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CHAPTER 1

Hillfort and Hacksilber: Traprain Law in the late Roman Iron Age and Early Historic period

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Introduction

The hillfort of Traprain Law is fundamental to any understanding of the early first millennium AD in Scotland, to the relations between the peoples of southern Scotland and the Roman world, and to social developments into the dim light of history. As a major power centre beyond the Roman frontier, its

story is also of great relevance to broader European studies of the interaction of Rome with the peoples beyond its borders. The site has produced a wealth of material culture unparalleled on any other Scottish site of the period, including the famous Hacksilber hoard which is the stimulus for this volume. Yet it remains an enigma in many ways, due both to the nature of

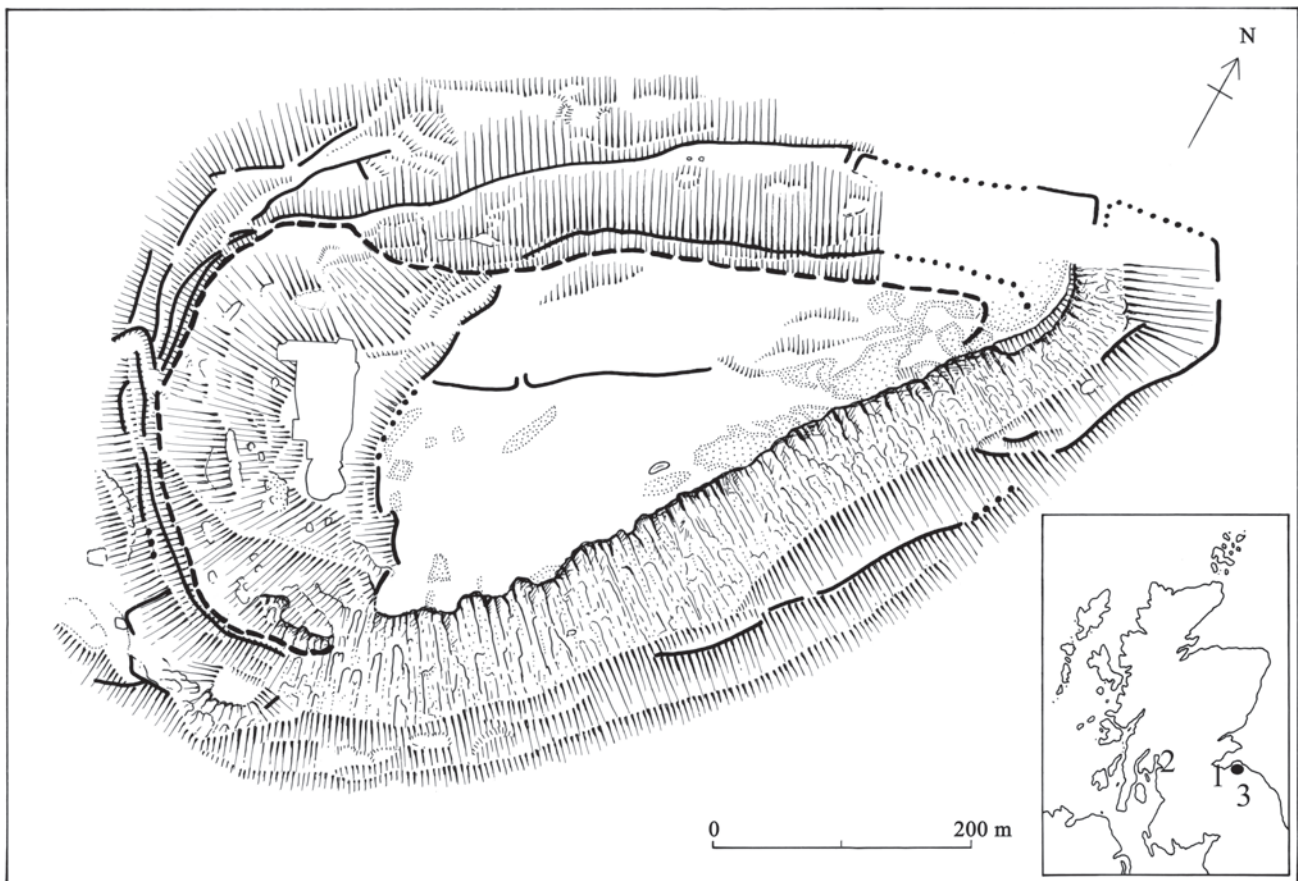


Illustration 1.1

Plan of Traprain Law, showing ramparts and main excavated area (the outlined blank on the west side). The fourth/fifth-century enclosure line is dashed. On the location map, the dot is Traprain Law, 1 is Edinburgh Castle, 2 is Dumbarton Rock, 3 is Eildon Hill North (drawn by Marion O'Neil)

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Illustration 1.2
Photo of Traprain Law (F Hunter)

the early excavations and the complexity of the site sequence. This contribution reviews the site's history around the time of the treasure, in the fourth and fifth centuries AD, considering what its role and status was, and how its inhabitants related to the world around.¹

Excavation and discovery

The site is an elongated volcanic intrusion (a laccolith) some 30km east of Edinburgh, dominating the surrounding low, rolling, fertile landscape (illus 1.1–1.2). Its summit is 221m above sea level, and the most extensive of its complex rampart systems encloses an area of at least 16 hectares. A large part of its north-east end was removed, almost entirely unrecorded, by a quarry.

The key excavations were those by Alexander Curle and James Cree from 1914 to 1915 and 1919 to 1923 on behalf of the Society of Antiquaries of Scotland.² Although they sampled widely across the site, their efforts focused on a substantial shoulder on the western side of the hill between the two main series of ramparts, which was almost totally excavated. The work was published each year;³ there is no overall report, and it is clear that methods and interpretations evolved over the years, making it awkward to correlate between seasons. This is a particular problem with the stratigraphy, which was excavated as a series of levels; these were not entirely arbitrary spits, but neither were they truly stratigraphic, and it is clear the excavators struggled with the complexity of this long-lived, deeply stratified site. From recent excavations on the

hill, one can readily sympathise with their difficulties, but it has left many problems which only further work, in the field and the archive, will resolve. Subsequent excavation was much smaller-scale and focused primarily on the ramparts, although their sequence remains far from clear.⁴ Only since 1999 has more extensive excavation been possible – nowhere near the scale of Curle and Cree's work, but with the benefit of improved techniques and radiocarbon dating, it has been possible to confirm, clarify and modify important aspects of their work.⁵

The hoard was discovered on 12 May 1919. As was typical for the time, the work of excavation was conducted by a foreman and labourers, with the director visiting every few days. Curle visited the site the next day; the workman had couched the phone message to him in such circumspect language that he had not realised the significance of the find! The year-on-year publication of the excavation results makes it hard to appreciate the hoard's setting, but both A H A Hogg and Ian Smith have collated the plans of the latest level on the western plateau in an attempt to make sense of it (illus 1.3).⁶ This shows buildings arranged around an irregular central space, with a roadway leading into it from north and south. Hogg saw them as essentially a single phase, but Smith suggested the remains represent two phases, the later comprising long sub-rectangular buildings with rounded ends arranged irregularly around the space, the earlier a series of clusters of connected cellular, circular and oval buildings, perhaps with integral small yards. This reconstruction is speculative; some of Smith's later

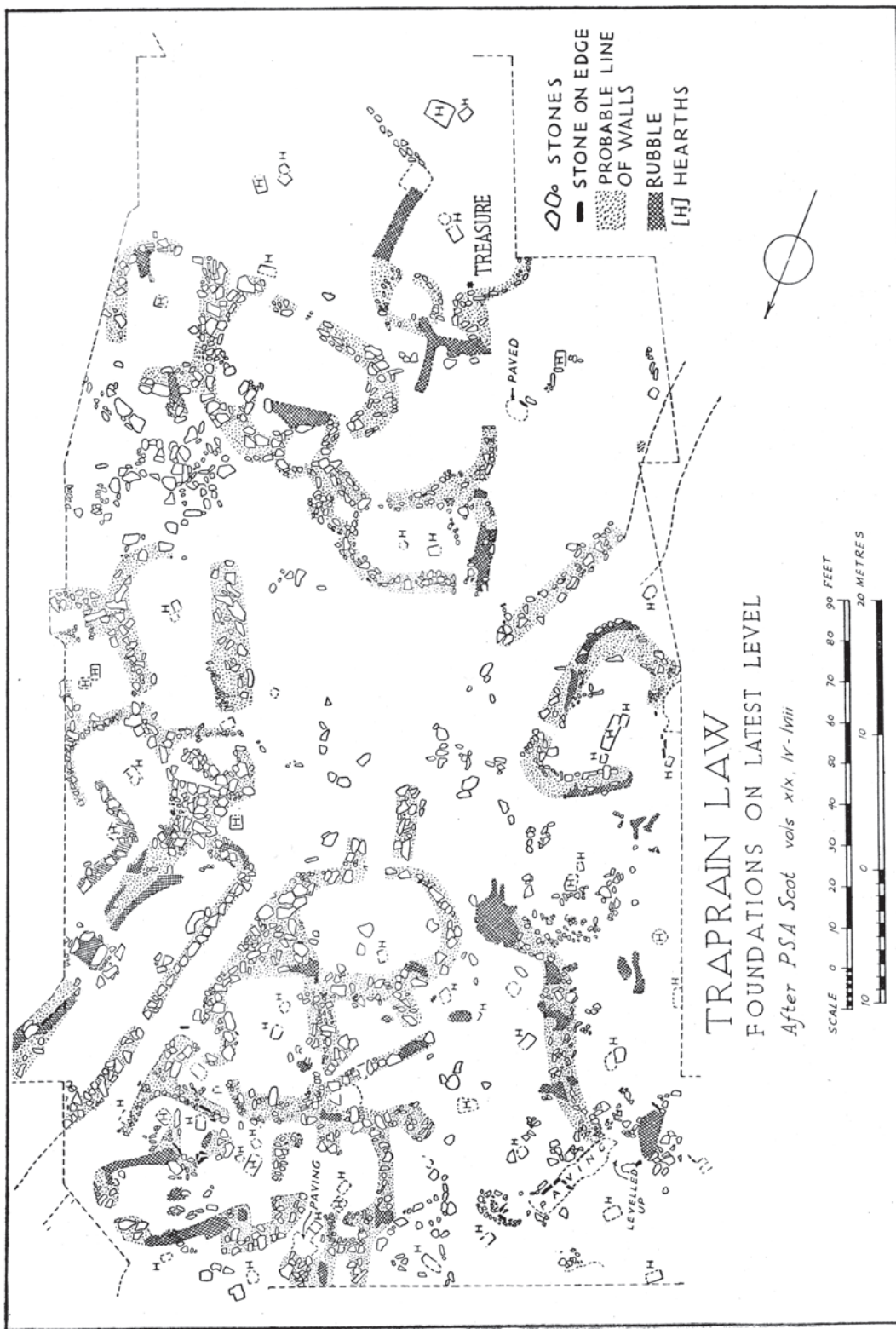


Illustration 1.3
Composite plan of the foundations on the upper levels of the western plateau of Traprain Law (Hogg 1951, fig 53)

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'buildings' are partial in the extreme, and it seems likely that the sequence represents gradual evolution rather than two distinct phases. The hoard lay in one of these yard complexes; this would place it earlier in Smith's reconstruction, and thus imply that its burial was not linked to the abandonment of the site, but this requires detailed scrutiny.⁷ Many aspects of these plans remain uncertain, not least their dating and interpretation,⁸ but they provide the best reconstruction of the latest phases of this area which we are likely to get from the available evidence. For all our modern grumbling about the early excavations, this remains one of only a handful of excavated Hacksilber hoards. As such, it gives us rare insights into the setting of such a hoard.

The hill in the late and post-Roman period

The site was a long-lived one, and details of the sequence remain opaque, but it seems that the earliest enclosure phase was late Bronze Age, with intensive settlement at this date. Some of the ramparts date to the Iron Age, although there is little sign of occupation at the time. It was reoccupied on a large scale in the Roman Iron Age, during the course of the first century AD, and continued in use until the fifth or sixth century. Both main rampart circuits had fallen from use by the Roman Iron Age: the inner one, round the summit area, had been heavily robbed for building stone; the main outer one was no longer maintained, but sediment trapped behind it had formed a substantial terrace which was a focus for settlement.⁹ When the site was re-settled, the inhabitants chose a location hallowed by its earlier associations, but did not choose to fortify it.¹⁰ Traprain was the central place of the area in the Roman Iron Age, and has produced a remarkable wealth of material which points to favoured connections with the Roman world.¹¹

Recent work has provided a clearer picture of the nature of activity on the hill in the fourth and fifth centuries. It was re-fortified during this period, with a substantial stone-based turf wall enclosing an area of about 12 hectares (illus 1.1).¹² The enclosed space was densely occupied. Although recent work has not exposed the same area as the earlier researchers were able to, it has replicated the essence of their sequence across the whole hill; where there is no outcrop, there is deeply stratified archaeology, with even unfavourable exposed ledges receiving buildings. The character and dating of the upper layers remains problematic, but recent work has found a series of sub-rectangular buildings similar to those now reconstructed from Curle

and Cree's work, with irregular rubble foundations and turf walls. The chronology is difficult: the late layers excavated were artefact-poor, and there was no suitable material for radiocarbon dating, but a very small number of finds point to late Roman dates in some instances.¹³ It is possible that some buildings are earlier; recent excavations have shown that the move away from typically Iron Age roundhouse architecture to more rectangular forms was apparently underway by the second or first century BC on some sites on the East Lothian plain.¹⁴ Even with these caveats, the excavations suggest dense and extensive settlement all over the hill in its later phases.

Fortunately, interpretation of the evasive structural evidence can be supported and extended by the finds. There is a rich range of late Roman material, mostly from the early excavations. The coin series runs to Arcadius (AD 395–408), while fourth-century pottery and glass is abundant.¹⁵ The glass is dominated by drinking vessels; Price has commented on the rarity of such glass in the late Roman north, and suggested it had a markedly higher status than in the early Roman period. Indeed, she suggests that the engraved cup from the site finds parallels as a diplomatic gift or donative.¹⁶ The pottery shows both the East Yorkshire greywares which dominate fourth-century supply in northern England, and also access to southern finewares such as Oxfordshire Red-Slip vessels and Lower Nene Valley colour-coat beakers.¹⁷ There is also late Roman jewellery of glass and jet.¹⁸ Copper alloys of this period are rare, but include a few striking finds, notably three late Roman strap-ends and a belt-buckle, the only Scottish examples of these types associated with military (or at least official) service.¹⁹

Late Roman material is otherwise rare in Scotland, and the quantity and range from Traprain is remarkable. It forms part of a notable cluster in East Lothian and the Tweed basin which suggests this area was a focus of late Roman contacts, perhaps reflecting Roman efforts to maintain friendly links as some form of buffer zone against the emergent and threatening Picts to the north.²⁰ While such frontier diplomacy seems plausible, the late Roman militaria from the site point to other processes too; people from the hill were apparently serving in the late Roman army, a point of potential significance in interpreting the hoard.²¹

The nature of activity in the fifth century, around the time of the hoard, is much harder to explore; as with Roman Britain generally, dating evidence is extremely uncertain, with the coin supply cut off and pottery industries moribund.²² Some glass finds point

to late fourth- or early fifth-century contacts, notably two claw beakers or related types, while Price has identified later fifth-/sixth-century Mediterranean imports on the site. This is of great significance; it would make Traprain an exceedingly rare east-coast example of a phenomenon otherwise restricted to high-status or trading sites in the Atlantic west.²³ There are also occasional imported glass beads which probably date to the fifth or sixth century.²⁴

Indigenous material is less of a help as it cannot be closely dated, although it is now possible to isolate a series of finds of broadly third-seventh century AD date. Examples of most are present on Traprain: knobbed spearbutts, domed gaming pieces of shale or cannel coal, and a series of pins with decorated projecting heads.²⁵ Yet their dating remains vague. Most credence has been placed on the pins, with developed versions of projecting ring-headed pins (such as proto-handpins, beaded pins and so forth) probably being of third-fourth century date. The absence of developed handpins²⁶ has been seen as significant,²⁷ but arguing from absence of evidence is hazardous, even with a rich assemblage such as Traprain, since handpins were always a rare type. Traprain does have several Fowler type F penannular brooches, part of a Lothian cluster of this fifth-seventh century type.²⁸ There is also a magnificent double-linked silver chain of north British type, a casual find from the quarrying; while generally accepted as post-Roman, the dating of the type is disputed, but it implies a continuing significance to the site into the fifth or sixth century.²⁹

The latest levels generally lack secure material for scientific dating; the combination of bioturbation of the upper deposits and the colluvial nature of many of the soils makes charcoal exceedingly insecure where it is not present in quantity from well-sealed layers. There is, from the recent excavations, what may be a long cist for a child, a type traditionally seen as early Christian and thus fifth-sixth century, but recent commentators cast doubt on this style as being typically or necessarily Christian.³⁰ Sparse historical sources have been interpreted as suggesting an early Christian presence on the hill,³¹ but as James Fraser notes,³² the evidence is weak. There are no characteristically Anglo-Saxon finds, suggesting the site's significance had declined before the area fell under Northumbrian hegemony in the seventh century.

One activity directly pertinent to the treasure is the recycling of silver. Scientific analysis of crucibles from the site by Katherine Eremin, Paul Wilthew and the writer has revealed ten examples with traces of silver.

The limited stratigraphic evidence points to a date late in the sequence, probably late or post-Roman.³³ Silver-working crucibles are unknown elsewhere in Scotland until around the fifth century, when they start to appear on a small number of sites.³⁴ This precocious silver use must be linked to the presence of Roman Hacksilber, whether lost elements of the surviving hoard or other parcels which came to the site. Its use is seen in the silver chain noted above, a distinctive variant on the traditional theme of the torc as a power symbol. It is also seen in an unusual quantity and variety of small silver ornaments, indicating that silver was becoming part of the currency of status goods on the site.³⁵ Silver went on to become the pre-eminent status symbol in Early Historic Scotland, a phenomenon which must be connected to the availability of the raw material from Roman sources.³⁶

Traprain in context: changing patterns of power in Early Historic Scotland

Although Traprain is a remarkable site, it is not entirely unique; there are indications (albeit from small-scale excavations) of other hilltop power-centres of this period in southern Scotland. The rarity of such sites with rich late Roman assemblages, in contrast to the wide spread of sites with earlier Roman finds, may suggest the emergence of an increasingly hierarchical society, with a smaller number of sites controlling larger areas.³⁷ The subsequent history of these sites varies: some, such as Edinburgh Castle and Dumbarton Rock, continued into the later first millennium AD, appearing in historical sources as royal centres.³⁸ Others, such as Traprain Law and Eildon Hill North, which had been central places for hundreds of years, lost their significance. The Hacksilber hoard probably came to a site which was at or near its peak; within a century or so, it seems to have been in terminal decline. It is tempting to connect the deposition of the hoard to this, but the matter remains opaque.

Conclusion

While the circumstances of excavation and the complexity of the site will always place limits on our understanding of the hoard's context, there are tremendous opportunities to investigate its setting. The most recent analysis confirms that the site was densely settled at the time of the hoard, and was refortified with a massive, impressive wall in the late fourth or fifth century. The remarkable wealth of late

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Roman finds points to well-connected inhabitants, in marked contrast to its surroundings, and this must have been the central place of the area. The clustering of late Roman finds in south-east Scotland suggests deliberate Roman targeting of this area to maintain some kind of buffer against the troublesome Picts to the north, but particular finds, notably late Roman militaria, suggest more than just diplomatic actions; some people on the site had been in Roman service. The fifth- (and sixth-) century picture is less clear, as so often, but the evidence of silver working, most plausibly recycling Hacksilber, and the presence of silver artefacts, notably a massive silver chain, and imported Mediterranean glass, indicates a place of continuing significance. However, in the power-politics of the area it lost out, and by the seventh century (if not earlier) it was no longer a seat of power. The effects of Roman silver were felt more widely for generations, as it was recycled and re-used for the status goods of Early Historic elites, but the mantle of power had passed on from Traprain.

Acknowledgements

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Notes

- ¹ The report on recent excavations (Armit et al in prep) will provide a broader overview of the site. The summary of earlier work by Jobey (1976) remains pivotal, with important modifications by Close-Brooks (1983). For a general treatment of the site in the Roman Iron Age, see Hunter (2009), while Haselgrove (2009) looks at the regional setting; see especially 150–6 (a review of Roman finds from the area by the present writer), 205–23 (Cowley on the regional settlement sequence), and 225–37 (Haselgrove's broader conclusions).
- ² Curle and Cree jointly directed the work, with Curle publishing the earlier seasons and Cree taking most responsibility for the later ones; Cree was away from the country when the hoard was found.
- ³ See the *Proceedings of the Society of Antiquaries of Scotland* 49–57 (1915–24), excluding volumes 51–3.

- ⁴ Trenches were excavated over some of the ramparts in 1939, partly in response to the quarry encroaching on them (Cruden 1940), while Gerhard Bersu excavated further rampart sections and an area on the summit in 1946 (Close-Brooks 1983). There was some small-scale work on the outer rampart in advance of further quarrying in 1983 and 1986 (Strong 1984; DES 1986, 20), and in 1996–7, excavation of part of the summit after fire damage (Rees & Hunter 2000).
- ⁵ A research project from 1999–2001 sampled many parts of the summit area, while from 2003–6 more extensive work took place in the aftermath of a serious fire; see Armit et al 2002; 2006; in prep.
- ⁶ Hogg 1951; Smith 1990; Smith 1996, 26.
- ⁷ It remains unclear, and probably unanswerable, how long elapsed between the silver's arrival on site, apparently in the early to mid-fifth century and its burial. A full analysis of the circumstances of discovery, including study of Curle's diary entries, the few photographs of the find, and detailed reconstruction of the setting, will form part of the subsequent volume on the silver itself. For a biography of Curle, see Ritchie 2002.
- ⁸ Smith's identification of a church in the uppermost layer (1996, 26, fig 2.4) is unconvincing.
- ⁹ For the ramparts see Feachem 1956, modified by Close-Brooks 1983 and Armit et al, in prep.
- ¹⁰ Evidence for new enclosure phases at this date is generally rare; see Alcock 1987, fig 4.
- ¹¹ See Hunter 2009 for a summary of the Roman phases. It has been seen as the centre of the Votadini tribe, but there are grave dangers in using Ptolemy's tribal attributions as genuine indications of Roman Iron Age political units. Even their geographical location is unclear; see Breeze, this volume.
- ¹² The so-called 'Cruden Wall'; see Feachem 1956, 288. Close-Brooks (1983, 216–17) remains the most authoritative statement on its dating; sections across it in the recent excavations failed to provide any further dating evidence.
- ¹³ This will be discussed in detail in Armit et al, in prep.
- ¹⁴ Lelong & MacGregor 2007, 157–9.
- ¹⁵ Coins: Sekulla 1982. Glass: Ingemark forthcoming; Price 2010, 44–5. Pottery: Wallace in prep; L Campbell 2012.
- ¹⁶ Price 2010, 49.
- ¹⁷ The nature of this late material became entangled in debates about the nature of frontier control after the Barbarian Conspiracy of 367; see Fraser, this volume. Mann (1974, 35, n11) noted that 'none [of the pottery] dates after 369'; this remains to be tested in recent analysis, but even if this is the case, there are later coins and glass. The dating of a single material category is a weak basis for dating the whole site.
- ¹⁸ Hunter 2009, fig 21.6.
- ¹⁹ Hunter 2009, 234, fig 21.5, with further references; Coulston 2010, 61, fig 6.1–6.6.
- ²⁰ The topic is considered in more depth in Hunter 2010, 98–100. Fraser (this volume) discusses earlier scholarship on 'buffer kingdoms', which was based largely on later and suspect Welsh sources.

- ²¹ Painter, this volume.
- ²² See Collins, this volume for further discussion.
- ²³ Price 2010, 44–5; there is a further claw beaker fragment from the recent excavations, sadly unstratified. For the wider context of post-Roman imports, see E Campbell 2007, 116–17, 125–39.
- ²⁴ Guido (1999, 27, 188) publishes a ‘crumb’ bead, probably of fifth–sixth century date. This seems to correlate with Brugmann’s ‘mottled blue’ type (2004, 36, 80); she notes that the type is widely distributed and needs more detailed study, but places it in her phase A, c 450–580. A black annular bead with applied pale blue–green dots from the recent excavations may be of a similar date or slightly later (cf Guido 1999, 27, type x; Brugmann 2004, 80, ‘regular dot’), but specialist appraisal is awaited.
- ²⁵ Hunter 2010, 100–3.
- ²⁶ See Gavin, this volume; Youngs, this volume.
- ²⁷ Close–Brooks 1983, 217.
- ²⁸ Collins 2010, 72, 77.
- ²⁹ Youngs, this volume.
- ³⁰ Fraser 2009, 36–7.
- ³¹ Rees & Hunter 2000, 437; MacQueen 1990, 137–40.
- ³² Fraser, this volume.
- ³³ The sherds form two diffuse spreads, one at the southern end of the western plateau (areas A–F; four examples), and one at the opposite end (areas Oa–S). They come from ‘levels 2 and 3’ – that is, not the uppermost ones – although the chronological significance of this is doubtful. There are some sixty crucible sherds in total from the site.
- ³⁴ For example, Campbell & Heald 2007, 176–7; Heald 2005.
- ³⁵ Burley 1956, nos 120, 147–53, 204, 206–7, 269.
- ³⁶ For a discussion of this later material see Youngs, this volume. The best indicator of this process is the hoard of silver from Norrie’s Law in Fife, some of it classically Pictish in ornament, but including a fragment of a late Roman spoon (Stevenson 1956). Ongoing analysis at NMS suggests there is further, less visually diagnostic Roman material among the fragments (A Blackwell & M Goldberg, pers comm).
- ³⁷ Discussed in more detail in Hunter 2010, 104.
- ³⁸ Alcock & Alcock 1990; Driscoll & Yeoman 1997, 226–9.

Abbreviation

DES: *Discovery and Excavation in Scotland*. Edinburgh: Council for Scottish Archaeology

References

- Alcock, L 1987 ‘Pictish studies: present and future’, in Small, A (ed), *The Picts: A New Look at Old Problems*, 80–92. Dundee: Graham Hunter Foundation.
- Alcock, L & Alcock, E A 1990 ‘Reconnaissance excavations on Early Historic fortifications and other royal sites in Scotland, 1974–84: 4, Excavations at Alt Clut, Clyde Rock, Strathclyde, 1974–5’, *Proceedings of the Society of Antiquaries of Scotland* 120, 95–149.

- Armit, I, Dunwell, A & Hunter, F 2002 ‘The hill at the Empire’s edge: recent work on Traprain Law’, *Transactions of the East Lothian Antiquarian and Field Naturalists’ Society* 25, 1–11.
- Armit, I, Dunwell, A, Hunter, F, McCartney, M & Nelis, E 2006 ‘Traprain Law’, *Current Archaeology* 203, 602–7.
- Armit, I, Dunwell, A & Hunter, F in prep *Excavations on Traprain Law*.
- Brugmann, B 2004 *Glass Beads from Early Anglo-Saxon Graves*. Oxford: Oxbow.
- Burley, E 1956 ‘A catalogue and survey of the metal-work from Traprain Law’, *Proceedings of the Society of Antiquaries of Scotland* 89 (1955–6), 118–226.
- Campbell, E 2007 *Continental and Mediterranean Imports to Atlantic Britain and Ireland, AD 400–800*. York: CBA.
- Campbell, E & Heald, A 2007 ‘A “Pictish” brooch mould from North Uist: implications for the organization of non-ferrous metalworking in the later 1st millennium AD’, *Medieval Archaeology* 51, 172–8.
- Campbell, L 2012 ‘Beyond the confines of Empire: a reassessment of the Roman coarsewares from Traprain Law’, *Journal of Roman Pottery Studies* 15, 1–25.
- Close–Brooks, J 1983 ‘Dr Bersu’s excavations at Traprain Law, 1947’, in O’Connor, A & Clarke, D V (eds), *From the Stone Age to the ‘Forty-Five*, 206–23. Edinburgh: John Donald.
- Collins, R 2010 ‘Brooch use in the 4th- to 5th-century frontier’, in Collins & Allason-Jones (eds), 64–77.
- Collins, R & Allason-Jones, L (eds) 2010 *Finds from the Frontier: Material Culture in the 4th–5th Centuries*. York: CBA (Research Report 162).
- Coulston, J C N 2010 ‘Military equipment of the “long” 4th century on Hadrian’s Wall’, in Collins & Allason-Jones (eds), 50–63.
- Cruden, S H 1940 ‘The ramparts of Traprain Law: excavations in 1939’, *Proceedings of the Society of Antiquaries of Scotland* 74 (1939–40), 48–59.
- Driscoll, S T & Yeoman, P A 1997 *Excavations within Edinburgh Castle in 1988–91*. Edinburgh: Society of Antiquaries of Scotland.
- Feachem, R W 1956 ‘The fortifications on Traprain Law’, *Proceedings of the Society of Antiquaries of Scotland* 89 (1955–6), 284–9.
- Fraser, J E 2009 *From Caledonia to Pictland: Scotland to 795*. Edinburgh: Edinburgh University Press.
- Guido, M 1999 *The glass beads of Anglo-Saxon England c AD 400–700*. Woodbridge: Boydell Press/Society of Antiquaries of London.
- Haselgrove, C 2009 *The Traprain Law Environs Project: field-work and excavations 2000–2004*. Edinburgh: Society of Antiquaries of Scotland.
- Heald, A 2005 *Non-ferrous Metalworking in Iron Age Scotland c 700 BC to AD 800*. PhD thesis, University of Edinburgh Department of Archaeology.
- Hogg, A H A 1951 ‘The Votadini’, in Grimes, W F (ed), *Aspects of Archaeology in Britain and Beyond: Essays presented to O.G.S. Crawford*, 200–20. London: H W Edwards.

LATE ROMAN SILVER

- Hunter, F 2009 'Traprain Law and the Roman world', in Hanson, W S (ed), *The army and frontiers of Rome*, 225–40. Portsmouth (Rhode Island): Journal of Roman Archaeology (Supplementary Series 74).
- Hunter, F 2010 'Beyond the frontier: interpreting late Roman Iron Age indigenous and imported material culture', in Collins & Allason-Jones (eds), 96–109.
- Ingemark, D forthcoming *Glass, Alcohol and Power in Roman Iron Age Scotland*. Edinburgh: National Museums Scotland.
- Jobey, G 1976 'Traprain Law: a summary', in Harding, D W (ed), *Hillforts*, 191–204. London: Academic Press.
- Lelong, O & MacGregor, G 2007 *The Lands of Ancient Lothian: interpreting the archaeology of the A1*. Edinburgh: Society of Antiquaries of Scotland.
- MacQueen, J 1990 *St Nynia*. Edinburgh: Polygon.
- Mann, J 1974 'The northern frontier after AD 369', *Glasgow Archaeological Journal* 3, 34–42.
- Price, J 2010 'Late Roman glass vessels in the Hadrian's Wall frontier region', in Collins & Allason-Jones (eds), 37–49.
- Rees, T & Hunter, F 2000 'Archaeological excavation of a medieval structure and an assemblage of prehistoric artefacts from the summit of Traprain Law, East Lothian, 1996–7', *Proceedings of the Society of Antiquaries of Scotland* 130, 413–40.
- Ritchie, J N G 2002 'James Curle (1862–1944) and Alexander Ormiston Curle (1866–1955): pillars of the establishment', *Proceedings of the Society of Antiquaries of Scotland* 132, 19–41.
- Sekulla, M F 1982 'The Roman coins from Traprain Law', *Proceedings of the Society of Antiquaries of Scotland* 112, 285–94.
- Smith, I M 1990 *The archaeological background to the emergent kingdoms of the Tweed Basin in the Early Historic period*. Unpublished PhD dissertation, University of Durham.
- Smith, I 1996 'The origins and development of Christianity in North Britain and Southern Pictland', in Blair, J & Pyrah, C (eds), *Church Archaeology: research directions for the future*, 19–37. York: Council for British Archaeology (Research Report 104).
- Stevenson, R B K 1956 'Pictish chain, Roman silver and bauxite beads', *Proceedings of the Society of Antiquaries of Scotland* 88 (1954–6), 228–30.
- Strong, P 1984 *Exposed section of possible rampart at Traprain Law, East Lothian*. Edinburgh: Scottish Development Department (Ancient Monuments), unpublished archive report.
- Wallace, C in prep 'The Roman pottery', in Armit et al (in prep).