

HOW DID SOLDIERS LIVE IN A ROMAN FORT?

A case study of the fort at Bearsden on the Antonine Wall

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Abstract: Excavations at the Roman fort at Bearsden on the Antonine Wall from 1973 to 1982 led to the near-complete excavation of the praetentura and selective examination of other parts of the fort. Analysis of the distribution of pottery demonstrated that nearly all the barrack-rooms contained fragments of mortaria, cooking pots and bowls/dishes, implying that the preparation, cooking and eating of food took place in these rooms. One other building was tentatively identified as a store for amphorae.

An advantage of studying the Roman army and its structures is the possibility of using what Leo Rivet called ‘evidence by analogy’ (Rivet 1964, 20). This paper which details some of the result of a campaign of excavations on the far north-west frontier of the Roman empire is offered to Jan, the excavator of military structures along the central sector of the northern frontier of the empire, as a token of a long friendship.

INTRODUCTION

Identifying the use of all buildings in Roman forts has been a long process. Traditionally it has depended on the discovery of inscriptions such as that found at Rough Castle on the Antonine Wall in Scotland, which identified the name of the headquarters building as the principia (RIB* 2145), whereas that building had previously been thought to be the praetorium, the commanding officer’s house as a result of studying the literary sources. Alternatively, the plan of a building might indicate its function, though of course not always its name. Thus, we can now identify granaries and barrack-blocks. Recognising stables in a fort has long been problematic, but while we can now identify barrack-stables, possible accommodation for pack animals remains difficult (Hodgson/Bidwell 2004). Determining which of the buildings of similar plan were hospitals has been another issue. The artefacts recovered from buildings during excavation obviously can be helpful, especially in the case of a hospital and a workshop. But it is almost with a sense of despair that we call long, narrow buildings with no internal partitions storehouses when we have so little evidence for their use. The usage of buildings remains one of our problems. Where, for example, was the firewood stored to keep it dry? In the lean-to sheds which are found in some forts? To date, no building has been identified as a mess-hall, a building where soldiers went to eat, and the question of where soldiers prepared, cooked and ate their food remains high on our list of problems relating to the life of the soldiers in Roman forts.

Plotting the distribution of artefacts ought to help us address some of our outstanding questions. The seminal work on this subject is that of Rikke Giles (Giles 2012). Realising that we rarely – very rarely – excavate complete Roman forts, Giles hit on the idea of creating a composite fort based on several excavations and plotting the distribution of pottery within that imaginary structure. She was able to show that some types of vessels are found in certain buildings while others are less common. To take one example, jars tend to be found in granaries and on roads. An interpretation is that they were used to carry grain – and possibly water – and on the return to the barrack-room the soldier dropped his precious cargo for it to smash on the road.

* RIB = Roman Inscriptions of Britain

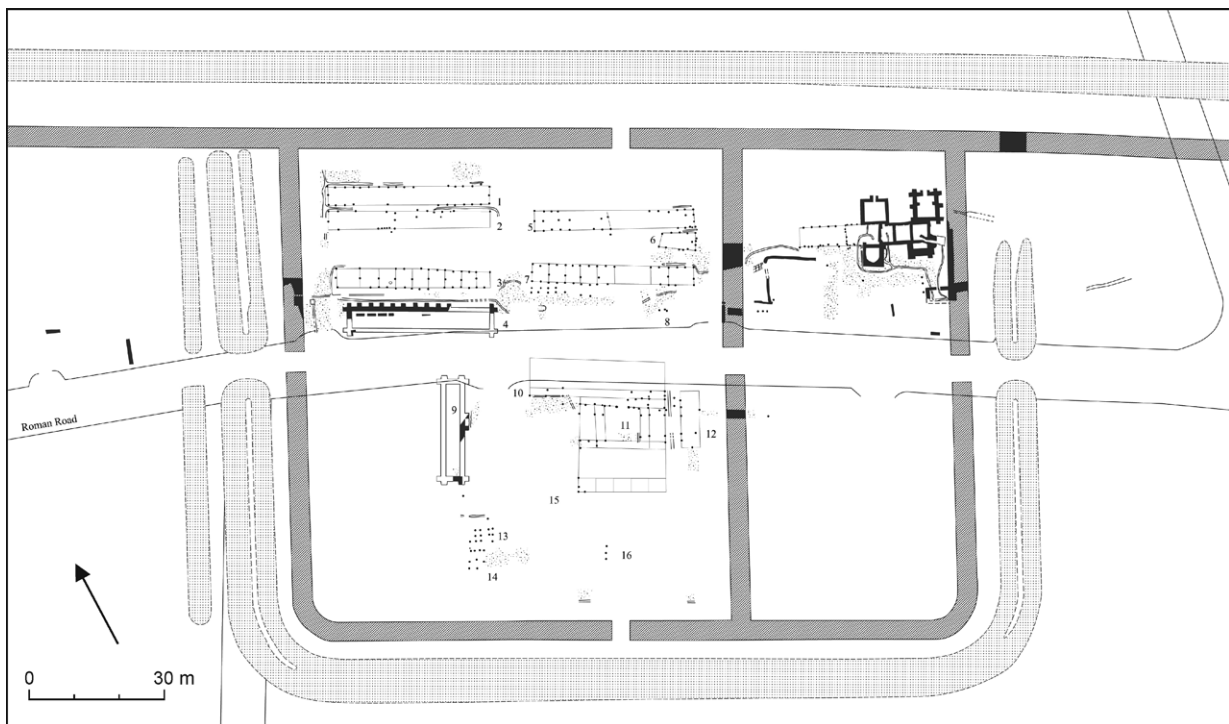


Fig. 1. Plan of the Roman fort at Bearsden.

THE ROMAN FORT AT BEARSDEN

Over the period from 1973 to 1982, I investigated the Roman fort at Bearsden on the Antonine Wall, cumulatively digging a little less than a third of the military compound, which was occupied for a mere generation from about 142 to perhaps 158/65 (Fig. 1; *Breeze 2016*). The excavations were focussed on the praetentura, with very restricted areas of the central range and retentura examined. The extent of the work was hampered by trees protected by law, while post-Roman ploughing had removed ancient features in some parts of the site. The area of the fort and its immediate surroundings had been divided into fields by the 19th century (*Breeze 2016*, 5, fig. 2: 3). The fort was surveyed by William Roy in 1755, and his plan shows no upstanding ramparts only ditches, and even one of those discovered during the excavations was not recorded by Roy, another indicator of ploughing (*Breeze 2016*, 3, 4). Pottery – and other artefacts – will therefore have been moved around the site.

There was also disturbance of the site caused by the construction of seven large houses in the second half of the 19th century (*Breeze 2016*, 5, fig. 2: 4). In some places Roman levels had been removed while elsewhere large quantities of clay had been laid to create terraces.

Further, the excavation revealed the existence of a broad depression running across the southern area of the praetentura, immediately north of the via principalis, today's Roman Road (*Breeze 2016*, 10, fig. 3: 1.1). Here, deeper deposits had accumulated, and therefore there was a better survival of Roman artefacts. Over the central range and retentura the topsoil was very shallow. There were, therefore, three distinct zones within the fort. Over the area of the north rampart, all traces of the rampart and intervallum road had been destroyed. The buildings of the praetentura survived, some buried deeper than in any other part of the fort. The central range and retentura were flat and stratigraphy shallow, possibly the result of landscaping in the 19th century in connection with the construction of the houses. Care, therefore, needs to be taken in any interpretation of the distribution of pottery and other artefacts within the fort.

In spite of the difficulties, two barrack-blocks were identified, three long narrow buildings either with no or irregular internal partitions, two granaries and a headquarters building. On its abandonment, the army appears to have removed anything of value from the fort, leaving only the dross, such as damaged querns and metal artefacts, and then demolished and burnt the buildings (*Breeze 2016*, 375). As a result, pottery was the main indicator of the function of the buildings (Fig. 2). It was found widely across the fort, but some areas



Fig. 2. Some types of pottery found at Bearsden. Top – cooking pot, mortarium, jar; bottom – bowl, mortarium.

produced significant quantities and others very little or none. Plotting of the recovered Roman pottery not only reveals differential distribution patterns but also what appear to be indicative distributions within certain buildings (Breeze 2016, 350–359, fig. 21: 23–30).

The barrack-blocks

Two buildings were securely identified as barrack-blocks. Each contained eight rooms with the quarters of the officer in the usual position at the rampart end (Breeze 2016, 26–32). Such barrack-blocks would normally be identified as being occupied by cavalry with eight men in each room, thereby providing accommodation for a total of 32 men, that is, one cavalry turma. Seven of the eight rooms in the western barrack-block produced at least one fragment of a mortarium, a mixing bowl, while several fragments were recovered from the drain beside the officer's quarters (Table 1). Not all the adjacent barrack-block was excavated, but three out of the six rooms investigated furnished fragments of mortaria, while more were found in and beside the officer's quarters.

Table 1. The distribution of pottery in the two barrack-blocks, buildings 3 and 7 on Fig. 1. 0 = officer's quarters. *Contubernia* 2 and 3 in the right-hand barrack-block were not excavated.

	0	1	2	3	4	5	6	7	8	8	7	6	5	4	3	2	1	0
Mortaria	✓	✓	✓	✓	✓	–	✓	✓	–	–	✓	–	✓	✓	–	–	✓	✓
Cooking pot	✓	✓	✓	✓	–	✓	–	✓	✓	✓	–	–	✓	–	–	–	✓	✓
Bowl/dish	✓	✓	✓	✓	✓	✓	–	✓	–	–	✓	–	–	✓	–	–	✓	✓
Plate	–	✓	–	–	✓	–	–	✓	–	–	–	–	–	–	–	–	–	–
Samian	✓	–	✓	–	–	–	–	–	–	–	–	–	–	✓	–	–	✓	✓

The distribution of the fragments of cooking pots was similar. In the western barrack-block, the officer's quarters and five of the eight rooms contained fragments of cooking pots with a significant collection outside a sixth. Again, evidence was less abundant in the other barrack-block, with three rooms and the officer's quarters producing fragments.

The distribution of bowls and dishes was similarly significant. In the western barrack-block, four of the eight rooms contained fragments of bowls or dishes with more beside a fifth room and the officer's quarters. Only two rooms in the other barrack-block contained fragments, though some lay outside two more rooms, and there were fragments in and beside the officer's quarters.

Samian fragments were recovered from only one of the soldiers' rooms in the west barrack-block, though there were several fragments in the officer's quarters and a similar pattern occurred in the other barrack, though with two rooms containing fragments of samian vessels as well as the officer's quarters.

Jars were unusual, with just one fragment in two rooms in one barrack-block and none in the second. Plates were rare, with three rooms in the western barrack producing one fragment in each. Jars were found in greater numbers on the internal roads, while there was a cache of plate fragments on the southern interval-lum. The officer's quarters of the eastern barrack yielded a fragment of a flagon, a vessel found very rarely across the site. Beakers and cups were also absent from the barracks though the former were present in small numbers in the area of the eastern barrack-block.

The long-narrow buildings

One building in the north-west corner of the fort appeared to have no internal partitions while its neighbour had but two. Building 1 produced 2–5 fragments of mortaria, rather more fragments of cooking pots and bowls/dishes but in restricted locations, that is, not spread across through the building. The second building yielded one fragment of a mortarium and another of a mortarium but no other pottery. A third building was similarly devoid of pottery.

The totally different patterns of pottery distribution in these buildings strongly suggest that they were not barrack-blocks.

The central range

A fragment of a jar was found in the north granary, and one of samian in the south granary. The presumed headquarters building yielded fragments of a cooking pot and a plate, as well as several fragments of bowls/dishes in one location. But the essential point is that the retrieval of pottery from this building was very small.

Ovens

The intervallum was examined in various locations on the west, east and south sides of the fort. The northern intervallum area including its road did not survive. Significant stratigraphy remained in pockets elsewhere. In no area investigated was an oven found nor any evidence of burning such as might have been related to ovens.

Fragments of four braziers were identified at Bearsden, but only one can be securely located and it was not in the praetentura but in an area of the retentura where there were no certain buildings. The presence in the fort of pottery with 'saggy bottoms', that is, convex bases, points to their use in conjunction with braziers.

The use of braziers and these pottery vessels indicates cooking in an African style (Fig. 3). This is likely to be linked to soldiers from the army of Britain serving in North Africa in the 150s and is evidenced on the Antonine Wall by the discovery of a kiln making pottery in an African style in the fort at Bar Hill which was the base of a regiment serving in North Africa in the 150s (*Eck/Holder/Pangerl 2016; Keppie 1985*).

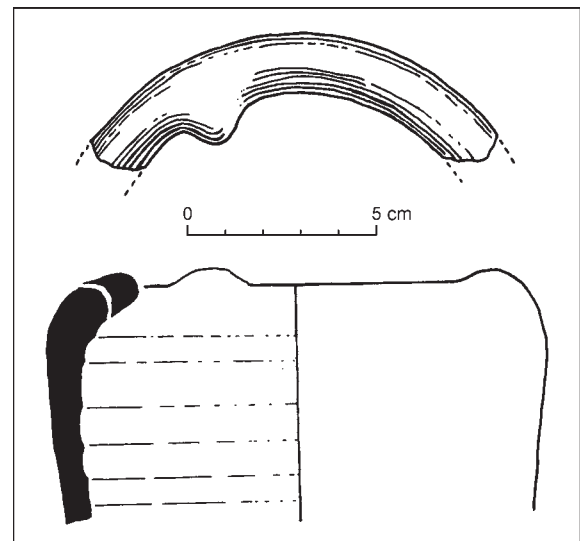


Fig. 3. The upper part of a brazier used for cooking in an African style.

Amphorae

The occurrence of amphora fragments across the whole fort was plotted and three levels of survival were identified (*Breeze 2016*, 357, fig. 21: 30). The highest density of amphora fragments was found in the long narrow building in the north-west corner and a small building on the east side of the fort. Both buildings had previ-

ously been tentatively identified as storehouses on the basis of their plans, so the presence of the amphorae in significant numbers provides supportive evidence. The western barrack produced the least evidence for amphorae. The eastern barrack furnished more fragments but this may have related to the greater depth of stratigraphy in that part of the fort.

Summary of the analysis of the distribution of pottery

The distribution of pottery throughout the two barrack-blocks makes it challenging to avoid the conclusion that soldiers prepared, cooked and ate their food in their own barrack rooms. The paucity of plates is important because it suggests that food was eaten from the bowls and dishes and not from plates from which it could easily slip. Perhaps, then, the food was eaten with fingers, or with wooden spoons which have perished. The lack of metal implements such as knives is of little consequence in view of the poor survival of the metalwork.

Food

This leads us on to a consideration of what food the soldiers ate. A trench cut across the inner east ditch of the fort's annexe revealed that by the time the fort was abandoned it was about half full of sewage, itself covered by water. It was only later in the campaign of excavations that the source of the sewage was found, the latrine. This lay a few metres south of the bath-house and was flushed by water from that building.

The diet of the soldiers was very varied. The pH level was such that few bones survived in the soil covering the fort. Nevertheless, we know that Roman soldiers ate meat (*Davies 1971*). The sewage revealed that wheat formed a major part of the soldiers' diet. Two types of wheat were identified, emmer and spelt (*Breeze 2016*, 223–280). Experimental archaeology coupled with literary evidence indicate that emmer could have been used for porridge, whereas spelt wheat could have been made for making bread. A third type of wheat was identified through residual analysis in pottery vessels; this was durum wheat, used today for making pizza and pasta (*Breeze 2016*, 281–284). Barley only survived in small quantities and was probably used for thickening broth.

Other food items include fruits – bilberry, raspberry, strawberry and blackberry – hazel nuts, celery, turnips, radishes, lentils, horse beans, linseed, fig, dill, coriander and opium poppy. Most of these could be eaten with the fingers. One might expect that the consumption of porridge and broth would have required bowls or dishes to hold the food as well as an implement with which to eat it, perhaps a wooden spoon which has not survived.

CONCLUSIONS

The very different distribution of fragments of pottery within the barrack-blocks and other buildings of similar size but different internal layout would seem to confirm that the latter are not barrack-blocks but served some other purpose(s). The higher survival of amphorae in one such building may point to its use as a store. The distribution of fragments of mortaria, cooking pots and bowls/dishes within the barrack-rooms points to the preparation, cooking and eating of food within these rooms. The items of food found in the sewage includes many that could have been eaten with the fingers but others are more likely to have required the use of a spoon; remarkably a wooden spoon was found at Vindolanda (Fig. 4). The braziers and the bowls with convex bases indicate cooking in a North African style and therefore the probability that soldiers from the fort at Bearsden served the Moorish War of Antoninus Pius in the 150s.



Fig. 4. A wooden spoon found at Vindolanda on Hadrian's Wall. Reproduced by kind permission of the Vindolanda Trust.

The excavations at Bearsden, therefore, provide valuable evidence for an important activity of Roman soldiers, their eating habits. They also help us understand the purpose of several buildings within the fort in the face of the lack of other evidence. We are a step forward in our appreciation of these aspects of the single most important institution in the Roman empire, its army.

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Ako žili vojaci v rímskej pevnosti?

Prípadová štúdia pevnosti v Bearstene pri Antonínovom vale

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Súhrn

Terénne práce v pevnosti Bearstene pri Antonínovom vale (1973–1982), osídlenej približne v rokoch 142 až 158/165 n. l., identifikovali na základe analýzy ich plánov dve budovy ako kasárne. Rozmiestnenie keramiky, ako boli mortáriá, hrnce na varenie a misky v týchto budovách naznačuje, že príprava jedla, varenie a stravovanie sa uskutočňovali v barakových miestnostiach. Džbány a tanieri sa v budovách nenachádzali; fragmenty džbánov sa našli na ceste, kde mohli spadnúť pri prenášaní surovín, ako boli obilie alebo voda. V kasárňach sa nenašli žiadne príbory, väčšina druhov potravín získaných z odpadových vôd sa mohla jesť rukami. Analyzovali sa aj ďalšie budovy podobnej veľkosti ako spomínané baraky, ale s iným vnútorným členením. Počet amfor v jednej z nich naznačuje, že išlo o skladisko nádob na víno. Rozmiestnenie keramiky, čo sa týka typov aj množstva, v budove „hlavného stanu“ a v sýpkach bolo také, ako sa dalo očakávať. Našli sa fragmenty štyroch brazierov a niekoľko misiek s vypuklým dnom, čo poukazuje na varenie v africkom štýle. Vojenská jednotka so sídlom na Bar Hill pri Antonínovom vale vyslal vojakov do severnej Afriky a tí si po návrate vyrobili keramiky v severoafrickom štýle. Aj vojaci z Bearstenu pravdepodobne slúžili v severnej Afrike.

Výskumy v Bearstene poskytujú cenné dôkazy o dôležitej súčasti života rímskych vojakov – o ich stravovacích návykoch. Pomáhajú nám pochopiť funkciu budov v pevnosti. Výskumy v Bearstene nás tak posunuli o krok vpred v poznaní viacerých aspektov fungovania v najdôležitejšej inštitúcii v Rímskej ríši – jej armády.

Obr. 1. Plán rímskej pevnosti v Bearstene.

Obr. 2. Niektoré typy keramiky nájdené v Bearstene. Hore – hrniec na varenie, mortarium, nádoba; dole – misa, mortarium.

Obr. 3. Horná časť brazier používaného na varenie v africkom štýle.

Obr. 4. Drevená lyžica nájdená vo Vindolande pri Hadriánovom múre. Reprodukované s láskavým súhlasom Vindolanda Trust.

Tabela 1. Rozloženie keramiky v dvoch barakových blokoch, budovách 3 a 7 na obr. 1. 0 = dôstojnícke priestory. *Contubernia* 2 a 3 v pravom barakovom bloku neboli preskúmané.

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