



What you need to know

Archaeological Survey West (ASW) is a commercial and research contractor specialising in archaeological prospection and recording.

This document has been produced to provide our volunteers with essential information for anyone wishing to operate the survey apparatus or assist with establishing the survey.

Whilst magnetic surveys are one of the best methods for their speed and accuracy, they are the most sensitive to interference from surface objects and components within a users clothing. As a result, there are necessary restrictions applied to clothing that can be worn during a magnetic survey.

The following are examples of acceptable clothing options for magnetic survey operatives. Items in **bold** must be observed by all volunteers including those not operating the equipment.

Technical



The equipment

- + The equipment used by ASW for magnetic survey is a Bartington Grad601-2 Fluxgate Gradiometer.
- + This equipment is designed to detect minute changes in magnetic flux density, which is the strength of a magnetic field surrounding materials containing iron.
- + We use this to map the magnetic properties of the ground in order to identify anomalies.
- + These anomalies can be created by archaeological features containing greater or lesser magnetic properties than the surrounding soils.

Method

- + First we will need to establish a survey grid that can be tied into the national grid mapping system.
- + Grids can range between 10 by 10m to 40 by 40m. For this project we will be using 20 by 20m grids marked with a blue flag and established using a GPS capable of at least 10cm accuracy.
- + Using tapes, two sides of each grid will be flagged at intervals of 2 or 4m using bamboo markers with alternating colour flags; these will help to guide us when walking our survey lines.

Bring	Avoid
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| <ul style="list-style-type: none"> ✓ Metal-free safety boots
<i>or</i> ✓ Basic wellington boots with no strap attachments or mesh reinforced soles.
<i>or</i> ✓ Suitable walking boots with plastic eyelets and lace attachments. ✓ Simple clothing with no spring adjusters or magnetic components including under wire bras (<i>try testing with a magnet</i>). ✓ Simple metal free raincoat or emergency ponchos. | <ul style="list-style-type: none"> ✗ No electronics such as mobile phones to be present within 10m of an active survey grid. ✗ No clothing with spring adjusters. ✗ Do not wear watches. ✗ Do not wear steel based jewellery/piercings. ✗ No eye-glasses with steel hinges. ✗ Unfortunately you will be unable to operate the equipment if you have any steel based medical implants or tattoos containing ferrous pigments. |
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All volunteers will be magnetically tested by a supervisor prior to commencement. Personal electronics and keys can be left in a secure location or with a nominated person (at the volunteer's risk).

In the event of adverse weather conditions, we recommend that volunteers bring spare clothing, as well as spare waterproof clothing, to be made accessible on site.

Volunteers who are not ferrous free are welcome and will be able to assist us in establishing and collecting the survey grids.

Contact us

For any enquiries or to request more information, please contact our project co-ordinator: **Chris Matthews**

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visit us at

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