

Ancient Mining on Mendip, Somerset: A Preliminary Report on Recent Work

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Abstract

Roman exploitation of the lead/silver ores at Charterhouse-on-Mendip is discussed in the light of a recent campaign of fieldwork and excavation. Earlier discoveries from the Charterhouse environs, and the work of previous investigators are examined and a summary of the recent work is provided. An appendix of 26 Roman lead ingots derived from Mendip is also included.

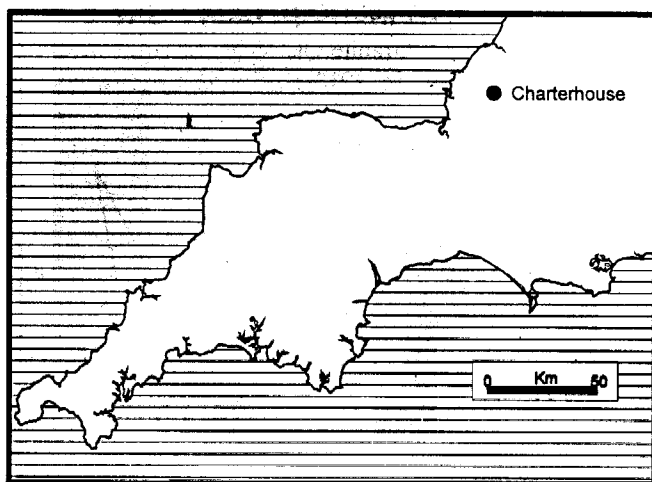


Fig. 1 Charterhouse-on-Mendip. Location.

INTRODUCTION

The limestone plateau of the Mendip Hills in Somerset bears the visible scars of mining over many centuries. Viewed as a whole, the area reveals the relics of industrial landscapes which represent an exceptional picture of human activity from prehistory to almost the present day. Despite this richness of evidence, or more probably because of it, the industrial remains of Mendip have not fared well in the academic record or in organised exploration (Gough 1930). Isolated examination of particular workings or other features has taken place, but there has been no co-ordinated attempt to record the surface earthworks or the numerous shafts and rakes which are the familiar components of the scene in central and western Mendip in particular. Given the wealth of such remains, and the practical difficulties of record and preservation which they present, this is hardly surprising. It is also not at all surprising that much has been lost to modern study by the capping of shafts and the in-filling of rakes with rubbish and earth to facilitate agricultural activity. The latter process continues at such a pace that in the next half-century or less most of the unscheduled areas of mining will have been obliterated, without adequate record. There is thus all the more reason to make the effort to understand what still survives.

PREVIOUS WORK IN THE MENDIP AREA

It has been recognized since the 16th century, itself a very active period of exploitation of Mendip minerals, that working of lead and silver was pursued here in antiquity. John Leland recorded an inscribed lead panel at Charterhouse-on-Mendip in 1544, an object now lost but reliably reported and securely dated to AD 49 (Collingwood & Wright 1995, 2404. 1) This text revealed the very early date at which the mineral resources of Mendip attracted Roman attention and were swept into Imperial

control. This strikingly early date was later confirmed by a dated ingot of lead, found in the parish of Blagdon in 1853, and more recently by the results of excavation at Charterhouse-on-Mendip (see below) (Todd 1993;1994). By the late 19th century, finds of lead ingots and other objects at and near Charterhouse had markedly accumulated, and appreciation of the scale of Roman working of the lead and silver deposits here steadily grew. Occasional speculation was voiced about the possibility of prehistoric extraction of Mendip minerals, though no positive evidence was acquired on the point. Exploration of the areas of lead working and the associated sites, however, remained at a low level of competence. The Rev. John Skinner, Rector of Camerton, included random and poorly recorded excavation in Town Field at Charterhouse early in the 19th century in his fieldwork on Mendip. His workmen did reveal the size and importance of the Roman settlement at Charterhouse and placed it roughly in context, but the absence of orderly publication severely vitiated the impact of the work. Finds of Roman material were being made in abundance by mid- and late 19th century miners as they recovered the masses of slag left by early working in Town Field and in the Charterhouse valley. Some of this material was preserved and was available to Francis Haverfield for his study of the site for the *Victoria County History, Somerset* but this led to no organized fieldwork on the mining remains of the area. H. St. George Gray (1909), who might well have made a useful contribution to the subject, confined himself to an examination of the oval earthwork north of Town Field, usually known as the Amphitheatre; he revealed its use in the Roman period, but also raised the possibility of a much earlier origin, possible in a late Neolithic or early Bronze Age ritual monument. Meanwhile, the discovery of lead objects in Iron Age contexts at Meare, Glastonbury and some of the Mendip caves clearly pointed to pre-Roman working of the Mendip minerals - itself hardly surprising given the fact that some mineral lodes occurred at or close to the surface. Sporadic finds and casual digging added a little to the record in the Charterhouse valley, but no organized excavation seems to have been attempted until the early 1950s, when a team from Bristol University Speleological Society excavated on the south side of the Roman settlement at Charterhouse, revealing buildings and metal-working activity dating to the 2nd and 3rd centuries (Boon 1949-59; Budge *et al* 1974). Other sites of ancient working were now beginning to appear. In 1951, an enclosure east of Priddy and 1.1 km. west of Hunter's Lodge (ST 542508) was examined by the Bristol Exploration Club. This roughly oval enclosure contained a stone building of Roman date, near which lay fragments of smelted lead. Most of the surviving pottery, now in Bristol Museum, dates to the 2nd and early 3rd centuries. This site, never published in full, has no obvious connection

with agricultural settlement and is better seen as a small industrial complex, exploiting the local veins of galena. Its position is of interest, for it lies near the richest lodes of metal in this part of central Mendip; these were later exploited by the important St. Cuthbert's lead works, which remained active until the first decade of this century. Other sites in and near the village of Priddy have produced evidence of Roman material in association with smelting debris, underlining the significance of this area in the earlier phases of lead/silver extraction (Barlow 1965-6). But there was at least one other major complex further east, at Green Ore. Here, an area of about 4 ha is covered by slag, lead fragments and Roman

pottery. The site has also yielded five inscribed lead ingots, four found together in a pit, the fifth possibly from that same cache, all dating to the reign of Vespasian (AD 69 - 79). This area, too, was the scene of major mining activity in the modern period.

Nevertheless, it has long been clear that the main focus of the Mendip lead/silver industry before the medieval period lay in and close to the Charterhouse valley and on the adjacent Ubley Warren. The great majority of lead ingots have been found here, from the 16th to the 20th century, a Roman township developed at the foot of Blackdown north of the valley, and surface indications of trench-mining - a prevalent

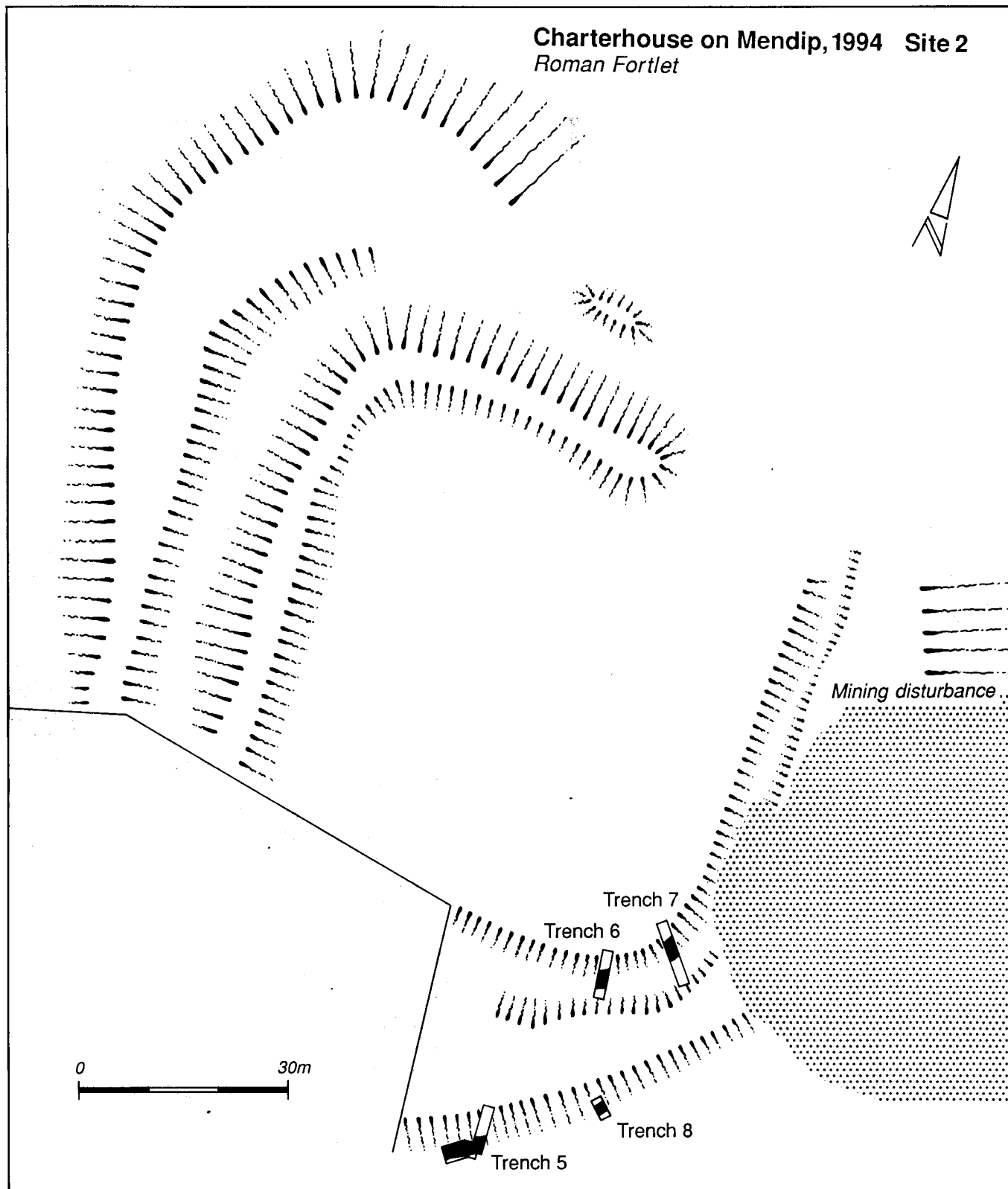


Fig. 2. Charterhouse-on-Mendip Roman Fortlet showing excavation trenches 1994.

technique in the Roman world - are here strongly in evidence. The long rakes or grooves which resulted from the pursuit of lodes from the surface are impressive features of the present landscape on Ubley Warren in particular. Two of the large rakes are over 100 metres long and up to 10 metres deep. There has been later mining within these rakes, but there is no reasonable doubt that the initial processes of their formation began in antiquity. There are many smaller rakes to either side of the Charterhouse valley, most of them unrecorded and unprotected; one of these provided an obvious subject for examination in the recent programme of fieldwork. Another earthwork at Charterhouse has long appeared to provide a link with Roman industry, though this was not put beyond all doubt until 1993. All these components of the scene were well known in 1993, when the recent work began (Todd 1993; 1994). It was obviously time to examine some of them in order to gather precise evidence for their date and function. A three-season programme of excavation and field survey, funded by the British Academy, the Society of Antiquaries, the University of Exeter, the Maltwood Fund and an anonymous donor, was directed by the writer on three sites at Charterhouse: the Roman 'fortlet'; a small rectangular earthwork south of the Charterhouse valley; one of the rakes east of the fortlet. All three sites yielded positive results for the study of the Mendip mineral industry.

THE EXCAVATIONS OF 1993-5

A small rectilinear earthwork lying on level ground adjoining the Charterhouse valley on its northern side has long been known as the Roman fort or fortlet. The plan of this work is far from regular as it now appears, though this may be due to modification by later agricultural activity. A broadly spread bank of clay surrounds a rectangle measuring no more than 45 metres by 40 metres overall. A broad ditch-hollow can be

clearly distinguished on the north and east sides. It is evident on the ground that at least two phases of defensive building are represented, an early bank and ditch being visible on the south side overlooking the valley. There are no surface indications of a gate or gates.

Excavation of the ditch systems confirmed that there were two phases, both of early Roman date. The single ditch of Phase 1, irregularly cut into the natural limestone, measured between 1.3 and 1.7 metres in width and 1.2 metres deep. Its profile was weak, the sides rough and the bottom flat. The filling was uniform, a black, highly organic soil containing much charcoal and other burnt debris. The central and lower filling contained large quantities of first century Roman pottery, chiefly samian ware, amphorae, flagons and fine wares. Common domestic vessels were rare in the assemblage. From a 6-metre length of ditch nearly 200 vessels were recovered. The same length of ditch also yielded five bronze coins, all *asses* of the reign of Claudius, and a Greek bronze coin from southern Italy, dating to the early 3rd century BC. A rich deposit of animal bone also lay in the ditch-filling, mostly of cattle and pig. A small number of Roman bronze objects were recovered, along with fragments of fine glassware. This material had evidently been disposed of as rubbish at the close of this first phase of occupation. The date is not in doubt. The pottery would fit within the bracket AD 45 - 65, probably with a bias to AD 50-60. The coins add nothing to this. The Roman pieces are all copies of the official issues of the Rome mint and these circulated until well after Claudius' death in AD 54. All in all, the assemblage from the ditch gives its support to the date provided by Leland's lead panel and the ingot of the same date: AD 49. This phase was completed by AD 70 at the latest and probably by AD 65. It was followed by a brief second phase, which ended a few years after AD 70. This involved



Plate 1. 'Fortlet' at Charterhouse-on-Mendip (in middle ground). Roman mining area in top left. In foreground, Charterhouse valley and medieval enclosure.

the digging of a new ditch, at least on the south side.

It is not entirely clear what function this site performed. The character of its defences and its weak tactical position suggest that it was not a fortlet in the sense in which that term is commonly employed, i.e. a garrison-post. The fact that considerable quantities of lead, smelting debris and other detritus of metalworking lay in the Phase I ditch is a strong indication that duties other than the purely military were performed here. The strong possibility that the smelting of lead ore had been carried out within this earthwork must be seriously entertained, in the light of the metalworking debris in the first phase ditch. A related possibility is that the 'fortlet' was a strongly protected repository of smelted metal under close military supervision. In this connection the date of the 'fortlet' occupation in relation to the known dated ingots is of interest. The dated ingots extend from AD 49 to the 70s. and then become much less frequent, the impression being conveyed being of an industry subsequently organized on a different basis. The likely relationship with a law passed by Vespasian, limiting the mining of lead in Britain in favour of the Spanish deposits, is obvious.

The interior of the 'fortlet' was not examined in 1993-5, it being a scheduled monument. Remote sensing in the interior might provide useful information about the disposition of buildings and other features. Seen as a whole, the evidence from the 'fortlet' confirms that the site at Charterhouse was the nucleus, and probably the command-centre, of the lead/silver industry in the first century AD at least (Todd 1996).

THE MINING AREA

To the east of the 'fortlet' and only 60 to 100 metres away lies an area of ground heavily disturbed by mining activity. Aside from shafts of medieval and later date, several short rakes are visible on the surface here; their proximity to the 'fortlet' invited investigation. None of these works had been examined prior to 1993. The longest rake on the site seemed, on the evidence of its relationships with other features, to be the earliest intrusion and thus worthy of excavation. At five points along the line of the rake its filling was examined. To great surprise it was found to be largely undisturbed by recent activity. Still more surprisingly, the filling of the rake had remained intact since the later 1st century AD; no medieval intrusions were encountered and only one dating to the 17th century. The filling contained otherwise Roman pottery dating to the period c. AD 50 - 80 and no later. The rake varied considerably in width, from over 2 metres to 35 cm. Its sides were usually of limestone, occasionally clay and loose stone. Its full depth was not ascertained. Near the south end, excavation was carried down to a depth of 2.1 metres. In the centre a depth of 1.75 metres was reached and near the north end 2.6 metres. Aside from pottery, few finds were recorded. A Claudian *as* was found near the north end at a depth of 1.42 metres. A second short rake, cut to retrieve haematite not lead ore, yielded more first century pottery and also a *denarius* of Julius Caesar, struck in 48 BC. Such coins are rare finds in Britain. The condition of this example suggests that it has not circulated for long before eventual loss. *Prima facie* at least, it raises the possibility that it arrived at Charterhouse well before the Roman conquest, over 90 years after its minting. It is tempting to link this coin with the Greek bronze issue found in the 'fortlet' ditch and with another Greek coin found on the surface at Charterhouse in 1970. These could be indications of interest in the Mendip metal deposits in the later 1st millennium BC. The possibility of extraction from these near-surface lodes in

the late Iron Age is obviously real and it is worth noting that pottery sherds of late Iron Age types were recovered from the excavated rake. Unfortunately, these do not demonstrate by themselves pre-Roman activity, though their presence is suggestive.

Among many problems that remain is that of a constant water-supply. Like much of the Mendip plateau, the Charterhouse area is largely dry. Only a small stream runs down the valley and its flow is intermittent. Ancient ore-processing depended heavily on water for cleansing and it is not immediately clear how this resource was provided here. No artificial channels or leats are evident, so that the likeliest solution to the problem may have been to dam the valley and create reservoirs from which water could be tapped. A possible dam is still visible near the northern end of the valley, though there is no evidence for its date. Alternatively, a dam could have been constructed close to the fortlet or 200 metres downstream near the present Charterhouse to Priddy road. Flash floods occur in this valley and could easily have removed all traces of earlier obstructions. A major flood in 1968 removed much of the causeway supporting the road crossing the valley below Charterhouse church.

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APPENDIX Lead Ingots derived from the Mendips

The majority of British ingots follow a familiar pattern. Most measure 58 to 64 cm in length at the base, tapering to between 46 and 50 cm on the face, and 10 to 14 cm in height. The weights are far from standardized, ranging from 73 to 101 kg. Most weigh between 75 and 85 kg. This form of ingot is most commonly found in Britain, though examples are also known in Spain and Sardinia. The British ingots tend to be markedly heavier than those recorded in the western Mediterranean

world. The latter are usually between 12 and 55 kg. in weight, especially those of late Republican date. The shape of the Mediterranean ingots is also much more varied than those found in Britain (Hellenkemper Salies 1995, 772-4). The following list includes all the ingots known or likely to be of Mendip origin.

1. *Wookey Hole*, near Wells (Somerset). Possibly a lead panel rather than an ingot. Now lost. TICLAVD CAESAR AVG P M TR P VIII IMP XVI DE BRITAN. AD 49.
2. *Blagdon (or Charterhouse)* (Somerset). British Museum. BRITANNIC[U]M AVG LE II; on front V ETP ETP C. 73kg. AD 49.
3. *Bossington* (Hampshire). British Museum. NERONIS AVG EX K IAN III COS BRIT; on front [E]X K IVL P MCOS; on back EX ARGENT G N [I]PI ASCA XXX. 75.3 kg. AD 60.
4. *Charterhouse* (Somerset). The Priory, Roehampton. IMP VESPASIAN AVG; on front BRIT EX ARG VEB...77.6kg. AD 70-79.
5. *Clausentum* (Bitterne, Hampshire). Now lost. IMP VESPASIAN AVG; on front BRIT EX ARG VEB; SOC NO... SOC NO... on back VIII. 75.3 kg. Found with no. 6. AD 70-79.
6. *Clausentum* (Bitterne, Hampshire). Twyford Preparatory School. IMP VESPASIAN AVG; on front BRIT EX ARG VEB..IM[P]; on back IIVI SOC N... C SOC NOVAEC; on end ..AD. 78.9 kg. Found with no. 5. AD 70-79.
7. *Green Ore* (nr. Wells, Somerset). Wells Museum. IMP VESPASIAN AVG; on front BRIT EX ARG [V]JEB; on end LXV TI CL TRIF(ERNA). 84.8 kg. Found with nos. 8-10. AD 70-79.
8. *Green Ore* (nr. Wells, Somerset). Wells Museum. From same mould as no. 7. On end LXXIIX LRAD. 89.6 kg. Found with nos. 7,9 & 10. AD 70-79.
9. *Green Ore* (nr. Wells, Somerset). Wells Museum. IMP VESPASIAN AVG LRA D; on back BRIT EX ARG VEB TI CL TRIF(ERNA); on left end LXIIX; on right end TI CE. TRIFER(NA). 85.9 kg. Found with nos. 7, 8 & 10. AD 70-79.
10. *Green Ore* (nr. Wells, Somerset). Wells Museum. IMP VESPASIAN AVG; on front BRIT EX A RG VEB; on back TI C L TRIFER(NA); on end TI C L TRIFER(NA). 84.8 kg. Found with nos. 7-9. AD 70-79.
11. *Green Ore* (nr. Wells, Somerset). Taunton Museum. Unpublished. This ingot may have come from the same cache as nos. 7-10.
12. *Charterhouse* (Somerset). Bristol Museum. IMP VESPASIANI AVG. 82.6 kg. AD 70-79.
13. *Charterhouse* (Somerset). Fragment only. Now lost. IMP VESPASIA... AD 70-79.
14. *Syde* (Gloucestershire). Cirencester Museum. IMP VESP AVG VIII BRIT EX AR; on front SOC NOVE...; on end C P C. 78.9 kg. AD 79.
15. *Bath* (Somerset). Roman Baths Museum, Bath. IMP HADRIANI AVG. 88.5 kg. AD 117-38.
16. *Claverton Down* (nr. Bath, Somerset). Now lost. IMP HADRIANVS AVG. c. 68 kg. AD 117-38.
17. *Charterhouse* (Somerset). The Priory, Roehampton. IMP CAES ANTONINI AVG P[II] P P. 101 kg. AD 139-61.
18. *Bristol*. British Museum. IMP CAES A[NTO]NINI AVG PII P P. 34.5 kg. Found with no. 19, with which it shared the same mould. AD 139-61.
19. *Bristol*. Bristol Museum. IMP CAES A[NTO]NINI AVG PII P P. 40.4 kg. Found with no. 18, and from the same mould. AD 139-61.
20. *Bruton* (Somerset). Now lost. IMP DVOR AVG ANTONINI ET VERI ARMENIACORVM. 23 kg. AD 164-69.
21. *Wells* (Somerset). Now lost. IMP DVOR AVG ANTONINI ET VERI ARMENIACORVM AD 164-69.
22. *Charterhouse* (Somerset). Taunton Museum. [IMP DVOR AVG A]NTONINI [ET VERI ARMENIAI]CORVM. AD 164-69.
23. *Charterhouse* (Somerset). Taunton Museum. [IMP DVO]R A[V]G A[NTONINI ET VERI AR]MENIA[CORVM]. AD 164-69.
24. *Charterhouse* (Somerset). Now lost. (stamped) OB. Found with two other unscripted ingots.
25. *St. Valery-sur-Somme*. Musee des Antiquites Nationales, St. Germain-en-Laye. NERONIS AVG BRITAN LII. 75 kg. AD 54-68.
26. *Lillebonne*. Rouen Museum. I.. E...]NACIS AVG PA[.... Fragment only. 43.5 kg. AD 197-211.

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