

A newly discovered Roman marching camp at Pen Plaenau in the Berwyn mountains

By HUGH TOLLER

INTRODUCTION

A new Roman marching camp of 17.5 hectares (43 acres) was discovered independently from the air in 2003 by the author and Toby Driver of the Royal Commission on the Ancient and Historical Monuments of Wales (RCAHMW). The marching camp lies on the eastern slope of the Berwyn mountains in the community of Ceiriog Ucha in the new county of Wrexham (formerly Denbighshire). It lies six kilometres north-west of Llanarmon Dyffryn Ceiriog, in an area where no other evidence of Roman military or civilian activity has been recorded, apart from a third-century coin hoard from Sarffle, about five kilometres to the south-east.¹

An initial survey defined the extent of the camp and identified three internal *clavicula* gateways and in May 2004 a more detailed survey of the camp was undertaken (Fig. 1). Vertical aerial photography² confirms that its outline is not perfectly rectangular.

TOPOGRAPHICAL SETTING

The camp occupies the south-facing slope of Pen Plaenau, a spur of the Berwyn mountains that runs east between two side valleys of the Nant Rhydwylym and Nant Ysgallog streams (Fig. 2). The long axis of the camp lies along the crest of the ridge centred on SJ 11173625, and there is an open outlook from both west and east ramparts along the first-named valley. The upper half of the camp is on fairly level ground at 515 metres above Ordnance Datum with good visibility to the north, but the southern half slopes steeply down towards the Nant Rhydwylym. This valley contains a track that continues the line of the modern road from Llanarmon up the south side of the Ceiriog valley to cross the Berwyn ridge at Bwlch Llandrillo. Beyond the pass there are easy routes west towards Bala and north-west towards the Dee and Alwen valleys. A previously unrecognised Roman road runs under or close to this track from below the south side of the camp to beyond the pass but will not be discussed in detail here.³

The terrain around and above the camp is heather moorland with large areas of blanket bog. Fortunately, most of the interior of the camp is grassland, which, according to local tradition, has been lightly ploughed within the last hundred years. It encompasses a steep-sided gully and stream called the Nant-y-lladron ('Thieves' Brook'). This has very low iron content compared to the main river and may have been included within the camp to provide a pure water supply.

DESCRIPTION

The camp was intended to be rectangular but the west rampart bends at the west gateway, and has distorted the north-west angle so that the north and south ramparts are not parallel. These irregularities can be explained by the difficulty of laying out straight alignments without direct lines of sight.⁴ The straight south rampart was probably the base line for laying out the camp, and the west and east sides were intended to be laid out at right-angles to it. A slight error of two degrees westwards occurred in both

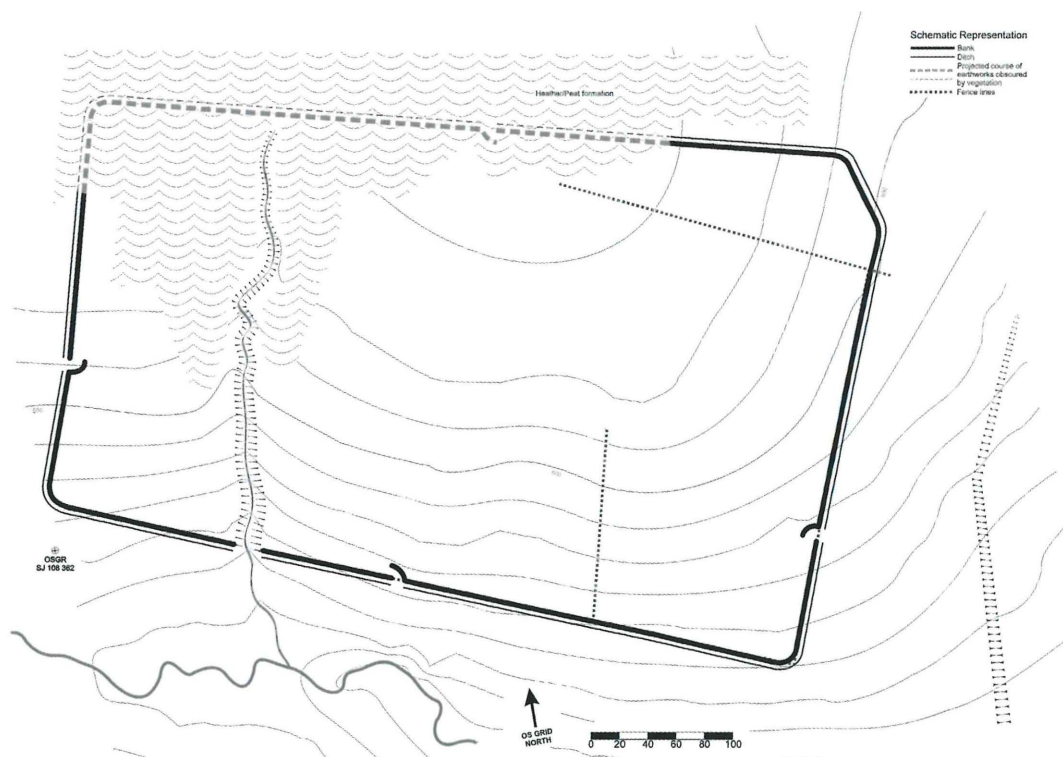


Fig. 1. Plan of Pen Plaenau Roman marching camp.

these angles. The rampart is well preserved for most of the circuit apart from the north-west angle and most of the north side where it is obscured by peat. Fortunately, enough of the west and north ramparts survive for the position of the north-west angle to be fixed with reasonable certainty. The ditch survives up to one metre deep everywhere except on the south where it has been obscured by the slope. Three entrances have been identified and a fourth probably lies buried under the peat. Part of the south and east sides have been used for fence lines since the late nineteenth century.

The rampart is described in alternate directions from the south-east angle to explain the errors that arose during layout and construction. There are indications at several points around the circuit of a counterscarp bank, which may indicate re-use of the camp and clearance of the ditch, either by the Roman army, or as a result of recent agricultural activity.

The south, west and north ramparts

The south-east angle of the camp lies 200 metres north-west of the stream-crossing at Rhyd Wilym. It is curved, with a radius of ten metres or 30 Roman feet, the same as the *claviculae* of the gateways. The south rampart runs straight and relatively level for 540 metres across the slope to the west (Fig. 3), and crosses the Nant-y-lladron stream to reach the rounded south-west angle beyond. At the gully the rampart ends sharply on both sides and any indication of how the gap was defended has been removed by erosion.

The main gateway of the camp opening onto the road lies 100 metres before the gully-crossing with a denuded, but clear, internal *clavicula* bank. Before this is reached there are three piles of large stones,

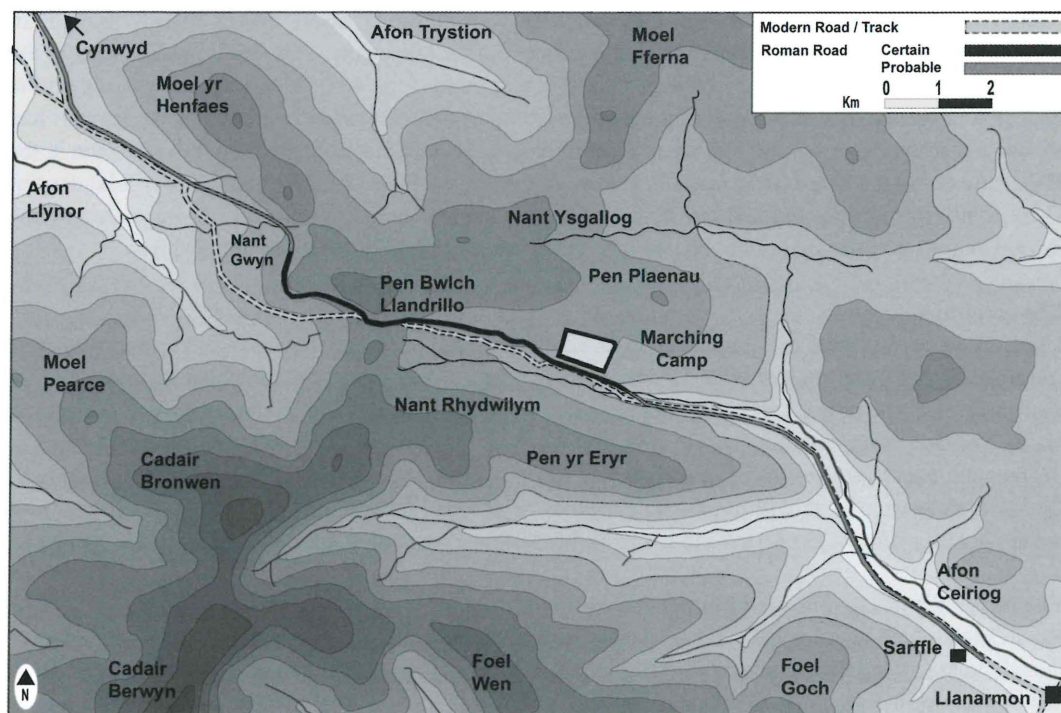


Fig. 2. The topographical situation of the camp between the Ceiriog and Llynor valleys. Contour intervals 50 metres.

which are probably recent clearance, and two small breaks for a modern gateway and a small stream. The rampart stands up to 1.2 metres high from ditch bottom to crest, and six metres wide from the rear of the rampart to the front of a slight counterscarp bank. Because of the steepness of the slope it has the appearance of a terrace in the central part of its course.

From the south-west angle the rampart turns up the slope of the ridge to the west gateway, which is the best preserved of the gateways with an intact ditch causeway and a large *clavicula* bank. Here the rampart bends slightly towards the west because of a slight error in layout. This resulted in the northern portion of the camp moving away from the intended rectangular plan. The rampart and ditch continue and disappear under peat near the site of the north-west angle. This angle, the north gateway, and much of the north rampart are buried beneath a thick layer of blanket peat-bog and heather which have grown over this area since the Roman period. The rampart emerges well preserved from under the peat 400 metres from the north-west angle. It runs on a course which diverges from the south-west rampart because of the error at the west gateway. As it approaches the truncated north-east angle it has to bend slightly northwards to effect the join. This is clearly where the construction gangs completed the circuit.

The east rampart

This rampart runs steeply uphill from the south-east angle, and the east gateway lies 90 metres from the angle. The top of the steep slope from the river is reached after 200 metres and after that the gradient eases. The rampart is then crossed by a modern fence line and has been damaged for a short distance.

Shortly beyond another modern fence the rampart, well preserved again, curves sharply through an angle of approximately 45 degrees to cross the eastern corner diagonally. This was a modification to the normal plan that was made to exclude an area of low ground (Figs 4–5). It was probably made on the spur of the moment, because the survey had gone wrong at the west gateway and the north rampart had not arrived at the correct point. The same form of diagonal rampart across one corner can be seen at the 15-hectare marching camp with *clavicula* gateways at Y Pigwn I (Brecknock), south-east of Llandovery. There it also has one curved and one angular turn that show clearly from the air.⁵ It was noted by the Royal Commission survey but not commented upon,⁶ nor had it been recorded previously.⁷

The gateways

There are three surviving *clavicula* gates with curved internal rampart. They have ditch causeways and are approximately ten metres wide as are the radii of the *claviculae*. This probably equates with 30 Roman feet. At the east gateway the ditch appears to continue across the entrance gap but this is only because of later water erosion.

The main south gateway facing the river and opening on to the Roman road is close to the centre of the south rampart, and so will have been the *porta praetoria*. Accordingly, the west and east gateways are the *portae principales* (*dextra* and *sinistra*), but they are positioned unusually near the south angles.⁸

The interior and current condition of the camp

No archaeological features have been detected within the camp. Apart from the gully of Nant-y-lladron the whole area is relatively level and well drained, and would have been suitable for occupation. There has been no post-Roman occupational or agricultural use apart from some recent enclosure reusing the camp ramparts in the later nineteenth century, connected with a small farmstead east of the ford. There is no immediate threat to the monument as the area is used for grouse shooting and grazing.

The cross ditch

There is a large V-shaped ditch running across the spur east of the camp, whose appearance and character strongly suggests a Roman origin and association with the camp. It is constructed in two straight lengths with a slight bend at the crest of the ridge from where it descends both south towards the river and north towards a marshy area. On the ridge it is cut on a moderate scale two metres wide and one deep. As it runs towards the river it becomes much larger until it ends on a bluff above the river. It must carry some water run-off in winter, but it is not a natural drainage feature. On air photographs there is an indication of a lighter strip alongside it to the west suggesting the former presence of bank. A slight bank on the east which may be clearance debris (Fig. 4).

Similar ditches are known as outworks of some Roman forts,⁹ the closest parallels are at Inchtuthil (Perthshire) where two outworks cross a ridge and both have a single change of direction. There is also an outwork ditch across a spur of land north of the fortress at Rhyn (Shropshire) that was photographed from the air and reported upon in 1983 by Barri Jones.¹⁰ Parallels, however, at marching camps are hard to find. A striking example occurs in northern Gaul at the camp at Mauchamp near Berry-au-Bac (Picardy), discovered in 1862 by Colonel Stofel during his work for Napoleon III.¹¹ The camp, 41 hectares in area, covers a low ridge between the Aisne on the south and a stream named La Miette on the northern side; from diagonally opposite corners of the camp run ditches down to the valley bottoms, blocking passage to east or west past the Roman position. The camp's gateways are protected by internal *claviculae*.

Napoleon and most subsequent scholars have attributed the camp to an event during Caesar's Gallic Wars,¹² but the presence of *claviculae* can be shown in all probability to be attributable to the Flavian,



Fig. 3. Aerial view of the marching camp from the south-east, July 2003.
Photograph: Toby Driver, Crown Copyright: RCAHMW.



Fig. 4. Aerial view of the marching camp from the north showing the north-east corner and cross ditch, July 2003. Photograph: Toby Driver, Crown Copyright: RCAHMW.

Trajanic or Hadrianic period.¹³ Those in Wales will not be earlier than the governorship of Frontinus, which began in AD 74. The siege camps at Masada (Israel) date to 73; but Mauchamp must be even earlier, belonging to some episode of the rebellion of 69–70. It takes the introduction of *claviculae* back to the eve of the Flavian period, and we should not be surprised if late Neronian examples one day come to be identified.

The Roman road

During the survey the remains of an ancient road were observed running between the modern track and the south rampart. The orientation of the camp might suggest that the road was in existence before the camp was constructed. However, the road bends to the north at the exact point where it passes the south-west angle of the camp, and this indicates that the camp was extant when the road was first laid out.

The structure of the road indicates that it is probably of Roman origin, although the evidence is not yet conclusive. Fieldwork has identified intermittent remains of this road over a total distance of 14 kilometres running south-east to north-west from Llanarmon Dyffryn Ceiriog to Druid, crossing the river Dee at Cynwyd.¹⁴

DISCUSSION

Siting of the camp

The camp was constructed close to the Nant Rhydwylym stream and on the side of rather than on top of Pen Plaenau. This was probably done to ensure that the camp was placed as close as practical to the water

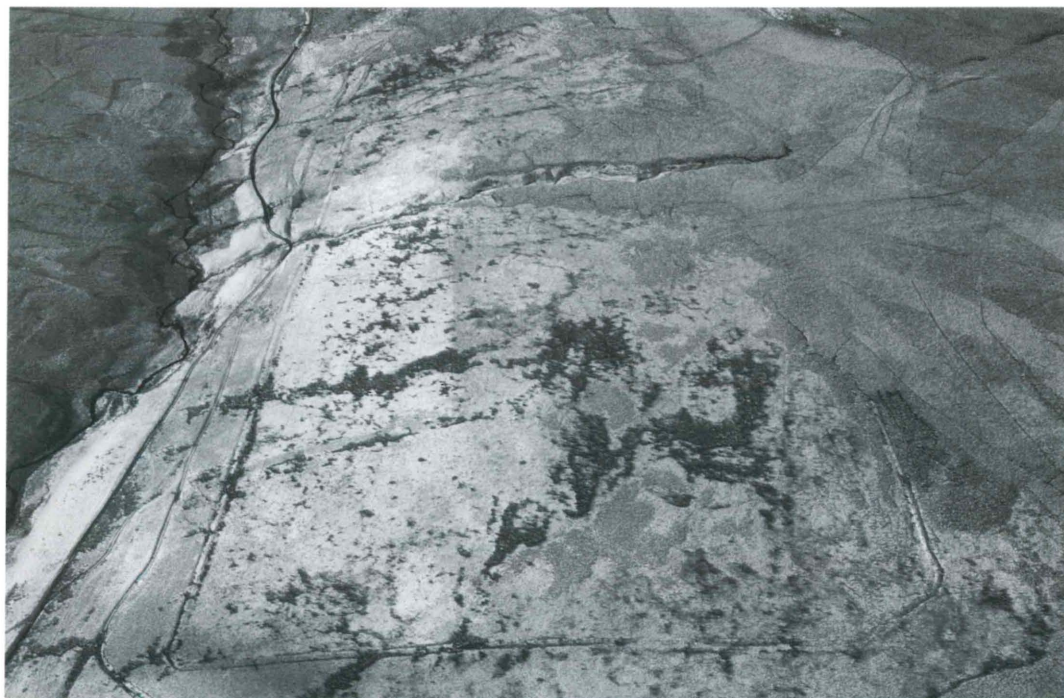


Fig. 5. Aerial view of the marching camp from the east in November 2004.
Photograph: Toby Driver, Crown Copyright: RCAHMW.

supply from the river or, given the poor quality of that supply, to include as much of Nant-y-lladron with pure water as possible.¹⁵ Care was taken as usual to place the higher north rampart over the crest of the ridge to ensure a good outlook.

The site chosen was a good defensive position on a relatively easy route across the Berwyn range (Fig. 2). Once across the pass, the next stage of the campaign could progress easily north-west towards Cynwyd, Penrhos and beyond, or west towards Llanfor and Bala. Pen Plaenau is ten kilometres from the camp at Penrhos¹⁶ (SJ 042427) which is of similar size, although it is not known what type of entrances were used there. This distance represents one day's march through upland terrain for a Roman army, and Penrhos was probably the next halt after Pen Plaenau during a particular campaign.

The camps at Whittington¹⁷ (15.3 hectares.) and Uffington¹⁸ (18 hectares) in Shropshire are both of comparable size and lie respectively 24 and 48 kilometres south-east of Pen Plaenau. It is possible that they also relate to the same campaign, and that other camps existed at two intermediate points close to Baschurch and south-east of Llanarmon. If so, this arrangement would indicate five campaign stages of between 10 and 12 kilometres between Uffington and Penrhos (Fig. 6).

The garrison, date and historical context of the camp

Any attempt to determine the make-up of a camp garrison is difficult as there is little comparative evidence. At Rey Cross (Co. Durham) a camp of eight hectares was linked to a force of one legion and auxiliaries, but the conclusions are disputed.¹⁹ The first-century Roman writer Hyginus provides an equation of 1,369 men to one hectare,²⁰ which would give a force here of over 20,000 men. Yadin considered at Masada that one legion could be accommodated within two camps totalling approximately

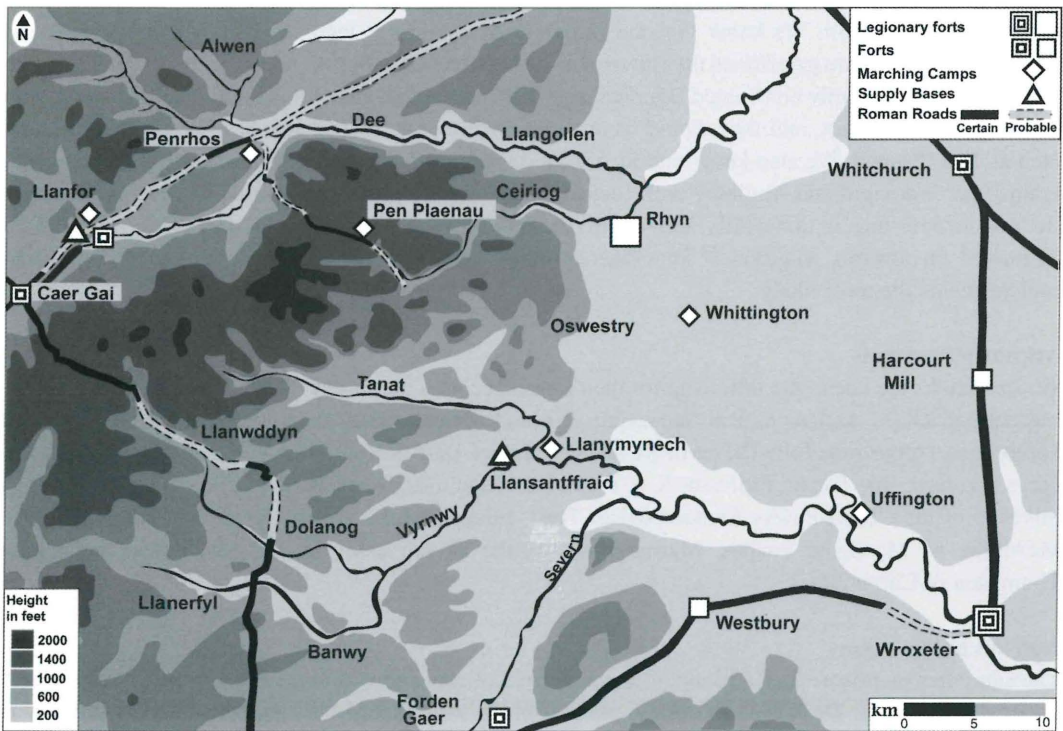


Fig. 6 . The Berwyns and the Shropshire plain. Contour intervals 400 feet.

four hectares,²¹ but the equation at Numantia seems to have been approximately double that. It is difficult to be precise, but it seems safe to assume that Pen Plaenau was large enough to accommodate two legions and, perhaps some auxiliaries as well.

As regards date, one indicator is the use of *clavicula* gateways at Pen Plaenau. These have been thought to indicate construction during Flavian or later periods. However, current opinion is that such gateways may also be of Neronian date. The presumed direction of the campaign suggests a period when the main army base in the northern Marches remained at Wroxeter, before the establishment of the fortress at Chester in the early 70s under Frontinus and Agricola. Pen Plaenau lies two days march west from the temporary legionary base at Rhyn but is probably not related to it. Rhyn is probably earlier than AD 60 and has *tituli*, rather than *claviculae* gateways.

Another possible indicator of date is the truncated eastern angle described above. This is a particularly interesting and unusual feature that appears to be unknown in England.²² The only other example of such a corner known to the author occurs at Y Pigwn I, which also has *claviculae* and represents a campaign against the Silures that should be dated to AD 77 or earlier; perhaps some years earlier as it is the first of the two camps on that site. If the hand of the same engineer can be seen at Pen Plaenau, it is possible that both camps were constructed within a short time of each other.

A third possible indication of date is the probability that the road was constructed after the camp because of the manner in which the road line respects the south-west angle of the camp. It is difficult to propose a road construction in this area before the governorship of Frontinus (AD 74–77).

These three indicators suggest a possible date range for the camp between the late 50s and the early 70s. There are two possible contexts for the Pen Plaenau campaign known from historical sources in this period, but there may be others unknown. In AD 60 Suetonius Paulinus marched towards Anglesey prior to the Boudican revolt. We know that the initial force comprised legionaries, auxiliary cavalry and infantry, some of whom garrisoned the fort established on Anglesey, but we do not know whether the two legions that subsequently confronted Boudica were with him at the outset. It is likely that they were with him in whole or in part, and they would have comprised a force of sufficient size to construct a camp such as Pen Plaenau. We also know that in AD 78 Agricola mounted a swift and conclusive campaign against the Ordovices and Anglesey with ‘detachments of the legions and a small force of auxiliaries’. He ‘marched his men in to the hills’ and ‘cut to pieces almost the whole fighting force of the tribe’ before he moved on towards Anglesey.²³ Pen Plaenau could belong to either campaign, but the Agricolan context seems the most likely.

Acknowledgements

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Note on public access

The camp lies on private land adjacent to a public right of way and within the Berwyn SSSI and the SPA under the EC Birds Directive. Currently, permission to visit should be sought from the Countryside Council for Wales (tel. 01678 522200), or McAlpine Estates, c/o Carter Jonas, Shrewsbury (tel. 01939 210535).

NOTES

1. Ellis Davies, *The Prehistoric and Roman Remains of Denbighshire* (Cardiff, 1929), 25, 162; D. Williams, *Dating the Past in North-eastern Wales* (Llanrwst, 2004), 18–22.
2. Central Register of Air Photography, Crown Offices, Cardiff: RAF film 106G UK1455 frame 3199, dated 2/5/46; OS film 93/252 frame 17, dated 28/6/93.
3. H. Toller, forthcoming. ‘Another Roman road over the Berwyns’.
4. H. Welfare and V. Swan, *Roman Camps in England: The Field Archaeology* (London, 1995), 15.
5. C. Musson, *Wales from the Air* (Aberystwyth, n.d.), 137.
6. *An Inventory of the Ancient Monuments in Brecknock (Brycheiniog). The Prehistoric and Roman Monuments. Part ii: Hill-forts and Roman Remains* (London: HMSO, 1986), 151, fig. 171.
7. G. D. B. Jones, ‘The Roman camps at Y Pigwyn’, *Bull. Board Celtic Stud.* 23 (1970), 102; M. G. Jarrett, *The Roman Frontier in Wales* (Cardiff, 1969), 124, fig. 66.
8. Welfare and Swan op. cit. (note 4), 18, fig. 6; 12–13.
9. D. R. Wilson, ‘Defensive outworks of Roman Forts in Britain’, *Britannia* 15 (1984), 51–62.
10. S. Frere, ‘Roman Britain in 1983’, *Britannia* 15 (1984), 291.
11. Louis Napoléon, *Histoire de Jules César, Atlas* (Paris, 1865), pl. 8, reproduced in T. Rice Holmes, *Caesar’s Conquest of Gaul* (Oxford, 1911, republished New York 1971), pl. facing p. 71.
12. A. Grenier in J. Déchelette, *Manuel d’Archéologie Préhistorique, Celtique et Gallo-Romaine* (Paris, 1931), vol. 5, 190–4, fig. 11; O. Brogan, *Roman Gaul* (London, 1963), 18.
13. E. M. Wightman, *Gallia Belgica* (London, 1985), 69; G. Peyre, *Revue des études latines* 66 (1978), 175–215.
14. Toller forthcoming op. cit. (note 3).
15. J. Peddie, *The Roman War Machine* (Stroud: Sutton Publishing, 1994), 76.
16. J. K. S. St Joseph, ‘Air reconnaissance in Britain, 1969–1972’, *J. Roman Stud.* 63, (1973), 237.
17. Welfare and Swan op. cit. (note 4), 166–8, fig. 139; J. K. S. St Joseph, ‘Air reconnaissance in Britain, 1969–1972’, *J. Roman Stud.* 63 (1973), 236–7.
18. Welfare and Swan op. cit. (note 4), 164, figs 126 and 137; J. K. S. St Joseph, ‘Air reconnaissance in Britain, 1973–1976’, *J. Roman Stud.* 67 (1977), 145–7.
19. Welfare and Swan op. cit. (note 4), 10–11, 22, 58; W. Roy, *The Military Antiquities of the Romans in North Britain* (London, 1793), pl. xvi; I. A. Richmond and J. McIntyre, ‘The Roman camps at Rey Cross and Crackenthorpe’, *Trans. Cumberland and Westmorland Antiq. Archaeol. Soc.*, 2nd ser., 34 (1934), 50–61; S. S. Frere and J. K. S. St Joseph, *Roman Britain from the Air* (Cambridge, 1983), 23–5.
20. R. G. Collingwood, *The Archaeology of Roman Britain* (London, 1930), 10.
21. Y. Yadin, *Masada* (London, 1971), 213.
22. Welfare and Swan op. cit. (note 4), 13, fig. 6.
23. H. Mattingly, *Tacitus on Britain and Germany* (Harmondsworth: Penguin, 1948), 68–9.

