



Farming the historic landscape

Caring for archaeological
sites in grassland

This leaflet has been designed to help farmers, land managers and farm advisers identify archaeological sites that are under grassland and achieve best practice in their management.

WHAT ARE ARCHAEOLOGICAL SITES AND WHY ARE THEY IMPORTANT?

The countryside of today and tomorrow is also the countryside of yesterday, and its historic features are fundamental to its diversity, attractiveness and fascination. The landscape and the archaeological sites it contains are the only evidence we have for most of human history: a story in which every farmstead and estate in England has played its part.

The term archaeological site is extremely broad, covering anything from the find spot of a single object to the upstanding remains of internationally important monuments such as Stonehenge or Hadrian's Wall. These sites are fragile and can be damaged by any significant ground disturbance, because this displaces vulnerable features (such as ditches and walls) and finds (such as pottery and bone). Once lost, these sites are irreplaceable.

Grassland management has ensured that many archaeological sites have survived to the present day in far better condition than their counterparts in cultivated land. This is particularly true for areas of unimproved permanent grazing land, where some of the nation's best-preserved archaeological sites survive often as visible 'humps and bumps' or, as they are more properly termed, earthworks. Maintaining these sites in grassland is the best form of management, ensuring their long-term preservation and visibility.

Farmers can play a vital role in ensuring that these sites are passed down to future generations.

HOW CAN I FIND OUT WHAT ARCHAEOLOGICAL SITES ARE ON MY LAND?

The key to caring for archaeological sites is knowing where they are on your farm. This will allow you to plan farming tasks to manage them well and prevent damage occurring. All known sites are recorded on Historic Environment Records maintained by local authorities (see contact details on the back page).

Most archaeological sites, however, have yet to be discovered. Only close inspection of the land provides hints of what lies hidden, and you may be aware of sites on your land that are not listed in Historic Environment Records. Local Authority Archaeologists will always welcome information about new discoveries.

WHAT IS A SCHEDULED MONUMENT?

These are nationally important sites protected by law from damaging works. The locations of scheduled monuments can now be checked on the Multi-Agency Geographic Information for the Countryside website at www.magic.gov.uk.

Works on Scheduled Monuments need consent from the Department for Culture, Media and Sport. To carry out works without consent may constitute a criminal offence. If you are unsure whether there is a Scheduled Monument on your land, or what your legal obligations are, please contact your English Heritage Regional Office (see contact details on the back page).

HOW CAN DAMAGE OCCUR TO ARCHAEOLOGICAL SITES IN GRASSLAND?

Although grassland is a highly beneficial form of land management for archaeological sites, it is important to recognise that damage can still occur as a result of:

- Livestock poaching or erosion
- Careless use of farm vehicles
- Grassland improvement
- Land drainage works
- Scrub or bracken encroachment
- Burrowing animals
- New fencing, ponds or scrapes, and tree planting

Careful site management can avoid these problems. Grant-aid may be available from Defra, English Heritage or some local authorities to help you deliver improved management or tackle particular issues (see contact details on the back page).

A Some of the nation's best-preserved archaeological sites survive in grassland. At Tissington, Derbyshire, Civil War defences survive as earthworks surrounded by medieval ridge and furrow. Photograph English Heritage NMR 17422-32.

B Livestock erosion around a water trough has disfigured the rampart of this Roman fort in Cumbria. Moving the water trough will prevent further damage. Photograph Neil Rimmington.

C These deserted medieval village earthworks in Nottinghamshire are being damaged by stock erosion. Wherever possible, stocking levels should be adjusted to stop damage. Photograph English Heritage.



LIVESTOCK POACHING OR EROSION

All livestock are capable of damaging archaeological sites through poaching or creating erosion scars. This can cause significant disfigurement to the site and damage to the information it holds. Sometimes this happens just through over-stocking, but more commonly it is associated with livestock movement or gathering points, such as gateways, water troughs, feeders or shelterbelts. Stock erosion can also be a particular problem around monuments such as standing stones or ruinous structures. Erosion scars will often continue to develop if not repaired. Small scars can be stabilised by removing stock and allowing grass to regenerate. Larger scars will need careful repair with turves or soil. Always seek professional archaeological advice before carrying out repairs.

Options to consider:

- Re-site places where livestock gather (such as water troughs or gateways) in less sensitive areas
- Regularly move mobile feeders to minimise impact
- Plan new or adjust existing shelterbelts so that livestock do not gather on archaeological sites
- Exclude livestock temporarily from damaged areas to allow recovery of erosion scars
- Exclude livestock during wet conditions when the monument is more vulnerable
- Adjust stocking levels (particularly for larger livestock, such as cattle and horses, which cause greater disturbance to earthworks) or change stock to a lighter type to minimise the potential for damage
- Maintain stock-proof boundaries in good condition

USE OF FARM VEHICLES

Farm vehicles can cause significant disfigurement and damage to archaeological sites through the creation of wheel ruts. This is a particular problem on waterlogged soils. The ruts can then lead to further erosion, especially on a slope. The area of disturbance can also spread as new routes are sought across the site.

Options to consider:

- Use an alternative route away from the archaeological site
- At critical times of the year, use lighter vehicles or vehicles fitted with low ground pressure tyres
- Create a single permanent route; this may require major ground disturbance, so always take archaeological advice before carrying out work

GRASSLAND IMPROVEMENT

Archaeological sites in grassland are often important for their wildlife, particularly where they survive in unimproved pasture. These sites often contain rare plants and should be carefully managed to conserve both their archaeological and ecological interest.

Where there is no grassland of nature conservation interest on archaeological sites, the application of fertilisers is unlikely to damage the ancient remains. It may nevertheless be desirable to reduce the intensity of management in order to improve the species richness of the grass sward. If the grassland does need to be improved further, then methods such as direct drilling and seed slotting, which cause minimal disturbance, should be used.

Options to consider:

- Control weeds by topping or targeted use of selective herbicides
- If re-seeding is required, use minimal cultivation techniques

LAND DRAINAGE WORKS

Land drainage is an important element of grassland management as it assists in maintaining good grass yields. A well maintained land drainage system can be beneficial to archaeological preservation, helping to prevent surface waterlogging, poaching by livestock and the silting up of features such as ditches. However, the installation and maintenance of drainage systems can be damaging to archaeological sites.

This is particularly true of old tile drains as these may be buried at some depth within archaeological deposits and require excavation in order to effect repairs. Equally, new land drains may dry out previously waterlogged below-ground archaeological deposits, including important organic artefacts or environmental remains, all of which help to piece together a more complete picture of what the landscape looked like in the past.

Options to consider:

- Install access points outside the archaeological site to permit the land drains through the site to be maintained without the need for excavation
- If new land drains are being installed, ensure that these are away from the archaeological site

SCRUB OR BRACKEN ENCROACHMENT

Insufficient grazing can permit the development of scrub, bracken and weeds on a monument. Scrub causes significant damage to archaeological sites through root penetration, providing cover for burrowing animals and shelter for livestock. Bracken is also highly damaging to archaeological sites because it develops a dense layer of rhizomes below ground. It is therefore desirable to reduce the amount of scrub and bracken on an archaeological site to reduce this damage and maintain the visibility of earthworks. Scrub can have an ecological importance, and the impact of scrub clearance on any nature conservation interests should be considered before commencing work. Extensive clearance should be phased. Scrub should not be removed by mechanical means as this could damage the archaeology. Instead, stumps should be cut close to ground level and treated with herbicide to prevent re-growth. The cut material should be disposed of well away from the archaeological site.

Options to consider:

- Control scrub by cutting and treating with a herbicide to prevent re-growth
- Increase grazing where practical to help control scrub or bracken recovery

D Continually changing vehicle routes over an earthwork can cause significant problems. Improving a single route over this linear earthwork could prevent more extensive damage. Photograph Neil Rimmington.

E Rabbit burrows in a prehistoric burial mound on the Isle of Wight. Burrowing animals can cause serious damage to archaeological sites and should be controlled wherever possible. Photograph English Heritage.

F Unimproved grassland can have high archaeological and nature conservation value and should be managed to protect both. Grassland on these lead mining remains at Magpie Mine, Sheldon, Derbyshire, supports communities of rare Mountain Pansies. Photograph Peak District National Park.



BURROWING ANIMALS

Archaeological sites in grassland, which mostly survive as earthworks, are particularly attractive to burrowing animals because they contain well drained and easily tunnelled soils. Burrowing not only disturbs important archaeological remains but also leads to earthworks losing their form through collapse. Livestock can also turn burrow entrances into erosion scars.

Options to consider:

- Control burrowing animal populations
- Block up burrow entrances

Badgers are protected by the Badgers Act 1991 and the Protection of Badgers Act 1992, which make it a criminal offence to take, kill or interfere with a badger or its sett. If badgers are damaging archaeological sites, seek advice from Defra, English Heritage or your Local Authority Archaeologist.

NEW FENCING, PONDS OR SCRAPES, AND TREE PLANTING

Putting up fencing, digging ponds or scrapes, and tree planting are all likely to disturb underlying archaeology. Fence lines can also cause poaching, and tree roots will cause further disturbance as they grow.

Options to consider:

- Place fences away from archaeological sites wherever possible
- Do not site ponds or scrapes on archaeological sites
- Do not plant trees on archaeological sites without expert advice

G Archaeological sites in grassland are better preserved than their counterparts on arable land. This Iron Age dyke near Damerham, Hampshire, survives well in grassland but is levelled and reduced to a soil mark where it is being cultivated. Photograph English Heritage NMR 15766-35.



ARE THERE WARNING SIGNS?

Prevention is better than cure. Look for signs that the archaeological site is coming under stress from one of the causes of damage outlined above and take management action to alleviate the problem. Always obtain archaeological advice if management action will disturb the ground. The following are some of the things to look out for:

Livestock erosion	Look for bare soil or deteriorating grass cover
Farm vehicle	Look for evidence that wheel ruts are forming
Land drainage	Look for areas that are becoming waterlogged
Scrub	Look for scrub seedlings or bracken fronds
Burrowing animals	Look for evidence of activity on the site such as fresh scrapes and droppings or single burrows

HOW CAN I GET ADVICE ON CARING FOR HISTORIC SITES OR GRANT-AID?

You can obtain advice on how to protect archaeological sites on your land or on grant schemes for site management from the following organisations:

- **Department for Environment, Food and Rural Affairs:** Defra agri-environment scheme advisers can advise you about grants for environmental land management, including the protection of archaeological sites. A list of local offices is available on the Defra website at www.defra.gov.uk by selecting *Contact Defra*
- **English Heritage:** Your local English Heritage Regional Office can supply details about the location and management of Scheduled Monuments and may offer grants for their management. A list of regional offices is available on the English Heritage website at www.english-heritage.org.uk by selecting *Contact Us*
- **Local Authority:** Your Local Authority Archaeologist can supply general advice about site management. Some authorities may be able to offer help with site management. A list of Local Authority Archaeologists is available from the Association of Local Government Archaeological Officers' website at www.algao.org.uk
- **Farming and Wildlife Advisory Group:** FWAG Advisers work closely with Local Authority Archaeologists and are able to offer practical on-farm advice on the integration of all aspects of farm conservation management. A list of regional offices is available on the FWAG website at www.fwag.org.uk

REMEMBER to take account of known archaeological sites when you develop plans for soil management, farm waste management, farm development or habitat creation, or make applications for agri-environment schemes.

For copies of this leaflet, please contact English Heritage Customer Services Department on 0870 333 1181 or email: customers@english-heritage.org.uk
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