THE PRODUCTS OF THE BLACKSMITH IN MID-LATE ANGLO-SAXON ENGLAND

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Part 3

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Dress fittings and riding equipment

A striking feature of eighth century and later artefact assemblages, when compared to those of earlier date, is the greater range of iron dress fittings and riding equipment, examples of which often bear relief work and non-ferrous plating.

A review of the principal types may begin with buckles of which a variety of forms and sizes is known.[199] The most common form of frame is D-shaped (Fig. 19a, d) and, on the basis of grave evidence from Scandinavia and north Germany, this appears to have been especially suited to riding equipment and bridles.[200] Rectangular and oval frames are also common, but trapezoidal (Fig. 19b) and kidney-shaped (Fig. 19c) frames are also known. Variation in size was, presumably, to some extent, related to function and the buckles from 16-22 Coppergate, York range from examples as small as 20mm x 12mm (Fig. 19a) to one as large as 67mm x 39mm (Fig. 19c).

Middle and Late Anglo-Saxon iron buckle-plates were usually formed by folding a plate over the buckle frame, leaving a central slot for the buckle pin, and then riveting it to the belt or strap (Fig. 19d). Most buckle-plates are basically rectangular, although some other forms are known. Of particular interest are a pair from 16-22 Coppergate, York with opposing triangular-shaped ends separated by a thickened panel bearing relief work (Plate 7 – Part 3).[201] This distinctive form was also used for two strap fittings from the same site, each of which is composed of two plates held together by rivets with domed, brass heads (Pl. 8).[202] There are no obviously comparable objects in England, but their form is strikingly similar to that of a copper alloy buckle-plate from a Viking grave at Ardskinish (Colonsay, Inner Hebrides)[203] and of a group of brooches and other fittings in both iron and non-ferrous metals from Birka and other Viking Age sites in Sweden.[204] When considered as a group, the four York objects form, therefore, one of the few pieces of good evidence from the ironwork (another being the hasp with animal heads)[205] for a common tradition linking the metalworkers of Anglo-Scandinavian York and those in the Viking homelands.

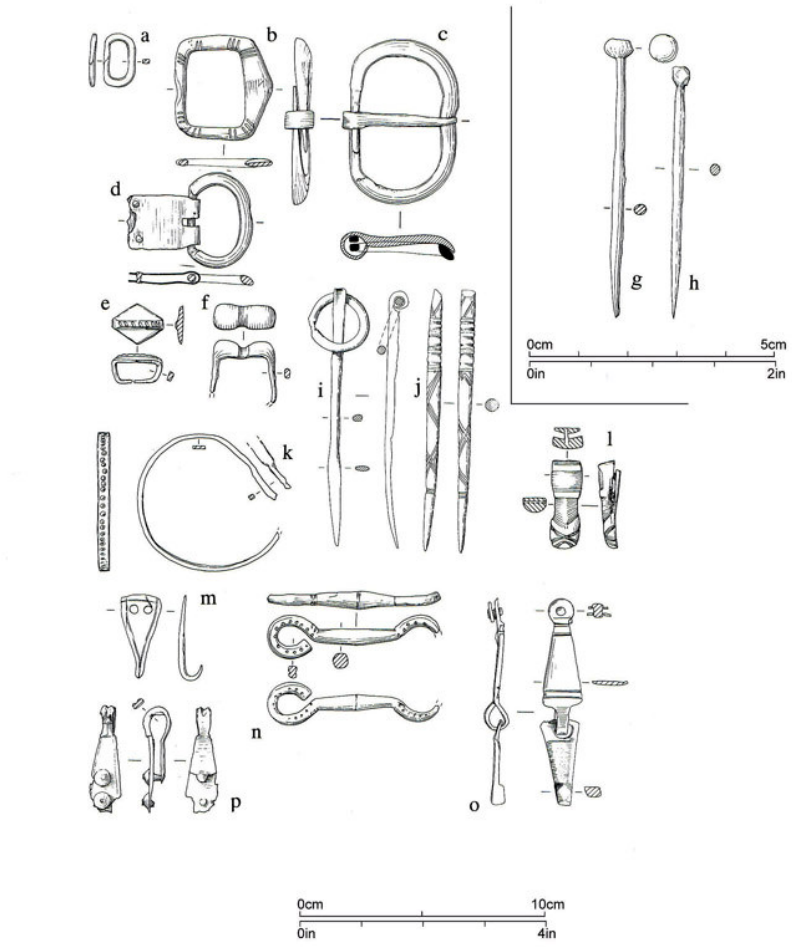

Fig.19 a-c buckles; d buckle and buckle-plate; e-f strap- guides; g-h pins; i ringed pin; j pin; k strap-end; l bracelet; m dress hook; n strap fitting with looped eye; o snaffle bit link; p bridle fitting (all York)

A strap-guide, or belt-slide, was fitted to a belt immediately behind the buckle and buckle-plate (Fig. 19e-f). Evidence from Northampton and York suggests that strap-guides were frequently used on spur leathers.[206] 16-22 Coppergate produced a number of head forms most of which have no parallel elsewhere, but a bilobate form (Fig. 19f) has also been found elsewhere in eastern England.[207]

Compared to those made of non-ferrous metal, Anglo-Saxon iron strap-ends are scarce.[208] They were made either by folding a piece of iron in two or by welding two plates together at one end leaving the other open to fit over the strap (Fig. 19l). Examples from Hamwic and York have forms, including simplified animal heads, which are similar to non-ferrous examples from those places.[209] It is not clear if iron strap-ends were used on belts or bridle straps, but the latter is suggested by iron fittings akin to strap-ends found on a bridle in one of the tenth century chamber graves at Thumby-Bienebek (Schleswig-Holstein).[210]

The most common forms of iron pin, occurring primarily in contexts of eighth - ninth century date, have spherical or polyhedral heads (Fig. 19g-h).[211] These pins were usually plated and the head itself was sometimes made of non-ferrous metal. A number of other forms of iron pin include the ringed pin (Fig. 19i) which may have its origin in Ireland.[212]

There are also pins which have no distinct head and a tinned example from York has an elaborate pattern of encircling grooves (Fig. 19j).[213]

Iron dress hooks, sometimes known as hooked tags, appear to be almost as common as examples made of non-ferrous metal.[214] The heads are either rounded or triangular (Fig. 19m). The location of two silver dress hooks in a grave at Cathedral Green, Winchester suggests that these objects may have been attached to garter belts and used to hold up socks or stockings.[215]

Evidence for iron bracelets is confined to one complete example and two fragments from York (Fig. 19k). Small iron brooches of the safety-pin type usually with tinned lozenge-shaped heads are known from Flixborough. [216]

As far as riding equipment is concerned, the stirrup and the spur are two object types which were probably added to the blacksmith's repertoire in the eighth or early ninth centuries. Stirrups are very rarely found in stratified contexts; one of the few being a specimen found in a late tenth century deposit at Winchester (Fig. 20a).[217] Numerous chance finds are known, but they have been discussed in detail elsewhere [218] and nothing need be added here, although it should be noted that while ninth century stirrups appear simple in form, some tenth century stirrups are among the most elaborately decorated iron objects of the Anglo-Saxon period. Complex relief motifs and patterns of inlay are known along with tin and silver plating.

Spurs are much more common finds in stratified contexts than stirrups. Middle Anglo-Saxon spurs are, like contemporary examples from elsewhere in Europe, relatively simple in form with a short pointed goad (Fig. 20c).[219] In the tenth century there was a considerable elaboration of spur form as exemplified by a spur from York shown as Fig. 20b.[220] Goads became longer than hitherto and adopted a variety of complex forms while the arms were usually given relief decoration. Plating, usually with tin, but also with copper alloy, became almost universal,[221] although there are no examples of either the inlay or silver plating found on stirrups. The tenth century saw a new method of attaching spurs to footwear involving terminals formed like buckles which employed buckle-plates to join them to the leathers (Fig. 20b).[222]

The diversification in the form and decoration of stirrups and spurs of the tenth - eleventh centuries should, perhaps, be seen as an expression of the increasingly elevated status assumed by the Late Anglo-Saxon horseman, especially in his role as warrior.[223] This is also suggested by the elaboration of the equipment for the horse itself in the same period.

Horse equipment

Bits from pagan graves and Middle Anglo-Saxon contexts are usually composed of simple linked snaffles with ring cheekpieces (Fig. 20d) [224] to which the leathers were attached by strap fittings with looped or U-shaped eyes. This form of bit remained in use until and beyond the Norman Conquest, although the various components of Late Anglo-Saxon examples often bear plating and simple relief ornament (Fig. 19n, p).[225]

Although not apparently common until the ninth century, the so-called 'bar bit' was probably introduced in the late sixth or early seventh century. This might simply involve the addition of projections to the cheekpiece rings (Fig. 20f). A pair from Sutton Hoo has decorative non-ferrous plates soldered to triangular terminals.[226]

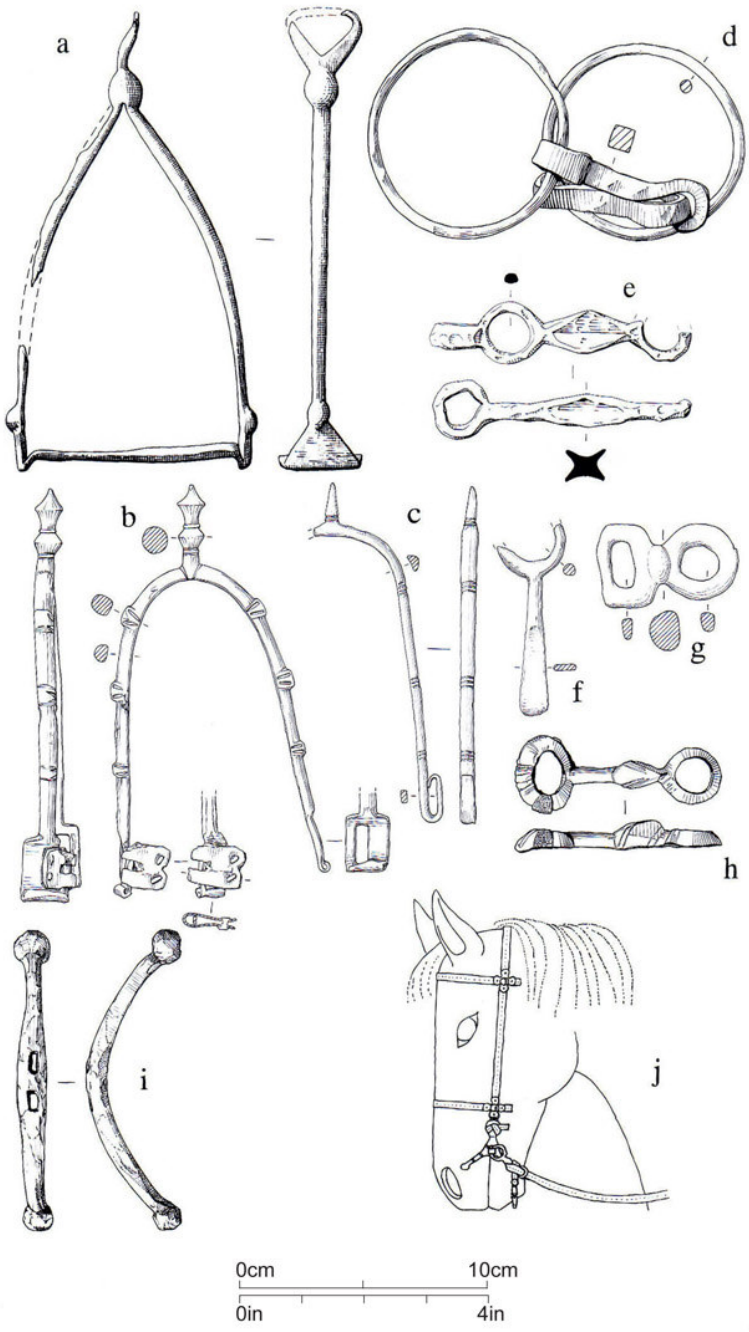

Fig. 20 a stirrup (Winchester); b-c spurs (York); d snaffle bit (Wicken Bonhunt); e snaffle bit link (Thetford); f cheekpiece (York); g-h strap-joiners (York and Goltho); i cheekpiece bar (Winchester); j reconstructed late Anglo-Saxon horse bridle

A more elaborate form of bar bit [227] employed snaffle links with two eyes, or an eye and a link, at their outer (cheek) end (Fig. 20e). The outermost eye, or the link, was attached to the reins by a strap-joiner which either had one rounded and one rectangular eye (Fig. 20g) or two rounded eyes (Fig. 20h and reconstruction in Fig. 20j).[228] The inner eye (at the

cheek end of the snaffle link) was linked to one of two forms of cheekpiece. The first consisted simply of a central eye (which articulated in the eye of the snaffle link) with projections on either side.[229] The second consisted of a double – eyed strap joiner of which one eye articulated on the eye of the snaffle link and was attached to a separately made bar, or formed in one piece with it, which could be either straight or curved (Fig. 20i). The second eye was linked to a strap running to the top of the horse's head as shown in Fig. 20j.[230]

Bar bits were usually decorated with relief work and plating. They were, in due course, supplemented by the curb bit seen in the Bayeux Tapestry, but not represented in pre-Conquest archaeological contexts in England.

Other bridle fittings include cross-shaped strap-distributors with either a central boss (Fig. 21a) or a piercing (Fig. 21b), and eyes at the ends of the arms (see reconstruction in Fig. 20j).[231] Iron strap-ends may have been attached to the end of bridle straps and there is also a linked fitting from York, very similar to objects found at Thumby-Bienebek, which is almost certainly from a bridle and served as a purely decorative strap terminal (Fig. 19o).[232]

Knowledge of the Anglo-Saxon horseshoe has been revolutionised by recent archaeological work.[233] There is no good evidence for the use of horseshoes in Roman Britain;[234] their introduction probably took place in the late ninth century. A fragment, apparently of this date, comes from Wicken Bonhunt.[235] However, the best evidence for the Anglo-Saxon horseshoe comes from Winchester and York.[236] In the late ninth century the horseshoe has branches which are wide and thin in comparison to those of the post-Conquest period; the outer side is smooth and the holes are sometimes countersunk (Fig. 21c). By the late tenth century the outer side may be slightly wavy and rectangular countersunk holes are usual. By the end of the eleventh century the characteristic Norman horseshoe has arrived with relatively narrow and thick branches, round holes set in oval countersinkings and a pronounced wavy outer side.

Arrowheads

The study of iron weapons in Anglo-Saxon England and in other European countries in comparable periods has generated a considerable literature and little of value can be added here except in respect of arrowheads. Although archery is known to have been widely used in hunting and warfare, little was known about the archer's equipment until recently. [237]

Arrowheads remain rare in Early or Middle Anglo-Saxon contexts, but occur more widely in those of the late period. The commonest form throughout the Anglo-Saxon period has a tanged, or on occasions, socketed, leaf-shaped blade (Fig. 21d-f).[238] York has produced a few blades with unusual patterns of surface ridges including one on which they are diagonal giving a feathered appearance (Fig. 21f).[239] The leaf-shaped blade was well suited to hunting and warfare as it made a wide cut which caused the quarry rapid blood loss and thus hastened immobility and prevented its escape.[240]

Other forms of arrowhead include one with a tapering blade of rectangular or sub-rectangular cross-section which is usually socketed.[241] Most specimens are relatively small (Fig. 21g), but some York examples are large and very robust (Fig. 21h). They had probably been developed to pierce the body armour which was becoming more widely used in the tenth - eleventh centuries [242] and, in this sense, they may be seen as forerunners of the crossbow bolt of medieval times for which there is no good archaeological evidence in the Anglo-Saxon period.

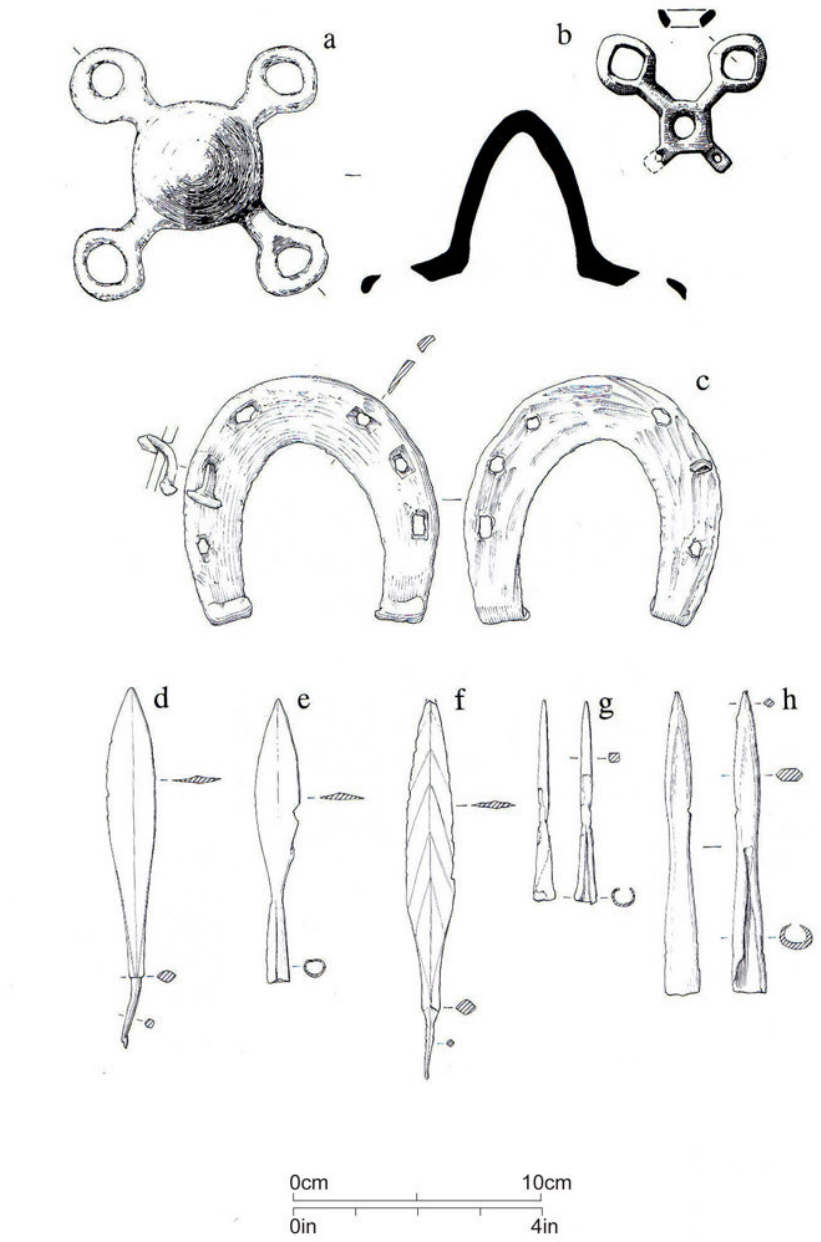

Fig.21 a-b strap-distributors (Thetford and Winchester); c horseshoe (York); d-h arrowheads (York)

Conclusion: The development of the blacksmith's craft in Anglo-Saxon England

This review of the principal types of Middle and Late Anglo-Saxon iron artefact has noted evidence for a continual diversification of the smith's repertoire. The process has three aspects. Firstly, it involved the introduction of new types of object such as the pivoting knife, the stapled hasp, the spur and the stirrup. Secondly, it involved the development of new forms within established object types, including tanged knives and locks, and, thirdly, the introduction, or more extended use, of manufacturing techniques, including tinning and pattern-welding, which were associated with a number of different types of object. It should be added, of course, that technical improvements and other factors also caused object types to be dropped from the repertoire from time to time, while certain forms and techniques became obsolete, but these developments were more than outweighed by the three previously described.

Identification of this evidence for diversification, which is clearly of importance for the wider study of the economy and society of Anglo-Saxon England, may, it is suggested, be related to changes in the organisation of the blacksmith's craft. Compared to those of later periods, the smith's product range in the Early Anglo-Saxon period appears to have been relatively restricted. At a time when England was primarily a country of dispersed rural settlements, smithing was probably undertaken, for the most part, either by itinerant smiths or on a part-time basis by people also active in other crafts. As a result, there may have been a reluctance to experiment and, at the same time, assimilation of new techniques was probably slow. Weapons and such items as the Sutton Hoo cauldron chain suggest, however, that skilled specialist smiths did exist in the Early Anglo-Saxon period and they were probably employed on aristocratic estates.

In the late seventh or early eighth century a new type of specialised trading centre appears in England which usually existed as an unfortified, regularly planned settlement located on a river estuary. The best-known examples are at Hamwic,[243] Ipswich,[244] London[245] and York.[246] While these sites may have originated as centres for the export of agricultural surplus from aristocratic estates and the import of certain luxury goods in return, they have also produced a wide range of evidence for manufacturing in which blacksmithing is prominent. As already noted,[247] the evidence is especially good at Hamwic where two smithies were identified at the Six Dials site. If places like Hamwic became centres of economic activity because of the influence of aristocratic purchasing power, the same may also have been true of high status rural settlements such as Flixborough which has produced evidence for both foreign trade and manufacturing including metalworking.[248]

By the early tenth century it appears that the specialist trading settlements had developed into, or had been replaced by, settlements with a more diverse range of economic and social functions. From sites in what may now be described as towns there is again good archaeological evidence for manufacturing including blacksmithing, especially at 16-22 Coppergate, York.[249]

The Coppergate evidence consists of slag (including hammer scale), bar iron, scrap, tools and part-made objects. In the late ninth - early tenth century smithing probably took place on or near the site, but in the period c.925 - 975, after the site had been divided up into four tenements, the ironworking debris was associated with the large rectangular hearths sited in post-and-wattle buildings on the street frontage. It is difficult to say what exactly was produced by the smiths at Coppergate, but the part-made objects suggest a range of plated dress fittings including buckle-plates and strap-guides. It is also clear that iron was not the only metal being worked on the site as there was abundant debris from the working of non-ferrous metals, including the tin and lead which was used for plating iron.[250] Whether the same craftspeople worked both in iron and other metals cannot be known, but this seems likely.

By way of conclusion to this paper it is suggested that it was at sites like Six Dials in the Middle Anglo-Saxon period and 16-22 Coppergate in the later period that experimentation and innovation in the Anglo-Saxon smith's craft was pioneered. In these centres communities of smiths could settle on a permanent basis and new ideas, on

occasions from beyond England's shores, would have a chance to circulate. At the same time, the presence of a large and sophisticated market would encourage competition leading both to the development of new products and to specialisation, as in the case, perhaps, of the smiths producing tinned fittings at York. Outside the towns rural sites with an aristocratic presence, such as estate centres and monasteries, may have created a similar dynamic environment.