

CHARTERHOUSE ON MENDIP: AN INTERIM REPORT ON SURVEY AND EXCAVATION IN 1993

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INTRODUCTION

Although long recognized as an important centre of mining and metalworking during the Roman centuries, Charterhouse on Mendip has received surprisingly little archaeological attention in recent years. The excavations of the Revd John Skinner (1772–1839), rector of Camerton, in 1819–20, revealed buildings and abundant evidence of lead-smelting within the area of the Roman settlement; it can fairly be said that Skinner's work first brought the site to scholarly attention. Later, the mining operations of 1867–76 produced much material, ably summarized by Francis Haverfield (VCH 1906, 334–44). Many of the finds he discussed are now housed in the museums of Bristol and Taunton. The first modern excavation at Charterhouse was that of H. St George Gray on the earthwork known as the amphitheatre (Gray 1909). This was a purposeful enterprise, though its results were limited. Excavations by Mr George Boon in 1949 examined an area of the Roman township (Boon 1949/50) and Professor Tratman explored other sites, without publishing the results in full. More recently, air photography has added detail to the plan of the Roman town, though without increasing knowledge of the various earthwork sites in its vicinity (Wilson 1971, 277–8). Increased interest in the patterns of economic exploitation of natural resources identifies Charterhouse as a site of exceptional interest for several periods of time. A short season of survey and excavation was thus undertaken in late July and early August 1993 in order to improve the basic record of the remarkable complex of works here, to date some of the earthworks, and to assess the possibilities for identifying remains of ancient mining to either side of the Charterhouse valley and elsewhere on Mendip (Fig. 1). This brief exploratory programme achieved useful results which indicate the potential gains from work on a larger scale.

SITE 1: PREHISTORIC ENCLOSURE

A small rectilinear enclosure with rounded corners, lying on the eastern side of the Charterhouse valley was examined by two sections across its surrounding earthworks (Fig. 2). Two phases of earthwork are evident, a smaller rectangle having been inserted at the north-east end of the larger. Although this site is known locally as a prehistoric work, it had not been excavated and only one object had been reported from it, a large piece of sheet lead. The bank of the later earthwork was constructed of clay and turf, surviving to a height of 0.43 m and a width of 1.8 m. The accompanying ditch was 1.8 m wide and

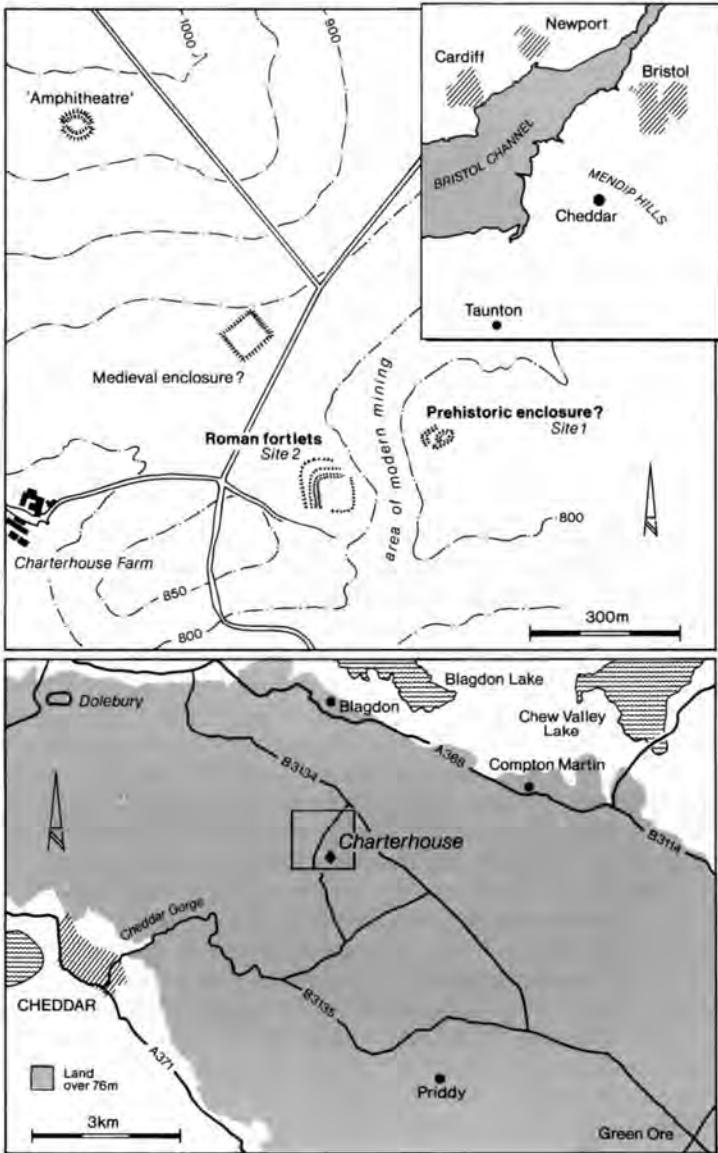


Fig. 1 Location map and general plan of sites at Charterhouse on Mendip. (Contours on general plan are in feet.)

0.70 m deep, cut into natural limestone. The ditch had not been refilled, but had silted up slowly over a lengthy period. Immediately to the rear of the bank, an installation connected with lead-smelting was located. This was an open stone hearth, around which pieces of smelted lead and lead slag were found.

The earthwork enclosing the earlier work was unusual in form. A single ditch lies *inside* the bank, there being no sign of an external ditch at all. The bank was composed of

Charterhouse on Mendip

Prehistoric enclosure

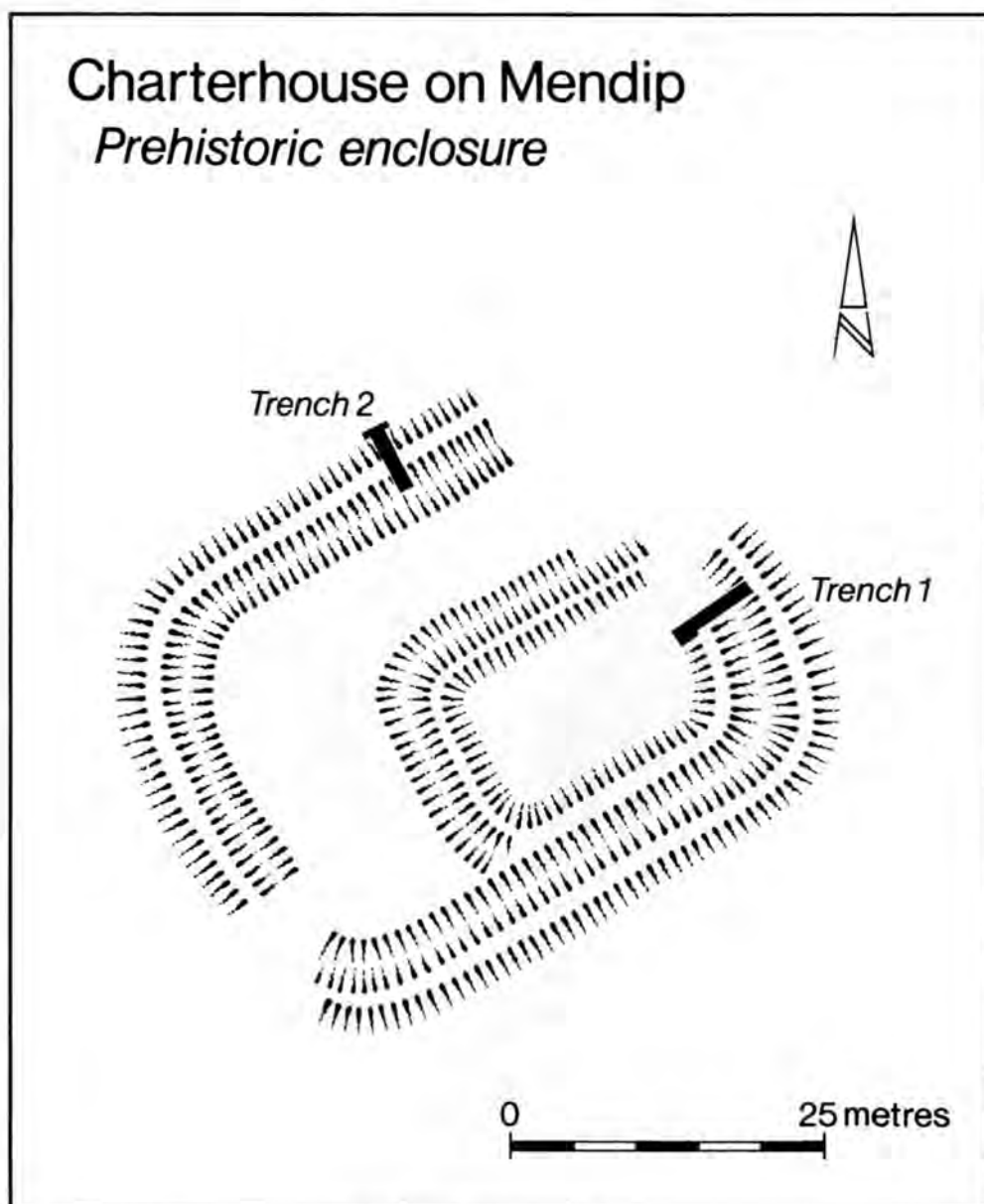


Fig. 2 Plan of enclosure on Site 1.

loose clay and stone, a layer of flat stone lying on the surface, probably to stabilize the core. A half-section of the ditch revealed that it had silted up naturally to its present level (Fig. 3).

Evidence for the date of this enclosure and the activities pursued within it is meagre. The total absence of Roman and medieval material in this context is significant. More positive evidence is represented by two small Iron Age sherds from the bank. Although

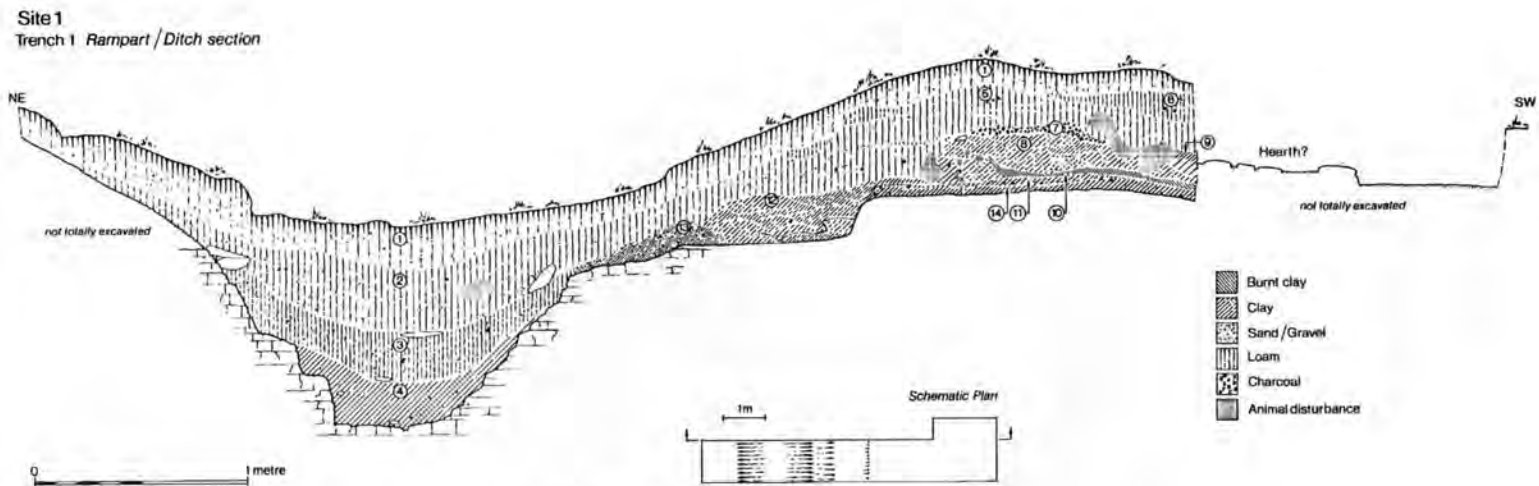


Fig. 3 Section of enclosure bank and ditch (Trench 1).

scarcely conclusive, these suggest that the bank was thrown up in the 1st century BC. If the earthwork is indeed a construction of the later Iron Age, its importance is not to be underestimated. It provides the first secure archaeological evidence for the working of lead (and possibly silver) on Mendip before the Roman conquest. It is further possible that the manufacture of lead objects was carried out here. Among pieces of lead found near the hearth is a half-finished lead rivet. This is the first sure indication of the making of lead artefacts on Mendip in the Iron Age and it provides an important fixed point in the presumed network of manufacture and exchange which linked the Mendip hills with, *inter alia*, the settlements at Glastonbury and Meare on the adjacent lowland (Coles 1987, 239–42) and the manufactory and port at Hengistbury Head in east Dorset (Cunliffe 1987, 339–43).

The new evidence from Charterhouse helps to explain the very rapid exploitation of the metal resources of Mendip by the Roman army, attested by two lead ingots dated to AD 49. It now appears that the deposits of galena were already being worked on some scale before the Roman conquest, so that the occupying power was able to take over an already well-developed industry. At least two Iron Age coins have been reported from Charterhouse, along with two Aucissa brooches, so that at least the makings of a late Iron Age horizon already exist.

SITE 2: ROMAN FORTLETS

The best known earthwork at Charterhouse with a claim to recognition as a Roman military work is a roughly square enclosure with rounded angles, measuring approximately 55 m by 50 m within its rampart (Fig. 4). That rampart now measures 8 to 10 m in width having been spread by ploughing. It is accompanied by a ditch-hollow between 5 and 8 m wide. This ditch was sectioned on its east side and revealed to be 2.5 m wide and 1.6 m deep, cut into natural limestone and clay. Its profile approximated to that of a *fossa Punica* having a steep external face. In the bottom lay a cleaning slot 0.40 m wide. The lower levels of the ditch produced a few sherds of Neronian Samian Ware, the upper deposits material of the Flavian–Trajanic period, along with the metal hob-nails of one or more military boots (*caligae*). The ditch had been left to silt up naturally until the post-mediaeval period, when a levelling deposit of clay was thrown down.

An earlier Roman work was identified below this phase of the fortlet (Fig. 5). This was surrounded by a clay bank, now spread to a width of 12 to 15 m, and by a substantial rock-cut ditch, 2.10 m wide and 1.2 m deep. This ditch contained a small quantity of Roman coarse pottery in its rapid silt and had also filled up slowly before being subject to deliberate levelling in the 17th or 18th centuries.

The scale of the defences of these successive works raises questions about their purpose. The earthworks are unduly large for a fortlet, not least as the ditches had to be cut into rock. The maintenance of a fortlet here into at least the late 1st century is obviously to be linked with the presence of metal deposits. The fortlet may well have been designed to protect stocks of metal, or even to serve as a production centre, rather than merely to house a small garrison. In both phases of the ditch-system it is worth note that raw galena was found, along with vitreous slag, while from the upper levels of the earlier ditch came a large piece of smelted lead. If these suggestions are accepted, then the successive fortlets served as a nodal control-point for a major industry, on the evidence of the inscribed ingots supervised by the Roman army down to the Flavian period and thereafter by civilian *conductores*.

Identification of the ancient sites of ore-extraction presents severe difficulties. The large scale extractive activities of the 19th century have completely transformed the Charterhouse valley, leaving large dumps of slag and other waste which effectively

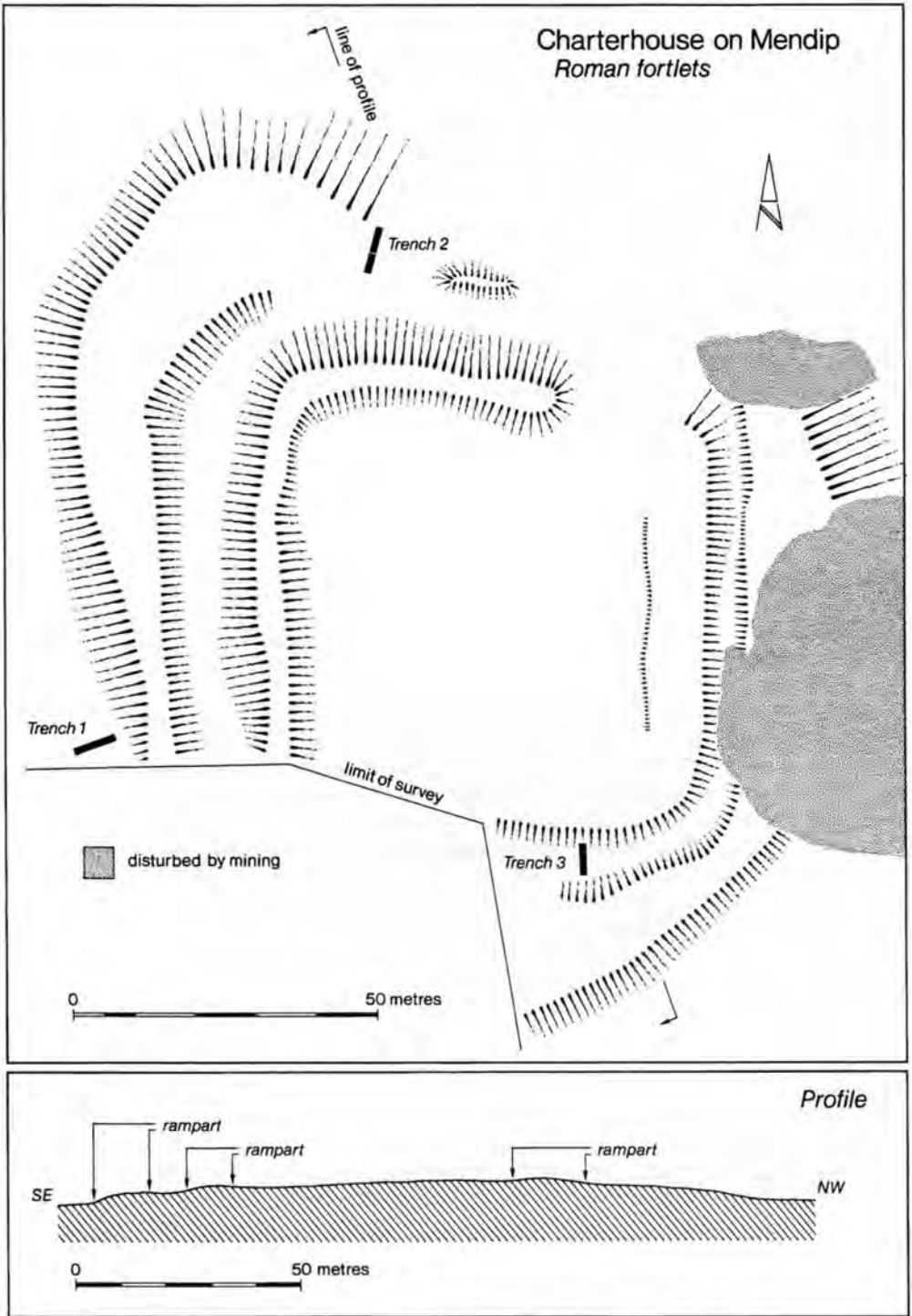
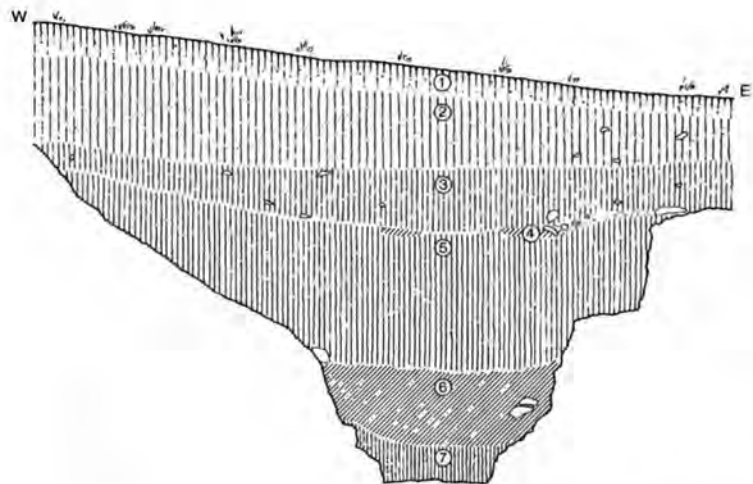


Fig. 4 Plan and profile of successive Roman fortlets. (Vertical scale of profile is twice the horizontal scale.)

Site 2
Trench 3 Ditch Section



Trench 1 Ditch Section

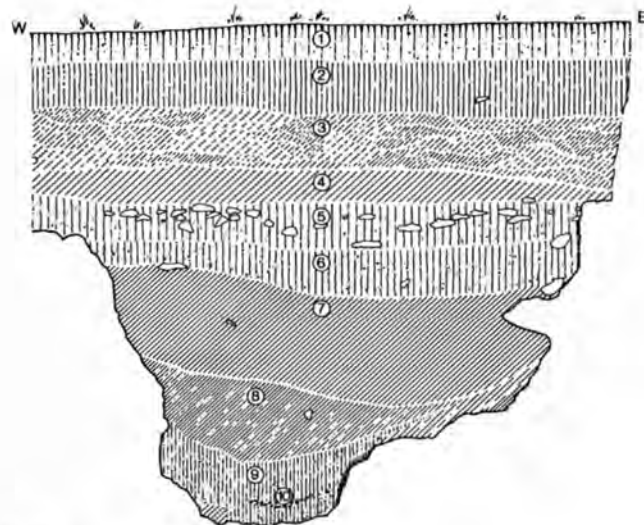


Fig. 5 Sections across ditches of fortlets. Trench 1 relates to the early fortlet, Trench 3 to the later fortlet.

obliterate any earlier workings that may have existed along the valley floor. But it is possible that remains of ancient mining may still survive at Charterhouse. Immediately to the south-east of the fortlet lies an area evidently untouched by modern mining. Here, a series of narrow 'rakes' is still visible, from which the galena has been removed, as are two exposed limestone faces which have been quarried from one side. The 'rakes', not much more than 0.5 m wide, may have been excavated by prehistoric and Roman miners, using the technique of trench-mining. This part of the site would repay thorough investigation.

OTHER SITES

Charterhouse and its environs contain many other sites which call out for attention. The earthwork known as the amphitheatre, on the hill-slope north-west of the Roman town, is one of the most visible works in the area. The slightly oval earthwork was examined by St George Gray (Gray 1909), whose guarded conclusion was that it was a small earthen amphitheatre associated with the Roman township, a conclusion supported by the extant form of the work. It is worth note, however, that St George Gray's excavation produced very little Roman pottery or other Roman material, whereas he did encounter a substantial number of flint artifacts, mainly implements of the Neolithic and early Bronze Age. It is worth posing the question: was this in origin a prehistoric monument, later converted to use by the inhabitants of the Roman town? Only two kilometres away to the west lies the similar but more rounded work of Gorsey Bigbury, shown by excavation in 1950 to be a small henge monument. An equally early origin for the Charterhouse earthwork might be hypothecated (but probably not as a henge), though this must await elucidation by further fieldwork.

Charterhouse is by no means the only locality on Mendip at which galena was easily accessible from the surface. Several sites to the east reveal surface signs of trench-mining, notably in the vicinity of Priddy and at Green Ore, the scene of much later mining and also the find-spot of a cache of four Flavian inscribed ingots. Most of Mendip remains to be surveyed in detail for remains of ancient mining. Much has no doubt been lost to later extraction, but the prospects are good for the recovery of important information on one of the major industries of Roman Britain, and one of the few in which the Imperial government held a direct interest.

Among the few sites thus far known which has produced evidence for Roman structures as well as metalworking is a complex close to the St Cuthbert's lead works, 3.5 km east of Priddy. Here a ditched enclosure contained at least one Roman building, along with evidence for the collection of lead ore and for lead smelting. Only a brief report has been issued on this important site (Mason 1953). Although damaged by modern disturbance, it calls out for further study.

APPENDIX

Analysis of Metal Samples

Three samples of metal and ore were submitted for analysis to Dr J. Jones of the Earth Resources Centre, University of Exeter. The results, in one case in particular, are of such interest that they are briefly reported here. The processes of analysis employed were Scanning Electron Microscopy (SEM) for imaging, Energy Dispersive Analysis (EDA) for semi-quantitative chemical analysis, and X-Ray Diffraction (XRD) for determination of crystalline materials in the samples. All three of the samples so far studied came from Roman contexts. Two of the samples revealed a grey, lustrous mineral with a whitish coating, identified as galena with a coating of cerussite, calcite and small amounts of

quartz. One of the samples, from the later fortlet ditch, revealed a small peak which may be silver. The third specimen produced a far more unexpected result. This proved to be a zinc compound, more or less homogeneous throughout, but with an iron and manganese compound present in the outer part of the specimen. X-Ray Diffraction suggests that this sample is composed of smithsonite (Zn CO₃).

The presence of a small zinc ingot is very surprising. Zinc is not known to be among the minerals mined on Mendip at any date. In a wider context, zinc has rarely appeared in this form in any part of the Roman Empire and, thus far, never in Roman Britain, despite its frequent use in alloys such as brass and pewter, and in various medicinal preparations. The nearest zinc deposits known to have been exploited in the Roman period are those near Aachen in western Germany, but we must now reckon with a source on Mendip. Official Roman interest in zinc may have been keen, as it was used in the coining of brass sestertii in the early Empire. But for what precise purpose zinc was being worked at Charterhouse is, as yet, unknown. Nor is it certain that the mineral was extracted here. These and other questions must wait upon further work.

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