



Chichester and District Archaeology Society
Graffham Common Topographical Survey



Second Phase – March 2013

Background

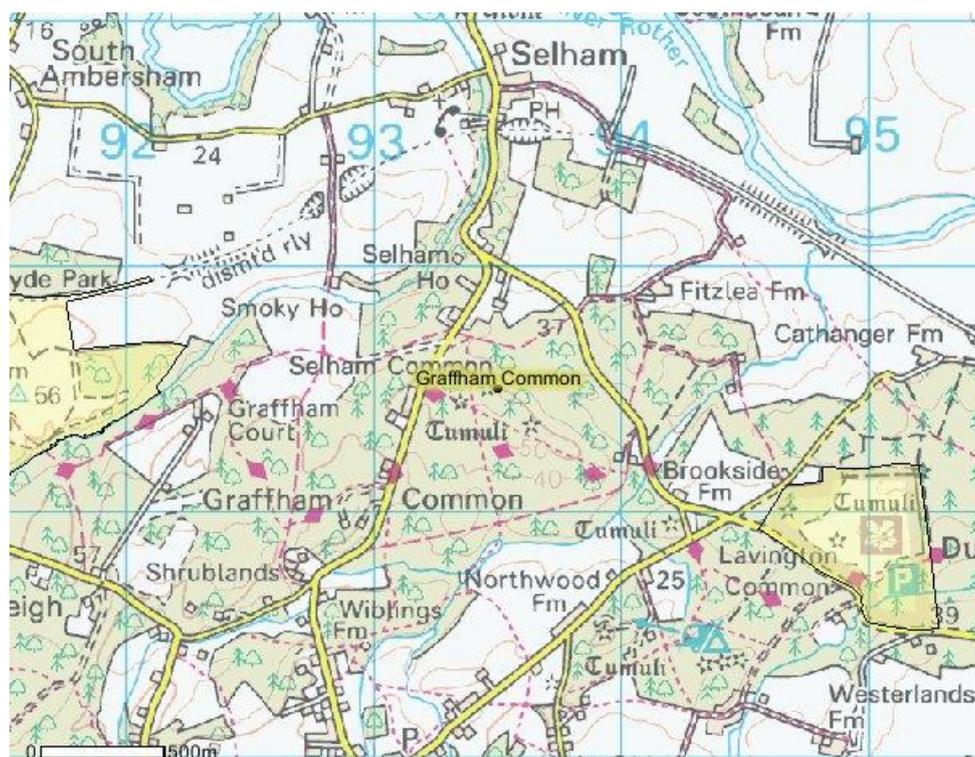
The Sussex Wildlife Trust (SWT) has recently purchased two parcels of land on Graffham Common, an area at the top of a ridge on the Sussex Downs. The land is mostly on the north-facing slope of the downs, and is bounded by an ancient boundary bank and ditch on its southern side. The parcel of land to the south is owned by David Ross and his wife.

The SWT's aim is to return their land to an upland heathland habitat, by encouraging the return of heathers, selective culling of the conifers, and removal of rhododendrons and ferns. This process has started, but is far from complete. The land is within the area of the South Downs National Park.

A number of tumuli have been identified along the ridge at the southern edge of this scheduled site. In addition there are a number of other pits and mounds which are thought to relate to various periods, including the occupation of this area by the Canadian Army prior to the D Day landings. Some of these features have never been recorded, and others have not been recorded accurately.

SWT asked the Chichester and District Archaeology Society (CDAS) to conduct a topographical survey of the features on their land, so that a permanent record is compiled as the woodland is cleared. David Ross has agreed that the survey should also cover the tumuli on his land.

Figure1. Ordnance Survey Map of Graffham Common



Scope of this Report

This is an interim report that covers the second phase of the survey during week commencing 25th March 2013.

Methodology

The team were briefed on the objectives of the survey and the potential hazards of the site.

The first surveying step was to establish a reproducible base line. The western end of the bank and ditch appeared to be broadly in a straight line, and so a base line was laid out alongside this feature. Semi-permanent pegs were used to mark the line at convenient points 30 to 50 metres apart. The bank and ditch were surveyed in relative to this line. This bank and ditch is the boundary between the SWT land and David Ross' land.

This second phase of the survey extended from the easterly end of the new conifer plantation. Because of the conifer plantation there is a gap between where the first phase survey finished, and the second phase survey started. It may be difficult to survey the bank and ditch through this plantation, although volunteers have begun to remove the undergrowth.

The profile of the bank and ditch were recorded at ten metre intervals.

The location and the distance apart of these semi-permanent markers will be established at some future date using accurate GPS equipment borrowed from Archaeology South East, Chichester District Council, or Southampton University.

The tumuli and pits were surveyed by;

- Recording their size.
- Plotting the profile in two dimensions – approximately east west and north south, determined by using a hand bearing compass.
- Each feature was surveyed in relative to the two of the semi-permanent pegs on the base line.

The survey data was recorded on site. The plan drawings were prepared on A3 sheets of Permatrace, partially on site and partially after the survey, initially in pencil from on a scale of 1:200. Subsequently, the drawings were traced in ink onto sheets of Permatrace, with marks showing where each drawing married up with the one next to it. The individual drawings were scanned in to a computer, and the whole drawing joined together using the Photoshop Elements 11 software.

There are additional features at the base of the ridge to the north – most notably a series of banks and ditches in the North West corner of the site. These will be surveyed as a second priority. These will be surveyed in a separate exercise, and the key points separately fixed using an accurate GPS.

Equipment

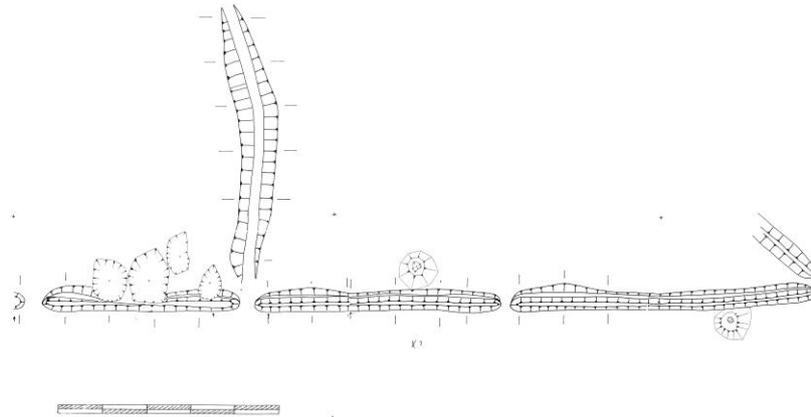
- Electronic Theodolite was used to layout the base line. This equipment was previously purchased by CDAS as the result of a generous grant from the Chichester Harbour Conservancy.
- Dumpy levels were used to survey the profiles of the bank and ditch, the tumuli and the pits. One was owned by CDAS, and an additional unit was hired for this survey.

- Distance measuring was done using tapes.

Participation Volunteer & Training

CDAS spent 3 days surveying at Graffham Common during this phase.

Figure 2. Bank and ditch, showing the four pits, two barrows and the sunken track way.



Survey Results

Bank and Ditch.

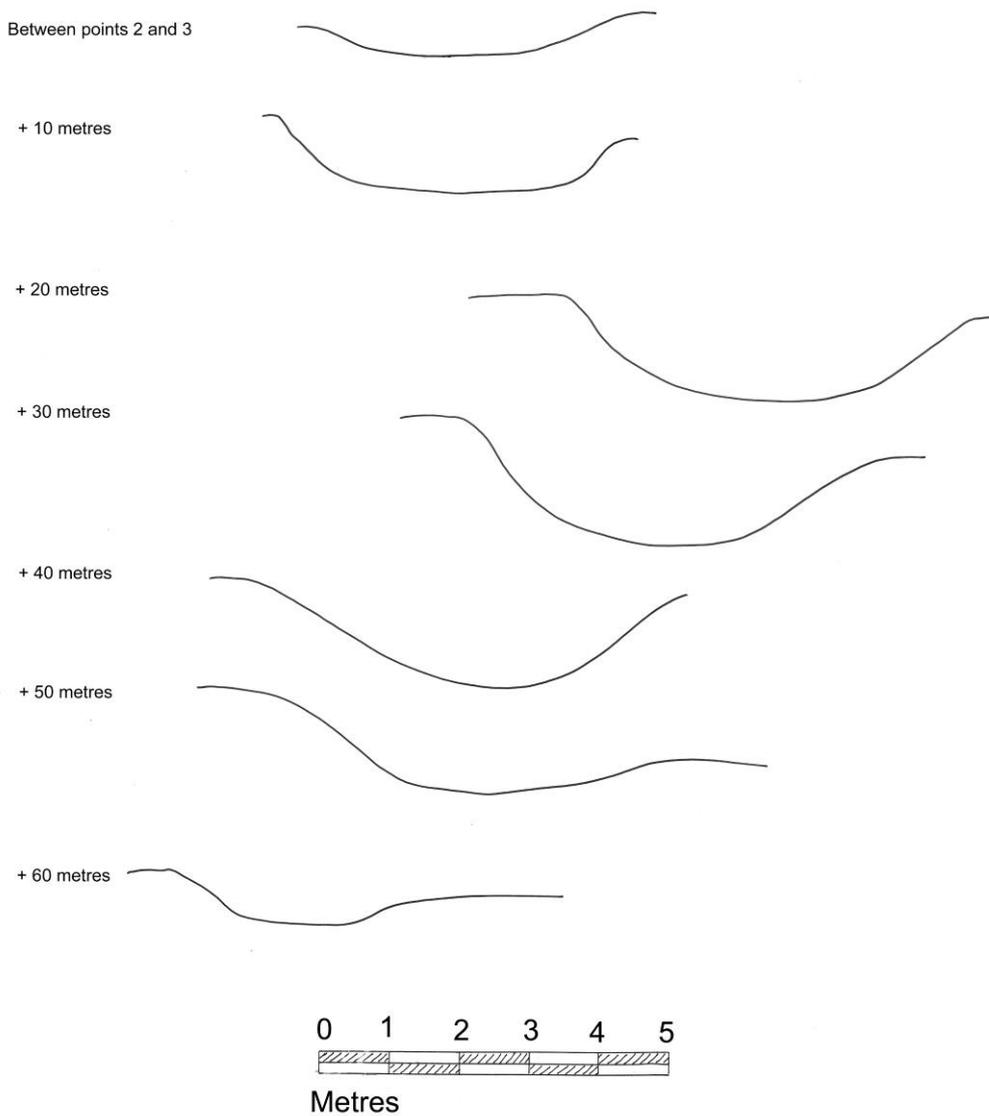
Figure 2 shows that the ditch continued to be carefully constructed. The ditch is to the north of the feature. It runs absolutely straight for considerable sections. For the most part the profile of the bank and ditch are clearly discernible. There are sections where the ditch has disappeared, but the bank remains. There reasons for this are unclear. This bank and ditch forms the boundary between two landholdings today, and there is every reason to believe that it was originally constructed for this purpose.

Profiles of the bank and ditch were taken at approximately 10 metre intervals. These show that in spite of the passage of time, the bank and ditch are well formed and a clear feature in the landscape.

A deep sunken track way joins from the north, cut into the slope of the hill to create a longer, smoother ascent. The profile of this track at 10 metre intervals is shown in figure 3. This track way could be old, but there appears to be no reference to it on old maps (although research is still in progress). Alternatively, it might be the result of military occupation – possibly constructed to service the guns that are thought to have been located in the pits as discussed later in this report.

Figure 3 Profiles of the track.

Graffham Common Survey 26/27th March 2013
Profile of track joining bank and ditch from the North East
Profiles taken every 10 metres



Barrows.

The two barrows were somewhat smaller than those surveyed in the first phase similar size – being only 10m in diameter rather than between 15m and 18m in diameter. The height was up to a metre. This looks fairly insignificant in the drawings when compared to their diameter. However, on site their height is sufficient to create a significant impact.

The two barrows surveyed show signs of an excavation at the highest point. The depressions so created have been included on the survey. Our assumption is that these excavations were probably done long ago. However there is the possibility that the Canadian Army dug them during training to provide vantage points.

Both barrows intersect with the bank and ditch. Barrow 6 in particular looks as though it has been truncated by the bank and ditch, implying that the bank and ditch post-date the barrows.

Pits

Three of the large pits surveyed are side by side, butting up to the bank and ditch facing to the south, down the slope. They are interpreted as berms for artillery guns dug by the Canadian army in the Second World War as a part of a training exercise. This is because they are more regularly rectangular, and have a wider entry point.

The fourth pit is in such close proximity, that it must have been dug as part of the same exercise. However, its function is less clear. It may have been a storage point for ready to use ammunition.

Next Steps

The survey team will return to the site and continue the survey in a south easterly direction. The third phase of this survey will be carried out during November 2013.

Arrangements need to be made to take accurate GPS location readings for key markers so that the drawings can be accurately and reproducibly positioned in maps of the area.

There is a possibility that a LIDAR survey carried out by the Environment Agency will include sufficiently accurate data for the GPS work not to be necessary. Although the data has been located and downloaded, it has not yet been possible to manipulate it to provide useful results.

Acknowledgements

We wish to thank the following for their active support and encouragement during this project:

Jane Wilmot - Sussex Wildlife Trust

David Ross - Landowner

Chichester Harbour Conservancy

James Kenny - Chichester District Council

Trevor Davies

CDAS Survey Team Leader

June 2013