Aerial reconnaissance in Somerset

Frances Griffith and Bill Horner

The Somerset landscape is one of great variety, and the contribution that aerial reconnaissance has made to its study is equally varied. This has intensified in recent years: in common with most of the west of Britain, the county appears not to have been the subject of very much work in the pre-war period. But, by the end of the 1940s, Professor St Joseph, and more recently David Wilson, came down from Cambridge every year. Initially, this work concentrated primarily on recording sites such as castles, abbeys etc but increasingly it included field monuments as well. Exmoor sites were also photographed, and work here was much intensified in the 1970s and 80s by John Hampton of RCHME.

As is often remarked, the prehistoric settlement features, field systems etc, of Exmoor and the Brendons are significantly slighter than those of, for example, Dartmoor. They do, however, survive in part in earthwork form, and, in the right conditions, they are highly susceptible to recording from the air. Aerial photography has contributed significantly to the range of sites and complexes known here, and to their accurate mapping. Their survival is, of course, a function of the relatively slight post-prehistoric landuse pressures in these areas, and the continuing survival of extensive "unimproved" areas.

Transcription of Exmoor material, including several series of vertical aerial photographs, notably the post-war RAF material and the National Park's own excellent collection, was carried out by Richard McDonnell in the late 1970s, and the results deposited in the two Sites and Monuments Records (SMRs). Further flying was subsequently carried out by one of the authors (FMG) in the 1980s and by RCHME in the 1990s, and the Commission has also made transcriptions in association with their recent ground survey work.

Much of the rest of Somerset has been subjected to more vigorous and sustained cultivation than Exmoor, resulting in the very poor survival of visible field monuments in many parts of the county. An exception in the lowland is that part of the county reclaimed from wetland, where the reclaimed enclosures and fields, their platforms and their drainage systems, still survive excellently as earthworks since they are seldom ploughed (see Figure 2.1 on the next page). Air photographs have played an important part in the study of these areas of the county by scholars from Sir Harry Godwin to Dr Stephen Rippon (this volume). Of particular value are photographs taken in flood conditions, which can permit the identification of features in low relief, clearly visible above the level of the water. The poor visibility of sites in the arable lowlands has in the past affected the appreciation of the nature of the county's archaeology, since, if it is read in terms of monument survival, the distribution of past activity can look skewed toward the uplands and wetlands. It is in these lowland areas that aerial reconnaissance has made perhaps its most striking contribution to the study of Somerset's archaeology, alongside the county's long record of surface collection.

Where all above-ground traces of an archaeological feature have been destroyed by cultivation, some below-ground element may survive (which is, after all, what archaeologists mostly excavate. See for example, Croft and Aston 1993, 16). In certain conditions, usually of crop stress, below-ground



Figure 2.1: Earthworks of field drainage associated with the deserted settlement at Horsey (Bridgwater Without). Photograph DAP/SA12 by F.M. Griffith, 22 June 1990. Copyright reserved.

features will affect crop growth, and the lines of buried features such as ditches will be "mapped" in the crop. Reconnaissance for cropmarks in Somerset started much later than in, for example, the eastern counties of England, and has not always been intensive in scale. The work from Cambridge, mentioned above, recorded buildings, major monuments such as hillforts, and a valuable range of newly discovered sites in earthwork form, particularly in the reclaimed areas. Surprisingly few cropmark sites were, however, recorded in this programme.

In the 1970s, reconnaissance was carried out by John White of West Air Photography, both independently and with others in the East Somerset Survey (Thomas and Jones 1978), and also by the Western Archaeological Trust (Leech 1978). Valuable evidence for the lowlands of Somerset was recorded by all of these, in both cropmark and earthwork form. After the establishment in 1974 of an archaeological post within Somerset County Council (SCC), several of the postholders were active in aerial reconnaissance. Mick Aston, the first incumbent, was particularly active in recording medieval earthwork sites in the lowlands and on Exmoor and the Brendons (Aston 1983), though his work was not confined to these areas or this period. Ian Burrow also took to the air, and Ed Dennison carried out reconnaissance in his turn while working for SCC.

The most recent phase of lowland aerial reconnaissance in Somerset has taken place since 1989. In that year FMG, who had been flying in Devon (a county with an even slighter record of past reconnaissance than Somerset) since 1983, was recording numerous new sites in Devon during a summer of



Figure 2.2: Barrows and ring ditches recorded in the Somerset Sites and Monuments Record 1999. The ring ditches, which have been discovered through aerial reconnaissance, complement and expand the distribution of monuments of this type into the areas of lowland cultivation.

significant drought. Devon's north-eastern border area was particularly productive, and so, after discussions with Bob Croft, it was decided that SCC should fund the extension of the Devon local reconnaissance programme into Somerset. Results were spectacularly good (Griffith 1990a; Griffith 1990b), and this collaborative work has continued to the present time – although from the cropmark point of view the last two summers have been very disappointing in southwest England. Initially this work was grant-aided by the RCHME, but in recent years their support for regional reconnaissance has virtually dried up, and flying has been funded by SCC alone. Since 1992, flying in Somerset has been jointly carried out by the two authors.

Aerial reconnaissance can generally only find the remains of plough-levelled sites that preserve buried walls or ditches, but nevertheless the impact of reconnaissance on the overall archaeological pattern in Somerset is striking. This can be illustrated by the case of barrows and ring ditches in the county. In the publication (Aston and Burrow 1982a) of this conference's predecessor Ann Ellison provided a very valuable discussion of these ceremonial monuments. The distribution map that accompanied her paper, however, (Ellison 1982, figure 6.3), does emphasise the survival of barrows on the high or unimproved land in the county. Figure 2.2 shows the currently known distribution both of barrows and of ring ditches. The vast majority of the latter have been identified through aerial reconnaissance, and, although clearly not all these monuments will be contemporary, comparison of Ellison's plan with Figure 2.2 illustrates the complementary effect of aerial reconnaissance in extending the known distribution of such bronze-age ceremonial monuments into the cultivated parts of the county. While many of the ring ditches have been single examples found in previously blank areas, in some cases, as at Williton, they have served to expand the extent of a known barrow cemetery.

Ring ditches provide the single most common form of prehistoric ceremonial monument seen from the air, although some possible long barrows have been tentatively identified. A possible cursus or oblong ditch was recorded at High Ham in 1996, while a rather less certain example, recorded at Chedzoy in 1990, has been published (Croft and Aston 1993, 48, lower plate). A major circular ditched enclosure some 60–70m in diameter with



Figure 2.3: Single enclosure at Vemplett's Cross (Nettlecombe). Photo DAP/YJ23 by W.S. Horner, 13 July 1995. Copyright reserved.

evidence of an inner palisade, at Stanchester, Stoke sub Hamdon, may belong in the henge family (Croft and Aston 1993, 48, upper plate).

The single most common class of monument identified in cropmark form has been the enclosure simple (Figure 2.3) or more complex, isolated or in groupings. Some (eg High Ham, Catsgore) either form part of the known Romano-British villa and settlement complexes or may represent their predecessor settlements. Others, the vast majority, are single enclosures lying apart from one another and from previously known archaeological sites. In form, these are usually simple curvilinear or rectilinear enclosures, with a single ditch and a single entrance. As such, they are inherently difficult to date, and, although it is probable that most may date to the later prehistoric and Romano-British periods, recent excavations in Devon on comparable sites have demonstrated that dates anywhere between the Later Neolithic and the medieval period are represented (Griffith 1994; Henderson and Weddell 1994; Fitzpatrick et al. 1999). Most of these enclosures probably represent enclosed farmsteads, but ceremonial functions cannot be ruled out. However, it may be noted that recent work on both cropmark and earthwork enclosures of this type in Devon has failed to identify a single one as clearly a "stock enclosure". All have provided evidence either for human occupation or for less functional activities – suggesting that the attribution of "stock enclosure" must be used, if at all, with caution.

In addition to single enclosures, some more substantial settlement complexes have been identified. At Longlands Farm, Conquest Farm and Dene Cross (Bishop's Lydeard), a number of intersecting enclosures demonstrates complex and apparently multi-phased settlement. In the Podimore and Urgashay areas (Yeovilton and West Camel), and at Chedzoy and Westonzoyland, large areas of enclosures, field systems and trackways have been recorded (Figure 2.4 on the next page). These appear to be less structured than those observed by Leech at, for example, Catsgore, but this could be a product of a longer life. An iron-age and Romano-British date is known for Podimore (Leech 1975), and this appears probable for the other large complexes. All, however, may go back further: several of the major cropmark complexes recently recorded also incorporate features interpreted as ring ditches of bronzeage date, and a more complicated palimpsest history must be considered.

Recent aerial reconnaissance has identified



Figure 2.4: The cropmarks of a settlement complex, showing trackways and multiphase enclosures, at Podimore, Yeovilton. Recent (2000) extensive excavations have shown it to be late prehistoric and Roman in date. Photo DAP/AAF11 by F.M. Griffith, 18 July 1996. Copyright reserved.

numerous single enclosures scattered in all nonwetland areas of the county, but the results have been particularly striking in the Vale of Taunton Deane, including the slopes of both the Brendon and Quantock Hills, all around Taunton and Bridgwater, and on the dry land on the edges of the wetland areas. Figure 2.5 on the following page shows the pattern of enclosures now revealed. It is unsurprising, but new, to see the concentration of enclosed settlement in those areas of the county now among the most favoured for farming. The impact for some areas has been striking - for example, between 1989 and 1992, the number of sites recorded in the Somerset SMR for the parishes of Thurloxton and Chedzoy literally doubled as a result of the survey, and this was not uncharacteristic of parishes in the most productive areas.

At present very few of the "new" enclosures – and in particular the isolated single enclosures – have been subjected to any work which can shed light on their date. A project by King Alfred's College, Winchester, may soon begin to change this. It is proposed that a number of sites, including a number of enclosures known only from aerial reconnaissance, are to be sampled in a transect across the Vale of Taunton Deane. This project offers considerable potential in exploring these sites and developing a better picture of both date and function. Not only excavation, but also the proposal for extensive geophysical survey, both on and off-site, promises to expand our understanding considerably. It is to be hoped that this "ground truth" will contribute to the future interpretation of other enclosure sites and their setting, as well as starting to explore their relationship with unenclosed settlement.

To date, reconnaissance has not been as productive of clearly Roman material as has been the case in some other counties, with the exception of villa-type sites. A number of previously-known villa sites (for example, Lugshorn, King's Sedgemoor, and Highbrooks, near Catsgore) have been recorded, both as cropmarks and as parchmarks, and this information, when plotted, will contribute to the overall plans of these sites, which have often only been subjected to



Figure 2.5: Enclosures known in Somerset in earthwork and cropmark form, as recorded in the Somerset SMR 1999. As in the case of the ring ditches, the evidence from cropmarks provides an important dimension of the overall settlement picture.

limited excavation. A site that has only ever been seen once, poorly, at Durston, has a form suggestive of a possible Romano-Celtic temple. Military sites have not been numerous. A small fortlet or signal station has been identified at Vellow, Stogumber (Figure 2.6 on the next page), overlooking a narrow part of the Doniford valley, a significant routeway, while the form of the entrance of a small (0.6ha) enclosure at Montys Court, Norton Fitzwarren may be suggestive of a Roman military function (and the site is published as such by Welfare and Swan, 1995, 169).

No forts have yet been found in the present campaign of reconnaissance in Somerset itself, although the one discovered at Clayhanger in 1989 lies within 2km of the county boundary. However, in 1996 the presence of at least one external ditch at the fort at Wiveliscombe (Webster 1959) was confirmed by reconnaissance as was extra-mural settlement.

It is almost certain that for Somerset, as for Devon (Griffith 1994, Fig 2), some of the enclosures recorded will prove, when investigated, to be of post-Roman and medieval date. While the former may not be grasped quite so gratefully in Somerset as they are in Devon (where field evidence is very sparse), it is clear that aerial reconnaissance can make an important contribution in site location for a period whose stray finds are rare. Cases of enclosures housing medieval farms in Somerset are discussed by Aston (1985, 95–6), while recent excavated examples in Devon are reviewed by Henderson and Weddell (1994). Other features as yet defy any attempt at either date or function: a series of scattered features in the North Curry area showing as roughly rectilinear excavations of some 4.5x7m in size, have the mind vacillating between mineral diggings, grubenhauser and recent military training features. The Somerset SMR would be glad to hear of any possible interpretations.

In addition to wholly "new" discoveries, the programme of aerial reconnaissance has also been able to contribute additional information on sites already partly known to Somerset archaeologists. The very interesting range of small enclosures and ditches observed within the enclosure of the hillfort at Norton Fitzwarren has already been published (Griffith 1990b, plate 1). Ring ditches have expanded the size of known barrow cemeteries as at Williton, and unsuspected ditches have been identified at a number of surviving barrows. The history



Figure 2.6: Signal station or fortlet of probable Roman date at Vellow, Stogumber, showing partly as cropmark and partly as existing field boundary. Photo DAP/YR7 by W.S. Horner, 21 July 1995. Copyright reserved.

of the large barrow at Durston, which has been suggested to be a mill mound by Mick Aston (in the SMR entry), has been clarified by reconnaissance: it can now be seen as a ditched barrow on which a mill was constructed. For more complex sites much information has been recorded, although the detailed integration of the cropmark evidence with other known information for some of the major villas and Romano-British settlement sites will be a substantial piece of work. Photography of sites such as Glastonbury Abbey and Wells Cathedral has produced important evidence in parchmark form in the generally inscrutable grass of their open areas.

While this paper has concentrated on the "new" archaeological features identified in the county, it may be noted that the recent programme of reconnaissance, funded initially by RCHME and SCC, and in more recent years by SCC alone, has also provided air photographic cover of current excavations in the county, and of known sites. Regular photography is also valuable for monitoring the condition of known sites. The range and scope of photography has varied considerably over the last few years, some

years lending themselves to cropmark flights long into the summer evenings when RNAS Yeovilton became less active, while other years have offered only limited windows of opportunity for cropmark flying. Flying is also carried out in winter to exploit oblique light conditions. The proposed project by King Alfred's College, discussed above, and other more modest individual endeavours, should help to amplify this initial indication of the presence of archaeological features.

Reconnaissance for cropmarks serves to point our thoughts toward a location. However, in the climate of rapid landuse change that we now see in the English countryside, such clues are essential if many archaeological sites are not to perish unrecorded, either wholesale under a new development, or piecemeal by their gradual erosion through agricultural operations. Even the crudest of indications of the existence of a site can help the archaeological "curator" to ensure either their preservation, through avoidance of development or through management agreements on farmed sites, or at least their adequate record before destruction. Aerial reconnaissance is only one technique of site recognition among many, but the results given in Figures 2.2 on page 9 and 2.4 on page 11 demonstrate the contribution that it is continuing to make. Results so far leave little doubt that the county is still in a primary phase of reconnaissance, and that, climate permitting, the rewards of continuing aerial survey will further enhance the overall picture of the county's archaeology.

Acknowledgements

We are grateful to Chris Webster for the production of the distribution maps and other material from the Somerset SMR. The initiative for the recent flying programme in Somerset came from Bob Croft, Somerset County Archaeologist, and it has been funded by SCC and in the past by grants from RCHME.