber estuary. Since these early finds, further examples of Bronze Age plank boat fragments have been found at North Ferriby and Kilnsea in the Humber estuary, at Dover, at Caldicot and Goldcliff in the Severn estuary, and at the Testwood Lakes site in the Test valley, just north of the Solent (Fig 1; eg McGrail 2001). The sewn-plank boats of the Bronze Age remain unique to Britain, and much has been published about their construction and performance (eg McGrail 1988; 2001; Wright 1990; Gifford & Gifford 2004). Since the discovery of the Dover boat, it has also become widely accepted that this type of craft was probably used for seafaring (eg Van de

Noort *et al.* 1999; McGrail 2001; Clark 2004b). However, to date no genuine attempt has been made to explain why this important innovation in boat construction was made and why it appears to be limited to Britain, who the people were that used these boats, what tasks were served by seafaring and what the socio-political implications were of the construction and operation of the sewn-plank boats.

Aims and objectives, structure and sources

The aim of this paper is to offer a new analysis of the social dimensions of seafaring in the 2nd millennium BC and a consideration of how this might have had significance to (re-)creating the social order at the time through its economic, socio-political and ritual significance. This social maritime archaeology aims to fully integrate maritime archaeology for this period with its parent discipline, archaeology (McGrail 2003, 1). It will achieve this aspiration through a set of linked objectives, which form the structure of this paper: first, the current understanding of the socio-political significance and logistics of long-distance exchange will be reviewed; second, the role of the sewn-plank boats and other craft in seafaring will be

¹ Department of Archaeology, School of Geography, Archaeology & Earth Resources, University of Exeter, Exeter, EX4 4QE, UK r.van-de-noort@ex.ac.uk

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Fig. 1.

Location map of all Bronze Age sewn-plank boat sites, and the locations of offshore Bronze Age cargoes at Langdon Bay and Moor Sands

reconsidered; third, the contexts of these craft will be explored to provide insights into the 'ritual of travel' and, fourth, the social structures that underpin long-distance exchange and seafaring will be considered.

Through its aim, this paper is concerned directly with the sources of social power in the British Bronze Age within a western European context, by which is understood the mechanisms underpinning the rise of prominence of particular members of society. The social, political and economic reasons behind the material-based manifestation of elitism in the Early Bronze Age have been discussed by many reputable commentators, but this issue remains poorly understood and it has been argued that recent research has essentially progressed no farther than identifying elite and non-elite groups (cf. Harding 2000, 393). However, there is a degree of consensus on the importance of access to, and control of, exotic or 'prestige goods' in terms of underpinning status and prestige (eg Shennan 1982; 1988; Bradley 1984; Barrett 1994; Harding 2000), a concept initially based on structural Marxist and, more recently, neo-Marxist thinking (eg Rowlands 1980). Instead of direct

control over land and subsistence as modes of production, in prehistory it was the control of people that was important in becoming powerful. The social transactions involving prestige goods are considered to have played a key role in the social reproduction of the socio-political order and organisations or, in other words, in the negotiation, legitimisation and reinforcement of rights over people.

The current understanding of the socio-political significance and logistics of long-distance exchange will be reviewed in the light of the work by the anthropologist Mary Helms. In her book *Ulysses' Sail* (1988), the socio-political importance of exotic or prestige goods is directly linked to the significance of geographical distance and travel. The importance of geographical distance and travel in obtaining knowledge, both sacred and profane, alongside exotic objects as a means of justifying or reinforcing power over people who did not have such access, has been observed by her in many societies. Esoteric or extra-worldly knowledge would be demonstrated by the foreign commodities, whilst the commodities themselves may have been of strategic importance (eg for use as dowry or brideprice), or have sacred or esoteric capabilities, thus giving power and influence to those who knew where to obtain and how to use and display these materials. An important role in this activity may have been played by long-distance specialists, or translators (both in the literary and figurative sense). This work, and the archaeological applications of these ideas (eg in Beck & Shennan 1991; Broodbank 1993; Needham 2000; Kristiansen 2004; Ling 2004), form an important stimulus for this study.

The role of the sewn-plank boats and other craft which may have been used for seafaring requires to be reconsidered in the light of recent discoveries, most notably the Dover boat in 1992, and the redating of the Bronze Age boats from North Ferriby (Wright *et al.* 2001). These findings allow for the sewn-plank boats to be linked geographically and temporally to the long-distance exchange networks from the centuries around 2000 cal BC that are so well known from material culture studies (eg Clarke 1970; Harrison 1980; Clarke *et al.* 1985).

Although some important exceptions exist, most prehistoric boats have been considered in the literature predominantly in a de-contextualised manner. With this, it is meant that the study of prehistoric boats remains the domain of specialist

maritime or nautical archaeologists, whose focus lies with the technological aspects of the craft, rather than their economical, social or ideological role in past societies (cf. Adams 2001). This paper explores the contexts of these craft to provide insights into the 'ritual of travel'. On the basis of her cross-cultural studies, Helms (1988) argues that when undertaking long-distance journeys that were dedicated to obtaining esoteric knowledge and goods, the departure from the home territory was frequently marked by ritual or ritualised activities in early societies. Similar activities may have signalled the homecoming too. These may have included transient activities which left no archaeological information, such as offering a glass of wine to the god(s) of the sea, the decoration of boats with flags, or bodily adornments for the travellers. However, specific locales would have been selected as departure and arrival points, namely those that linked the travellers to the ideological concepts represented in the landscape that gave meaning to long-distance travels. This concept provides a basic archaeological tool and methodology – through the analysis of the landscape context of the sewn-plank boat locations, we can ascertain something of the ritual of travel and the socio-political importance of long-distance exchange.

From an archaeological perspective, and in particular from the perspective of the archaeological material culture, interpreting the complex mechanisms and processes behind long-distance trade remains particularly difficult (cf. Needham 1993). However, the reconstruction of the social structures that underpin long-distance exchange and seafaring means the detailed investigation of the *practice* of long-distance exchange that linked elite groups in Britain closely to their counterparts in continental Europe and Ireland, and of the *mechanisms* by which these elite networks were maintained. It also requires a consideration of the social identities that were constructed through the organisation, control and practice of seafaring, and of the role played by the boats' crews in the emergence of social complexity.

The principal source of evidence for this social maritime archaeology are the sewn-plank boats, which are considered to be the most likely candidates for seafaring craft, and their landscapes as ideological concepts. This paper also reflects on other sources of information, notably logboats, the carvings on rocks and bronzes of prehistoric boats in Scandinavia, and the long-distance travelled artefacts.

Why 'Argonauts of the North Sea'?

Through its title, this paper refers to two other groups of 'argonauts' involved in long-distance travel. First, that is the Argonauts who sailed under Jason to win the Golden Fleece, and second, the long-distance exchange undertaken by the Trobriand Islanders, described by Bronislaw Malinowski in his famous *Argonauts of the Western Pacific* (1922). The myth of the Argonautica and the Argonauts of the western Pacific both provide insights into early seafaring and long-distance travel that indirectly help in gaining understanding of seafaring in the Bronze Age in the North Sea basin.

The story of the Argonauts, as told by Pindar in the 5th and Apollonius of Rhodes in the 3rd centuries BC, is one of the great epic journeys, which took the Argo from the coastal town of Iolkos in the Aegean to the Caucasian town of Colchis, on the eastern shore of the Black Sea. The quest, which is set in mythical time, was placed upon Jason when he challenged King Pelias for the crown of Iolkos. It has been suggested (eg Hiller 1991) that the Golden Fleece is a metaphor for the rich alluvial gold resources in the eastern Black Sea, and the story of the Argo thus one for long-distance exchange. In the context of this paper, the social interaction between the Argonauts and the social identities that developed during this epic journey, are of particular relevance. Jason himself is generally not portrayed in a positive light. For example, he is accused by Pindar of lacking resourcefulness (*amekanos*), and guilty of deceit on many occasions during the voyage. However, the crew, comprising many mythical heroes including Heracles, Orpheus, Pollux and Castor and the engineer Argus who acted as shipwright, stood by their reluctant leader in his just quest. The fact that the oarsmen were heroes themselves, rather than professional sailors or slaves, and the loyalty and camaraderie that developed during the adventure, emphasises the real and perceived importance of the activity of seafaring as a social bonding process.

The Trobriand Islanders' activities in the early twentieth century are among the best studied in anthropology. Reciprocal exchange between islands included *kula* valuables, used as payments in certain social contexts within the *kula* ring. The political status of local leaders was directly related to the ownership and (ceremonial) display of these valuables. Particular items, such as *soulava* necklaces of a type of reddish shells found outside the *kula* ring,

were particularly valued as objects (eg Malinowski 1922, 507). These had frequently their own biography, and ambitious leaders were the instigators of the long-distance travels aimed at obtaining such high-status *kula* objects. Obtaining these objects meant the writing of a new chapter in their biography, and the inalienable nature of such valuables supported the creation of long-distance elite networks. Annette Weiner's (1992) description of this activity as 'keeping-while-giving', is particularly appropriate. These principles of early political economies have been used extensively for understanding Bronze Age Europe. Indeed, Timothy Earle (2002) presents the Trobrianders' exchange mechanisms as an example of 'Bronze Age economics'.

This paper considers both the potential social role of the activity of seafaring and the 'special' importance of particular objects in a reciprocal exchange system in the discussion of long-distance travel in the Bronze Age around the North Sea. The activity of seafaring created social identities that may have played an important role in the social development especially in the Early Bronze Age, and the principles of reciprocal exchange underpinned much of the long-distance trade of the 2nd millennium BC.

The scope of this paper

Certain aspects of this research, notably a consideration of the socio-political significance of the sewn-plank boats from the Humber estuary of Early Bronze Age date, have been published previously (Van de Noort *et al.* 1999, Van de Noort 2003; 2004a;

2004b, forthcoming). This paper offers a broader scope in that it is concerned with all finds of sewn-plank boats from Britain and in that it considers the whole of the second millennium BC. It also offers a more explicit consideration of the theoretical basis that underpins this debate, and far-reaching interpretations of the role of these craft in the socio-political processes of the time. As is the case for most archaeological debates, this paper is somewhat hypothetical in that it attempts to develop understanding of aspects of our past on the basis of what little remains in the ground. The fortuitous nature of the discoveries of Bronze Age plank boats makes this paper even more exploratory than many others. Nevertheless, this evidence has now been collated over some 120 years, and the 'epistemological' aspects of this work can be approached with increased confidence.

Throughout this paper, Needham's (1996) chronology and periodisation for the British Bronze Age have been adopted (Table 1).

SEAFARING AND LONG-DISTANCE EXCHANGE

In broad terms, the character of long-distance exchange in Periods 3 and 4, or the Early Bronze Age, is considered significantly different from that in Periods 5, 6 and 7, or the Middle and Late Bronze Age (eg Northover 1982; Bradley 1984; Pare 2000). This reflects the different uses and purposes of long distance travel and prestige goods during this millennium. These observations were already included

TABLE 1. CHRONOLOGY AND PERIODISATION OF THE LATE NEOLITHIC-EARLY IRON AGE ACCORDING TO NEEDHAM (1996) AND KAUL (1998)

<i>Years cal BC</i>	<i>Description</i>	<i>Needham 1996</i>	<i>Metalwork Periods</i>	<i>Kaul's Periods Assemblages</i>
2500-2300	Late Neolithic	Late Neolithic		
2300-2050	Metal using Neolithic	1	MA I/II	
2050-1700	Early Bronze Age	2	MA III	
		3	MA IV	
			MA V	
1700-1500		4	MA VI	I (1700-1400)
1500-1150	Middle Bronze Age	5	Acton 2	II (1400-1300)
			Taunton	III (1300-1100)
			Penard	
1150-950	Late Bronze Age	6	Wilburton	IV (1100-900)
			Blackmoor	
950-750		7	Ewart Park	V (900-700)
750-450	Early Iron Age	8	Llyn Fawr	VI (700-500)

in two seminal works on Bronze Age interaction across the North Sea and the Channel, Butler's (1963) *Bronze Age Connections across the North Sea* and O'Connor's (1980) *Cross-Channel Relations in the later Bronze Age*.

Processes of exchange

Considering the processes by which objects travelled long distances, this can only have been achieved through one of two possible models. The first model is that of the movement of objects involving repeated exchanges over relative short distances, previously described as a 'chain-like exchange pattern' or a 'down-the-line movement' of the relevant objects (eg Harding 2000, 187). In the second model, individuals or groups involved in long-distance movement of objects would have travelled great distances, directly to the source of production of the relevant objects, and termed 'directional' movement.

Evidence for directional long-distance travel in the first half of the 2nd millennium BC, presumably alongside more local or regional activity, is not doubted. Studies of Beakers and other goods and commodities from restricted sources exchanged in this period, such as the amber spacer-plate necklaces, shale or particular types of early metal work, have failed to show any 'fall-off' patterns, which would have supported the notion that goods were frequently exchanged at relative short distances (Fig 2; Harding 2000, 187a-8). Furthermore, the recent discovery of the 'Amesbury Archer', a well-furnished Beaker burial dated to the metal using Neolithic, c. 2400-2200 cal BC excavated in 2000 by Wessex Archaeology, shows beyond doubt that this individual, and undoubtedly others besides him, did travel over long distances from no later than the final quarter of the 3rd millennium BC and that these travels must have involved seafaring for some parts of the journeys. Oxygen isotope analysis of the teeth shows that the Archer came from, or had grown up in, central Europe (Fitzpatrick 2002). The Archer's presence in Wessex may be associated to his quest for tin or Kimmeridge shale.

For the second half of the 2nd millennium BC, ostensibly long-distance travelled objects which may have been imbued with esoteric or special meaning are much less visible in the British archaeological record. Although this observation may be largely a function of the changing burial rites of the period, many bronzes used in votive depositions lack the long

distance aspect (Bradley 1990), and it can be postulated that the importance of distance and distant goods had significantly decreased, and that the use of local or regional goods in public rituals and display had become the norm. This reflects the shorter, down-the-line exchange and trade of this period. If metal had been one of the principal drivers of the directional movement of objects in the first half of the 2nd millennium BC, the widespread availability of bronze in the second half, as for example illustrated by the Langdon Bay 'wreck', may have had a significant role in the decline of directional long-distance exchange (cf. Muckleroy 1981; Needham & Dean 1987; Pare 2000). Alternatively, the progressively more widespread skills in metalworking in the Middle and Late Bronze Age may have caused a similar decline in the importance of bronze as the principal driver of directional change.

Curt Beck and Stephen Shennan (1991, 137-42) have previously argued for directional, long-distance exchange in the Early Bronze Age in the case of the exchange of amber from the west coast of Jutland and the Baltic region. Building on the concepts of the importance of geographical distance as developed by Helms (1988), they argue that the esoteric or magical properties of the amber would have been greatly enhanced when the owner would have obtained the material in reciprocal gift exchange from near its source, where specialist craftsmen would have transformed the raw material into artefacts. Outside the British context, Kristian Kristiansen (2004), also building on Helms' ideas, has argued that for Bronze Age Scandinavia direct reciprocal contact formed an essential component in the socio-political changes after c. 1700 cal BC, with the emergence of an archaeologically distinct social elite.

In a recent paper, Stuart Needham (2000) has also adopted aspects of Helm's work in offering an explanation for the major changes visible in the Wessex region in the late third millennium and early second millennium BC. In essence, he argues (*ibid.*, 189-90) that the most important ritual monuments, including the large henges, circles and palisaded enclosures were 'world pillars', which connected the current with the other world of the ancestors. The most important or successful centres saw their influence geographically extended through processes akin missionary activities or pilgrimage. This opened up new exchange networks and hence to, what Needham labels, the 'cosmological acquisition' of new

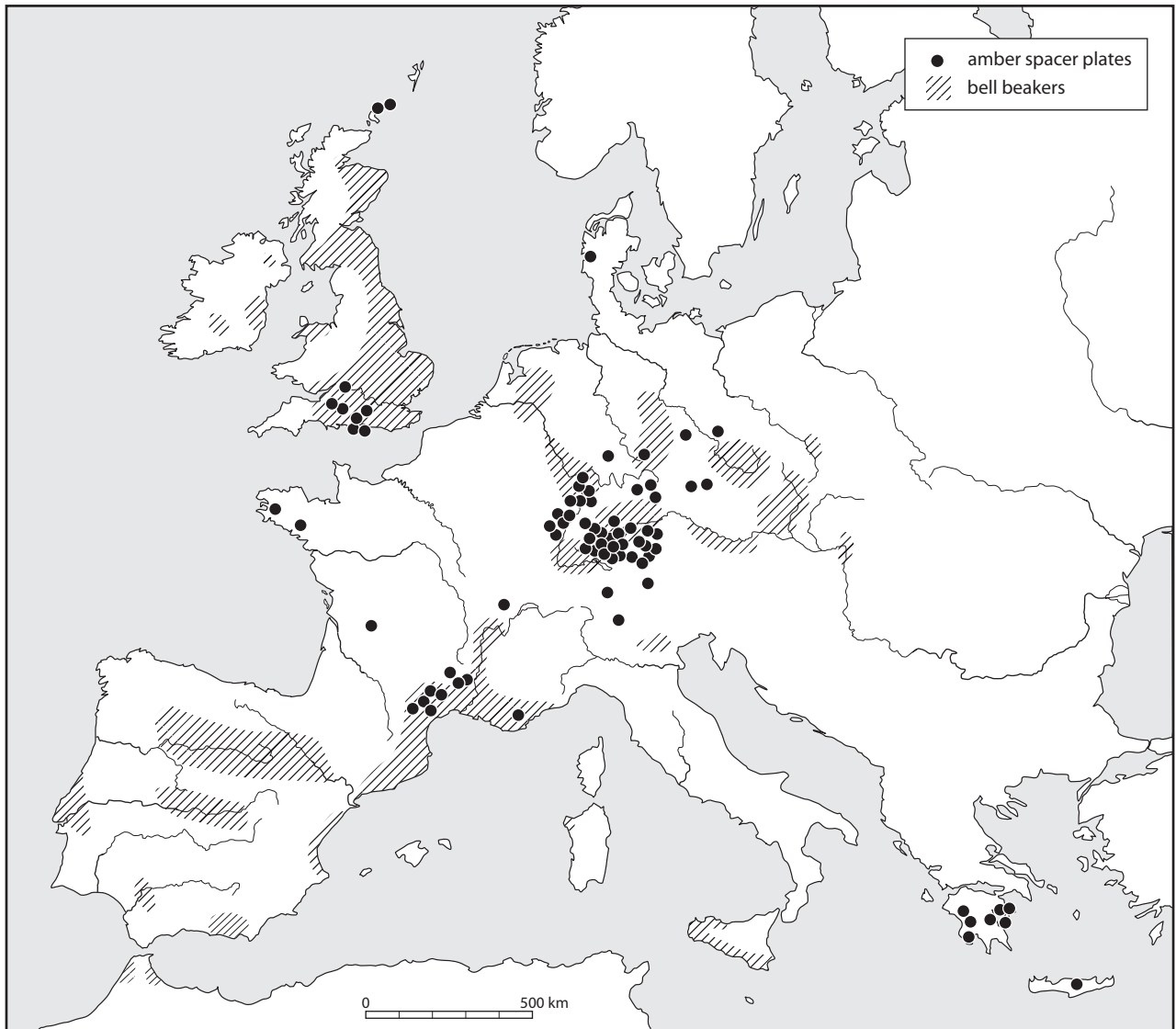


Fig. 2.
Directional exchange networks in the Early Bronze Age: the distribution of the principal concentrations of Bell beakers (after Cunliffe 2000, 216) and the distribution of amber spacer-plates (after Harding 1990, 144)

exotica. The further extension of the 'superordinate' importance of the exotic objects (*ibid.*, 190) enabled individuals who acquired, possessed or displayed the esoteric objects to become personally associated to privileged access to the other world. The concurrence of the demise of the most important monuments and the construction of the Bush Barrow graves which, in terms of landscape setting, were evidently located in relation to these monuments, is seen as the archaeological expression of this development. The

furnished graves of the Bush Barrow series included cultural packages that were closely related to the tumuli of the Armorica region in Brittany, but the lack of funerary conformity between these two regions, Needham suggests, clearly shows that cultural exchange was limited to certain types of artefacts, most notably daggers, rather than people.

Needham (*ibid.*, 188) argues that the long-term nature of the exchange between Armorica and Wessex, and of other regions in Europe during much

of the later part of the third and first half of the 2nd millennium BC, indicates the possible presence of a reciprocal element in the cosmological acquisition of exotic goods. Within the context of our understanding of the importance of geographical distance, this would inevitably have played a role in the inflationary demise of the special meaning of the long-distance acquired objects. However, seafaring with its associated dangers, real and perceived, may have provided a key in maintaining the esoteric value of long-distance travelled objects. 'The acquisition process itself required great 'craft', in this case vessels for sea navigation, and navigation skills ... These themselves would contribute to an elevated symbolic status for the objects thus procured' (*ibid.*, 189). It is now time to return to these great craft and the process of seafaring.

RETHINKING THE SEWN-PLANK BOATS

Chronological overview

Since the discovery of the first sewn-plank boat in the brickyard near Brigg in Lincolnshire's Ancholme valley in 1888 (McGrail 1981), the remains of nine other prehistoric sewn-plank boats have been discovered in England and Wales. These include the three boats from North Ferriby, found in the intertidal Humber. F1 was discovered in 1937, F2 in 1940 and F3 in 1963 (Wright & Wright 1939; Wright 1990; Wright *et al.* 2001). From the Welsh side of the Severn estuary come three discoveries, a boat plank of a side strake (Caldicot 1), up to three additional fragment of another boat (Caldicot 2), found during excavations in 1990 (Nayling & Caseldine 1997) and two pieces of boat planking from Goldcliff, found in 1992 (Bell 1992; 1993). The Dover boat was also found in 1992, and has now been published (Clark 2004a). A fragment of a cleat comes from the Testwood Lakes excavations, just north of Southampton in the floodplain of the River Test (Fitzpatrick *et al.* 1996; A. Fitzpatrick pers. comm.), and awaits full publication. The most recent boat fragment concerns a single boat-plank from Kilnsea, discovered on the East Yorkshire beach in 1996 (Van de Noort *et al.* 1999). A possible eleventh plank boat is represented by a 'wooden lid' found in 1969 in the submerged forest of Hartlepool Bay (Cleveland County SMR 1592). It has been suggested that it may have been originally a winged

cleat, with a parallel of the winged cleat of F1, before it was re-carved and reused in a different capacity (Fenwick 1993). McGrail (2001, 191) has warned against the uncritical identification of small plank fragments with elements such as cleats and sewing-holes as parts of sewn-plank boats. However, for the current purpose, all fragments mentioned above are considered to have been used in Bronze Age sewn-plank boats, with the exception of the Hartlepool example, for which no date exists.

The most up-to-date ages for the boats, taking into account the recent redating of the Ferriby boats, are as follows: F3: 2030–1780 cal BC (Wright *et al.* 2001); F2: 1940–1720 cal BC (Wright *et al.* 2001); F1: 1880–1680 cal BC (Wright *et al.* 2001); Caldicot 1: 1870–1680 cal BC (McGrail 1997); Kilnsea: 1750–1620 cal BC (Van de Noort *et al.* 1999); Dover: 1575–1520 cal BC (Bayliss *et al.* 2004); Goldcliff: c. 1170 BC on the basis of dendrochronology (Bell *et al.* 2000); Testwood Lakes: c. 1500 cal BC (Fitzpatrick *et al.* 1996; A. Fitzpatrick pers. com.; this contradicts the date of c. 1100 cal BC given in McGrail 2004); Caldicot 2: c. 1100 cal BC (McGrail 1997); Brigg 'raft': 825–760 cal BC (cf. Switsur in McGrail 1981) (Table 2).

Whilst these craft have been identified as parts of sewn-plank boats (cf. McGrail 2001), and a number of technological aspects is shared, each boat has also certain unique design characteristics. The shared construction principles include the use of oak planking with bevelled edges, stitching or sewing of the planks with withies of yew and an integral system of cleats and transverse timbers that provide rigidity to the hull. But whereas F1 and F2 have their two keel planks joined amidships, the Dover boat's seam was formed by two planks joined by an upstanding longitudinal cleat rail (Marsden 2004). Not enough has survived of the other boats to compare the design in great detail, and one could suggest that variation may have been the consequence of a combination of limited availability of suitable timber and local boat building traditions. All sewn-plank boats reflect the Bronze Age boat builders' dilemma of using oak planks, which became more easily fashioned with the widespread availability of bronze axes, in the absence of any nails.

One aspect of boat design variability, however, appears more significant. McGrail (eg 2001, 190; 2004) has argued for the existence of two sub-groups: group A, which includes F1, F2, F3, Caldicot 1 and

TABLE 2: DATES AND PERIODS (AFTER NEEDHAM 1996) OF SEWN-PLANK BOATS

<i>Sewn-plank boat</i>	<i>Date (cal BC)</i>	<i>Period (after Needham 1996)</i>	<i>Reference</i>
F3	2030-1780	3	(Wright <i>et al.</i> 2001)
F2	1940-1720	3	(Wright <i>et al.</i> 2001)
F1	1880-1680	3	(Wright <i>et al.</i> 2001)
Caldicot 1	1870-1680	3	(McGrail 1997)
Kilnsea	1750-1620	3-4	(Van de Noort <i>et al.</i> 1999)
Dover	1575-1520	4	(Bayliss <i>et al.</i> 2004)
Testwood Lakes	c. 1500	4-5	(Fitzpatrick pers. comm.)
Goldcliff	c. 1170	5	(Bell <i>et al.</i> 2000)
Caldicot 2	c. 1000 cal	6	(McGrail 1997)
Brigg 'raft'	825-760 cal	7	(cf. Switsur in McGrail 1981)

Dover, is characterised by the use of individual stitches or lashings through relative big holes to fasten the planks together, whilst group B boats, including the Brigg 'raft', Caldicot 2 and Goldcliff, have linked stitching through small holes, set close together. This sub-division coincides with the age of the boat fragments. The craft in group A are dated to the twentieth to fifteenth centuries cal BC inclusive, and those in group B to the twelfth to eighth centuries cal BC. The Kilnsea and Testwood Lakes fragments could not be allocated to either group in the absence of any stitch holes.

Archaeological biases and distribution

There is little doubt that the remains of these ten boats represent only a very small sample of the total number of sewn-plank boats constructed during the 2nd millennium BC. Survival and change of discovery are biased in a number of ways. For example, it seems clear that craft were frequently broken up, either for repair or future use as suggested for the Ferriby boats, or for other reasons including, possibly, ritual deposition, as suggested for Caldicot 2 (see below). It is likely that such fragmentation may have reduced the change of the discovery and due recognition of any such boat remains in past investigations. We also recognise a geographical bias. In the Humber estuary, current mean sea-level fluctuates around what would have been the natural landing places of c. 2000 cal BC, that is around the mean high water of spring tides (MHWST; Metcalfe *et al.* 2000). Maritime archaeological research in the region has yielded a wealth of finds, not only sewn-plank boats but also prehistoric logboats. However, due to the post-Glacial tectonic movement of the British Isles, with the south of England falling and Scotland rising, the MHWST of 2000 cal BC must now be sought in the south of

England somewhere below Ordnance Datum, and in Scotland several metres above OD, and prehistoric landing places here are no longer waterlogged. Thus, the complete absence of sewn-plank boats from the east coast of Scotland, a region which features prominently in terms of expression of status through exotic goods and Beakers (eg Clarke 1970; Clarke *et al.* 1985), can potentially be attributed entirely to the tectonic movements of Britain.

We must also note the impact of development-led archaeology in England, which has resulted in the discovery and excavation of the remains of no less than four boats since 1990, Caldicot 1 and 2, Dover and Testwood Lakes. Hence, the chance of discovery is to a degree correlated to the intensity of modern industrial and urban development, which may clarify to a certain extent the distribution pattern of currently known sewn-plank boats.

Despite these concerns for the relative low number of examples and the geographical bias, the distribution of sewn-plank boats show a distinctive pattern and, especially when compared to the find locations of logboats of prehistoric date, this distribution is clearly significant. Whereas the logboats are predominantly located on inland rivers, all the sewn-plank boats have been found within coastal and estuarine environments, or in the lower reaches of rivers near estuaries (Fig. 3). This distribution is suggestive of a coastal or sea-going function of sewn-plank boats, contrasting with the function of logboats as principally serving inland waterways. This does not mean that all sewn-plank boats were seagoing craft in prevailing conditions, but that in the context of long-distance travel in the Bronze Age, sewn-plank boats were the most likely craft that were used under favourable conditions for such voyages. It is also likely that these boats were

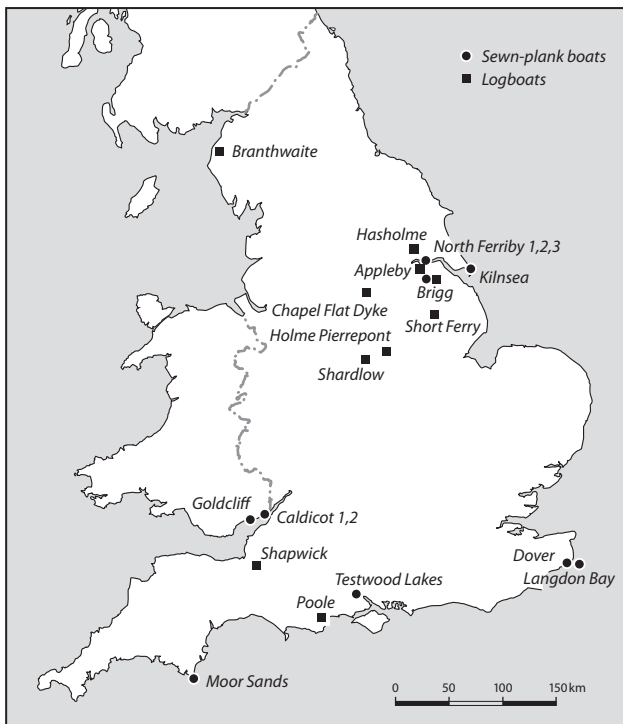


Fig. 3.

Location map of all sewn-plank boat and dated prehistoric logboat sites from England and Wales. Sewn-plank boats as in Figure 1. Logboats: after Mowat 1996: 131). Branthwaite, Workington, Cumberland: 2150–1600 cal BC; Chapel Flat Dyke, Rotherham, Yorkshire: 2200–1400 cal BC; Shardlow, Derbyshire: 1440–1310 cal BC; Appleby: 1500–1040 cal BC; Short Ferry, Fiskerton, Lincolnshire: 1260–790 cal BC; Brigg: 1260–790 cal BC; Hasholme: 322 and 277 BC; Shapwick: 800–50 cal BC; Poole: 400–180 cal BC; Holme Pierrepont, Nottinghamshire 500–cal BC–cal AD 100

used, on a daily basis, for cross-estuarine transport. Both Caldicot for the Severn and Ferriby for the Humber were cross-estuary ferry ports throughout the historic period, and might have a much greater antiquity.

The sewn-plank boat innovation

Some debate remains on whether sewn-plank boats could successfully complete cross-Channel and cross-North Sea journeys. In particular, McGrail (2001) has suggested that hide-boats were the main craft in prehistoric seafaring activities. Ethnographic examples, such as the Greenland *uniak*, have shown that certain hide boats are indeed capable of use on

rough waters as long as sufficient freeboard is retained (*idem.*), but we are unlikely to find a prehistoric seagoing hide-boat. The animal hides of such a hypothetical prehistoric boat could only survive in acidic soils, which are rare for estuarine and coastal environments and, furthermore, it is unlikely that the relative light internal frame of a hide-boat would survive intact without the shell.

Whether or not the sewing of hides and the construction of internal frames may have inspired the first builders of the sewn-plank boat around 2000 cal BC (eg Van de Noort *et al.* 1999; McGrail 2001; Marsden 2004), the simple fact that sewn-plank boats were built suggest that they offered certain advantages in terms of use or navigation over the hide-boats. Recognising the effort involved in their construction, it would be unreasonable to suggest that the Bronze Age shipwrights would have developed a new type of craft and used this for over 1000 years, if it did not afford any advantages over its precursors or alternatives, such as logboats or hide-boats. Therefore, the existence of these complex craft offers the strongest argument that sewn-plank boats would have been the available for seafaring, even if such long journeys were restricted to rare occasions of settled fair weather. More importantly, recent experiments with a half-size model of F1 and a full-size reconstruction of the Hjortspring sewn-plank boat trials suggest that the seafaring capabilities of such boats have been greatly underrated in the past, and that even quite rough seas can be mastered by these craft (Crumlin Pedersen & Trakadas 2003; Gifford & Gifford 2004; Kaul 2004). In the light of these recent experiments, the suggestion that their ‘shape, lack of sheer, and their structure were such that that they would have insufficient stability, freeboard and sea-kindliness qualities’ (McGrail 2001, 194), requires urgent revision.

The initial development of plank boats around 2000 cal BC was an important innovation in boat building techniques. Whether it developed from hide-boats or (extended) logboats, it seems highly probable that the timing of this innovation was connected to the increased need of elite groups for exotic commodities from continental Europe and Ireland. By building the more robust boats, more frequent and longer seafaring journeys could be undertaken, fuelling the consumption of foreign commodities and accelerating competition for such items amongst elite groups across the British Isles.

Taking these arguments into continental Europe, we must ask ourselves if the sewn-plank boat was unique to Britain in the 2nd millennium BC. No archaeological finds of sewn-plank boats are known from the Continent predating the fourth century BC Hjortspring boat (Crumlin Pedersen & Trakadas 2003). It may be reasoned that tectonic uplift of much of Scandinavia and tectonic fall of middle and southern Europe, combined with extensive sedimentation of coastal areas in the southern North Sea basin, has conspired against the discovery of these craft. We could, conversely, also follow arguments by Hallström (1960), Coles (1993) and Kaul (1998) and others that many of the boats depicted in Scandinavian rock art and engraved on bronzes represent plank-built boats. However, unless and until such a craft is excavated and dated independently, sewn-plank boats of Bronze Age date remain restricted to Britain. In the meantime, we can assume that although the nautical innovations around c. 2000 cal BC that led to the construction of the sewn-plank boat were exclusive to Britain, we must recognise that elsewhere similar or different types of craft such as hide-boats may have been used for long-distance exchange and seafaring (cf. Coles 1993).

CONTEXTUALISING THE SEWN-PLANK BOATS

Seafarers of the past signified themselves and their world through their imagined relationship(s) with the environment (Cosgrove 1984), and in interpreting the contexts and landscape settings of the sewn-plank boats, we seek for meaning and understanding of their significance to past people, exploring the ritual of travel. The principal results of the analysis of the context and landscape setting of the craft, which included analysis of existing literature, information from local Sites and Monuments Records/Historic Environment Register searches for the areas with a radius of 2 km from the location of boats and field visits, are summarised in Table 3 (for further detailed descriptions, see Van de Noort forthcoming). Four trends emerge from this analysis.

First, none of the craft dated to 2000–1500 cal BC is associated with ritual deposits, but the contexts of all the sewn-plank boats dated to 1500–1000 cal BC include deposits that have been described as ritual. Although we should not overstate the significance of the presence of individual cases of ritual deposits in wet places in Bronze Age Britain, the contexts of the

ten sewn-plank boats present a significant pattern.

Second, the sewn-plank boat fragments dated to 1500–1000 cal BC, had all been reused in structures that have been interpreted by the excavators as used for crossing rivers, but none of those dated between 2000 and 1500 cal BC was. The interpretations of the boat fragments from Testwood Lake, Goldcliff and Caldicot 2 are not challenged; the strakes which had been removed from the Dover boat may, or may not, have been reused elsewhere. The Brigg 'raft' had sunk, and had not been reused.

Third, with the exception of Caldicot 2, which shares the cultural landscape of Caldicot 1, only boats of Early Bronze Age date have earlier 'ancestral' monuments within their immediate landscape setting.

Fourth, monuments (i.e. burial mounds) contemporary with the use of the boats are known for the cultural landscapes of the Early Bronze Age craft only, again with the exception of Caldicot 2. The presence of the ubiquitous Bronze Age burial mounds within the cultural landscapes of the sewn-plank boats should not be overstated, were it not for the fact that barrows at Kilnsea and Caldicot represent outliers within the general barrow distribution in the wider landscape (eg Van de Noort 1996; Manby 1988; Lynch *et al.* 2000).

Looking at the contexts and landscape settings of the individual boats, a number of additional observations should be made.

The Ferriby boat site retains an exceptional place in that it represents, probably, the only known prehistoric boatyard in Britain. Over a period of hundreds of years, boats were built here, or at least refashioned on a considerable scale, as shown by the temporary storage on roundwood timbers of the keel plank of F2 and the side-strakes of F3 (Wright 1990). The placing of parts of the boat on roundwood timber for repair, maintenance or breaking up in the intertidal zone is a common sense solution (rather than seeing this as an act of ritual deposition; cf. Pryor 2004); it was, amongst others, used for the fifteenth century AD Newport boat which is believed to have been stranded to enable salvage of reusable parts at the end of her life (Roberts 2004a). This place was probably also used as the landing place for a cross-estuary ferry, more or less along the routes used throughout the Middle Ages from North to South Ferriby, providing a communication link between the elite groups on the Yorkshire and Lincolnshire Wolds. The dearth of any manifest ritualised activities in the

TABLE3: THE CONTEXT OF SEWN-PLANK BOATS: ARCHAEOLOGICAL EVIDENCE

Period	Sewn-plank boat	Immediate context		Landscape setting (2 km radius)	
		Associated ritual deposits?	Re-use of boat timbers in river	Nearby ancestral crossings?	Nearby contemporary monuments?
Period 3	F3	None	No	None	None
	F2	None	No	None	None
	F1	None	No	None	None
	Caldicot 1	None	No	Neolithic long barrow	Large EBA barrow
Period 3–4	Kilnsea	None	No	Neolithic houses and hengiform monument or circular structure	Several EBA barrows containing beaker pottery
Period 4	Dover	None	No	None known	Possible EBA burials represented by a whole Beaker
Period 4–5	Testwood Lakes	Bronze Acton 2 rapier	Bridge	None	None
Period 5	Goldcliff	Human skulls	Trackway	None	None
Period 6	Caldicot 2	Wilburton-type chape, two vessels, an amber bead, wooden objects and a dog skeleton	Trackway or bridge	As Caldicot 1	As Caldicot 1
Period 7	Brigg 'raft'	Bronze axe, spearhead and pin, human and animal bones, pottery	No, but nearby bridge or jetty	None	None

context of the boats, or of any monuments in their landscape setting, hence suggests that the craft themselves, their construction or maintenance, and their 'common' use as ferries, were not considered in any way extraordinary during Periods 3 and 4, the Early Bronze Age (c. 2050–1500 cal BC). In fact, the cultural landscape setting seems to be one which is best described in terms of the activities of daily life and the environment was used for agricultural rather than ritual activities (Wright and Churchill 1965; Van de Noort & Fletcher 2000; Van de Noort 2003; 2004a).

In sharp contrast to the Ferriby site, the immediate cultural landscapes of the Kilnsea and Caldicot 1 boats were embedded with a range of monuments, both of Neolithic and Early Bronze Age date, within broader regions that have few such monuments. In the case of Kilnsea, the landscape context includes two Neolithic houses, a late Neolithic or Early Bronze Age hengiform monument or other type of circular structure and several Period 3 burial mounds, with at least one containing a Beaker burial (Van de Noort *et al.* 1999; Van de Noort 2003; 2004b). At Caldicot, the landscape includes the Early Neolithic long

chambered barrow at Portskewett, and at least one Bronze Age burial mound, at Crick, overlooking the Nedern valley. The semblance of setting of the boat finds from the point of view of seafarers, at around contemporary MHWST in a minor tributary of a major estuary, where tidal flows provided 'free rides' to wave-free landing places, and with Neolithic monuments possibly aiding pilotage, supports the concept that both landing places were used by mariners involved in seafaring (McGrail 1997).

We know nothing about the deposition context of the Kilnsea boat fragment, but the Caldicot 1 fragments had been broken in antiquity and were deposited together with a wide variety of wood including scrub clearance, woodworking debris alongside some stone and bones of domesticated animals, rubbish rather than ritual (Nayling & Caseldine 1997, 261–18). Indeed, the Caldicot 1 boat or similar craft may have been repaired here. Once more, it seems that the boat fragments themselves were not considered 'special' in the Early Bronze Age. It can be deduced from this that it was not the boats or boat remains that were embedded with special meaning, but that the long-distance journeys were undertaken with clear reference to ancestors.

Previously (eg Van de Noort 2003; 2004a), I have argued that the existence of both pre-existing and contemporary monuments in the landscape context of the Kilnsea boat imply a close association of seafaring with ancestors and ancestral rites, and a similar argument could be made for Caldicot 1. Using Helm's (1988) terms and Needham's (2000) archaeological inferences of these, both the vertical (ie geographical distance) and horizontal (ie ancestral) dimensions of connections with the other world were clearly present here, and the choice of location for seafaring boats to depart to, or arrive from, distant countries was an unambiguous one. Seafaring at the beginning of the 2nd millennium BC thus linked the 'fixation on genealogy' of the Late Neolithic with the importance of social networks, esoteric knowledge, and exotic goods. The space that was passed through during the long-distance voyages may have acted as a direct metaphor for the time span between people and their ancestors (cf. Van de Noort 2003). This, and the real or perceived dangers associated with seafaring, would have prevented the demise of the special meaning of the long-distance acquired objects during the Early Bronze Age (cf. Needham 2000, 189).

The landscape context of the Dover boat provides

the greatest challenge in that the long-standing urban setting causes considerable problems in interpreting its landscape setting. It remains, for example, unclear whether or not complete Beakers recovered in the nineteenth century were part of burial monuments, long since destroyed. The date of the Dover boat, on the border of the major socio-political and economical changes of the 2nd millennium BC, further obstructs a clear understanding of its meaning (Bayliss *et al.* 2004; Parfitt & Champion 2004). Nevertheless, the results presented above, and most notably the boat-building tradition which connects the Dover boat with the earlier examples of Ferriby, Kilnsea and Caldicot 1, infer that it should be seen as having been used in directional long-distance travel, which would have included Kimmeridge near Poole (Bown *et al.* 2004), and most probably continental Europe. Sufficient evidence is now available showing the existence of a regional elite, fully engaged in long-distance exchange, and expressing their status in 'rich graves' (eg see the recent excavations and survey following the discovery of the Ringlemere Cup; Parfitt & Needham 2004).

The Testwood Lakes fragment share some important characteristics with the Caldicot 2 and Coldcliff fragments, and the Brigg 'raft' (McGrail 1981; 1997; 2000). All four have a favourable location from the point of view of the seafarer, that is at the furthest inland reach of MHWST. These boat remains share two important additional characteristics: all are associated with ritual deposits and all are either directly (in the case of the Testwood Lakes, Caldicot 2 and Goldcliff fragments) or spatially closely related to river or stream crossings (the Brigg 'raft'). The reuse or deposition of boat fragments in or near structures such as bridges and jetties clearly echoes the concepts of transformation and regeneration that has been observed for other fragmented deposits for the Middle and Late Bronze Age (eg Bradley *et al.* 1994; Brück 1995; 1999; 2001). The presence of additional ritually deposited materials, such as the rapier at Testwood Lakes, the amber bead at Caldicot 2, the human skulls at Goldcliff and the bronzes at Brigg, equally form part of such cosmological concepts (eg Champion 2004; Pryor 2004).

Translating these trends in terms of social reproduction, it can be inferred that in the first half of the second millennium BC, the role of seafaring boats was interpreted within a context of monuments and

the ancestors, and the long-distance travels underpinned the position of elites through the directional acquisition of exotic goods and esoteric knowledge. The socio-political contexts of the Ferriby, Kilnsea, Caldicot 1 and Dover boats indicate in each case the presence of regional elite groups who were engaged in long-distance exchange of goods, with the contents of the furnished graves showing interaction with other regions in the British Isles, continental Europe and, in the case of the Severn region, with Ireland as well (for the regional contexts see, for example, Manby 1976; 1980; 1988; Manby *et al.* 2003 for the Ferriby and Kilnsea boats; Bradley 1984; Lynch *et al.* 2000; Johnston & Roberts 2003 for the Caldicot and Goldcliff craft; Champion 1982; Parfitt & Champion 2004 for the Dover boat). The long-distance journeys offered opportunities to link the importance of the ancestors in social reproduction with enhanced status for certain individuals, even deification, by linking the horizontal and vertical dimensions of the cosmology (Helms 1988, 66; Needham 2000). As was the case for the Argo and the boats used in long-distance travel in the western Pacific, the evidence for this period does not suggest any 'special' treatment of the craft themselves.

In terms of social reproduction in the Middle and Late Bronze Age, the conclusion can be drawn that the role of seafaring boats was interpreted within a context of transformation and regeneration, and the long-distance travels underpinned the position of either elites or inter-group alliances through the down-the line acquisition of metal objects and other goods that were, by this time, more widely available and distributed. The evidence does suggest 'special' treatment of the craft themselves alongside a broad range of other items. The landscape context of these boats also implies that by the Late Bronze Age, the importance of seafaring in social reproduction was made in terms of the material culture and the origins of the objects, rather than to the ancestors, as was the case in the Early Bronze Age.

A SOCIAL MARITIME ARCHAEOLOGY: SOCIAL IDENTITIES IN ACTION

In his overview of the Bronze Age in Europe, Anthony Harding (2000, 393) concludes somewhat exasperatedly that much remains to be understood of the 'sources of social power', that is the 'reasons for the rise of prominence of particular members of society',

and recommended material culture studies as the way to progress. This study of the sewn-plank boats and their employment in long-distance exchange suggests the existence of a social network, which developed alongside the elite networks, which has been largely overlooked to date in studies of social power in the second millennium BC. We can start to understand this through the consideration of the social identities that developed during the long-distance travels.

As a concept, social identity is an important structuring principle in societies, and could be defined as the perceptions of inclusion and exclusion based on groups of people's similarity and difference to others. As a structuring principle, these perceptions can be based on a variety of features, including ethnicity, kinship, gender, age, profession, social class, ranking and role (eg Meskell 2001). For the Neolithic and Early Bronze Age, one of the key structuring principles identified is the involvement of communities with the construction of monuments, which created a sense of belonging, unity or inclusion, and the participation in the construction of monuments are a way in which societies were socially reproduced. We can assume that participating in long-distance voyages similarly created social identities amongst the crew, identities that grew stronger with the lengths of the voyages and the dangers and adventures encountered. Considering the implied importance of long-distance traded prestige goods and esoteric knowledge in the Early Bronze Age, we should consider how the crews were selected, and by whom, and what role they could have played in their communities after their return as a group with a shared and strong social identity.

Reconstructing sewn-plank boat crews

Chapman (2000) has argued that in south eastern Europe, much of the long-distance exchange may have been enabled by specialists. However, nothing in the archaeological contexts of the sewn-plank boats of Britain implies a role for specialist travellers. The most likely candidate as a location for specialist traders is the Ferriby boatyard, but here the cultural landscape is one of everyday agricultural activities, and the more mundane matter of cross-estuary traffic. The locations of the other Early Bronze Age craft, at Kilnsea and Caldicot, offer clear reference to pre-existing monuments, linking the use of these boats via ancestors to resident groups, rather than external

specialist seafarers. For the Middle and Late Bronze Age craft, the reuse of boat fragments at crossing points at Testwood Lakes, Goldcliff and Caldicot, and the associated deposition of selected artefacts at these sites and at Brigg too, similarly suggests strongly a connection to local groups, rather than specialist traders who stood outside the Bronze Age society as seen in the British landscape. In the absence of any evidence that the sewn-plank boats had been manned by specialist sailors or seafarers, their provenance should be sought within the regional contexts.

The crew of a seafaring sewn-plank boat in the Early Bronze Age would almost certainly have included the (aspiring) member of the elite group who set out to collect the exotic goods and esoteric knowledge. As argued earlier, the acquisition of exotic objects from distant geographies played a central part in the social reproduction of elite groups in the first half of the 2nd millennium BC, if not for the second half. Following Helms (1988) and others (eg Beck & Shennan 1991; Needham 2000; Kristiansen 2004), it seems probable that the eventual holders of the exotic goods would have actively taken part in the long-distance travels, although the possible existence of reciprocal arrangements, as for example was the case for the *kula* valuables, would not necessarily have required the personal involvement in seafaring journeys of every member of the elite. The 'particular interest of indigenous leaders in concepts, things and events associated with geographical distance' is no surprise as 'all such exceptional matters will be imbued with some aspect or degree of sacredness, mystical power, or symbolic significance within the dynamic universe that political-religious elites are expected to comprehend and actively control' (Helms 1988, 264). Needham (2000, 190) likewise argues for the deliberate search of exotic goods as 'reflections of an enhanced fame, glory, and authority' which were connected to the dangers of seafaring and long-distance travels. To put it differently, geographical distance is important exactly because it bestows esoteric knowledge on travellers, and not partaking means that an important aspect of authority would be unavailable. The exotic goods, frequently themselves associated with magical attributes through their translucence or reflective properties, bear witness to this esoteric knowledge, and may have held key values in past societies.

The crew of seafaring boats would almost certainly also have included an older relative or promoter,

someone who had made one or more similar long-distance journeys before. His (or her) role would be to guide the journey towards the places where the desired cosmological acquisition could be accomplished by whatever means, or to introduce the young aspiring person into the already existing exchange network. This person, being experienced in long-distance journeys, may also have acted as the person who guided the boat physically as helmsman. If this experience extended in the ability to read the stars, with or without the help of a guide such as the *Himmelsscheibe* from Nebra (Meller 2002), the symbolic linkage between geographical distance and the world of the ancestors would be greatly reinforced.

The crew would also need to include one or more 'shipwrights' or carpenters who could keep the sewn-plank boat in an optimal condition. It could be assumed that the shipwright or builder was an important member of the crew, as was the case with the *Argo* which was, after all, named after its builder. However, at a time when axe ownership and woodworking skills were ubiquitous (cf. Brennan & Taylor 2003), and the construction of boats was likely to have been a communal effort (cf. Muckelroy 1978), the shipwrights' status may have been less pronounced (cf. Clark 2005).

And finally, the crew would have included a group of paddlers. Paddling did not require much experience, rather physical strength, endurance, courage and, one assumes, faith in the leaders' abilities were the principle prerequisites. The various reconstructions made for the sewn-plank boats all vary in many details, but the total number of crew that was needed to propel F1 (using the best preserved example) has been estimated at 20 (J.F. Coates, in Wright 1990, 114), and the Dover boat would have required a same-sized group (Marsden 2004; Roberts 2004b). Assuming that the shipwright(s) or builder(s) also paddled, then the crew of F1 during a long-distance seagoing journey would have comprised up to nine pairs of paddlers, an experienced helmsman and a 'master and commander'.

Inevitably, one is drawn to the Scandinavian iconographic evidence of prehistoric boats to add archaeological evidence to this, admittedly largely hypothetical, reconstruction of early Bronze Age ships' crews. Much has been written about the boats carved on the rock of southern Sweden and Norway, and engraved on bronze artefacts, notably razors and

swords (eg Ellmers 1995; Kaul 1998; 2004; Coles 2000). The representation of the ship's crew as 'dashes' (a line with a dot for the head) in both rock art and on bronzes is generally accepted and substantiated by the sporadic more detailed portrayal of people. This type of information demonstrates some variation in the number of the crew, from as little as four pairs to as much as 16 pairs of paddles, and whilst the number of pairs depicted for individual carvings should not be taken strictly as a realistic number, it has been assumed that this range is generally correct and reflect boats of different lengths and designs (Ellmers 1995). More intriguingly is the very frequent depiction of a single dash in the stern and another single dash in the prow of the boat in addition to the paired dashes (Fig. 4a). The role of the person in the stern of the boat is not difficult to ascertain, as each ship must have had a helmsman who steered the ship. That evidently leaves the person at the front – in practical terms, he would have been the look-out, gave direction and assisted with the steering and, one assumes, shared responsibility for the overall direction of the journey with the helmsman (*idem*).

Admittedly, the images of the Scandinavian ships represent a very long time span, from c. 1700 to 500 cal BC, but the typological series of ship renderings recently developed by Flemming Kaul (1998) now offers prospects for a more detailed analysis. This shows that the representation of pairs of paddlers and of the individuals in the stern and prow was already present in Kaul's Period I, c. 1700–1400 cal BC, for example on the engraving of a ship on the blade of a sword from Rørby on the Danish island of Sjælland (Capelle 1985, shown in Ellmers 1995, 231). Intriguingly, in the later Scandinavian Bronze Age, or Kaul's Periods IV and V, the pictorial representation of these individuals becomes occasionally more elaborate, and a higher rank has been attributed to these persons, such as in a rock carving from Vitlycke in Sweden (zu Mondfeld 1986, shown in Ellmers 1995, 239). Kristian Kristiansen (1999; 2004) has argued for the existence of, what he calls, the 'twin rulers' in Bronze Age Scandinavia in part on the basis of this iconographic evidence (Fig. 4b). It would be inappropriate to adopt these socio-political interpretations directly into the British Bronze Age, but the company of two, presumably higher ranking, individuals alongside a number of pairs of paddlers on board prehistoric seagoing craft may reflect a reality,

not least because of practical necessity.

It has already been suggested that, in the Early Bronze Age, the space that was passed through during the sea-going voyages may have acted as a metaphor for the time span between people and their ancestors, using geographical distance as an allegory for time. As such, the long-distance journeys may have been essential for aspiring members of the elite, indeed, be seen as a rite of passage during which the necessary foreign knowledge was accumulated. If this supposition is correct, then the sea acted as a liminal space. Whatever form of liminality is invoked to describe the crossing of waterways such as rivers of estuaries, a long-distance journey where one would disappear from view and enter different worlds was a leap of faith. The activity of seafaring would have had the power to create specific social identities, binding crews into closely knit groups. Keith Muckelroy (1978) already stressed the importance of the study of the 'closed communities' that developed during long journeys, but among the multiple identities of the crew, the bonds of loyalty with the leader could also be used in other situations.

Crews and retinues

The crew that took part in seafaring journeys did so at considerable risk to their person. Even if sewn-plank boats were capable of completing sea journeys under favourable conditions, they are generally not considered 'seaworthy', meaning that they were capable of completing seagoing journeys under prevalent conditions, exposing men and ship to certain dangers (cf. McGrail 2001). Rather than selecting slaves or forcing others, the success of these journeys depended on a reliable crew, probably comprising a selected group of men, forming in essence the retinue of the member of the elite who travelled to foreign soils. This retinue would have formed a trustworthy and dependable crew, sharing the experience of the journey. Through the shared experience, a common social identity of lasting importance would have been created. Whereas long-distance travels in the Early Bronze Age would have offered leaders exotic goods, prestige, status and esoteric knowledge (cf. Needham 2000), these would also have given them something of greater socio-political benefit: the long-term support of a select, but closely knit group of followers for many years after the overseas journey had been accomplished.

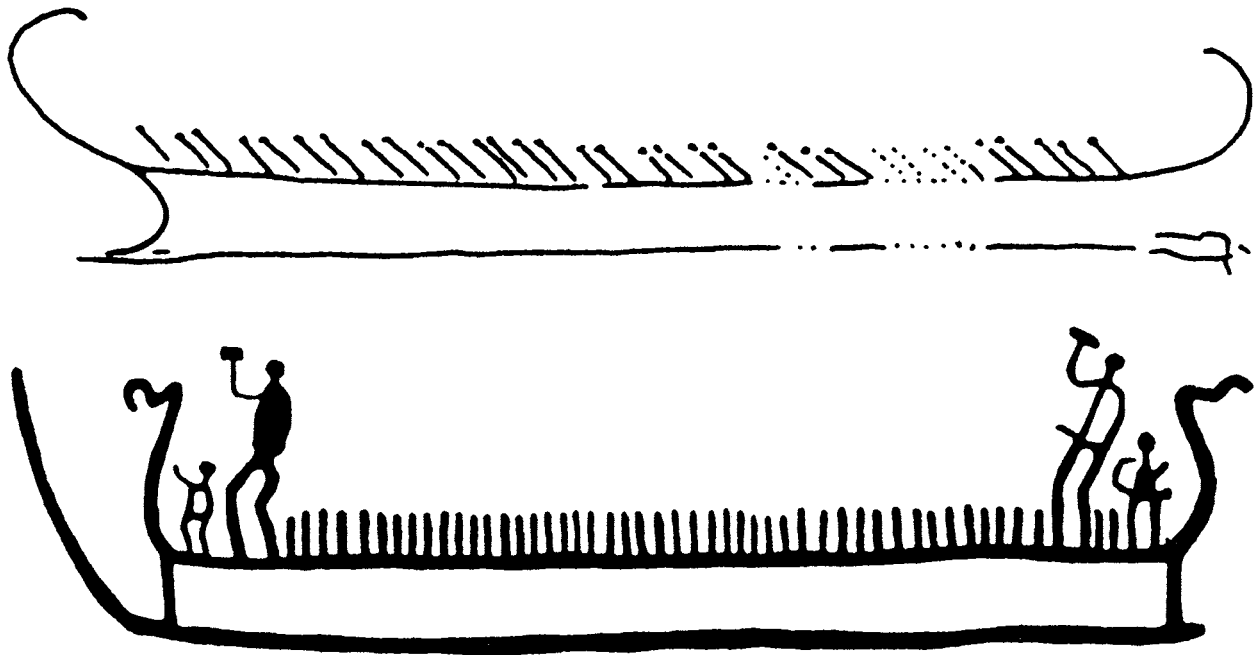


Fig. 4.

Scandinavian maritime iconography (a) an engraving of a boat with crew on a sword from Rørby, Denmark, dated to Kaul's (1998) Period 1: 1700–1400 cal BC and (b) a rock-carving of a boat with crew from Björnstad, Sweden, dated to Kaul's (1998) Period V: 900–700 cal BC

If this inference is correct, and social networks akin to retinues existed in the Early Bronze Age, the implications for the wider socio-political order of Early Bronze Age society are far-reaching. Alongside other social networks, retinues could form effective bases for developing social power (cf. Mann 1986). It could have played a significant part in the socio-political changes in the later Neolithic and the Early Bronze Age, and also have played a role in the apparent elevation (or even deification) of the individuals in the 'rich burials'. The concept of retinue has not been previously invoked as a model of socio-political structure for the British Early or Middle Bronze Age, and it has more or less been reserved for explaining Late Bronze Age (eg Treherne 1995) and Iron Age society in Central Europe, and also had some part in describing social structures in the Bronze Age Mediterranean, and for Early Medieval Europe. As with other types of social networks (eg kinship, residency, ethnicity, elite networks), identifiable positions and status was attained to one's position within the retinue, be it as patron or client (cf.

Bazelmans 1991, 121). All social networks require maintenance through continued recreation and confirmation, such as gift-exchange, and the sharing of an extended journey, or an 'adventure', could have created and recreated mutual bonds of loyalty and respect. Unambiguous evidence for the existence of retinues on archaeological grounds is unlikely to be forthcoming – concepts such as shared experiences, loyalty and trust do not leave traces in the ground. With the apparent disappearance of the need for aspiring members of the elite to undertake extended tours in the second half of the 2nd millennium BC, and the (re-)use of boat fragments in communal rituals, the social identity that existed between leader and retinue must have been created and reinforced using one of many alternative mechanisms. Such mechanisms may have been the offering of favours and rewards, sharing of wine and feasting and, possibly the most powerful force of social cohesion between men, warfare and fighting together (eg Treherne 1995, Harding 1999; Kristiansen 1999).

CONCLUSIONS

The aim of this paper was to offer a new analysis of the social dimensions of seafaring in the 2nd millennium BC and a consideration of how this might have had significance to (re)creating the social order at the time through its economic, socio-political and ritual significance. The study of the sewn-plank boats and their landscape contexts formed the main source of information and inspiration. Following Helms (1988), it has been argued that the socio-political significance of the acquisition of long-distance exchanged goods was connected to the ritual of travel and geographical distance and that a greater awareness for the practice of seafaring is required to fully appreciate long-distance exchange and the role of prestige goods. For the British Bronze Age, the significance of travel changed considerably with the evolving modes of trade. In the later 3rd and early 2nd millennia cal BC, long-distance exchange was of a directional nature. In the second half of the 2nd millennium cal BC, exchange was characterised by frequent exchanges involving shorter journeys. If the circulation of metals was the prime driver of the exchange process, then the relative scarcity of metal in the Early Bronze Age, and its relative abundance in the Middle and Late Bronze Age (as, for example, exemplified by the Langdon Bay finds; Needham & Dean 1987) may be identified as the reason for this changing mode of exchange.

The role of the sewn-plank boats and other craft in seafaring was reconsidered, and recent findings imply that sewn-plank boats were the most likely candidates of craft being employed for seafaring and directional exchange in the Early Bronze Age. During the Middle and Later Bronze Age, it seems likely that this type of craft continued to be used for seafaring, as suggested by their coastal locations. However, very large logboats such as those from Brigg, and later examples from Hasholme and Poole (Mowat 1996), which could not have been used by (extended) families in everyday life, may also have been employed in the down-the-line exchange within Britain. The evolving exchange mechanisms would explain the emergence of the large logboats in the Middle and Late Bronze Age, and their use throughout the Iron Age (Adams 2001).

The analysis of the contexts of the sewn-plank boats was explored to provide insights into the 'ritual of travel', showing important differences between the Early and Middle-Late Bronze Age periods. The landscape contexts of Early Bronze Age craft includes

explicit references to ancestral monuments, which linked the vertical (ie geographical distance) and horizontal (ie ancestral) dimensions of travel. The contexts of the Middle and Late Bronze Age boats did not include ancestral connotations, rather, their fragmentary deposition on reuse should be interpreted as structured depositions resonating the concepts of transformation and regeneration (Brück 2001).

Successful seafaring required a reliable crew, which would have included the member of the elite engaged in long-distance exchange, an older promoter and helmsman and a crew of up to 20 young men. It has been argued here that the reconstructed boat's crew may be equated to the size and composition of a patron's retinue. To date, retinues have not been invoked as a constituent of Early Bronze Age society, but their recognition in the crews of seafaring craft would have far-reaching implications for understanding the 'sources of social power', and 'reasons for the rise of prominence of particular members of society' in the Late Neolithic and Early Bronze Age society (Harding 2000, 393). It is not suggested here that retinues were exclusively created by the seafaring activities, rather, this study of seafaring has made these retinues visible.

In this discussion of the 'Argonauts of the North Sea' the focal point has been, unequivocally, on the British Isles as the area where remains of seafaring craft have been found. Considering the broader European dimensions and implications from this study, two further observations should be made explicit. First, Britain was somewhat marginal to the European exchange networks, and the British-based elite groups were relative latecomers to these networks. On the Continent other economic, ritual and socio-political factors may have influenced developments not seen in Britain. Second, long-distance exchange on the Continent did not, by necessity, include seafaring and the specific role attributed to the process of long-distance travel by boat across the sea cannot be substituted by similar social processes developed during long-distance travel over land on the Continent. Where seafaring was a central part of long-distance exchange, for example in Ireland and almost certainly for the Scandinavian elite as well, analogous social processes may have existed.

Consequently, the importance of boats in social reproduction and the social identity of crew members would have varied across Europe and over time. This may explain the different dates for the use of boats in

ritual behaviour and as iconographic symbols. For example, the Yorkshire boat-shaped log coffins are of Early Bronze Age date, when long-distance travels defined the identity of its regional elite (Elgee & Elgee 1949), but the boat-shaped graves in Scania, the rock carvings and images of boats on bronze razors in Scandinavia date to the period after c. 1700 cal BC, when a distinguished regional elite emerged, identifiable in the archaeological record by richly furnished barrow graves (eg Kaul 1998; 2004). Esoteric knowledge is believed to have formed the essence of its power base too (Kristiansen 2004).

Finally, in a recent paper Ballard *et al.* (2004, 396) have argued that Northern European scholars have been 'facing a seemingly intractable problem in deciding the relationship between an exchange system based on travel by sea and the symbolic significance of boats in mortuary rites and rock art'. This study of the Bronze Age 'Argonauts' has hopefully offered an answer to this seemingly intractable problem, in that it has shown that an important part of the social identity of the leader and his crew/retinue lay directly in the *practice* of acquiring these goods, and that in understanding long-distance exchange and its socio-political significance in the 2nd millennium BC, process and product are indivisible.

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