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Boat-rivets in Graves in pre-Viking Kent: Reassessing Anglo-Saxon Boat-burial Traditions

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THE IDENTIFICATION of a number of clenched-nails and roves in Anglo-Saxon cemeteries suggest the deliberate deposition of boat fragments and tokens in burial. The distribution of this practice, centred on 6th- to early 7th-century Kent, contrasts with that of the more commonly discussed form of boat-burial known particularly from 7th-century East Anglia. In this paper the characteristics of this burial rite are considered from a number of identified examples to provide for a preliminary typology of 'pseudo-boat-burials' and rove-graves. In conclusion, an interpretation is offered to account for their use in early Anglo-Saxon England, and the preferential deposition in Kent.

Among the wide diversity of Anglo-Saxon mortuary rites the symbolic use of burial-ships represents both the most iconographic and elusive of customs. Despite discovery nearly 70 years ago, the most famous example of Anglo-Saxon burial, that of the Sutton Hoo Mound 1 ship-grave (Suffolk), still has only a handful of comparable finds in England. Of these, it is really only two, Sutton Hoo Mound 2 and Snape 1 (Suffolk), which provide evidence of anything like the same monumental deposition of an entire ocean-going vessel. The remaining corpus of boat-burials falls into two broadly defined groups: one comprising burial in much smaller craft, usually of the dugout logboat variety, and another characterised by the inclusion of boat timbers or parts of boats within the grave, often as biers or covers for the interred. This second group have sometimes been called 'pseudo-boat-burials', after Charles Green, who first drew attention to their sporadic occurrence in pre-Viking contexts.¹

Burials of the first group have a number of contemporary, or near contemporary, parallels in northern Europe. In southern Scandinavia, in particular, the adoption of boat-burial appears to have been much more widespread and

¹ Letter to R. Bruce-Mitford dated 15 July 1954; C. Green, *Sutton Hoo: The Excavation of a Royal Ship-burial* (London, 1963), 57–64.

long-lived.² As long suggested, these finds provide the closest analogues to the East Anglian boat-burial tradition seen at Sutton Hoo, Snape, and probably Ipswich (Suffolk),³ both in the types of vessels used and the material culture accompanying the interred.⁴ The parallels are clearest when comparing the burial at Sutton Hoo Mound 1 with those of Vendel and Valsgårde (Sweden),⁵ but have also been drawn between the extended logboat finds from Snape, the earlier Roman Iron-age cemetery of Slusegård on Bornholm (Denmark), and the 5th-century boat-burials from Fallward, Wremen in Lower Saxony (Germany).⁶ However, despite a number of similarities within the group as a whole, some regional and temporal variations are nevertheless apparent. The more common Swedish and Norwegian practice of boat-cremation is extremely rare in Anglo-Saxon contexts where virtually all boat-burials are inhumations. The one exception known so far is Sutton Hoo Mound 3. This appears to have been a cremation on a tree-trunk trough, which could be interpreted as either a coffin, some form of tray-like structure, or rivet-less dugout boat.⁷ Sutton Hoo Mound 3 is possibly also one of the few instances in this country of burials using half of a boat as a container as have been identified in, for example, Tuna, Uppland (grave VII) (Sweden), Slusegård (graves 52, 376, 942), and Nordre Kaupang (Norway). The other possible Anglo-Saxon examples of this rite are Snape grave 3 and Sutton Hoo burial 15, both of which were inhumation burials.⁸ Finally, and perhaps most significantly, there are very few immediate antecedents to the East Anglian finds from the hundred or so years of the 5th to mid-6th centuries, the boat-burials of Wremen, Foss-Eikeland, Rogaland and Føre, Vesterålen (Norway) being among the few exceptions.⁹

To a number of authors, these discrepancies between the boat-burial traditions of England, Scandinavia and the Continent have cast some doubt both as to the direction of influences and the sorts of contact this common material

² E.g. M. Müller-Wille, 'Bestattung im Boot. Studien zu einer nordeuropäischen Grabsitte', *Offa*, 25–6 (1970), 1–203; id., 'Boat-graves in northern Europe', *Int. J. Nautical Archaeol. Underwater Explor.*, 3.2 (1974), 187–204; B. Schönback, 'The custom of burial in boats', 123–32 in J. P. Lamm and H.-Å. Nordström (eds.), *Vendel Period Studies. Transactions of the Boat-grave Symposium in Stockholm, February 2–3, 1981* (Mus. Nat. Antiq. Stud. 2, Stockholm, 1983).

³ M. O. H. Carver, 'Boat-burial in Britain: ancient custom or political symbol', 111–24 in O. Crumlin-Pedersen and B. M. Thye (eds.), *The Ship as Symbol in Prehistoric and Medieval Scandinavia* (Copenhagen, 1995), 123–4, Appendix.

⁴ R. Bruce-Mitford, *The Sutton Hoo Ship Burial*, Vols. 1–3 (London, 1975).

⁵ Cf. e.g. R. Bruce-Mitford, 'Sutton Hoo and Sweden', *Archaeological News Letter*, 2 (1948), 5–7; id., 'The Sutton Hoo ship-burial: some foreign connections', *Settimane di Studio del Centro Italiano di Studi sull'alto medioevo*, 32 (1986), 143–218, esp. 195–210.

⁶ T. Pestell, 'The logboats from Graves 4 and 47', 199–200 in W. Filmer-Sankey and T. Pestell, *Snape Anglo-Saxon Cemetery: Excavations and Surveys 1824–1992* (E. Anglian Archaeol. Rep. 95, Dereham, 2001); O. Crumlin-Pedersen, 'Bådgrave og gravbåde på Slusegård', 97–266 in S. H. Andersen, B. Lind and O. Crumlin-Pedersen, *Gravformer og gravskikke. Bådgravene* (Slusegårdgravpladsen, vol. 3, Jysk Arkæologisk Selskabs Skrifter XIV, 3, Aarhus, 1991); M. D. Schön, *Fedderson Wierde, Fallward, Flögeln, Archäologie im Museum Burg Bederkesa* (Burg Bederkesa, 1999).

⁷ M. Carver, *Sutton Hoo: A Seventh-century Princely Burial Ground and its Context* (Rep. Res. Comm. Soc. Antiq. London 69, London, 2005), 67–9.

⁸ Müller-Wille, op. cit. in note 2, 35; Carver, op. cit. in note 7, 140–1, 301–6.

⁹ M. Müller-Wille, 'Boat-graves, old and new views', 101–9 in Crumlin-Pedersen and Thye (eds.), op. cit. in note 3.

culture actually represents.¹⁰ To Carver in particular, the 6th-century East Anglian adoption of boat-burial does not demonstrate *a priori* the diffusion of Nordic North Sea cultural traditions, but rather the symbolic alignment of a local élite with Scandinavian ritual-cosmology.¹¹ He envisages this alliance as a reflexive response to the powerful culture zone of Christian Frankia, including from the 6th century the kingdom of Kent. In this view, boat-burials, particularly of the size and ostentation of Sutton Hoo, publicly signalled a defiantly Scandinavian orientation, thereby accentuating self-conscious intentions to remain pagan, autonomous, and maritime.¹²

From a highly persuasive and oft-cited argument, two questions in particular stand out for further examination. The first regards a number of uncertain boat-finds listed in Carver's gazetteer that do not easily fit into this model of East Anglian state-formation,¹³ the majority of which may be defined as 'pseudo-boat-burials'. The second regards the historical role played by Kent in promoting the type of peer-polity competition imagined in this scenario. Both of these questions will be examined in turn below as a way, firstly, of defining, pragmatically, the archaeological evidence for 'pseudo-boat-burials' and rove-graves, and secondly, reconsidering the relationship between Kent and Frankia in the 6th and 7th centuries. (Unless otherwise stated, all sites mentioned are in Kent.)

'PSEUDO-BOAT-BURIALS' AND INTERRED BOAT FITTINGS

Green first coined the term 'pseudo-boat-burials' to describe a number of graves found in the Norfolk cemetery of Caistor-on-Sea, published in 1993 by Darling and Gurney.¹⁴ At this site, 13 graves dating from the 8th to early 9th centuries were found to contain between 2 and 37 clench-nails, generally placed vertically in rows aligned above the interred inhumations (Fig. 1, A–C). The iron nails, consisting of a square shank, commonly between 30 and 40 mm in length with a flat sub-circular head of around 20 mm diameter, had been clenched over iron diamond-shaped roves c. 25–35 mm across the corners.¹⁵ As the authors noted, these nails are characteristic of the Scandinavian method of clinker-boat construction in which overlapping planking is fastened together to form the shell of the vessel (Fig. 2).¹⁶ The technique is not unique to boat and ship building,

¹⁰ Carver, *op. cit.* in note 3; also D. Wilson, 'Sweden — England', 163–6 in Lamm and Nordström (eds.), *op. cit.* in note 2; M. O. H. Carver, 'Pre-Viking traffic in the North Sea', 117–25 in S. McGrail (ed.), *Maritime Celts, Frisians and Saxons* (Counc. Brit. Archaeol. Res. Rep. 71, London, 1990); for a more positive view Bruce-Mitford, *op. cit.* in note 4.

¹¹ Carver, *op. cit.* in note 3, 119–22; M. O. H. Carver, 'Ideology and allegiance in East Anglia', 173–82 in R. Farrell and C. Neuman de Vegvar (eds.), *Sutton Hoo: Fifty Years After* (Am. Early Medieval Stud. 2, Oxford, Ohio, 1990), 180–2.

¹² *Ibid.*, 122.

¹³ Carver, *op. cit.* in note 3, Appendix, 122–3.

¹⁴ Green, *op. cit.* in note 1; M. J. Darling and D. Gurney, *Caistor-on-Sea: Excavations by Charles Green, 1951–55* (E. Anglian Archaeol. Rep. 60, Dereham, 1993).

¹⁵ Darling and Gurney, *op. cit.* in note 14, 52.

¹⁶ S. McGrail, 'To clench or to rivet: that is the question', *Int. J. Nautical Archaeol.*, 33.1 (2004), 149–53. See also J. R. Steffy, *Wooden Shipbuilding and the Interpretation of Shipwrecks* (Texas, 1994).

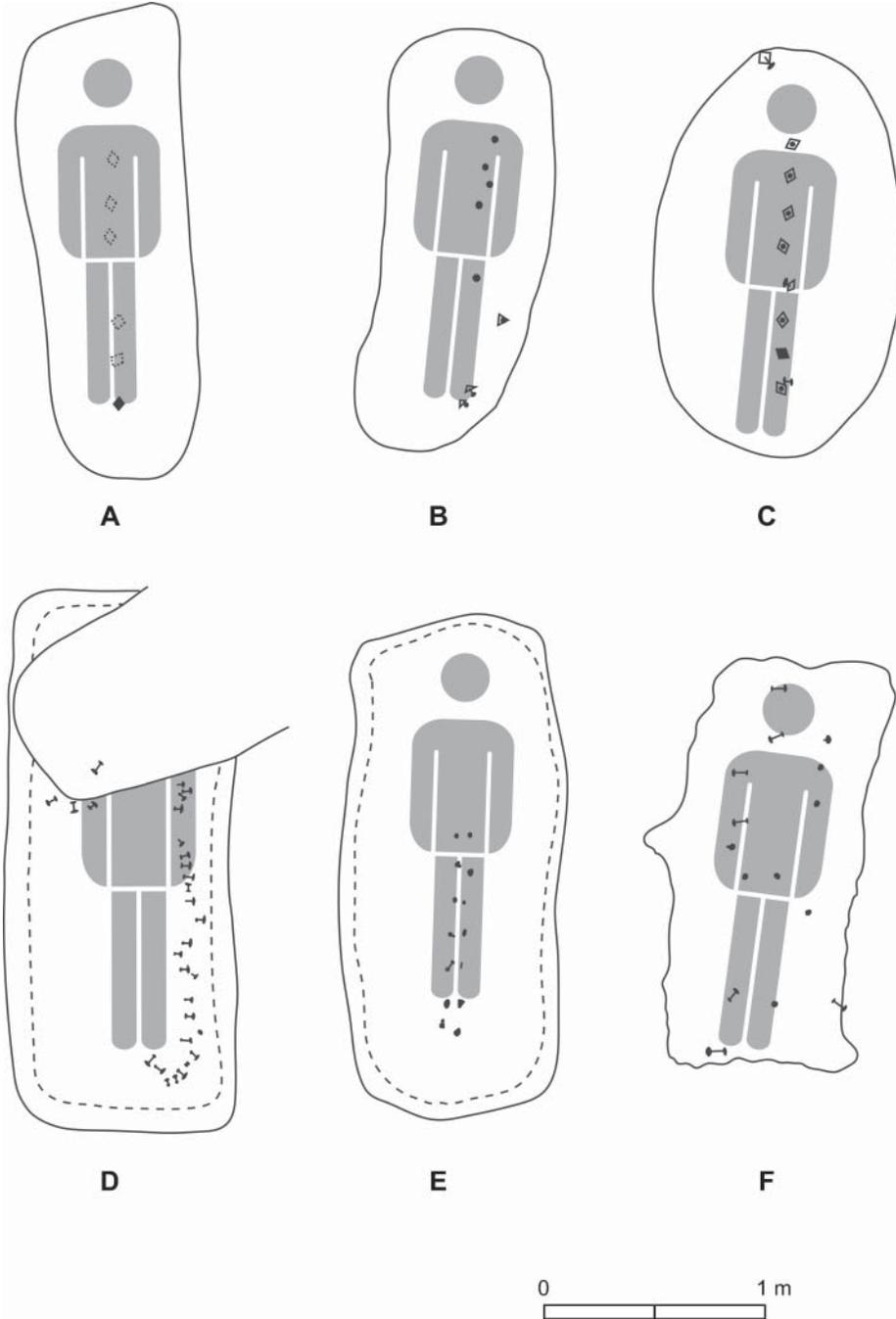


FIG. 1

Grave-plans of 'pseudo-boat burials' showing the position of interred clench-nails. A) Caister-on-Sea 136; B) Caister-on-Sea 134; C) Caister-on-Sea 60; D) Mill Hill Deal 38; E) Dover Buckland 2 300; F) Minster Thorne Farm 1. Graves are at various orientations. *Drawn by S. Brookes.*

and is also identified in terrestrial contexts at sites such as Yeavinger (Buildings A1 and A3) (Northumberland) and Hadstock, St Botolph's Church (Essex).¹⁷ However, these remain rare examples of unusually elaborate and robust structures, employing techniques unlikely to have been used in the construction of simple coffin lids.¹⁸ As such, the authors concluded that the clenched-nails probably represented the re-use of lapped boat strakes to cover the burials, and in one case (grave 136) where the nails were found below the body, as a bier. They argued further support for this interpretation on two counts: the nails ranged considerably in length, suggesting that the coffin lids were not built to any standard pattern and were more likely to represent recycled timbers; and some of the extant timbers revealed evidence that the lapped planks had also been fastened with hazelwood plugs, a technique also encountered in the construction of the 10th-century Graveney boat.¹⁹ Taken in combination, these factors supported the conclusion that the clenched-nailed timbers were likely to have derived from clinker-built boats or ships.²⁰

Other authors have made similar interpretations when considering the likely provenance of clenched timbers found in several recently excavated Kentish cemeteries. During the watching-brief of the Monkton Gas Pipeline in 1983–84 an inhumation was excavated at Minster Thorne Farm, Thanet, containing 18 clenched-nails arranged in two rows above the skeleton (Fig. 1, D–F).²¹ In the 6th-century cemetery of Mill Hill Deal, the disturbed grave 38 was found to contain 31 clenched-nails arranged in two rows up the left-hand side of the body,²² and in the as-yet-unpublished cemetery of Dover Buckland 2, grave 300 was found with 14 clenched-nails in two closely spaced rows overlying the lower torso of the skeleton.²³ As in the Caistor-on-Sea cemetery, the evidence from these graves contrasts markedly with more orthodox methods of coffin burial. Two- or four-sided coffins, visible as plank stains, are well attested from Anglo-Saxon cemeteries in Kent (e.g. Mill Hill Deal, graves 70, 91 and 92),²⁴ however, in no case were these constructed using the same lapped plank and clenched-nail fastening technique. Most commonly, they constructed coffins without nails and held together with wooden trenails. In the rare cases when coffins were jointed, the more usual carpentry techniques appear to have been the use of nails (e.g.

¹⁷ B. Hope-Taylor, *Yeavinger: an Anglo-British Centre of Early Northumbria* (London, 1977), 193 and fig. 91. W. Rodwell and K. Rodwell, 'St Peter's Church, Barton-on-Humber: excavation and structural study, 1978–81', *Antiq. J.*, 62 (1982), 283–315, at p. 313, note 23.

¹⁸ Though see early reconstruction attempts by W. Rodwell and K. Rodwell, *ibid.* Also the Viking-age coffin from Råga Hörstad, Skåne (Sweden), M. Strömberg, *Ett gravfält från sen järnålder i Råga Hörstad i Skåne* (Antikvariskt Arkiv 35, Stockholm, 1968), 18, 30, figs. 15, 17, 18 and 20.

¹⁹ V. Fenwick (ed.), *The Graveney Boat* (Brit. Archaeol. Rep. Brit. Ser. 58, London, 1978), 98, fig. 8.17.

²⁰ Other interpretations of clenched-nail finds are provided by Scandinavian authors, including the so-called 'cart bodies of Öseberg type', and the Valsgårde 7 sea chest. Cf. e.g. A.-S. Gräslund, *Birka IV: The Burial Customs* (Stockholm, 1980), 24–6.

²¹ D. R. J. Perkins, 'The Monkton Gas Pipeline: phases III and IV, 1983–84', *Archaeol. Cantiana*, 102 (1985), 43–70, at pp. 51–3, 58–9.

²² K. Parfitt and B. Brugmann, *The Anglo-Saxon Cemetery on Mill Hill, Deal, Kent* (Soc. Medieval Archaeol. Monogr. Ser. 14, London, 1997), 24–5, 135, 170, fig. 62.

²³ K. Parfitt, pers. comm.

²⁴ Parfitt and Brugmann, *op. cit.* in note 22, 23–4, figs. 69–70, 72.

Broadstairs St Peter's Tip graves 2, 43, 148), joiner's dogs (e.g. Broadstairs St Peter's Tip grave 119; Eastry Updown grave 22) and brackets (e.g. Mill Hill Deal graves 91 and 92). Compared with these coffins, lapped wooden planking using clenched-nails is considerably more robust, and the various authors unanimously interpret the Minster Thorne Farm and Mill Hill Deal grave 38 features as re-used timbers, the likely origins of which are nautical.

Some of the Kentish examples display a similar arrangement of clenched-nails to those recognised at Caistor-on-Sea. In both the burials from Dover Buckland 2 and Minster Thorne Farm clenched-nails ran lengthways down the grave over the skeleton, spaced at regular intervals, with most of the nails placed vertically with the head uppermost. This arrangement would suggest the inclusion of boat planking two- or three-strakes wide laid to cover the body, using the convex inner curve of the hull to protect the inhumation. Post-depositional processes withstanding, this arrangement provides some evidence about the source vessel itself. The spacing of clenched-nail rows suggest that the strake widths of the Minster Thorne Farm boat were a minimum of 200–250 mm, compared with the closer arrangements at Mill Hill Deal (c. 100–150 mm) and Dover Buckland 2 (c. 80–100 mm). The Minster Thorne Farm and Mill Hill Deal examples are broadly comparable with the width of strakes recorded from other early-medieval vessels (see Table 1). The close arrangement of the clenched-nails from Dover Buckland 2, by contrast, suggest that these timbers, if derived from a boat or ship, would have to come from high in the prow or stern where the middle and upper strakes joined the stem- and stern-posts.²⁵ More in keeping with nautical timbers discovered elsewhere, the Kentish finds record similar distances in the spacing between clenched-nails. Those from the Minster Thorne Farm burial were spaced an average of 170 mm apart, the Dover Buckland 2, 150 mm and the Mill Hill Deal, 130 mm compared with the averages of 160 mm from the Caister-on-Sea graves and Graveney boat.²⁶

These many correlates uphold the interpretation that clenched-nails are indicative of the re-use of ship-timbers in burial. However, except perhaps for the Minster Thorne Farm burial, little evidence supports the view that these conjoined strakes played a structural role within the grave as was interpreted at Caistor-on-Sea. At Dover Buckland 2, clenched-nails only covered the lower body of the inhumation, and in most of the other cases, including Mill Hill Deal grave 38, and further graves excavated in the 19th century such as Sarre 15 and 7,²⁷ the nails were arranged along only one side of the grave cut. At Mill Hill Deal, it is clear from the horizontal placement of the two rows of clenched-nails that the lap-fastened timbers more closely resemble shoring for the grave-cut than a coffin lid; an arrangement quite unlike that of any other coffin-like planking known from Kent. Moreover, evidence of textile remains on the head of nail B13, i.e. on the outside of the hull fragment and facing the grave-cut, suggests that the entire grave contents, including the boat timbers, may have been

²⁵ Bruce-Mitford, *op. cit.* in note 4, Vol. 1, 355–6, records that the Sutton Hoo strakes are likely to have tapered to as little as 50 mm (2 in.) wide at this point.

²⁶ Darling and Gurney, *op. cit.* in note 14, 254; Fenwick, *op. cit.* in note 19, 99.

²⁷ Bruce-Mitford, *op. cit.* in note 4, vol. 1, table 19.

TABLE. I
COMPARISON OF THE MINIMUM WIDTH OF STRAKES MEASURED
BY THE DISTANCE BETWEEN CLENCH-NAILS. DATES ARE THOSE
PROVIDED IN THE ORIGINATING PUBLICATIONS

Nautical timber fragments	Date	Average spacing between clenchnail rows (mm)
Mill Hill Deal, grave 38	500–540	100–150
Minster Thorne Farm, grave 1	575–650	200–250
Dover Buckland 2, grave 300	500–700	80–100
Sutton Hoo, Mound 1 ²⁸	600–630	165–254
Caistor-on-Sea, grave 67	770–820	120–60
Caistor-on-Sea, grave 110	770–820	120–200
Caistor-on-Sea, grave 124	720–770	260–300
London, Thames Exchange 88, Graveney-style ²⁹	850–870	110–240
Graveney Boat	910–950	100–200
London, Thames Exchange 88, treenail ³⁰	905+	180–210
London, Bull Wharf, ‘Frisian’ vessel ³¹	940–1000	210–280

deliberately shrouded in cloth.³² The impression given by this — albeit small — sample of cases, is that boat timbers may have been included in burials as grave-goods in their own right, and placed within the grave in those positions usually assigned to weaponry, vessels and containers.³³

In support of this interpretation are eight further Kentish graves in which there are only one or two clenchnails (see Appendix below). These are unlikely to represent segments of hull structure of any significant size, given that the spacing between the aforementioned nails was an average of only c. 160 mm. However, given the precedent set, it is still likely that these objects ultimately derive from re-used nautical timbers. In the absence of sympathetic preservation, two interpretations could be entertained. Firstly, it is possible, that these finds represent segments of logboats. In contrast to clinker-building, expanded logboat construction does not necessitate the use of clenchnails. These vessels are made from hollowed-out oak logs that are expanded under heat and fitted with

²⁸ D. Goodburn, ‘Anglo-Saxon boat finds from London. Are they English?’, 97–104 in C. Westerdahl (ed.), *Crossroads in Ancient Shipbuilding* (Oxbow Monogr. 40, Oxford, 1994), 100, fig. 4c.

²⁹ *Ibid.*, fig. 4, e.

³⁰ D. Goodburn, ‘New light on the construction of early medieval “Frisian” sea-going vessels’, 219–24 in J. Litwin (ed.), *Down the River to the Sea: 8th International Symposium on Boat and Ship Archaeology, Gdańsk 1997* (Gdańsk, 2000).

³¹ J. Brent, ‘Account of the Society’s researches in the Saxon cemetery at Sarr’, *Archaeol. Cantiana*, 5 (1862/63), 305–22; *id.*, ‘Account of the Society’s researches in the Saxon cemetery at Sarr’, *Archaeol. Cantiana*, 6 (1864/65), 157–85; D. R. J. Perkins, ‘The Jutish cemetery at Sarre revisited: part II’, *Archaeol. Cantiana*, 110 (1992), 83–120.

³² My thanks to Dr Sue Harrington for pointing out the many parallels to this practice from early Anglo-Saxon graves in Kent.

³³ For a similar interpretation of logboat-burial see O. Crumlin-Pedersen, ‘Boat-burials at Slusegaard and the interpretation of the boat-grave custom’, 87–99 in Crumlin-Pedersen and Thye (eds.), *op. cit.* in note 3, esp. 94–5.

supporting frames.³⁴ Despite having been made in this manner the logboat excavated from Snape grave 4 was found to include a single nail (though not a clench-nail), apparently positioned in the side of the boat,³⁵ offering a possible analogy to the Kentish finds. A second, perhaps more likely interpretation, is that the original boat structure used a combination of wooden plugs, lashings and iron fastenings. All of these techniques are known from the 4th-century Nydam ship (Denmark), which is also noteworthy for the great breadth of its strakes (360–450 mm amidship), thereby accounting for a more sparing use of clench-nails in its overall construction.³⁶ Closer in date to the Kentish finds, this combination of iron and organic fastenings is also known for sections of the Sutton Hoo vessel (particularly at the gunwale level) and the 5th/6th-century Gredstedbro ship (Denmark), with ironless fastening techniques also known from the 8th-century Medmerry vessel (West Sussex) and the enigmatic Ashby Dell boat (Suffolk).³⁷

Green and a number of further authors have seen variation in the use of these fastening techniques, among other attributes, as characteristic of the evolutionary development of pre-Viking boat construction in England.³⁸ In surveying the various features of Anglo-Saxon ship-finds, these writers have argued that, despite the continuous use of lashing and treenail fastening into the later Middle Ages, 5th- to 7th-century shipwrightery witnesses the increasing replacement of such ‘primitive’ techniques with iron clench-nail construction.³⁹ Some evidence of this development may be reflected in the Kentish burials. The majority of closely datable graves containing one or two clench-nails belong to the 6th and early 7th century, in contrast to more prolific clench-nail burials such as Margate Half Mile Ride grave 23, Broadstairs St Peter’s Tip grave 356, and Sarre grave 231, which all date to the mid- to late 7th century. However, in the absence of actual boat timbers such an interpretation is clearly tentative, and additional hypotheses, such as the possible correlation between iron use and the ‘status’ of boats/interred, should perhaps also be entertained.⁴⁰

In addition to the clench-nails deposited in Kentish graves, contexts spanning the entire early Anglo-Saxon Period include individual grave-goods of 48 diamond-shaped roves, identical to those used in clench-nails (see Appendix below). These objects commonly appear below the waist, and often in

³⁴ O. Crumlin-Pedersen, ‘The boats and ships of the Angles and Jutes’, 98–116 in McGrail (ed.), *op. cit.* in note 10, 98.

³⁵ Filmer-Sankey and Pestell, *op. cit.* in note 6.

³⁶ Bruce-Mitford, *op. cit.* in note 4, 424–5.

³⁷ *Ibid.*, 425–6; Green, *op. cit.* in note 1, 60–1; D. Goodburn, ‘Medmerry: a reassessment of a Migration Period site on the south coast of England, and some of its finds’, *Int. J. Nautical Archaeol. Underwater Explor.*, 16.3 (1987), 213–24.

³⁸ Green, *op. cit.* in note 1, 48–65; Bruce-Mitford, *op. cit.* in note 4, vol. 1, 425–35; B. Greenhill, *The Archaeology of the Boat* (London, 1976). For an alternative interpretation of the evolution of Anglo-Saxon boat construction, see D. Goodburn, ‘Do we have evidence of a continuing Saxon boat building tradition?’, *Int. J. Nautical Archaeol. Underwater Explor.*, 15.1 (1986), 39–47.

³⁹ *Ibid.*

⁴⁰ Cf. e.g. Goodburn, *op. cit.* in note 37, 220–21; S. Brookes, *Economics and Social Change in Anglo-Saxon Kent AD 400–900* (Oxford, 2007), 125–43.

association with other objects such as keys, spatulate tools and chained rods, suggesting that they may have been used for suspension as part of the chatelaine dress fittings. Though occasionally more than one rove is included among the interred personal effects (e.g. Dover Buckland graves 28 and 38), it is difficult on the present data to see whether the rove functioned as the suspension ring or whether it was suspended itself as a dress or amuletic accessory. It does however seem clear that the roves represent some form of engendered object as only one of the known 39 mortuary associations was with a male (Finglesham 213), while 26 are attributable to women and 12 cannot be sexed. This corpus of graves further suggests that rove accessories may have been a peculiarly Kentish fashion, with the few outlying occurrences in this country (e.g. Castledyke South graves 53, 187, and a clench-nail fragment in grave 1 in Humberside and Chessel Down on the Isle of Wight) and France (e.g. Nouvion-en-Ponthieu grave 440) demonstrating the range of inter-regional contact with the South-East.⁴¹

CLENCH-NAIL AND ROVE CHARACTERISTICS

The Kentish clench-nails are of a diagnostic form comparable with other early-medieval boat and ship finds known from throughout the North Sea region. Morphologically, all of the examined finds fall into the established pattern discussed by Jan Bill of rhomboid or diamond-shaped centrally pierced roves, with round (though occasionally sub-rectangular) shanks and low-domed circular/ovoid heads.⁴² The roves consist of flat, c. 4 mm-thick iron plates, weighing around 8 g, and formed into diamond shapes measuring on average 39 mm across the longer diagonal and 30 mm across the other. The clench-nail heads are smaller, but still quite large, averaging 26 mm in diameter. The shanks of the clench-nails are rounded, c. 9 mm thick, and the average weight of clench-nails is 35 g. The rove and the head of the nail are often parallel or nearly parallel with one another. However, in a number of cases the rove is set at an acute angle to the shaft.

The predominance of round-shanked nails finds closer correlation with the Sutton Hoo clench-nails than with the small square-shank clench-nails described as a late Anglo-Saxon boat-building tradition by Damian Goodburn.⁴³ Similarly, evidence from wood grain preserved through the corrosion of the iron nails makes it unlikely that these nails formed early examples of the diagnostically 'English rawl-plugged iron rove nail lap fastening tradition' recorded in 9th/10th-century boat timbers from London and the Caistor-by-Sea finds.⁴⁴ In this tradition, timbers were set using wooden rawl plugs, through which spiked nails were then driven. Had this technique been employed on the Kentish timbers,

⁴¹ G. Drinkall and M. Foreman, *The Anglo-Saxon Cemetery at Castledyke South, Barton-on-Humber* (Sheffield Ex. Rep., 6, Sheffield, 1998); C. J. Arnold, *The Anglo-Saxon Cemeteries of the Isle of Wight* (London, 1982), 48 and fig. 38; D. Piton, *La Nécropole de Nouvion-en-Ponthieu* (Berck-sur-Mer, 1985).

⁴² J. Bill, 'Iron nails in Iron Age and Medieval shipbuilding', 55–63 in Westerdahl (ed.), *op. cit.* in note 28, 58.

⁴³ Goodburn, *op. cit.* in note 28, 102.

⁴⁴ *Ibid.*, 103.

the direction of the grain preserved on the nail shafts would run parallel to the shaft in the direction of that of the wooden plugs. In all of the identified Kentish cases the grain runs across the shank, preserving the grain of the clenched timbers at right angles, making it unlikely that such plugs were employed.

Even in the absence of organic remains, clench-nails provide some indication of the minimum thickness of the cleft timber planking used in boat building. As shank length correlates with the thickness of the plank overlap, the distance between the nail head and rove is at least twice that of the planks, a narrowing of the flange or back bevel excepted. Using this criterion, the dimensions of over 130 measured nails from Kent show that the average thickness of planking was around 22.6 mm with a standard deviation of only 4.2 mm. Although the thickness of planking can vary considerably within one boat, this measurement corresponds closely with the thickness of strakes used in the Sutton Hoo Mound 1 and Graveney vessels.⁴⁵ This contrasts with the dimensions of the Minster Thorne Farm nails, which indicated the use of thicker timbers averaging around 30 mm, suggesting a parent vessel of considerable size or robustness.⁴⁶

We can compare the presence of angled roves on some clench-nails with similar finds from the Sutton Hoo Mound 1 vessel. Here it was argued that the angle between rove and shank related to the shape of the hull, with acute angles particularly diagnostic of the relationship between the lowest strake and the keel (as can be seen in Fig. 2) as well as between the hood-ends of the strakes and the stem and stern posts.⁴⁷ The identification of several of these clench-nails among the Kentish finds (including nearly half of those remaining from Sarre) suggests that some of the deposited timbers may represent potentially symbolic boat/ship pieces, such as the prow or keel, with clear iconic implications.

Unfortunately, while the relative dating of the rove finds from associated grave-goods has been reasonably successful, the general lack of diagnostic artefacts found in relation with the clench-nail finds (most of which are from antiquarian excavations or consist of unassociated material) make a chronological interpretation of their morphology impossible at this time. Nevertheless, the presence of clench-nails in securely datable contexts such as Mill Hill Deal grave 38 (c. A.D. 500–40) and Ozengell grave 167 (c. A.D. 500–50) indicate an early 6th-century familiarity with clench-nail boat construction in Kent. Additionally, if one accepts that the individual rove finds are representative of similar technological developments, the known examples from Dover Buckland graves 48 and 12 would further suggest the occurrence in England of clench-nail fastening, and by implication clinker-built boats, in the late 5th/early 6th century, i.e. more than a half a century earlier than Snape 1.

Interestingly, as the majority of these roves are not found in association with spiked nails, this pattern may be indicative of either indigenous clench-nail

⁴⁵ Goodburn, *op. cit.* in 37, 221.

⁴⁶ These measurements can be compared to the 10th- to 13th-century clinker-boat finds from Dublin discussed by S. McGrail, *Medieval Boat and Ship Timbers from Dublin* (Dublin, 1993). He outlines provisional criteria from which to calculate the relative size of parent vessels from the size of fittings, arguing that oak planks of 20 mm thickness are indicative of large boats/small ships, and 30 mm thickness of ships.

⁴⁷ Cf. Bruce-Mitford, *op. cit.* in note 4, 390.

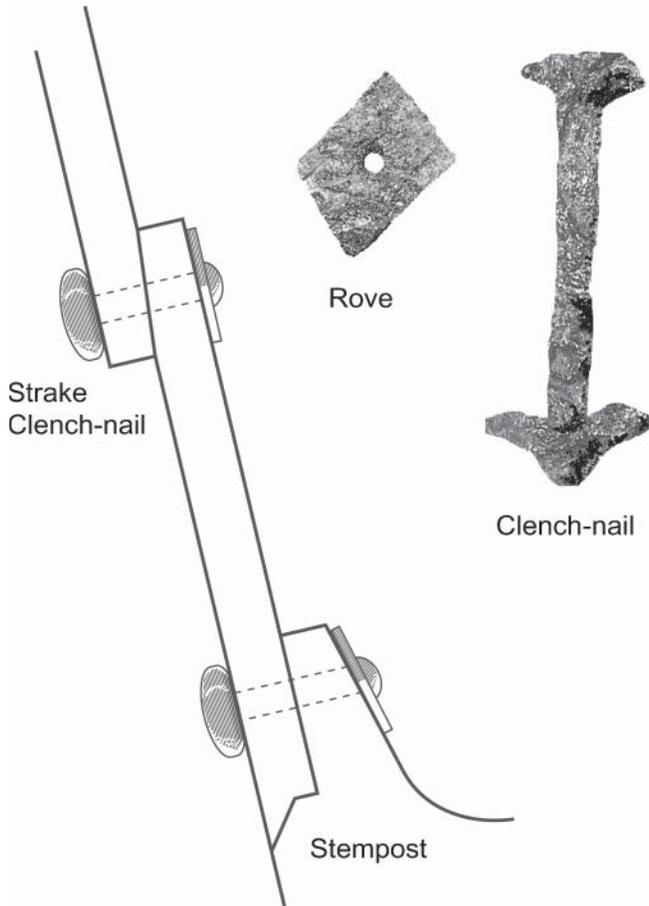


FIG. 2

Examples of clench-nails and roves from Anglo-Saxon contexts in Kent (right) and their use in clinker-boat building (left). *Drawn by S. Brookes.*

production or the local scrapping of clinker-built vessels. It is certainly likely that the retrieval of iron from boats and ships took place during the Anglo-Saxon Period. However, one practical concern may argue against the latter interpretation being the source of individual roves. Nail clenching of the type encountered in these finds requires the deformation of the nail tip over the rove, thereby making it extremely difficult to extract the nail again from the clenched position. Short of sawing through the nail shaft, it is unlikely that roves would have been recoverable without considerable distortion, none of which is in evidence on the excavated examples. By contrast, roves, such as that found in Dover Buckland grave 12, may never have actually been used with nails, as it is uncertain that the rove was ever pierced by a central hole. This would argue that, even if iron was being retrieved from scrapped vessels, that it was then being re-forged locally, rather than finding its way directly into grave-contexts.

DISTRIBUTION WITHIN KENT

With these last comments in mind, it is of significance that clenched-nail finds in Kentish contexts show a marked concentration at coastal sites, particularly on the S. coast of the Isle of Thanet and the Deal-Dover seaboard (Fig. 3). Arguably, this distribution offers the first archaeological evidence for early-medieval shipping lanes linking, via the Wantsum Channel, the Continent with the eastern coast of England. The existence of this route, avoiding the treacherous waters of the North Foreland headland, is attested in a number of important 8th-century charters and has recently also been identified from the location of archaeological complexes and Old English toponyms.⁴⁸ Moreover, with the identification of datable clenched-nailed boat timbers from sites along this waterway we can postulate, for the first time, a definite *terminus post quem* for maritime movement in clinker-built vessels along this coastline. Unfortunately, the dearth of large numbers of comparable sites beyond E. Kent, make it difficult to extend this case for maritime contacts based on this evidence alone. Nevertheless, given many of the historical connections drawn between Kent, London and the Isle of Wight, it is difficult not to interpret clenched-nail finds from Chessel Down, Isle of Wight and from below Gundulph's Tower in Rochester, in addition to the possible pseudo-boat-burial from Walthamstow, within the same model of maritime interaction.

Given the less ambiguous provenance of clenched-nails compared with that of roves, the distribution of these finds is likely to indicate areas close to where boat timbers were salvageable. As such, the large concentration of clenched-nail finds at Sarre (26 on Fig. 3), where they are known from at least ten graves, takes on added significance. Although Brent's excavation report records the exact number of clenched-nails from only two graves (231 and 255, which is somewhat remarkable in Kent for its inclusion of '80 iron clenched-bolts'), it is clear in his description of the others, not only that they contained large numbers of clenched-nails, but also that they conformed in all other respects to pseudo-boat-burials excavated in more recent times.⁴⁹ Significantly, Sarre has often been speculated to be the site of an early Anglo-Saxon emporium as it is named in 8th-century ecclesiastical toll remissions.⁵⁰ Moreover, the excavated cemetery revealed both a number of foreign artefacts and a uniquely large proportion of well-armed males, argued to be the garrison of a port-reeve.⁵¹ This evidence, in addition to the geographical attributes of Sarre's location itself, both as a safe anchorage and at the point affording easiest crossing to mainland Kent, supports the view that this site was a significant landing-place from the 6th century.⁵²

⁴⁸ S. Kelly, 'Trading privileges from eighth-century England', *Early Medieval Eur.*, 1 (1992), 3–28; Brookes, *op. cit.* in note 40, ch. 4; S. Brookes, 'The view from the sea: maritime migration and the colonised landscapes of early Anglo-Saxon Kent', in F. Stevens (ed.), *The Archaeology of Water* (London, forthcoming).

⁴⁹ Brent 1864/5, *op. cit.* in note 31, 316.

⁵⁰ Kelly, *op. cit.* in note 48.

⁵¹ Cf. e.g. S. C. Hawkes, 'Early Anglo-Saxon Kent', *Archaeol. J.*, 126 (1969), 186–92, at 191–2; *id.*, 'Review: Dover: the Buckland Anglo-Saxon Cemetery', *Archaeol. Cantiana*, 104 (1987), 389–92, 391; R. Hodges, *Dark Age Economics: The Origins of Towns and Trade AD 600–1000* (London, 1982), 69.

⁵² S. Brookes, *Dark Age Economics Reconsidered: Evidence for Trade and Emporia in Early to Mid-Saxon Kent* (unpubl. M.A. thesis, University College London, 1998), 29.

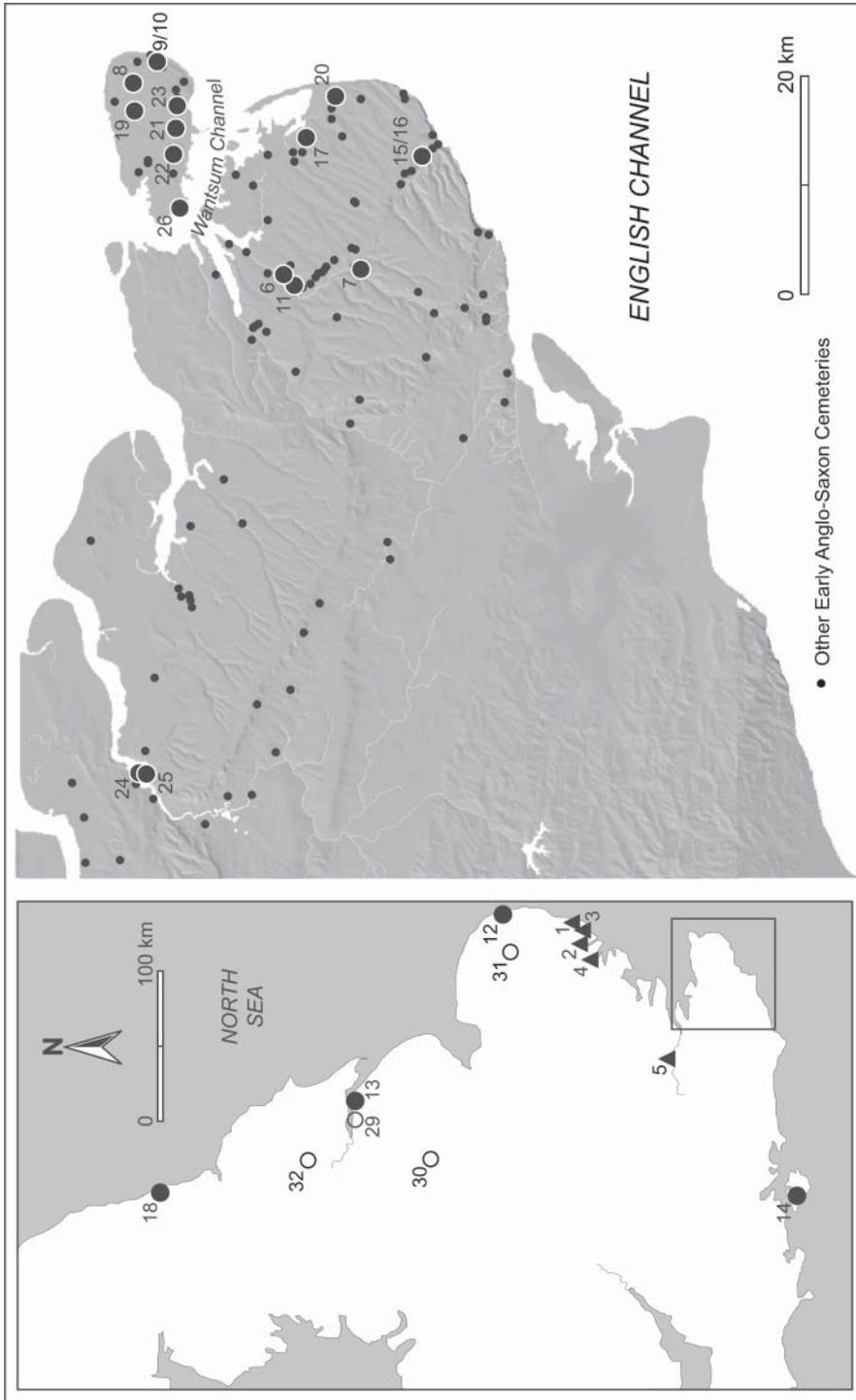


FIG. 3

Map showing the distribution of sites listed in the Appendix gazetteer. *Drawn by S. Brookes.*

The identification of a large number of boat remains within the cemetery further suggests that Sarre was certainly a site of Anglo-Saxon boat wrecking or recycling, if not also boat building itself.

Similar correlations are visible at a number of other pseudo-boat-burial sites along the Dover-Deal-Wantsum waterway. Interpretations from documentary sources have also emphasised the importance of the nunnery of Minster-in-Thamet within the sphere of inter-regional shipping patterns. Informed by the extant toll-charters, this establishment has been effectively argued to have accumulated at least three trading-ships by the mid-8th century (one of which appears to have been built to order at Minster itself).⁵³ Thus, it is of particular interest that the Minster Thorne Farm burial is located approximately 1.5 miles (2.4 km) from the nunnery, even though it pre-dates the Minster foundation by several generations. Equally, boat timbers from Ozengell, near Ebbsfleet and Dover Buckland 2, above the postulated emporium of Dover, reinforce a maritime connection previously suggested from a number of archaeological and historical lines of evidence.

The generally coastal distribution of clench-nails contrasts somewhat with that of roves identified from sites throughout E. Kent, including cemeteries such as Breach Down, lying on the Downland scarp c. 13 km inland. As small, highly portable fittings, a whole range of phenomena could explain the circulation of these objects throughout the region. However, the close association of roves with chatelaines, already discussed, raise the possibility that their owners considered them to hold amuletic qualities or kept them as keepsakes or mementos with possible nautical connotations.

DISCUSSION

The probable identification of clinker-built vessel fragments in burials from at least the 6th century in Kent provides, in most pragmatic terms, physical proof of the seafaring capabilities long argued to underpin postulated contact between this region, the Continent and southern Scandinavia. The distribution of certain brooch types and bracteates, 6th-century political relations between the kingdom of Kent and the Isle of Wight, well-documented historical references for Saxon raiding on the 6th-century Channel coast, and the cosmopolitan flavour of Kentish mortuary material, could all have only been realised through maritime connections.⁵⁴ Proof that these connections were carried out in vessels made in Scandinavian, rather than Frankish or Frisian, boat-building traditions, accentuates the scale that this inter-regional contact may have taken. It also

⁵³ Sawyer Charter 29; Kelly, *op. cit.* in note 48.

⁵⁴ N. Åberg, *The Anglo-Saxons in England during the Early Centuries after the Invasion* (Cambridge, 1926); E. Bakka, 'Scandinavian-type gold bracteates in Kentish and continental grave finds,' 11–38 in V. I. Evison (ed.), *Angles, Saxons and Jutes* (Oxford, 1981); Arnold, *op. cit.* in note 41, 102–9; M. Welch, 'Contacts across the Channel between the fifth and seventh centuries: a review of the archaeological evidence', *Studien zur Sachsenforschung* 7 (1991), 261–9; J. Huggett, 'Imported grave-goods and the early Anglo-Saxon economy', *Medieval Archaeol.*, 32 (1988), 63–96; J. Haywood, *Dark-Age Naval Power* (London, 1991); I. Wood, 'The Channel from the 4th to the 7th centuries AD', 93–7 in McGrail (ed.), *op. cit.* in note 10.

serves to validate many of the cultural links drawn between Kent and Jutland by underlining the kingdom's place within this wider North Sea maritime tradition.

This Scandinavian association links 6th- and 7th-century Kentish pseudo-boat-burials not only with the East Anglian boat-burial tradition of Snape and Sutton Hoo, but also to wider pan-Germanic concepts of maritime symbolism. However, unlike Carver's interpretation, which stressed an implicit link between Nordic maritime imagery, the constitution of kingship, and state formation, Kentish finds do not appear to be associated with extraordinary forms of prestige and status. In all other respects, the assemblages accompanying these individuals appear middling, even meagre, in the quality and quantity of grave-goods. This is not to deny the symbolic character of these burials. The deposition of boat fragments, particularly if their role as grave-goods is accepted, is likely to have signalled metaphorical associations with a real or imagined maritime heritage imbued with mythological and spiritual significance. Some indication that these burials may have emphasised idealised overseas origins are evident enough. The clear coincidence of burial close to likely areas of landing, the probable origins of ship timbers from scrapped, presumably old, vessels, and their occurrence, from within a generation or two of a hypothesised migration event, suggest that this tradition may well have its roots in the social and sentimental claims of a particular group.

Seen in a wider context, the Kentish burials of Minster Thorne Farm, Mill Hill Deal grave 38 and Dover Buckland 2 grave 300 provide precisely those antecedents to a boat-burial tradition that are lacking in East Anglia. In this view, rather than stressing the politico-ideological distance between the two nascent polities, these traditions seem more of a symbolic call for unity. Certainly, it is possible that similar political posturing to that occurring in East Anglia in the 7th century is being dramatised through pseudo-boat-burials in Kent in the 6th. If this is the case, these burials may have enacted, at least at grassroots level, a reaction against Frankish hegemony. Placed as they were within the viewshed of major shipping-lanes, these burials made public and ceremonial statements of insularity, doggedly resisting Frankish overlordship and Christian culture well into the late 7th century.

At least, burials containing nautical timbers document a symbolic association with boats and the sea. The use of boat timbers in burial and the occurrence of ship fittings as personal effects attest to the persistence of an older cultural tradition of ship imagery, posthumous maritime voyaging and numinous sea-scapes, captured in medieval folk traditions and the heroic poetry of Beowulf, 'The Seafarer' and 'The Wanderer'. Whether the recorded Jutish conquest of Kent, and continued symbolic and material association thereafter, offer a possible historical context for the origins of these traditions in early-medieval England or not, this same imagery appears to have become equally appropriate within Christian iconography of the later Anglo-Saxon Period and beyond.⁵⁵ It

⁵⁵ B. M. Thye, 'Early Christian ship symbols', 186–96 in Crumlin-Pedersen and Thye (eds.), *op. cit.* in note 3.

is likely that the later pseudo-boat-burials of Caistor-on-Sea (possibly the monastery of Cnobheresburg), Jarrow (Tyne and Wear), St Peter's Church in Barton-on-Humber (North Lincolnshire), St Catherine's Church in Thorpe-by-Norwich (Norfolk), and York Minster (North Yorkshire) reference this Christian ship symbol. After signifying a political and ideological struggle for dominance, it seems that with the earliest of these later burials, interred sometime in the mid-8th century, boats and ships had passed into the vocabulary of Christian ideology.

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APPENDIX: REVISED GAZETTEER OF ENGLISH FINDS OF BOATS OR BOAT-PARTS WHICH MAY HAVE BEEN ASSOCIATED WITH BURIAL (SEE FIG. 3)⁵⁶

CEMETERIES WITH COMPLETE BOATS/SHIPS

1. Snape, Suffolk
 - i) Inhumation in clinker-built ship (grave 1, late 6th/early 7th century)
 - ii) Two inhumations in dugout logboats (graves 4 and 47, late 6th/early 7th century)
2. Sutton Hoo, Suffolk
 - i) Two inhumation in clinker-built ships (Mounds 1 and 2, early 7th century)
3. Burrow Hill, Suffolk
 - i) Uncertain. Inhumations on trough-shaped wooden containers, ?logboats. Some in truncated containers may be 'pseudo-boat-burials' (8th/9th century)
4. Buttermarket, Ipswich, Suffolk
 - i) Uncertain. Three inhumations in ?logboats (6th/8th century)
5. Walthamstow, Essex
 - i) Uncertain. Inhumation in clinker-built boat (unknown)

⁵⁶ Compiled from Carver, *op. cit.* in note 3, Appendix; Müller-Wille, *op. cit.* in note 2, Katalog 180–2. All other data derives from the Anglo-Saxon Kent Electronic Database, see S. Harrington, *Papers Inst. Archaeol.*, 11 (2000), 79–81.

'PSEUDO-BOAT-BURIAL' AND ROVE-GRAVE CEMETERIES

6. Beakesbourne, Kent
 - i) Two inhumations with roves (graves 12 and 37, mid- to late 6th century)
 - ii) One inhumation with a clench-nail (grave 17, mid- to late 6th century)
7. Breach Down, Kent
 - i) One inhumation with three clench-nails (grave 58, 7th/early 8th century)
8. Broadstairs St Peter's Tip, Kent
 - i) Two inhumations with single clench-nails (grave 37, mid- to late 6th century; and grave 56, 7th century); one inhumation with a single clench-nail and rove (grave 297/a, 7th century)
 - ii) One inhumation with 30 clench-nails (grave 356, 7th century)
 - iii) Five inhumations with single roves (graves 301 and 333/a, late 6th/early 7th century; graves 172, 316 and 47, 7th century); one inhumation with three roves (grave 58, 7th/early 8th century)
9. Broadstairs, Bradstowe School, Kent
 - i) Two inhumations with roves (graves 10 and 69, 6th/7th century)
10. Broadstairs, Valletta House, Kent
 - i) Two unprovenanced clench-nails
11. Bifrons, Kent
 - i) Four inhumations with roves (graves 29, 32, 42, 63, mid- to late 6th century)
12. Caistor-on-Sea, Norfolk
 - i) 13 inhumations with clench-nails (graves 33, 60, 98, 134, 135, 136, 7, 9, 57, 67, 110, 120 and unnamed, mid-8th/early 9th century)
13. Castledyke South, Humberside
 - i) Two inhumations with roves (graves 53 and 187, 6th century)
 - ii) One grave with clench-nail fragment (grave 1, mid- to late 7th century)
14. Chessel Down, Isle of Wight
 - i) One unprovenanced clench-nail and rove
15. Dover Buckland, Kent
 - i) One inhumation with two clench-nails (grave 135, mid-7th century)
 - ii) Eight inhumations with a single rove (graves 12 and 48, 5th century; graves 1, 14 and 60, 6th century; graves 139 and 53, 7th century; grave 74, early-8th century); two inhumations with two roves (graves 20 and 38, 6th century); one inhumation with three roves (grave 28, mid-6th century)
 - iii) Five unprovenanced clench-nails
16. Dover Buckland 2, Kent
 - i) One inhumation with 14 clench-nails (grave 300, 7th century)
17. Finglesham, Kent
 - i) Two inhumations with single roves (graves 203, 6th century; grave 213, 7th century)
18. Jarrow, Durham
 - i) Uncertain. Clench-nails in burials found in the Anglo-Saxon monastery (7th/11th century)⁵⁷

⁵⁷ K. Rodwell, 'The Cemetery', 252-5 in Darling and Gurney, op. cit. in note 14. However, the nails depicted from this cemetery in R. Cramp, 'Excavations at the Saxon monastic sites of Wearmouth and Jarrow, Co. Durham: an interim report', *Medieval Archaeol.*, 13 (1969), 21-66, fig. 24 are coffin nails, not clench-nails.

19. Margate Half Mile Ride, Kent
 - i) One inhumation with 15 clenched-nails (grave 23, 7th century)
20. Mill Hill Deal, Kent
 - i) One inhumation with 31 (possibly 36) clenched-nails (grave 38, early 6th century)
 - ii) Five inhumations with single roves (grave 18, 25/a, 71, 92 and 102, 6th century); two inhumations with two roves (graves 68 and 104, mid-6th century)
21. Minster Thorne Farm, Kent
 - i) One inhumation with 18 clenched-nails (grave 1, late 5th/mid-7th century)
22. Monkton, Kent
 - i) Uncertain. One inhumation with two iron clamps, probably not derived from nautical timbers (grave 32, 6th century)
23. Ozengell, Kent
 - i) Four inhumations with a single rove (grave 165, mid-6th century; graves 23, 35, and 46, 6th/early 7th century)
 - ii) One inhumation with a single clenched-nail (grave 229, mid-6th/early 8th century); one inhumation with two clenched-nails (grave 167, early 6th century)
 - iii) 20 unprovenanced clenched-nails
24. Rochester Cathedral, Kent
 - i) Uncertain. Clenched-nails in burials beneath Gundulph's Tower (possibly 7th century)
25. Rochester Watts Avenue, Kent
 - i) One inhumation with a single rove (grave 26, 6th/7th century)
26. Sarre, Kent
 - i) Ten inhumations with an unspecified number of clenched-nails (grave 7, 15, 111, 33/34, 99, 134/b, 190, 208, 245, and 259, 6th/7th century); one inhumation with two clenched-nails (grave 235, 6th/7th century); one inhumation with 16 clenched-nails (grave 231, 6th/7th century); one inhumation with 80 clenched-nails (grave 255, 6th/7th century)
27. Snape, Suffolk
 - i) Uncertain. Two inhumations with partial dugout boat used as container or cover (graves 3 and 10, late 6th/early 7th century)
28. Sutton Hoo, Suffolk
 - i) Uncertain. Inhumation on trough-shaped wooden container, ?partial dugout boat (burial 15, 7th century)
 - ii) Uncertain. Cremation on trough-shaped wooden container, ?partial dugout boat (Mound 3, late 6th/early 7th century)

SELECT VIKING-PERIOD AND LATER EXAMPLES OF BOAT FRAGMENTS USED IN BURIAL

29. St Peter's Church, Barton-on-Humber, Humberside
 - i) Uncertain. 16 inhumations with clenched-nail timbers (9th/11th century)
30. Ingleby, Derbyshire
 - i) Uncertain. Clenched-nails from burial mounds of Viking date
31. St Catherine's Church, Thorpe-by-Norwich, Norfolk
 - i) Uncertain. Inhumation with at least two rows of clenched-nails (10th/12th century)
32. York Minster, York
 - i) Uncertain. One inhumation (grave 93) with clinker-built timbers (9th/10th century)⁵⁸

⁵⁸ The interpretation of this grave has been further discussed by J. Graham-Campbell, 'Review Article: the archaeology of Anglian and Anglo-Scandinavian York: progress to publication', *Early Medieval Europe*, 5.1 (1996), 71-82, 74-5.

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