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GLOUCESTERSHIRE ARCHAEOLOGY
CHARITY NO. 252290R

Title **GEOPHYSICAL SURVEY AT MEDIEVAL RINGWORK**

Date of Survey 6 May 2015

Reference GA/Res/001/15

EH Reference SL 101177

Location Newnham on Severn

Monument Nbr 1411491

NGR SO 689 115

Surveyors M Milward, A Newcombe, Volunteers

Landowner Newnham on Severn Parish Council

M W MILWARD
Gloucestershire Archaeology

ABSTRACT

The survey was carried out at the request of the local history group in order to investigate the possibility that there might be sub-surface features in the interior of this archaeological monument which could elucidate the origin or function of the monument. Some features were identified by the survey, tentatively interpreted as possibly a building and possibly trenches from an earlier (19th century) excavation.

INTRODUCTION

Background and Rationale

In 2014, The Newnham History Group (NHG) approached Gloucestershire Archaeology (GlosArch) with a request for a geophysical survey at the earthwork known as the Castle at the South end of the village. Although the site had been scheduled in 2012, the NHG had very little detail other than the physical appearance of the sub-circular rampart, and wished to know if geophysics could provide some clue as to what lay beneath the surface of the interior. GlosArch was able to offer a resistivity survey.

At the time of the survey, the land was maintained as parkland with mown grass. The ground was dry, the weather was gales and frequent squally showers.

Site History

The Gloucestershire County Council Heritage Environment Record (HER) states that there was an excavation of the ringwork in the 19th century, but that this was never published and the results are unknown. The excavation is said to have caused the owners of the adjacent 18th century house to rename it "Castle House", implying that some evidence to suggest that the site was a castle may have been found.

The area immediately to the North of the ringwork was the site of a Civil War fieldwork constructed by the Royalist side, and this may survive as a long earthwork possibly reflecting the line of an earlier town wall. Both features were in the possession of the local council by the mid 18th century and became a single open public space, which remains today.

Geology

The solid geology at the site is a part of the Triassic Mercia Mudstone Group, specifically the Arden Sandstone Member, an outcrop of which forms a bluff which falls away steeply to the South and West of the site. The ringwork sits on top of the bluff with a commanding view South over the Severn estuary as it widens towards Lydney and Bristol as well as East across the river.

Location

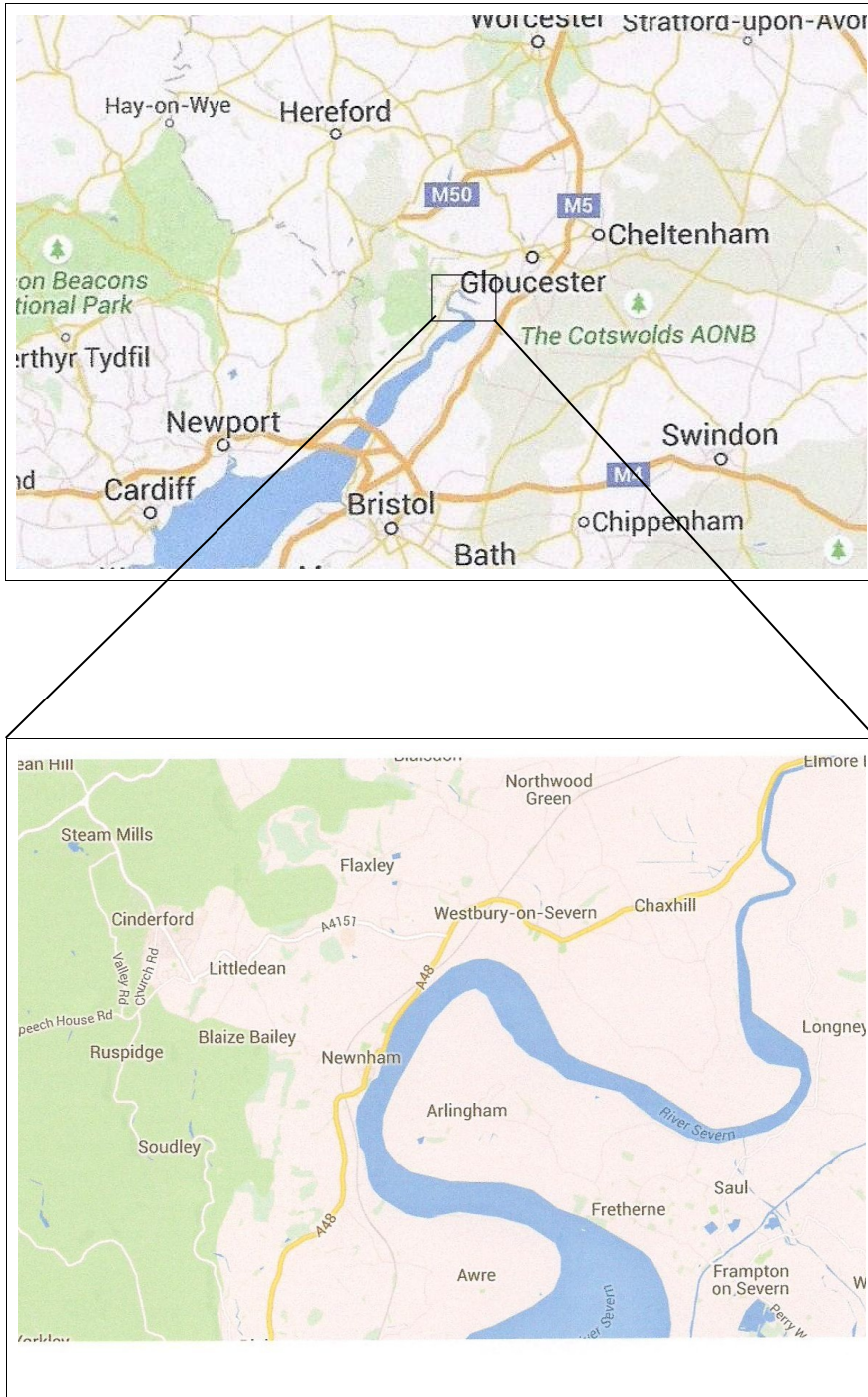
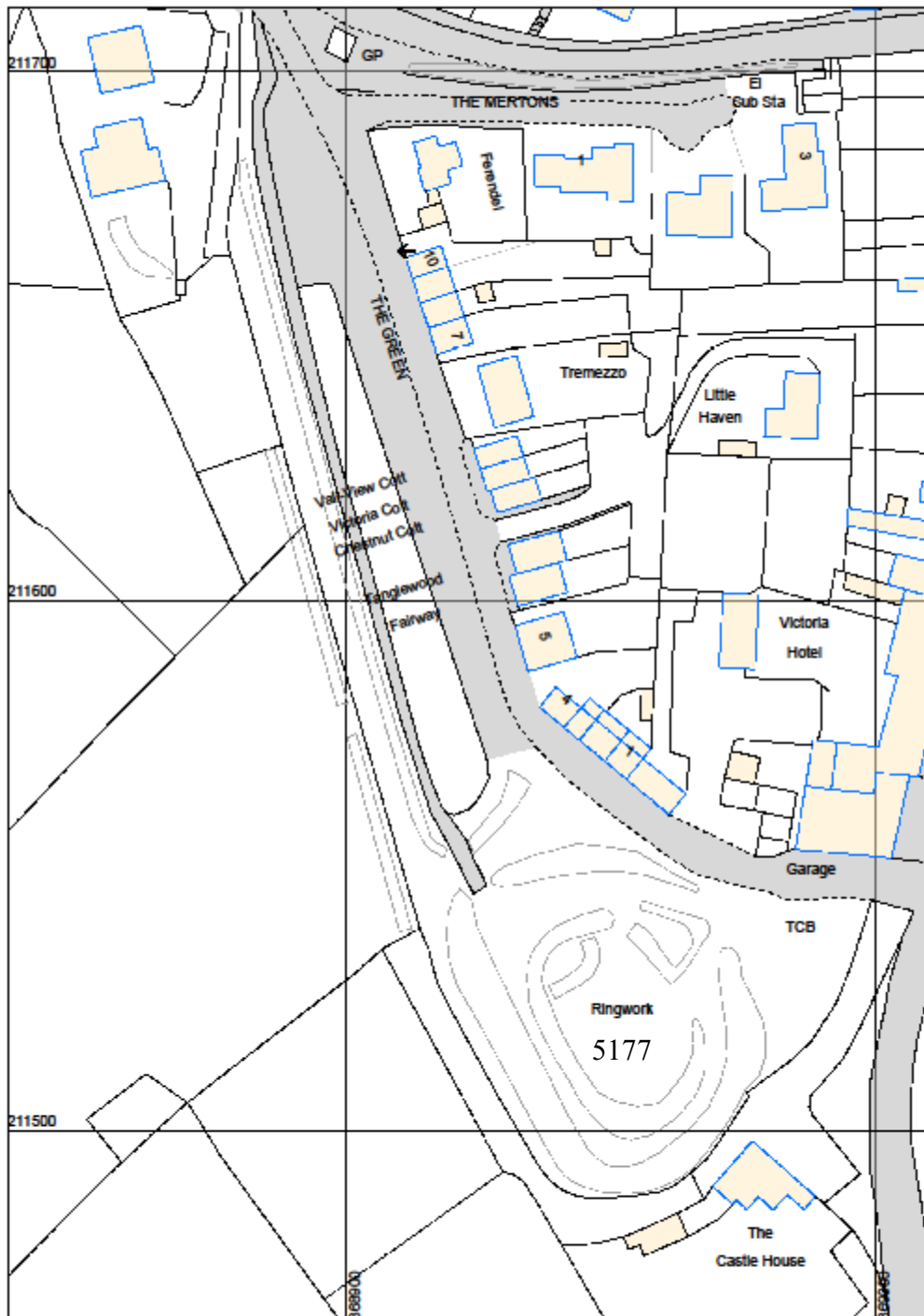


Figure 1

Site is Feature 5177 on map below reproduced by kind permission of the Gloucestershire County Council HER team.



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Newnham

1:1,000

0 50m

Figure 2

Site Description

Newnham-on-Severn lies on a gentle North-facing slope on the West bank of the River Severn. The site is at the top of that slope at the South end of the village where the ground then drops away steeply to the South. The site has extensive views to the South and East along and across the Severn estuary. The Forest of Dean rises to the West. From at least the Roman period, the river, which is tidal at this point, could be forded at Newnham, which from the medieval period developed into a significant river port.

The site consists of a sub-circular bank up to 2.5m high which encloses a level interior approximately 35m by 20m. Outside the bank there is a ditch to the South and North-West; to the West the land slopes away steeply from the top of the bank, while to the East the bank may have been pushed into the ditch at some stage to provide an entrance to the interior.

METHODOLOGY

The survey was carried out using a TR/CIA Resistance Meter, made by TR Systems Ltd, with a Twin Probe electrode configuration having an electrode separation of 0.5m. Three 20m x 20m and one 20m x 10m grid squares were laid out and surveyed with a traverse separation of 1m and a reading interval of 1m. GPS was used to provide a NGR for the baseline.

RESULTS

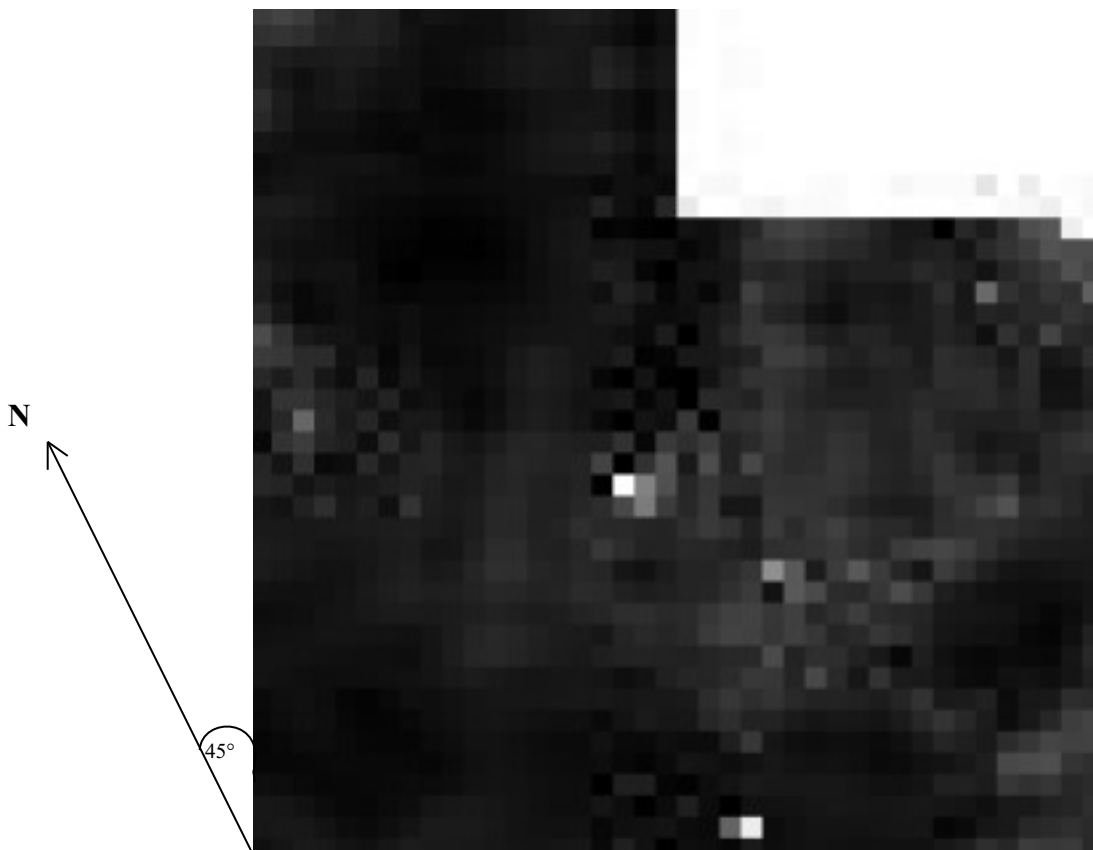


Figure 3. Plot of raw data

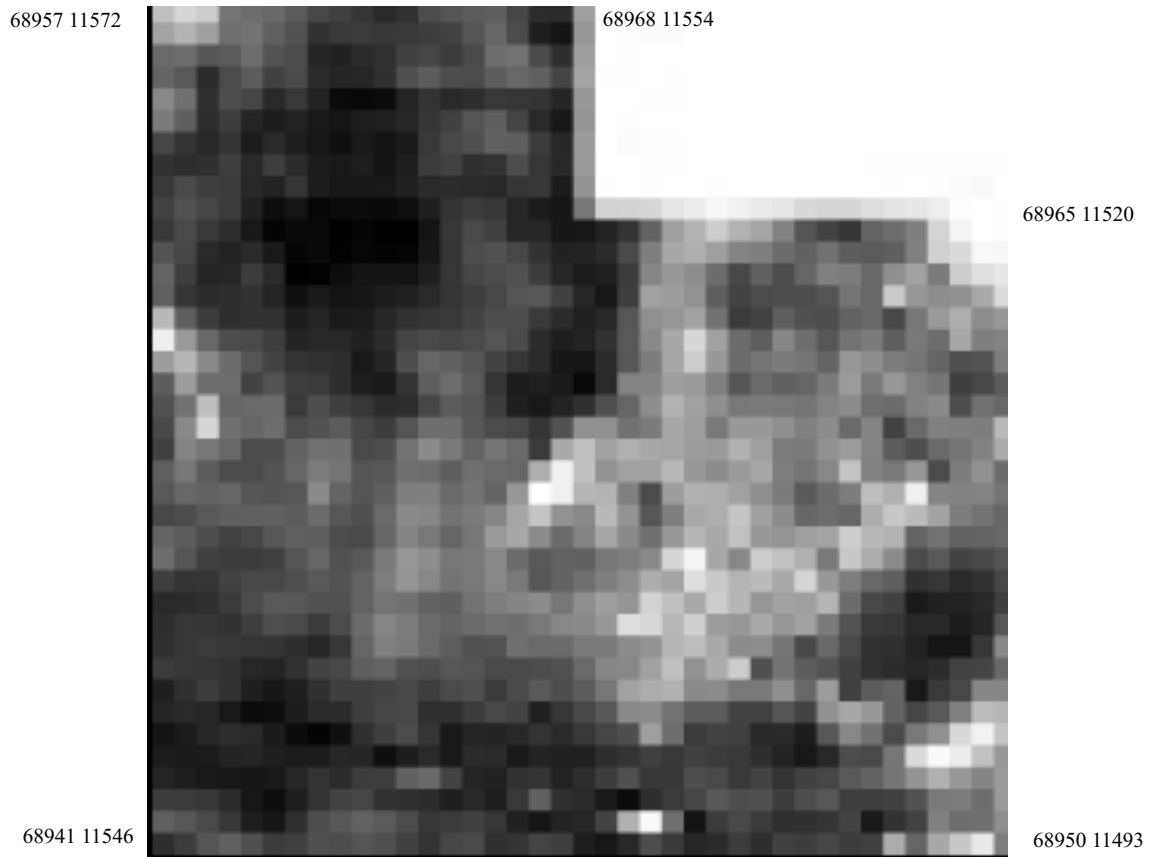


Figure 4. Image of processed data

The four individual grids were merged and the raw data was enhanced using the TRCIA software supplied (Resistance Meter Interface V1.32a). NGR values derived from GPS.



Figure 5. LIDAR image of ringwork (LIDAR used because overhead photography obscured by overhanging trees)

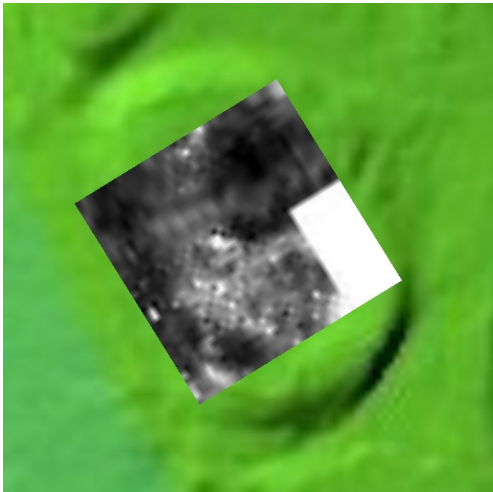
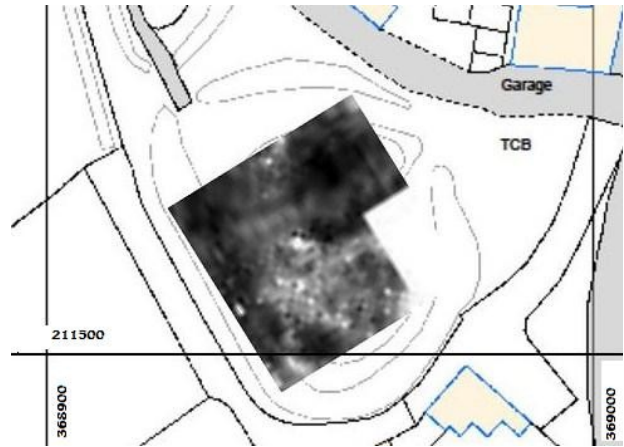


Figure 6. Resistivity plot laid on Lidar image



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7. Resistivity plot laid on 1:1000 map

Interpretation

On the enhanced combined plot, the curving shape of the bank at the Southern end can be seen, also the straighter edge on the West side. The white square at the centre of the plot represents the large redwood tree planted there in the 19th century. The other features detected by the resistivity are the high resistance (pale) rectangular area aligned South–East to North–West in the Southern part of the plot which may be consistent with masonry, possibly a building, and the low resistance (dark) rectangles, one towards the North corner of the plot and the other extending North–Eastwards from the tree in the centre. These could indicate the locations of trenches dug in the reported 19th century excavation. The small low resistance square to the East–South–East marks the position of a shallow depression on the surface which has been locally suggested to be a well (see Figure 8).

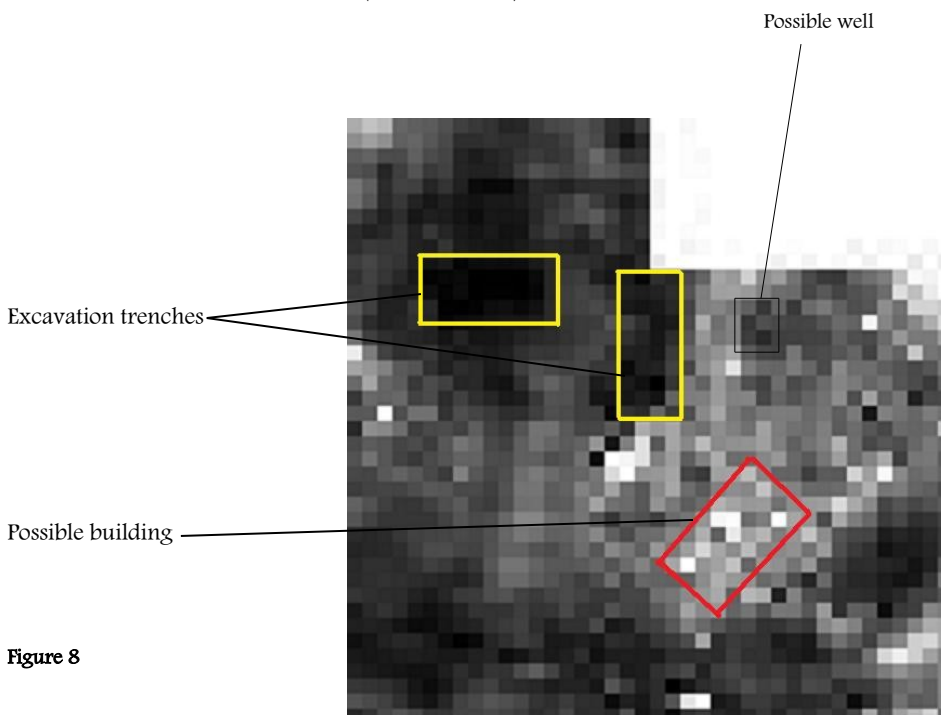


Figure 8

Discussion

Ringworks are described in Historic England documentation as medieval fortifications built and occupied from the late Anglo-Saxon period to the later 12th century. They comprised a small defended area containing buildings which was surrounded or partly surrounded by a substantial ditch and a bank surmounted by a timber palisade or, rarely, a stone wall. They acted as strongholds for military operations and in some cases as defended aristocratic or manorial settlements.¹

At Newnham-on-Severn, 12th and 13th century documents refer to a ditch and a chapel associated with the "old castle", and the first castle built by the Normans beyond the Severn was alleged to have been at Newnham-on-Severn. Several royal visits are recorded from William II through to Edward III in 1329, with Henry II opting for Newnham as the place to muster troops for an invasion of Ireland.² It is reasonable to suppose, therefore, that the surviving ringwork represents the remains of an early medieval castle, possibly with royal connections.

It is possible that conducting a fresh resistivity survey with a reading interval of 0.5m or even 0.25m would provide a clearer picture of the features interpreted as possible building or historic excavation trench, otherwise digging test pits guided by the survey offers the best hope of finding evidence to identify the origin and function of the ringwork. The NHG will be consulted to see how they wish to proceed; in any case, GlosArch will return to the site to conduct a physical survey during the winter of 2015/16.

1 Standard wording in Reasons for Designation as Ringwork used the National Heritage List for England

2 A History of the County of Gloucester: Volume 10, Westbury and Whitstone Hundreds. Originally published by Victoria County History, London, 1972. Accessed via the British History Online website: <http://www.british-history.ac.uk/vch/glos/vol10/pp29-36>