

The background of the cover is a vibrant, abstract painting of a landscape from an aerial perspective. The land is divided into numerous irregular, colorful patches of yellow, orange, red, green, and blue, suggesting different types of terrain or vegetation. A small church with a dark, pointed steeple is visible in the middle-left area. In the upper right, a biplane is depicted in flight against a cloudy sky. The overall style is impressionistic and expressive.

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AERIAL RECONNAISSANCE AND THE DEVELOPMENT
OF THE ARCHAEOLOGICAL LANDSCAPE IN SCOTLAND

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Résumé

Le caractère prédominant des hautes terres d’Écosse a influencé la manière dont a été effectué l’enregistrement archéologique depuis le XVIIIe siècle jusqu’à nos jours. Des travaux récents, poursuivis à la fois aussi bien au plan théorique que pratique, sur la prospection archéologique, ont conduit à une approche spatiale plus globale plutôt qu’à un repérage limité à des sites ponctuels. La prospection aérienne a été particulièrement utile pour détecter les vestiges de parcellaires préhistoriques et médiévaux ainsi que ceux concernant les méthodes d’agriculture. La prospection aérienne et la reconnaissance d’anomalies de croissance de végétation ont beaucoup contribué aux progrès réalisés par l’archéologie sur les terres basses d’Écosse. Il est fait particulièrement référence aux découvertes d’occupation néolithique et à la reconnaissance archéologique de nouvelles formes de paysages traditionnels dans le Sud-Ouest de l’Écosse.

Abstract

The predominantly upland character of Scotland has influenced the conduct of archaeological recording from eighteenth century onwards. Recent developments in both the practice and the theory of archaeological survey have led to the adoption of a broader landscape approach rather than a more limited concentration on individual sites. Aerial reconnaissance has been particularly valuable in revealing the traces of prehistoric and medieval field-systems and cultivation remains. Progress in research on the archaeology of lowland Scotland owes much to aerial reconnaissance and the recording of cropmark evidence. Particular reference is made to discoveries of Neolithic features and the archaeological recognition of new forms of ceremonial landscapes in the South-West of Scotland.

Zusammenfassung

Der vorherrschende Charakter des schottischen Hochlandes hat die Art und Weise der archäologischen Eintragungen seit dem 18. Jahrhundert bis in die heutige Zeit beeinflusst. Kürzliche Arbeiten zeigen sowohl in Theorie als auch Praxis, dass archäologische Verzeichnisse zu einer grösseren Annäherung breiter Landschaften geführt, anstatt punktueller individueller Stätten. Die Luftaufnahmen waren in dieser Hinsicht besonders hilfreich zur Aufspürung der prähistorischen und mittelalterlichen Parzellen, ebenso für die Landwirtschaftsmethoden. Ein besonderer Hinweis sei auf die Entdeckung neolithischer Siedlungen und die Wiederentdeckung archäologischer neuer Formen traditioneller Landschaften im Südwesten Schottlands gegeben.

Scotland is a country of predominantly upland character with most of its land surface lying above 600 feet or 200 m (fig. 1). Only a limited area is suitable for the growing of crops, given the prevailing cold, wet and stormy weather - some 5,7 % with a further 23 % suitable for grass and the occasional crop.

There has been a long tradition of field survey in Scotland, beginning in the mid-eighteenth century with the Military Survey prepared under the supervision of General Roy and covering the majority of the country at a scale of 1/36 000, when the remains of the Roman Antonine Wall across Central Scotland were recorded, followed by more detailed mapping, primarily of Roman sites, later in the century (SEYMOUR 1980, 62-3). There has always been, however, a concentration on unitary monuments, a concentration which has continued, in publication, into the later part of this century. To some extent this continued for practical reasons;

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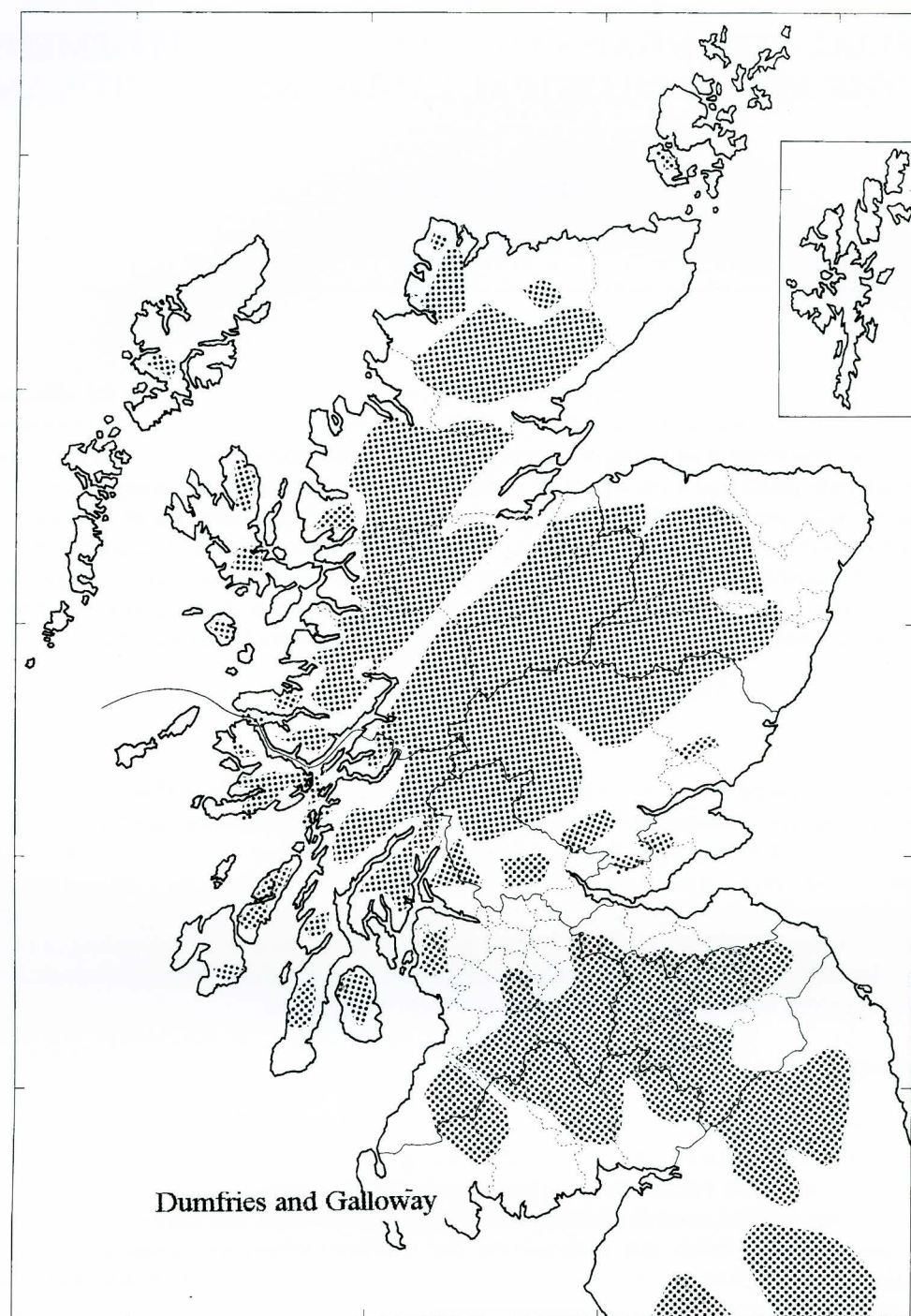


Fig. 1 : map of Scotland, showing land over 200 m.

large scale archaeological survey over extensive areas in a hilly or undulating landscape was either slow and expensive or of limited accuracy. With the advent of improvements in recording technology in the 1970s, along with the development of academic research and changing social priorities in archaeology, came a move to widen the field of reference in relation to the recording of the built environment in the landscape.

The Royal Commission on the Ancient and Historical Monuments of Scotland formerly produ-

ced the results of its survey of defined portions of the landscape, both archaeological and architectural (usually administrative counties), in book form (RCAHMS 1909-1992) with plans, drawings and photographs, a medium that has become increasingly expensive. It is now established, by the terms of the Warrant by which the Commission functions, that publication takes place by means of insertion in the National Monuments Record for Scotland - the computerised, geographically based, archive of the built environment - which forms part of the Commission.

Aerial reconnaissance has played its part in establishing the importance of the physical siting of settlement and cultivation patterns. In the valley of Glenshee in Perthshire, the farms and farmtowns of medieval and post-medieval date lie on the break of slope (figs. 2 & 3) low down on the valley side at the division between the enclosed ground and the hill pasture (RCAHMS 1990, 137). The aerial view reveals the extent of cultivation in the modern

landscape in which the earlier remains lie and the threat to the survival of the earlier settlement and agricultural evidence, particularly from afforestation.

Examination of the areas around hill forts has revealed extensive evidence of agricultural exploitation. The early plan of Longcroft (fig. 4), a fort in Berwickshire, which stands at 1150 feet (350 m)

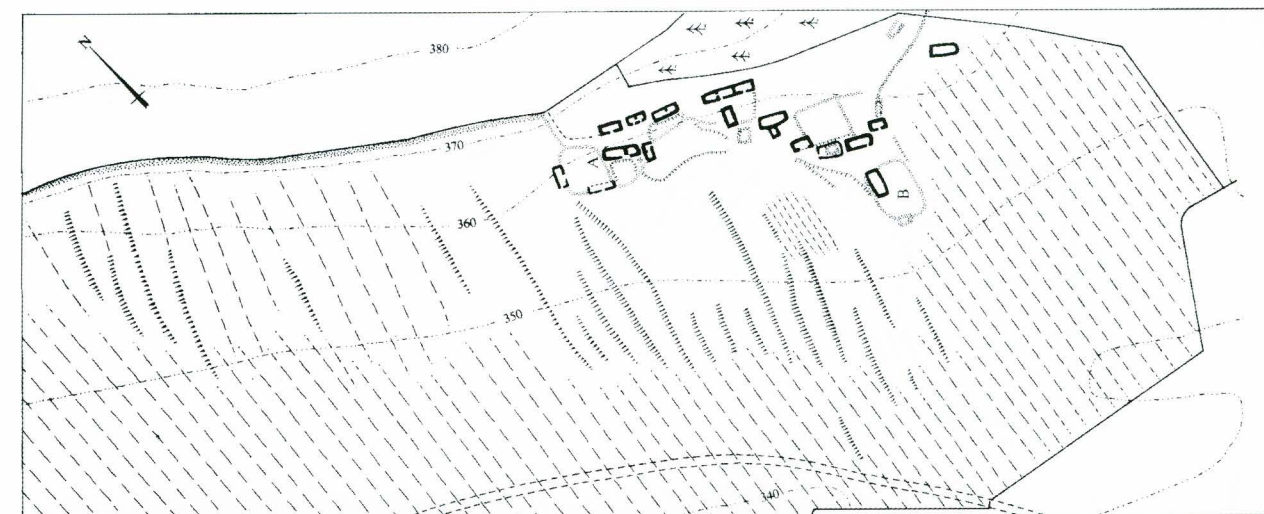


Fig. 2 : settlement and cultivation, Spittal of Glenshee, Perthshire. Scale 1/2500.



Fig. 3 : settlement and cultivation, Spittal of Glenshee.

above sea level, records only the defences and the interior (RCAHMS 1916, 109); aerial reconnaissance of the area around the fort (fig. 5) records not only the medieval ploughing patterns, here shown at their highest and furthest extent, during a climatic optimum, a period of monastic, particularly Cistercian, expansion and of relative peace between Scotland and England, but at a height above the medieval fields, the narrow ridges of spade dug fields, which may be associated with the occupation of the fort. The palisaded settlement at Gibb's Hill, in Dumfriesshire (fig. 6) is surrounded by such cultivation (RCAHMS 1981, 9), and similar traces

survive extensively in southern Scotland. The recognition of this phenomenon derives from aerial reconnaissance in the early 1980s. It is not only on hilltops that considerable traces of early landscape features survive (fig. 7). The heather moorlands, such as those in Perthshire (RCAHMS 1990, 49), preserve evidence for settlement and land clearance in the later prehistoric period, with round houses, clearance cairns and small fields, again with spade cultivation.

Because of the richness of the surviving upstanding remains, fieldwork in Scotland has natu-

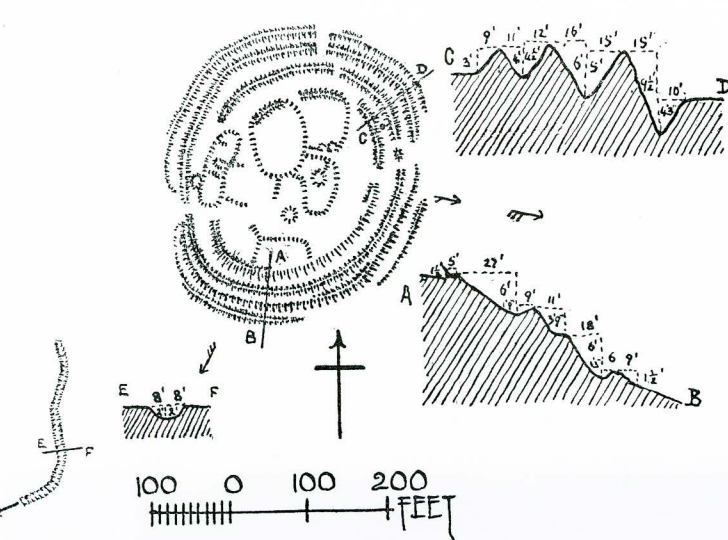


Fig. 4 : Longcroft, Berwickshire. Scale 1/500.



Fig. 6 : palisaded settlement, Gibb's Hill, Dumfriesshire.

Fig. 5 : fort and cultivation, Longcroft, Berwickshire.



Fig. 7 : roundhouses and field-systems, Drumturn Burn, Perthshire.



Fig. 8 : cropmark complex, Leuchars, Fife.

rally concentrated on upland areas. The pioneering work of the Commission in the 1950s in examining Second World War vertical air photography yielded much in the form of individual cropmark sites (RCAHMS 1956, 10), but it was with the regular aerial reconnaissance, initially of Professor St Joseph of Cambridge University, and since 1976 of the Commission (RCAHMS 1976-1990), that the quantity of material formerly upstanding in the lowlands became apparent. Although the mixed nature of the glacial and periglacial geology of lowland Scotland is not conducive to the formation of large expanses of cropmarking, there are certain areas where repeated photography over a period of years is gradually building up the picture of the relict landscape. The eastern part of Fife currently provides the best example of this, as is illustrated by the photography of the area around Leuchars (fig. 8) (MAXWELL, 1983, 38), where successive occupation has etched a palimpsest of funerary and settlement remains across the fields to provide a parallel with certain of the upland landscapes.

This paper does not provide the occasion to address, with any thoroughness, the question of the contribution made by aerial reconnaissance to the understanding of the archaeology of lowland Scotland and its regional nature, nor to describe the morphology of new classes of sites and the elaboration of previously recognised settlement and funerary patterns, nor to discuss sites in their landscape setting, a factor of particular importance in the developing picture of the Roman presence in Scotland (ST JOSEPH 1976a; BREEZE 1982, 51-6; MAXWELL 1984).

I shall, however, take one period, the Neolithic, and two groups of sites in Dumfries and Galloway Region to provide an illustration of the degree to which aerial reconnaissance has radically changed the archaeological landscape. The picture of the Neolithic in Scotland has been dominated by the well-preserved monuments of the Orkney Isles. Elsewhere, attention has been concentrated on the burial cairns, and particularly the chambe-

red cairns, which survive as upstanding field monuments, with evidence of more complex structures emerging only during excavation (HENSHALL 1963-1972; SHERIDAN & SHARPLES 1992). Aerial photography has recorded types of monuments not previously recognised in Scotland, such as cursuses, and has made progress towards the recovery of ceremonial landscapes. A group of sites around Dumfries in south-west Scotland provides one example. These two cursuses are at Holywood (figs. 9 & 10), near the River Nith on the north side of Dumfries. The two monuments are thought to be successive, with the cursus with rounded terminals preceding that with square; the pits inside the more northerly may provide a link with the pit-defined cursuses. The ring-ditches within and adjacent to the square-ended cursus are likely, to be of later date, as is the stone circle known as the Twelve Apostles, towards which the round-ended cursus appears to be orientated. On the south side of Dumfries, some 4 km to the south of the Holywood complex, is another cursiform structure with its accompanying barrows (fig. 11). About a kilometre to the east of Holywood, close to the River Nith, is this probable cursus (fig. 12) formed by two parallel lines of pits. The other lines of pits set, at a different angle, are reminiscent of those close to the

two pit cursuses at Inchbare near Brechin in Angus (ST JOSEPH 1976b), but on a smaller scale than the pit-defined cursus at Balneaves near Friockheim in Angus (fig. 13).

Aerial reconnaissance has also recorded pit-ted complexes such as this elaborate example at Dunragit in Dumfries and Galloway in south-west Scotland (fig. 14), with its double, curvilinear, hengiform enclosure, its avenue and possible enclosing arrangement of pit-alignments; a small pit-defined enclosure lies to the east, and other pit enclosures to the west. There is evidence from excavation and stray finds, as well as from the cropmark ring-ditches, for an extensive Bronze Age cemetery surrounding this complex, which may suggest that it provided a continuing focus for ceremonial activity. Other less elaborate examples have been discovered at Forteviot (fig. 15) (ST JOSEPH 1976), near the River Earn, at Meldon Bridge (fig. 16) on the River Tweed (BURGESS 1976), at Castle Menzies on the River Tay and at Lauder Barns on the Leader Water.

While I could continue with evidence for burial enclosures and hengiform structures, large ritual or secular enclosures, or examples of the productive examination of upland monuments inspi-



Fig. 9 : cursus, Holywood, Dumfriesshire.



Fig. 10 : cursus, Hollywood, Dumfriesshire.



Fig. 12 : pit-alignments, Holm, Dumfriesshire.



Fig. 11 : cursus, Curriestanes, Dumfriesshire.

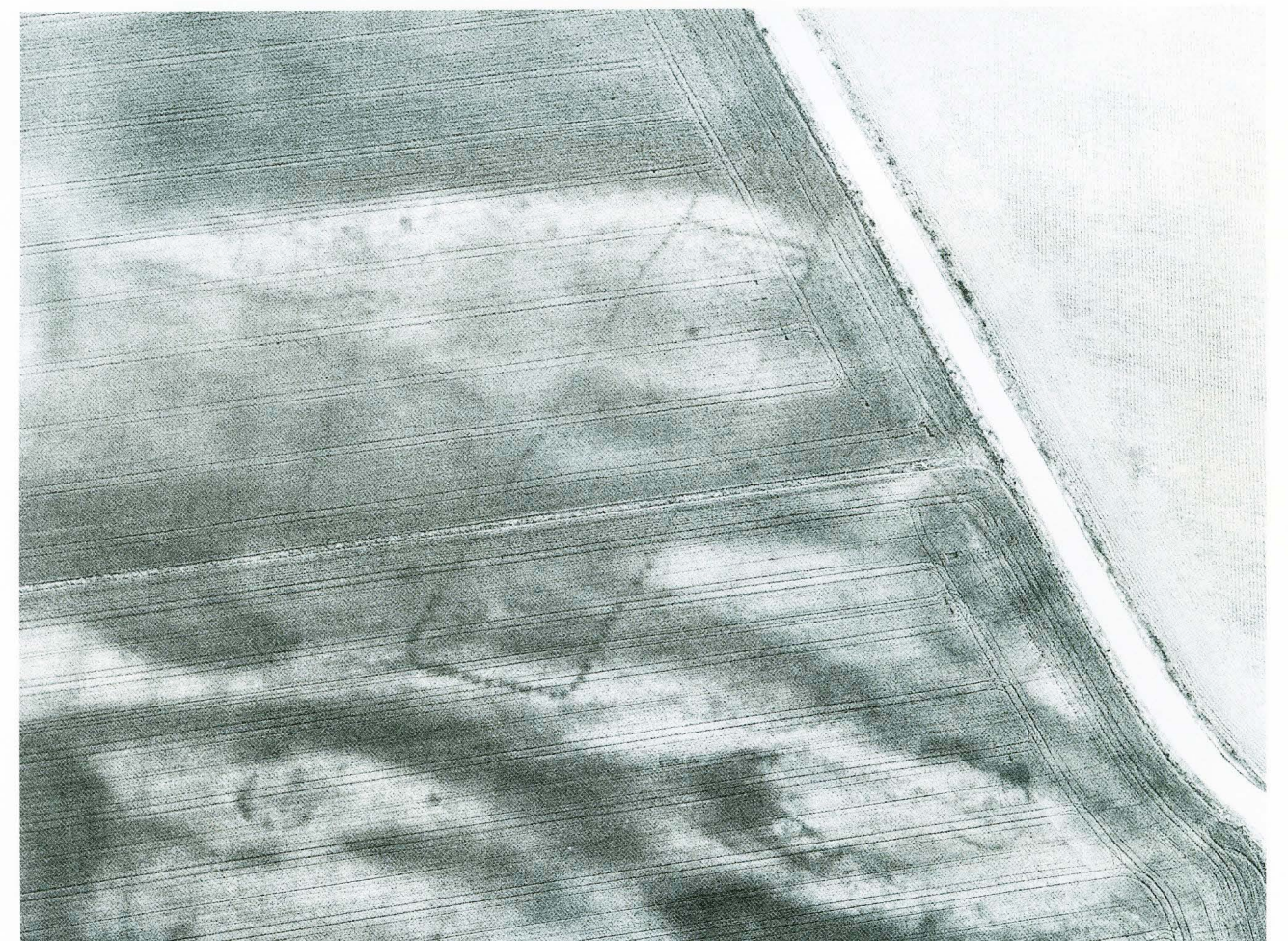


Fig. 13 : cursus, Balneaves, Angus.



Fig. 14 : Hengiiform complex, Dunragit, Dumfries and Galloway.

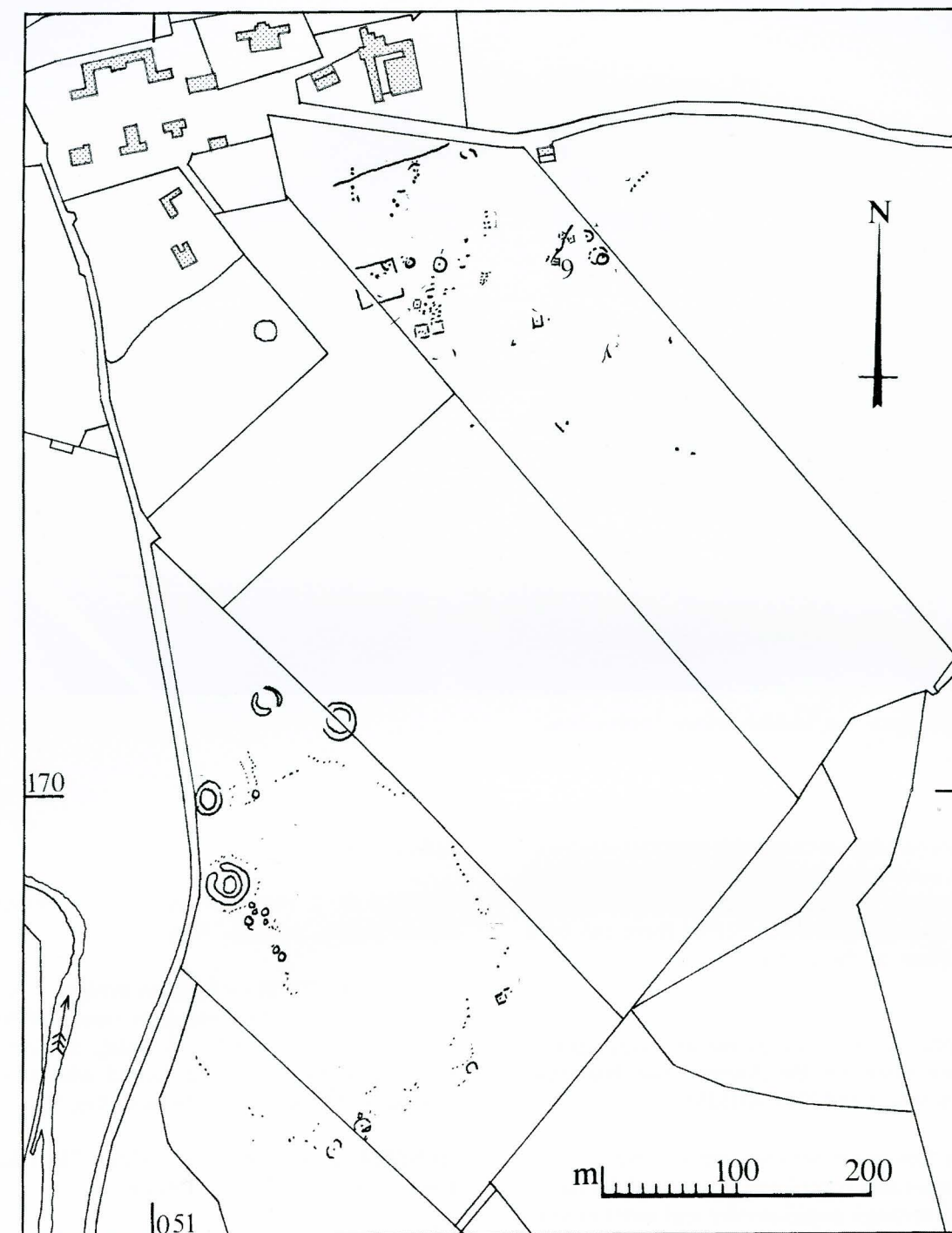


Fig. 15 : ceremonial complexes, Forteviot, Perthshire.

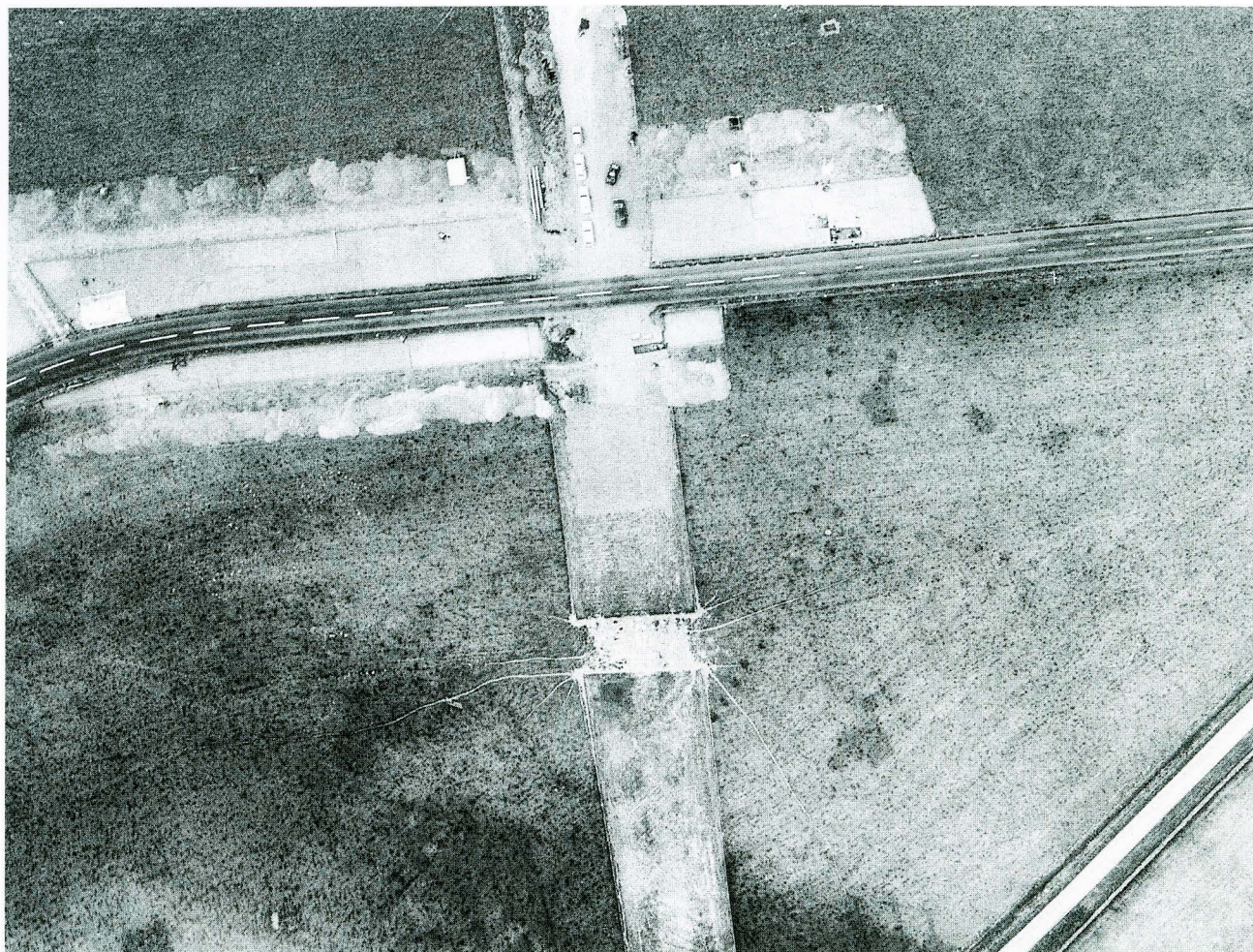


Fig. 16 : pitted enclosure, Meldon Bridge, Peeblesshire.

red by a knowledge of cropmark material, discovered in the lowlands, I must conclude by stressing how much more requires to be done, both of reconnaissance and interpretation before there can be a balanced view of the archaeological landscape in Scotland.

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Since this paper was written in 1992, a number of the sites and complexes in lowland Scotland, discovered through aerial survey and attributed to the Neolithic period, have been the subject of excavations, supported by Historic Scotland. Among these are three mentioned in the text, all of which are Dumfries and Galloway, the two cursuses at Holywood and the pitted structures at Holm. Excavations are planned at a fourth, Dunragit, also Dumfries and Galloway, during the summer of 1999. Mr Julian Richards of Southampton University has directed the excavations.

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