

Notes and News

Air reconnaissance: recent results, 35

PLATE XXVIII

As every archaeologist knows, the interpretation of aerial photographs is beset with pitfalls. When features exist in relief, interpretation is greatly assisted by the use of stereo pairs: moreover, earthworks can be examined on the ground. When differences in colour of soil or of vegetation are the only guide, extra care is necessary since the shape and character of the marks, and their relationship to other features may afford the principal clues. Knowledge of comparable sites elsewhere, and especially of sites that have been excavated, can be of the greatest assistance, but even so mistakes in interpretation can occur all too easily. These mistakes may arise from confusion between different kinds of man-made structures, or from a failure to distinguish between natural and artificial features.

In general, the marks most easily identifiable are those representing features that conform to standardized types. This is particularly so with military remains. The structures in a Roman fort: ditches, ramparts, streets, and buildings are of such variety that one or other stands a good chance of being visible as soil or cropmarks, if the site is viewed under suitable conditions. Again, Roman camps may usually be recognized, provided some distinctive feature is visible, such as a gate with a traverse or *clavicula*. With such sites, most mistakes arise when too little of the plan is visible for certainty. Minor seventeenth-century military works, with re-entrant angles and spear-head bastions, are highly distinctive, but opportunities of viewing such features as cropmarks seldom occur. Deserted medieval villages in their own fashion may also yield distinctive marks that arise from the levelling of house-platforms, or boundary banks and of ditches, and the in-filling of sunken lanes and hollow ways. Much depends upon the method of

levelling. Use of a bulldozer may leave in places sharp outlines in the soil, while earth and debris removed to fill hollows elsewhere is very mixed in character. The effect of ploughing is often to soften the outlines between contrasting types of soil, as the plough drags soil first in one direction and then in another. Identification of deserted villages may be greatly assisted by consideration of the relationship between the remains and any ridge and furrow of which traces have survived, or of the geographical position in regard to adjacent village sites or to parish boundaries. Settlement sites of the Iron Age or Roman Iron Age, give rise to cropmarks in great variety. Comparatively few of these at present conform to recognizable types. Very great variation will have been present in different parts of the country, in different tribal territories, and on different soils. Moreover, at some sites, the plan has evolved and developed over a long period, so that cropmarks revealing the totality of the remains are of extreme complexity.

Very often the simpler the marks, the more difficulties they pose for an interpreter. To take one example, small dark patches of growth visible in cereal crops, are sometimes identified as pits. Here there are many traps for the unwary: such marks may be due to the dumping of heaps of manure, or to disturbances caused by the grubbing-up of tree roots, when woodland is cleared. When the marks have a distinctive shape or spacing, or are significantly related to other features, there may be surer grounds for interpretation. Thus, rows of circular or oval pits, 1 m. or more across, appear in the verandahs of the legionary barracks at the Roman fortress of Inchtuthil, in Perthshire, at a spacing of one pit to a *contubernium*: excavation has shown that they held vegetable rubbish and animal bones. Similar

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rows of pits are known in a number of Roman camps. The Iron Age 'settlements' at Little Woodbury (Wiltshire), Gussage (Dorset), and Arbury Banks (Hertfordshire), to mention only a few sites, show concentrations of pits for storage, for rubbish, or for refuse. The pits are in such numbers that they cannot all have been contemporary. As they became soured, or fouled, or filled-up, others will have been dug, but the responses in vegetation do not distinguish between features differing in date. In other contexts, pits may represent the settings for uprights in timber or stone, while stake-holes for circular settings of posts or withies appear from time to time in photographs of barrows. Pits at the centres of circular or square ditches marking former barrows are also regularly recorded. These must surely be interment pits, or graves, while a most convincing demonstration that graves regularly promote cropmarks is provided by the cemetery around the ruined church at Newton (NT 334691) in Midlothian. This cemetery is now part of a ploughed field, and whenever the field is under cereal crop, the graves are clearly visible. Rectangular marks often attributed to the effect of a greater depth of soil over the sunken floor of a Dark Age hut, are being recorded in increasing numbers, though the risk clearly exists that isolated examples may be modern rubbish pits or even soundings to test the subsoil.

The photograph (PL. XXVIII) exemplifies some of these problems of interpretation in a very special degree. The cluster of marks occurs at the point TR 311538, in the parish of Eastry, in Kent, some 11.5 km. N of Dover. The site lies beside the Roman road between Richborough and Dover, the general line of which is indicated by the modern lane. From Richborough, the line of the road swings westwards, avoiding low-lying land once part of the belt of tidal creeks and marshes that formerly separated the Isle of Thanet from the mainland: the road then bends S to aim at Dover. From the marshland the ground rises gently, and the area within the photograph is at about 30 m. There is only a thin covering of soil overlying chalk. The land drains northwards; a small

fold in the ground that provides a natural line of drainage is marked by a specially dark growth of crop.

The whole of the area to E (left) of the lane was formerly planted, and is shown on current large scale maps of the Ordnance Survey* as Sangrado's Wood. Not many years ago a part of the wood was cleared and in June 1973, when the photograph was taken, the land was under a cereal crop. Comparison with large-scale maps enables the position of some of the rides in the woodland to be identified. In addition, small faint marks appear over much of the area formerly wooded. In such circumstances the possibility of disturbances in the soil due to the uprooting of trees must be kept in mind, if indeed such disturbances would be visible at all, when compact chalk occurs at a depth of only 0.3 m. This cannot, however, be the explanation for the concentration of very clear marks covering an area some 100 m. across near the centre of the photograph. These marks are elongated, possibly 1.5 m. long, more or less, and barely half that in breadth. Some twenty of the marks lie at the centre of circular or penannular ditches, 5 to 8 m. in diameter, at a rough estimate. The marks are not precisely parallel, but there is a very distinct preference for an east to west orientation.

No uprooting of trees could produce such regularity, nor would tree-pits occur regularly at the centres of ring-ditches. That the marks indicate graves is a conclusion difficult to resist, and graves that were deliberately oriented. This identification gains support from the existence of Anglo-Saxon cemeteries nearby: for example that at Buttsale lies but 1 km. to the N (at TR 312545), and that at Finglesham, 1.5 km. to the E, in Northbourne parish (at TR 326535). The 1929 excavations at Finglesham cemetery which revealed 34 graves (Stebbing, 1929), have been republished by Mrs Hawkes (Chadwick, 1958), who concluded after careful study of the grave-goods that interment began in the sixth century and continued into the first years of the seventh. A part of the cemetery, of unknown extent, had been destroyed in a chalk quarry. Excavations

* *E.g.* 1:25,000 scale, sheet TR 35, reprint of 1951.

since 1959 have revealed a further 216 graves mainly of seventh- and early eighth-century date. Three at least had been under small barrows surrounded by shallow ditches (Wilson and Hurst, 1966). At Eastry the whole extent of the cemetery is not visible in the air photograph; moreover, not all the marks may be of the same origin, but between two and three hundred graves may probably be distinguished, making this one of the largest cemeteries of the period known in Kent. At Finglesham the orientation of the graves varies, while at Eastry, the majority are clearly aligned east and west. Whether this is sufficient

proof that the cemetery is of a Christian community may not be accepted by everyone, but the contrast in plans is striking. Some Anglo-Saxon communities may well have changed their burial places in the seventh century for reasons arising from the conversion to Christianity.

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CHADWICK, S. E. 1958. The Anglo-Saxon cemetery at Finglesham, Kent: a reconsideration, *Med. Arch.*, II, 1-71. An appendix to this paper gives a list of early Anglo-Saxon sites in NE Kent.

STEBBING, W. P. D. 1929. The Jutish cemetery near Finglesham, Kent, *Arch. Cant.*, XLI, 115-25.

WILSON, D. M. and D. G. HURST (eds.). 1966. Medieval Britain in 1964, *Med. Arch.*, IX, 172; idem, 1969, XII, 158.

C. A. Newham and Stonehenge

In the last decade the pages of *ANTIQUITY* have provided the main forum of debate about Stonehenge and its astronomical significance. It is fitting, therefore, to record here the death in April 1974 of one of the most active and dedicated contributors to Stonehenge studies, Mr C. A. Newham, known to his friends as Peter.

Peter Newham retired from the post of Group General Manager of the North Eastern Gas Board some fifteen years ago, and thereafter devoted his time wholeheartedly to the astronomical and metrological aspects of Stonehenge. Indeed, apart from the official custodians, probably no man has spent more time in recent years on the site itself, in spite of its inconvenient distance from his home in Yorkshire.

His ideas and observations were published mainly, and with a characteristic but unjustified modesty, in three pamphlets, the last of which I had the pleasure of reviewing in these pages (Atkinson, 1972). In these he gradually developed his views about the metrical properties of the monument and its solar and lunar alignments, the latter having been originally outlined in a newspaper article. He also contributed a paper to *Nature*, and took part in the *ANTIQUITY* symposium of comments on Hoyle's hypothesis (1966). At the same time he conducted a vigorous correspondence with many fellow-workers, of whom I am gratefully one. His publications, listed below, deserve the

attention and the respect of every investigator of the problems of Stonehenge, present and future.

It is too early to say how many of his more speculative ideas will withstand the winnowing of time; but of his lasting contribution to Stonehenge studies there is already no doubt. He was the first in this country to offer a convincing explanation of the geometry of the four Stations and its relationship to the latitude of the site, even though he was, unknowingly, partially anticipated in this discovery by a couple of years (Charrière, 1961). He was the first to measure with a theodolite a comprehensive set of horizon altitudes, which he generously made available to others (Hawkins, 1966; Atkinson, 1967). He was also the first to give a detailed analysis and interpretation of the enigmatic array of postholes on the entrance-causeway of the circular earthwork; and the first again to provide an astronomical explanation of the three huge postholes found during the extension of the Stonehenge car-park in 1966. For this and for much else besides he will be remembered with affection and gratitude; and in the landscape of Stonehenge itself his memorial is Peter's Mound, a newly-discovered feature on the northeastern skyline thus named by some of his friends and collaborators, which may yet prove to be the site of a distant marker for the sunrise at the summer solstice (Thom, 1974).

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PLATE XXVIII: AIR RECONNAISSANCE: RECENT RESULTS, 35

Cropmarks near Eastry, Kent (TR 311538). Oblique photograph looking S, taken 4 June 1973

See pp. 213-15

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