

AERIAL PHOTOGRAPHS OF THE FROME AREA

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The first project in 1959 of the newly formed Frome Society for Local Study was a search for traces of the Bath to Poole Harbour Roman road which passes just east of Frome. For this purpose it was decided that a set of aerial photographs would be of value especially if crop markings, for example, helped to confirm the rather meagre findings of conventional archaeological investigation. The ultimate success of this investment has encouraged the Society to give the following account of the technical details of the use of aerial maps in the hope that this information will be of interest to other local societies who may contemplate similar work in history or archaeology.

Enquiry at the Air Ministry, S.4 (c), Whitehall Gardens, S.W.1. produced the information that R.A.F. vertical aerial photographs of many parts of the U.K. could be supplied at a cost of 3s. 6d. per contact print to members of learned societies, etc.¹ Each print of 9 ins. \times 7 ins. at a scale of about 6 ins. to the mile would cover just over a square mile. A tracing from the O.S. one-inch map should be sent, showing the exact boundary of the area required and preference should be stated as to scale, date and season of photography. Information concerning details of photographs available would take about four weeks and the photographs themselves would require "a further few weeks" for delivery.

Early in December 1959, an order for 70 prints at a cost of £12 5s. 0d. was placed, the area to be covered with a minimum of overlap. The prints arrived in July 1960, but one row had been replaced by a row from a totally different area. This error was sorted out by December, a year after the original order.

The area covered, about 10 miles by 8 miles, was from just south of Norton-St. Philip to Maiden Bradley and from Leigh-on-Mendip to Corsley. Most of the area had been photographed on November 4th 1946 by overlapping rows, of which, judging by the serial numbers, we had every third picture, running N.W. — S.E.; but in the area round Wanstrow the rows ran E.N.E. — W.S.W. and were

¹ The address for the purchase of photographs is now:

Air Photographs Officer,
Ministry of Housing and Local Government,
Whitehall, London, S.W.1.

taken on 23rd January 1947. While still in order, the photographs were easy to correlate with the ground, but single photographs, particularly those mostly of fields, were often very difficult. An indexing system was therefore devised so that from the map the photographs covering any area could quickly be found and any photograph could be located on the map. In addition a set of envelopes with cardboard backs and transparent plastic fronts was made. Each row of photographs was kept in one of these and sufficient spare envelopes were available to protect individual photographs while in use.

The rows of photographs were lettered A to K and the appropriate letter was marked on the back of each, the serial number as printed was retained. On a one-inch O.S. map the area covered by each photograph was outlined; the serial number was written within and the row-letter in the margin. Four colours were used in alternate pairs in neighbouring rows so that there should be no doubt at overlaps which line referred to which print. As an additional check the same colours were used to mark the letters on the backs of the prints. The outlines showed that the actual areas covered varied from about 3,500 yds. \times 2,500 yds. to 2,500 yds. \times 2,000 yds. and were not always quite rectangular due to a slightly oblique view. The overlap averaged 300 yds., being sometimes 1,000 yds. and sometimes nothing at all, with only one small strip missed. Where the rows met at an angle there was an even greater overlap to avoid missing triangular portions. About one-third to one-half of each print was on no other, but at corners an area of perhaps 200 yards square might be on all four.

When held up to the light the prints are translucent, and taking advantage of this a pair of the 1 km. grid lines was marked and numbered on the back, crossing as on the map. This gave grid north and an exact grid reference for each. In addition, the name of a village or some feature was written on the back at the position it showed through. Soft pencil was used for this to avoid marking the front.

To ensure that all the information so far collected on a particular area should be available together with the photographs to anyone engaged on study, loose-leaf files were procured and those using the photographs were asked to add their contributions. A diagram from the geological map was made for each photograph and, for many,

notes have already accumulated on agriculture, settlement, the Domesday manors, old roads and canals, prehistoric remains, etc. These notes are numbered and indexed in rows, like the photographs, and an inch grid on transparent paper, marked A-G, 1-8, enables reference to any small part of each photograph to be made.

The search for Roman roads produced what seemed to be a section at Downhead incredibly well preserved. More detailed investigation showed that this was the track of a tramway along which the andesite was hauled *via* Waterlip to the railway at Cranmore for use on Macadamised roads. It fell into disuse when Tarmac was invented and the new quarries, now the problem of bonding has been solved, are some distance away.

Alongside this track in a field called "Big Dinies", ST677458, the photographs brought to light a small, oval camp with bank and ditch. An exploratory trench cut radially where the bank is highest (in the summer of 1961) showed a silted V-shaped ditch 7 ft. deep cutting into the bed-rock. An earlier U-shaped ditch had also silted to a depth of $3\frac{1}{2}$ ft. before the embankment was piled on top. The newer ditch had some large stones, perhaps from the top of the embankment, tumbled into it about half-way down. Through all the silt in both ditches charcoal fragments were scattered, some of which were identified microscopically as alder which still grows nearby. The camp is on the junction of the Old Red Sandstone (the gritstone, as used for querns) and andesite, and the soil has a great variety of colours, mostly reds and yellows, which are not due to human occupation. Several typical Mendip flint tools were found at a shallow depth in a trial hole near the centre of the camp, but no pottery or other signs of occupation.

The site, on the slope of a hill, is a poor one for defence, and the fires producing charcoal over such a long period may provide the clue to its use. There is a good view eastward across the old Selwood Forest to Battlesbury hill on the edge of the chalk, and until modern times beacons were the quickest means of communication. A line on the map from the Beacon above Shepton Mallet to the top of Battlesbury is the long axis of the camp and also cuts Cop Heap at Warminster. A pair of beacons would mark the signal, either way, from any chance fire — the system of paired lights is still used in navigation, e.g. the lighthouses at Burnham-on-Sea. More work is needed at this site for further evidence as to date and use.

Successive stages in land-settlement are clearly revealed by the photographs in the field-patterns around Frome. The unusual concentration of manors in the area, as recorded in Domesday Book, has obliterated anything earlier, but the strip-fields themselves, which may even be traced in all but the oldest parts of the town, have been preserved because of their early enclosure. Ploughing was always downhill and the pattern of strips with the steep bank to the right, several together bounded by a hedge, is typical of the more easily worked soils of the area. The Oxford clay and Fullers' earth were left till later. Here and there they show a pattern of irregular, small, squarish fields. A vill was mentioned at Marston in 1155; in the eastern corner of the present Marston estate these old fields are particularly clear, with garden-plots lining the village street, now a shallow hollow-way leading from Tytherington to Marston moat.

After the disafforestation of the ancient forest of Selwood, which covered most of the Oxford clay, the first circular clearings were enclosed and these still stand revealed in the photographs like islands, among the fields of Parliamentary enclosure, first squared out on paper. Some of them are even now in different ownership from the surrounding land. Rodden manor alone shows the Parliamentary enclosure rather than the strip-field pattern. Much of the land was water-meadows and the late enclosure may have been due to the continued necessity of working the meadows communally. The canals in these early water-meadows run fairly closely spaced and more or less parallel to the stream. The later type, found at their best downstream from Frome, have the feeder canal parallel too, and at some distance from the river, with a series of corrugations at right angles connecting the two.

Some historical accident must have led to the development of Frome itself at its present site rather than at Spring Gardens a mile downstream where the three routes, those from the Mendips to the chalk, from the south to Bath and from the coal at Nettlebridge to the ironstone at Westbury, converge at the fords.

These findings, though only provisional, are sufficiently encouraging for the Society to feel that the expenditure on the aerial photographs was fully justified. It is very pleasing also to note that the interest shown in the brief interim report at the meeting of the Branch Societies at Wells in October 1961, has led to the purchase by the Yeovil Society of a similar set of aerial photographs of their own district.