

Excavations on the defences of Caerleon Legionary Fortress in 1982

By H. E. M. COOL,¹ HOWARD MASON² AND PHILIP MACDONALD³

INTRODUCTION

The best-preserved part of the defences at the legionary fortress of Caerleon is the southern corner, where the rampart wall still stands to a height of almost three metres. Excavations carried out there in 1982 provided some of the best evidence for how the defences were built, and this information has been used both to inform discussions of the Flavian fortifications (Zienkiewicz 1999), and as the basis of graphical reconstructions in guidebooks of how the fortress would have appeared (Knight 1988). For a variety of reasons the full excavation report was never published in an easily accessible form though a report with very limited circulation did appear (Mason and Macdonald 1997). In the spring of 2010 this report was edited for publication in a digital form on the Archaeological Data Service (Mason and Macdonald 2010, hereafter referenced as ADS 2010). The full description of the site and all of the artefacts recovered will be found there. The aim of this article is to provide a synthetic overview of the excavations, exploring what the evidence from them tells us about Caerleon, and what light it shines on the behaviour of the Roman army in the first and second centuries.

The 1982 excavations were the result of consolidation work on the rampart wall carried out by the masons who worked for Cadw's predecessor (the Ancient Monuments Division of the Department of the Environment). This work revealed that the internal deposits of the interval turret on the south-western wall closest to the southern corner remained intact despite extensive robbing of its walls. Consequently, it was decided that the excavation of both the interval turret and the southern corner turret was justified before further repairs were made to the walls and the turrets to prepare them for public display. The corner turret had previously been explored in 1909 (Bosanquet and King 1963; Boon 1963). The area available to be excavated was governed by the needs of the consolidation work and was thus effectively confined to the area of the wall and rampart. There was no opportunity to explore either the berm and ditch in front of the wall nor the area at the rear of the rampart, though the edges of some buildings in the latter zone were recorded. The excavations took place in five areas (see Fig. 1). Sites A and D were those of the corner and interval turrets respectively. Site C was a machine-dug trench across the rampart which in part duplicated the section dug in 1909 (Bosanquet and King 1963, fig. 2). Site B was a new machine-dug section across the rampart. The proposed re-display of the defences involved the demolition of a Second World War fortification on the top of the rampart to the north-west of the corner turret. This allowed the excavation of the surface of the rampart in Site E, which linked Sites A and C.

Phasing

Six phases of Roman activity were identified with a seventh phase describing the post-Roman to modern activity. The Roman phases were as follows:

- Phase I Building the earth and turf rampart.
- Phase II Building the masonry rampart wall and turrets.

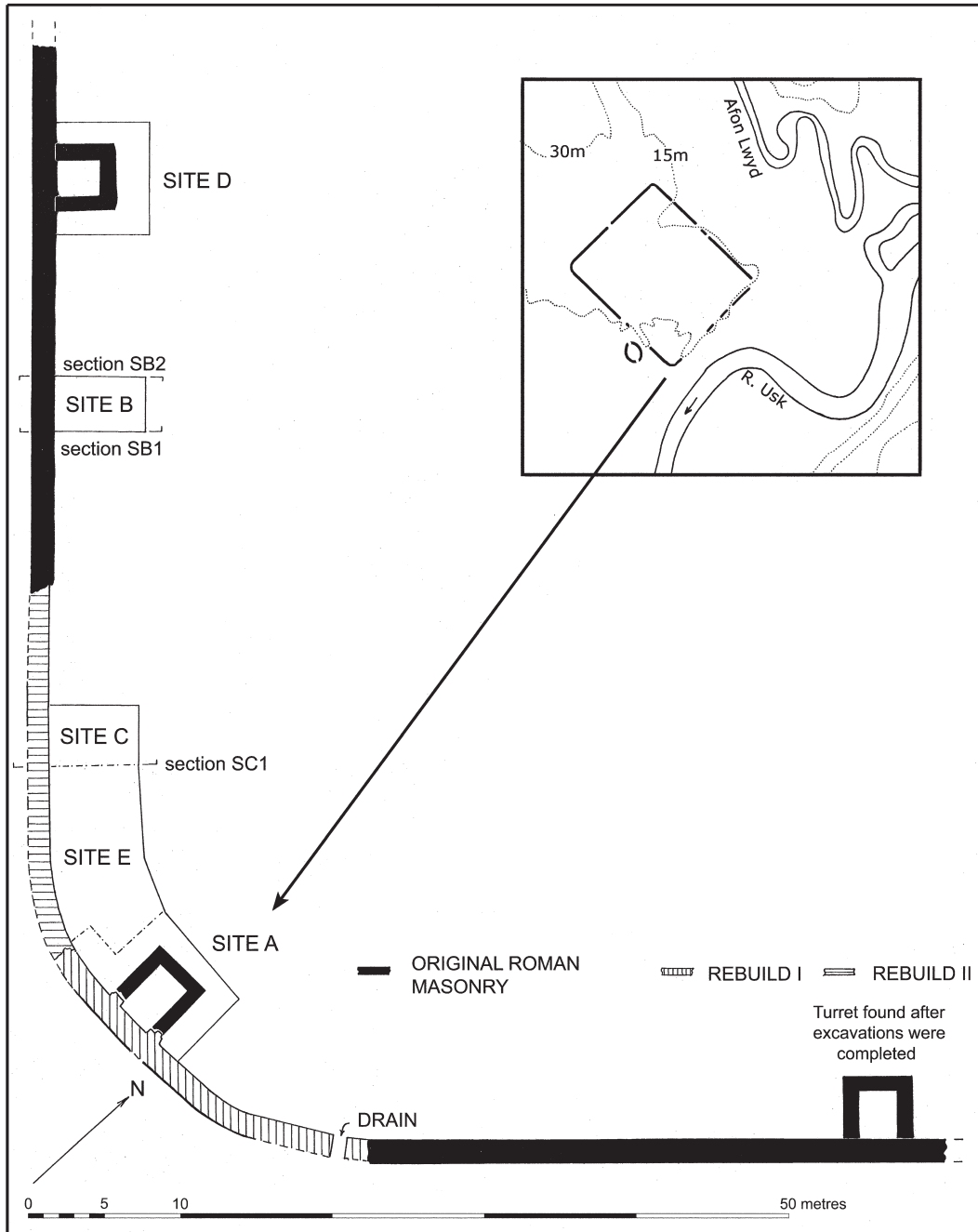


Fig. 1. The location of the site showing the areas excavated and the rebuilt sections of the wall.

- Phase III Rubbish dumping within the interval turret.
 Phase IV Rebuilding of two stretches of the rampart wall.
 Phase V Occupation observed on the rear of the rampart.
 Phase VI Alterations to the rear of the rampart.

The phase numbering generally follows the chronological sequence demonstrated by the stratigraphic relationships, though the precise dating of the Phase IV rebuilding episodes is unknown and the Phase V occupation consists of a number of disparate episodes of varying date. Occupation stretched from the Flavian period into the third century, but no evidence of late third or fourth century activity was found.

The earliest activity was the construction of the rampart, and the sections through it provided very clear evidence of how it had been built (see Fig. 2 here and ADS 2010, figs 3–7). The ground had been de-turfed and brushwood spread on the ground. Shallow foundation trenches were dug at the front and rear and these had been used for the footings of turf stacks. The stack at the rear was at least 0.5m wide and had sloped steeply towards the front. Less survived of the stack at the front because of the alterations caused by the later insertion of the rampart wall, but it appeared to have been wider and to have sloped back at a slightly less acute angle. The core was formed of alternate layers of clay and gravelly silt with some turf and brushwood. The latter showed no evidence of being deliberately deposited as courses and appeared to be chance inclusions. The maximum recorded height above the ancient ground surface was 2.82m. If it is assumed that the later stone wall marked the front of the rampart which it had cut away, then the maximum width was 7.3m.

The form of the rampart found in 1982 is consistent with that found elsewhere at Caerleon (ADS 2010, 34 for references), though it was the first time the turf revetment stacks had been observed. The Caerleon

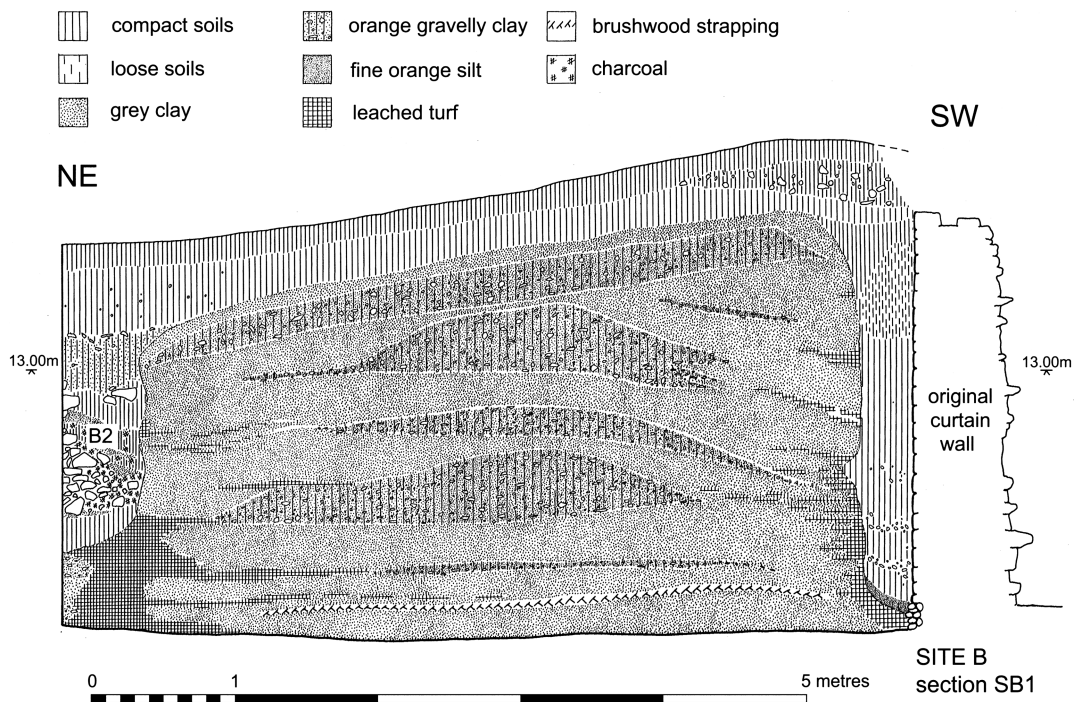


Fig. 2. Section across the rampart on Site B.

rampart, like the one at Inchtuthil (Pitts and St Joseph 1985, 60), was clearly built without any internal timber strapping or basal timber corduroy unlike the case of the contemporary fortress ramparts at York (Ottaway 1996, 188–9) and Chester (LeQuesne 1999, 74). Such strapping would have provided the rampart with added stability and its absence was to have unfortunate consequences for this section of the defences. As can be seen from the inset on Figure 1, the southern corner is situated at a lower point than the majority of the fortress. The recent detailed topographic survey of this area of the fortress shows how steeply the ground is falling away in the corner area (Guest and Young 2006, fig. 11a). After the excavations were completed, the continuing consolidation work uncovered an arched gap in the lower part of the rampart wall to the east of the corner turret (marked on Fig. 1). The geophysical survey, of which the topographic work was a part, did not recover any evidence of drains in this area, but there can be no doubt that the gap in the wall was the outflow of a major drain and it has to be suspected that much of the waste water from the fortress would have found its way to this part of the defences. This, together with the fact that the rampart here was built on a slope, would have undermined its stability. The problem would have been made worse when the turf stack that had acted as the front revetment was cut away to insert the stone wall. The history of alterations seen in the wall was probably ultimately the responsibility of whoever decided that the Caerleon rampart did not need timber strapping.

Summary of dating evidence

Little useful dating evidence for when the rampart was constructed was found, but what little there was would be consistent with the generally accepted date of AD 74/75 for the foundation of the fortress. Dating evidence was much better for establishing when the stone rampart walls and the turrets were built. The rampart was cut back to allow the construction of the foundations and walls of both the rampart wall and the turrets, with the displaced rampart material being used as backfill when they were completed. An unworn *as* of Domitian dated to AD 86 (Mattingly and Sydenham 1926, 196 no. 335) came from one of these backfill layers which could only have been inserted when the walls of the corner turret were at least two metres above the foundation level (ADS 2010, fig. 13, layer A4). The date of the coin is too late for it to have been a displaced inclusion from the original rampart and so it can plausibly be used as a *terminus post quem* for the construction of the corner turret. Further dating evidence was provided by the change of use seen in the interval turret. It is clear that this had originally been intended to have a room at ground level. Several layers of construction trample were present and a paved floor had been laid on these. This was subsequently dismantled and the room was then used for rubbish disposal, with material being tipped in through the door (Fig. 3). The coarse pottery from the lowest level of this dump (D6) may be dated to the Flavian-Trajanic period (Greep in ADS 2010, 55) as can the samian (Boon in ADS 2010, 49 nos 2–6). It is especially noteworthy that relatively little Black-burnished ware pottery (BB1) is present amongst these initial dumps. This provides a *terminus ante quem* for the start of the dumping of c. AD 120 as at that point BB1 displaced the many small suppliers who had hitherto provided most of the coarse wares at Caerleon. Before that date the BB1 potters were only supplying a small proportion of the ceramics. Had the dumping started after AD 120 the pottery assemblage would have been dominated by BB1. So between the *terminus post quem* of the coin in the backfill of the corner turret and the *terminus ante quem* provided by the dumping in the interval turret room, the turrets can confidently be dated to sometime within the final decade or so of the first century and the first decade of the second. No other site at Caerleon has provided dating of such fine precision for the conversion of the defences to stone.

The defensive sequence at Caerleon

The question of whether the rampart wall was contemporary with the turrets then arises. The 1982 excavation shows that both were built on a continuous foundation of river cobbles (ADS 2010, fig. 8)

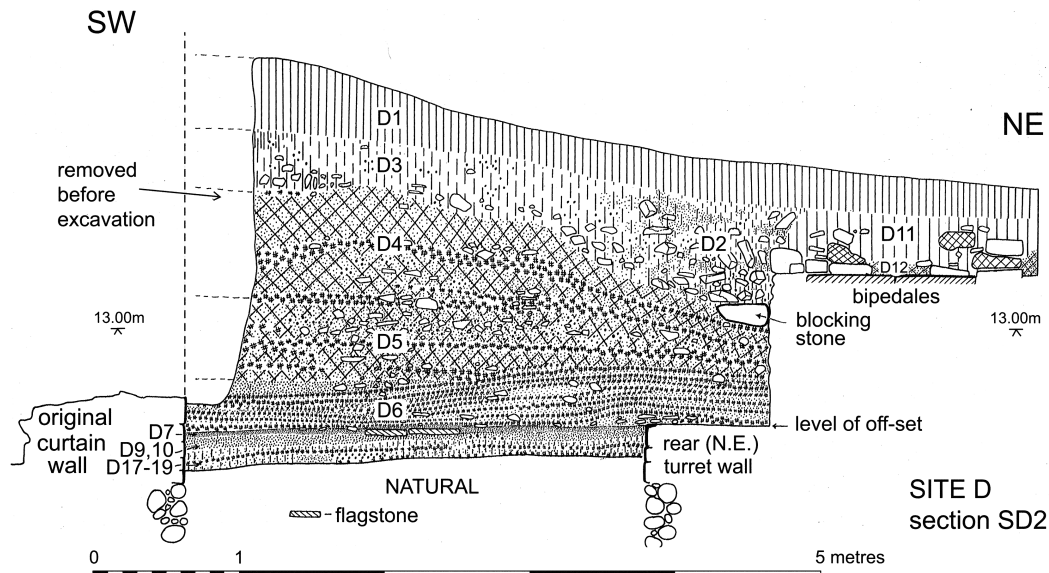


Fig. 3. Section across the interval turret showing building trample layers and original floor (D7–D19) and the rubbish infill (D4–D6). The bipedales marked in the NE are part of one of the later cooking ovens.

indicating that they were part of the same scheme. This feature has also been observed at Myrtle Cottage (Fox 1940, 106). The interval turret was observed to butt against the rampart wall whilst the relationship of the corner turret to the original wall had been removed by later rebuilding. Observation of the interval turrets open to public view at Prys Field (Nash-Williams 1931, nos 1 and 3) suggest that they too butt the wall. Where the relationship has been reported on before (see ADS 2010, 35 for summary), the words used to describe the junction between turret and wall are often ambiguous. The fact that above the foundation level the turrets butt the rampart wall has been used to suggest that there may have been an interval between building the wall and building the turrets, with the latter delayed until after the military withdrawal from Scotland under Domitian (Zienkiewicz 1999, 136). The continuous nature of the foundations indicates that turrets were planned from the outset, so the nature of the junctions between walls may just have been a building technique without major chronological implications. At present either view could be argued from the evidence.

Within the fortress, layers beneath the stone buildings or associated with their first occupation normally only contain South Gaulish samian which indicates a date earlier than AD 100/10 (Zienkiewicz 1990, 30). This would suggest that the conversion of the timber fortress to one of stone was taking place in the last decade of the first century or earlier. This was shown very graphically at the Legionary Museum site where the temporary timber structures of Phase II and the replacement stone building of Phase III was confidently placed within the period AD 85–100 (Zienkiewicz 1993, 46–7). The evidence from the excavations on the southern defences would happily fit into that scheme. The dedication inscription naming Trajan found reused as a paving stone in the School Fields excavations (RIB I, no. 330) clearly commemorated the completion of an important project given it was made from imported Tuscan marble. It is presumably to be dated early in AD 100 as originally the stone was carved when Trajan was in his second consulship (AD 99) and then altered to reflect he had entered his third.

Zienkiewicz (1990, 30) was undoubtedly correct when he suggested that it is likely to have marked the completion of a lengthy building campaign.

At Inchtuthil the fortress had been provided with a stone rampart wall by the time it was evacuated, generally thought to be in AD 86/87. In their discussion of the Inchtuthil stone wall Pitts and St Joseph (1985, 62) noted that though apparently early for Britain, on the Continent stone had been used in legionary fortresses from the mid first century and became normal during the Flavian period. They attributed its use at Inchtuthil to the poor quality of the turf in the area and the source of easily available sandstone close by. Equally though the Continental evidence suggests that there was no reason why a fortress founded in the Flavian period should not have been planned to have been built in stone from the outset. The Scottish fortress shows that the army had no qualms about building a turf rampart knowing that part of it was destined to be demolished soon after to build a stone wall. Just as at Caerleon the rampart had been built and then cut back for the insertion of the rampart wall. This appears to be a profligate use of resources until Shirley's figures for how long the various elements of Inchtuthil would have taken to build are considered. She cites a figure of 475,000 to 515,000 man hours to cut the turf and build the rampart (Shirley 2001, 44). The rampart lengths at Caerleon and Inchtuthil are comparable, but the Caerleon rampart used less turf so it is reasonable to take the lower of her two figures. Calculated out at an eight-hour day and a six-day week, one can hypothesise that a thousand men, less than a quarter of the full strength of a legion, could build the rampart in less than ten weeks, not perhaps so huge an investment of resources that might initially be thought.

This opens up the intriguing possibility that the turf rampart phase of the defences at Caerleon may always have been considered as a short, temporary one. These excavations produced no evidence of any timber structures that pre-date the stone ones. On the Caerleon defences as a whole no timber turrets have been found. This may simply reflect the fact that they were not positioned at the same points as the masonry ones, and the right parts of the rampart have not yet been dug. At Chester there is some evidence to suggest that the intervals between the timber turrets was shorter than those between the later stone ones (LeQuesne 1999, 108). At Caerleon this seems less likely as the layout of the entire fortress appears to have been established at the outset as the defences together with both the timber and stone buildings in the interior can be neatly fitted into an overall plan based on the *pes Monetalis* (Zienkiewicz 1999, 128, ill. 124). Possibly there never were any timber turrets at Caerleon. Certainly the only evidence of the stone gateways, a single tower of the *porta principalis dextra*, fits into the Flavian metrological scheme and was of one build with the rampart wall (originally published in by Nash-Williams (1933) with additional observations from the original site notes in Zienkiewicz 1999, 133).

It could be argued that there may well have been good reasons to convert the defences to stone at an early point, prioritising that work at the expense of work on the internal buildings. This might not have been so much to do with improving their defensive capabilities, as making a very visible statement in the landscape as to where power and authority now lay. Gardiner (2007, 119) has argued that we tend to impose hierarchies on materials seeing masonry as 'civilised' and timber as 'backward'. It could also be argued that we tend to privilege structures with angles over those with curved walls, assuming that development seen on sites such as Whitton (Jarrett and Wrathmell 1981) from timber roundhouse to rectangular masonry villa is a progressive development of some kind. We can accept that under the influences of conscious or unconscious biases such as these we may be imposing reactions on the denizens of the past that they did not, in fact, have. It does have to be said though, that a very large rectangular enclosure with tall stone walls would have been an extremely alien feature of the late first century landscape. Evidence from the 1982 excavations has provided important information about the appearance of the walls which would have made the fortress an even more alien and distinctive landscape feature.

The appearance of the defences of the Caerleon Legionary Fortress

The excavations in 1909 had revealed that the external north wall of the corner turret had preserved a patch of plaster rendering on the stone. Conservation work carried out as part of the 1982 excavations revealed that originally a single coat of white plaster rendering had been applied in which grooves mirroring the underlying courses of the masonry had been drawn. This surface was then treated to a coat of brilliant white lime wash with the grooves picked out in red paint. Currently this treatment can be observed in the recessed gaps between the stones and extends onto the edges of them but is not found on the centre of the stones. The ragged edges of the extant plaster strongly suggest that originally the white plaster and lime wash had covered the entire face of the masonry. The same red and white rendering was observed on the facing stones of the amphitheatre (Wheeler and Wheeler 1928, 118 pl. XXIV, 1–2; Wheeler and Nash-Williams 1970, 9). Evidence for the external face of the rampart wall being treated in the same way came from the infills of rampart material associated with the later (Phase IV) rebuilds of the wall where fragments of similar false-jointed plaster were found. These were associated with both rebuilds (ADS 2010, 89) and the only likely source is the external face of the original rampart wall.

This effect of a brilliant white fortress wall with red false jointing must have been spectacular (Fig. 7b) as can also be appreciated from the reconstruction of the effect at the Saalburg on the German *limes* (Bidwell 1996, fig. 3.2). The evidence of wall treatments such as this rarely survive but may have been more frequent than we appreciate as clearly aesthetic appreciation in the Roman world was not the same as our own (Bidwell 1996). Putting to one side how common the treatment may have been more generally, there can be no doubt that the Caerleon fortress with its white walls would have been a startling and novel new experience in the Usk Valley. The interior would have been alien too, as the buildings were increasingly rebuilt in masonry with red-tiled roofs, but access to that area would have been restricted. All that most people would have seen was the exterior.

For some years now it has been considered that the conversion of the defences to masonry at the other two legionary fortresses was a piecemeal affair extending throughout the second and into the third centuries. At Chester the most recent review drawing on evidence from excavations carried out between 1978–1990 suggested that the stone defences were being constructed in *c.* AD 90–120 but remained incomplete through much of the second century and were only completed in the early to mid third century (LeQuesne 1999, 144–5). At York though parts of the stone circuit were considered to date to the early second century, it was felt that the defences were largely of timber until the late second or early third century when they were finally completed in stone in two separate campaigns (Ottaway 1996, 291–4). New discoveries between 2001 and 2004 at the St Leonard's Hospital site in York mean that the York sequence has to be seriously reconsidered. The analysis of the results is still ongoing but what is known is that the alder piles below the Multangular Tower have returned radiocarbon dates with highest posterior density distributions of AD 5–85 and AD 25–130 at the 95 per cent level (Hunter-Mann 2009). The pottery and small finds associated with the building of the stone defences at that site would also support a late first-century date. The projecting Multangular Tower is part of the south-western defences which are at the front of the fortress facing the river Ouse. This is the only side of the fortress to have such elaborate architecture and traditionally this has been viewed as a late third/early fourth-century redevelopment designed to impress (Ottaway 1993, 97). The dating has been based on the fact that the towers project and this is more in keeping with late Roman military tactics than early Roman ones, but the St Leonard's Hospital excavations have substituted hard scientific and archaeological evidence in the place of this. The traditional dating of this stretch of the defences is now open to question.

This is not the place to explore the ramifications of this for the archaeology of York, but the analogies with the southern defences at Caerleon are interesting. In both cases on the side or sides of the fortress facing the river there is evidence of a desire to impress. At York there is even a small amount of evidence

that this stretch of the defences may have been plastered with false jointing (Hall *et al.* 1996, 263), though no evidence survived of the colour combination. It is unfortunate that the equivalent river-facing sections of the Chester defences do not survive above ground level as those stretches were robbed out in the early medieval period when the city defences were extended (LeQuesne 1999, 64). Should we perhaps be thinking of the late first century army deliberately manipulating the appearance of its legionary fortresses in the newer parts of the province as the equivalent of an architectural 'shock and awe' tactic?

Repairs and rebuilds to the defences

Whatever architectural effect was being aimed at, it is clear that by the time masonry defences were being constructed at Caerleon, the engineers had realised they had a problem with the south corner because of the slope. The corner turret was also constructed with a 'room' at ground level like the interval turret, but this was immediately filled with displaced rampart material which was itself overlain by heavy rubble backfill that had been excavated in 1909 (Boon 1963, 9). It was noticeable that the lower footings of the corner turret were much deeper than those of the interval turret, and piles may have been used during its construction. A slot in the outside of the western wall can certainly be interpreted as just such a misaligned pile (ADS 2010, figs 12 and 14). Despite these precautions the turret was clearly unstable as can be observed from a number of major structural cracks visible in its north-south walls (ADS 2010, figs 14–5).

The instability of this section of the defences eventually resulted in two separate rebuilding campaigns. Rebuild I had already been noted by Boon (1963, 7 fig. 3). It extended for *c.* 25m from a point 1.5m to the east of the drain noted in 1982 to 3m to the west of the corner turret where it met Rebuild II. The latter continued for another 24m (see Fig. 1). When this work was carried out and in what order is unknown. The nomenclature of Rebuild I and II has no chronological implications, it merely reflects the order in which they were originally recognised. That the rebuilds were carried out at two different times is suggested by the mortar. The mortar used in Rebuild II was similar to that used in the original rampart wall with small pebble inclusions, but that in Rebuild I was white with brick and tile inclusions similar to the hydraulic waterproofing mortar used in the Fortress Baths (Zienkiewicz 1986a, 66, 136). Both stretches of the wall had been rebuilt using the same technique as in the original wall, i.e. cutting back the rampart, building the wall and then backfilling the rampart material. Unfortunately the relationship between their respective back-filled construction trenches was not obvious during excavation and little new useful dating evidence was recovered. Nor did the junction between the two stretches give any indication of which stretch had been the first to be rebuilt. Boon's analysis of the coinage from the 1909 excavations placed Rebuild I not before the end of the second century (Boon 1963, 9). A stone possibly originally carved with palms and a military standard had been reused in Rebuild II (Brewer 1985, no. 37; see also Brewer in ADS 2010, 87). A late first- or second-century date was suggested for its original carving, but it was obviously old by the time it was incorporated in the wall. The faces retained two different sorts of mortar indicating that it had been reused at least twice by the time it was incorporated in Rebuild II.

Rebuild I had been laid out as two straight sections but it sat on a curved plinth, possibly suggesting that the foundation and lowest courses of the original wall had not been completely removed. Both stretches were provided with wider footings, those of Rebuild I being massive and wider than those of Rebuild II. In the area of the corner turret the footings were scalloped to avoid the need to demolish the walls of the corner turret (Fig. 4). These rebuilding interventions finally stabilised this part of the defences, and it may have been the superiority of the waterproofing mortar of Rebuild I that accounts for the fact that despite the history of instability this corner of the defences demonstrates, it remains the best-preserved section today.

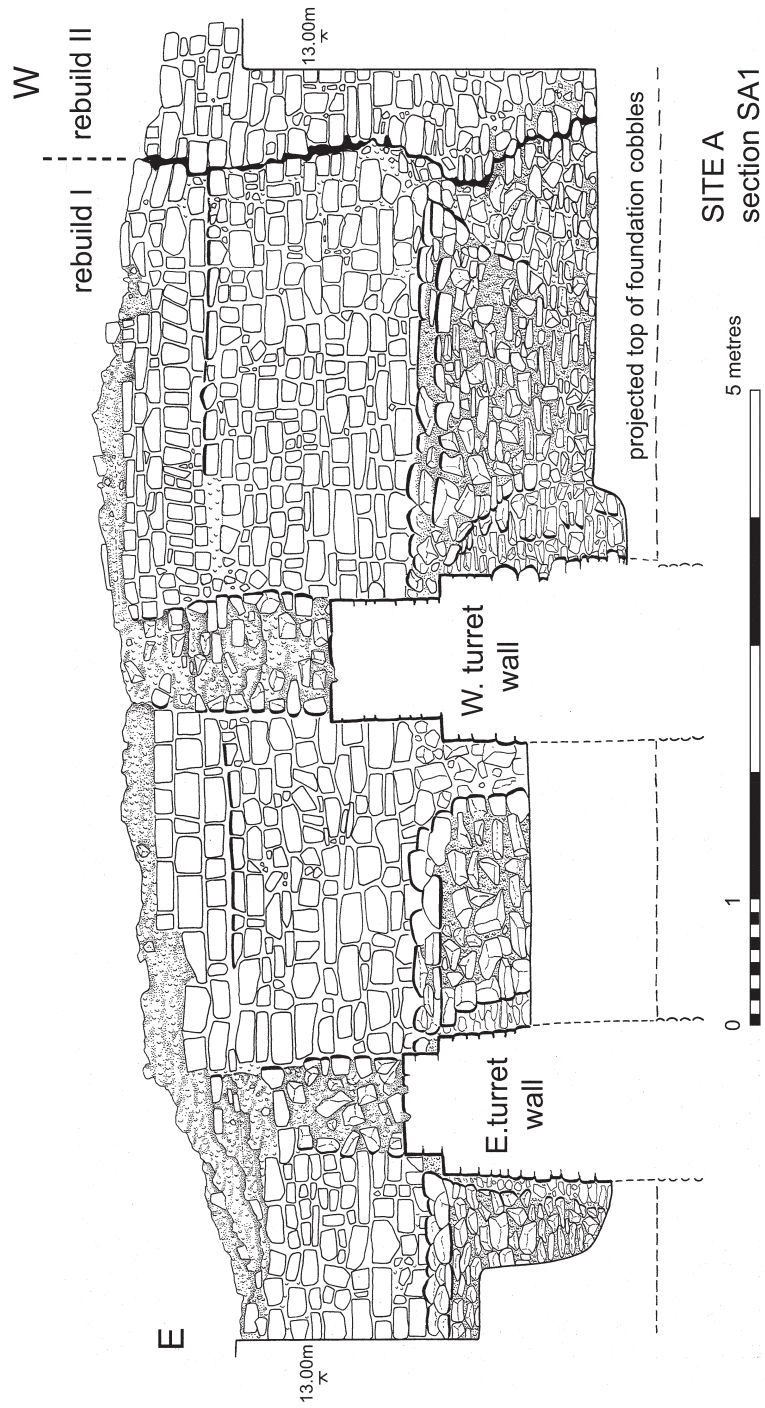


Fig. 5. Elevation of the rampart wall at the corner turret showing the junctions between rebuilds. Note the change to carefully coursed masonry towards the top of the wall on either side of the west turret wall.

42–5). The estimated height of the rampart above the ancient ground surface does not approximate to an integer (11.22 *pM* to two decimal places). Whether the original rampart was at this height too is unknown.

Some alterations to the rampart were recorded. The exploration of the top of the rampart in Site E revealed that at some point in the early third century or later, additional material was added to the back of the rampart and the top was levelled. Something similar was observed happening at the back of the rampart at the 'Roman Gates' excavations (Evans and Metcalf 1992, 21) but in neither case was a sufficiently large area excavated to understand what purpose these alterations served, nor at what date they took place.

Activity immediately inside the defences

Though the area of the excavation was very tightly confined to the defences, it did cast a little light on the activities that were going on in the interior of the fortress in the vicinity. The most noteworthy of these was the use of the ground level room of the interval turret for rubbish dumping. What such a room had initially been intended for is unknown as they are not normal features of legionary fortress turrets. The equivalent 'room' in the corner turret had just been a stage in the building sequence as it had been immediately backfilled to add to the stability of the structure. That the ground floor room in the interval turret had been intended to be accessible is indicated by the provision of a door and a flagged floor. The latter had been removed before the dumping started. The rubbish consisted of episodic dumps of burnt clay, ash and charcoal. The deposits were very finely banded and showed tip lines in through the door. The lower fills (D6) contained little burnt clay in comparison to the middle (D5) and upper (D6) fills. This suggests that initially the dumping was just of oven rake-out but later it started to include oven linings as well. Remnants of cooking ovens were observed in the section at the back of Site B (ADS 2010, fig. 26). They had Flavian pottery associated with them and so would have been contemporary with the earliest dumping in the interval turret and probably contributed to it.

Clearly not just oven debris was being deposited in the base of the turret. The pottery report was completed before it became fashionable to quantify usefully by form, but the coarse pottery certainly seems to be primarily jars and bowls with a few mortaria and some lids. Beakers are scarce and jugs appear to be absent (see Greep in ADS 2010, 55–63). The contrast with the contemporary deposits at the Fortress Baths is noticeable. Beakers, cups and flagons are well represented in the Flavian-Trajanic drain deposits which would have been contemporary with when the dumping started (Greep 1986, 62–6, Groups 5–7). This reflects that the baths were a specialist consumption site geared towards drink and small snacks. The deposits in the interval turret probably reflect more the cooking activities being carried out at the back of the rampart. This is backed up by the presence in the lowest levels of a sherd from a Pompeian redware platter, as these were a specialist non-slip cooking ware (Cool 2006, 76). The animal bones were typical of a military diet with beef and pork predominating, domestic fowl were well-represented too (Jones in ADS 2010, 90, table 1).

In addition to this cooking debris, rubbish was coming from elsewhere in the fortress. Dining activity is suggested by the samian (Boon in ADS 2010, 49) and by a fragment of a facet-cut glass beaker (Allen in ADS 2010, 75 no. 6). The metalwork included a seal box lid and a finger ring (Scott in ADS 2010, 79 no. 8 and 81 no. 10). An obvious source would be the barrack blocks across the intervallum road whose presence has now been confirmed by geophysical survey (Guest and Young 2006, 124). Presumably it would be normal to dispose of rubbish outside the fortress but this turret would have been a convenient and tempting dumping ground much closer than the nearest gate. If the rubbish was being derived from the barrack blocks it can scarcely have been an illicit activity as it clearly spilled out onto the area in front of the door. It also went on for some considerable time as the upper layer contained pottery of the

Hadrianic-Antonine period and it has been suggested that the dumping continued until after AD 150–60 (Greep in ADS 2010, 63).

The concept of legionaries using an interval turret as a convenient rubbish dump in full view of any passing officer does not fit our preconceptions of military discipline at the end of the first century or in the second century, but that is what appears to have been happening. An even more transgressive find from the middle deposits (D5) was part of the skeleton of an eight to eight and a half month old foetus, i.e. a premature baby (Jones in ADS 2010, 19). In the Roman period the bodies of neonates and young babies less than six months old are often found in domestic settings rather than in cemeteries. The pattern is so regularly encountered that it is doubtful that it is due to the casual disposal of the results of unwanted pregnancies. Gowland (2001, 157) has made the attractive suggestion that this was because infants of this age were not seen as part of the wider world and so a burial within the home was seen as most appropriate for them. If correct, that would imply more concern for their welfare rather than less. No care had been extended to the remains found in the interval turret, however, this premature infant had just been treated as rubbish.

Quite what do these remains imply? It is highly unlikely that the rubbish was being brought in from outside of the fortress, so we may conclude that the birth had taken place inside it. Evidence for women within fortresses can sometimes be seen. It can take the form of artefacts such as hair pins, earrings and small beads which had strongly gendered overtones for Roman communities (Cool *et al.* 1995, 1632, 1642). The presence of children inside the Caerleon fortress is attested to by the recovery of three milk teeth (molars) in the upper drain deposit of the Fortress Baths dating to *c.* AD 160–230. These had been lost naturally suggesting an age for the individuals of 11 to 12 years (Whittaker in Zienkiewicz 1986b, 223 nos 1–3). It has long been accepted that the families of senior officers were present within forts and fortresses even from an early period. The most graphic illustration of this being the correspondence of Cerialis and Lepidina at Vindolanda (Bowman 1994, 56–7). The location and date of the remains of this infant though suggests the presence of a female in an ordinary legionary barrack block, not in one of the officers' houses. Whether we can go further and suggest that the lack of care devoted to them imply an illicit or forced relationship is, perhaps, an implication too far.

At some point in the second half of the second century, the dumping stopped. The door of the turret was blocked by masonry and a cookhouse was built. This backed onto the rampart and contained three ovens with stone walls (Figs 3 and 6; see also ADS 2010, fig. 27). Two of the ovens were square with bases formed from four heat-shattered bipedales. The third was horseshoe-shaped with a base of broken flagstone. Unlike the square ovens this one showed no sign of ever having been fired as there was no evidence of burning. This cookhouse lay over the spill from the dumping in front of the interval turret, and so the full extent of the rubbish could not be plotted. The pottery associated with the cookhouse included late Antonine material and the late second to early third century is a likely period for its use (Greep in ADS 2010, 66). Parts of a latrine and a building of unknown purpose were encountered in Site A. These had originally been excavated in 1909 (Bosanquet and King 1963). No additional dating evidence was recovered and so they remain undated. The geophysical survey showed that the area between the rampart and the intervallum road in the southern quadrant of the fortress was occupied by numerous buildings, though they were not well imaged because of the modern metal fences situated on the rampart (Guest and Young 2006, 123, fig. 6).

Late Roman and post-Roman activity

The excavated areas produced no evidence of occupation after the early third century, and the geophysical survey suggested that this whole quadrant of the fortress had been cultivated land for a very long time (Guest and Young 2006, 122). This probably accounts for the fact that at least part of the walls of the

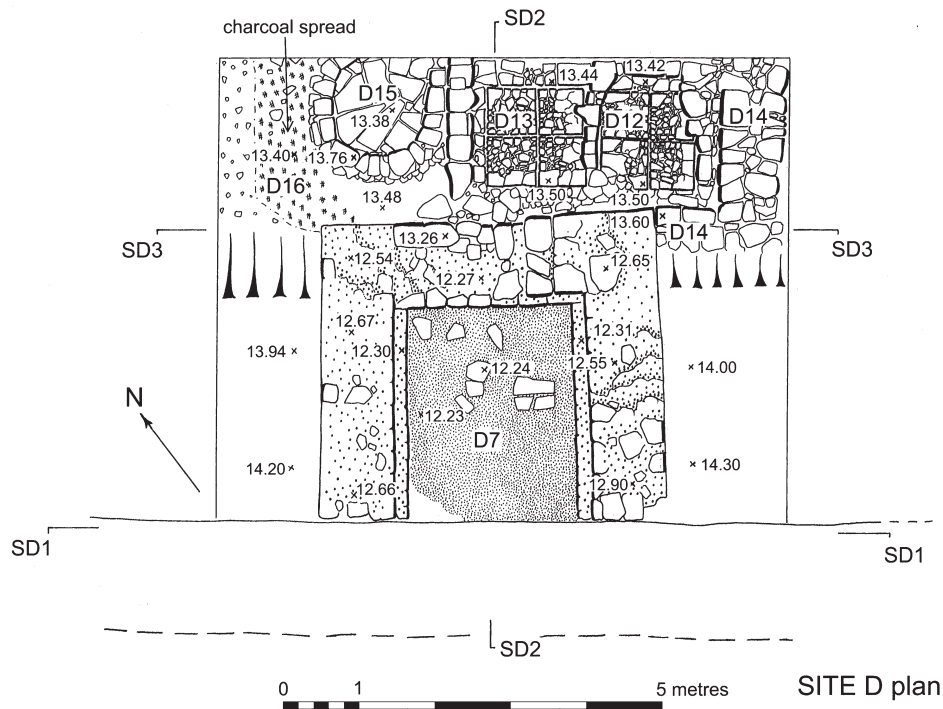


Fig. 6. Plan of the interval tower showing the Phase V cookhouse and ovens. (D14 is the wall of the cookhouse, D12 and D13 the square ovens and D15 the horseshoe-shaped oven).

interval tower must have stood until the eighteenth century, judged by the glass of that date found in their robbing trenches. The final activity on the site marks a neat return to its original purpose as a military defence, as in 1940 the Home Guard built a brick-fronted open emplacement on top of the rampart close to the corner turret. This looked south guarding the approaches from Newport via the bridge over the Usk. This was not a standard pillbox and had exploited the foundations of a circular drystone wall that had encircled a drystone-walled pit. Though earlier than the 1940 emplacement, this enigmatic feature was thought not to be of Roman date. Its function and date are unknown.

Conclusion

Given that the area available for excavation was relatively small and dictated by conservation requirements, it has produced a surprising amount of important new information. The excavations provide both the best evidence for the construction sequence of the defences and the best evidence for when the stone element of them was completed. Using the information it has also been possible to propose the reconstruction of the size and shape of the defences which has already led to illustrations in the popular Cadw guidebook (Fig. 7) with the basis of this work being considered at length in the full report (ADS 2010, 42–5). The evidence of the coloured rendering has produced startling insights into the appearance of the fortress, and may help to inform our understanding of features seen on other contemporary fortresses such as York. The group of rubbish discarded in the interval turret over a *c.* seventy year period at most provides a usefully dated closed group. The specialist reports available in ADS 2010 were of high quality for their time, but most were written a quarter of a century or more ago.



Fig. 7a. Reconstruction drawings of the Phase I earth and turf rampart. Note that there is no evidence for the timber turrets shown in the Phase I reconstruction.

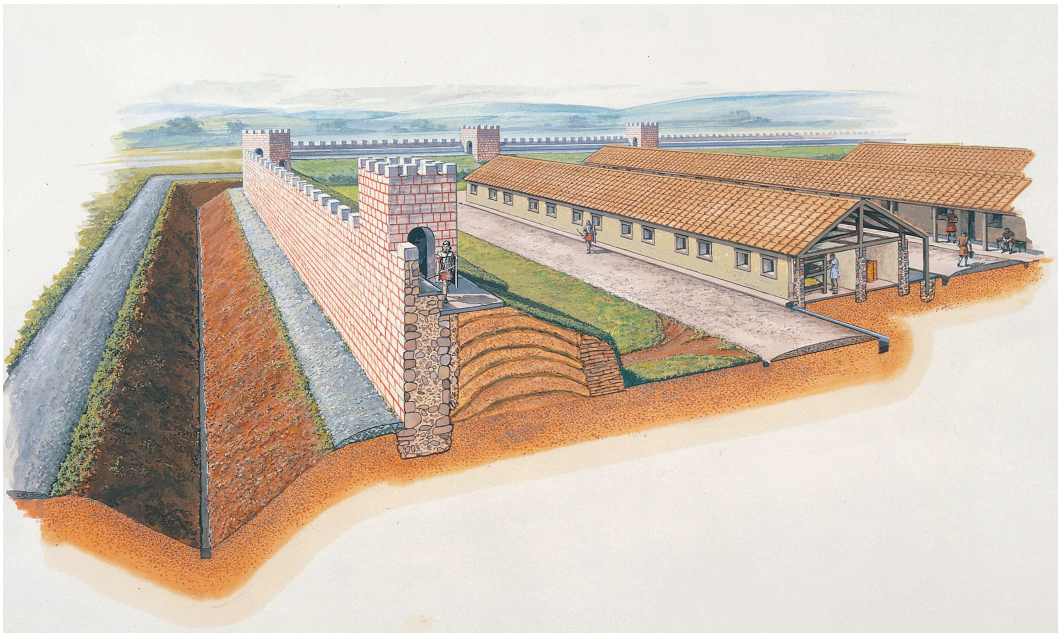


Fig. 7b. Reconstruction drawing of the Phase II masonry rampart wall and turrets. Both illustrations, which are from the Cadw guidebook, are based on the results of the excavations on the defences in 1982. © Crown Copyright: Cadw, Welsh Assembly Government (drawings by John Banbury, based on original line drawings by Howard Mason).

Advances in our understanding of second century material culture and methodological advances in such areas as quantification suggest that the group would repay more work which would provide further insights into life within the fortress. Finally, of course, this rubbish has produced unequivocal evidence for the presence of a female living, albeit possibly for a short period, in the fortress in the first half of the second century. All in all, though small, these excavations have produced much food for thought.

ACKNOWLEDGEMENTS

The full acknowledgements for everyone who contributed to the excavations and the full report will be found in ADS 2010, p. iii. It is appropriate here though to acknowledge and thank the specialists as the results of their work have been integrated into this paper. The specialists were the late George Boon (coins and samian), Stephen Greep (coarse pottery and worked bone), Denise Allen (glass), Ian Scott (metalwork) Gill Jones (animal and human bone), and Richard Brewer (carved stone). The conservation of the painted plaster was carried out by the late Kate Hunter and Peter Price. We would also like to thank Richard Turner of Cadw and Peter Guest for their help in bringing these excavations to publication in 2010.

NOTES

1. Barbican Research Associates, 16 Lady Bay Rd., West Bridgford, Nottingham NG2 5BJ. Email: hilary.cool@btinternet.com
2. Cardiff School of History and Archaeology, Cardiff University, Humanities Building, Column Road, Cardiff CF10 3EU. Email: masonh@cardiff.ac.uk
3. Centre for Archaeological Fieldwork, School of Archaeology and Palaeoecology, Queen's University Belfast, Belfast, Northern Ireland, BT7 1NN. Email: p.macdonald@qub.ac.uk

ABBREVIATIONS

ADS 2010	Mason and Macdonald 2010.
RIB I	Collingwood, R. G. and Wright, R. P. <i>The Roman Inscriptions of Britain. Volume I: Inscriptions on Stone</i> (Stroud: new edition Alan Sutton Publishing 1995).

BIBLIOGRAPHY

- Bidwell, P., 1996. 'The exterior decoration of Roman buildings in Britain', in Johnson and Hayes (eds) 1996, 19–29.
- Bosanquet, R. C. and King, F., 1963. 'Excavations at Caerleon 1909', *Monmouthshire Antiquary* 1, 1–10.
- Boon, G. C., 1963. 'Appendix', in Bosanquet and King, 7–9.
- Bowman, A. K., 1994. *Life and Letters on the Roman Frontier* (London: British Museum Press).
- Brewer, R. J., 1985. *Corpus Signorum Imperii Romani. Corpus of Sculpture of the Roman World. Great Britain. Volume I. Fascicule 5: Wales* (Oxford: British Academy).
- Burnham, B.C. 2008. 'Roman Britain in 2007. 1. Sites explored: Wales', *Britannia* 39, 264–73.

- Burnham, B. C. and Davies, J. L., 1990. *Conquest, Co-existence and Change: Recent Work in Roman Wales*, Trivium 25 (Lampeter).
- Cool, H. E. M., 2006. *Eating and Drinking in Roman Britain* (Cambridge: Cambridge University Press).
- Cool, H. E. M., Lloyd-Morgan, G. and Hooley, A. D., 1995. *Finds from the Fortress*, The Archaeology of York 17/10 (York, Council for British Archaeology).
- Davies, G., Gardner, A., Lockyear, K., (eds) 2001. *TRAC 2000. Proceedings of the Tenth Annual Theoretical Roman Archaeology Conference London 2000* (Oxford).
- Evans, E., 2000. *The Caerleon Canabae: Excavations in the civil Settlement 1984–90*, Britannia Monograph 16 (London).
- Evans, D. R. and Metcalf, V. M., 1992. *Roman Gates Caerleon*, Oxbow Monograph 15 (Oxford).
- Fox, A., 1940. 'The legionary fortress at Caerleon, Monmouthshire: excavations in Myrtle Cottage Orchard, 1939', *Archaeologia Cambrensis* 95, 101–52.
- Gardner, A., 2007. *An Archaeology of Identity: Soldiers and Society in late Roman Britain* (Walnut Creek, California: Left Coast Press).
- Greep, S. J., 1986. 'The coarse pottery', in Zieniewicz 1986b, 50–96.
- Guest, P. and Young, T., 2006. 'Mapping *Isca*: geophysical investigation of Priory Field, Caerleon', *Archaeologia Cambrensis* 155, 117–33.
- Hall, R. A., Ottaway, P. and Davison, B. K., 1996. 'B. K. Davison's investigations of York's defences between the Multangular Tower and the Anglian towers, 1970', in Ottaway 1996, 256–73.
- Hunter-Mann, K., 2009. 'New light on the Roman fortress defences', *Yorkshire Archaeology Today* 17, 1–4.
- Jarrett, M. G. and Wrathmell, S., 1981. *Whitton: an Iron Age and Roman Farmstead in South Glamorgan* (Cardiff: University of Wales Press).
- Johnson, P. and Hayes, I., 1996. *Architecture in Roman Britain*, Council for British Archaeology Research Report 94 (York).
- Knight, J. K., 1988. *Caerleon Roman Fortress* (Cardiff: Cadw).
- Gowland, R., 2001. 'Playing dead: implications of mortuary evidence for the social construction of childhood in Roman Britain', in Davies *et al.* (eds.) 2001, 152–68.
- LeQueune, C., 1999. *Excavations at Chester: The Roman and Later Defences Part 1: Investigations 1978–1990*, Chester Archaeology Excavation and Survey Report no. 11 (Chester).
- Mason, H. and Macdonald, P., 1997. *The Roman Legionary Fortress at Caerleon. Report on the Excavations of the Southern Defences carried out in 1982*, Cardiff Studies in Archaeology Specialist Report 5.
- Mason, H. and Macdonald, P., 2010. *The Roman Legionary Fortress at Caerleon. Report on the Excavations of the Southern Defences carried out in 1982*, Archaeological Data Service, available at <http://ads.ahds.ac.uk/catalogue/resources.html?caerleon-cadw-2010>
- Mattingly, H. and Sydenham, E. A., 1926. *The Roman Imperial Coinage. Volume II. Vespasian to Hadrian* (London: Spink).
- Nash-Williams, V. E., 1931. 'The Roman legionary fortress at Caerleon in Monmouthshire. Report on the excavations carried out in the Prysge Field, 1927–9. Part I', *Archaeologia Cambrensis* 86, 99–157.
- Nash-William, V. E., 1933. 'Further excavations within the Roman legionary fortress at Caerleon, Monmouthshire', *Archaeologia Cambrensis* 88, 111–14.
- Ottaway, P., 1993. *Roman York* (London: Batsford and English Heritage).
- Ottaway, P., 1996. *Excavations and Observations on the Defences and Adjacent Sites, 1971–90*, Archaeology of York 3/3 (York: Council for British Archaeology).

- Pitts, L. F. and St Joseph, J. K., 1985. *Inchtuthill. The Roman Legionary Fortress*, Britannia Monograph 6 (London).
- Shirley, E., 2001. *Building a Roman Legionary Fortress* (Stroud: Tempus).
- Wheeler, M. and Nash-Williams, V. E., 1970. *Caerleon Roman Amphitheatre and Barrack Buildings* (Cardiff: National Museum of Wales).
- Wheeler, R. E. M. and Wheeler, T. V., 1928. 'The Roman amphitheatre at Caerleon, Monmouthshire', *Archaeologia* 78, 111–218.
- Zienkiewicz, J. D., 1986a. *The Legionary Fortress Baths at Caerleon. I. The Buildings* (Cardiff: National Museum of Wales).
- 1986b. *The Legionary Fortress Baths at Caerleon. I. The Finds* (Cardiff: National Museum of Wales).
- 1990. 'The early development of the legionary fortress of Caerleon-Isca and consequences for Flavian policy in Britain', in Burnham and Davies (eds) 1990, 27–34.
- 1993. 'Excavations in the *Scamnum Tribunorum* at Caerleon: The Legionary Museum site 1983–5', *Britannia* 24, 27–140.
- 1999. 'Caerleon: the Flavian defences', in LeQuesne 1999, 126–36.

Published with the aid of a grant from Cadw