5

New light on Iron Age warfare in Britain

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Julius Caesar presents us with the earliest historical account of the martial tactics and capabilities of warriors in late Iron Age Britain (*The Gallic War* IV, 26–35). His incursion on the south-east coast of Britain in 55 BC met heavy resistance from a mixed force of warriors on foot, supported by cavalry and surprisingly chariots, which had long disappeared from Continental battlefields. Caesar describes British tribesmen throwing spears from a distance, as chariots rapidly closed on the legionaries. As Caesar's interaction with the Britons was limited, encompassing only a small proportion of the population in a localised area, the martial practices of the entire population cannot be extrapolated completely from his description. Archaeology presents our best method of assessing the variety of weapons and equipment that were available in Iron Age Britain and some of the best evidence can be found in the Arras Culture of eastern Yorkshire. In conjunction with information from other regions, the Arras Culture material offers new insights into the cultural importance and practice of warfare in Iron Age Britain.

The nature of the archaeological evidence

Finds of martial equipment come to us from distinct archaeological contexts. Foremost amongst these are grave goods. The greatest number of British Iron Age burials containing martial items is in eastern Yorkshire (Figure 5.1).

Outside of Yorkshire, martial burials occur in Durotrigian inhumation cemeteries *e.g.* Whitcombe and Jordan Hill in the south, and in the Aylesford-Swarling Culture cremation burials of south-east Britain. Martial items have also been found in cist burials at Bryher on the Isles of Scilly and at Camelon, Falkirk in Scotland (Whimster 1981).

Votive deposits provide a wealth of both offensive and defensive equipment, including dryland deposits, such as the South Cave Weapons Cache and watery

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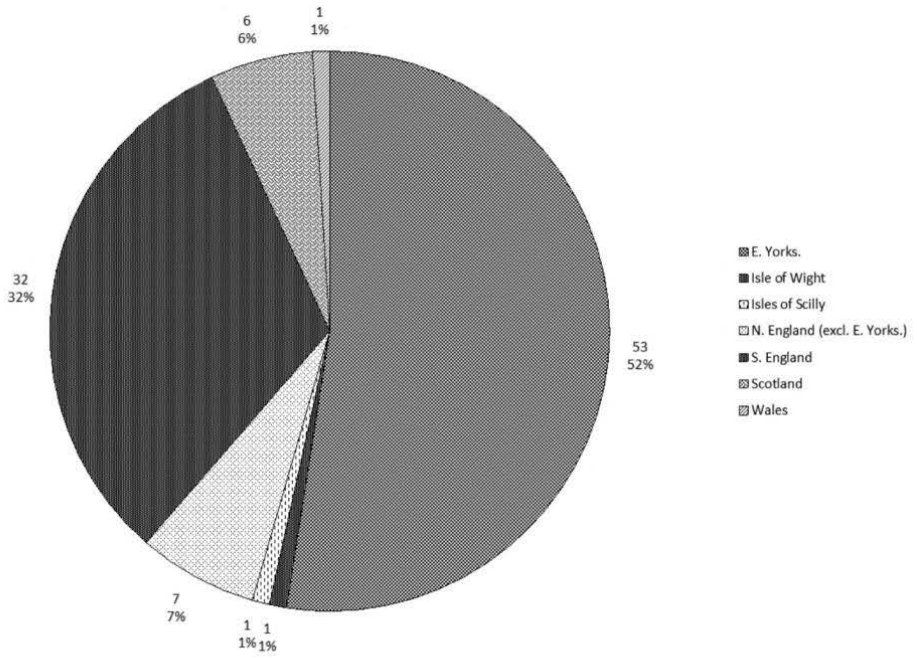

Figure 5.1. The proportionate regional distribution of Iron Age martial burials in Britain (after Inall 2016).

places, including the River Thames, the River Witham, and at Llyn Cerrig Bach in Wales (Evans 2003; Field and Parker Pearson 2003; Steele 2012).

Chance finds and those from settlements such as Hod Hill and Dragonby make up a very small proportion of the martial equipment from Iron Age contexts in Britain (Brailsford 1962; Richmond 1968; May 1996). However, such discoveries offer supplemental evidence that can be contrasted against the selective processes which are reflected in the highly constructed depositional practices associated with funerary and votive contexts.

This paper assesses over 440 spearheads, from 50 Iron Age sites across Britain held in the collections of the British Museum; National Museum of Scotland; National Museum of Wales; Hull and East Riding Museum; North Lincolnshire Museum; The Collection, Lincoln and recent discoveries near Pocklington, East Yorkshire. In addition, the published grave goods of over 80 martial burials are also assessed as well as published material from votive deposits at South Cave, East Yorkshire; South Cadbury Castle, Somerset; Madmartson Camp, Oxfordshire and Bredon Hill, Worcestershire (Fowler 1960; Barrett, Freeman *et al.* 2000; Inall 2015; Inall 2016).

Collectively, the martial equipment recovered from these archaeological contexts gives us an idea of the weapons and equipment available to the warriors of the British

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tribal groups, and those classes of equipment that were considered most important for constructing and communicating warrior status both within their communities and in the face of their enemies.

The following sections offer an overview of the classes of equipment for which we have archaeological evidence.

Weapons

Spears

Spears are the most ubiquitous class of weapon surviving from Iron Age Britain, underscoring their crucial role as the core weapon for the practice of Iron Age warfare. Some of the best evidence of spears comes from the Arras Culture, due to the unique funerary rite, known as 'speared-corpse' burial (Figure 5.2), which has resulted in a higher number of martial burials in Yorkshire, with the greatest proportion of Iron Age spears with secure, datable contexts (Inall 2016).

Figure 5.2. Detail of the speared corpse burial from Burnby Lane, Pocklington, East Yorkshire, during excavation by MAP Archaeology in 2015. Note the position of the spear, socket upwards, close to the sword blade. (P. Halkon).

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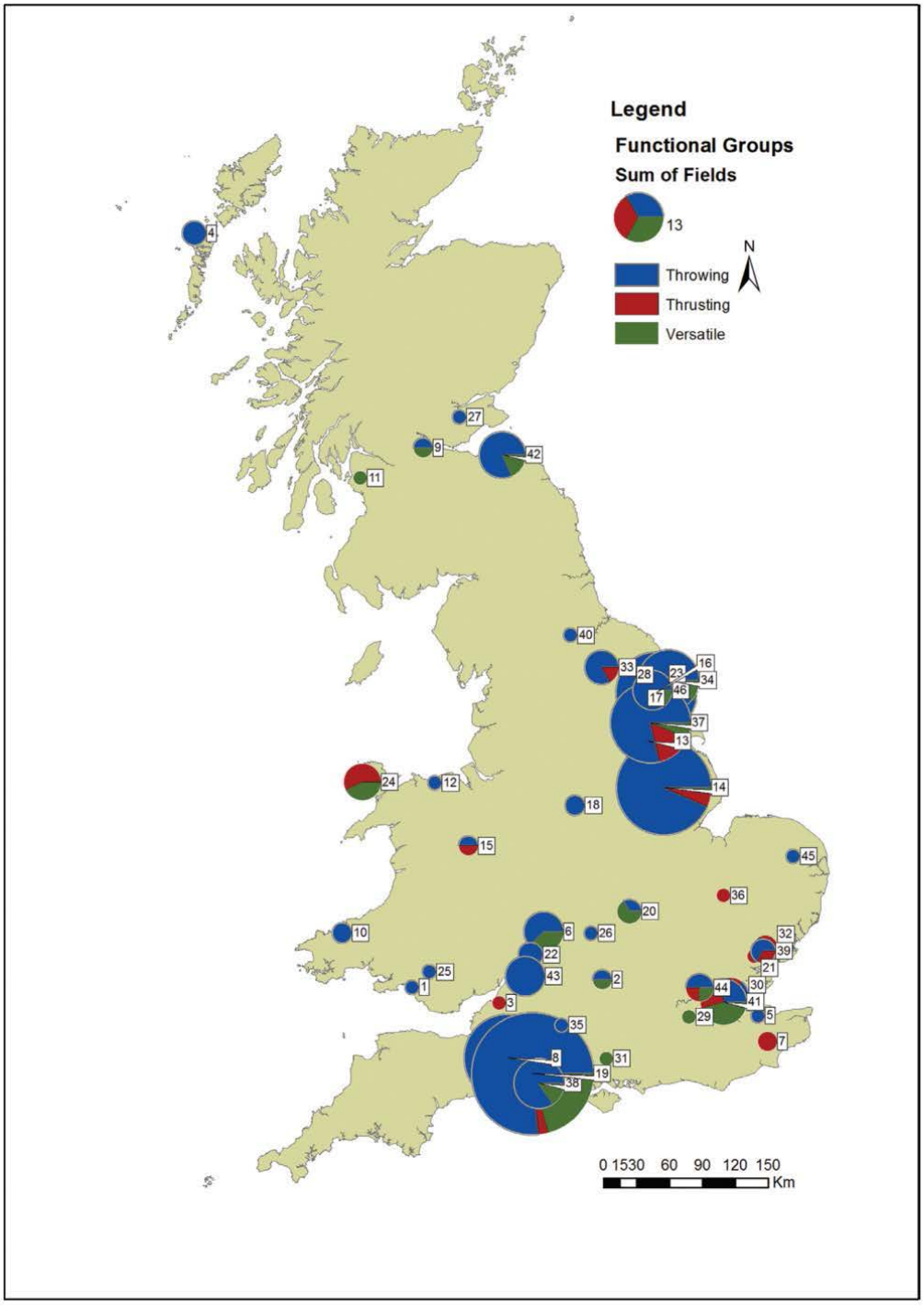

Figure 5.3. The proportionate distribution of spearheads by functional grouping (after Inall 2015).

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The spears from British Iron Age archaeological contexts could be divided typologically into three broad functional groups: light, small-bladed throwing spears; mid-weight spears, which are suited to deployment in either throwing actions or thrusting manoeuvres and heavy thrusting spears, which were not designed to be thrown. More than 300 of the spearheads assessed in this study were categorised as throwing spears and the predominance of this form (Figure 5.3) corresponds with Caesar's account of his encounters referred to above.

British Iron Age throwing spears generally have small blades between 50 mm and 100 mm in length with a leaf-shaped, diamond or triangular profile. These are also relatively narrow, with a maximum blade width averaging around 24 mm, with few spear blades wider than 35 mm. Most throwing spears have short, conical sockets, which are as long, or a little longer than the blade. The sockets are often perforated with one or two small, circular holes indicating that they were fixed to the spear shaft with a nail or rivet. There are no examples of tanged spearheads recorded for the British Iron Age.

Spearheads made of bone, most commonly carved from sheep tibiae, are best represented in a votive deposit that included 11 iron and 55 bone spearheads from the Witham at Fiskerton, Lincolnshire (Field and Parker Pearson 2003). Bone points have been recorded at over 40 sites from as far south as Dorset and as far north as the Orkneys (Olsen 2003; Inall 2015). These weapons were highly polished and exhibit sharp, powerful points, particularly well-suited to their deployment as javelins. Their martial function is confirmed by an example recovered from the Thames at Walthamstow held in the British Museum (BM 1861,0304.3) and another example, now lost, from the Witham in Lincolnshire, which had been shaped in imitation of metal spearhead forms (Franks 1860). A large deposit of weapons at Hjortspring in Denmark also included both iron and bone spearheads, some with partially preserved shafts, confirming they were functional weapons (Kaul 2003). The Fiskerton and Hjortspring deposits are broadly contemporary, both dated to the last quarter of the fourth century BC (Field and Parker Pearson 2003; Kaul 2003).

An unusual and rare class of throwing spearhead is known as the 'Celtic *pilum*'. These weapons have been termed so because of the long, narrow shanks between the blade and the socket, (Brunaux and Rapin 1988). The overall length of these weapons generally exceeds 500 mm and much of the weapon's length consists of a shank approximately 5 mm in diameter. The narrowness of the shank and the small throwing spear blade are consistent with the function of the Roman *pilum*, which was designed to buckle on impact, rendering it useless to the enemy. These weapons have been recorded at only two British sites to date: South Cave, Yorkshire and Four Crosses, Powys (Barford, Owen *et al.* 1986; Evans 2003). The remarkable South Cave find includes a group of 17 Celtic *pilae* bound together as part of a cache or votive hoard of 38 weapons consisting of 33 iron spearheads and five iron swords, buried around the time of the Roman conquest of what is now the Yorkshire region during the later first century AD (Evans 2003). Many characteristics of the South Cave Weapons

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cache hark back to the fourth century BC and exhibit Continental traits. They may have been considered 'exotic heirlooms' by those who buried them. It is clear from their undamaged shanks that these *pilae* had never been used, and they were possibly selected for deposition as symbols of the wider inter-regional or international networks within which the depositing community participated. Similar weapons have been found on the Iberian peninsula at Almedinilla, Cordoba and the Valdenovillas Necropolis at Alcolea de las Peñas, Guadalajara, dated to the third century BC, which bears close comparison to the example recovered from Four Crosses in Powys, which has also been dated to the Late Iron Age (Barford, Owen *et al.* 1986; Almagro-Gorbea and Lorrio 2004; Marshal pers. comm.).

Versatile spearheads, measuring between 150 mm and 380 mm, also appear in Iron Age contexts. These weapons are heavy enough to be used in thrusting manoeuvres, many with strengthening midribs, a trait of southern Britain, yet remain light enough to be thrown effectively. Most of these have broad, leaf-shaped blades, averaging around 40 mm, with some examples exceeding 70 mm.

A third class consists of heavy thrusting or slashing spears, some with blades as long as swords. Strengthened by prominent midribs, these weapons were designed to deliver blows with force at close quarters. This type makes up a comparatively small proportion of the spearheads known for the British Iron Age, and were perhaps an uncommon weapon. They are restricted to the best equipped 'warrior' burials, such as the Kelvedon Warrior from Essex and the Brisley Farm Warrior burials in Kent. They have also been found in the most prestigious votive deposits, particularly at Llyn Cerrig Bach in Wales and may have been markers of 'elite' warrior status (Fox 1946; Sealy 2007; Steele 2012; Stevenson 2013). This type of weapon also matches a description by Diodorus Siculus (*Library of History* V.30) of Gallic warriors fighting with spears as long as swords in the first century BC.

Only a single complete spear survives for the whole of the British Iron Age. This remarkable weapon was discovered in 2001 in the Witham at Fiskerton in Lincolnshire close to the deposit discussed above. The spearhead was a broad, leaf-shaped, versatile form measuring 330 mm, with a shaft 1.65 m long made of ash wood, for a total length of approximately 1.94 m when the interior depth of the socket is considered (Mumford, pers. comm.). Ash is the most represented wood species recorded for spear shafts, in the rare instances where it has been possible to identify the wood from traces remaining in the sockets (Field and Parker Pearson 2003). We cannot know whether this example is representative of other spear shafts in terms of its length for Iron Age Britain, as it is likely that the length of spear shafts varied in accordance with their function.

Swords

Swords were the most prestigious class of weapon in the British Iron Age. They also represent an engagement in combat at close quarters that differentiated the swordsman from the majority of warriors who deployed throwing spears. Iron Age

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swords have been recovered primarily from votive deposits in rivers, lakes and settlement ditches. A smaller proportion, approximately 13–15% have been recovered from burial contexts, again including the most impressive warrior burials (Stead 2006; Inall 2015).

Stead (2006), in his extensive review of British Iron Age swords, noted that the sword types in use change over time and there are regional preferences for particular forms. From the fourth century BC until the first half of the first century BC, the majority of swords can be described as medium-length cut and thrust swords. Around the mid first century BC longswords come into use in southern Britain. Most of these weapons were 80–100 cm in length. In contrast, the only longsword recorded from a northern site comes from North Grimston, Yorkshire, which is 74 cm in length (Mortimer 1905; Stead 2006). North of the Humber, medium-length swords continued in use, accompanied by the introduction of short-swords measuring less than 55 cm in length, around the time of the Roman conquest. The form of some of these weapons suggests that they may have been modelled on, or influenced by, the Roman *gladius* (Breeze, Close-Brooks *et al.* 1976).

The contrast in sword length between southern and northern Britain may indicate different fighting styles in each region. The longswords used in the south offered greater reach, and would have been better suited for use on horseback. Comments about the fighting tactics of northern tribesmen, recorded in the Vindolanda tablets (II.164), noted that the Britons in the region around Hadrian's Wall dismounted to engage in sword combat. In addition to these tactical differences, there appears to have been a regional preference in the north for wearing swords slung across the back. Anthoons's (2011) analysis of scabbard fittings has shown that the suspension loops on northern scabbards were positioned around the middle rather than at the mouth of the scabbard, as seen in the south. The scabbard recovered from a warrior burial at Rudston R144 in East Yorkshire also retained remains of a wool-fleece backing that would have made it more comfortable to wear with the scabbard pressed against the back (Stead 1991). Small chalk warrior figurines from the same area also show swords worn in this manner (Stead 1988).

The scabbards of British swords were ornately decorated, often using bright red coral and enamels, with the Kirkburn Sword forming one of the most impressive examples (Stead 1991). The polished copper alloy scabbards featured twisting Insular La Tène designs, making them visually stunning objects, highlighting cultural connections as ideas, skills and mercenaries flowed back and forth across the English Channel and North Sea (Stead 2006).

While a small number of daggers have been recorded from Iron Age contexts in Britain, it is unclear to what extent these weapons can be interpreted as a part of the warrior's regular equipment. A small number of anthropoid-hilted daggers in particular found at Ham Hill, South Somerset and North Grimston, Yorkshire, are likely to have had a ritual, rather than martial, function (Mortimer 1905; Walter 1923; Fitzpatrick 1996; Pearce 2013).

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Archery

Few arrowheads have been recovered from secure Iron Age contexts in Britain. In only one instance, an Aylesford cremation burial at Ham Hill (Whimster 1981) can an arrow be definitively identified as an object which was chosen to be placed in a grave. This suggests that there was not a strong association between warrior status and archery during the Iron Age. Roman accounts give no indication that archery was a feature of indigenous warriors of any other tribal groups. It is likely, therefore, that during the late Iron Age, archery was primarily restricted to hunting in Britain.

Slingshot

We have substantial evidence for the use of the sling in Iron Age warfare. Sling stones were rarely included in burials. Two burials (78 and T10) at Maiden Castle hillfort in Dorset included sling stones as part of their grave goods (Wheeler 1943; Whimster 1981). Caches of sling stones were recovered during excavations at South Cadbury Castle, Somerset and Bredon Hill, Gloucestershire, both Iron Age hillfort sites (Hencken 1939; Barrett, Freeman *et al.* 2000). In the north, two sling stones were found at the Iron Age hillfort at Grimthorpe, Yorkshire (Stead, Jarman *et al.* 1968). It thus appears that the use of the sling played a more substantial role in warfare in southern Britain than in the north. Seemingly, the sling was a distinctive feature of Iron Age warfare in the hillfort dominated zone of southern Britain. As Finney (2006) outlined, the sling, associated with shepherding as well as warfare, is a difficult weapon to master. Redfern (2009) has identified evidence of blunt force cranial trauma consistent with sling-shot in human remains from several Iron Age sites in Dorset, confirming the lethal effect of the sling in British Iron Age warfare.

Armour and defensive equipment

Armour does not appear to have been widely worn or used in Iron Age Britain, with the exception of the shield. However, some examples of body armour and helmets are known to us.

Shields

By far the most widespread form of defensive equipment recorded for the Iron Age in Britain was the shield. A number of different shield forms have been recorded, and they have a common ancestry in the ovoid Gallic shields of Continental warriors, evolving out of La Tène II forms (Stead 1991). The variety of forms included ovoid examples and long rectangular shields with rounded corners. In southern Britain hide-shaped, or horned shields have also been recorded, highlighting again the broad regional differences between the north and south of Britain.

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Shields are composite constructions that may be made of bark, wood, leather and metal. Fraser Hunter (2005) has convincingly argued that shields are grossly underrepresented in the archaeological record due to their poor preservation. Indeed, a recent discovery of a bark shield from Enderby in Leicestershire dated *c.* 395–255 BC underscores the diversity and complexity of these composite defensive objects (Beamish 2019). The Enderby Shield was constructed of bark, strengthened with wooden laths. Analysis reveals that several different wood species were used to produce the shield. The bark face of the shield could have come from one of a number of different trees, including willow, alder, poplar, hazel or spindle tree (Beamish 2019). The supporting wooden laths were apple, pear and either quince or hawthorn, the strengthening rim was made from hazel, and the boss and handle from willow. Experimental archaeology has demonstrated that the shield would have had a slight curve to it, which would have formed naturally as the bark and wood dried (Beamish 2019). The shape of the shield is similar to that of the famous Battersea Shield, but it would have been much lighter to carry. Experiments revealed that it was surprisingly effective at absorbing shock and deflecting blows from bladed weapons. The shield had received severe damage prior to its entry into the archaeological record, caused by sharp edges, possibly sword blows, and an elliptical puncture, possibly the result of a spear point penetrating the shield (Beamish 2019). The 2 cm width of the puncture is consistent with the throwing spearheads discussed above. As the ritual destruction of weapons was relatively uncommon in Britain, it would be unsurprising if future analysis of the shield confirms this was battle damage. The Enderby Shield highlights the level of skill involved in constructing a shield and just how effective these were for personal defence.

The Battersea and Witham shields remain the best-known examples of more durable metal-faced shields. Both rectangular shield faces were made of copper alloy, covering cores of either wood or leather (Stead 1991). The Battersea shield, discovered in the Thames at Battersea, in London, also features ornate, insular La Tène decoration with inlaid red enamel or glass, similar to that used to decorate the Kirkburn Sword (Megaw and Megaw 2005). The Enderby shield was also decorated using red pigment and scored with a checkerboard pattern (Beamish 2019). Melanie Giles (2008) has suggested that the use of red for decorative elements for weapons and other martial equipment may have served to highlight their association with the drawing of blood.

The shield from the Witham in Lincolnshire is decorated with a boar in the insular La Tène style (Stead 1991). The boar, frequently associated with a warrior's fearsome strength, may have served as a warning to potential enemies that its bearer possessed boar-like strength, speed and lethal capacity. It could also have served as a talisman for the warrior who carried it, endowing him with these boar-like qualities (Dickinson 2005). Alterations to the decorative scheme show that the boar motif was later covered over, raising the possibility that the shield changed hands (Stead 1991).

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Evidence of repairs to the shield underscore that this was a valued object, which was maintained in functional condition for as long as possible. At the end of its useful life it was deposited in the Witham, most likely as a votive act – one which may have been associated with the funeral of its owner.

There is also evidence for a broad range of shields that were principally constructed of wood with metal fittings. Several shields from East Yorkshire, including the example from Grimthorpe (Mortimer 1905) and those recently discovered at Pocklington, near York were constructed of wood, but with a strengthening boss and/or spine constructed of copper alloy, which was riveted on to the face of the shield (Stead 1991; Ware pers. comm.). The copper alloy spine and circular boss of these shields appear to be a uniquely British trait, marking a point of difference from Continental shield forms (Stead 1991). The penchant for shields with a round boss is not exclusive to the north of Britain. The late Iron Age burials from Brisley Farm in Kent also included shields with round bosses (Stevenson 2013).

Some British Iron Age shields, such as that from burial R148 at Rudston, Yorkshire, also retain traces of a metal rim, which may have been sharpened (Stead 1991). Brunaux and Rapin (1988) highlighted that shields were not merely defensive, but also had an offensive function. Shields could be used to deliver blows, and the Irish Epic *The Táin Bó Cúailnge* describes the hero Cú Chulainn as bearing a shield with a rim that could slice as cleanly as any sword (Carson 2007).

Hide-shaped shields appear to have been particular to southern Britain. A northernmost line of distribution for these can be drawn from Bredon Hill in Worcestershire to Snettisham in Norfolk (Stead 1991). The most southerly example was discovered in a warrior burial at Bryher on the Isles of Scilly dated *c.* 200–45 BC (Johns 2002). In all instances only the metal fittings survive. A group of miniature shields recovered from Salisbury indicate that hide-shaped shields were likely ornately decorated with insular La Tène designs (Stead 1991).

Not all shields found in Iron Age contexts in Britain conform to British types. Notably, the shield bosses recovered from the warrior burials at Owslebury, Hampshire, North Bersted, West Sussex and Kelvedon in Essex are all identifiable as continental types (Collis 1973; Sealy 2007). Each of these shield's bosses can be assigned to Brunaux and Rapin's (1998) Type V '*Umbos à ailettes trapézoïdales*', which were in circulation between the third and first centuries BC, with a distribution spanning from the south of Britain to the former Yugoslav republics in Eastern Europe. Each British site where this type of shield boss was found had close contacts with the Continent, and aspects of the burials suggest that their continental connections were being highlighted in funeral rites (Inall 2016). The sword in the North Bersted warrior burial, and both the sword and heavy thrusting spear in the Kelvedon warrior burial, had been subjected to acts of ritual destruction (Sealy 2007; Taylor, Weale *et al.* 2014). The process of deformation required considerable metalworking skill, at high temperatures. Such 'weapon-killing rituals' are widely recorded in Europe, especially in Gaul, but are comparatively rare in Britain. Furthermore, the isotopic analysis of the North Bersted

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warrior's remains suggest that he grew up in a climate warmer than that found in first century BC Britain, and a Gallic origin has been suggested for this individual (Taylor, Weale *et al.* 2014).

Helmets

There are few helmets recorded for the pre-conquest era in Britain. Those that have been found are primarily Coolus forms, which were likely brought back to Britain by British tribesmen who had served as mercenaries in Continental Europe.

In 2012, a metal detectorist discovered a copper alloy helmet approximately 3.7 km from an Iron Age settlement near Canterbury (Farley 2013). The upturned helmet, identified as a Coolus 'A' form, had been deposited in a small pit, inside it were the cremated remains of a woman bound in a cloth which had been fixed with a La Tène D2 brooch, dated to the mid-first century BC (Farley, Parfitt *et al.* 2014). A Coolus Mannheim helmet was discovered in a warrior burial at North Bersted in West Sussex (Taylor, Weale *et al.* 2014). Both helmet forms are dated to the first century BC and were commonly worn by Gallic warriors and Roman soldiers of the period (Bishop and Coulston 2006). The presence of these helmets in Britain may be the result of elite gift exchange, or they may have been brought to Britain by tribesmen who had served as mercenaries, as mentioned above. Mercenaries may have procured these items as part of their own equipment or taken them as trophies from defeated foes. While it is unlikely that the woman buried with the Canterbury helmet had served as a mercenary, this possibility cannot be ruled out. The Boudican revolt of the first century AD highlights that women could and did fight in Iron Age Britain. However, all indications are that warrior status was strongly associated with the male gender in British Iron Age communities and a female warrior burial would be unprecedented in this context (Karl 2013).

The North Bersted warrior burial is also the only burial to date which includes a helmet in association with offensive weaponry (Taylor, Weale *et al.* 2014). This remarkable burial included a lavishly decorated shield, an iron sword and a spear, making it the most completely equipped warrior burial for the British Iron Age (Inall 2016). The North Bersted helmet had also undergone significant modifications from its original Coolus form. Dramatic bronzework was added to the top of the helmet including an open, latticework crest-mount, which probably held an organic crest and a large crescent-shaped piece set perpendicular to the crest mount, above the temple. These decorative elements were extremely delicate and the excavators have argued that the function of the helmet had changed from a practical piece of equipment to a parade item prior to its deposition in the grave (Taylor, Weale *et al.* 2014). Highly ornate 'parade' helmets are known from the Continent, with the swan-shaped helmet from the Tintignac hoard in France serving as a spectacular example (Armbruster 2014).

Locally produced helmet forms are best represented by the Meyrick Helmet and the Waterloo Helmet. The Waterloo helmet dated *c.* 150–50 BC is an elaborate piece of equipment, constructed from sheet-bronze, featuring ornate, insular La Tène repoussé

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decoration and prominent conical horns on either side of the helmet (Fernández-Götz 2016). While the helmet is visually striking and was clearly an object of significant value, its impracticable nature suggests that it was more likely an item of parade or ceremonial equipment, rather than a piece of equipment intended to protect its wearer in combat. By contrast, the Meyrick helmet dated *c.* 50–150 AD offered functional protection (Jackson 1995). The helmet is clearly modelled on Roman forms but with a very broad neck-guard, featuring insular La Tène decoration that clearly distinguishes it from Roman examples (Jackson 1995). The precise provenance of the helmet is unknown, but it has been suggested that it was discovered in the north of Britain.

Ultimately, the wearing of helmets appears to be exceptional in Iron Age Britain and should not be thought of as standard equipment for the warriors of British tribes in either the north or the south of Britain.

Body armour

Several examples of mail have been recorded, including a chariot burial at Kirkburn, East Yorkshire, cremation burials at Lexden in Essex and Baldock and St Albans in Hertfordshire (Whimster 1981; Foster 1986; Stead 1991). The Stanwick Hoard also included a fragment of iron mail with copper alloy rivets, similar to the example from Lexden (MacGregor 1962). The mail shirt from Kirkburn is the earliest example of mail in Britain and it was also the best preserved at the time of discovery (Stead 1991). The shirt had been constructed of iron wire rings 8.2 mm to 9.2 mm in diameter. The wire was 1.5 mm to 1.9 mm thick and each link was interlinked with four adjacent rings and butt-jointed. The mail retained no evidence of a lining. The shirt was effectively a tube, with no evidence of sleeves. Two flaps lay over the shoulders, which were fastened with an iron hook (Stead 1991). The shirt would have been similar to that represented on the Vachères Warrior statue from France, dated to the first century BC (Bishop and Coulston 2006).

Mail shirts, like helmets, appear to be exceptional rather than common place in Iron Age Britain. Their delicate iron rings are not conducive to their preservation and it is possible that they are underrepresented in the archaeological record. However, based on current evidence, we must conclude that armour was not a regular feature of Iron Age warfare in Britain, and that the majority of warriors did not wear armour when they went into battle, relying primarily on their shields for personal defence.

Cavalry and chariots

Our evidence for chariots in Iron Age Britain is greatly reliant on a series of chariot burials discovered in East Yorkshire and one burial from Newbridge in Scotland, all dated to the pre-conquest era in Britain (Jay, Haselgrove *et al.* 2012). A newly discovered chariot burial in Pembrokeshire, Wales has very recently been reported (Thomas 2019). Through the nineteenth, twentieth and twenty-first centuries, occasional discoveries of chariot burials have occurred in Iron Age cemeteries associated with the Arras Culture. We now have almost 30 chariots recorded, with a recent, extraordinary

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example coming from an Arras Culture cemetery at the Mile in Pocklington, near York (see Ware this volume). This burial of a mature adult male is still being analysed, but it will have lasting impact on our understanding of chariots in Iron Age Britain. While most of the chariots placed in burials had been dismantled, the chariot from the Mile was buried intact, with the horses positioned upright, as though they were still pulling the chariot. A mature adult male was buried inside the body of the chariot on top of his shield. A further less well-preserved, dismantled chariot burial was found at Burnby Lane, Pocklington, also with two horses, excavated by MAP Archaeological Practice, the results of their analyses are keenly anticipated (Ware this volume). Previously, horses had only been recorded in the King's Barrow, Arras (Mortimer 1905; Halkon 2013; Stillingfleet 1847; Stead 1979).

Prior to these most recent discoveries, a series of chariot burials were discovered at Wetwang, Yorkshire (Dent 1985; Dent 2010). These were carefully excavated and it was possible to reconstruct one of the chariots, a process which was recorded and broadcast by the BBC (Loades 2005). Many elements of the chariots, including the suspension system, were hypothetical, drawing on Gallic and Etruscan finds and depictions of chariots as well as ancient Egyptian representations. It is thought that the chariot had a seated driver and a standing passenger (Loades 2005).

While the survival of complete chariots is limited, terrets have been recorded over a much wider area (Fox 1923; Fox 1946; Lewis 2015). Numerous examples have been found by metal detectorists and reported under the Portable Antiquities Scheme. Thus, while we have only a small number of remaining chariots, we can extrapolate that they were much more common, and that their survival is a result of the distinctive funerary rituals of the peoples of East Yorkshire.

It is reasonable to argue that, if Iron Age warfare was occasional rather than constant, these vehicles would also have been used in non-martial contexts. However, Wetwang Cart Burial 3 and the most recently excavated chariot burial at Pocklington also included martial equipment, reinforcing a connection with martial identity construction in the funerary context, at least for those individuals (Dent 1985; Ware pers. comm.).

Tactics and fighting style

Apart from accounts by writers from the Classical world, our knowledge of tactics is reliant on the archaeology, for which the Arras Culture of East Yorkshire provides some of the most informative evidence. The preponderance of throwing spears, and the near total absence of body armour, indicate that the style of warfare was highly mobile and loosely formed, based around raiding and short, sharp episodes of inter-group violence. Caesar describes his troops as being harried by the cavalry and charioteers and that foot soldiers deployed their throwing spears from a distance. Caesar (*The Gallic War* V.17) also relates an account of a raiding party that attacked some of his troops while they were engaged in foraging for food. This is one of several small skirmishes described by Caesar. These interactions demonstrate a clear understanding of guerrilla tactics, using a small

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number of men to launch a minor skirmish attack before turning to 'flee', drawing enemy troops into an ambush. Caesar highlights the locals' familiarity and use of territory to their tactical advantage. Despite the numerous hill fort sites identified, particularly in the south of Britain, protracted engagements and siege warfare are unlikely.

Both sharp force and penetrating force traumatic injuries, consistent with sword blows and spear thrusts, have been recorded in the archaeological record. However, the number of individuals who exhibit signs of violent injury is low. A study by Sarah King (2010) revealed that at Wetwang in Yorkshire only 2.5% of the 435 individuals analysed showed evidence of violent injury consistent with sword and spear injuries. Both Pocklington cemeteries contained skeletal remains bearing similar injuries (Ware pers. comm.). The level of interpersonal violence may not have been consistent in all parts of Britain. While at Wetwang the proportion of the burial population suffering identifiable traumatic injuries was low, in Hampshire the proportion was higher (King 2010). Sharp force trauma injuries ranged between 6–11% across a number of Iron Age cemeteries (King 2010). At southern sites, both King (2010) and Rebecca Redfern (2009) observed blunt force injuries possibly associated with sling stones have been recorded at sites in Hampshire and in Dorset.

Rates of interpersonal violence are likely to be underrepresented in the archaeological record as many soft tissue injuries would not have left traces on the skeleton (Carman 1997; Carman and Harding 1999; Knüsel 2005). Studies of projectile weapon injuries conducted by George Milner (2005) suggested that approximately two thirds of projectile weapons (arrows in his study) failed to leave any traces of impact on the bones. He highlighted that the highest proportion of serious injuries were to the abdomen or thorax. Abdominal injuries are frequently fatal and only about 2% of these injuries impacted on the underlying skeleton (Milner 2005). Thus, our knowledge of the extent and severity of interpersonal violence is limited by the nature of the evidence.

According to Caesar, chariot-borne warriors were well trained and able to manoeuvre quickly, running along the chariot beam and even to climb up onto the horses' yokes to launch their missile attacks before dismounting for close quarter combat. Their drivers, meanwhile, retreating a short distance, were ready to rush in and extract them from danger, using the chariot essentially as a 'battle taxi' (*The Gallic War*, IV.33). Barry Cunliffe (2005) has highlighted that the chariot offered 'champions' an opportunity for bombastic display, demonstrating their agility, speed and daring in the performance of their fast-paced attacks.

Display and performance clearly had a role to play in close quarter combat. While the majority of warriors would have maintained their distance, throwing spears and hurling insults, those equipped with swords and heavy thrusting spears would have sought out similarly equipped enemies against whom they could engage in dramatic duels. To reach their opponents, these warriors needed to make their way through the effective zone for the deployment of throwing spears, before they could begin their close quarter attack. This is an act which would have demonstrated considerable bravery. Upon meeting their challenger, these warriors may have engaged in highly

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codified combat with their thrusting spears and swords, dictated by conventions that could have included mutilation of the corpse of a defeated warrior, for example, taking of the head and the seizing of equipment as trophy items (Diodorus Siculus, *Library of History* V.29; Godelier 1986).

Martial training probably began in childhood, and the peak years for martial practice would have been from the late teens to mid-20s. Evidence for martial training is limited, but Early Irish Laws are thought to retain some traces of Iron Age cultural practices, indicating that the training of sons and foster sons commenced in childhood (Karl 2005). A close reading of the Ulster cycle led Sayers (1983) to argue convincingly that martial training consisted primarily of learning and practicing the performance of complex feats with weapons and shields. These feats served as a form of strength conditioning and agility training, with a focus on dexterous action and precision. Sayers (1983) went further to argue that these feats were performed not only as a means of training, but also on the battlefield as a means of intimidating prospective enemies through the execution of dazzling and courageous displays of skill and aggression. Diodorus Siculus (*Library of History*, V.29) provides a description of Gallic warriors engaging in braggadocio in the lead up to armed engagements, aimed at striking fear into their opponents. Such practices are highly likely to have been common to warriors both on the Continent and in Britain.

Conclusion

The archaeological evidence allows us to identify regional differences in martial equipment and practice, with the use of the sling in the south of Britain, as well as a preference for the longsword. Across Britain, there was a clear emphasis on the throwing of spears as a core component of native warfare and the tactics appear to have been primarily based around raiding and guerrilla warfare. Combat appears to have been highly mobile with an emphasis on speed and individual skill. Troops were lightly armed and reliant on their shields for personal defence. Acts of daring were highly valued and elite warriors engaged in close quarter combat with heavy thrusting spears and the sword. The use of cavalry and particularly the chariot – an extraordinary continuation of early Iron Age martial practice, seen only in Britain at this time – facilitated shock tactics, closing on the enemy with ferocious speed, while performing complex martial feats to terrify their enemies.

It is clear from the presence of chain mail, Coolus type helmets and continental shield forms, that there was ongoing contact between Britain and Continental Europe. This included not only the exchange of equipment but also personnel. All the evidence indicates that the warriors of Iron Age Britain were not isolated but formed part of a wider network in which mercenary service and the movement of warriors, equipment and tactics flowed freely between the island and the Continent. It is also clear that the martial burials of the Arras Culture make an important contribution to our understanding of Iron Age warfare.

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