5 Geophysics and trial trenches

by Gordon Ewart with GeoQuest Associates

Six trenches were excavated in the field lying to the east of the abbey ruins following the completion of a resistivity survey by GeoQuest Associates (illus 32). The identification of only a small area of anomalies, which could not be accounted for by visible rig and furrow, led to the positioning of four of the trenches on topographical features. During this period of trial excavation, a contour survey of the area was carried out and a brief survey made of a bridge over the Abbey Burn, a short distance to the north-east of the area under investigation.

5.1 Results

Trenches 1 & 2 These were located primarily in order to locate the line of the abbey great drain on its route from the latrine to the Abbey Burn. The results can be summarised as reflecting extensive post-medieval agriculture, in terms of a policy of 'top-dressing' with introduced soils, mixed with stones and pot sherds, to facilitate drainage within the top 300 mm of the soil profile. These deposits in turn were farmed into broad rig & furrow for strip cultivation. Significantly no trace was found of the abbey drain, although this may be due to the masking effects of post-medieval agriculture over truncated medieval features.

Trench 3 This was located across an east/west bank on the west side of the burn, thought to indicate the position of a boundary feature. A similar soil profile to that seen in trenches 1 and 2 was noted, but the possibility of deeper archaeological horizons associated with the abbey was suggested by a shallow, linear slot. The

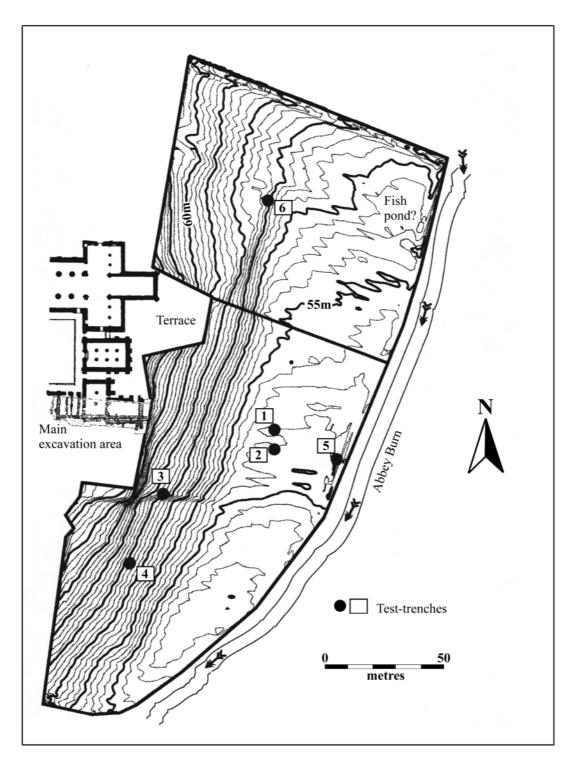
bank, however, proved to be a soil accumulation arising from post-medieval ploughing activity.

Trenches 4 & 5 Both of these trenches showed how residual features had been truncated then sealed by attempts to improve field drainage. A shallow ditch was found in trench 4, probably a structural feature, while a modern drystone revetting wall was identified in trench 5.

Trench 6 This was placed on the east facing slope to the north-east of the abbey church. A high resistivity anomaly formed a right-angle which corresponded to visible features, possibly indicating a building platform. The excavation confirmed the presence of a building platform, the massive scale of which, and its layered construction, with dumped, redeposited clays over a rammed clay surface, suggested that it was of monastic origin.

5.2 Conclusions

With the exception of trenches 1 and 2, all excavated areas produced evidence of *in situ* archaeological deposits over a wide area. It appears from trenches 4–6 that the whole of the east-facing slope is artificially modified for arable purposes, but that most of this landscaping occurred after the abbey was abandoned. In general, the potential medieval features found in trenches 5 & 6 reflected attempts to create dry and stable building platforms, most likely for timber buildings, and probably associated with the earliest monastic colonisation of the site.



Illus 32 Contour survey and test-trenches east of the abbey