11 The Newstead Parade Helmet

by William Manning¹

Introduction

On the last day of March 1906 the workmen excavating the fort at Newstead cleared one of a number of pits to the south of the late Flavian and Antonine forts (Pit XXII; Curle 1911, 121), a pit which, like many others found in this area, was probably refilled on the closure of the Flavian fort in c. AD 105 (Frere 1999, 110; Manning 1972, 234). After removing some 18 feet (5.5 m) of largely sterile filling, they reached a deposit 2 feet (0.6 m) thick which produced a series of outstanding finds, two iron bridle bits, nine bronze phalerae, and a single much larger one, four 'objects of bronze', now known to have been saddle horns, and the three helmets: the iron parade helmet with its face mask, which is the subject of this paper, a highly decorated 'brass' helmet, a plain iron helmet, and the earpiece of a fourth helmet (Curle 1911, 121).

Description

National Museums of Scotland FRA 121 (Curle 1911, 168, pl. XXIX; Toynbee 1962, 167, n° 99, pl.104; Robinson 1975, 115, pls. 318 & 191; Garbsch 1978, 56, H1; Feugère 1994, 169, right; Junkelmann 1996, 28, Abb. 52-53)

Length 18.0 cm (from chin to top of hair). The visor and helmet are now separated.

Mask or visor (Figs. 1-3)

Dimensions: height 18.0 cm; width (across chin) 17.0 cm; thickness of metal: at neck 0.12 cm, at left-hand side and forehead 0.07 cm.

The mask or visor represents the idealised portrait of a young, clean-shaven man with open eyes and slightly parted lips. The forehead and sides of the face in front of the ears are framed by curling locks of hair. Viewed from the front it appears rather unnaturally wide, but this may be the result of its having had to cover not only the face but the ears and the internal padding which protected the face². The right-hand side is much damaged³, but the left profile has a sculptural quality which is completely classical (Fig. 1). By any standards it is a masterpiece of the blacksmith's art.

The Face

The face has rounded cheek-bones and a relatively short nose with wide nostrils. Curle said that the nostrils were open, but this is not the case for although the righthand nostril is lost the left-hand one had been plugged with lead during the life of the mask (Fig. 5). The mouth is of medium size with slightly parted lips, a concave slot

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² '...there were remains of thick padding in the inside of the head-piece. The padding appears to have been composed of wool, and to have been fastened to the metal by some resinous substance, which became sticky when hot water was applied. Traces of similar padding were found adhering to the mask.' (Curle 1911, 7).

³ The metal is extremely thin (less than 1 mm in most places) and the visor is quite badly damaged. When found it was broken in two, the break being visible today as a crack running from the fragment of hair on the forehead to the bottom of the chin. Two metal strips running across the break above the eye and across the chin now hold the two halves together. As well as this break, both edges in front of the ears, most of the hair above the forehead, and an area on the right-hand side of the face from the nose to the mouth, including part of the upper lip, are missing, as well as smaller areas between the right eye and eyebrow, and the same eye and the tip of the nose.

Curle was of the opinion that this damage was the result of its having fallen on to heavy stones in the pit, but had it shattered when it was thrown into the pit Curle's highly experienced workmen would probably have recovered most of the fragments, and it is more likely that it had been damaged before deposition. Unfortunately Curle does not record whether the two halves of the mask and the helmet were found in close association. The vexed question of why they were in the pit, whether as rubbish or as a votive offering, is irrelevant to this paper.

A recent study of the iron from which Roman armour was made indicates that a thickness of c. 1 mm was quite normal (Fulford *et al.* 2004). Although Fulford *et al.* examined fragments of several helmets, none are stated to be from parade helmets. The fact that parade helmets are not thought to have been worn in battle, where their decoration would tend to stop missiles rather than deflect them, and where the rider's vision would have been severely restricted, means that conclusions drawn from the most functional helmets cannot automatically be assumed to apply to them.



Fig. 1 — The Newstead helmet. James Curle's illustration (Curle 1911, pl. XXIX).

with rounded ends dividing them. The upper lip continues as far as the end of this slot, but the ends of the lower lip, which resembles a cupid's bow, stop some way short of the end. Seen in full-face the chin appears to be a rather unnatural oval (Fig. 2), but this is less pronounced in profile; it has a small central, vertical dimple. The eyes are set below sharply defined brows which curve up from the top of the nose to end about 1.0 cm from the locks of hair flanking the face; there are no eye-brows. The cut-out eyes are quite narrow with straight lower lids, defined by a wide groove immediately below them; the concave upper lids also have a groove at their edge. The surface of the face is extremely smooth, almost burnished, a feature which suggests that originally it was highly polished.

In plan the bottom of the visor is U-shaped with rather rough edges which are turned out below the cheeks to form slight flanges which widen as they approach the ears.

The Hair

Three fragments of the hair survive, one above the centre of the forehead, the others in front of the ears, each formed of a series of distinct curls with slightly curving or almost straight necks ending in a tightly rolled spiral with a punched dot at its centre (Fig. 4). The curls at the sides are noticeably larger and less tight than those on the brow.

The forehead hair: Fragments of two rows of curls survive. Each curl has three strands of hair, separated by smooth grooves, with the innermost strand rising to form the 'dome' of the curl; all run from left to right. Below the broken curl at the right-hand end of the lower row is a fragment of a four-strand wave which may be an infill



Fig. 2 - The Newstead helmet. Photo: © National Museums of Scotland.

between the forehead and the main line of curls.

Left-hand side (Fig. 4): Parts of four horizontal rows of curls survive, the top row continuing in a curve above the brow. All of the curls run downwards with the curl itself coming at the bottom of the lock. The direction of the curl, clockwise or anticlockwise, alternates between the rows, and each row slopes up with the front curl set slightly higher than the one behind it. The grooves between the strands of hair in the curls above the level of the eyes were formed by a series of small punch marks, and the same detail is visible on some of the lower curls on this side of the mask.

Right-hand side: This is essentially similar to the lefthand side, with parts of three horizontal rows of curls surviving.

Fittings

There is a short copper-alloy rivet in the lower corner of the left-hand side below the missing ear (Fig. 3), with what appears to be a tiny fragment of some form of organic material below its head, possibly leather.



Fig. 3 — The Newstead helmet. Photo: © National Museums of Scotland.

Immediately below this is a small hole which probably held a second rivet. Together, or, perhaps more probably, successively, they will have secured a strap running around the back of the skull-piece immediately above the neck-guard to hold the visor in place when it was worn. Similar rivets on the right-hand side will have lain in a damaged area.

Silver (?) rivets (Fig. 4): There are three small rivets, apparently made of silver, at the junction of the cheeks

and side curls on the left-hand side, the lowest one retaining a small fragment of thick silver(?)-foil. A fourth rivet lies on the broken outer edge of the second row of curls; it too retains a fragment of foil⁴. A single rivet survives on the lower edge of the curls above the nose, and there is a probable rivet hole between the two rows of curls on the forehead. Others could have been lost in the damaged areas on the forehead, but there are none in the surviving area of curls above the left eye, suggesting that there were

⁴ Curle erroneously states that there are five rivets on the left-hand side and two on the right.





Fig. 5 — The Newstead helmet. Interior of the mask showing the lead plug in the left nostril. Photo: © National Museums of Scotland.

fewer rivets on the forehead than at the sides. On the right-hand side three rivets lie in similar positions to those on the left-hand side. Presumably, as Curle suggested, they secured silver sheet covering the hair and, Curle thought, probably the face (Curle 1911, 169). However

thought, probably the face (Curle 1911, 169). However the position of the rivets clearly relates to the hair, suggesting that the silver was confined to the hair. It may be relevant that the curls are not as crisply defined as the face; had they been covered with silver-foil the finer detail could have been worked in the silver.

Interior (Fig. 5)

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The inner face of the mask presents a quite different appearance to the exterior with all of the surfaces showing signs of hammering, mainly with a short and narrow cross-pene, some 1.1 cm in length and 0.4 cm wide. There can be little doubt that the general form of the visor mask was roughed out in reverse and the detail then added to the face.

Skull-piece (Figs. 1, 3, 6-9)

Dimensions: height 22.0 cm; maximum surviving width 19.4 cm; thickness of metal: at edge of skull 0.05 cm; below ear 0.1 cm.

Much of the crown and neck-guard survive, together with most of the left-hand side behind and above the ear and across the left temple. Large parts of the right-hand side and the crown are missing. A plain band runs around the sides and brow of the helmet, beginning at the ends of the neckguard. The crown is covered with repoussé decoration consisting of three elements: a central Catherine wheel of hair surrounded by spiral-ended curls similar to those on the visor, with a conventionalised laurel-wreath running across the crown and back of the head (Figs. 6-8). The Catherine wheel is formed of curving strands, arranged in six groups with three or four strands in each group, radiating from a central point which is pierced by a copper-alloy spike (Fig. 7). Around the wheel are two rows of wave-like curls each ending in a tight spiral. There is a small gap between these curls and the laurel wreath which is filled with curving lines, presumably representing hair. Beyond the laurel wreath are two further rows of curls similar to those on the crown. These rows of curls coil alternately anticlockwise and clockwise. A third row of small curls in lower relief runs along the rim of the helmet above the forehead, but they fade out before the curve around the ears. Almost all of the curls have three locks of hair and all are set at very regular intervals, 2.1 cm from the centre of one curl to the next, both along and between the rows. Small dots are visible in the grooves between many of the locks, presumably the remains of punch marks produced when the curls were formed.

The laurel wreath, which is set well back on the crown, consists of a series of overlapping, conventionalised



Fig. 6 — The Newstead helmet. The back of the skull-piece. Photo: © National Museums of Scotland.

laurel leaves with half-leaves at the edges, set on a slightly raised band with a row of shallow dots on its sloping edge (Fig. 6). At the front of the wreath is a domed rosette with a radiate star design, with four dots placed symmetrically on the edge of the star (Fig. 8). At the back, below a damaged area, two schematised wavy ribbons, decorated with dots set between C-shaped punch marks, curve down to end immediately above the neck guard. The space between the junction of the ribbons is occupied by a fanshaped moulding decorated with vertical lines.

The right-hand side of the helmet is badly damaged and

the area around the ear is missing. The lower part of the edge behind the left ear is straight before curving round above and in front of the ear (Fig. 9). At the beginning of this curve, above the back of the ear, are four rivet holes, two large ones with smaller ones above and below them. There are two more rivet holes, one still retaining its rivet, in the angle between the top of the curve and the brow edge. Together they will have secured guards behind the ear and probably across the brow.

The neckguard slopes down from the back of the skullpiece at an angle of about 45° (Fig. 6). Its outer face is



Fig. 7 — The Newstead helmet. The back of the skull-piece showing the attachments. Photo: © National Museums of Scotland.



Fig. 8 — The Newstead helmet. Detail of the laurel wreath. Photo: $\ensuremath{\mathbb{O}}$ W.H. Manning.



Fig. 9 — The Newstead helmet. Left hand side of the skull-piece showing the rivet holes for attaching the ear guard and the plume holder. Photo: @ National Museums of Scotland.



Fig. 10 — The Newstead helmet. The ownership inscriptions and marks on the underside of the neckguard. Photo: © National Museums of Scotland.

concealed by a copper-alloy facing which continues on to the base of the crown for c.1.0 cm, and is turned under the edge of the guard for c. 0.6 cm ending in an irregular edge (Fig. 10). It is decorated by a series of large raised triangles, their bases against the dome of the skull-piece, with a large raised dot between them, enclosed by raised lines at top and bottom. The workmanship of this facing is neat but not of the highest quality, and it is probably a later addition either replacing an earlier one or, perhaps more probably, simply as additional decoration. Four rivet holes, driven through from the top of the guard, pierce both the copper-alloy facing and the guard itself (Figs. 10-12); one is on the midline of the helmet, the others near its ends. Only one, in the corner of the guard on the left side, retains its rivet. There may be another small rivet above this one, with only the head visible on the iron guard.

At the very bottom of the vertical section of the edge around the ear and just above the neckguard another small rivet hole is covered by the copper-alloy sheet.



Fig. 11 — The Newstead helmet. The ownership inscriptions and marks on the underside of the neckguard: detail of left hand end. Photo: © National Museums of Scotland.

Inscriptions (Figs. 10-12)

A series of inscriptions are cut into the iron on the underside of the neckguard.

1.) A dotted inscription designed to be read with the outer edge of the guard towards the reader. In Frere and Tomlin 1991 (46, $n^{\circ}2425.4$) it is read, with difficulty, as:

MI [c.4] VCI.T ATINIA

Mi []uci t (urma) Atinia(na)?

Property of Mi....ucus in the Atinian troop. The editors amplified this with the note that, 'The command of the *turma* was temporarily vacant, so it was named from its last decurion (Atinius?)'.

The initial M is far larger than the other letters. The I is not vertical but slopes (thus /). This letter is formed of four dots but there is certainly a fifth dot at its top in a line at right angles to the main line. There are other dots beyond this which are clearly parts of letters which cannot now be read. Of the other letters, the right stroke of the V is less clear than the left stroke, and the C is a sloping and inverted L, with its vertical stroke lying immediately before the rivet hole on the midline of the guard which it appears to predate (Fig. 11). The remaining letters are smaller, more neatly formed and more distinct, suggesting that we are dealing with two different ownership inscriptions. If so they would read:

MI VC(?)I (A personal name)

Probably the *nomen* Minucius or perhaps the *cognomen* Minucus⁵.

T ATINIA (The *turma* of Atinia(na))

2.) To the right of this, and probably cut with a chisel, is IIX X (Fig. 12; Frere & Tomlin 1991, 46, n°2425.4b). This is read as 'Perhaps eighteen', with the additional comment that: 'The numeral(s) were apparently cut this way up (not XXII), with a space between the Xs.' In fact there is no reason why this should be so. Read from the other way it would become XXII or, more probably X and XII, for the gap (1.5 cm) between the two Xs is unnecessarily wide if it is a single figure. It probably refers to a unit and a subdivision.

That the XII section of the inscription predates the addition of the copper-alloy facing is shown by the fact that the ends of the two vertical strokes are covered by its turned-over edge. Unfortunately the edge of the iron is slightly chipped in this area and this prevents our being certain that the other numerals also ran under the copperalloy, although it is most probable that they did so.

3.) On the angle where the guard meets the helmet and slightly to the right of its midpoint are four equally spaced

⁵ I am indebted to Professor Sheppard Frere for this suggestion. He writes: Both the nomen Minucius and the cognomen Minucus would have genitives ending in ...ci. No other sensible name form seems to exist. I. Kajanto, *The Latin Cognomina* (Helsinki, 1965) lists only Minucianus under suitable M names, which is clearly irrelevant in this context. A. Mócsy, *Nomenclator* (Dissertationes Pannonicae, Budapest, 1983) has only Minuc[(one example from Spain) and otherwise only examples of the nomen Minucus. R.G. Collingwood and R.P. Wright, *The Roman Inscriptions of Britain. I, Inscriptions on Stone* (Stroud, 1995), 219, n° 653 has M. Minuc(ius) Aude(n)s, but he belonged to Legio VI. If the Newstead man lacked a cognomen it would be a sign of an early date, but one cannot exclude the possibility that he was just Minucus (cognomen).



Fig. 12 — The Newstead helmet. The ownership inscriptions and marks on the underside of the neckguard: detail of right hand end. Photo: © National Museums of Scotland.

single cuts IIII, presumably meaning 4, almost certainly made with a chisel. This has not been previously recorded but the marks are so deliberate that they must have a meaning and an ownership mark is the most likely. Whether any significance should be attributed to the number of strokes is an open question; four would probably be enough to establish ownership whereas one or two might have been used by other troopers.

Even if we take the minimum number of ownership marks, the helmet has probably been owned by three different men, and if it is accepted that the punched inscription is actually two separate inscriptions, four. If so, it would not be surprising; a legionary helmet from London also has four ownership inscriptions, while another from St Albans has three (Frere & Tomlin 1991, 44, n° 2415.2; n° 2425,3).

Fittings

The skull-piece retains a number of fittings and indications of where others had been.

1.) A domed copper-alloy (probably brass) stud on the lower part of right-hand side of the wreath (Fig. 7). Had there been a similar stud on the opposite side of the helmet it would have been in an area which is now lost.

2.) A copper-alloy spike, essentially a nail, with a washer around it, is set in the centre of the Catherine wheel of hair (Fig. 7). The shank is now bent into a rectangular C with its tip touching the surface of the helmet. It is a crude fitting and the contrast with the skilful workmanship of the helmet itself suggest that it is a later addition.

3.) At the centre of the nape of the neck, just above the angle where it meets the neckguard, a neat copper-alloy loop is riveted to the helmet (Fig. 7). Set 1.6 cm to the left

of this plate is the stem of another rivet surrounded by a patch of slightly abnormal corrosion. Although a second loop could have existed, single loops are found on other helmets of this general type (see discussion below), suggesting that the present loop is either a replacement or that the original loop was repositioned.

4.) Immediately above the left-ear is a plume-holder made from a roughly cut rectangular copper-alloy sheet with a U-shaped lug on one side (Fig 9). The body of the sheet was turned over to form a tube, now slightly flattened, and attached to the helmet by a rivet, now missing, through the lug. It is rather crudely made and is probably a later addition.

When Curle published his report a fragment with two copper-alloy fittings was still attached to the front of the skull-piece (Curle 1911, 170, pl. XXIX; Fig. 1) which has subsequently become detached (Fig. 13). It consists of a fragment of iron plate, presumably part of the skull-piece, on one side of which a second fragment, folded over to form a tubular socket, is attached by two rivets. A copperalloy strip, broken at its ends, is riveted to the inner face of the first plate. The head of a short stemmed ring-headed pin lies just above the fragment of socket, its stem running through both the fragment of skull-piece and the copperalloy plate. The tubular socket is part of the hinge which attached the mask to the skull-piece, and the ring-headed pin, like the loop at the back of the skull-piece, was probably a fastening point for a crest. The fact that its tail runs through the copper-alloy strip, and its neatness, suggest that it was an original feature. The function of the copper-alloy strip itself is less obvious, unless it was a reinforcement intended to strengthen the helmet at the point where the hinge was attached.





Fig. 13 — The Newstead helmet. Views of detached fragment with part of the hinge and loop. Photos: @ National Museums of Scotland.

Interior

The interior is very similar to that of the mask, and here again it seems likely that the more detailed work was done after the curls had been blocked out from the interior.

There is no evidence that the helmet was ever silvered.

Discussion⁶

Details of the helmets mentioned here, including publications, are given in Appendix 1.

The date of the helmet

As we have seen the helmet was deposited late in the Flavian or early in the Trajanic period, the generally accepted date for the closure of the Flavian fort being c. AD 105 (Frere 1999, 110). But the state of the helmet at the time of its deposition, the silver-foil torn from the hair,

much of the brow and the ears ripped from the mask, the ear and brow guards removed from the skull-piece and its hinge almost wrenched off, together with the evidence for a succession of owners, and the various alterations and additions, all indicate that it had seen many years of service before it was discarded⁷. If we are correct in suggesting that it bears the ownership marks of four men, a life of around half a century, making it a Claudio-Neronian piece, does not seem improbable, and the Longthorpe fragment confirms that curls of this general type were appearing on helmets at that date. Such a date would make it highly unlikely that it was actually made in Britain.

The use of cavalry parade helmets

We are fortunate in having an account of the use of this type of helmet in Arrian's *Ars Tactica* written in the thirties of the 2nd century AD.

34.2 Those of the troopers who are distinguished in rank or are outstanding in horsemanship, come past armed with gilded iron or bronze helmets, so that in this way they draw the gaze of spectators upon themselves. 34.3 These helmets do not, like those made for battle, protect only the head and the cheeks, but coincide completely with the faces of the horsemen with openings at the eyes which, while not interrupting the view, nevertheless afford protection to the vision. 34.4 From the helmets hang plumes of yellow hair, not for any practical purpose but to make a fine show; and when the horses charge, if there happens to be even a slight breeze, they present a splendid spectacle when borne aloft by the breeze, small though it may be.

(Hyland 1993, 72.)

This famous passage has been discussed by many commentators but two points are particularly relevant to this discussion: not all of the troopers in a unit wore such helmets, indeed the implication is that the majority did not, and the right to wear one depended on rank, presumably within the unit, and skill in horsemanship.

Typology

At least three classifications have been proposed for parade helmets, all based on different criteria. Russell Robinson's pioneering work divided the helmets into ten groups, Cavalry Sports A-J (Robinson 1975, 112ff), the Newstead helmet being the most complete example of his Cavalry Sports C. An alternative classification was proposed by Maria Kohlert in Garbsch 1978 (19ff.) who used the position of the hinges and other structural features to define five types, but followed Robinson in placing the female masks in a class of their own regard-

⁶ For the purposes of this discussion it is largely irrelevant whether the helmets mentioned here are of copper alloy or iron, and this is usually not mentioned in the text although it is recorded in Appendix 1.

⁷ A high proportion of the helmets from the Danubian provinces come from graves, which suggests that they were regarded as personal property which could be retained after discharge. For the details of provenances see Garbsch's catalogue (1978, 43 ff.) and Junkelmann's continuation (1996, 93 ff.).



Fig. 14 — Face mask from the Weissenburg Hoard (copper alloy), 2nd or 3rd century AD. Photo: © Archäologische Staatssamlung Museum für Vor- und Frühgeschichte München.

less of structural features (Kohlerts's Type VI, Robinson's Cavalry Sports E). The Newstead helmet falls into her Type II which is characterized by having the hinges in the middle of the skull. More recently Marcus Junkelmann has produced a classification which takes a variety of factors into consideration, including the date of the helmet (Junkelmann 1996, 26ff.; Born & Junkelmann 1997, 12ff.). He regards the Newstead helmet as falling between his Ribchester/Silistra type and the Herzogenburg or 'Alexander' Type (Junkelmann 1997, 43, Abb. 28) although, in reality, it is far closer to the Silistra type (e.g. the helmets from Silistra and Bulgaria 1). The Alexander Type (Fig. 14) is a 2nd and early 3rd century type and, as Junkelmann

says, it is characterised by strong modelling of the face

with many bulges and furrows, a small mouth with full

lips, a steep, straight nose, a strong chin, raised brows

with distinct eyebrows, a frowning forehead with a furrow

(often Y-shaped), above the top of the nose, curls of hair

which fall forward, and long sideburns (Junkelmann



Fig. 15 — Alexander the Great; Hellenistic Greek, 2nd-1st century BC; said to be from Alexandria (marble). Photo: © The British Museum 2005.



Fig. 16 —. Hermes; the Farnese Hermes, 1st century AD Roman copy of the 4th century BC original by Praxiteles (marble). Photo: © The British Museum 2005.

deposition of the Newstead helmet as being its date of production, but, as has been argued above, it is probably Neronian or even earlier rather than Trajanic, a fact which makes any connection with the Alexander type even less likely.

Silver plating

A number of face masks are either completely covered or have their faces covered with silver plate. The finest is the Emesa helmet, but others include helmets and masks from Vize, and the masks from Kalkriese, Nijmegen (n° 3), Plovdiv, Echzell, Pfrondorf, Stockstadt, Tell Oum Hauran, Ubbergen, and one from an unknown location now in the Rijksmuseum, Leiden. In none of these does the silver plating appear to have been confined to the hair, but to have covered both face and hair. An exception may be the mask of the Bulgaria 1 helmet which has a series of rivet holes around the edges of the hair in front of the ears, a very similar arrangement to that seen on the Newstead mask. The rivets on the Newstead mask are mainly located at the junction of the hair and face, with one in the hair itself confirming that the hair was certainly silvered (Fig. 4). The tiny fragments of sheet still held by two of these rivets shows that the plating was thin sheet which had to be held in place by mechanical means. The fact that silver covered both the face and hair of most other helmets of this type might suggest that originally this had been the case with the Newstead mask. However, much of the silver seen on these masks appears to be a very thin foil which is bonded to the base metal rather than sheet⁸, and if the face of the Newstead mask had been covered with sheet of the type seen on the hair it is difficult to see how it could have been held in place without additional rivets. Had it been covered with foil bonded to the iron some would almost certainly have survived. Taking these factors into consideration, it appears unlikely that the face of the Newstead mask was ever silvered.

The iconography of the mask

The antecedents of these helmets and masks are complex, but they were certainly being used by the Roman cavalry by the late Augustan period, as is shown by the mask from Kalkriese, which is generally accepted as debris from the destruction of the army of Varus in AD 9, and the fort at Haltern, abandoned as a result of that disaster (Born and Junkelmann 1997, 11).

Curle's photograph of the Newstead helmet and its mask clearly reveals the sculptural nature of the mask when it is seen in profile (Fig. 1). That such an image was created by smiths who were completely uninfluenced by the sculptural traditions of the Graeco-Roman world seems inherently improbable⁹. This is not to suggest that the smith who made the Newstead helmet created the type, rather that the type itself was influenced by the sculptural traditions of its period, and this, as we have seen, was probably the middle years of the 1st century AD.

The mask represents a young man with regular, idealised features. Ultimately its antecedents probably lie in the sculpture of the classical Greek period. The portrayal of the younger male deities by the artists of the 4th century BC and their successors created an ideal of youthful beauty which was reproduced in innumerable Roman copies. Apollo, Hermes, Dionysos, Ares and Asklepios are all shown in the physical perfection of youth with faces of delicate beauty, and in the case of Hermes (Fig. 16), Ares and Asklepios with short curly hair (Hermes: Smith 1991, 64ff, pl.69; Ares: Boardman 1995, 74, pl. 65; Asklepios: Boardman 1995, p.74, pl. 67). Such images must have been familiar to most of the urban population of the Roman world, and the number of Roman copies which still survive indicates their great popularity, the 'Farnese' Hermes being one example (Fig. 16). But whether their influence on the cavalry masks was direct or was mediated through the idealised image of Augustus is less clear. The dissemination of this image had begun even before he took the title of Augustus (Kleiner 1992, 61, pl. 39), and it is generally accepted that one of its models was the standard classical Greek portrait of Apollo. The result was highly effective, for it projected the image of a man whose fine features offer a glimpse of an inner calm combined with undoubted strength (Fig. 17). Many of these features are reproduced in the earlier face masks the unfurrowed brow with the hair falling on to it, the straight, well-proportioned nose with its carefully defined nostrils and the delicately curving lips, even the dimpled chin, are all characteristic both of portraits of Augustus and his immediate family (Kleiner 1992, figs. 39-47, 49 (Augustus), 48 (Lucius Caesar), 51 (Gaius Caesar) and 125 (Tiberius) and of several of the masks, including that from Newstead. Many of these details are handled in a very similar way in both statuary and masks; in particular the eyes with the carefully defined lids and the almost razor sharp eyebrow ridge, itself a characteristic of Augustan sculpture (Kleiner 1992, 65).

The origins of this hairstyle are less easy to define than the Alexander type. Tight curls, although rather less formalized than those seen on the masks, are not uncommon on Greek statues, or more accurately Roman copies, from the 5th century BC, including the famous group of the Tyrannicides (c. 476 BC) where Harmodius has such curls (De Caro 1996, 311). The style became

⁸ Dr Kilian Anheuser informs me that in the medieval period iron was normally plated by burnishing several layers of silver foil on to a keyed and gently heated iron surface, the foil being held in place by a combination of weak diffusion bonding and of mechanical interlocking with the grooves in the iron surface. The Roman technique must have been similar.

⁹ This is shown by the fact that eyebrows are not shown on the earlier masks but are normal on those of the 2nd century, a development which reflects the changing conventions of portrait sculpture.



Fig. 17 — Augustus; the Blacas cameo, c. AD 14-20. Photo: $\ensuremath{\mathbb G}$ The British Museum 2005.



 $\label{eq:Fig. 18} Fig. \ 18 - Head \ of \ an \ African; \ Hellenistic, \ from \ Alexandria \ (green \ slate). \ Photo: \ \odot \ The \ British \ Museum \ 2005.$

more common in the 4th century, for example the Farnese Hercules, a Roman copy of a 4th century BC original by Lysippus (De Caro 1996, 333), the Ludovisi Ares (Boardman 1995, pl. 66), Praxiteles' Hermes from Olympia (Boardman 1995, 53, pl. 25) and the Farnese Hermes (Smith 1904, n°1599) (Fig. 16). Such curls are less common in the Hellenistic portraits when the manelike fashion set by Alexander was dominant (Fig. 15), but even then curls make an occasional appearance, for example on a coin of Perseus of Macedonia (179-168 BC) (Head 1959, 74, pl.42, n°7), and on the statue of a Hellenistic ruler from Cyrene (Hinks 1935, 14, pl.15b). However, perhaps not surprisingly, the tightest, spiral curls are found on portraits of Africans, one of the finest being from Alexandria where the curls are even tighter than on the Newstead mask (Fig. 18) (Hinks 1935, 13, pl.15a), and the lively relief of a negro groom restraining a horse from Athens (Smith 1991, 54, pl. 59).

To what extent these were the models for the Newstead hair style is an open question, but it remains true that curls are extremely rare in male Roman portraits before the 2nd century AD; the 1st century fashion was for the simple, short locks seen in the earlier portraits of Augustus, and it is not until Titus that curls appear in imperial portraits (Kleiner 1992, 173, pl.141-143), almost certainly several decades after the production of the Newstead helmet. Women were another matter: Livia is shown with corkscrew curls (Kleiner 1992, 139, pl. 115), and by the reign of Claudius these curls had become de rigueur for fashionable women (Kleiner 1992, 140, pl. 116, Agrippina the Younger), and in the Flavian period the passion for curls reached a ludicrous level (Kleiner 1992, 146-149). Although one of these precedents almost certainly was the model for the Newstead hairstyle, its essential simplicity is in such marked contrast to the elaboration of the female coiffures as to make them an unlikely source. Indeed if the Newstead helmet was made in the middle years of the 1st century, as we have argued, it cannot have been influenced by the Flavian hair styles, as Junkelmann has suggested for the very similar hair style seen on the Bulgaria 1 helmet (Born & Junkelmann 1997, 41). As we will see, the Alexander style was almost certainly derived from Hellenistic models, and it is quite possible that Greek sculpture may have been the original for the curls of the Newstead helmet. In most cases the originals still survived when the helmets were made, and the Roman world was awash with excellent copies (Fig. 16); any smith living in or near a major city must have been familiar with them. The Hellenistic representations of Africans were probably less familiar, but they too offer a possible prototype.

Other masks with hair styles generally similar to the Newstead helmet come from Smederevo (Serbia), the Straubing Hoard n° 1 and two, probably from Bulgaria, formerly in the Guttmann Collection. The Silistra mask has a mass of small tight curls, while masks from Hirchova (Romania), and Stockstadt, Germany have short curling locks which, although not dissimilar to those of the Newstead type, lack the final spiral. Newstead type curls also appear on a helmet from Frankfurt-Heddernheim and similar curls were probably used on the mask which must have accompanied it. A small, corroded fragment of the skull-piece of a helmet of this type decorated with generally similar curls comes from the fortress at Longthorpe where it was deposited in c. AD 60.

Masks of the Alexander Type

If we are correct in suggesting that the models for the Newstead and some of the other masks were the official portraits of Augustus and the rather standardized Greek statues of the younger male divinities, it does not mean that these were the only models available for such masks or even the most popular. In the later 1st century a new dynasty arose and the image of the first emperor had become less potent. Admittedly few of the masks show any signs of the more realistic approach to portraiture of the Flavian emperors, with their square heads, and wide fleshy jowls (Kleiner 1992, 172ff. figs. 138-145), but many have a full face with a wide nose which is more reminiscent of portraits of Alexander the Great than any contemporary emperor (Fig. 15) (Smith 1991, pls.6-9). Given his unrivalled fame as a military leader, Alexander would be an obvious model in Roman military circles. Such masks are seen in Junkelmann's Alexander or Herzogenburg Type (Fig. 14) (Junkelmann 1996, 26; 1997, 41; cf. Appendix 2). Perhaps the most striking similarity to the portraits of Alexander is in the handling of his mass of hair with its thickly layered, wavy locks (Robertson 1975, 514, figs. 144d, 162a-d) and, in particular, the pair of locks which curve away from each other in the centre of the forehead (Smith 1991, 21, pl. 6). It is this detail which strongly suggests that portraits of Alexander himself, rather than a generalized Hellenistic type, were the model for this group of masks, although many have features which are not present in the original busts, a dimple in the chin, for example, and frowning brows. Although this type may have begun in the 1st century almost all of the well-dated examples are of 2nd or 3rd century date. It is the commonest type of male cavalry mask; fourteen of those illustrated by Garbsch and Robinson are of this type and a further four are variants on it, as against three with curls of the Newstead type, while another four have curls which differ from those on the Newstead helmet (Appendix 2).

The skull-piece

Far fewer skull-pieces survive than face masks. Writing in 1975 Robinson was able to cite no more than three other examples of helmets of his Cavalry Sports Type C, one from the Straubing Hoard, some fragments from the fort at Straubing and one, which he illustrates but does not refer to in his text, from Ruit, Kreis Esslingen. Although similar in design to the Newstead piece, all differ from it in their decoration. To Robinson's list may be added helmets from Carnuntum-Petronell, Hebron, Herzogenburg, Kastell Künzing, and Weissenburg, all of which are comparable in many respects to the Newstead helmets, while others from Aalen and Silistra have many points in common with it, as does the helmet, probably from Bulgaria, formerly in the Guttmann Collection.

It is probable that the Newstead helmet originally had a decorative bronze band on its front edge. Such tiara-like bands, decorated with a series of conical studs, are found on other helmets of this general type including those from Straubing, Carnuntum-Petronell, Hebron, Herzogenburg and Weissenburg, and the paired rivets above the ear could have held one end of such a band, although they could also have secured the top of a band behind the ear, or served both functions as seems to be the case with the Straubing and Carnuntum-Petronell helmets. All of these are of 2nd century date, but it remains likely that such a band originally existed on our helmet. That copper-alloy fittings enclosed the edge around the ear is confirmed by the group of four rivet holes. Only the left-hand side of the helmet is preserved, but it is still possible to see the shadow of this band on the metal of the skull-piece, curving down from the end of the front edge to the top of the neck guard (Fig. 9). A very similar protective edging is seen on the Carnuntum-Petronell, Herzogenburg and Straubing helmets, and on most other helmets of this general type (e.g. from Xanten-Wardt; Kops Plateau, Nijmegen; Vize, Turkey, etc.).

Whether the copper-alloy facing on the neck guard was an original feature is open to doubt (Fig. 6). Admittedly the neck guards of iron helmets were often decorated in this way and copper-alloy facings can be seen on the helmets from Carnuntum-Petronell, the Straubing hoard and the Weissenburg hoard. But this was not invariably the case; it is not found on the Hebron or Bulgaria 1 helmets, for example. Two features suggest that the sheet may have been a later addition to the Newstead helmet made when such decoration became fashionable: its crudity, both in the decoration and the way in which was attached, and the fact that it overlies the ends of two of the strokes of the numeral inscription on the underside of the guard. Its decoration is extremely simple when compared to the more elaborate designs seen on most of the other helmets. Only the Herzogenburg helmet has a simpler design, a series of plain triangles.

The basic decoration of the crown of the skull-piece is typical of such helmets (Fig. 7). The Catherine wheel at its centre is found on most helmets of this type, although the Newstead example is smaller than many, and the curls which surround it, while in themselves a relative rarity, most helmets having slightly curving locks, continue the hair style of the mask as is normal when we have both mask and skull-piece. The laurel wreath is somewhat unusual, most other helmets have a smaller wreath, or even a simple ring, which sits on the back of the crown of the head (e.g. Carnuntum-Petronell, the Straubing Hoard, the fort at Straubing, Ruit Kreis Esslingen, Herzogenburg etc.). Some of these lack the tails below the knot, but tails which are somewhat shorter than the Newstead ones are seen on the Carnuntum-Petronell, Ruit Kreis Esslingen and Straubing helmets. The wreaths on the Carnuntum-Petronell and Straubing helmets were gilded, as was the plain circlet on the Weissenburg helmet and the much more realistic olive (?) wreath on the fine officer's helmet from Xanten-Wardt, but there is no sign of gilding or silvering on the Newstead wreath or on any other part of the skull-piece.

Additional fittings

How many of these were part of the original design of the helmet must remain uncertain. The hinge, which must be original, was in the normal position for this type of helmet (Fig. 13). Of the other fittings, the loops at the front and base of the skull-piece (Figs. 13, 7) are well made and are probably original. They are not common on helmets of this general type, but others are found in a similar position at the back of skull-pieces from Carnuntum-Petronell and Vechten. Interestingly, both of these helmets have two other loops set at about the same height above the neck flange approximately halfway between the central loop and the edge of the helmet behind the ears; the Carnuntum-Petronell ones emerge from the mouths of lion-headed mounts. They may well have served to secure plumes of hair of the type described by Arrian. The Ribchester helmet also has loop-headed split pins on the median line, near the nape of the neck and on the crown of the head (Jackson & Craddock 1995, fig.48), and the Bulgaria 1 helmet has a similar loop holding a ring just above the left end of the neck flange (Born & Junkelmann 1997, Taf. XXIV). The rather crude appearance of the central spike in the Newstead helmet (Fig. 7) suggests that it was not an original feature. The most likely explanation for the two loops and the spike is that they secured a central crest, comparable to the bronze crests seen on Robinson's Cavalry Sports helmets Types G & H (Robinson 1975, 128ff.), although the spike is probably a secondary feature intended to hold the crest more securely, or to secure a plume of hair.

There can be no doubt of the function of the plume holder near the left ear (Fig. 9). Although not a common feature of such helmets, others are seen on the helmet from Carnuntum-Petronell, which has holders on both sides, and the Bulgaria 1 helmet which has a single plume holder low on the right-hand side of the skull-piece. It is possible that the Newstead helmet may also have originally had a pair of plume holders, for the apparently functionless stud on the right-hand side of the helmet could have secured a second holder, or the existing holder may be a replacement for an earlier one on the opposite side.

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Appendix 1:

Provenances of helmets and masks referred to in the text

The dates are usually those of deposition rather than manufacture. For complete catalogues cf. Garbsch 1978 and its continuation in Junkelmann 1996, 93ff.

- **Ain Grimidi, Algeria** Late 2nd or early 3rd century. Copper-alloy mask. Garbsch 1978, 68, O31; Robinson 1975, 115, pl. 137; Feugère 1994, 123.
- **Bulgaria? 1** Late 1st or early 2nd century. Iron mask and skull-piece. Junkelmann 1996, 94, O93 (mistakenly stated to be Sammlung Axel Guttmann AG 450); Born & Junkelmann 1997, 90, n° 449, Abb.69-72, Taf. XVII XX.
- **Bulgaria? 2** Late 1st or early 2nd century. Iron mask. Junkelmann 2000, 196.
- **Carnuntum-Petronell, Austria** Second half of 2nd century. Iron and copper-alloy skull-piece. Junkelmann 1996, 21 & 94, n° O100, Abb. 40, 41 & 86.
- **Çatalka, Bulgaria** First third of 1st century. Iron mask with copper-alloy skull-piece with silver plating. Garbsch 1978, 67, O26, Taf. 22.2; Junkelmann 1996, 30, Abb. 51; Born & Junkelmann 1997, 34, Abb. 22.
- **Dobrosloveni, Rumania** Second half of 2nd century. Copper-alloy mask. Garbsch 1978, 69, O40, Taf. 24.2.
- **Dülük, Turkey** (also recorded as Gaziantep, Turkey, and Aintab, Syria; Gaziantep is not a Roman site but Aintab can be identified as the Roman site at Dülük (*Doliche*) located c. 10 kms NW of Gaziantep. Bishop has also suggested that the mask came from Zeugma, but this can be discounted.) c. AD 100. Copper-alloy mask. Garbsch 1978, 68, O30, Taf. 23.2; Robinson 1975, 114, pl. 324; Kennedy & Bishop 1998; Feugère forthcoming.

- **Echzell, Germany** Mid 2nd century. Iron mask with silver plating. Garbsch 1978, 65, O18, Taf 20.2; Robinson 1975, 117, pl. 331.
- **Eining 1,** Germany First half of 3rd century. Copper-alloy skull-piece. Garbsch 1978, 46, A3, Taf. 1.3; Junkelmann 1996. 45, Abb. 88.
- **Eining 2,** Germany First half of 3rd century. Copper-alloy skull-piece. Garbsch 1978, 46, A4, Taf. 1.4.
- **Frankfurt-Heddernheim, Germany** Late 2nd or first half of 3rd century. Copper-alloy, silver and gold skullpiece. Garbsch 1978, 72, O53, Taf.29; Robinson 1975, 129, pl. 377; Feugère 1994, 135; Born & Junkelmann 1997, 60-61, Abb. 41.
- Foktorok, Hungary Second half of 2nd century. Copperalloy mask. Garbsch 1978, 67, O24, Taf 21.4.
- **Frankfurt-Hedderheim, Germany** Late 2nd or first half of 3rd century. Copper-alloy, with silver and gold helmet (Robinson's Cavalry Sports Type G). Garbsch 1978, 72, O53, Taf. 29; Robinson 1975, 129, pls. 376-377.

Gaziantep, Turkey see Dülük.

- **Hebron, Israel** First half of 2nd century. Copper-alloy and iron mask and skull-piece. Garbsch 1978, 59, L1, Taf 14; Feugère 1994, 127; Junkelmann 1996, 33, Abb. 55-56; Born & Junkelmann 1997, 43, Abb. 29.
- **Hellingen, Luxemburg** Second half of 1st century. Copper-alloy mask. Garbsch 1978, 65, O13, Taf. 19.2.
- **Herzogenburg, Germany** Mid 2nd century. Iron and copper-alloy mask and skull-piece. Garbsch 1978, 67, O23, Taf. 21.3; Feugère 1994, 126; Junkelmann 1996, 33, Abb. 57-58.
- Hirchova, Rumania Second half of 1st century. Copperalloy mask. Garbsch 1978, 67, O27, Taf. 22.3; Robinson 1975, 116, pl.329; Feugère 1994, 128.
- Homs (Emessa), Syria First quarter of 1st century. Iron and silver mask and skull-piece. Garbsch 1978, 63, O4, Taf. 17. 3-4; Robinson 1975, 121, pl. 349-351; Junkelmann 1996, 24, Abb. 35-37; Born & Junkelmann 1997, 27-28, Abb. 9.
- Kalkriese, Germany Early 1st century. Iron and silver mask. Junkelmann 1996, 18, Abb. 28.
- **Kostol, Serbia** Early 2nd century. Copper-alloy mask. Garbsch 1978, 68, O29, Taf. 23.3; Robinson 1975, 112, pl. 309 (as Semendria); Feugère 1994, 122 & 135.
- Longthorpe, England Mid 1st century. Iron skull piece (fragment). Frere & St Joseph 1974, 74, fig. 40.2, pl. VII.
- **Mainz, Germany** Second half of 1st century. Iron mask. Garbsch 1978, 64, O9, Taf. 18; Robinson 1975, 122, pl. 355; Feugère 1994, 132.
- **Newstead 1, Great Britain** Early 2nd century. Iron mask with silver plating and iron skull-piece with copper-alloy fittings. Garbsch 1978, 57, H3; Robinson 1975, 114, pl. 314 & 319; Feugère 1994, 169; Junkelmann 1996, 30, Abb. 52-53; Born & Junkelmann 1997, 42-43, Abb. 28.

- **Newstead 2, Great Britain** Early 2^{sndt} century. Copperalloy mask. Garbsch 1978, 69, O39, Taf. 24.1; Robinson 1975, 124, pl. 359 & 360; Feugère 1994, 169.
- Nijmegen 1, Netherlands Last third of 1st century. Iron and copper-alloy mask. Garbsch 1978, 63, O5, Taf. 18.1; Feugère 1994, 171.
- Nijmegen 2, Netherlands 2nd or 3rd century. Iron mask. Robinson 1975, 116, pl. 330.
- Nijmegen 3, Netherlands Last third of 1st century. Iron and copper-alloy mask and skull-piece. Garbsch 63, O6, Taf.19.1; Robinson 1975, 118, Fig. 339 & 340; Feugère 1994, 128; Junkelmann 1996, 50, Abb. 100.
- **Nijmegen 4** (Kops Plateau), Netherlands Mid 1st century AD. Iron mask and skull-piece. Junkelmann 1996, 28, Abb. 44.
- **Nola, Italy** 2nd century. Copper-alloy mask. Garbsch 1978, 70, O41, Taf.24.3; Robinson 1975, 124, pl. 361 & 362.
- **Pfrondorf, Germany** First third of 3rd century. Bronze and silver plate mask and skull-piece. Garbsch 1978, 71, O48, Taf.26.1; Robinson 1975, 127, pl. 369; Feugère 1994, 136; Born & Junkelmann 1997, 50, Abb. 39.
- **Plovdiv, Bulgaria** First quarter of 1st century. Iron and silver mask and skull-piece with leather. Garbsch 1978, 62, O2; Feugère 1994, 129; Junkelmann 1996, 30, Abb. 50.
- **Rapalano, Rome,** Italy Second half of 1st century. Copper-alloy mask. Garbsch 1978, 60, M3, Taf. 15.3; Feugère 1994, 130.
- **Resca, Dobrosloveni, Rumania** Second half of 2nd century. Copper-alloy mask. Garbsch 1978, 69, O40, Taf. 24,2; Robinson 1975, 125, pl.363; Born & Junkelmann 1997, 45, Abb. 30.
- **Rome, Italy** Mid 1st century. Copper-alloy mask. Garbsch 1978, 64, O11, Taf. 18.4; Robinson 1975, 122, pl. 356.
- **Ruit, Kreis Esslingen, Germany** 2nd or 3rd century. Iron and copper-alloy skull-piece. Garbsch 1978, 69, O34, Taf. 23, 4; Robinson 1975, 115, pl. 322; Junkelmann 1996, 33, Abb. 63.
- **Silistra, Bulgaria** End of 1st century AD. Copper-alloy mask and skull-piece. Garbsch 1978, 68, O28, Taf.22.4: Junkelmann 1996, 33, Abb. 54; Born & Junkelmann 1997, 34, Abb. 23.
- **Smederevo, Serbia** Second half of 2nd century. Copperalloy mask. Garbsch 1978, 67, O25, Taf. 22.1; Robinson 1975, 115, pl. 326 & 327; Feugère 1994, 138-139; Born & Junkelmann 1997, 35, Abb. 24.
- **Stockstadt, Germany** Mid 2nd century. Iron and silvered copper-alloy mask. Garbsch 1978, 66, O19, Taf. 20.3.
- **Strass-Moos, Germany** Second half of 2nd century. Copper-alloy mask. Garbsch 1978, 66, O21, Taf. 20.4.
- **Straubing Fort, Germany** First third of 3rd century. Iron skull-piece. Garbsch 1978, 69, O38; Robinson 1975, 115, pl. 323; Junkelmann 1996, 35, Abb. 62.

- Straubing Hoard 1, Germany First third of 3rd century. Copper-alloy mask. Garbsch 1978,47, B1, Taf.2. 1 & 2; Robinson 1975, 116, pl.333; Keim & Klumbach 1951, 13, n°1, Taf. 1 & 8.1; Junkelmann 1996, 35, Abb. 71.
- Straubing Hoard 2, Germany First third of 3rd century. Copper-alloy mask. Garbsch 1978, 48, B2, Taf. 2.1; Robinson 1975, 117, pl. 335; Keim & Klumbach 1951, 14, n°2, Taf. 2 & 8.2; Junkelmann 1996, 37, Abb. 70.
- Straubing Hoard 3, Germany First third of 3rd century. Copper-alloy mask. Garbsch 1978, 48, B3; Robinson 1975, 116, pl. 334; Keim & Klumbach 1951, 15, n°3, Taf. 3 & 9.1.
- Straubing Hoard 4, Germany First third of 3rd century. Copper-alloy mask. Garbsch 1978, 48, B4; Robinson 1975, 117, pl. 336; Keim & Klumbach 1951, 15, n°4, Taf. 4 & 9.2.
- Straubing Hoard 5, Germany First third of 3rd century. Copper-alloy mask. Garbsch 1978, 48, B5, Taf. 2.4; Robinson 1975, 125, pl. 366; Keim & Klumbach 1951, 16. n°5. Taf. 54 & 10.2.
- Straubing Hoard 6, Germany First third of 3rd century. Copper-alloy mask. Garbsch 1978, 48, B6, Taf 2.3; Robinson 1975, 125, pl. 365; Keim & Klumbach 1951, 17, n° 6; Taf. 6 & 10.1.
- Straubing Hoard 8, Germany First third of 3rd century. Iron skull-piece. Garbsch 1978, 48, n°8; Robinson 1975, 114, pl. 320 & 321; Keim & Klumbach 1951, 17, n° 8; Taf. 12; Junkelmann 1996, 35, Abb. 61.
- Stuttgart-Bad Cannstatt, Germany 2nd or 3rd century. Iron mask. Garbsch 1978, 66, O20; Robinson 1975, 117, pl. 332.
- Tell Oum Hauran, Syria Second half of 2nd century. Silvered copper-alloy mask and skull-piece. Garbsch 1978, 61, N1, Taf 16, 1-4; Robinson 1975, 120, pl. 345-348.
- Ubbergen, Netherlands Mid 2nd century. Iron and silver mask. Garbsch 1978, 65, O17, Taf. 20.1.
- Unprovenanced Second half of 2nd century. Copper-alloy mask. Garbsch 1978, 70, O44, Taf. 25.3.
- Unprovenanced (Rijksmusem, Leiden). Date uncertain. Copper-alloy and silver mask. Robinson 1975, 123, pl. 357.
- Varna, Bulgaria Mid 2nd century. Copper-alloy mask. Garbsch 1978, 68, O29, Taf. 23.1.
- Vechten, Netherlands Second half of 1st century. Copper-alloy mask. Garbsch 1978, 63, O7, Taf. 18.2; Robinson 1975, 123, pl. 358; Feugère 1994, 140.
- Vechten, Netherlands 3rd century. Iron skull-piece. Junkelmann 1996, 36 & 95 n° O107, Abb. 67 & 68; Born & Junkelmann 1997, 26, Abb. 16.
- Vize, Thrace, Turkey Early 1st century. Silvered copperalloy mask and skull-piece. Garbsch 1978, 62, O3; Robinson 1975, 119, pl. 342-344; Junkelmann 1996, 30, Abb. 49; Born & Junkelmann 1997, 28, Abb. 17.
- Weissenburg 1, Germany 2nd or 3rd century. Copperalloy mask. Feugère 1994, 124-125.

- Weissenburg 2, Germany Second half of 2nd century. Copper-alloy mask. Garbsch 1978, 66, O22, Taf. 21, 1 &2; Robinson 1975, 115, pl. 328; Feugère1994, 172.
- Weissenburg 3, Germany First third of 3rd century. Iron and copper-alloy skull-piece. Junkelmann 1996, 34, 94, n° O97, Abb. 64.
- Xanten-Wardt, Germany 1st century. Iron skull-piece. Junkelmann 1996, 28, Abb. 43.
- Xanten-Wardt, Germany Second half of 1st century. Iron, silver and gold helmet. Junkelmann 1996, 29, Abb. 48.

Appendix 2: Hairstyles: Masks

With curls

Newstead Type	
Longthorpe, England	c. AD 60
Smederevo, Serbia	Second half of 2nd century
Straubing Hoard 1, Germany	First third of 3rd century
Bulgaria 1	Context unknown
Bulgaria 2	Context unknown

with curls but not of the same type as in the Newstead helmet		
Düllük, Turkey	c. AD 100	
Herchova, Rumania	Second half of 1st century	
Silistra, Bulgaria	End of 1 st century	

female masks with stylized curls

Straubing Hoard 6, Germany	First third of 3 rd century
Straubing Hoard 5, Germany	First third of 3 rd century

Alexander Type

Echzell, Germany Ain Grimidi, Algeria Foktorok, Hungary Hebron, Israel Herzogenburg, Germany Nijmegen 2, Netherlands Strass-Moos, Germany Straubing Hoard 3, Germany Straubing Hoard 2, Germany Straubing Hoard 4, Germany First third of 3rd century Stuttgart-Bad Cannstatt, Ger. 2nd or 3rd century Ubbergen, Netherlands Varna, Bulgaria Weissenburg 1, Germany

Mid 2nd century Late 2nd or 3rd century Second half of 2nd century First half of 2nd century Mid 2nd century 2nd or 3rd century Second half of 2nd century First third of 3rd century First third of 3rd century Mid 2nd century Mid 2nd century 2nd or 3rd century

variants on Alexander Type

Çatalka, Bulgaria Düllük, Turkey Rapalano, Italy Weissenburg 2, Germany First third of 1st century c. AD 100 Second half of 1st century Second half of 2nd century

Skull pieces & Helmets

Newstead Type Frankfurt-Hedderheim, Germany Late 2nd/early 3rd c.

Hair in locks or waves Carnuntum-Petronell, Austria Eining 1, D. Flat waves

Second half of 2nd century First half of 3rd century Eining 2, D. Flat waves Pfrondorf, Germany Ruit, Kreis Esslingen, Germany Straubing Hoard 1, Germany Straubing, Germany Vize, Thrace, Turkey Weissenburg, Germany First half of 3rd century First third of 3rd century 2nd or 3rd century First third of 3rd century First third of 3rd century Early 1st century First half of 3rd century