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TF2419: BORROW PIT, SPALDING,

LINCOLNSHIRE

AERIAL PHOTOGRAPHIC ASSESSMENT

MAY 1993

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COMMISSIONED BY

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Aerial Photographic Assessment

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INTRODUCTION

A cover search was made for photographs in the library of the Cambridge University Collection of Aerial Photographs (CUCAP) and all interpretation was carried out on prints from that collection. The short time available for this assessment meant that no photographs held in the National Library of Aerial Photographs were examined, although a cover search in my possession (dated February 1991) showed there to be four oblique photo-sets covering targets in TF2419. These may record relevant information. Vertical photographs from CUCAP, taken on two different dates, provided further cover of the area and were useful for interpretation of natural features. A list of photographs examined is appended.

PHOTO INTERPRETATION AND MAPPING

Oblique photographs were all targeted on the ditched enclosure at TF24281927 and covered only the southern part of the borrow pit area. The clearest record of archaeological features was on the photographs taken in June 1959 that also contained sufficient map control information to allow interpretations to be computer rectified. Confirmation of the major archaeological features comes from photographs taken in 1958 while the single frame taken in 1970 is a higher level panoramic view on which no significant archaeological evidence was recorded. Vertical photographs recorded traces of some major archaeological ditched features and also enabled interpretation of some of the natural features (roddons and soil changes) in the area although the evidence recorded on different dates tended to conflict rather than complement.

All photographs, verticals and obliques, were examined stereoscopically using 1.5 times magnification, this is usual practice for verticals but requires almost simultaneous exposure of two or more frames to succeed with oblique views – in 1958 and 1959 this had been done. Interpretative overlays were made of three prints: the principal archaeological features from a 1959 oblique and soil information from each vertical sortie.

Computer rectification was applied using AERIAL 4.2 software. For the archaeological interpretation the mean error values for control point matching were listed as below $\pm 1.0\text{m}$ while those for the soil information were below $\pm 3.0\text{m}$. This latter figure was considered of adequate accuracy to map diffuse features at 1:2500. Plotted output was combined to prepare a 1:2500 plan showing archaeological, recent and natural features (reduced as the figure in this report). The backgrounds of some oblique photographs showed archaeological ditches that, due to lack of map control information, were sketched on to the final 1:2500 plan. These have been shown using a thin line and errors in their location must be expected and taken into account if any small trenches are planned.

COMMENT

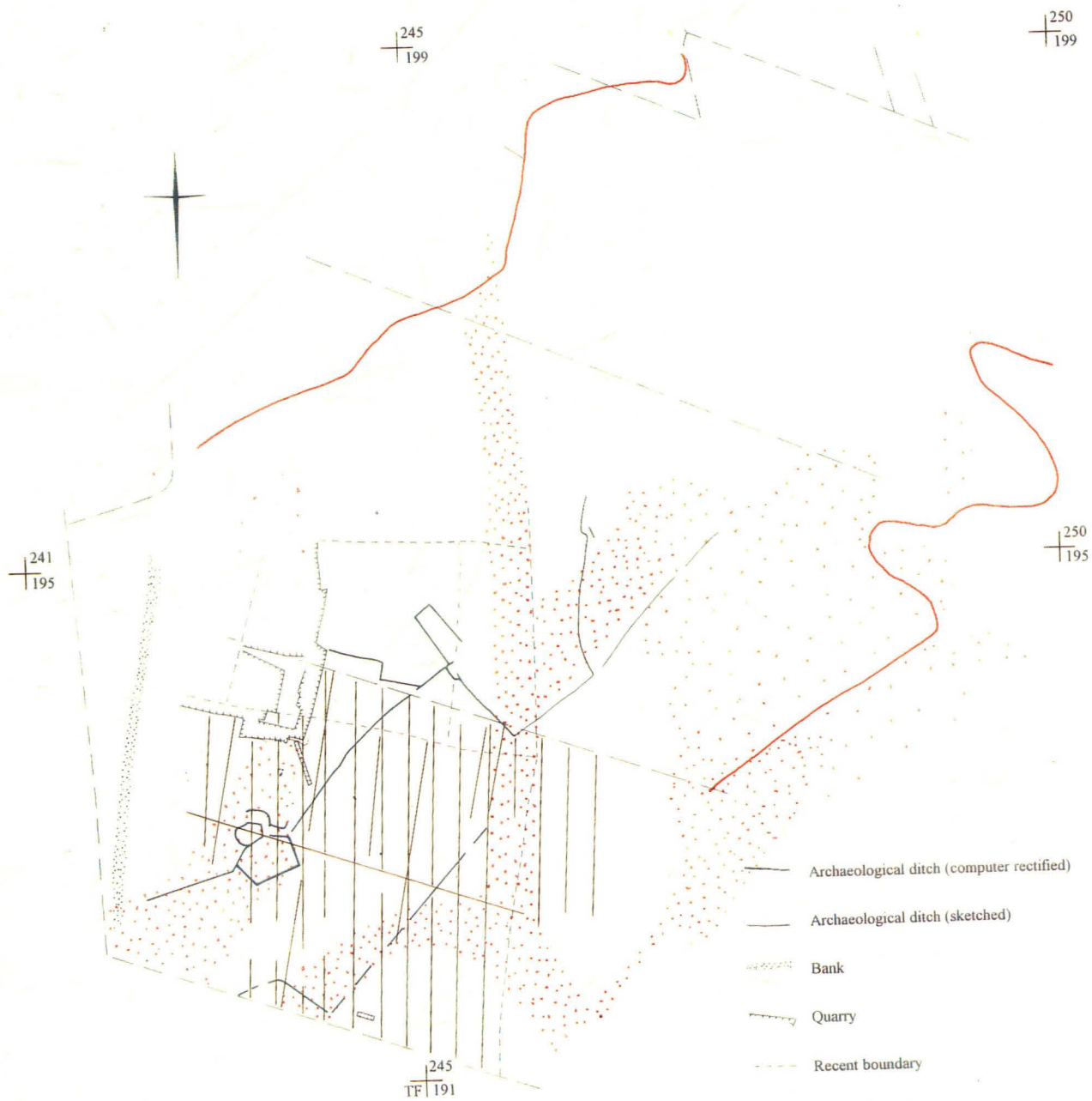
The 1:2500 plan includes all archaeological features interpreted from the examined oblique photographs. All showed as distinct and clearly recorded crop marks and there were no 'probable' or 'possible' archaeological features identified. The target-focused photographs do not cover the complete area of the borrow pit and ditched features must also be expected to the north and north east of their mapped extent as they can be traced to the edges of prints and undoubtedly continue beyond. The relevant map in *The Fenland in Roman Times* (Map 6) also shows one additional ditch that was not identified during this assessment. Basic source photographs for *FRT* interpretation were the post-war 1:10000 verticals, now held by NLAP. These were not examined for this assessment and the differences in mapped detail is therefore expected and acceptable. The oblique photographs show a smear covering part of the *FRT* feature but which, on the present evidence, I would not class as an archaeological ditch.

The planned archaeological features follow a general SW to NE alignment which, on the basis of the *FRT* maps and the vertical photographs presently available, is common to this area of the Lincolnshire Fens (despite the fact that Fenland alignments are usually dictated by the natural roddon pattern). This alignment comprises droves and field divisions among, and attached to which, the settlement areas were placed. For a Fenland enclosure, that at TF24281927 is unusual in that it is of distinct and simple form as opposed to being the more common cluster of small conjoined enclosures. Its construction is integral with a straight linear ditch which forms its extended west side and is sharply angled to run from the enclosure towards Barrier Bank. Ditches of the enclosure are straight with sharply angled corners and of broad but even width – all uncharacteristic for the Fenland. The distinct gap between two of its northern sides appears to be flanked by a hornwork which itself continues to form an enclosure of rounded form (although its sides are a combination of short angled lengths and arcs). The entrance hornwork is perhaps echoed by the ?-shaped ditch to its north – another rare, to my knowledge unique, occurrence in the Fenland. From the north-east corner of the enclosure (although not linked to it) a linear ditch, slightly sinuous, can be traced to the north-east. After some 170m it appears to form a T-junction with ditches which tend to form a large, but incompletely enclosed, unit of land. The T-junction is masked to some extent by the proximity of a later (recent) ditched field boundary.

The feature mapped as a bank is likely to be the remains of a 'recent' track and of little archaeological significance.

The area lies on the silt fen and the vertical photographs (1982) show traces of an underlying system of watercourses surviving as silted roddons. In iron age and Roman times these would have provided high ground in the Fens and, as is usual, the enclosure was located on one of these roddons. Verticals taken in 1975 show little evidence of the roddon system but suggest there to be soil differences which are shown on the 1:2500 plan. What these differences are cannot be deduced from the photographs alone: the area between the mapped lines shows slightly darker than the adjacent land and may represent a minor difference in the depth of soil cover or the presence of a slightly different formation below the topsoil.

Field drains are extensive and are likely to be encountered during soil removal. An area of hand-dug quarries shows clearly on some obliques and has been mapped to show a small zone of negative, or disturbed, evidence.



100 0 100
Metres

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Modern boundary information on this plan provides only an indication of present land division. It should not be used as a basis from which to measure the location of archaeological features. Optimum accuracy of location will result from registration of this overlay, via NGR cuts, with Ordnance Survey 1:2500 plans.

APPENDIX

AERIAL PHOTOGRAPHS EXAMINED

Source: Cambridge University Collection of Aerial Photographs

Obliques:

| | |
|----------|--------------|
| WN 70-71 | 16 June 1958 |
| YF 1-3 | 11 June 1959 |
| BBJ 7 | 12 May 1970 |

Verticals:

| | | |
|----------------|---------|------------------|
| RC8-AT 80-82 | 1:13000 | 17 March 1975 |
| RC8-AT 120-122 | 1:13000 | 17 March 1975 |
| RC8-EW 57-58 | 1:8500 | 24 November 1982 |

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That it is understood that photo interpretation for this assessment has been made only from prints held in the Cambridge University Collection of Aerial Photographs. It is known that other oblique photographs, taken during archaeological reconnaissance, are held in the National Library of Aerial Photographs (RCHME) which may record significant information. Air Photo Services cannot guarantee that further aerial photographs of archaeological significance do not exist in collections unknown or inaccessible to it.

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