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## **A fragment of a monumental bronze statue, Lincoln**

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Keywords: bronze statue Roman Lincoln

**Abstract:** A fragment of Roman monumental bronze sculpture was discovered near Lincoln in 2015 and reported to the Portable Antiquities Scheme. This note offers identification of the piece as an over-life-size finger, describes comparable examples and similar pieces from the local area, and makes suggestions as to the original form of the sculpture from which it may have derived. The *statue's metallurgical characteristics and making*, the possible context of display and the circumstances of deposition are also considered.

This paper reports a significant new find reported to the Portable Antiquities Scheme (PAS), a fragment of monumental bronze sculpture discovered just outside Lincoln in 2015.<sup>1</sup> This fragment is one of several such finds reported to the PAS over the last two decades. Although they are typically small pieces, cumulatively they may demand some revision to the impression that the 'sculptural habit' manifested in honorific bronze statuary took only a limited hold in the towns and military camps of Roman Britain.<sup>2</sup> In the case of the Lincoln find, it may be possible to suggest the original subject of the sculpture, despite its limited survival.

### **Description**

A digit from a larger than life size statue, the fragment in question is a finger rather than a thumb (despite having more than a passing resemblance to the latter), due to its tapering slenderness and its division into three sections.<sup>3</sup> Enough metal survives at the base of the finger to show that anatomically it is most likely to be the right index finger, bending at the first and second joints. It is cast solid nearly up to the second joint, as is usual for fingers.<sup>4</sup> Less commonly, this digit was clearly made separately from the rest of the hand and then attached by means of an applied layer of bronze, hammered on and smoothed over on the top, since a rim is visible inside the finger. The generous strapping may have ensured such a heavy digit would have remained attached to the rest of the hand, though this wide base to the finger gives the appearance of a more bulky right thumb. While difficult to be certain, it would appear this strapping is primary, and not part of a repair, especially since the metal composition here is consistent with the rest of the object (see further under XRF results below). The irregular edges show that the finger was broken from the hand of a statue (FIG. 1).

The surface is generally smooth, and has a mid-green patina, though with paler sections of abrasion or damage. Some of the latter were probably originally flaws in casting, especially the small hole to the left of the nail on the side of the finger, but there are also dents that probably reflect later damage. The underside of the finger carries smoothing marks and slight perpendicular scratches, which could be associated with the process of finishing the statue with abrasives after casting. The fingernail is carefully incised, though the joints are shown largely through the bending of the finger rather than any incised lines. On the back of the hand, just below the base of the finger is a ridge presumably indicating wrinkling of the skin at the knuckle, and the finger-tip is slightly curved upwards or backwards. There are no traces of gilding.

XRF (by K. Libby, with comments by P. Coombe)

The pXRF (portable X-Ray fluorescence) spectrometer is a non-destructive method for determining the elemental composition of an item, thus informing the researcher of the composition of manufactured metals. The pXRF analyses were undertaken using a NITON Hand Held XL3T

detector only using a 'main filter' with a detector live-time of 35 seconds. The different filters determine the metals the pXRF will scan. The primary filter can detect all possible metal from the Roman period, therefore all other filters were redundant. A total of nine readings were taken at regular intervals around the full circumference and along the length of the finger. The sequence of readings began at the fingertip and worked down toward the base of the finger and then started at the tip again for the next set of readings. The results of the nine readings were then averaged out in order to create an unbiased result of the metal analysis (while still showing the original data) (TABLE 1). This frequency and variation of readings helps to prevent overlays caused by corrosion or tin pooling in the metal from creating results that would appear to be a discrepancy in the composition.

The nine readings gave homogenous results concerning the metal composition. Metals present include antimony, tin, silver, zirconium, bismuth, lead, zinc, copper, and iron. The levels of antimony, silver, zirconium, bismuth, zinc, and possibly iron are significantly lower than the tin, copper, and lead levels. These extremely low levels suggest that those are the residual trace elements left over from the smelting process. The pXRF results also show the item was not gilded, since the silver results were quite low and gilding typically presents as a very high percentage of silver.

The ratios of copper and tin reveal that the finger is bronze with a high lead content ranging from 37% to 52%, resulting in an average of 45.9%. Lead is more commonly used in Greek and Roman bronze statuary in the range 0 to 25%, with a few pieces having higher lead content of 30-35%.<sup>5</sup> On the German Limes, large copper alloy statues contained on average around 20% lead and 7% tin,<sup>6</sup> while those Roman statues from London which have been tested also fall within this range.<sup>7</sup> High lead content would have had many advantages for an item such as a larger than life statue: lead would have been cheap, locally sourced,<sup>8</sup> and reduce viscosity in casting while creating a stronger finished product than bronze alone. It is possible that the metal pooled in the extremity of the hand, explaining the high proportion seen in this finger. Alternatively, since Pliny notes use of a high lead-tin alloy (*tertium*, composed of 2 parts lead and 1 part tin) in soldering lead water pipes,<sup>9</sup> one wonders also whether this composition of material allowed the digit to be affixed to the statue and is consistent with the bulky application.

#### Fragments of life-size bronze statues from Roman Britain

This is a remarkable find as evidence for bronze statues of such a size in Britain is rare. None survives complete, but a growing quantity of fragments from figures of around life-size offers a glimpse at the original corpus.<sup>10</sup> We may cite the heads of Hadrian and Nero, from London and Suffolk respectively; a colossal hand from Lower Thames Street, London; 'super-sized' fingers from Caerleon; and fragments, perhaps also from large-scale figures, from Gloucester, Verulamium, Silchester, Caernarfon, and Caerleon.<sup>11</sup> More recent discoveries in London, Yorkshire, and near Gloucester add further examples.<sup>12</sup> Fragments of bronze horses, including pieces from North Carlton around 3 miles north of the find currently under discussion, also suggest the original presence of at least a few equestrian statues.<sup>13</sup> The bronze foot from the Kingsway area in London is of larger than life-size proportions, but, given the find location, may be a later import and not from Londinium.<sup>14</sup> Consistent with Roman style, the Lincoln fragment most closely resembles the fingers of the hand from Lower Thames Street, mentioned above.

Around 20 other fingers, hands or arms in bronze are currently known from the province (TABLE 2, FIG. 2). Croxford noted that of all large-scale bronze statuary found in Britain, these elements survive most often.<sup>15</sup> Such extremities are easily broken and a good size for the melting pot, but the conscious retention of a particular fragment from a destroyed statue can also be hypothesized. Some seem to have been deliberately deposited in watery locations, as is also a possibility in this case (see

below).<sup>16</sup> While such conditions may simply have ensured their survival, skewing our perception, deposition in water could also point to a (secondary) role as a votive. A gilded left arm from Gresham Street may have been deposited in the Walbrook stream, and a right arm, also from London near Seething Lane, was found in a well. The bronze heads of emperors Hadrian and Nero mentioned above were famously pulled from rivers.<sup>17</sup> Anatomical *ex votos* include some of bronze or other metal, though these were often made exclusively for this purpose, not from statuary, and are associated with healing sought at sanctuaries.<sup>18</sup> The bronze hand recently unearthed at Vindolanda was also made for votive purposes rather than statuary.<sup>19</sup>

#### Context and function of the finger

The identity of the figure to which the finger belonged is not easily established. Its size indicates that it was clearly from the statue of an important figure, perhaps an important official, but more likely either imperial or divine. Statues of gods and men on a life-size or greater scale were certainly erected in the province, though very few have been securely identified. Suetonius' comment in his *Life of Titus* that the emperor was honoured with many statues in Britain and Germany is often cited as evidence of the quantity of imperial figures now lost.<sup>20</sup> Inscriptions also reveal the erection in Britain of monumental statues on a similar scale to other north-western provinces, for example *Germania Superior*.<sup>21</sup> Fragments of large bronze statues, like the pieces cited above found in Britain, are found at numerous sites in *Germania Superior*, *Germania Inferior* and *Gallia Belgica*, especially associated with frontier garrisons.<sup>22</sup> The bronze head of *Minerva* from Bath reminds us of the presence of large cult pieces in Britain too.<sup>23</sup>

Recreating the specific gesture from such a small piece with certainty is difficult, but the right index finger can be diagnostic for the form of the lost body. In the oratorical *adlocutio* pose, for example, this digit is extended. Best known on the statue of Augustus from *Prima Porta*, this gesture can also be seen on other statues such as the portrait of Aulus Metellus (better known as the *Arringatore*), dated between the end of the second and the early first centuries BC, the equestrian statue of Augustus pulled from the Aegean Sea, or the bronze figure of Germanicus from *Ameria*.<sup>24</sup> Unlike the tendon ridges that confirm the original pose of the *Prima Porta* Augustus,<sup>25</sup> however, the wrinkled ridge on the back of the Lincoln finger is perpendicular to the extended digit, and in both the *adlocutio* pose and the likely *clementia* gesture of the famous equestrian statue of Marcus Aurelius in Rome, the right index finger does not seem as bent as ours.<sup>26</sup> Perhaps therefore the Lincoln finger is more likely to be from a figure holding a staff or the shaft of a spear, perhaps like the larger than life-size bronze statue of the emperor Trebonianus Gallus (AD 251-3) now in the Metropolitan Museum in New York, which has a very similar flexion of the digit,<sup>27</sup> or that of Augustus as Jupiter from *Herculaneum* now in the *Museo Archeologico Nazionale* in Naples.<sup>28</sup> The same pose can be seen in the statuette of an emperor, perhaps Nero, said to be from Barking Hall, near *Coddenham*, Suffolk.<sup>29</sup> This could even explain the heavy strapping noted above, perhaps employed to add additional solidity for a digit holding an attribute. Alternatively the figure derives from a statue of a god in the same pose from which the imperial examples draw their inspiration, namely the standing figure of Mars with a spear (or sword), as represented for example in the reliefs which seem to replicate the pediment sculpture and cella statues of the temple of Mars Ultor from the Forum of Augustus.<sup>30</sup> Large statues in this form are not yet known from the province, but figurines are documented widely, including the nearby examples of the famous *Foss Dyke* statuette dedicated by two brothers (probably one holding a sword in its right hand) and a nude helmeted figure from *Blankney*, 10 km south-east of Lincoln.<sup>31</sup>

The find spot is just over a mile north-west of the centre of Roman Lincoln (Fig. 4). Currently a pasture field south of the A46 bypass, the site is often waterlogged and no other Roman objects have been found during detecting here. Nearby, however, evidence for a Roman rural settlement has been documented on more than one occasion. A watching brief in advance of the construction of the

A46 Lincoln bypass in 1984 noted pitched limestone foundations as well as burials in the field to the south of the findspot.<sup>32</sup> Further evidence for a farmstead or similar was documented in excavation in 2008-9, in an area a little further to the south-west now serving as a municipal cemetery. This established a chronological sequence for a rural settlement occupied from the second to early fifth centuries AD, with masonry buildings and corn driers being constructed in the third century AD and probably in use to the fourth. Finds of hypocaust tiles and a possible apsidal structure provide limited evidence for architectural pretension, but there is nothing here to indicate the existence of a complex which might have housed a statue of this scale.<sup>33</sup>

Instead it is tempting to suggest the statue stood within the colonia at Lincoln itself, founded in the later first century AD.<sup>34</sup> The majority of the Roman town lies under the modern city but sufficient traces of major public buildings have been observed to show that the colonia possessed a monumental core. Much remains unknown concerning the form and development of the colony's forum-basilica complex – the presence of a major temple is hinted at but not yet definitively established - but its overall scale and the documentation of substantial statue bases in situ on the east side of the forum clearly indicate its fitness for housing an image of this type and size, whether of a god or emperor.<sup>35</sup> Where identifiable to type, the surviving inscriptions from Lincoln are mainly on funerary stelae and altars and do not offer possible candidates for dedicatory inscriptions on bases on which the statue might have been set, but there may be others not yet discovered.<sup>36</sup> The size of the bronze foreleg of a horse, possibly once part of an imperial equestrian statue thought to come from the Bailgate area, makes its association with our finger unlikely, though it may be connected to the North Carlton find (noted above).<sup>37</sup> The head of Hadrian and other statuary from London, the head of Nero from the River Alde in Suffolk (probably originally from Colchester) and the fragments of a large bronze statue from Gloucester, which may have come from an equestrian statue of an emperor, perhaps Nerva its formal founder (all mentioned above), are all likely to have stood in similar, monumentalized public settings.

The Lincoln statue may therefore have been associated with the founding of the colonia by Domitian at the end of the first century AD or with the development of the town into the second century, though it is just possible it could be earlier and relate to the foundation of the military camp in the mid-first century AD.<sup>38</sup> A military context would also be appropriate for an imperial statue: Stoll has shown that statues of emperors were set up in the basilicas and courtyards of legionary and auxiliary principia as well as at camp gates; the statue fragments at Caerleon, mentioned above, provide a British example from a headquarters building.<sup>39</sup>

Still, the possibility that the statue was originally located in the environs of the city rather than its intramural civic spaces should not be entirely excluded; directly or indirectly complexes are attested around Lincoln, which serve as possible candidates for housing an image on this scale. Among the villas documented in the city's environs, those at Scampton five miles north-west with its double courtyard complex explored in 1795, or at Greetwell a mile to the east, for example stand out in terms of their size and architectural sophistication.<sup>40</sup> The discovery at Nettleham c. three miles from the colonia of a massive inscription recording an arch dedicated at the temple of Mars Rigonemetos hints at the existence of a major extra-mural sanctuary in the hinterland of the colonia which could well have housed a large-scale image of the god.<sup>41</sup> As well as the elements of a horse's head from an equestrian image at North Carlton noted above, there is a fragment of a finger from a monumental bronze statue found at Branston, approximately four miles south of Lincoln.<sup>42</sup>

However, it is equally if not more plausible that these fragments were moved as spolia from the city rather than remaining close to the setting where the statues from which they originate were erected. The finger might have been brought to its find spot at a later date when the statue had already been broken up. Most likely taken for re-use as scrap metal, the fragment could also have been retained as a keepsake or amulet,<sup>43</sup> or had a secondary use as a votive. In this context, the origin of the finger

from the right hand might point to its retention as an auspicious piece, though this preference is not generally seen among the other bronze fragments of extremities.<sup>44</sup> The waterlogged character of the findspot makes it tempting to speculate that the statue was deposited in the last capacity, perhaps like the statuette of Mars noted above, which was found in or near the Foss Dyke at Torksey a few miles north-west of Lincoln.<sup>45</sup>

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## Captions

Figure 1. A larger than life-size finger found near Lincoln (LIN-C6AFB3) (photograph taken by Adam Daubney, used under a creative Commons license)

Figure 2. Map showing findspots of fingers, hands and arms from Roman bronze statuary found in Great Britain (Federico Ugolini)

Table 1. pXRF analysis results of the bronze finger from Lincoln (by Kathryn Libby)

Table 2. Fragments of bronze fingers, hands and arms from Roman statuary, found in Britain.

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<sup>1</sup> The object was reported in 2015 to Adam Daubney, Finds Liaison Officer for Lincolnshire, who compiled the record for it on the PAS database ([www.finds.org.uk](http://www.finds.org.uk): LIN-C6AFB3). We are grateful to him and to Sally Worrell for discussing the find and its context with us, to the referee and editor for their very helpful comments on improving the paper and to Martin Henig, and Amanda Claridge for their observations on it. We also express our thanks to Federico Ugolini for mapping the findspot and comparable examples (fig. 2).

<sup>2</sup> For references to other finds see Worrell and Pearce 2014, 404, no. 4. For the 'sculptural habit' in Britain, Stewart 2010, 43; Stoll 1992, 123.

<sup>3</sup> The finger is 115 mm when measured in a straight line from base to tip, and 45 mm wide and 42mm thick at the base.

<sup>4</sup> See Hemingway 2000. Two fingers from London, for instance, demonstrate this (Coombe et al. 2015, 119, nos 219, 220, pl. 80).

<sup>5</sup> Oddy et al. 1990, 109-110, table 1. Note also Pliny, *Natural History*, 34.98 for recommended lead content of between 8 and 12.5% of the total fabric, depending on desired finish and place of manufacture.

<sup>6</sup> Müller 2014, 180-2

<sup>7</sup> Coombe et al. 2015, 115, no.213, pl.78-9, and see examples in Table 2.

<sup>8</sup> Pliny, *Natural History*, 34.164 notes its abundance and easy accessibility.

<sup>9</sup> Pliny, *Natural History*, 34.161

<sup>10</sup> Stewart 2003, 174-5, 177.

<sup>11</sup> Hadrian head: Coombe et al. 2015, 115, no. 213, pl.78-9; head of Nero: Huskinson 1994, 13, no.23, pl.11 (published here as Claudius, but interpreted as Nero by Hiesinger (1975, n.17) and others since); colossal hand: Coombe et al. 2015, 117-8, no. 217, pl.81; fingers from Caerleon: Brewer 1986, 32-3, nos. 45 and 46, pl.17. Fragments: Gloucester: Henig 1993, 60, no. 177, pl. 43; Verulamium: Coombe et al. 2015, 121, no.225, pl.83 and 122, no. 227, pl.83; Silchester: Cunliffe and Fulford 1982, 42, no. 153, pl. 38; Caernarfon: Brewer 1986, 33, no. 48, pl. 18; Caerleon: Brewer 1986, 31-2, no. 44, pl. 16-17.

<sup>12</sup> Recent finds: London, at Tabard Square: Coombe et al. 2015, 120, no.223, pl.81; from Yorkshire, fragments from life size statues at Brompton-on-Swale, North Yorks (YORYM-08CBC4; Worrell 2009, 291 no. 7) and the Howardian Hills, North Yorkshire (YORYM-F46085; Worrell and Pearce 2014, 404, no. 4); and from the Severn floodplain near Gloucester, a hoard of fragments included pieces of large statuary (GLO-BE1187). See also, on smaller scales, a half life-size bronze hand from Leicestershire (LEIC-7F4CC3; Worrell and Pearce 2012, 367, no. 10), and the bronze head from Steane (Walker 2014).

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- <sup>13</sup> North Carlton equestrian statue (LIN-31B698; Worrell and Pearce 2011, 410-12, no.6); Huskinson 1994, 35, no.73, pl.25. Articles on the fragments from North Carlton and other pieces of monumental bronze sculpture reported to the PAS are currently in preparation by Kosmas Dafas.
- <sup>14</sup> Coombe et al. 2015, 121, no. 224, pl. 81.
- <sup>15</sup> Croxford 2003, 89, n.30.
- <sup>16</sup> Bayley et al. 2009, 158.
- <sup>17</sup> Coombe et al. 2015, 116-7, nos 215 and 216, pl. 80; Bayley et al. 2009, 158-160; Huskinson 1994, no. 23.
- <sup>18</sup> For example, arms from Springhead and Lydney Park, legs from Uley and Muntham Court, and pairs of eyes from Wroxeter including one of gold (Henig 1984,152-3, figs.75 and 76) and the gilt bronze hand from Carrawburgh (Coulston and Philips 1988, no. 337).
- <sup>19</sup> Unpublished at time of writing, but see [http://www.vindolanda.com/\\_blog/press-releases/post/bronze-hand-discovery/](http://www.vindolanda.com/_blog/press-releases/post/bronze-hand-discovery/)
- <sup>20</sup> Suetonius, *Divus Titus*, 4.1.
- <sup>21</sup> Blagg 1990, 16, table 2. Blagg's survey, as he notes, includes only statues dedicated to deities as (presumed) embellishments to sanctuaries and honorific dedications of statues to human patrons or deceased emperors are omitted. As examples from both these latter categories we note a well-known dedication to its patron Tiberius Claudius Paulinus by the republica of the Silures (RIB I 311) and a base for the statue of the deified Caracalla ('divus Antoninus Magnus') at Aldborough (RIB III 3208).
- <sup>22</sup> Müller 2014, especially the map of find spots, 16-17
- <sup>23</sup> Cunliffe and Fulford 1982, 9, no. 26, pl. 7
- <sup>24</sup> Aulus Metellus: Daehner and Lapatin 2015, 256-7, no. 33; equestrian statue of Augustus: Kleiner 1992, 67-8, fig.44; Germanicus: Pollini 2017.
- <sup>25</sup> The debate as to whether the missing fingers from the Prima Porta Augustus should be correctly restored in this pose or holding a staff is summarised and the adlocutio pose confirmed by Pollini (1995, 265-6).
- <sup>26</sup> Stewart 2012.
- <sup>27</sup> Trebonianus Gallus: Richter 1915, 154-9, no. 350. <https://www.metmuseum.org/art/collection/search/247117> (10.07.18)
- <sup>28</sup> Müller 2014, 22, taf.3.
- <sup>29</sup> Huskinson 1994, 14, no. 25, pl. 12.
- <sup>30</sup> Kleiner 1992, 100-101. An identification as Jupiter seems less likely, since the sceptre is commonly held in the left hand.
- <sup>31</sup> Foss dyke statuette; RIB I.274; Durham 2012, 3.14, 4.4.1.
- <sup>32</sup> Field 1985, 71-2.
- <sup>33</sup> Allen et al. 2011.
- <sup>34</sup> Jones 2002, 51.
- <sup>35</sup> Jones et al. 2003, 70-5.
- <sup>36</sup> RIB I 246-268; RIB III 3174, 3175, 3177, 3178.
- <sup>37</sup> Huskinson 1994, 35, no. 72, pl.25; Jones 2002, 64.
- <sup>38</sup> Jones 2002, 34-6.
- <sup>39</sup> Davies 1968, 161-5; Stoll 1992, 164-77.
- <sup>40</sup> Scampton villa: Whitwell 1982, 105-6; Greetwell villa, Jones et al. 2003, 96-8.
- <sup>41</sup> RIB III 3180.
- <sup>42</sup> See fig. 2, no. 17.
- <sup>43</sup> Croxford 2003, 89.
- <sup>44</sup> Eckardt 2014 notes the predominance of the fortune-favouring right hand both in votive objects in hand form and in images of the hand present on everyday objects.
- <sup>45</sup> Toynbee 1962, 131, no. 16, pl. 17; RIB I 274.