

### What is fieldwalking?

Archaeological fieldwalking (or Surface Artefact Collection as it is sometimes known) is the systematic recovery and recording of artefacts found on the surface of ploughed fields. Finds are recovered by walking across the field in an organised fashion, as shown in the accompanying photograph.

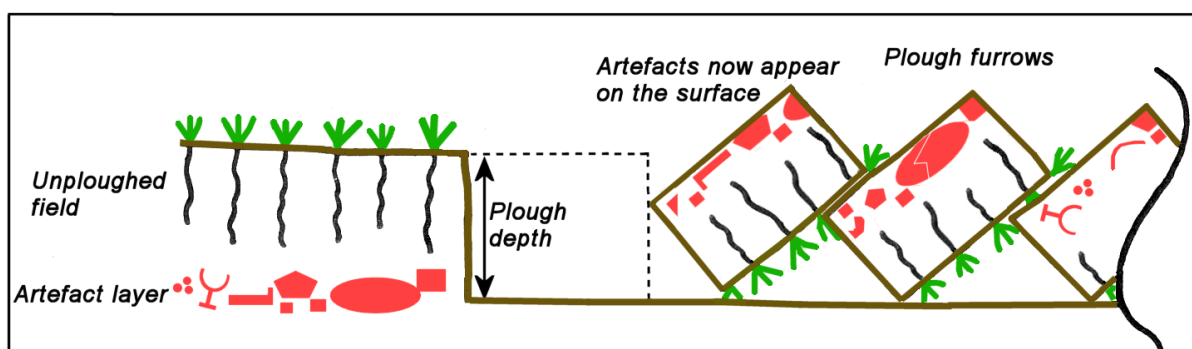
It provides a popular, non-invasive method for surveying landscapes in order to build up a picture of human activity in an area. There is no need for expensive and/or specialised equipment to carry it out, unlike geophysical or aerial survey. To be effective, fieldwalking must be carefully planned with a defined objective.



*Transect walking at Comberton, Cambs.*

### How do the artefacts appear on the surface

Fields are ploughed to invert the topsoil and bury weeds and crop remains. This presents a fresh surface and loosens and aerates the topsoil. Any artefacts buried in the lower layers of the soil may be picked up by the plough and turned over in the furrow so that they appear on the surface, as shown in the diagram below. Unless further deep ploughing occurs to release more artefacts, the finds on the surface are circulated around in the topsoil, sometimes disappearing, other times re-appearing.



*Mechanism by which artefacts appear on top of a ploughed field.*

### **When is it carried out?**

Most fieldwalking is carried out during the winter and early spring months (October – March) when arable fields have been ploughed, harrowed and allowed to weather for a period of time. Freshly ploughed fields are not suitable due to the rough surface

created by the furrows and clods of earth. These furrows cast dark shadows and make for poor visibility, especially in sunny conditions and with clay soils, as shown in the photograph here. Due to the low angle of the sun at this time of year, it is better to walk in uniform dull conditions rather than in bright sunlight. Thick frost



*Recently ploughed field in clay soil, Comberton*

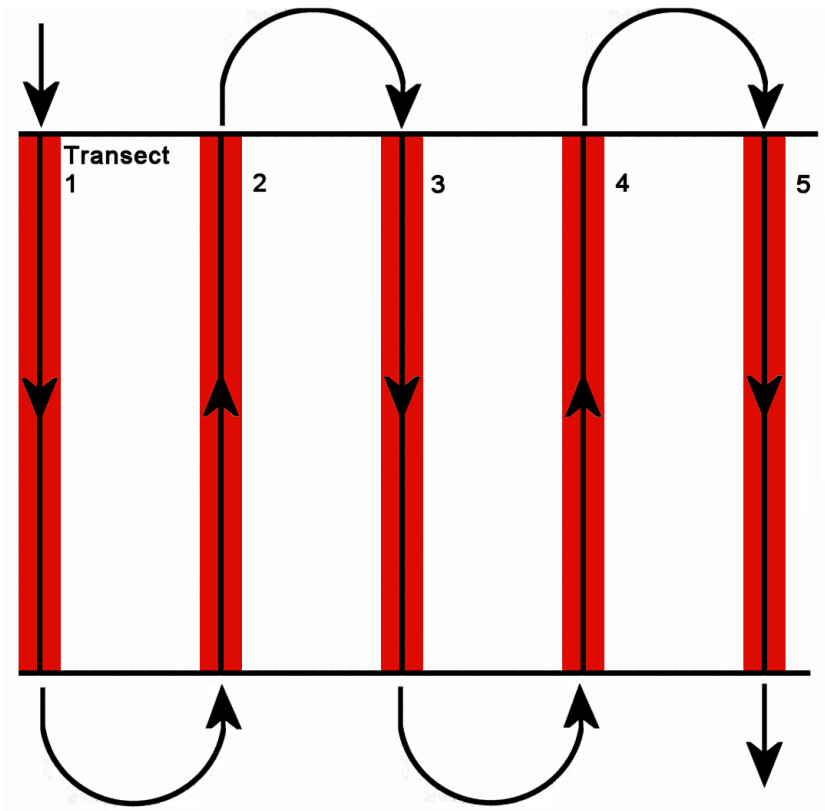
and snow also give rise to unsuitable fieldwalking conditions. An ideal time is when the crop has been planted and begun to sprout but increasingly the practice of drilling directly into the previous crop has shortened the available season.

### **How is it carried out?**

Planning and preparation for fieldwalking uses one of two methods – *Transect* (or Extensive) walking or *Grid* (or Intensive) walking.

(1) The transect method divides an area up into a series of parallel lines, usually we use 10 metre intervals between transects, as represented in the diagram below. We normally start from a field edge that is used as a baseline. These transects may be marked by ranging rods or bamboo canes but may also use the plough furrow or emerging crop lines as markers (see the photograph below). Each walker carries some plastic bags and a number of bamboo canes and is assigned a particular transect to walk. Walking along the transect, a band of approximately 1 metre either side of the transect (shown in red in the diagram) is scanned for

artefacts. This means that a 20% sample (2 metres of every 10 metres) of the area under investigation is taken.



*Transect walking pattern, showing the area that is normally viewed in red. The distance we use between each transect is normally 10m.*

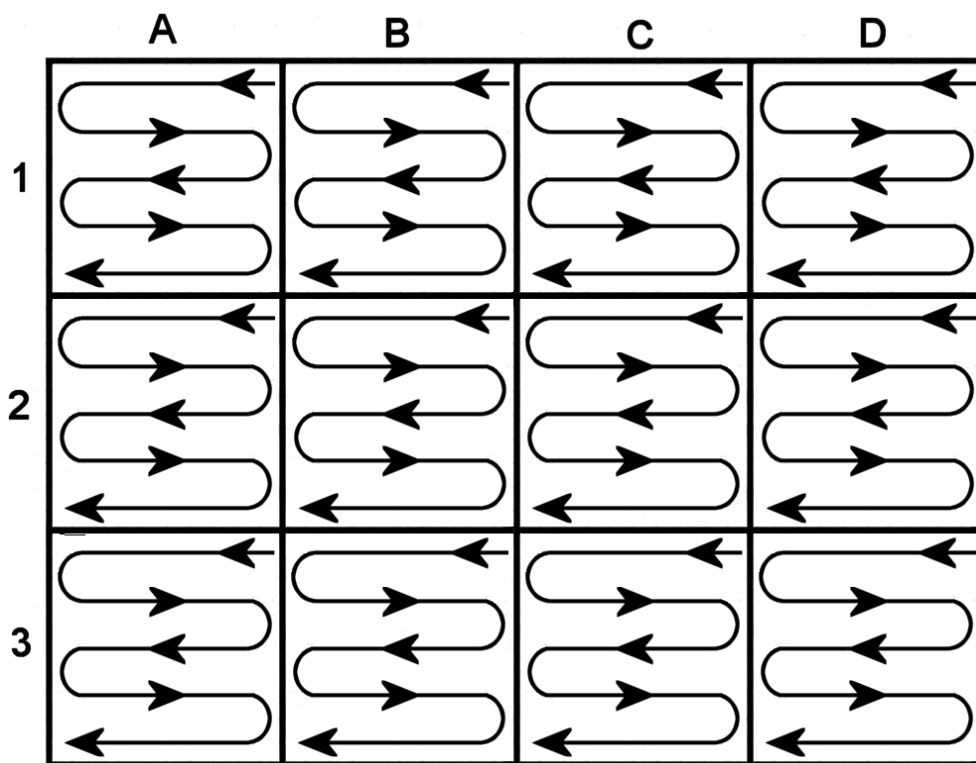


*Plough lines or emerging crop lines may be used as transects.*



As they are found they are placed in a plastic bag and marked by a cane, generally we use one bag per 10 metre stint along the transect. The walker then carries on with a new bag, collecting material in this manner until the complete transect has been covered. Finally the bags are collected from all the transects, with each bag having a label with a unique number placed in it and its position being recorded with a handheld GPS device. This method is used for general survey over a wide area, i.e. when trying to locate areas of human activity.

(2) The grid method divides the area up into squares with sides of 10 metre (generally), each corner being marked with a cane. Laying out this grid takes a significant amount of time, as it must be tied in to a surveyed baseline. Each square is given a unique code, for example B2 or D3 below, and is searched by a single walker for a set period of time, usually 15 – 20 minutes is set. Everything found in a particular square is placed in a bag placed in the centre of the search area, together with a coded label. The walker then moves to a fresh square and starts the procedure again. This method is used to investigate areas of known activity.



*The Grid method, showing the intensive cover of each grid square*

## **What is collected?**

Artefacts recovered from the plough soil are assumed to be representative of archaeology lying beneath the surface and can provide quantitative data useful in assessing the use and date of occupation of a particular site. Exactly what is collected must be agreed before the activity takes place and should be the subject of a research design document. In general, it is better to bag an artefact, which can be discarded later, rather than reject it in the field and regret it later. As a rule the following groups of material may be collected:

**Ceramics** – building materials (such as bricks, tiles and tesserae) and pottery of all types. Clay smoking pipe fragments are collected but we do not collect modern field drainpipes.

**Lithics** – flint (as worked tools, cores or debitage (waste)) and burnt flint.

**Building stone** – as worked/shaped/decorated pieces.

**Glass** – both bottle and window glass or as vessel glass.

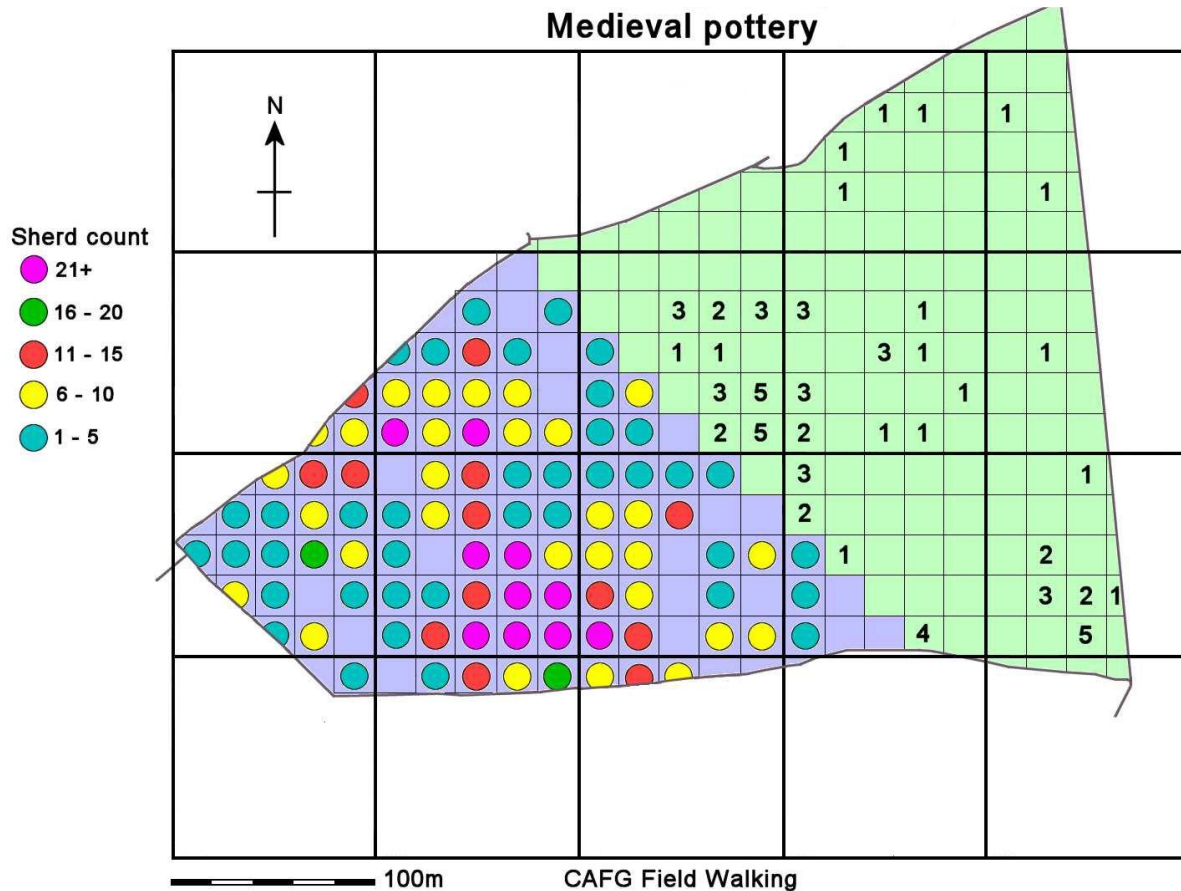
**Metals** – iron, lead or copper mostly but also slag from industrial activity.

**Bone and shell** –bone tools or worked material but we do not collect butchered animal bone currently. Shells out of their context (i.e. sea oysters, mussels etc found miles from the sea) are collected.

## **How is it processed and analysed?**

All the artefacts are carefully washed (with the exception of metal finds or material too fragile to keep handling) and items may be rejected at this stage. They are then air-dried naturally before being analysed and recorded. Artefacts are classified using the groups described above and period/date ranges are given where possible. The information is entered on a spreadsheet chart along with the numbers, or in some cases weights, of sherds of each type. This information can then be plotted on a map of the area walked, as shown below for medieval pottery recovered on the Wimpole Estate. The diagram shows the two most used formats: sherd count may be entered as a number (see the green background area) or by a spot whose colour or size represents that number or a range of numbers (see the grey background area). In this

case the main area of medieval occupation indicated by the pottery finds is concentrated in the southwest corner of the field.



*Diagram of the pottery distribution from fieldwalking on the Wimpole Estate.*

**Problems with the technique and its interpretation**

Although field walking has many advantages, there are a number of constraints that must be recognised.

(1) Field walking is generally unsuitable for use on permanent grass pasture and wooded areas, except where upstanding building remains may be noted. Rabbit scrapes or molehills may be a source of artefacts brought to the surface in these areas.

(2) There is no absolute correlation of sites recorded by fieldwalking with the underlying archaeology. For example many fields produce a thin overall scatter of Roman or later pottery that is the result of the practice of manuring, i.e. the spreading of animal manure or waste from middens over arable fields in antiquity. The pottery does not represent underlying traces of habitation but must be associated with a

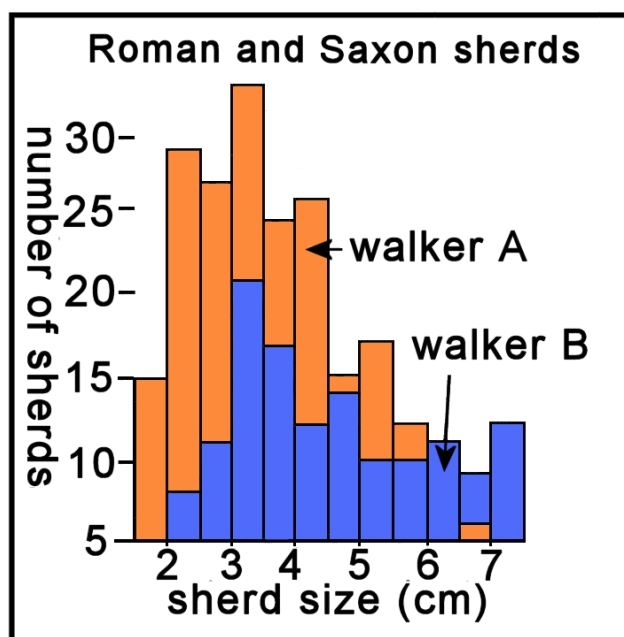
nearby source. Fields where no artefacts are recorded are not necessarily blank as it is possible that river sediments or hill wash have buried the archaeology deeper than the plough can reach. Another consideration is that prehistoric pottery was not hard fired during manufacture and, therefore, does not survive being frequently struck by the plough and may appear to be missing. In these situations excavation can go further down and so uncover hidden, and more likely to be intact, remains. The results shown below are from archaeology carried out at the multi-period site at Stansted airport (see Essex report by Medlycott, 2005). The conclusion in this case is that only about half of the actual sites are likely to be located by fieldwalking alone.

	Prehistoric	Roman	Saxon	Medieval
Predicted by field walking	5	3	4	7
Found by total excavation	13	7	0	13
% of total found by field walking	38%	43%	*?	54%

The Saxon results are anomalous because Saxons were more likely to have used wooden utensils so that surviving pottery remains are small in number, except in cemetery situations.

(3) Walker-induced bias. It is recognised that different people have different abilities to recognise surface artefacts. This is shown here for an exercise carried out in Northamptonshire (Foard, 1980) that demonstrates the difference in the number of finds recorded by two walkers covering the same area.

It is also a fact that orange or grey ware pottery is more visible to many people than black or dark brown ware pottery. Similarly, finding worked flint in a field of plough-struck flint is also very difficult.



## **References**

Medlycott, M.,

[www.planarch.org/downloads/library/archaeological\\_fieldwalking\\_in\\_essex.pdf](http://www.planarch.org/downloads/library/archaeological_fieldwalking_in_essex.pdf)

Foard, G. 1980, "The recovery of archaeological information by systematic fieldwalking" in *Fieldwalking as a method of Archaeological research*, DOE.

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