Preface

This Action Pack has a wealth of information to help with the sensitive management of your local churchyard, cemetery or burial ground.

There are guidelines on the management of wildlife habitats such as grassland and trees, and features such as lychgates, boundary walls and old stonework. You will also find information on how to involve others and how to make use of these places for learning and community activity.

The Action Pack covers a wide range of subjects so that it can be dipped into to answer questions, both large and small:

- **What can our volunteers do to keep trees healthy and safe?**
- **Which is the best section of grassland to mow short and which to leave to grow longer?**
- **How can we encourage more animals such as birds and butterflies to visit our site?**
- **What activities could we offer for young people?**

The comprehensive information in this Action Pack can also lead you to become involved in a special community project, based on your local churchyard or burial ground.

Whatever management methods you choose for your burial site this Action Pack will guide you through what's best for 'protecting wildlife, preserving heritage and involving people'.

Whether it's used to support a full-scale community project or for advice, as and when required, we hope that you find the Caring for God's Acre Action Pack helpful.

And please remember to let us know how you are getting on with the management of your local churchyard or burial ground.

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Contents

1. The Five Steps to Churchyard and Burial Ground Care

This sheet will help you to start thinking about how to manage your site. It will give you a framework for getting going and for helping people to become involved.

Planning the management of any site helps to keep work under control. Rather than responding to problems or overdue tasks, there is an opportunity to consider carefully what resources you have (this could be people, money, tools) and what can reasonably be achieved. By going through these five steps you will produce a management plan that is realistic and sustainable. You may also find that this planning process gathers momentum across the community and draws new volunteers to the site.

1. Research existing records on the Beautiful Burial Ground portal within the National Biodiversity Network (NBN) Atlas. Check the Church Heritage Record if in England or the Church Heritage Cymru if in Wales. The Churchyard pages will give you an idea of what is known about your burial ground, and whether it is designated or contains listed structures (see useful contacts at the end of this sheet).

2. Map the site and start to fill in what you know and what you find out about plants, animals and built features.

3. Plan what you want to do and how you will manage the site. Talk to people and reach an agreement on management.

4. Inform people about the plans and invite them to become involved. Run events and training days, help people to learn more about the site.

5. Review the plan; is it working? Check to see how practical it is and how people feel about it.

1. RESEARCH

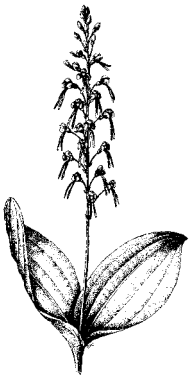
Insurance

It is sensible to check what level of insurance your site has. You may be running events, working with volunteers and encouraging children to explore. As burial grounds are open to the public they are likely to have the right insurance but it's best to check.

Permission

Make sure the people responsible for the churchyard or burial ground know of your plans. Hopefully, they will become involved.

In the case of a cemetery contact your local authority managers and for a churchyard the church council, vicar or churchwarden should be contacted.



Twayblade

Planning protection

The natural environment

Burial grounds are important sites and may well have special protection. For example, a number of burial grounds are designated as Sites of Special Scientific Interest (SSSIs), which is a legal designation.

Is your burial ground within a National Park or an Area of Outstanding Natural Beauty? Local authorities and wildlife trusts have lists of sites with particular wildlife interest such as 'Wildlife Sites' or 'Sites of Nature Conservation Importance'. These vary from county to county and give an indication of whether there are features recognised as rare or of particular interest. Your burial ground may also contain 'protected species' such as bats, great-crested newts or slow worms.

Check the Churchyard pages on the Church Heritage Record or Church Heritage Cymru for information on designations and protected species known to be present. NB if a species is not recorded you cannot assume that it is absent.

Built heritage

There are a range of designations from individual monuments to archaeological sites and designed landscapes. Burial grounds may be within wider

heritage designations, such as a Conservation Area.

Consult the Church Heritage Record or Church Heritage Cymru for designations and listings. Alternatively you can go directly to Historic England or Cadw for the same information. This information can also be useful when planning interpretation such as leaflets or displays.

If your site does have a designation or contains protected species then you may wish to contact Caring for God's Acre or the statutory agencies for advice (see useful contacts at the end of this sheet).

If you want to know more...

There is further information available should you have a particular interest:

Biological records

Plants and animals which have been previously recorded in your burial ground are held in biological records which are listed in the National Biodiversity Network (NBN) Atlas. Caring for God's Acre and NBN have worked in partnership to produce a Burial Ground system within the Atlas. See Useful Contacts for this system or contact Caring for God's Acre directly to learn more.

Archaeological and historical records

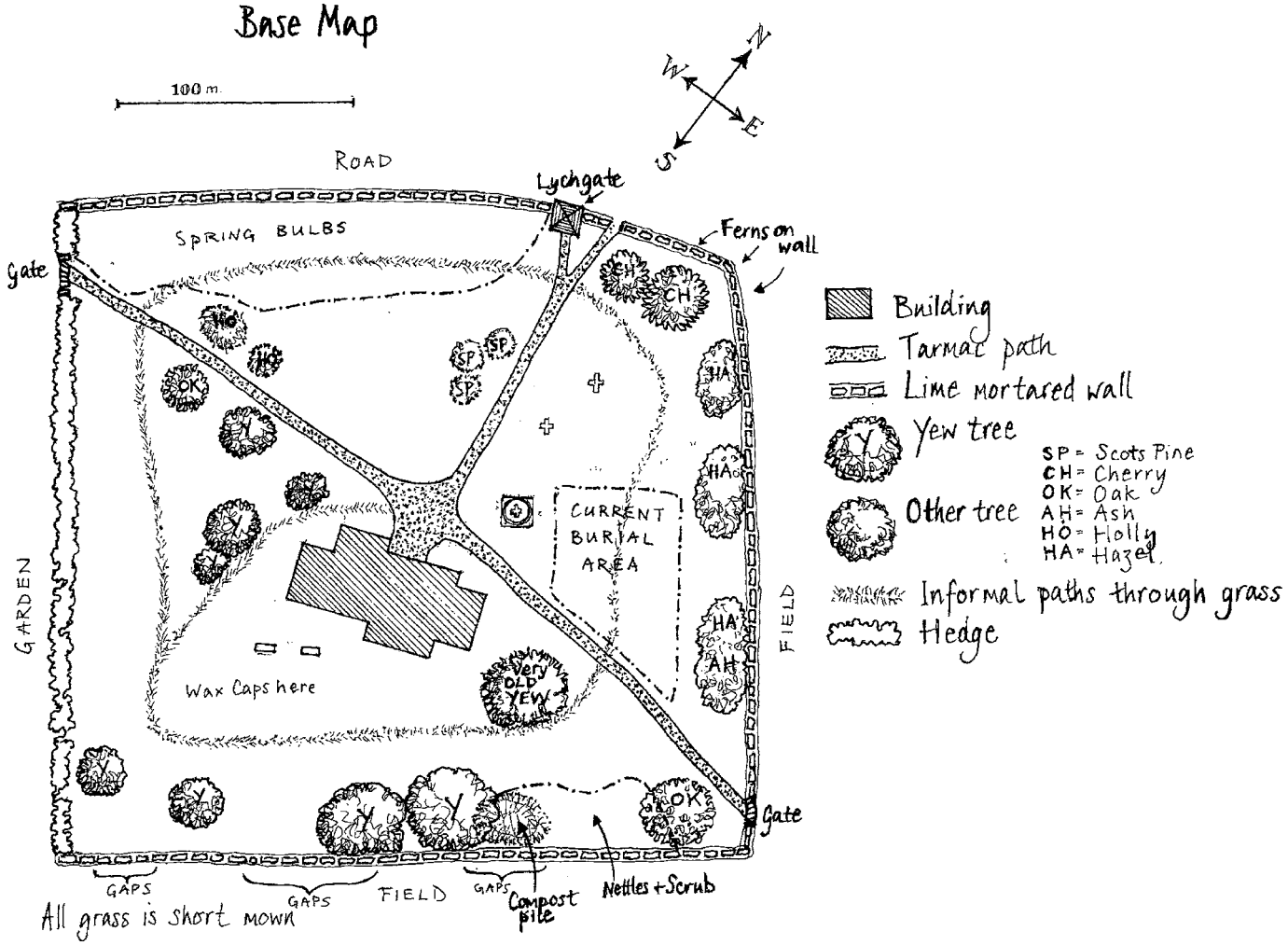
For further information on built structures such as monuments or memorials contact the local authority **archaeological department,** the historic environment record, and in the case of Anglican sites, the **diocesan advisory committee** or **church head office.**

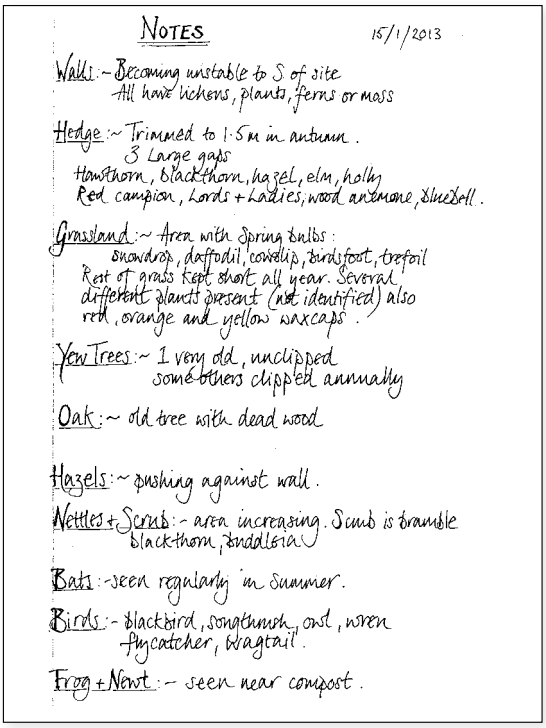
2. MAP THE SITE

There may well be an existing map or draw one by looking at a map on the internet. Alternatively buy one from Ordnance Survey or the local authority planning department (sketch several copies of this basic site map).

Mark on the following key features:

- The entrances, boundaries, paths and building footprint.
- The scale of the map or area of the burial ground.
- Orientation – North, South, East, West. This can be done either by referring to an Ordnance Survey map or with a compass.
- Areas of current use: where do new burials take place, are there any war graves, is there a war memorial where wreaths are laid annually?




NOTES 15/1/2013

Walls:~ Becoming unstable to S of site
All have lichens, plants, ferns or moss

Hedge:~ Trimmed to 1·5m in autumn.
3 Large gaps
Hawthorn, blackthorn, hazel, elm, holly
Red campion, Lords + Ladies, wood anemone, Snowdrop.

Grassland:~ Area with Spring bulbs:
snowdrop, daffodil, cowslip, birdsfoot, trefoil
Rest of grass kept short all year. Several
different plants present (not identified) also
red, orange and yellow waxcaps.

Yew Trees:~ 1 very old, unclipped
some others clipped annually

Oak:~ old tree with dead wood

Hazels:~ pushing against wall.

Nettles + Scrub:~ area increasing. Scrub is bramble
blackthorn, buddleia

Bats:~ seen regularly in Summer.

Birds:~ blackbird, songthrush, owl, wren
flycatcher, wagtail.

Frog + Newt:~ seen near compost.

- Structures or regularly visited graves.
- Existing management: areas of short mown grass, long or tussocky grass, areas currently unmanaged.
- Trees, shrubs, flower beds, spring bulbs, compost heaps. Where possible identify tree and shrub species.

This is your **base map** giving a starting point for deciding what to do where. It doesn't matter if you can't identify everything at this point; you will gradually build up a more detailed picture as time passes.

If you want to find out more

You may want to identify wild flowers, find out whether you have slow worms or see what birds are nesting and where…

Do your own surveys

- There is lots of interesting wildlife and history to be discovered by visiting a site regularly through the seasons and making a note of what you see. Identification field guides are useful and the Field Studies Council fold-out sheets are a great starting point. Try our **Botanical Companion** to help you identify whether the grassland is rich in wildflowers.
- Take a photo of things which you can't identify and note the date; sooner or later you will find someone who can tell you what it is! You can send photos to iSpot where enthusiasts will try and identify them. See Useful Contacts.
- Please upload your findings onto our recording system (see Useful Contacts). You do not need to be an expert to add to this growing body of information. If you can identify a holly, yew, molehill or magpie then that is a good place to start!

Ask for help

There may be local experts and enthusiasts willing to help:

- Use the local media to tell people what is happening and to ask for volunteers with particular skills or information. Botanists, local historians or photographers perhaps?
- Caring for God's Acre may be able to link you with another group doing a similar project nearby.
- Contact; the wildlife trust, the local authority ecologist, the staff at a nearby nature reserve, local interest groups. Ask them for help or suggestions of who else might help.

Seek training and apply for a grant to cover costs

- Members of your community may be interested in learning identification of wildlife, recording of monuments or other new skills. See sheet B10, Surveying Plants and Animals for further survey techniques and sheet D5, Applying for Grants.

This additional information gathering can take place at any time. It does not need to happen *before* you produce the base map and plan management.

3. PLAN WHAT YOU WANT TO DO


Violet

Once you know your site then you can start to plan how to care for it. It is important to involve people and to talk through issues at this stage. In particular talk to those people who are responsible for the site and also to the people who visit.

A plan drawn up by several people is more likely to succeed. People are likely to volunteer once the plan is becoming clear and they can see that things are happening.

It works well to have aims for management, for example:

'This burial ground is cared for in a way which makes it pleasant and attractive for visitors, a place in keeping with the function of burials, a fit setting for the church and a haven for wildlife'.

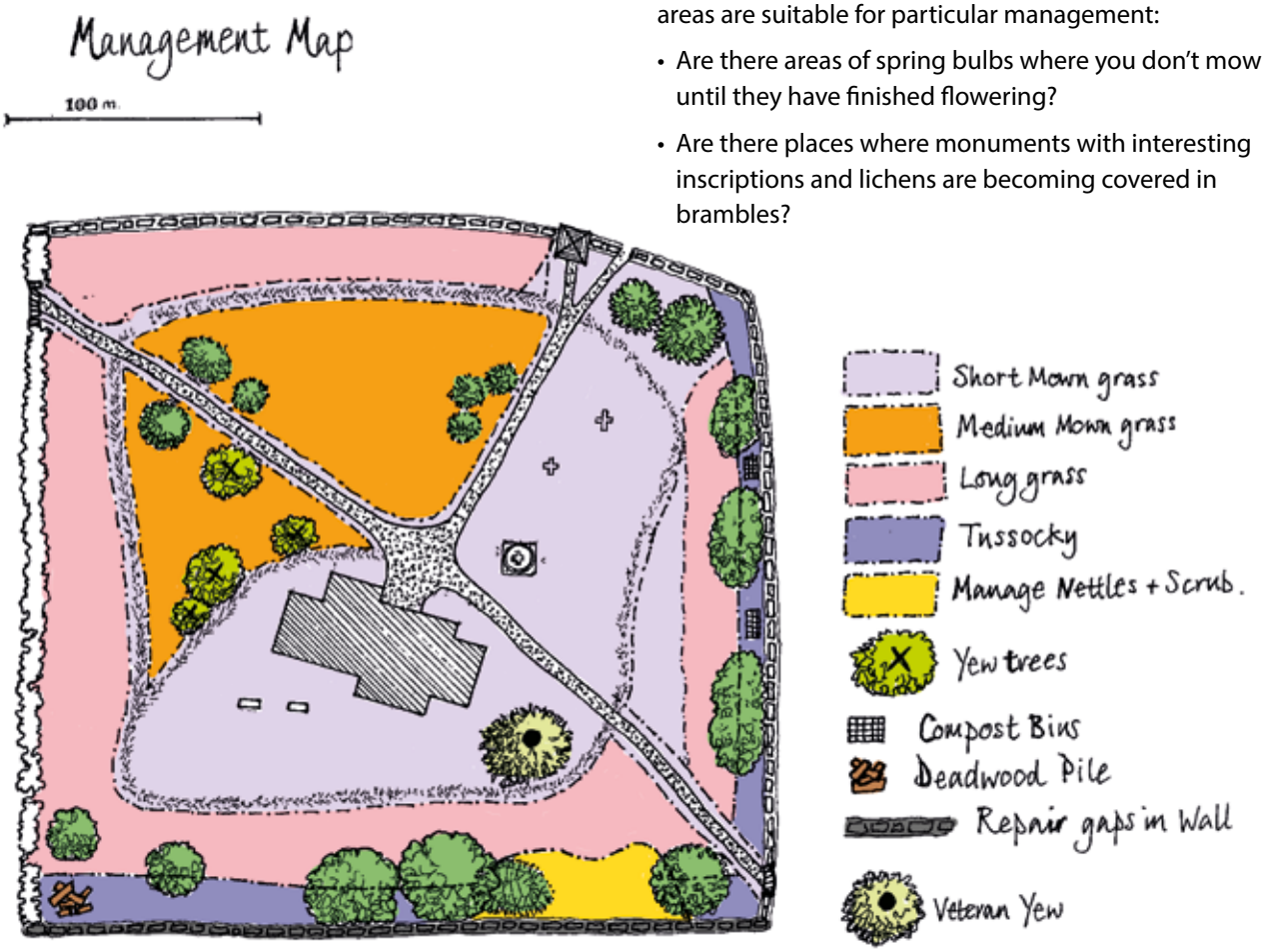
The two main considerations for management are **'where'** and **'when'.**

The Five Steps to Churchyard and Burial Ground Care

Management map to plan 'where'

Take a clean copy of your map and start to consider which areas are suitable for particular management:

- Are there areas of spring bulbs where you don't mow until they have finished flowering?
- Are there places where monuments with interesting inscriptions and lichens are becoming covered in brambles?



Management Notes 20/1/2013

Walls: - Repair the gaps in the southern wall; volunteer days with professional waller. Remove plants first, keep moist and replant after. Gaps measure 3m, 5m, 1m,

Hedge: - Low priority, leave gaps for now.

Short grass: - No change except collect all cuttings and put into compost bin.

Medium grass or spring meadow. Cut after bulbs have flowered, following that cut regularly with mower blade set to 10cm.

Long grass: - Pet shop keen to buy small bales. Make a hand baler + then introduce long grass cut followed by haymaking. Council will take cuttings if weather too bad for hay making.

Tussocky grass: - Cut half each year and compost

Nettles + Scrub: - Cut nettles when doing long grass cut + include in hay. Cut scrub to ground every 3 years, so trees don't establish.

Yew Trees: - Remove ivy from all yews
Cut elder + other plants under yews every year.

Hazels: - Low priority, leave now but plan to coppice in the future.

Compost Bins: Make 2 bins from pallets + use one annually. Put old compost heap into a bin or take home for gardens.

Woodpile: - Stake the 4 corners of the woodpile and start to stack deadwood in it.

Annual Work Plan

KEY	WHAT	ACTION	J	F	M	A	M	J	J	A	S	O	N	D
	Tussocky grass	Cut once per year or every other year												
	Long grass / summer meadow	Cut and remove or make hay												
	Nettles	Cut with long grass												
	Medium grass	Cut regularly and remove												
	Short grass	Cut regularly and remove												
	Veteran yew	Remove ivy, remove elder beneath												
	Other yews	Remove ivy												
	Other trees/shrubs	Prune shrubs												
	Volunteer tree inspection	Check all trees												
	Scrub	Cut to ground level												
	Compost bins	Rotate use, mix/empty												
	Walls	Repair wall remove new ivy growth												
	Woodpile	Create and top up												

Three Year Work Plan – no need to include tasks which take place annually

ACTIVITY	YEAR 1	YEAR 2	YEAR 3
Repair wall			
Prune shrubs			
Build compost bins			
Start managing for long grass and nettles			
Start managing for tussocky grass			
Remove ivy and elder from yews			
Cut scrub			

The Management Map, Annual Work Plan and Yearly Work Plan together form the **Management Plan**

- Is the entire site managed as short grass and could there be areas with different mowing times?
- Is there a boundary wall in need of rebuilding?

Whilst planning your management keep the site map that you produced in step 2 to hand. It can be useful to make a copy on tracing paper and overlay this if the site is complicated.

Calendar to plan 'when'

Once the management work has been agreed, produce a timescale for doing tasks.

Plan what needs to be done each year as well as over the longer term; three years works well. This allows you to phase in works, starting with small and manageable changes. Equally it can highlight an urgent job such as repairing a dangerous wall.

4. INFORM PEOPLE

Once the plan is drawn up then tell your local community and gain their support. This is best done in a variety of ways, depending on resources and what works well in your area.

Written information

- Put up a poster on the notice board explaining what you are doing.
- Write articles and letters for local magazines and contact the local press. Give regular updates.
- Produce a permanent poster based on the management map with pictures, and display it on notice boards.

Spoken information

- Explain to local people, who are not involved, and ask

your vicar (or other leader) to speak about the plan. Speak on the local radio, consider holding a public meeting, use websites and social media.

Run events and work parties

- Once there is a plan then you can start working to it. This may involve organising people to take on tasks, running volunteer work parties and training days.
- Activities require planning; sheet D1, Involving Volunteers can help with planning events, keeping people safe and managing work parties. There are suggestions on volunteer events, useful contacts and ways of engaging new volunteers.

Involving children and schools

- Caring for God's Acre has an Education Pack to help teachers and youth group leaders make the most of their local churchyard or burial ground (see sheet D3, Recreation and Learning – Things to Do).

Statement of significance

Include important discoveries in your Statement of Significance (this relates to Church of England/Church in Wales sites).

5. REVIEW THE PLAN: IS IT WORKING?

Review your management plan at the end of each year. After all, it is only a guide and can be changed if anything is not working.

Ask the volunteers

Arrange an annual meeting of all who have been involved with the site. This can take the form of an annual celebration with business at the start of it.

Discuss:

- How has the year gone?
- Were the tasks appropriate, enjoyable, and practical?
- Does the group have suitable tools and are they still in good condition?
- Is the scale of the management plan reasonable considering your resources?
- Is there an opportunity for useful training?
- Does anybody have ideas or new projects they would like to discuss?
- Were the risk assessments useful and appropriate? Did they reflect the actual risks of the site and task? (see sheet D2, Health and Safety).
- Are there any lessons to be learnt from the accident book? (see sheet D2, Health and Safety).

During the annual meeting it is worth referring back to the original aims of the project (see step 3 – the management plan). Is this being fulfilled?

Keep notes of these discussions.

Ask the local community and other visitors

Give local people an opportunity to express their views about the plan and any changes they may have noticed. If comments are positive then this is encouraging to volunteers. Please remember to put into perspective any negative comments made by just a few people.

- Hold an annual open day for visitors and invite feedback; this may also be a fund-raising event.

Records

- Gather together any records from volunteers or members of the public. It is often people working on a site who see the most wildlife and hear the most feedback from visitors.
- You may wish to repeat surveys of species or habitats. This does not need to be annual; a 3 or 6 yearly survey is timely as management may not produce quick changes.

The management plan

Three years is a good time to review or rewrite your management plan.

- Mark any changes onto the plan: wall repair, tree felling, hedge management etc.
- Consider new tasks which you now have the resources for.
- Look where work may be needed due to deterioration.

Three years is also a good time to look at what's been achieved, to celebrate your work, to re-publicise the project and seek new volunteers.

Useful contacts

Caring for God's Acre, www.caringforgodsacre.org.uk
Church of England, ChurchCare, www.churchcare.co.uk
Church Heritage Record www.facultyonline.churchofengland.org/churches
Church in Wales, www.churchinwales.org.uk
Church Heritage Cymru www.churchheritagecymru.org.uk/
Local authority – how to access the biological record and the archaeological record
NBN Burial Ground Atlas www.burialgrounds.nbnatlas.org/
Wildlife Trusts, www.wildlifetrusts.org

Statutory government agencies:

Cadw, www.cadw.wales.gov.uk
Historic England, www.historicengland.org.uk
Historic Scotland, www.historic-scotland.gov.uk
Natural England, www.naturalengland.org.uk
Natural Resources Wales, www.naturalresources.wales
Northern Ireland Environment Agency, www.doeni.gov.uk
Scottish Natural Heritage, www.snh.gov.uk

Sweet Vernal Grass

Useful reading

Field Studies Council – fold-out identification charts
Caring for God's Acre Education Pack
The Caring for God's Acre Botanical Companion

2. Caring for Grassland

This sheet gives guidelines on how to care for grassy areas and explains the different ways of managing grassland.

A churchyard or burial site may be the most ancient enclosed piece of land in a parish, perhaps even older than the church building, having its roots in pre-Christian times.

Apart from grave digging, the grassland will have been relatively undisturbed, re-seeding naturally for hundreds if not thousands of years. It will also have been both mown for hay and grazed by animals during its time as a burial ground.

A benefit of this continuity of management over a very long time is a diversity of beautiful grasses and flowers and associated animals, some of which may now be uncommon or rare in Britain.

Old, relatively undisturbed or 'unimproved' grassland is now rare in the UK. For a conservationist this may be the most important part of your site.

Deciding how to manage grassland is one of the most important decisions to be made and one which needs careful thought and planning.

The management of your grassland is dependent on what would suit the site and on how often you are prepared to mow it. A mosaic of grass at varying heights will help wildlife to flourish.

The variety of grass heights to consider are:

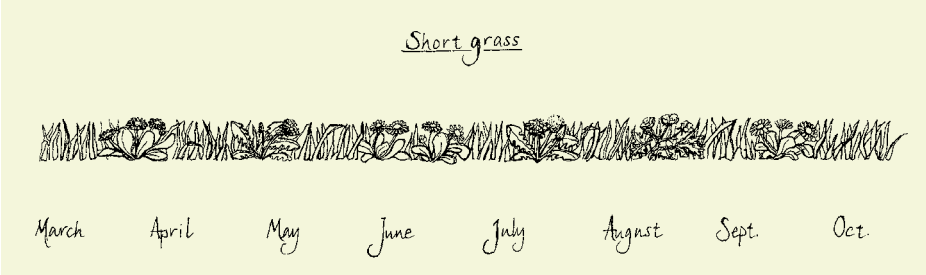
- **short** like a lawn.
- **medium** and cut regularly but to about 10cms each time.
- **long** and **flowery** and cut a few times a year.
- **long** and **tussocky** and cut once a year or every other year.

SHORT GRASS

- Looks neat and cared for and allows people to visit the whole site easily.
- Makes it easier to read memorials.
- Helps ground feeding birds such as thrushes and wagtails.
- May contain wild flowers close to the ground (wild thyme or self heal for example).
- Can have rare grassland fungi which are able to push through the short grass.
- Needs regular mowing requiring mowers, fuel and people prepared to do the work i.e. considerable resources.

Managing short grass

Mow regularly and always remove grass cuttings.



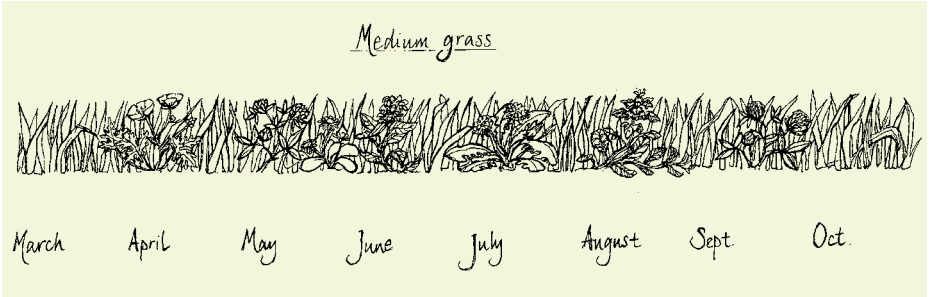
If grassland fungi are present then stop mowing when they are fruiting in any quantity. This is generally in autumn so not a time of year when the grass is growing fast.

MEDIUM GRASS

- Fairly easy to manage as it can be cut with a robust mower.
- Does not need such regular mowing as short grass so fewer resources are required.
- May contain some low-flowering plants such as clover, bird's-foot trefoil, self heal.
- Flowers attract insects (bees in particular if clovers are present), other invertebrates, small mammals and reptiles such as slow worms.

Managing medium grass

Mow occasionally and always remove cuttings.



2. Caring for Grassland

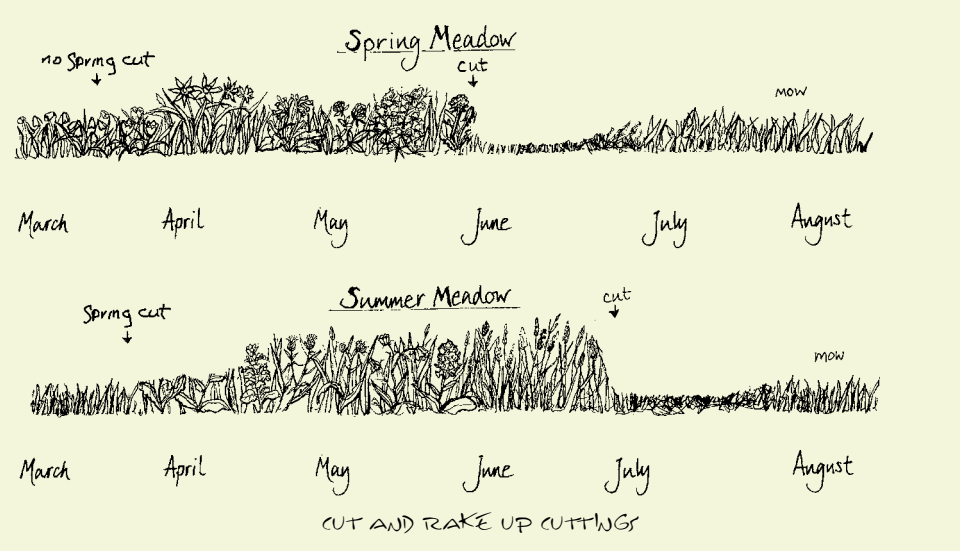
This can be cut with a mower with the blade set at about 4 inches (10cm). It requires less frequent mowing (probably on a monthly basis during the growing season).

LONG GRASS

Long grass is likely to contain more plant and animal life than medium grass and far more than short grass.

- Allows plants to flower and set seed. If the site contains unimproved, old grassland then the range of flowers may be spectacular.
- Contains a wealth of animal life: bees and butterflies are attracted to flowers whilst beetles, grasshoppers and bumblebees use long grass for cover. Amphibians, reptiles and small mammals hunt for food in long grass.
- Requires less management thus saving time and money. However, the management that is needed (cutting and removing long grass) may be more difficult to organise.

Managing long grass



The key guidelines for managing long grass are:

Follow the golden rule and remove all cuttings or leave to make hay (see sheet A3, Cutting Long Grass and Dealing with Grass Cuttings).

Allow most of the plants to grow, flower and set seed but do not delay the cut too long.

Cut the grass while it is still growing, before all the strength of the plant has gone down into the roots.

In practical terms this means:

Plan for 12 to 16 weeks without cutting in the spring and summer (any time between mid-March and mid-August).

Cut areas of long grass before the end of July and definitely before the end of August (late flowers may not have set seed but this can't be helped).

Perhaps leave late summer flowers such as devil's bit scabious as islands in the cut grass and cut later. Cutting after the end of August leads to the strength of the grasses being stored in the roots. Over time the sward will become rank, tussocky and lose wild flowers. Cutting later occasionally won't matter too much, however.

Use a strimmer, reciprocating bar mower or scythe to cut long grass (see sheet A3, Cutting Long Grass and Dealing with Grass Cuttings). Rake and remove the grass immediately, seeing if anyone would like to use it for 'Green Hay' (see sheet A3 Cutting Long Grass and Dealing with Grass Cutttings) or leave for a few days to dry, turning if necessary. Consider making small bales using a hand hay baler (see the Caring for God's Acre website for plans of this baler).

After cutting and removing the grass can be left to regrow. Ideally cut a couple more times over the late summer, early autumn or spring. Collect the cuttings. These other cuts can be done with a robust mower with a collecting bag.

More on timing of the cuts for long grass

Spring meadows have a good show of spring flowers: bulbs such as daffodil or spring flowers like primrose or cowslip. They should be left uncut until about mid-June and then cut again in August or September.

Summer meadows have lots of flowers in May, June and July – plants such as ox-eye daisy, bird's foot trefoil, knapweed, hawkweeds, and buttercup. Try a cut in February, March or even April, then leave uncut until mid July or August (12 to 16 weeks cutting gap).

What if there are both spring and summer flowers?

Having both spring and summer flowers in the same area can make it difficult to decide when to cut.

Consider the following options:

- **Manage for spring and summer flowers in different areas:**

  Choose 2 areas (with spring and summer flowers) and apply a spring cutting regime to one and a summer cutting regime to the other.

- **Manage for spring and summer flowers in the same area:**

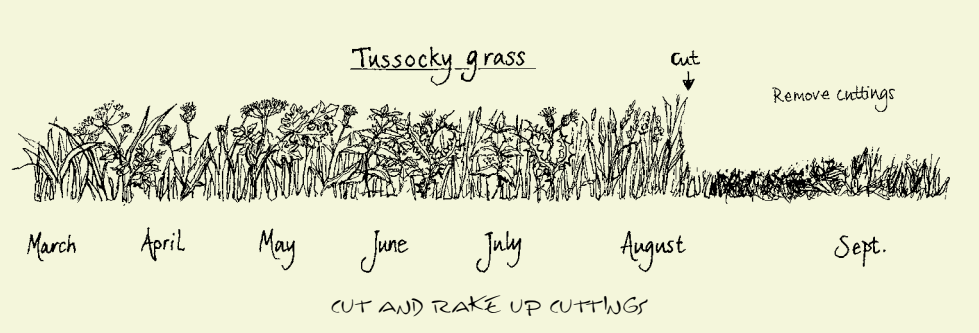
2. Caring for Grassland

To enjoy both groups, leave the cutting until both groups have flowered, cutting in mid-July and then again in September. If the site becomes too overgrown then add an additional cut in February or cut in June one year to bring it back. Remember 12 to 16 weeks in the growing season is the maximum time to leave grass uncut. Try introducing yellow rattle to reduce the vigour of the grass (see sheet A8 Creating a Wildflower Meadow and Helping Wildlife).

TUSSOCKY GRASS

- Provides year round shelter for many animals which nest and hibernate amongst the tussocks, stems and roots.
- Larger, carnivorous animals in turn feed on smaller animals found in the coarse grass.
- Coarse grass is unlikely to have the range of flowers found in long, finer grass.
- Suitable for areas which are hard to manage: against walls, around compost bins and old gravestones. Repeated cutting or strimming around stonework can be damaging and takes time, (see sheet A10, Caring for Stonework, Metalwork and Woodwork).
- Tussocky grass requires the least management; however it can look rough and revert to scrub if not managed at all.

Managing tussocky grassland



Cut areas of tussocky grass once a year or once every other year. This will probably need strimming, scything or cutting with shears and the cuttings raked up and removed. Cutting less often can allow tree seedlings to establish and become a problem.

Tussocky grass should not be cut when species may be nesting or over-wintering.

In practice, cutting in late summer or early autumn works well (from about mid August to mid October). This gives time for re-growth before the winter and, if cutting is on a 2 year rotation, cut half one year and half the next.

GRAZING

- Once a site is set up for grazing (fencing in place) and there is a grazier to manage the animals, this is a sustainable, low cost option. Sheep are suitable for grazing burial sites, other larger animals less so as they may damage monuments.
- Animals lying-up next to memorials could cause damage.
- Discussion is needed before grazing. Let the public know what you are planning and try to canvass views.

Managing by grazing

Sheep nibble off flowers and their grazing encourages grass at the expense of flowers. If the site is grazed throughout spring and summer then the effect is the same as regular mowing.

Take grazing animals off the site for up to 12 to 16 weeks of the spring and early summer to allow plants to flower and set seed.

Grazing animals produce droppings and urine. You may choose to pick up droppings for reasons of public access but, providing the site is not overgrazed, do not need to for conservation.

WHERE TO HAVE DIFFERENT LENGTHS OF GRASS

Most burial grounds can be managed in a variety of ways and you will have started to consider this whilst creating your plan (see sheet A1, The Five Steps).

Caring for God's Acre recommend that grass is kept close mown in the following areas:

- Areas with recent graves, war graves and those regularly visited.
- Either side of paths to about a metre width.
- The front of the building, around the entrances and any special monuments such as war memorials.
- Paths through grass which is left to grow longer.
- Where grass has always been close mown and has plentiful fungi such as waxcaps.

Other parts of a burial ground, with older, unvisited graves or no graves at all, could be suitable for medium, long or tussocky grass. In order to decide this you need to think about your resources.

Some scenarios to help you decide

Scenario 1

You struggle to mow a burial ground regularly but can count on volunteers for a communal work party. If this is the case then consider allowing suitable areas to

2. Caring for Grassland

grow long. Your volunteers can cut the grass, then rake and remove it another day or make hay using a hand hay baler.

Scenario 2

You have keen volunteers prepared to mow regularly but you would like to vary the grass length and increase the flowers. In this case consider areas of both short and medium grass with a strip of tussocky grass against a boundary or in an area with few gravestones or unvisited graves. This gives cover for wildlife whilst keeping the rest of the site manageable by mower.

Scenario 3

You have a site with areas of spring flowers and bulbs. Consider managing this flowery area as a spring meadow – allow it to go unmown until the flowers have set seed and the leaves are dying back. Consider having a strip of tussocky grass about a metre wide against a boundary.

Decisions about grassland management are not set in stone

Try managing for long grass in a small area (ideally away from a main entrance) and, if this works, extend it gradually. Equally you may manage an area as long grass but need to mow it short for a while (a particular celebration perhaps). This will not cause long-term harm to the plants; they are perennials and will reappear. In fact close mowing on the occasional year can be beneficial as it reduces the vigour of the coarse grasses, allowing finer meadow grass and flowers to flourish.

Golden Rule: Remove all grass cuttings; compost them, make hay or take them off site.

Removing cuttings reduces the fertility of the soil which will gradually reduce the speed of grass growth. This means less mowing and fewer cuttings to remove (see sheet A3, Cutting Long Grass and Dealing with Grass Cuttings).

The key thing is to find a cutting system that suits your site and suits your workforce. This will be more likely to be supported and successful.

BRINGING A NEGLECTED SITE BACK INTO MANAGEMENT

Churchyards and burial sites that have been unmanaged for several years tend to have areas of coarse grass and scrub.

This is a particular problem and a different cutting system may be needed for a few years until a more even grass sward develops.

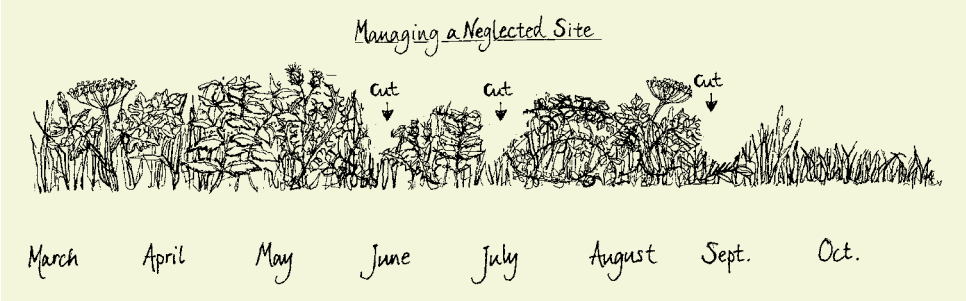
Cut and remove cuttings regularly throughout the first year as you would with medium grass; cut on a monthly or 6 weekly cycle throughout the spring and summer. This will reduce the strength of coarse, tussocky grass and start to create the right conditions for finer grasses and flowers. If you do not have the work power for this then do 3 cuts – early June, early July and then early September.

You may need to do this for a couple of years and then follow on with the cutting regimes for long, medium or short grass depending on the plans.

If a site has been neglected then it is relatively easy to set aside an area for tussocky grass. This should be managed with a yearly or two yearly cut from the start.

New sites

Many cemeteries or extensions to churchyards have been taken from farmers' fields more recently. In general burial sites dating from post 1945 are less likely to have a rich variety of plants.



- Let a small area of grass grow long and see what comes up.
- Seek advice on grassland management if you want to improve it for wild flowers, (see sheet A8, Creating a Wildflower Meadow and Helping Wildlife).
- Medium height grass may be more appropriate than long grass.

Useful contacts

Caring for God's Acre, www.caringforgodsacre.org.uk

Flora Locale, www.floralocale.org

Plantlife, www.plantlife.org.uk

Wildlife Trusts, www.wildlifetrusts.org

Association of British Fungus Groups, www.abfg.org

Useful reading

Guide to Grassland Plants – Field Studies Council fold-out chart

3. Cutting Long Grass and Dealing with Grass Cuttings

This sheet lists the tools for cutting long grass and gives suggestions of how to manage the cuttings by composting them on site, taking them off site or making hay.

Golden Rule: Remove all grass cuttings; compost them, make hay or take them off site.

CUTTING LONG AND TUSSOCKY GRASS

Using the right equipment saves time and effort. Long grass can be cut with:

1. A scythe mower or sickle bar mower

These machines are motorised and have a bar at the front with an arrangement of reciprocating blades that move from side to side like a row of scissors. The cutting bars are available in varying lengths.

These mowers are suitable for cutting long grass in large open areas that have no headstones or kerbstones. The tall grass is cut at the base and falls in a swathe ready for haymaking or raking up.

The downside is that the cutting blades can damage historic stonework and in turn the stonework can break the cutting blades.

2. Wheeled grass trimmer

These can be as versatile as a strimmer but easier to use.

They come in various sizes with engines of different powers. Consider carefully what size is best for the area and type of grassland you will be cutting.

Hand-held strimmers are basically the same but held by the operator. Damage to trees, shrubs and stonework is particularly easy to do with a hand-held strimmer.

3. Hand scythes

Scything today is undergoing a renaissance. The lightweight Austrian scythe is increasingly being used by local authorities and stately home and burial ground managers.

Unlike strimmers, scythes produce no noise, vibration or fumes and are sociable tools to use. They cause minimal harm to wildlife and the grass is laid neatly in a windrow which is easy to turn to make hay, or rake up for the compost heap.

For more information on training and the use of the scythe contact the **Scythe Association** or Caring for God's Acre. A short film on how to adjust, use and sharpen the scythe and use a hand hay baler can be viewed on the Caring for God's Acre website.

DEALING WITH GRASS CUTTINGS

All grass cuttings need to be collected and removed from grassland. This is the case for short or long grass. Removal improves the sward for conservation and also gradually reduces the nutrients in the soil, leading to slower grass growth and more flowers.

Short grass

This can be cut with any sort of mower and cuttings should be collected as you go along. These can then be removed from the site or tipped into a compost heap.

Medium grass

This can be cut with a reasonably robust mower and cuttings should be collected as you go along. These can be removed from the site or tipped into a compost heap.

Long grass

This can be cut with a scythe, reciprocating bar mower or strimmer. After cutting, the grass can be raked up and composted or allowed to dry and used for hay.

Tussocky grass

This can be cut with a scythe, strimmer or shears. After cutting, the grass and coarse plants will be raked but are unlikely to be useful as hay as they are of poor nutritional value. They can be composted however.

3. Cutting Long Grass and Dealing with Grass Cuttings

COMPOSTING ON SITE

Choose an area for your compost heap which is:

- In a sunny or lightly shaded place.
- Not directly under a tree – this is damaging to the trunk and the roots and can shorten the tree's life.
- Not on top of a known grave site.
- Away from entrances, paths and regularly visited graves.
- Away from areas with spring bulbs or lots of flowers.
- Away from water such as streams or ponds.
- Easy to get to with a wheelbarrow.

Cuttings can be mounded in a loose pile but it is sensible to build a compost bin. This contains the cuttings, keeps the area looking managed and reduces scattering by dogs or foxes.

Compost bins

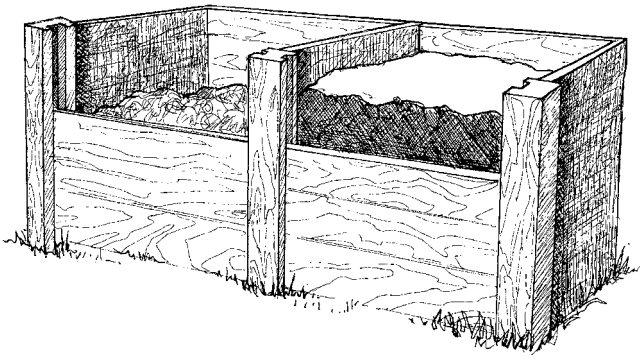
There are many designs of compost bin for sale but they are easy to make.

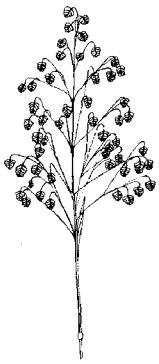
A compost bin can be made from planks of wood screwed together into a simple box which can be three or four sided.

Pallets, which allow more air, make good compost bins. Pallet compost bins give many access points for animals such as hedgehogs or slow worms. They are easy to construct by driving stakes through the pallet. Pallets come in standard sizes so fit together well.

Building two bays to your compost bin allows one bay to be actively filled over the growing season whilst the other bay is left to compost. In the autumn empty the composted side. Use or give to volunteers. Put any material which has not composted into the second bay and start to fill the now empty first bay with grass cuttings.

An ideal gardener's compost heap contains a mix of material: grass cuttings, coarse grass, dead leaves and cardboard. It will be turned at least once or twice a year and can produce compost fairly quickly. By contrast a compost heap in a burial ground is there to get rid of unwanted waste and to provide a haven for wildlife. Do not worry if there is not the 'correct' mix of materials or if it isn't turned. You will get compost in the end!





Quaking Grass

Emptying your compost bin

The ideal months to empty compost bins are October and April when there should be neither nesting animals, such as grass snakes, or hibernating ones, such as hedgehogs or newts. The timing of hibernation is affected by temperature and so may start later than October and finish earlier than April depending on local conditions. If you need to empty a compost bin in the winter, take care not to injure hibernating animals. Stop if you find one, cover it back up and leave the task until spring.

REMOVING CUTTINGS FROM SITE

Whilst you may be able to compost cuttings from short or medium grass, the quantity of grass following cutting long grass can be considerable and will probably need removing from the site.

Look for help

A local farmer may be willing to take cuttings for hay, silage or for a farm scale composting system. Alternatively your local authority will have a composting scheme for material from green bins and may be willing to take the cuttings. Is there a community composting scheme near to you?

Consider:

- Advertising on notice boards or in the local paper to see if anybody can take it.
- Contacting your local authority.
- Finding out if the **Community Composting Network** can help.

Green Hay from Long Grass

'Green hay' is long grass which has just been cut so still contains wildflower seeds. Farmers and other landowners creating wildflower meadows strew the green hay on their land, allowing the seed to then germinate in its new location. By giving away the green hay you may be able to get help in managing the site, as green hay is a valuable resource.

Make hay from long grass

Making hay can work really well and gives you a product to sell.

After cutting, spread the grass out evenly and leave it to dry. This also allows any seeds to fall back on to the soil. When dry to the touch you need to turn it with a

3. Cutting Long Grass and Dealing with Grass Cuttings

hay rake. Turn the hay a few times until all of it is dry.

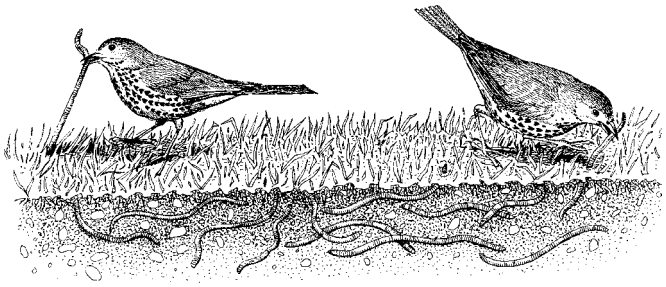
Managing your hay

At this point you can:

- Sell the hay un-baled to a local farmer. It can be wheelbarrowed or raked into piles on tarpaulins and dragged across the site.
- Stuff the hay into strong paper bags or plastic bags with holes to sell to pet owners or pet shops. This is only recommended if you have a small amount of hay.
- Bale the hay by hand using a wooden hand baler. Make one using a design which can be found on the Caring for God's Acre website. These small bales can be sold directly from your site, via a local shop, at a farmers' market or similar.

If you are planning to make hay it can be useful to have a backup plan in case of a wet summer. Cut grass, which gets repeatedly rained on, will start to rot and then needs to be raked up and either composted on site or removed from the site as soon as possible.

Sweet Vernal Grass



Useful contacts

Caring for God's Acre, www.caringforgodsacre.org.uk

Community Composting Network, www.communitycompost.org

Garden Organic, www.gardenorganic.org.uk

There are several clips on the internet of 'Making Hay by Hand'

Scythe Association, scytheassociation.org

3. Cutting Long Grass and Dealing with Grass Cuttings

4. Inspecting and Caring for Trees

This sheet gives information and guidelines on trees, keeping them healthy and identifying potential issues, what you can do yourself and when an expert is needed.

TREE SURVEY

Site managers have a responsibility to keep the public safe in relation to trees. There may be concern about the risks and the expense associated with mature and veteran trees in particular, but there are things that can be done by volunteers as well as involving a professional with appropriate insurance.

By regular survey, changes in the health and/or condition of the tree will be identified and with the right care and conditions the tree can be appropriately retained and, in many cases, its life prolonged.

TREE SURVEY: carried out by volunteers

Take your site map produced in step 2 of the 5 steps (see sheet A1, The Five Steps). You will have marked individual trees on to this map and will know where they are in relation to buildings, paths and key monuments.

Now start to fill in additional detail about the trees. If there are several trees it may be helpful to put this information on a separate map.

Check for any wildlife known to use the trees. Are there roosting bats or nesting birds?

Surveying each tree

Find out which tree species are present:

- Look in an identification book or on a chart, such as the Field Studies Council fold-out tree chart.
- Check previous tree surveys.
- Ask your local tree warden or local authority tree officer.
- If you are not sure of the names of decorative specimen trees growing on your site then identify the family they belong to, e.g. 'decorative cherry with pink blossom'.

Describe any features of the tree and its location:

- Where does the tree grow? Is the ground shady, dry, sloping or grassy?
- Is the tree young, middle years, mature or a veteran?
- What shape does it have? Is it tall and narrow or short and spreading? Has it been pollarded or coppiced in the past? (see sheet A6, Practical Management of Trees and Shrubs).
- Roughly how tall is the tree?

A simple way to estimate this is to ask someone to stand against the tree and then estimate how many times taller the tree is than them. Stand back so you can see the whole tree well.

Scots Pine

Estimating tree height using a stick

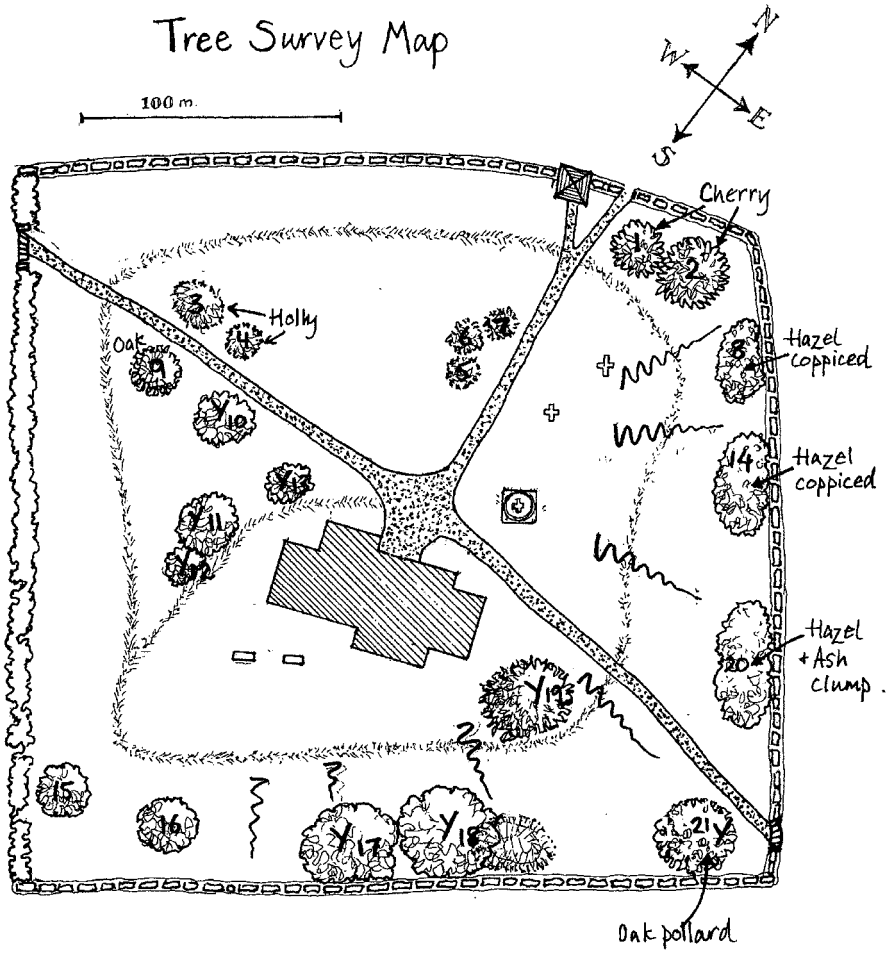
Take a straight stick which is the length of your arm from shoulder to hand. Hold this upright with your arm at a right angle to it. Walk away from the tree until the top of the stick lines up with the top of the tree. Push your stick into the ground at the point where you are standing and measure the distance from your stick to the tree trunk. Add the distance from your eye to the ground (this will be 3 or 4 inches less than your height) and this gives you the height of the tree!

- How wide is the tree canopy? Try and put the canopy width on to your map; draw a shape which represents the size of the canopy. This will help you plan management of the site as a whole.

4. Inspecting and Caring for Trees

- Are there any features near to the tree which need consideration? Arborists call these 'targets' and they affect management and risk. Targets might be; paths, buildings, benches for example. When you have veteran or ancient trees, you may need to think about moving targets such as paths or benches away from the tree.

This first survey will give you a baseline tree plan



Yew trees

Sloping ground

Top of slope

Bottom of slope

TREE SURVEY TABLE

Tree no.	Type	Estimated Height	Canopy width	Tree Features	Site Features/ Targets	Action
1.	Wild Cherry	7m	2·2m N, 1·5m S 2·3m E, 1·7m W	Mature + Healthy	Path beneath	None
2.	Wild Cherry	1·5m	0·2m N, 0·1m S 0·3m E, 0·1m W	young sucker	overcrowded area	Remove
3.	Holly					
4.						
5.						

You may prefer to write text about each tree rather than a table. Find a system that suits you and stick to it.

Follow up this initial survey with:

Annual inspections carried out by volunteers

Inspect each tree in the summer or autumn. Alternating autumn and summer surveys gives an opportunity to better assess tree health. The surveyor does not need specialist knowledge, qualifications or insurance as long as anything that causes concern is referred to a professional. If the survey is carried out by the same people each year then this gives continuity as you get to know your trees.

Take photos which can be included in your survey.

4. Inspecting and Caring for Trees

Inspection checklist

Record whether:

- The tree has grown nearer to existing structures such as buildings, walls, monuments. If so, some pruning may be necessary.
- Saplings have established at the base of walls or monuments. These are best removed.
- Overhead cables are clear of any growth. This would need to be dealt with by a tree surgeon or the power company tree team.

Oak

- The tree shape has become untidy or noticeably one sided. Perhaps a limb has been lost during a storm. Pruning may be necessary or further advice sought.
- Has the ground level changed or soil under or near to the tree been disturbed by either digging down or mounding up?
- Does the tree have a stake or ties, in which case do they need loosening or removing?
- Has any tree work such as pruning taken place since the last survey?
- Does the trunk have holes, cavities or visible fungi at the base? These may require a professional survey.

The tree should then be checked from its leaves and upper branches down to the base looking at:

Leaves: are they unnaturally small, sparse or misshapen? Do they fall early and is the entire tree affected?

If a tree has small leaves, loses them early in the autumn and then fruits heavily it may be under stress from age, conditions or disease.

Branches: check for dead branches, lightning or storm damage, cavities or wounds. Are there hanging branches over paths or car parks? Oak and ash trees can become 'stag-headed' with age but remain healthy. (A stag-headed tree has dead branches near the top looking like a stag's antlers). Are there abrupt bends or rubbing branches? Look carefully at large forks or points where many branches sprout from one point. Large forks in the main stem need careful inspection.

Beech

Bark: check for fungi, cankers, calluses, and sap seepage, loose or damaged bark.

Roots: check for fungi, soil cracks, tree lean.

Ivy: if the tree has ivy growing on it has this increased in quantity since the last survey and is it within the crown of the tree? Is the ivy making it impossible to carry out a proper tree assessment?

These signs and symptoms do not mean that the tree is hazardous or diseased. However, they may indicate that a further inspection is required from a professional. Take photos of trees and features that concern you.

TREE SURVEY: when you need a professional

As well as annual inspections by volunteers it is prudent to have regular surveys by a qualified arborist or tree contractor with experience and indeminity insurance. Always ask for evidence of qualifications and insurance; a professional person will expect this. Seek advice from the **Arboricultural Association** or local authority when selecting an arborist or tree contractor.

In general these professional surveys can be done every other year or even every 5 years, but check the terms of your insurance.

Discuss the volunteer survey with the arborist and ask if there are any particular features you need to keep an eye on. The information from your annual surveys can then be used to keep the arborist informed about any changes that take place between visits, sending digital photos or copies of your survey sheets.

If your site is large, the site manager and arborist may divide the site into zones. These will reflect the amount of use by the public, the closeness of buildings and other potential targets. Ask your arborist whether zones are appropriate and if so, whether to carry out the volunteer survey more frequently in significant target areas, and less often in other zones.

Make sure that you follow up works identified in the professional survey in a timely manner and that a record is kept of all surveys and also of tree work carried out.

TREE MANAGEMENT WORK

Trees and the law

Prior to undertaking any work, it is essential to find out if a Tree Preservation Order (TPO) is in place or if the tree is in a Conservation Area. Should either be the case, seek permission from your local authority before beginning work. Potentially dangerous limbs and trees can, in theory, be removed without permission but the onus is on you to prove that there was a hazard prior to removal. Take digital photos and keep the felled section for any subsequent inspection. Penalties for breaching the legislations, inadvertently or not, can be severe. It is sensible to check, giving at least five days' notice of planned work. Digital photos can be helpful if work is urgent.

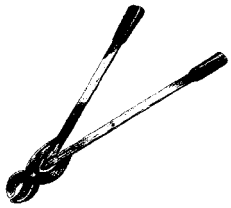
Local authority planning officers will advise you and may be helpful about tree work generally: choosing a tree contractor, managing public safety and planting replacements.

4. Inspecting and Caring for Trees

The legal responsibility for trees will vary across different areas and different types of burial site. In a Church of England site for instance the **Parochial Church Council** is usually responsible for trees and will have guidelines as to when to inform the Diocesan Advisory Committee before starting work.

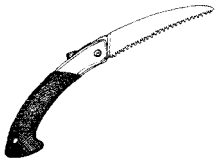
A **Felling Licence** issued by the Forestry Commission is needed for any felling of trees over a certain volume of timber. However, there are exceptions, which include 'churchyards, orchards and gardens'. If your burial site is not a churchyard you may need to check this with your local Forestry Commission office.

Once you know if permission for work is required and have gained any necessary permission then the work can be planned.



Tree work that is suitable for volunteers

As with tree surveys there are some maintenance jobs which can be done by volunteers and some which will need a professional.



Routine tree maintenance suitable for volunteers

- Pruning small branches and small trees.
- Cutting back low branches where they are in the way or dead and broken branches which can be reached from the ground.
- Management of ivy, if it is impeding surveying, (see sheet A9, Pesky Plants and Animals).
- If you have a veteran yew then do not prune or cut, but do remove ivy.
- Remove tree seedlings which have taken root in the wrong places.
- Check stakes and ties on young trees, loosen or remove if needed.
- Make a stack of deadwood and let it slowly rot (see sheet A8, Helping Wildlife).

Tree work that is NOT suitable for volunteers

- Use of a chainsaw in a public place such as a burial ground.
- Use of any saw when off the ground (when climbing the tree or a ladder).
- Removing large limbs which could cause injury to people or damage buildings as they fall.
- Felling of entire trees other than seedlings or small saplings.

Unless you have a trained volunteer with personal accident and professional liability insurance for tree work then a tree contractor will be needed.

Useful contacts

Ancient Yew Group, www.ancient-yew.org

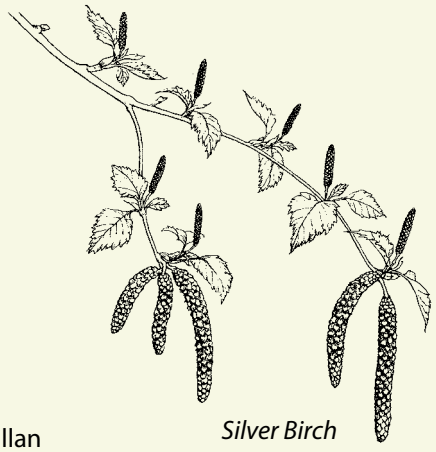
Arboricultural Association, www.trees.org.uk

Caring for God's Acre, www.caringforgodsacre.org.uk

International Society of Arboriculture, www.treesaregood.org

Local Authority Tree Officers

Tree Council, www.treecouncil.org.uk



Silver Birch

Useful reading

Collins Tree Guide – David More & Owen Johnson

Forestry Commission – leaflets including Hazards from Trees

Trees in Britain, Europe and North America – Roger Phillips, Macmillan

Tree Name Trail – Field Studies Council fold-out chart

Veteran Trees: A Guide to Good Management – Natural England publication

5. Yews and Other Veteran Trees

This sheet explains the importance of yews, our partnership to promote them and guidelines on how to manage ancient yews and other veteran trees.

FLAGSHIP SPECIES

'A small country full of ancient yew trees, such as Britain, is becoming a true Noah's Ark. Such tree stands are becoming (if they have not always been) far more significant than local or regional places of interest, and should be – as the equivalent of architectural World Heritage Sites – legally protected as Green Monuments.'

Fred Hageneder – Yew: A History

Globally veteran and ancient yews are threatened. On a world stage the most significant refuge for these trees is English and Welsh churchyards, where around three-quarters of Britain's oldest yews are found (numbering around 800).

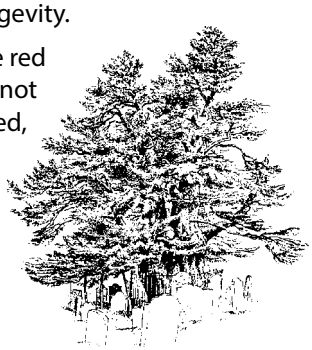
These ancient yews are one of the distinctive features of the British landscape.

The yew tree is a flagship species of Caring for God's Acre, and we are working with the* Ancient Yew Group *to protect and promote them.

KNOW YOUR YEW TREE

There will always be speculation about yews and why so many are found in churchyards. Poisonous to livestock? Welcome decoration for the midwinter and Palm Sunday? To Celtic people yews were sacred trees and symbolic of everlasting life. There are thought to be many sites where the yew tree predates the Christian church.

- The common yew *Taxus baccata* is the most widely found with the Irish yew *Taxus baccata 'Fastigiata'* planted more recently.
- Yew trees tend to grow in a 'normal' tree shape until about 600 years old when they often hollow out and thicken around the base and trunk in an uneven, lumpy way.
- Boughs which bend or partially snap and then rest on to the ground will take root and act as stabilisers for the tree. Boughs can also send down 'aerial roots' which take root or fuse with the main trunk. This regeneration followed by new, young growth makes a yew tree virtually immortal. It also makes it difficult to predict age accurately.
- Experts estimate age using a variety of ways including investigating old maps, looking up tree records, measuring tree girth and looking at the growth form. Several yew trees are believed to be well over 2000 years old and there is no known limit to how old they could live.
- Yew wood is particularly strong and yews are resistant to disease, aiding their longevity.
- Most of a yew tree is poisonous. The red flesh or 'aril' of the berry however is not and, provided the seed is not crushed, berries can be eaten and passed through some animals causing no harm.
- Yew bark and foliage have current medicinal uses and an alkaloid extracted from yew called Taxol is used in cancer treatment.
- Male and female flowers are found on separate trees (dioecious) so they maximise fertilisation opportunities.



Yew

HELPING YEWS

- Never assume that a yew is dying or dead. Many can carry a lot of deadwood, can look 'untidy' or have discoloured needles but will still recover and regenerate.
- If a yew has been regularly trimmed then you can continue to do this, if not DO NOT start pruning, trimming or pollarding yews. Leaving them alone is the best management unless a tree expert specifies otherwise.
- If boughs are collapsing remember that they are able to then take root and regenerate. If they are causing a problem and cannot be allowed to collapse then prop them up. Do not prune them off. A good tree contractor or arborist will be able to help and advise.
- Ivy can smother the crown, adding weight and cutting out the light. It can also hide tree defects, the identification of which are important when assessing tress. Although ivy has wildlife benefits (see sheet A8, Creating a Wildflower Meadow and Helping Wildlife) remove it from yews. Do this work cautiously with hand tools so as not to damage the tree, using a tree contractor if climbing is involved. N.B. there can be bats and nesting birds within yews, particularly those with a thick growth of ivy; see sheet B3, Bats in the Belfry before doing anything which may disturb them.

5. Yews and Other Veteran Trees

- Keep the ground clear beneath a yew, removing railings, grass cutting piles and shrubs like holly, elder or hazel. One of the best things you can do is to mulch under yew trees. Use wood chip or leaf mulch and spread it canopy wide. Make sure that the mulch is not touching the trunk however. Mulch can be a few inches thick, replenish it every few years. Never fill the cavity of a veteran yew with rubbish, grass cuttings or use it as a storage space.
- Tell people how amazing a tree it is! NB If you have a famous yew with a lot of visitors try to discourage them from compacting the soil beneath the canopy.

OTHER VETERAN TREES

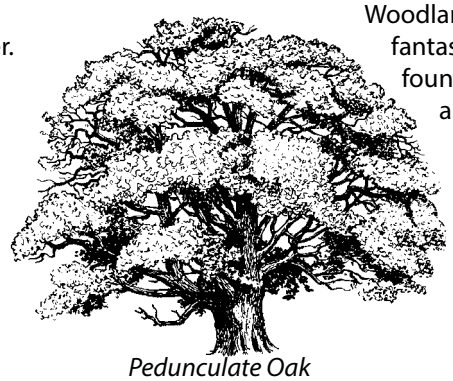
Burial grounds often have other species of veteran tree. Whilst these won't be as old as the oldest yews they may well be many hundreds of years old and magnificent specimens in their own right. They are likely to have a whole range of other plants, lichens, birds and other animals living in and on them.

Veteran trees may have:

Deadwood within the crown of the tree plus holes, flaking bark and crevices containing a range of fungi, beetles, bats and birds.

Epiphytes growing on them – these are plants such as ferns, mosses and lichens which grow on the tree with no connection to the ground.

Hollowing of the trunk to give a cylinder. Like yews, many other tree species hollow out as they become ancient. This is a natural process and does not weaken the tree, in fact it may strengthen it; a cylinder is a strong shape.



Pedunculate Oak

None of these features are a problem; they are part of the natural aging process and give character and interest to a tree.

If you have veteran trees in your burial ground then work closely with your tree contractor or arborist.

Deadwood

Deadwood within a tree is excellent wildlife habitat. Invertebrates live in or on deadwood, as do fungi, as well as more visible creatures such as woodpeckers. There may be areas within your site where deadwood within a tree is quite acceptable and other areas where it is hazardous, such as over a path.

Consider deadwood carefully, seek advice from a tree surgeon or arborist and only remove if necessary from a safety point of view.

If you do identify problems with a tree, maybe there are signs of stress or disease – it does not mean that the tree will have to be felled. A good arborist or tree contractor can advise you and should explore all other options before deciding to fell a tree. It may be possible to simply remove the dead parts, or reduce the size of the crown, (see sheet A6, Practical Management of Trees and Shrubs).

Recording Veteran and Ancient Trees

The Ancient Yew Group, Ancient Tree Forum and Woodland Trust keep records of these fantastic trees and these records can be found on the Church Heritage Record and Church Heritage Cymru. Have a look on the Churchyard page to see where they are known to occur.

Useful contacts

Ancient Tree Forum, www.ancient-tree-forum.org.uk

Ancient Yew Group, www.ancient-yew.org

Arboricultural Association, www.trees.org.uk

Caring for God's Acre, www.caringforgodsacre.org.uk

Church Heritage Record www.facultyonline.churchofengland.org/churches

Church Heritage Cymru www.churchheritagecymru.org.uk/

The Woodland Trust, www.woodlandtrust.org.uk

Alder

Useful reading

Veteran Trees: A Guide to Good Management – Natural England publication

Yew: A History – Fred Hageneder, The History Press Ltd

6. Practical Management of Trees and Shrubs

This sheet explains the principles of simple tree work; it gives guidelines on selecting which trees to keep and on their pruning, pollarding, coppicing and general maintenance including management of ivy.

As well as large specimen trees like yews a burial ground is likely to have other smaller trees, some self-seeded, some within hedges or other boundaries, some planted, perhaps as memorials. A burial ground may also have woody shrubs, such as native hazel or dogwood or ornamental, more decorative varieties. These are all likely to need management.

OVERCROWDING

There may be parts of a burial site with too many trees or shrubs, particularly if the site has been through a period of little or no management. Self sown trees can establish in areas without regular mowing, against walls or monuments or suckering from existing mature trees. Tree planting may have taken place without sufficient thought about how large trees grow or whether they are suitable for the location.

Have a plan

Go back to your site plan and subsequent management plan (see sheet A1, The Five Steps).

What are your priorities?

- Are the trees going to shade an area of interesting grassland full of flowers or waxcap fungi?
- Is this an area where trees have been lost through old age and a new tree would be appropriate? If so what species?

Do not preserve a sycamore sapling if a yew tree would be more fitting.

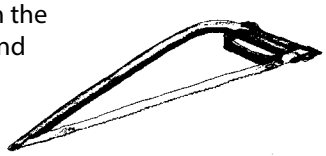
Be bold and decisive

Problems of overcrowding or of trees in the wrong place will not resolve themselves and get harder to deal with as trees get taller. The sooner you act the better.

Prior to doing any work tell the landowner, or in the case of a churchyard, the diocese. Check whether there is a Tree Preservation Order or Conservation Area status. Assess the work needed to see if it can be done by volunteers or if a tree contractor is required (see sheet A4, Inspecting and Caring for Trees).

Felling trees

If trees need to be removed then assess if this can be done by volunteers; size of tree and location will be the key things to consider (see sheet A4, Inspecting and Caring for Trees). When felling a tree, ensure that it is not going to rejuvenate from the base. A tree contractor will either grind away the stump to prevent this or be qualified to treat it with a poison. When removing small trees they can either be uprooted or else stopped from re-growing by making many criss-cross cuts through the stump so that water gets in and rotting starts. If a stump does re-sprout then repeat this. Mashing a stump with a pickaxe usually works.



Do not use herbicides in a burial ground. Chemicals which you might use in your garden should not be applied in a public place in case they cause harm to the public, particularly children, or to pets.

PRUNING, POLLARDING AND COPPICING

Pruning

Both coniferous and broadleaved trees and shrubs can be pruned. Pruning can give a good shape, and includes techniques such as crown reduction, thinning and lifting. It reduces the size a little, but attempting to stop a tree which has the potential to grow large by lopping and topping is usually unsuccessful.

When to prune trees or shrubs

Evergreen trees can be pruned in late summer. Deciduous trees can be pruned when they have lost their leaves in autumn or winter.

How to prune trees or shrubs

Carefully consider what needs to be done to produce a balanced, attractive tree or shrub. Work with the natural shape of the tree to shorten or remove branches. Going against the tree's natural habit produces ungainly trees that lack grace.

Always start by removing damaged, dead and diseased shoots, followed by weak growth or limbs which are rubbing

Elder

against each other. Make sure you have the right tools and that they are sharp.

Do not remove more than 30% of the crown of the tree in one go.

- When cutting a small stem, prune just above a healthy bud or side shoot. Make your cut about 1cm (½ inch) above the bud. Try not to cut any closer as this can damage or kill the bud.
- It is better to cut too far away from the trunk than too close to avoid damge to the 'collar' where the tree's natural healing takes place.
- Do not paint the wound with anything. The tree or shrub can close over the wound provided you have not cut away the collar.

Pollarding

Only broadleaved trees and shrubs can be pollarded, which starts when the tree is young. Do not pollard conifers.

Pollarding is a method of major pruning that keeps trees and shrubs smaller than they would naturally grow. It reduces the size considerably and can get branches away from windows or from over paths.

Traditionally trees were pollarded above the height reached by browsing livestock so between about 1.5m to 2.5m (4 to 10 feet).

Regular pollarding can prolong the life of a tree almost indefinitely but pollarding after years of neglect can cause a tree major stress and wounding, particularly a veteran tree.

Coppicing

Coppice broadleaved trees and shrubs starting when the tree is young; do not coppice conifers. Work in winter or early spring repeating every few years depending on the speed of growth (traditionally hazel was coppiced every 7 to 10 years).

Coppicing involves cutting a tree or shrub to near ground level. This causes sprouting from the base with many stems growing back for each one cut. Traditionally hazel, willow, sweet chestnut and oak stems were coppiced for hurdle making, basket weaving and much more.

Coppicing is now generally carried out to rejuvenate a shrub or small tree, to reduce its size and give thick growth at ground level. Coppicing of native shrubs can give useful sticks for gardening (pea sticks and bean poles) and coppice crafts.

To coppice a shrub (either a native shrub like hazel or an ornamental shrub like a specimen dogwood), cut all of the stems close to the ground with a diagonal cut that allows water to run off.

Did you know that coppicing can prolong the life of a tree or shrub by at least 10 times? Some coppice stools at Westonbirt Arboretum are estimated to be 600 years old!

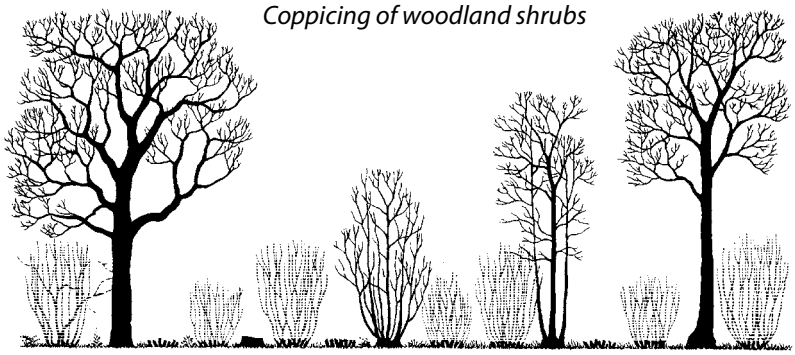
What to do about ivy?

Hotly debated, ivy is a native climber and is found everywhere. In general ivy does not damage a tree and a healthy tree with a good crown of leaves will shade the ivy and prevent it becoming too large. Ivy growing on young or mature trees is unlikely to be a problem and can be left alone. Ivy on veteran trees, in particular veteran yews, is more of an issue (see sheet A5, Yews and Other Veteran Trees).

Always remove ivy from veteran yews.

Sometimes the weight of ivy within the crown

Coppicing of woodland shrubs



of a tree may be considered to be a problem by your tree contractor or arborist, making a tree less stable and increasing the risk of falling.

You can remove ivy by cutting out a section of about 30cm in length from the ivy stem at the base of the tree trunk. This should cause slow death of the ivy above the cut and removes the need to detach it.

If you are actually taking ivy off a tree (a veteran yew for example) then be aware of the possibility of both nesting birds and roosting bats within the ivy. Carry out work when birds are not nesting and seek advice about bats (see sheets B4 & B5, sections on 'staying within the law').

Pests and diseases

After many years without epidemic tree diseases the UK is now facing several which are attacking a variety of trees including oak, ash, alder, larch, sweet chestnut, horse chestnut, Lawson's cypress and juniper. Trees are able to withstand many diseases however and if problems are identified they should be dealt with on an individual basis. See the contacts section for where to get help and news of recent pests or diseases.
A vigorous tree in good growing conditions can withstand considerable stress and disease. Regular surveying by volunteers may be key in spotting problems early (see sheet A4, Inspecting and Caring for Trees).

Rowan

Bullfinch

Useful contacts

Ancient Yew Group, www.ancient-yew.org

Arboricultural Association, www.trees.org.uk

Caring for God's Acre, www.caringforgodsacre.org.uk

Church of England, ChurchCare, www.churchcare.co.uk

Church in Wales, www.churchinwales.org.uk

Forestry Commission, www.forestry.gov.uk

Local Authority Tree Officer

Royal Horticultural Association, www.rhs.org.uk

Useful reading

Woodlands: The Conservation Volunteers Handbook

6. Practical Management of Trees and Shrubs

7. Caring for Hedgerows

This sheet explains the importance of hedges for wildlife with guidelines on how to manage them and how to plant new hedges.

A hedge between keeps friendships green!

Many old churchyards and burial sites have historic, ancient hedge boundaries comprising a variety of species of hedgerow shrub. They are an important habitat for a large variety of plant and animal species and a cherished feature of our countryside.

Hedgerows may be locally distinctive. In Worcestershire, for example, you can find abundant wild daffodils.

Well-managed hedges have a higher concentration of wildlife than almost any other British habitat.

Features include:

Wayfaring Tree

- Flowers on the trees within the hedge itself providing nectar and berries.
- Thorns to keep predators away from anything nesting.
- A dense structure with abundant leaves providing shelter and roosting sites for birds.
- Grasses and wildflowers at the base giving shelter to many animals including slow worms, mice and voles, particularly if there is long or tussocky grass.
- Hedgerows are essential corridors and flight paths to aid travel from one place to another for birds, bats, small mammals and insects.
- The hedgerow provides safety, warmth and shelter for nesting and over-wintering animals. The hedge base provides a damp, warm place for amphibians such as newts and frogs.

Staying within the law

It is illegal to remove, destroy or damage the nest of any breeding bird when it is being built or used in a hedge.

It is illegal to remove a hedge without planning permission.

If in any doubt, contact your local authority.

Check if a hedge is yours to maintain. Inform any neighbours when planting or managing a hedge.

Surveying a hedge

Ancient hedges (pre-1700) are very different from more recent hedges. Look for the following features to see if the hedge is ancient:

- Irregular shape, often on a slight bank.
- Old pollarded trees or coppice stools within the hedge.
- A large number of different plant species growing in the hedge.
- A variety of plants and flowers at the base of the hedge such as bluebell and red campion.

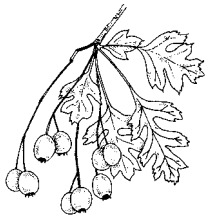
Old hedges, which once formed woodland boundaries, may have woodland plants such as yellow archangel, wood anemone and bluebell growing at the base.

The hedge may pre-date Ordnance Survey maps so look on the Old Maps website (see useful reading).

Some common hedgerow species include

Guelder rose	Dogwood	Field maple
Holly	Wych elm	Hazel
Dog/field rose	Ivy	Hawthorn
Ash	Oak	Blackthorn

Dogwood



Hawthorn

Creating a hedge

Is there an opportunity to plant a new hedge, around an extension of a new burial ground, for example? Look at other natural hedges close to your church and see what species grow well. Hedging whips, which are young plants sized 35 to 90cm, will grow well if planted properly, protected by rabbit guards and then mulched for the first few years.

Native species, such as those in the list above, have the added benefit of attracting a greater number of insects and therefore providing a plentiful source of food for creatures higher up the food chain. Look for local sources of trees and shrubs. Obtain advice from a

7. Caring for Hedgerows

local conservation organisation on hedge species and planting distance.

Maintaining a new hedge

- To create a hedge with a densely wooded lower section, hard prune in the first few years removing at least half the new season's growth.
- Dense vegetation at the base of a hedge is crucially important to wildlife. This includes nesting birds, insects, reptiles and small mammals.
- Leave an unmown margin beside the hedge to benefit wildflowers.

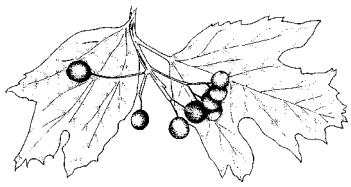
Care of hedges for wildlife

Mature hedges need little maintenance other than occasional trimming. Follow these tips for a wonderful wildlife hedge:

- The shape of the hedge is not particularly important to wildlife.
- Trim the hedge every two or three years, preferably in January or February. This gives birds and other animals as long as possible to feed on the fruit. Some hedge plants will only flower on 'old wood' i.e. the previous summer's growth. These need at least two years between cuts to flower.
- When planning hedge trimming you may choose to do half the length one year and half the next, or one side one year and the other side the next.
- Leave new shoots of occasional trees to grow; they will become the standards of the future. Mark them with tape so you know they are to be left.
- If you wish to keep the front of the church looking neater than the rear, trim this hedge at regular intervals. Be observant and check for nesting birds. Leave nests undisturbed until the young are fledged. March to August are the busiest months for nesting.
- Hedgelaying is another way of managing a hedge. Contact the **Hedgelaying Society** for information.

Rejuvenating an old hedge

- Every hedge needs rejuvenating at some point. If the shrubs that form the hedge structure are developing into a line of trees, if the vegetation at the base of the hedge has thinned out or if gaps have developed in the hedge, it may be time to rejuvenate through coppicing, laying or hard pruning.
- Either coppice or hard prune the trunks and stems to within 20cm (8 inches) of the ground.
- Add new whips to fill in any gaps and to introduce additional tree and shrub species, giving more variety.
- Some hedges can be rejuvenated by hedgelaying. This makes an excellent volunteer task where people can learn (alongside a trainer) how to hedgelay in the regional style.
- Alternatively a trained person can lay the hedge for you. Contact your local **Hedgelaying Society** or **The Conservation Volunteers**.



Guelder rose

Hazel

Useful contacts

Caring for God's Acre, www.caringforgodsacre.org.uk

The Conservation Volunteers, www.tcv.org.uk

Local Authority Tree Officer

National Hedgelaying Society, www.hedgelaying.org.uk

The Woodland Trust, www.woodlandtrust.org.uk

Useful reading

A Guide to Hedgerows – Field Studies Council fold-out chart

Hedgelink – www.hedgelink.org.uk

Hedging – The Conservation Volunteers handbook

Old Maps website – www.old-maps.co.uk

8. Creating a Wilflower Meadow and Helping Wildlife

This sheet gives suggestions for getting started with a wildflower meadow and for improving your whole burial site for wildlife.

CREATING A WILDFLOWER MEADOW

Old burial grounds often have fantastic, flowery grassland as they have been so little disturbed over the centuries. A first step to having a wildflower meadow is to mark out the boundary of your planned wildflower patch and leave it to grow long over the spring and early summer. See what comes up naturally and then have a go at surveying it.

Grassland can be full of different plant species regardless of the mowing regime, provided grass cuttings are being collected and removed. Before 'creating' a wildflower meadow, check whether you have one already there, just waiting to be allowed to flower!

The Burial Ground Botanical Companion gives a simple survey which can be done by volunteers, and indicates whether you need to enhance the sward with planting.

Survey Results

Species rich Good Moderate	Poor Improved or Amenity
Manage as Long Grass with a cut in June or July	Manage as Long Grass and consider enhancing the grassland sward

Enhancing the Grassland Sward

- Wildflowers can thrive if your grassland is mainly fine, old meadow species such as crested dog's tail and sweet vernal grass. If it is dominated by coarse grasses like cocksfoot and false oat grass then follow the management for 'bringing a neglected site back into management' for at least one year before planting flowers, (see sheet A2 caring for grassland).
- If your site contains other grassland areas which are more rich in wildflowers, then you can swap turfs. Dig up a couple of turfs (about 30cm square) in autumn or spring from both the flowery and non-flowery areas and swap them over. Keep an eye on them and if the flowers do well, repeat the following year.
- Collect seed from other parts of your burial ground and sow it onto bare ground (molehills are good for this). To create bare ground, roughen the sward with a rake exposing soil over up to a third of the area.
- Buy flower seed or plug plants from a nearby supplier of wildflowers. Ask your county wildlife trust for local provenance suppliers, and advice on what to plant. Choose plants that you have seen in nearby verges or meadows; these are likely to be suitable and to do well.
- Try not to let people bring in plants from their gardens as they are unlikely to be native. You can ask them to name their favourite wildflower from the nearby verges and collect seed from there instead.

Yellow Rattle

Yellow Rattle

This plant is really useful in creating and enhancing wildflower meadows. It is a semi-parasitic, meadow annual which attaches itself to neighbouring grasses through the root system and reduces the vigour of the grass. Where yellow rattle is present you can see that the grass is shorter and less dense. Sow yellow rattle seed in early autumn, so that it over-winters in the soil. Sometimes it doesn't germinate well, so keep trying for several years. You can sow yellow rattle alone in year one, following it up with more yellow rattle plus other wildflowers in year two to get the best chance of all your flowers establishing well.

Centaury

Pyramidal Orchid

8. Creating a Wildflower Meadow and Helping Wildlife

Annual and Perennial

The wildflower meadows described here are mainly made up of perennial plants; plants which live for more than two years, * This is why short grass, properly managed, may still contain many flowering plants which have not flowered or set seed for years.

Don't confuse the flowers of these meadows with cornfield annuals such as poppy, cornflower or corn cockle. These grow in bare soil and plants live for only one growing season.

* There is an exception to this; yellow rattle, which is a traditional plant of meadows, is an annual and so needs to set seed before it is cut.

Once you have created your wildflower meadow, then manage it as you would any other area of long grass (see sheet A2, Caring for Grassland, Long Grass).

STAY ORGANIC

Burial grounds have existed for hundreds of years with no herbicides, pesticides or damaging preservatives, which is one reason why they are so good for wildlife. Please don't change this!

VARIETY IS THE SPICE OF LIFE!

Try to have a rich variety of habitats on your site. A burial ground with several different features such as trees and shrubs of different ages and shapes, long and short grass, hedges, walls and areas of scrub or coarse vegetation will shelter a great variety of wildlife.

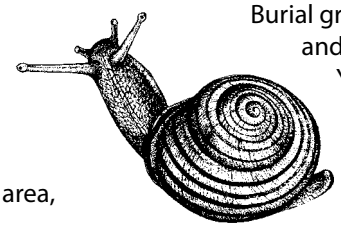
The sum of the whole is greater than the individual parts.

DEADWOOD

Deadwood is fantastic for wildlife. A great many bacteria, fungi, lichens, worms, beetles and other invertebrates live in deadwood. In a natural forest, wood rots down either within a tree or else on the ground. In a burial site you may prefer to have a pile of deadwood away from visited areas or flowery grassland. If there is an area of tussocky grass then this could be a good spot for a deadwood pile.

Creating a good woodpile for wildlife

Pile up any prunings or sections of trees that have been felled. A variety of sizes is ideal as they will rot at different rates. Add to the woodpile whenever you carry out tree work; try to keep it over 50cm tall.



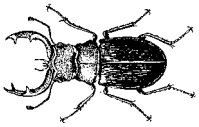
Locate the pile in a fairly shady, damp area, ideally surrounded by long grass or by trees and shrubs. A woodpile near to a wall or hedge can encourage animals to explore both.

Do not keep the area around the woodpile too tidy; leaves on the ground and coarse vegetation will make the woodpile more likely to attract animals such as slow worms and hedgehogs.

Tree stumps and standing deadwood

If a tree is felled or blows down then consider leaving the stump to rot. Different plants, fungi, birds and animals will use this, particularly if it is quite tall. Perhaps grow a climbing plant on it if the stump is unsightly. Think before you remove deadwood from within a tree. Do you really need to or could it be left for the woodpeckers?

IVY



Ivy provides excellent cover and food for wildlife, and dense ivy may contain nesting birds and roosting bats. Ivy flowers between September and November, providing nectar and pollen when little else is flowering. Ivy can be literally buzzing with bees and flies in the autumn. The fruit is eaten by many birds and small mammals. There may be places where you wish to remove or control ivy, such as veteran yews, but there may be other areas where it can be left. Encourage ivy to flower by teasing top shoots away from their support so that they hang free. (see sheet A9, Pesky Plants and Animals for advice on situations where ivy becomes a problem).

HEDGES, SHRUBS AND SCRUB

Variety is important for conservation so try to have a range of different trees and shrubs to benefit a wider range of creatures. Most burial sites have some mature or veteran trees but is there scope for a hedge?

When planting a new hedge try to use species which will bring wildlife into your site: hedgerow plants with flowers followed by berries and haws. Early or late flowering plants provide food when other plants are not flowering. These are particularly crucial for bumblebees.

Think about managing hedges for wildlife (see sheet A7, Caring for Hedgerows) allowing flowers, fruit and seeds for birds and other animals to feed on.

HABITAT BOXES

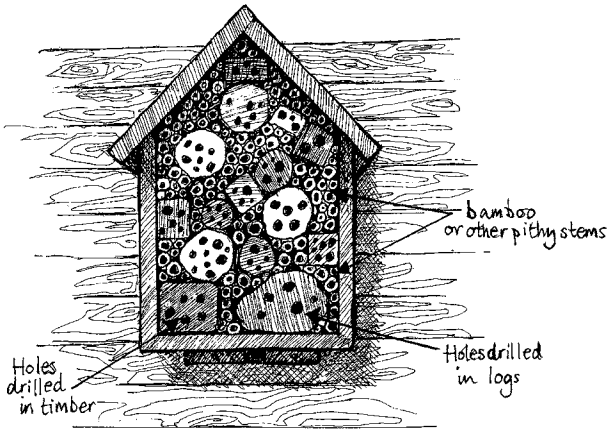
Burial grounds often have nooks and crannies for birds and animals for both nesting and over-wintering. You may want to create some artificial ones, particularly if potential homes have been lost. When rebuilding a section of old dry stone wall, consider making a woodpile nearby and putting a hedgehog box in tussocky

grass near to the wall.

Habitat boxes also help people to see particular birds and other animals. A blue tit nesting in a box on a tree trunk is easy to watch, the same bird in a scrub thicket nearly impossible!

Put up a nest box for swifts on a church or other tall building. Swifts are in need of homes. Swift boxes can be fitted behind the louvres of a church or chapel tower and will be invisible from the outside.

Bird and bat box designs can be found on the internet or by contacting Caring for God's Acre partner



organisations (see list below). Just enter 'making a nest box/hedgehog home/bat box' etc into an internet search engine.

MAKE A BEE HOTEL

To make a bee hotel fill a frame with hollow canes, such as sections of bamboo, elder or hogweed, bricks with holes, pinecones, straw etc. Basically the idea is to pack together lots of different sized holes which bees and other invertebrates will use.

The frame can be a section of drainage pipe (clay looks more attractive than plastic), a series of shelves made from planks of wood propped up with bricks or a simple wooden box.

Fix your bee hotel securely in a sunny, sheltered place. It can be built up from the ground or fixed to a fence or wall. This will be used throughout the spring and summer and is a good way to watch insects.

WATER

Drinking water, particularly in times of little rain, can be a life saver. If this is on the ground then animals like birds and hedgehogs can use it. Put a large, flat dish in a shady place.

LONG AND TUSSOCKY GRASSLAND

Try to have an area of long or tussocky grass within your site, even if it is small. A strip against a wall or hedge will provide a corridor for animals such as voles and newts, plus providing a food source for seed-eating birds. The range of invertebrates including bees and butterflies will increase greatly by having some grassland which can flower, seed and give shelter.

Useful contacts

Amphibian and Reptile Conservation, www.arc.org.uk

Bat Conservation Trust – bat boxes and encouraging bats, www.bats.org.uk

British Hedgehog Preservation Society – hedgehog homes, www.britishhedgehogs.org.uk

British Trust for Ornithology – National Nest Box Week, www.bto.org

Bumblebee Conservation Trust – bee friendly plants, www.bumblebeeconservation.org

Caring for God's Acre, www.caringforgodsacre.org.uk

OPAL Explore Nature – building a bee hotel, www.opalexplorenature.org

RSPB – nest boxes for many bird species including owls, www.rspb.org.uk

Swift Conservation – make a swift nest box, www.swift-conservation.org

Wildlife Trusts – hints on gardening for wildlife, www.wildlifetrusts.org

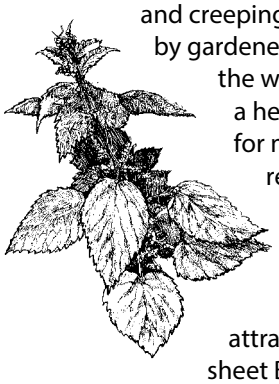
8. Creating a Wildflower Meadow and Helping Wildlife

9. Pesky Plants and Animals

This sheet lists some of the more difficult plants and animals which are found in burial grounds and gives guidelines on how to manage them.

NETTLES

Stinging nettles are perennials (they over-winter and can survive year on year) with tough yellow roots and creeping stems. Often seen as a nuisance by gardeners, they are actually a vital part of the web of life and were once valued as a health-giving food, a source of fibre for making linen and rope, and as a rennet substitute in cheese making. Nettles are the main food plant for the caterpillars of several butterfly and moth species, so a patch of nettles, ideally in sun, can attract these insects to your site (see sheet B6, Butterflies, Moths and Other Insects).



Controlling nettles

To prevent nettles from spreading into grassland, cut into the edge of the patch by at least 1m (3ft), beginning when the shoots appear in the spring and repeating each time the shoots reach about 30cm (1ft). If your nettle patch is less than 1m wide then cut once before flowering to avoid setting seed. Nettles make excellent hay of high nutritional value.

Eradicating nettles

To eradicate small nettle patches, cut before or during flowering then dig up with a fork and remove the rootstock as thoroughly as possible. Remove or burn the roots. The rootstock can be exhausted by repeated hoeing and pulling out roots. Nettle seed can lie dormant in the soil for 5 years so be determined!

HOGWEED

Hogweed grows for one year and then flowers in the second, flowering throughout summer and shedding seeds slowly from August onwards. Whilst a small amount is beneficial in tussocky grass, it can become a pest of other grassland. Hogweed has a stout taproot which survives over winter. As with nettles, a managed amount can be beneficial for insects which use the hollow stems for shelter. Hogweed stems are ideal in a bee hotel (see sheet B5, Bumblebees and Other Bees, Wasps and Ants).

Controlling hogweed

Cut hogweed regularly so that it does not set seed. If there is a large amount of persistent hogweed then dig up the tap root. Regular management of grassland where hogweed grows will eventually eradicate the plant and the seed persists for less than 5 years. Wear suitable protection to prevent sap getting on to skin or into eyes.

SCRUB

Scrub describes those patches of low woody growth made up of tree saplings, woody suckers, low bushes and brambles which can occur in neglected corners. Scrub may be a problem if it obscures stone features and impinges on grassland but it does provide good habitat for birds and butterflies. So don't clear it all away; keep a patch or two.

Managing scrub

Manage scrub by cutting back new growth each year to stop further encroachment. Unless you want to encourage new trees, cut tree saplings down at the base to stop them growing into trees. They will probably sprout back but keep cutting and they won't get out of hand.

IVY

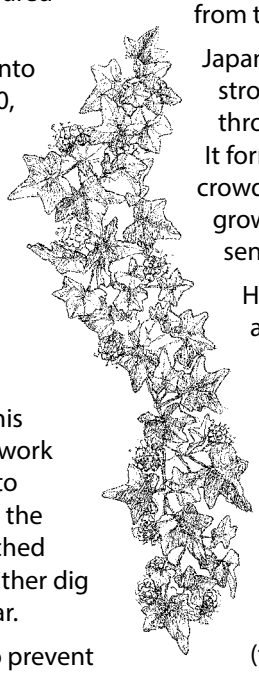
Ivy is great for bees and other insects, and can contain birds' nests and roosting bats. It can also protect stonework from wind, freezing temperatures, erosion and airborne pollution. However, it can be damaging to memorials with joints or cracks and may need to be removed or trimmed regularly.

9. Pesky Plants and Animals

Always remove ivy from veteran yews but only remove it from other trees if it is making a tree unsafe due to the weight or 'windsail' effect, or is making it difficult to inspect the tree (see sheet A4, Inspecting and Caring for Trees).

Ivy can be left on stonework unless:

- Ivy is covering plants of interest such as lichens, mosses, liverworts, ferns or flowers.
- You cannot read the inscriptions on a treasured monument.
- It is damaging the stonework by growing into joints or cracks, for example. (see sheet A10, Caring for Stonework, Metalwork and Woodwork).



Managing ivy

Ivy is often managed by cutting out a section (about 30cm long) of the stem and leaving it to die above the cut. This may be the best method of removing ivy from trees (where you can cut it at the tree trunk base) but it should not be used on stonework as this can encourage the ivy to root into the stonework causing damage. With stonework you need to tease the ivy away from the support. Start at the top, where the young stems tend to be attached more strongly than the old, and peel it off. Either dig out the ivy roots or else repeat this every year.

You may wish to keep some ivy but trim it to prevent spread. Avoid the bird nesting season for this; late summer through to early spring is good. Take care when working with ivy on an old wall; it may well be the ivy which is holding it up so trim ivy back to the stone but do not pull.

Review the impact of ivy regularly to assess whether it needs to be removed or controlled.

RAGWORT

Like ivy there are pros and cons to ragwort. Ragwort contains toxins and if eaten in large quantities it can kill livestock (which avoid it when grazing but will eat it dried in hay). It can be handled safely, however. At least 30 species of invertebrate depend on ragwort, including the cinnabar moth and the ruby tiger moth. It grows in bare, disturbed ground and is therefore often found in fields where animals such as horses have broken up the grass sward.

Ragwort and Cinnabar Moth

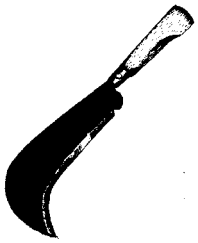
Managing ragwort

Strangely the best way to control ragwort is to let it flower (the parent plant then dies) and to manage grassland carefully to avoid creating bare ground where the seeds can germinate. Pulling it may leave roots which re-grow and cutting before flowering prolongs the life of the plant. In a burial ground some ragwort is not a problem and can be left. If you are making hay and selling it then remove the ragwort prior to cutting.

JAPANESE KNOTWEED AND HIMALAYAN OR INDIAN BALSAM

Both of these plants have been introduced to the UK from the Far East and have spread quickly.

Japanese knotweed grows to 3-4m high and has a strong root system which can push through stonework and concrete. It forms a dense, spreading clump, crowding out other plants and growing a metre a month – so it is sensible to try to eradicate it.



Himalayan balsam is the largest annual growing in Britain, reaching up to 3m in a year.

Eradicating Japanese knotweed

In 2010 the government approved a biological control which is an insect that feeds exclusively on Japanese knotweed sap. This is still being assessed and in the meantime you can try to dig out the entire root ball or use a registered contractor to kill it with herbicide (this can take several years of application).

Staying within the law

Before disposing of any part of the plant please contact your local authority or relevant statutory government agency as it is illegal to plant Japanese knotweed and it can grow from a small piece of root or stem.

Controlling Himalayan balsam

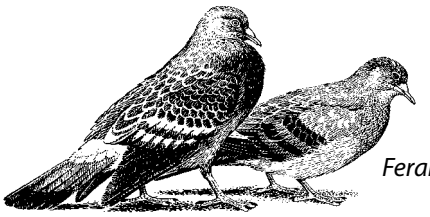
Easier to remove than Japanese knotweed, the problem with Himalayan balsam is the speed with which it grows. It smothers other plants and produces a great many seeds which shoot up to 7m from the pod and spread mainly by water. Its seeds only last for a couple of years so it can be controlled by preventing it from seeding.

Pull up the plants before they flower; 'Balsam Bashing' is a satisfying volunteer job and provided there are no seeds present, the plant can then be burned or composted. Himalayan balsam is eaten by livestock and can also be controlled by cutting repeatedly.

BIRD NESTS AND DROPPINGS

Birds such as feral pigeons and jackdaws can be a nuisance if they get into a tower or roof space where a build-up of their nesting material and droppings

can cause a hazard. Blocking likely entrance holes and grilles with fine wire mesh (not netting) will keep them out. Use weld mesh with less than 1 inch or 2cm grid. See if you can put a swift box into the 'hole' so that you prevent pigeons or jackdaws getting in, but encourage swifts. Swallows and spotted flycatchers will occasionally nest on a ledge inside a porch; a small shelf on a bracket below the nest will catch any droppings thus preventing damage or slip hazards. If you have problems with birds then contact your local wildlife trust, bird group or the RSPB for advice.



Feral Pigeon

BADGERS

Badgers can cause problems in burial grounds by digging in the wrong place (digging up graves is not uncommon). Badgers have considerable legal protection so seek advice from the relevant government statutory agency.

MOLES AND MOLEHILLS

Moles are both friend and foe to the site manager:

- Friends as they eat many pests such as wireworms, slugs and snails.
- Foe as they throw up molehills which many see as a problem.

There are numerous theories as to how to get rid of moles: burying glass bottles, garlic or elder twigs pushed into the molehill to name a few. Poison and traps are cruel and are not recommended. Getting rid of your resident mole may not be a good idea as it actually leaves a territory open for another mole to move in. A mole's tunnels are its hunting ground for worms and a mate! Once it has enough tunnels it stops digging. It may be best to learn to live with your mole and to press molehills back into the ground.

Badger

Useful contacts

Badger Trust, www.badger.org.uk

Caring for God's Acre, www.caringforgodsacre.org.uk

Mammal Society, www.mammal.org.uk

Royal Horticultural Society, www.rhs.org.uk

Wildlife Trusts, www.wildlifetrusts.org

Statutory government agencies:

Natural England, www.naturalengland.org.uk

Natural Resources Wales, www.naturalresources.wales

Scottish Natural Heritage, www.snh.gov.uk

Northern Ireland Environment Agency, www.doeni.gov.uk

The Environment Agency, www.environment-agency.gov.uk

Useful reading

Managing Invasive Non-Native Plants – Environment Agency publication

Ragwort Control and Ecology – www.ragwortfacts.com

The Protection of Badgers Act 1992 – www.legislation.gov.uk

9. Pesky Plants and Animals

10. Caring for Stonework, Metalwork and Woodwork

This sheet gives guidelines on the management of stone, wood and iron features.

Early crosses, stone sculpture and medieval tombs are relatively rare and their significance is recognised by statutory protection such as English Heritage Listing or Scheduling. Their conservation requires special care and expert advice. Consult organisations such as:

- Diocesan Advisory Committees
- Government advisers on the historic environment
- Conservation architects

Management of monuments and memorials needs to be considered at three levels:

- Individual monuments
- Groups of monuments
- Landscapes of memory – entire burial sites

Individual monuments and groups of monuments are prone to damage from erosion, unmanaged vegetation or scrub, instability, vandalism, rearrangement and clearance.

MANAGEMENT ADVICE

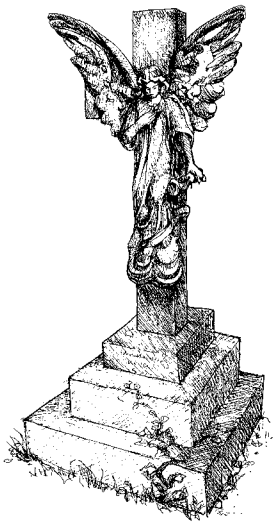
Tasks suitable for volunteers

Volunteers can help with maintenance work such as the management of invasive plants, recording inscriptions and photographing monuments and carrying out condition assessment. NB condition assessment will not include monument safety unless the assessor is both trained and insured for this work.

Consider:

Keeping memorials and monuments that you are sure are safe, free of woody stemmed plants such as saplings or brambles. Ivy does not often damage stonework and can actually protect it from air pollution and extremes of weather which cause erosion. Ivy can, however, damage more elaborate memorials that comprise stone sections with joints. The ivy grows into the joints or any cracks and crevices and pushes them apart. Ivy can also make memorials impossible to see or to inspect, so you may decide to clear it. If you do, then gently pull it from the stone, starting at the top.

Do not cut the ivy stem and leave the remainder to die. Cutting the stem encourages rooting into the stonework thus causing damage. (See sheet A9, Pesky Plants and Animals). NB ivy may actually be holding a monument together, or may be concealing chips and breaks. By clearing the ivy you may precipitate the need for repair so think carfully before starting.



Leave a small section of long grass around a monument and cut it carefully with shears (you may choose to cut this once or twice a year rather than every time a site is mown). This prevents damage from mowers or strimmers coming too close.

On no account use herbicide around memorials – it is damaging to stonework and creates bare areas for invasive plants to establish.

Care of stonework where professional advice and permission may be required

When stones are broken or flake and crumble with weathering it may be possible to repair them if this is a priority. Graves and monuments are often the property of the heirs of the deceased. Prior to carrying out repairs it is important to try and track down any family members who have responsibility for the monument. Advice on conservation work should be sought before embarking on restoration. Try your local diocesan staff, county archaeologists, stone conservators, church architects and historic building advisers. The English Heritage publication 'Caring for Historic Graveyard and Cemetery Monuments' is a useful reference.

If a very significant monument is weathering quickly, the best advice may be to consider moving it inside a building or under cover. This is an extreme measure and do not disturb or move any historic stonework without the necessary permission.

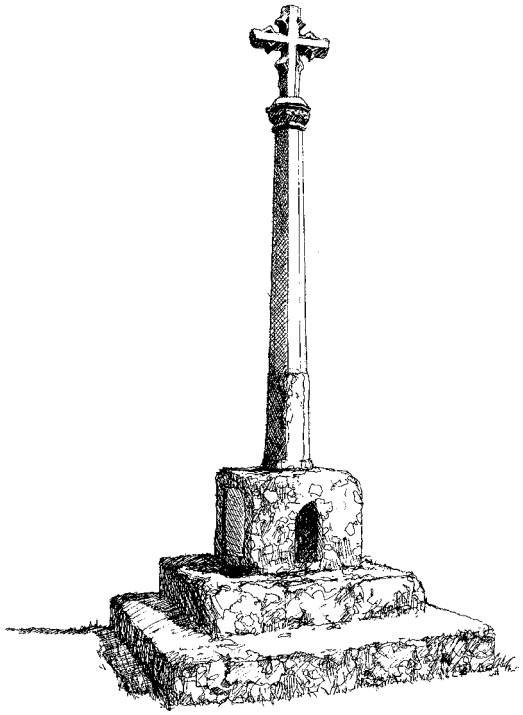
Maidenhair Spleenwort

As a general rule monuments should only be cleaned if the soiling is actually damaging the stone. Cleaning with chemicals and wire brushes is not recommended. This can actually make stone more prone to deterioration as it roughens the surface. Better to appreciate the lichens and mosses

growing on the monument. A few lichen species can damage susceptible stone types however, so seek advice from conservators and lichenologists if this appears to be the case.

Graffiti removal should be carried out as soon as possible after the graffiti has been applied. This requires an experienced operative in order to avoid any imbalance in the appearance of the stone. The advice and experience of a conservator may also be required.

The application of coating systems such as graffiti barriers can change the appearance of the stone and is not generally recommended.

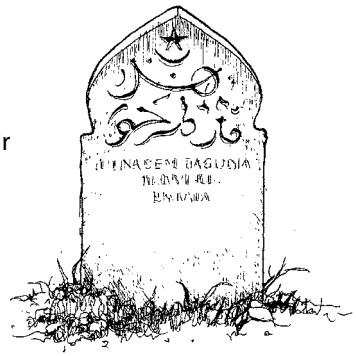


Stonework safety

Please refer to your insurance and/or church authority guidelines on this subject.

In the Anglican Church for example, it is the responsibility of clergy and Parochial Church Councils (PCC) to take proper care to ensure the safety of visitors to churchyards. The PCC has an Occupier's Liability for the safety of visitors and those working in the burial ground. The owner of a memorial (the purchaser or, following their death, the heirs of the deceased) has the legal responsibility for its maintenance, including its safety. The monumental mason has a duty of professional care to the purchaser for ensuring that the monument is stable and secure. However, the ultimate responsibility lies with the 'occupier', who is, in the case of churchyards, the clergy and PCC. Ensure that whatever is carried out in the churchyard for purposes of safety is notified to the PCC's insurers, and their advice considered.

Serious injury and even fatalities can occur when stones fall over.



Oddly enough, old headstones made of one solid slab of stone, even if found to be leaning at an acute angle, are usually very stable because of their monolith construction and the fact that one-third of the stone is buried in the ground. On the other hand some quite recent 'lawn type' memorials can be inherently unstable, because the dowels or cement connecting the slabs quickly corrode and disintegrate.

RECORDING

Memorials and monuments can be of interest to the historian, artist, architect, geologist and genealogist.

There are a number of recording systems available for recording memorials and monuments and inscriptions. Here are a few:

The Federation of Family History Societies has over 160 member societies, all helping their own members to research their ancestors in England, Wales and Ireland. Contact them for information on memorial inscriptions.

The Churches Conservation Trust's Good Gravestone Recording Pack is a comprehensive pack containing everything needed to record and understand historic gravestones.

Council for British Archaeology publication – Recording and Analysing Graveyards by Harold Mytum. This book aims to inspire action in the form of recording and analysing graveyards and monuments.

10. Caring for Stonework, Metalwork and Woodwork

Burial Grounds of England Survey

This digital system links photos, inscription recording and condition reporting to a digital map. It can be uploaded onto the Church Heritage Record and Church Heritage Cymru, databases holding information on all burial grounds, not only those associated with churches.

HISTORIC METALWORK AND WOODWORK

Burial grounds may have both wood and metal features, sometimes very old. Metalwork is generally iron, either wrought or cast, whilst wood tends to be oak due to its strength and durability.

Metalwork

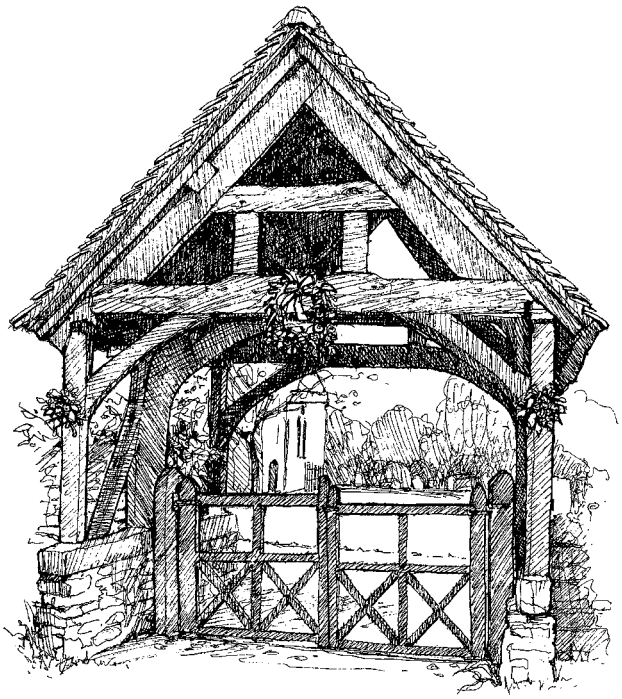
Ironwork

Ornate Victorian cast ironwork is a feature of churchyards and cemeteries. Iron railings can be found on boundaries or decorating individual graves or groups of graves. Ironwork can be incorporated into lychgates or decorative gates.

Cast iron became popular for decorative ironwork from the 1750s. Created in moulds, cast iron gives an identical repetitive pattern. It is fairly resistant to corrosion but being brittle it cracks under stress.

Wrought iron has a high tensile strength and the earliest railings were wrought iron which is worked while hot requiring the traditional skills of a blacksmith. Many iron structures were removed during WWII, to be used in armaments. Look out for the stumps of sawn off railings.

Historic ironwork is difficult to repair and requires sensitive conservation.



Surveying ironwork

It is sensible to check metalwork looking for the following:

- Corrosion such as paint blistering and pitted surfaces.
- Oily residue on the surface indicating that paint is breaking down or there is corrosion underneath.
- Chipped paintwork.
- Missing or damaged sections.
- Staining from rust or cracks in masonry in contact with the metal.
- Gate hinges which bind or squeak.

Bronze

Formed from copper and tin, bronze is very resilient and can be found as an ornament to monuments. Verdigris, a green pigment formed when bronze is weathered and exposed to air or water over a period of time, can cause staining. Bronze corrosion is usually superficial.

Lead

Lead is a very soft metal which was used in statuary but most commonly used for lettering to monuments. Lead as statuary can split and slump under its own weight and lead lettering can detach from monuments.

Woodwork and timbers

Oak timbers were used in the construction of lychgates, structures built at the entrance to churchyards in Britain. In churchyards and burial grounds oak has also been used for gates, outdoor seating and for memorials.

Most parts of the oak tree are full of tannic acid or tannins. It is these tannins that make the heartwood exceptionally durable outdoors without treatment. The tannin can be seen as 'ink stains' on iron due to a chemical reaction. Hence outdoor oak timbers are secured with wooden pegs or other metals containing no iron.

Oak is a remarkable wood, being very strong and durable outdoors and not requiring any preservative treatment.

Please note

When repairing or restoring woodwork or metalwork seek any necessary permission and take advice.

10. Caring for Stonework, Metalwork and Woodwork

Useful contacts

Church of England, ChurchCare, www.churchcare.co.uk

Church in Wales, www.churchinwales.org.uk

Local Authority Archaeological Services

National Association of Memorial Masons, www.namm.org.uk

National Federation of Cemetery Friends, www.cemeteryfriends.org.uk

Society for the Protection of Ancient Buildings, www.spab.org.uk

War Memorials Trust, www.warmemorials.org

Statutory government agencies:

Cadw, www.cadw.wales.gov.uk

Historic England, www.historicengland.org.uk

Historic Scotland, www.historic-scotland.gov.uk

Northern Ireland Environment Agency, www.doeni.gov.uk

Useful reading

Caring for Historic Graveyard and Cemetery Monuments – English Heritage publication

English Churchyard Memorials – Frederick Burgess, Lutterworth Press

Managing the Safety of Burial Ground Memorials – Ministry of Justice publication

Practical Handbook in Archaeology I5 – Council for British Archaeology publication

Recording and Analysing Graveyards – H. Mytum, Practical Handbooks in Archaeology 15

11. Caring for Stone Walls

This sheet gives guidelines on the management of stonework in walls, caring for plants and animals associated with walls and whether to remove ivy.

Walls tend to be either dry stone, lime mortared or brick and often pre-date everything else in a site except perhaps the yew trees!

The shape of a churchyard can give a clue to the age of the site and also the probable age of the wall. A rounded shape suggests a pre-Christian or early Christian site in which case the churchyard wall may be the oldest remaining built structure in a parish.

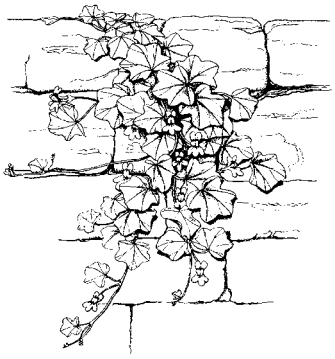
Ways of building walls can vary regionally, depending on the stone type and also whether the wall will need to withstand severe freezing. For example Cornish hedges and Devon banks are filled with soil and building rubble which holds water. This is fine in the mild climates of these counties but would suffer from frost heave in a colder place.

An historic wall has a rich mixture of colours and textures. This reflects both the stone used and also the plants, ferns, mosses and lichens which have colonised over hundreds of years.

CARE OF STONE WALLS

When considering the repair or restoration of a stone wall seek the necessary permission, should it be required, and perhaps ask a professional waller for advice.

Repairing and rebuilding



Ivy-leaved Toadflax

When a section of wall needs to be repaired or rebuilt, have a hunt around for the original stones or bricks. If stone needs to be brought in then try to match the stone type and, if possible, use stone from a local quarry (ask your local Geology Trust for possible suppliers). Similarly with bringing in brick, try to match the colour and size carefully (your local authority planning officers may be able to advise).

Repair or rebuild in the same way that the wall was originally made. Repairs carried out using a different technique will not blend in and will affect the historic importance of the wall. Unless someone in your group is practised at walling then outside help or training from a skilled waller will be required. Working alongside a skilled person makes an excellent volunteer project.

Dry stone walls

Dry stone walling is a very ancient practice dating back to at least the Iron Age and is used to create shelters, fortifications, burial mounds, ceremonial structures and animal enclosures. Many old burial grounds have stone wall boundaries.

How to care for dry stone walls

Well built dry stone walls can last well over 100 years. They look attractive, are stock proof boundaries and support wildlife whilst reflecting our traditions – so it is well worth looking after them.

Never put cement in dry stone walls

It prevents moisture escaping through joints. Moisture is forced out through the stones which are then vulnerable to damage and erosion. Filling the crevices can destroy habitat for amphibians, reptiles, invertebrates and plants.

Repair fallen walls

This is important because the stone in derelict walls often goes missing – leading to a much more expensive repair later on! Consider booking a dry stone wall trainer to run a course for local people – more fun, less

11. Caring for Stone Walls

expense and locals will then have the experience to make future repairs. Contact the **Dry Stone Walling Association** for trainers in your area or ask around locally for someone who has the skills and insurance to do this.

Ensure participants wear protective footwear and clothing and always undertake a risk assessment.

How to care for lime mortared walls

The earliest known use of lime mortar dates to about 4000BC in ancient Egypt.

Never repair these walls with cement. Unlike cement, lime is breathable and allows any moisture within the wall to come out. Lime mortar is soft and flexible and can accommodate movement, so if a building moves slightly the lime won't crack like cement. Cement repairs can lead to joints projecting beyond the stone face which look unsightly and provide small ledges all over the wall face which promotes decay.

- Re-point using lime mortar that matches the original as much as possible to avoid a 'patched up' look.
- Lime mortaring needs to be done between March and September – giving it time to cure before the frosts arrive.
- Consider involving local volunteers in the repair under the guidance of a qualified contractor. Contact the buildings department of your local council or consult the Building Conservation Directory.

Hard Fern

- Ensure participants wear protective footwear, goggles and gloves (lime is alkali) and always undertake a risk assessment.

CONSIDER PLANTS AND ANIMALS

Old walls may have a wealth of plants and animals living on them which have built up over time. These could be mosses, ferns, lichens, flowering plants, insects or spiders, amongst many others. Look for stonecrops on the sunny wall tops, ferns in cooler, shaded crevices and lichens on the stone itself.

A limestone wall or one with lime mortar may have a whole range of plants which grow in limy conditions. Our damp, mild climate favours many mosses, lichens and ferns in particular, many of which can be found on walls.

Walls can also contain roosting or hibernating bats. The damp bases of walls are excellent for newts, toads and slow worms or small mammals such as mice, voles and hedgehogs.

Water is usually the key factor that controls what grows on a wall and so shady, north-facing walls tend to have more growing on them than the sunny, south-facing side. Similarly walls and stones in the west of Britain are richer in plants than those in the east.

Soft-stemmed plants such as ferns, ivy-leaved toadflax and corydalis do no damage and do not need to be removed.

If you are repairing or rebuilding a wall then take account of the wildlife within it.

Carefully remove plants before repairing a wall and place soft-stemmed plants back into the crevices once rebuilt. Replace stones with the lichens and mosses facing the same way that they grew.

Do not repair a whole wall in one go; rather do it in sections so that plants and animals can recolonise. This is also a good way to mend a wall, fitting well with volunteer work parties.

Trees and shrubs

Trees and shrubs growing on a wall or right next to it should usually be removed, either by pulling them out when small or else cutting off flush with the wall and making cuts or drilling holes into the stump to allow it to rot.

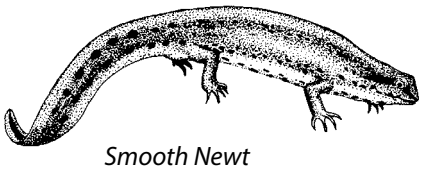
In many cases a tree which is growing in a wall cannot be removed without damaging the wall itself – so you may have to repeatedly cut off re-growth to kill the tree. Sometimes a tree will have been part of a wall for a long time and can be left there as a distinctive feature of your site.

Ivy and woody-stemmed plants

Ivy is a mixed blessing; it can push in between the stones or bricks of a wall further weakening it, but it can also hold up a collapsing wall saving it from being rebuilt. It also reduces the extremes of water and temperature which cause weathering of stonework.

Research suggests that in general as long as ivy is not rooting into the wall the benefits outweigh the risks in terms of stone deterioration. Therefore ivy does not always need to be removed (Ivy on Walls, English Heritage 2010).

If the ivy has rooted into the wall and you wish to remove it then do not attempt to unless you are ready to rebuild the wall. Ivy may be holding the wall together and removing it can cause more damage.



Smooth Newt

11. Caring for Stone Walls

Consider controlling it by regular clipping. If you do want to remove the ivy do not cut the stem expecting it to die off. On walls, cutting the stem and leaving the ivy can stimulate further, more aggressive root growth into the wall.

When deciding whether to remove ivy, remember it is great for wildlife. Wherever possible and appropriate (e.g. not covering or shading out lichens, mosses and ferns) ivy can be left to grow, flower and fruit.

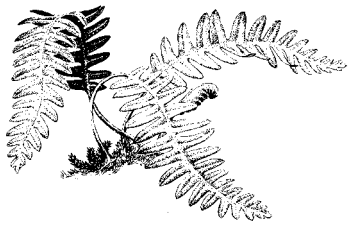
Woody-stemmed plants such as valerian can be damaging to stone walls. Valerian does, however, look attractive so you may choose to leave it in certain places.

Birds and other animals

Walls with gaps and crevices or with ivy growing over them may well contain both nesting and over-wintering birds and hibernating animals. This could include protected species such as great crested newt and bats.

If you know that there are protected species in or near to your burial site then it is sensible to ask advice before rebuilding or repairing a wall. Contact the local authority, the local wildlife trust or the statutory government agencies.

Whether or not there are specific protected species, work should be timed to avoid disturbing nests or hibernating creatures. The best time for rebuilding or repairing dry stone walls is late summer and early autumn (mid August through to the end of October). This is a pleasant time of year for working outdoors and avoids the nesting season and the winter. If there are no obvious nests in the wall then you can work in the spring and early summer as well.



Polypody Fern

Wren

Useful contacts

Building Conservation Directory, www.buildingconservation.com

Caring for God's Acre, www.caringforgodsacre.org.uk

Church of England, ChurchCare, www.churchcare.co.uk

Church in Wales, www.churchinwales.org.uk/heritage

Dry Stone Walling Association, www.dswa.org.uk

Geology Trusts, www.thegeologytrusts.org

Wildlife Trusts, www.wildlifetrusts.org

Statutory government agencies:

Cadw, www.cadw.wales.gov.uk

Historic England, www.historicengland.org.uk

Historic Scotland, www.historic-scotland.gov.uk

Natural England, www.naturalengland.org.uk

Natural Resources Wales, www.naturalresources.wales

Northern Ireland Environment Agency, www.doeni.gov.uk

Scottish Natural Heritage, www.snh.gov.uk

Useful reading

Ivy on Walls – English Heritage 2010 publication

11. Caring for Stone Walls

1. Slow Worms and Other Reptiles and Amphibians

This sheet tells you about our flagship species the slow worm with guidelines on how to help reptiles and amphibians generally.

FLAGSHIP SPECIES

The slow worm is a harmless species of reptile found throughout the UK. Slow worms can do well in both rural and urban places and burial grounds can be really good for them. With a little extra care a site can become suitable for slow worms and at the same time help other reptiles such as grass snakes and amphibians such as frogs, toads and newts.

The slow worm is a flagship species of Caring for God's Acre.

We are working with Amphibian and Reptile Conservation and Amphibian and Reptile Groups UK to encourage slow worms in burial grounds and to find out which sites they are using.

KNOW YOUR SLOW WORMS

The slow worm is often mistaken for a snake but is actually a lizard without legs. It has eyelids, a flat forked tongue and can drop its tail to escape from a predator. All of these are features of lizards not snakes. Slow worms grow from 4cm at hatching to about 30cm long and can live a long time; the record is held by a male slow worm which lived for 54 years in Copenhagen Zoo!

Like all reptiles slow worms use the heat of the sun to warm themselves. However they rarely bask out in the open, but usually stay under cover, often in long grass, woodpiles and compost heaps where they hunt for slow moving prey such as slugs and worms. They hibernate over winter amongst tussocky grass, log piles, compost heaps or stones, emerging in spring and breeding in May. Slow worms are described as 'giving birth' to young rather than laying eggs. Technically however the female slow worm actually holds the eggs in a membrane within her body until the young are born in August or September. This type of 'live birth' is called 'ovoviviparity'.

Staying within the law

All reptiles and several amphibians are protected by law and it is illegal to deliberately kill, injure or sell them.

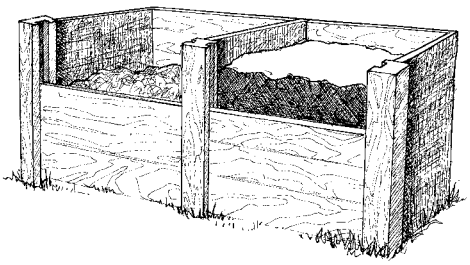
Slow Worm

How to help slow worms, other reptiles and amphibians

- Have a variety of habitats such as different lengths of grass, nettles, brambles, hedges and stone walls. Leave some tussocky grass or scrub, next to a wall or hedge.
- Keep some areas free of tall trees and dense scrub. Although slow worms like to stay under cover in grassy areas, it is important that these areas are open to the sun so that the ground warms up sufficiently for the slow worms to be active. Trees and scrub give too much shade; slow worms favour long and tussocky grassland. Slow worms need to keep their body temperature in the high 20°C to digest food and for the young to develop in the female.
- Have a compost heap, preferably in a sunny situation. It will become a basking site, a place for grass snakes to lay eggs and slow worms to hunt for food. Watch out for grass snake eggs in compost heaps; these are white, leathery and about 3cm long. Young hatch in August or September so do not empty the compost heap until October.

Yorkshire Fog

- Make a deadwood pile in long or tussocky grass. Slow worms, frogs, toads and newts hibernate and hunt here. As the wood rots away the amount of food increases. A pile of stones can provide hibernating and resting places.
- When cutting, check the area is clear before using mowers and strimmers in long or tussocky grass.
- Monuments can shelter reptiles and amphibians. Walls and chest tombs make good shelter. Tussocky grass around monuments and against walls, ideally linked to other areas of long grass, is ideal.



1. Slow Worms and Other Reptiles and Amphibians

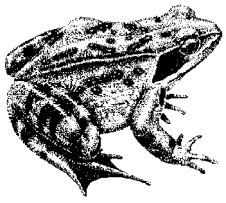
Finding slow worms

Although found across Britain slow worms are rarely seen. To find out if you have slow worms look under 'cover objects' such as pieces of carpet or corrugated iron as well as keeping an eye out prior to cutting grass.

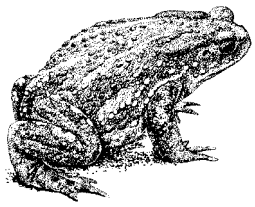
Tell us about your burial site wildlife

Let **Caring for God's Acre** or **Amphibian and Reptile Conservation** know about slow worms and other interesting reptiles and amphibians seen.

Submit records of your sightings to the Burial Ground portal within the National Biodiversity Network Atlas. You can do this via our website (see sheet B10 Surveying and recording plants and animals).



Frog



Toad

Useful contacts

Amphibian and Reptile Conservation, www.arc-trust.org

Amphibian and Reptile Groups UK – a network of local groups, www.arguk.org

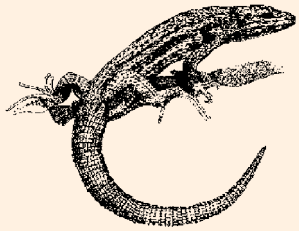
Caring for God's Acre – tell us what you have found in your site, www.caringforgodsacre.org.uk

Froglife, www.froglife.org

Useful reading

Reptiles and Amphibians of Britain and Ireland – Field Studies Council fold-out chart

Reptiles and Amphibians of the UK, www.herpetofauna.co.uk

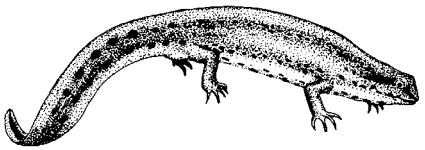


Common Lizard

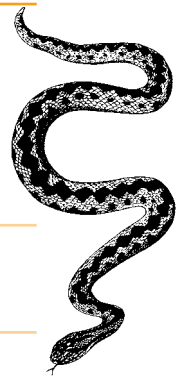
Common British Amphibians and Reptiles

AMPHIBIANS Animal	Habitat	Food / predators
Smooth newt Male well marked with spotted flanks in breeding season. ***Palmate newt*** can be confused with smooth newt outside breeding season. Best way to distinguish is using spotted throat of smooth newt. ***Great crested newt*** Largest newt. Male has a striking crest during breeding season. ***Common frog*** Smooth skin, greenish brown to olive in colour with darker blotches. ***Common toad*** Warty skin more brown than frog's.	Found in and around ponds, ditches and lakes during egg laying periods but also found in woods, meadows etc. Good habitat features for all amphibians include: • Gaps under flagstones for winter hibernation • Deadwood for winter hibernation • Attract insects and slugs as a source of food • A pond for breeding in with lots of plants to provide shelter. • Long grass to hide from predators	Insects, slugs, eggs and tadpoles of other amphibians. Eaten by herons, otters occasionally, birds of prey and mammals when food is short

Follow a typical life cycle for an amphibian and see how you can improve your churchyard. Water is an essential part of an amphibian's life cycle, but it is a common misconception that they live in water all the time.



REPTILES Animal	Habitat	Food / predators
Adder Only venomous snake in Britain. Zigzag pattern on back; creamy yellow to grey colouring; generally more reddish in females	Prefers woodland edge / heathland / bracken habitats	Feeds on small mammals
Grass snake Olive body, darkish spots or streaks, distinct yellow and black collar behind head, 70-100cm in length	Often found near water, longer grass. Eggs often laid in compost heaps	Eats tadpoles, frogs and fish
Common lizard 14cm long, brown/yellow brow. Green markings with striped back	Found in grassland, field and woodland edges, needs both dry, short grassland to sunbathe and areas of longer grass to escape into	Insects
Slow worm A legless lizard, 30cm long. Males grey, often having small blue spots on flank, females brown and black with black line on back	Hedgerows with grassy borders, woodland margins. Compost heaps for hibernation. Warm sunny banks	Eats slugs, caterpillars and insects



1. Slow Worms and Other Reptiles and Amphibians

2. Hedgehogs and Other Mammals

This sheet gives information about hedgehogs, our partnership to promote them and guidelines on how to manage a burial site to benefit hedgehogs and other mammals.

FLAGSHIP SPECIES

Hedgehogs need our help – numbers have declined in the last few decades, down by 50% in rural areas and around 30% in our towns and cities. Burial grounds can really help their survival, and with some extra care, your site could become a place where hedgehogs nest, feed or hibernate.

The hedgehog is a flagship species of Caring for God's Acre.

We are working with the People's Trust for Endangered Species and the British Hedgehog Preservation Society to encourage hedgehogs in burial grounds.

KNOW YOUR HEDGEHOG

Hedgehogs are found across most of Britain including towns and cities, particularly those with a network of burial grounds, parks and gardens.

Hedgehog spines are actually modified hairs so that when a hedgehog curls up it presents a complete ball of prickles. The hedgehog's face, chest, belly and legs are not spiny but have coarse grey-brown fur.

Hedgehogs are rightly valued by gardeners for eating pests. They feed primarily on beetles, caterpillars, earthworms, earwigs, slugs and snails. They are an opportunistic species and occasionally eat carrion or fallen fruit.

Hedgehogs are nocturnal and could be present without anyone realising. They tend to forage for food over quite a wide area, travelling 1 to 2 miles in a night and can have home ranges up to 40 acres, so it' vital that they have continuous access to as many greenspaces as possible, including burial grounds.

They have a good sense of smell but poor eyesight, and are inquisitive, which can lead them into places where they may get stuck.

Hedgehogs tend to be solitary animals apart from the breeding season when males seek out females. Courtship is a noisy affair and following mating the male leaves the female to raise her young unaided. The young hoglets are born from May through to September with 2 to 6 hoglets in a litter. They stay in the nest for the first four weeks or so, after which time they begin to be weaned and are led on night-time foraging trips by their mother. Shortly after this the youngsters will leave the nest of their own accord and the family separates.

Hedgehogs hibernate from late autumn onwards (depending on the weather) in a nest made from old dry leaves, grass and other vegetation. This may be at the base of a hedge, in a compost heap, amongst tree roots or under piles of logs.

Hedge Parsley

Whilst in hibernation the hedgehog's body slows down and it becomes immobile. It then wakes and emerges in the spring, timing again depending on the weather and on how long fat reserves last. Hedgehogs will move periodically between nests during this time.

HELPING HEDGEHOGS

There are many things which you can do to encourage hedgehogs and to give them a good chance of thriving.

Food and shelter

Try to have a variety of grass heights including long and tussocky grass (see sheet A2, Caring for Grassland), hedges instead of fences and areas which are not too tidy.

Piles of deadwood, slowly rotting away, are an excellent food source, full of beetles and worms.

Compost heaps are also rich with food. Hedgehogs use compost heaps and hedge bottoms for nesting and hibernating. They also make use of leaf piles, tussocky grass, gaps in stonework, thickets of shrubs and gaps around tree roots. Provide a shallow dish of water in hot, dry weather.

Avoiding hazards

Hedgehogs can be injured or killed by a variety of hazards:

- Chemicals such as pesticides, slug pellets or wood preservatives are dangerous to hedgehogs. Hedgehogs may eat either

the chemical or the killed pest and have been known to lick preservatives on fences. Try to use environmentally-friendly products.

- Be careful when forking a compost heap, strimming an area of tussocky grass or lighting a bonfire. Is there a hedgehog nesting or hibernating? Autumn is a good time to empty compost bins – hedgehogs have finished nesting but are not yet hibernating. Always build a bonfire pile on the day it is to be lit.
- Hedgehogs are able to swim but can get trapped in a pond or water container if the sides are too steep to climb. They can also fall into drains. Create an easy exit route using a piece of sloping wood or a pile of stones.

Help hedgehogs to move around

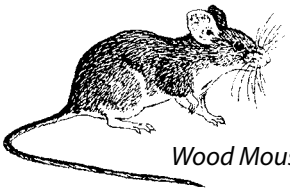
Hedgehogs and other mammals travel a daily route to find food and shelter and need quite a large area for this. Try to make it easy for them to get in and out of a site. A small gap at the bottom of a fence or avoiding fixing wire netting near to the ground will help. If you have stone walls around the site, you can either drill holes, make a tunnel underneath the wall, or make holes in adjoining gates. Hedgehogs stick to linear features so should eventually find any gaps that you have made – just make sure they are at least 13cm x 13cm. Trying to 'keep the hedgehog in' may actually keep them out.

Become a Hedgehog Champion on Hedgehog Street!

Tell us about hedgehogs in burial grounds

Caring for God's Acre, **People's Trust for Endangered Species** and **The British Hedgehog Preservation Society** would like to hear about any hedgehogs that you find in burial grounds so please get in touch if you see a hedgehog (alive or dead) or hedgehog tracks in a burial ground. You can add your hedgehog sightings to the BIG Hedgehog Map.

Please tell us about other interesting mammals too!



Wood Mouse

OTHER MAMMALS COMMON TO BURIAL GROUNDS

Many other mammals either live within burial grounds or else visit on their regular ramblings. Moles and badgers feed on worms and other invertebrates. Badgers can cause problems digging up graves where the soil is loose (see sheet A9, Pesky Plants and Animals). Mice, voles and shrews feed on plants, flowers, berries and insects. Rabbits will graze the grassland. Squirrels may nest in the larger trees and feed within trees and shrubs throughout the site. These smaller mammals then attract predators: foxes, weasels, stoats and polecats hunting for mice and rabbits.

Helping other mammals

A variety of food sources through the year can be key to survival. Roots, grass, flowers, nuts, seeds and berries are all used by different animals. A mosaic of different grass heights provides both food and shelter.

Invertebrates from tiny midges to soil beetles, worms, slugs and snails are all food for mammals, and small mammals are food for larger ones.

Water can be critical to survival, particularly in times of drought. Can you put a shallow dish of water on site?

Useful contacts

British Hedgehog Preservation Society, www.britishhedgehogs.org.uk

Hedgehog Street, www.hedgehogstreet.org

People's Trust for Endangered Species, www.ptes.org

The BIG Hedgehog Map, www.bighedgehogmap.org

The Mammal Society, www.mammal.org.uk

Useful references

A Guide to British Mammal Tracks and Signs – Field Studies Council fold-out chart

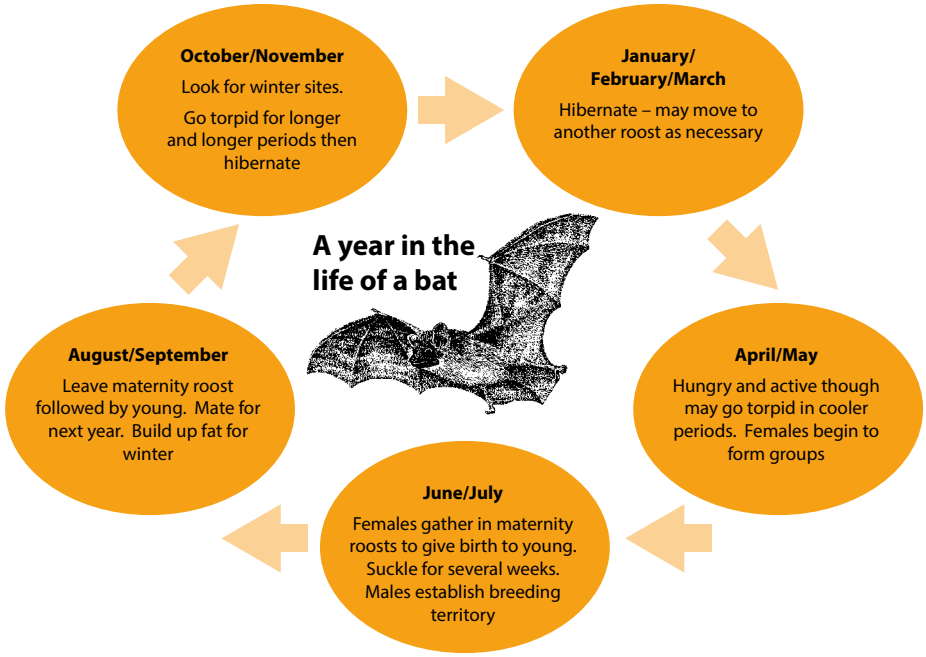
Land Mammals of Britain – Field Studies Council fold-out chart

Grey Squirrel

3. Bats in the Belfry

This sheet gives information about bats and guidelines on how to manage a burial site to benefit bats.

Bats have been found in churchyards and burial grounds for a very long time, often roosting in churches and other buildings. A bat roost may be nearly as old as the building with around 60% of pre-16th century churches containing bat roosts. There are seventeen species of bat native to the UK; eight of these use churches or chapels for roosting, including some of the less common species such as the Natterer's bat and the serotine bat. Some of the remaining nine species roost in large trees such as yew.



WHAT ATTRACTS BATS TO BURIAL SITES?

Roost sites

Bats do not roost in the belfry … too much noise!

Bats usually use different roosts through the seasons.

Bats need nursery roosts for the young, winter roosts to hibernate and also temporary roosts to digest their food and to sleep in during the daytime. Bats roost in clean, draught free, quiet crevices where the temperature is constant. Within churches or chapels bats are found in the eaves, porch, under roof tiles, in old timber joints, behind ceilings, hangings and commemorative plaques. They also roost within chest tombs, in holes or cracks within a wall, behind ivy or in lychgates. When roosting in trees they use holes, crevices, flaking bark and gaps behind ivy. Old and veteran trees are full of possible bat roosting places.

Their presence may be given away by a pile or scattering of small, dry droppings, which are made up of insect remains and crumble to dust. The size and shape of the droppings can give a clue as to which species is present. Urine stains may be seen near favourite roost sites.

Food

Burial grounds tend to have a mixture of large trees, grassland, flowers, areas of long or tussocky grass, compost heaps, log piles and stonework. They are generally relatively free of chemicals, tend to be less tidy than gardens and may have been there a long time. All of this leads to a good population of insects. Flying uses up a lot of energy so a site rich in insects is crucial for bats.

Bats can fly long distances to forage for food so, even if you don't have roosting bats in your burial ground, they may well be visiting.

Staying within the law

All bats and bat roosts are protected by law.

It is an offence to deliberately kill, injure, disturb or capture a bat, or damage, destroy or obstruct access to a place used by bats for shelter or protection.

Protect bat roosts in buildings and seek advice before planning repairs, restoration or changes to the outside lighting in a burial ground.

As bats use different roosts during the year timing of work is important.

Protect bat roosts in trees. Before carrying out surgery on large trees, ask a qualified bat worker to assess for the presence of bats or roosts.

You need to ask for help and advice from the statutory conservation agencies or your local council before carrying out any building or tree management work where there are likely to be bats roosting.

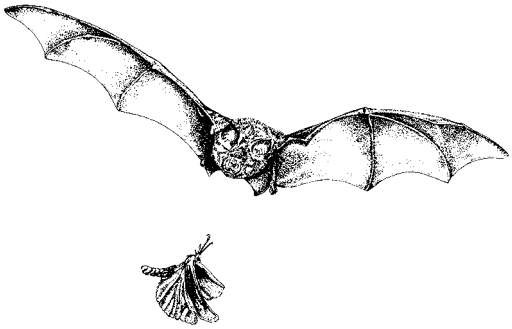
3. Bats in the Belfry

What to do if you find a bat

If you disturb a bat when hibernating or find a young bat on the ground then call the **Bat Conservation Trust** for advice. If the bat cannot be left (a young bat on the ground for example) then pick it up wearing thick gloves or other protection and put it in a box with ventilation holes (shoe-box sized is good). Put a crumpled cloth for sheltering in and a very shallow container (jam-jar lid) of water in one corner. Leave in a quiet, dark cool place until dusk. At dusk put the box on its side in a place which is about 1.5m off the ground and near to where you found it, so that the bat can crawl out. Bats can bite so be careful.

Creating roosts and encouraging insects

- Put up bat boxes. Make your own wooden ones or buy specially designed woodcrete ones (made by Schwegler).
- Hedges of mixed native species which are at least 2m high are good for bats, particularly if they are not trimmed every year.
- Wildflowers and grassland managed as long or tussocky grass is important for butterflies, moths and other insects, which bats feed on.



How to watch bats

You can see bats by visiting a site at dusk or an hour before dawn and sitting quietly.

Bat watching can become a special event. Invite the local bat group to help; they may bring bat detectors, which convert the bat calls into audible sound. The species of bat can then be identified by its call.

A bat watch starts at sunset from May until September and for watchers and bats alike the weather should be dry, warm and still. Bats will start to emerge from their roosts in the dusk, continuing to do so once it is dark. Try to work out where the bats are emerging from and, if you get a clear sight of them emerging, how many.

Useful contacts

Bat Conservation Trust, www.bats.org.uk

Church of England, ChurchCare, www.churchcare.co.uk

Church in Wales, www.churchinwales.org.uk/heritage

Statutory government agencies:

Cadw, www.cadw.wales.gov.uk

Historic England, www.historicengland.org.uk

Historic Scotland, www.historic-scotland.gov.uk

Natural England, www.naturalengland.org.uk

Natural Resources Wales, www.naturalresources.wales

Northern Ireland Environment Agency, www.doeni.gov.uk

Scottish Natural Heritage, www.snh.gov.uk

Useful reading

Bats in Churches: A Management Guide – Natural England publication

Bats in Churches and how you can help them – www.bats.org.uk

4. Swifts and Other Birds

This sheet gives information about swifts, our partnership to promote them and guidelines on how to manage a burial site to help birds.

THE SWIFT IS A CARING FOR GOD'S ACRE FLAGSHIP SPECIES

Swifts need help! The number of swifts breeding in the UK is falling. Over the past 15 years numbers of this amazing and beautiful bird have dropped by about 40%.

Renovation of buildings to make them more energy efficient and watertight has removed many nesting places and reductions in the numbers of insects may also have taken a toll. Better news is that cathedrals, churches, chapels and temples often have suitable nesting places, and the burial ground itself can make a good hunting ground.

We are working with **Swift Conservation** to encourage the use of burial grounds and religious buildings to support the swift population.

KNOW YOUR SWIFT

Swifts look rather like swallows and martins, but are actually related more closely to hummingbirds. Swifts are an extremely aerodynamic group of birds, spending almost all of their lives flying. They feed, drink, mate and sleep on the wing and fly up to 3000m high, reaching speeds of about 70mph.

After leaving the nest, young swifts will not land for three or four years until they have matured and are ready to breed. The shape of a swift is so suited to flying that they are unable to land on flat ground and have tiny feet and legs. As a swift will never land on the ground, it follows that any swift found on the ground is likely to be injured or sick, and will require specialist help. It should never be thrown into the air.

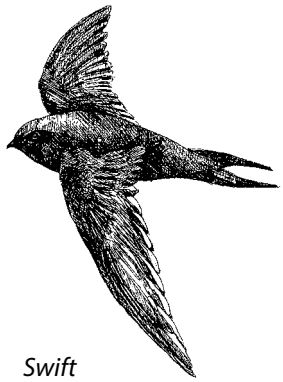
Swifts are only here in the UK for about 3 months, leaving immediately after the young fly the nest. The timing of the 3 months depends on the latitude and the weather, but falls between April and August. Swifts spend the rest of the year on migration and in equatorial and eastern Africa.

Swifts feed on tiny flying insects: aphids, flying ants, mosquitoes, hoverflies and small beetles, collecting food in a pouch at the base of the mouth. An adult swift brings a food ball or 'bolus' back to its young. This bolus is gathered over vast distances and contains thousands of insects. The young can wait a long time between meals!

Swifts pair for life and return to the same nest sites year after year. They tend to nest in colonies and have a screaming call which attracts other swifts to a nesting site. They nest within a hole in a cliff, wall or roof with the nest entirely out of sight. Tall buildings with more than one storey, such as churches and towers, make good nesting sites. Blocking of nest entrances can spell disaster for a whole colony.

Swifts tend to eat the droppings of their young and so there is usually little or no mess beneath a swift nest.

Managing for swifts



Swift

Swifts are in urgent need of nest places. Cathedrals, churches, chapels, temples and crematoria are all suitable. 'Nest holes', nest boxes or swift bricks can be fitted into and on to buildings (including listed ones) without difficulty and are oftenvisible from the outside. Eaves are particularly suitable as are ventilation slits, louvres and hoods in church towers and spires. Provided the nesting space has no openings into the interior of the building the swift will be unable to get inside, which can be a serious hazard for the birds as well as a problem for people!

Staying within the law

Swifts are protected by law; it is illegal to kill or harm them or to damage nests or eggs. In practice this can affect the timing of repairs to a building with swifts in it. Do not carry out renovation or re-roofing if swifts are present.

If regular nesting holes need to be blocked off by building work then look for ways to create an artificial cavity, a 'nest-holes', as close as possible to the original hole. This allows buildings to be made more weatherproof and energy efficient without affecting the swifts.

With the correct advice, building work can either preserve existing swift nesting holes or create artificial ones which are not visible from the outside and do not contravene listed building status. Towers and spires are particularly suitable for these artificial nest holes.

4. Swifts and Other Birds

If you want to encourage swifts to start nesting on a building then playing recorded swift calls can act as a lure.

Swift Conservation has many years experience of working with different buildings and its local experts can provide free advice on the techniques for creating swift holes, including details for making nest boxes.

Contact Caring for God's Acre or **Swift Conservation** to find out about buildings where historical swift nest places have been preserved or where nest boxes and nest holes have been specially designed and installed. These include churches, cathedrals and synagogues.

OTHER BIRDS

Burial grounds can be particularly good for other birds, attracting similar birds to those found in large gardens with mature shrubs and trees.

Birds such as blackbirds, song thrushes and wrens use a burial site all year round, nesting in trees and hedges. Look for goldfinches feeding on seedheads and spotted flycatchers perching on gravestones, flying out to catch insects and then returning to their perch. If there are yew trees you may notice birds in late summer, feeding on the berries. In the winter you can see mixed flocks of small birds such as tits and finches feeding in trees and hedges, or visiting winter thrushes such as redwings and fieldfares feeding on holly and rowan berries.

Birds enhance any burial site and the types and numbers of birds present will change according to the season and time of day. This can give a great deal of interest and delight to visitors.

With pressure on our countryside and loss of large gardens, burial grounds are playing an increasingly important role in the conservation of once common birds such as starling, song thrush and house sparrow.

There has been a loss of 44 million pairs of breeding birds in the UK since 1966 (RSPB annual report).

Dense ivy gives shelter and fruiting ivy is rich in insects. Removal of ivy from veteran yews should be given higher priority (see sheet A5, Yews and Other Veteran Trees).

Typical burial ground birds – based on a BTO survey

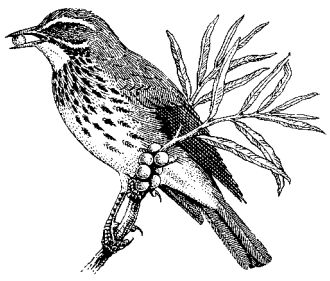
Blackbird	Robin	Blue tit	Greenfinch
SONG THRUSH	Wren	**STARLING**	**Dunnock**
HOUSE SPARROW	Great tit	Chaffinch	Wood pigeon
SPOTTED FLYCATCHER	Goldfinch	**Bullfinch**	Rook
Willow warbler	**LINNET**	**Swift**	Blackcap
Stock dove	Coal tit	Goldcrest	**Mistle thrush**
Collared dove	Tawny owl		

Bird numbers are assessed by a 'traffic light' system. Green means the national population is healthy, amber is a cause for concern with numbers declining, red is critical and numbers are declining fast or are very low.

Those birds in **bold** are on the **amber list**

Those birds in **CAPITALS** are on the **2015 RED LIST**

(State of the UK's Birds report)



Redwing

Helping birds

Try to provide as much natural food and cover as possible including:

- Mature and veteran trees containing holes, crevices and deadwood (see sheet A8, Helping Wildlife).
- Plants which have berries, fruit, hips and haws and which form thickets for nesting.
- Hedges with nesting sites plus berries, seeds and fruit over the autumn and winter. Do not trim hedges every year.
- Rough patches with nettle, bramble, elder and scrub. These will support insects and provide food and shelter in winter.

4. Swifts and Other Birds

Pied Flycatcher

Wren

Goldfinch

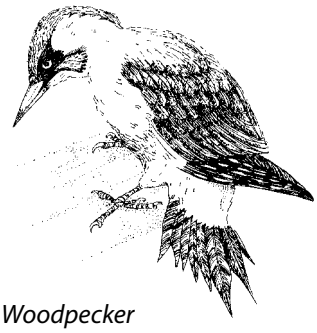
- Compost heaps and wood piles provide worms and invertebrates.
- A mosaic of grassland with short, long and tussocky grass provides food to both seed and insect eating birds.
- Undisturbed ant hills will benefit the green woodpecker which feeds mainly on ants.
- Water in a dish or bird bath. Placed on the ground it can also be used by other animals.
- Natural nesting sites and/or a range of nest boxes.
- Avoid the use of chemicals, particularly pesticides as this reduces the amount of wild food for birds.
- Put up swift nest boxes on buildings.

Staying within the law

Wild birds are protected by law:

It is illegal to take or kill any wild bird or to take, damage or destroy their nest while it is in use or being built.

Work to buildings, walls, trees or hedges should take place out of the nesting season. Avoid works between mid March and August if you suspect that there are nesting birds present.



Green Woodpecker

Great Spotted Woodpecker

4. Swifts and Other Birds

Finding out what birds are present

Keep a diary of birds seen, and make a note of what they are doing. For example, carrying nesting material indicates nest building; carrying food indicates either a mate sitting on eggs or else young being fed. Begging young birds may have come from a nest on site or else nearby.

Autumn and winter will bring different birds: flocks of finches and tits, winter thrushes such as redwing or fieldfare, and you may hear tawny owls calling in the autumn as the adults drive the youngsters out of territory. Male and female owls make the 'terwit' call which is answered by a low 'whoo' call from the male only. Clean out any nest boxes in the winter and see what type of nest is present.

Please share your bird records on the Burial Ground portal within the National Biodiversity Network Atlas. You can do this via our website (see sheet B10 Surveying and recording plants and animals). You may also chose to display a simple recording sheet or blackboard to encourage other people to share sightings.

Join the Big Garden Birdwatch which is run by the RSPB and takes place over a weekend in late January.

Bird Survey

Date: 12th May 2012 Time: 9am to 11am

Name: Mrs. A. Egan (tel: 235678)

Weather: fine and sunny, light breeze

Species	No.	Activity noted eg: singing, feeding, nest building etc.
Blackbird	5	Singing, food to nest
Swift	3	Entering nest site in eaves of church
Chiffchaff	1	Singing
Buzzard	1	Flew over

Useful contacts

British Trust for Ornithology, www.bto.org

Royal Society for the Protection of Birds, www.rspb.org.uk

Swift Conservation, www.swift-conservation.org

The Hawk and Owl Trust, www.hawkandowl.org

Useful reading

Annual Report 2015 – RSPB publication

Big Garden Birdwatch – RSPB website

Collins Bird Guide – Lars Svensson & Killian Mullarney

Owls and Owl Pellets – Field Studies Council fold-out chart

The State of the UK's Birds – RSPB publication

Top 50 Garden Birds – Field Studies Council fold-out chart

5. Bumblebees and Other Bees, Wasps and Ants

This sheet gives information about bees, wasps and ants, our partnership to promote them and guidelines on how to manage a burial site to benefit them.

The bumblebee is a flagship group of Caring for God's Acre.

Bumblebees need help as they have declined in the UK due to a general loss of flowers in our landscape. Burial sites usually have the three things needed by bumblebees to survive – food, shelter and nest sites.

We are working with the Bumblebee Conservation Trust to encourage bumblebees in burial grounds.

KNOW YOUR BUMBLEBEES

Bumblebees are larger and hairier than other bees, making them well suited for our climate. They are social insects and live in nests of up to 400 individuals, ruled by a queen. Unlike honeybees they do not swarm, do not become aggressive (although the queen can sting) and a nest only lasts for one year.

The life cycle of a bumblebee

In early spring the queen emerges from hibernation to feed on pollen and nectar from early flowering plants. She searches for a dry cavity on or below ground such as a vole hole or the base of a tussock of coarse grass. She makes a nest. A ball of pollen in a thimble sized waxen honey pot is filled with nectar and eggs laid in it and the summer life cycle commences.

Cowslip

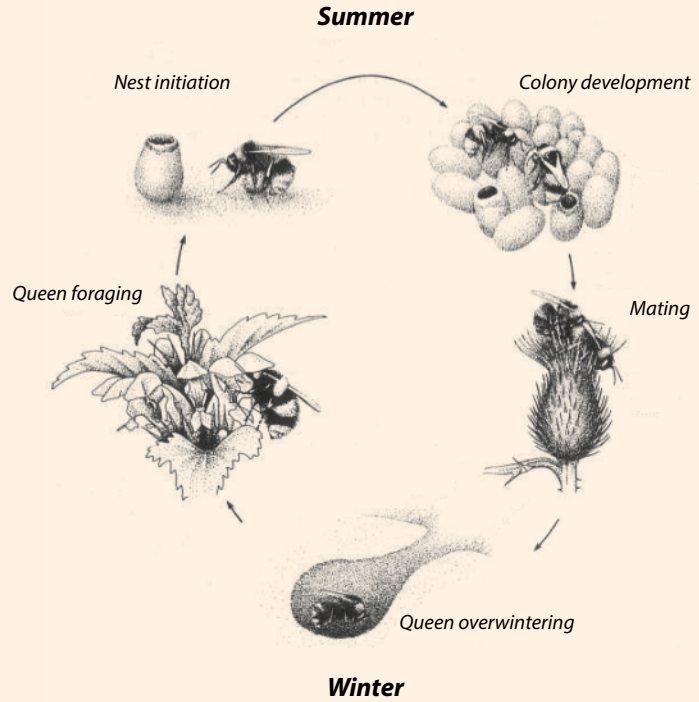
Bumblebees are essential for pollinating our plants. They are also active in colder weather – the first bee you see in spring and the last in autumn is likely to be a bumblebee.

There are 24 species of bumblebee native to Britain, 8 of which are widespread. They can be identified fairly easily with a book or a chart. Take a look on the Bumblebee Conservation Trust website or the Field Studies Council fold-out chart on bees.

KNOW YOUR OTHER BEES, WASPS AND ANTS

There are over 250 species of bee in total in the UK and 90% of these are solitary bees.

Solitary bees do not nest together but are found in small holes, cracks and crevices, often in areas of bare



5. Bumblebees and Other Bees, Wasps and Ants

soil. Check stone walls; they may well contain mason bees, as may old snail shells! Like bumblebees and honeybees they are important pollinators.

Wasps can be social or solitary

Social wasps tend to make nests from wood fibres which are chewed and made into a sort of paper.

Solitary wasps have a variety of nesting habits including making mud cells on twigs or walls or using small holes. Wasps tend to be parasitic, laying eggs into the body of a host, often another insect species. Wasps are important for controlling the numbers of the host species, many of which are potential pests.

Ants are scavengers on insects and carrion. They are also food for a variety of other animals. Ants live communally and some species create ant hills which are frequently found in old, undisturbed grassland such as burial grounds. Ant hills are made by the harmless yellow meadow ant.

Ant hills

These can be very old and up to a metre high. They are a sign of old, undisturbed grassland. The part above ground is the tip of the colony with a series of galleries extending below ground. These galleries are maintained by specialist worker ants which fill them with aphids. The aphids feed on plant roots. The worker ants then 'milk' the aphids of their honeydew.

Ant hills are warm with loose soil and have particular plants growing on them. They are good feeding sites for birds and other animals. Green woodpeckers feed mainly on ants.

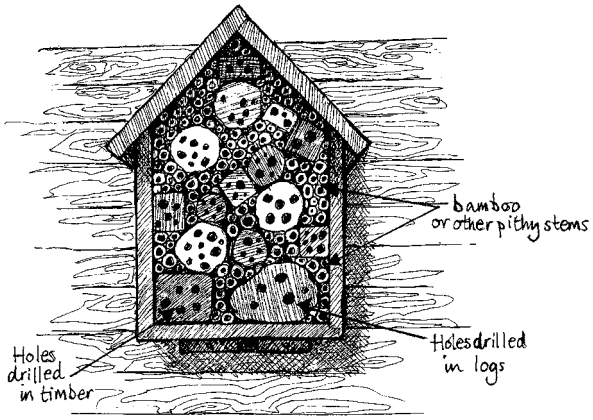
HELPING BUMBLEBEES, BEES, WASPS AND ANTS

Bees and wasps often suffer from mistaken identity. Very few species cause a nuisance but they all look fairly similar.

If you have a problem with wasps then seek advice in identifying them correctly before you take action.

Food and shelter

- Leave areas of long and tussocky grassland. This thick grass, along with mouse and vole holes, can become nest sites for bumblebees.
- Provide a variety of flowers producing nectar through the year. Ideally these will be native wildflowers.
- Undisturbed compost heaps and log piles provide nest and hibernation sites for bumblebees.
- Make a bee hotel! (see sheet A8, Helping Wildlife). Bundles of hollow stems in a sunny spot provide sites for solitary bees.
- Protect any ant hills from damage. They need to be in full sun so keep clear of shade from trees, brambles or shrubs.
- If a mound really has to be moved then do so in the winter when the ants are below ground. If a whole nest has to be moved then relocate it to a sunny spot in late August.



Useful contacts

Bumblebee Conservation Trust, www.bumblebeeconservation.org

Buglife, www.buglife.org.uk

Useful reading

Guide to Bees of Britain – Field Studies Council fold-out chart

Yellow Meadow Ant

6. Butterflies, Moths and Other Insects

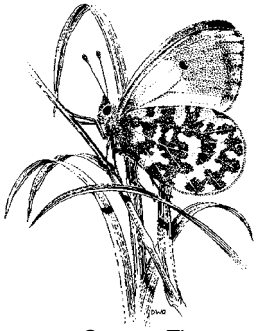
This sheet shows the importance of burial grounds for butterflies and other, less visible invertebrates and gives guidelines on how to manage for them.

Burial grounds and churchyards offer a haven to butterflies, moths and a host of other insects such as shield bugs, beetles, ladybirds and grasshoppers. Butterflies and moths lay their eggs on many different plants and trees which then provide food for growing caterpillars.

LOOK OUT FOR...

Holly blue – a classic butterfly of burial grounds as its main food plants are holly and ivy. The holly blue has two broods and eggs are laid on unopened flowers. The first brood feeds on developing berries or young leaves of holly. The second brood is laid on ivy and feeds upon its developing berries in the autumn. Holly blue is unique among British butterflies for having alternating food plants for caterpillars.

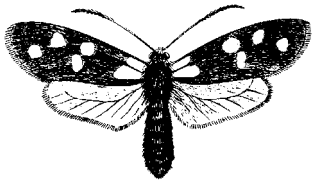
Purple hairstreak may be seen in the tops of oaks and white-letter hairstreak in elm trees (or within hedgerows containing elm) where they lay their eggs.



Orange Tip

The orange tip hibernates and emerges early. It can be seen flying in April and May, laying its eggs on the flower stalks of several plants including garlic mustard and cuckoo flower. The male, with its orange-tipped wings, is particularly visible patrolling above the plants for a mate. These butterflies have an unpleasant taste however, so after eating one orange tip the bright orange colour warns predators against doing it again! Allowing flowers to grow and set seed before cutting benefits the orange tip and many other insects.

Some butterflies need long or tussocky grassland including the speckled wood which lays its eggs on shaded long grass, whilst the wall may be seen basking on a gravestone prior to laying eggs on grass tussocks. Large and small skippers and meadow browns can be abundant in long, flowery grassland.



Six-spot Burnet Moth

Shrubs and hedges are good for butterflies including gatekeepers and ringlets. The bright yellow brimstone will lay eggs on buckthorn or alder buckthorn bushes.

Nettles are important for butterflies, providing food for comma, painted lady, peacock, red admiral, small tortoiseshell, the beautiful golden Y moth, burnished brass moth, green carpet moth and spectacle moth.

Comma

As well as food for caterpillars, many butterflies and moths drink nectar from flowers which they in turn pollinate. Plants such as lavender, buddleia, ice plant, valerian and Michaelmas daisy are all attractive to butterflies. It is however the native plants and wildflowers that are such a feature of burial grounds which support a wide range of butterflies, moths and other insects.

Butterflies can be identified quite easily and, if surveyed, the results of the survey will give you a general picture as to how suitable your burial ground is for other, less easy to identify invertebrates. This is known as a 'scientific indicator'. **Butterfly Conservation** have devised a churchyard survey with a recording and identifying sheet. Please also share your records on the Burial Ground portal within the **National Biodiversity Network Atlas**. You can do this via our website (see sheet B10 Surveying and recording plants and animals).

Warm, sunny burial grounds will always have more butterflies and other insects because invertebrates need to seek the warmth of the sun.

HOW TO HELP BUTTERFLIES AND OTHER INSECTS

Oak

Choose native trees or shrubs of local provenance (this means that the seed was collected locally) when planting new trees or a hedge. Trees which are native to Britain tend to have many different insects living on them. Oak, birch, willow and hawthorn all support a great many; oak trees have about 350 different species of insect associated with them.

Have a variety of different lengths of grass including some tussocky grass which is not cut every year (see sheet A2, Caring for Grassland). Many butterflies, moths and other insects lay eggs on grass stems, within grass

6. Butterflies Moths, and Other Insects

tussocks or on other plants found in long grass such as black knapweed.

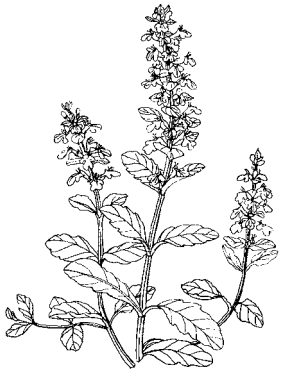
Some wild flowers which are good for insects

Buttercup	Knapweed	Primrose
Clover	Cuckoo flower	Violet
Bugle	Garlic mustard	Dandelion
Cowslip	Hawkweed	Bluebell
Bird's-foot trefoil	Ox-eye daisy	Wild thyme
Lady's bedstraw		

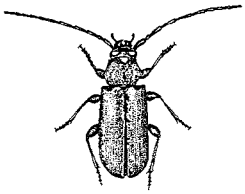
Whilst too many thistles or nettles can become a problem, having a few clumps can be beneficial. Most species will only use vigorously growing nettles (often in compost heaps) that are sheltered from the wind and in full sun (see sheet A8, Helping Wildlife).

Most butterflies and other insects are very picky about where they lay their eggs. Not only do they need the right caterpillar food plant, but when in grassland, this may need to be managed suitably as well. Cutting grassland at the right time is critical to the well-being of the butterflies and the wildflowers. Cut too early and the majority of eggs and caterpillars will be removed and will then die. Cut too late and the wildflowers will suffer as vigorous, rank grasses will start to dominate. Therefore, to benefit butterflies, consider leaving some areas uncut until mid August or later. Please remember that this is a bit late for the flowers, so vary the location of this 'late cut' area each year.

If you have flower beds then consider nectar-rich plants with strong scent and a long flowering time. Herbs such as lavender, thyme or sage perhaps? Poppies and daisies attract insects whilst stocks, evening primrose and tobacco flower are particularly good for moths. Native plants can look fantastic in decorative planting; bellflowers: cowslips, foxgloves, dog daisies, heathers to name a few. These plants will have evolved over time with British insects as pollinators.



Bugle



Longhorn Beetle

Ivy flowers can be quite literally buzzing with insect life. If ivy is not flowering then try teasing the top young shoots away from their support so that they are hanging free; this can encourage the ivy to change to the flowering stage of growth.

Make a bee hotel (see sheet A8 Creating a Wildflower Meadow and Helping Wildlife). This will be used by many different insects as well as solitary bees.

Try to identify some of the more well-known insects such as bumblebees and butterflies (see sheet B10, Surveying for Plants and Animals).

Grasshoppers

A combination of short, longer and tussocky grass makes a burial site a haven for grasshoppers and crickets. Some burial grounds can have more than 3 grasshoppers per square foot! These in turn are prey for spiders and birds. Whilst grasshoppers are known for their ability to jump, you may want to walk through long grass before cutting it, encouraging them out of the way of mowers.

Primrose

Thyme

Useful contacts

Butterfly Conservation, www.butterfly-conservation.org

Buglife, www.buglife.org.uk

Cricket

Useful reading

Butterflies of Britain – Field Studies Council fold-out chart

British Grasshoppers and Allied Insects - Field Studies Council fold-out chart

Caterpillars of Butterflies of Britain and Ireland - Field Studies Council fold-out chart

Guide to Ladybirds of the British Isles - Field Studies Council fold-out chart

The Butterflies of Britain and Ireland – Jeremy Thomas and Richard Lewington, British Wildlife Publishing Ltd

Species	Soil Type	Required Vegetation Height	Food Plants	Comment	Likelihood of Occurring
Small Skipper	All	Tall Grasses	Various grasses, especially Yorkshire fog	Needs patches of tall grass to be left uncut each year. Rotate left areas to prevent them becoming too rank	All the best burial grounds for butterflies in England and Wales should contain small colonies
Essex Skipper	All	Tall Grasses	Various grasses, especially cocksfoot & creeping soft grass	Needs patches of tall grass to be left uncut each year. Rotate these uncut areas to prevent them becoming too rank	All the best burial grounds for butterflies in eastern England and the midlands should contain small colonies
Large Skipper	All	Tall Grasses	Various grasses, especially cocksfoot & false-brome with purple moor grass on acidic soils	Needs patches of tall grass to be left uncut each year. Rotate these uncut areas to prevent them becoming too rank	All the best burial grounds for butterflies in England and Wales should contain small colonies especially those that have damp areas and hedges
Dingy Skipper	All	Needs bushy growths of bird's-foot trefoil surrounded by bare ground. Grass height 2-10cms, preferably 2-5cms	Bird's-foot trefoil usually, plus horseshoe vetch on downland	Needs some areas of sunny un-mown grassland containing seed heads of knapweed for roosting	Only burial grounds surrounded by a dingy skipper colony such as chalk grasslands or which are very large in area could contain this species
Brimstone	All	Only uses buckthorn, either alder or purging buckthorn, depending on soil type	Needs buckthorn which is in a sunny position or in a south facing hedge	Buckthorn should be kept at 2m height and pruned annually. Adult butterflies will often hibernate in ivy growing on wall or trees	All burial grounds south of Scotland should expect to see this species. Abundance relies on the abundance of buckthorn
Large White	All	Any large brassicae species including those grown in gardens	Needs large brassicae plants, will breed on nasturtium	Numbers often rely on migrations coming from continental Europe	All burial grounds should see this species. Often uses burial grounds as source for nectar
Small White	All	Any large brassicae species including those grown in gardens. Also oilseed rape	Will be more common if burial ground is near oilseed rape fields or urban allotments	Numbers often rely on migrations coming from continental Europe	All burial grounds should see this species. Often uses burial grounds as a source for nectar
Green-veined White	All	Feeds on garlic mustard, lady's smock and bittercress, growing in damp areas often in hedgerows	Many food plants are biennial so new plants will be required annually. Ground disturbance through routine maintenance can provide this	Will be the most common white in burial grounds	All burial grounds should contain this as a breeding species

Orange Tip	All	Prefers medium height grassland less than 40cms tall, with fine rather than coarse grasses grasses or the base of hedgerows	Feeds on garlic mustard, lady's smock, rocket and garden honesty	Populations can be reduced by over-vigorous mowing before August, in the bottom of hedgerows especially. Caterpillars are killed while on the food plant	Burial grounds with good populations of lady's smock will have good populations of orange tip butterflies. All burial grounds in England and Wales plus many in Scotland can expect to have breeding orange tips
Green Hairstreak	All	Not common, but found in a range of habitats	On heathland; bilberry and gorse. On other sites; dyers greenweed and bird's-foot trefoil	Males are most likely to use burial grounds to perch on shrubs looking for females in nearby grasslands or moorland	Only likely found in burial grounds within moorland, downland or on the tors of Devon & Cornwall
Brown Hairstreak	All	A butterfly of the wider countryside found in hedgerows and scrub as it depends on young, suckering blackthorn	Blackthorn, generally less than 1m in height	Benefits from 4 year rotation of any blackthorn scrub or rotational hedge laying	Rare and elusive butterfly only found in west Wales, Devon, Dorset, West Sussex, Oxfordshire, Worcestershire and a few other places. Burial grounds can be very important in the conservation of this species
Purple Hairstreak	All	Tall oak trees, especially when in lines	Oak is the only caterpillar food plant	More common in wooded areas. This butterfly pupates just under the surface of the soil, so digging around the base of oak tress is detrimental	An elusive species; the best time to confirm its presence is to view the tops of oak trees with binoculars between 6.30pm-7.30pm in July or early August. Behavioural flights at this time are very distinctive. Purple hairstreak is more common than you might expect and under-recorded.
White-letter Hairstreak	All	Tall elms	Wytch elm or common elm	Wytch elms tend to be more resistant to Dutch elm disease. Where possible, ensure that elms grow in sunny locations by removing surrounding, shading trees	A rare and secretive species but any burial ground with large elms should expect to have a colony of this species. Look on flowering bramble for nectaring butterflies as white letter hairstreak is easily over looked. Planting disease resistant elm greatly helps this species.
Small Copper	All	Vegetation should be between 1-10cms ideally	Sorrel	Sorel growing in sunny, low growing vegetation	Every burial ground with good quality grassland should have breeding small coppers. This butterfly is often seen in ones or twos

Small Blue	Limey (calcareous)	Vegetation height below 6cms	Kidney vetch is a short-lived perennial and it's abundance can vary from year to year depending on the weather, soil structure and management	Small blue only uses the flower head and so inappropriate grazing or mowing can remove all flower heads and wipe a colony out completely in one year. Do not mow or graze when kidney vetch is in flower or before mid-August	Increasingly rare butterfly with a very patchy distribution over the UK. Colonies can be established in quite small areas such as 5 x 20 metres. Burial grounds can play an important part in the conservation of this species
Brown Argus	All	On chalk grasslands with vegetation length 1-5cms or on other sites with vegetation length 5- 15cms	On chalk grasslands; rockrose. On other sites mainly cut-leaved cranes-bill and also doves-foot cranes-bill and common storks-bill	Mowing before mid-August is very detrimental to this species so leave some areas of cranes-bill or storks-bill uncut, rotating the area annually	Only found south of Lincolnshire to the Bristol Channel. Any burial ground with cut-leaved cranesbill should contain a small colony of this species. This butterfly is seen in ones or twos
Common Blue	All	Vegetation height between 4-10cms	Major food plants are; bird's-foot trefoil, black medick, rest harrow, red clover	Some tall vegetation is needed for roosting so a rotational mow is good. Cut 70% of the grassland, rotating the un-cut 30% annually to prevent it becoming too rank.	All best burial grounds for butterflies should contain colonies of this species
Chalkhill Blue	Limey (calcareous)	Vegetation height up to 6cms, rarely higher	Horseshoe vetch growing within bare ground	Do not cut before October and leave 5cms high from March onwards	To have chalkhill blue a burial ground needs to be on downland with very thin soils, and adjacent to an existing colony
Holly Blue	All	N/A	Prime food plants and holly in spring and ivy in autumn	Cutting back all the ivy in one go thus removing the seed heads is detrimental	This is the quintessential church yard butterfly. Every burial ground with holly and ivy will contain colonies of this butterfly. Holly blue numbers vary greatly in abundance from year to year
Red Admiral	All	Vegetation height less than 1m	Common nettle. Uses nettles in enriched soils such as by compost heaps or in field ditches	A frequent migrant from Europe, this butterfly is commonly seen August-October	More common in the south but every burial ground is likely to contain red admirals in most years
Painted Lady	All	Vegetation height less than 1m	Mainly thistle species growing in sunny locations. Can be increased acceptably by encouraging the less invasive marsh thistle	A frequent migrant from Europe this butterfly is commonly seen July-September. Every few years they appear in large numbers	More common in the south but every burial ground is likely to contain painted ladies in most years, although they are usually less common than Red Admiral

Small Tortoiseshell	All	Vegetation height less than 50cms	Common nettle, but usually only nettles in large patches with very enriched soils. Common in farmland	Can be seen all year round from March/April when hibernating males emerge through to hatching in June and flying till August/ September	All burial grounds are likely to contain small tortoiseshells
Peacock	All	Vegetation height less than 50cms	Common nettle but usually only usually only nettles in large patches with very enriched soils. Tends to breed near woods	Can be seen all year round from March/April when hibernating adults emerge through to hatching in June and flying till August/ September	All burial grounds are likely to contain peacocks
Comma	All	Vegetation height less than 50cms	Common nettle in small clumps plus wild hop and elm	Can be seen all year round from March/April when hibernating adults emerge through to hatching in July and flying till September/ October	All burial grounds are likely to contain commas, especially those south of Scotland
Silver-washed Fritillary	All	Vegetation height low, about 2cms	Violets; mainly dog violet growing in bare ground in dappled shade areas	This is mainly a woodland species but can be seen in wooded lanes in south west England	Found in south west England and occasionally southern England where burial grounds are near wooded areas. Silver-washed fritillaries may use burial ground as nectar sources
Speckled Wood	All	Vegetation height less than 50cms	Various grasses; cocksfoot, couch, Yorkshire fog and false broome	This is a butterfly of shady woodlands. Most burial grounds provide patches of ideal habitat	All burial grounds with trees and shrubs will have breeding speckled woods
Wall	All	Vegetation height less than 20cms	Various grasses especially cocksfoot, false brome, wavy hair grass when growing in small isolated clumps	An increasingly rare butterfly in England, south of Yorkshire	Only burial grounds on the south coast of England are likely to see this species. Those with a sunny aspect and few shrubs can provide breeding habitat
Marbled White	Limey (calcareous)	Vegetation height less than 20cms	Various grasses, especially creeping red fescue, growing in a loose sward with lots of bare ground	A butterfly of southern England and the midlands, usually on limey soils. Cutting grasslands before mid-August is likely to wipe out any marbled whites	Any burial ground with limey soils in southern England could contain marbled whites
Gatekeeper	All	Vegetation height less than 30cms	Various grasses, generally growing near hedgerows, including fescues, bents and meadow grasses	More abundant in southern England	Any sunny burial ground south of Yorkshire and Lancashire should contain gatekeepers

Meadow Brown	All	Vegetation height less than 30cms, but egg laying usually on turf 1-6cms	Various grasses, particularly meadow grass	Meadow browns can lay eggs at any time between May to September so will benefit from cutting grass at different times of the year	All sunny burial grounds should contain meadow browns
Ringlet	Neutral Damp	Vegetation height 15-30cm	Various grasses especially tufted hairgrass, couch, and meadow grass	June/July likes damper grasslands	All burial grounds which are open and not too shady in southern Scotland, England and Wales should contain ringlets
Small Heath	All	Vegetation height 2-5 cms	Various grasses especially low growing fescues	Increasingly rare butterfly which is slow to colonise new sites so if it is lost from a site it is unlikely to re-colonise	Potentially all burial grounds with short turf areas in sunny positions. In reality however you are very fortunate if you have this species

6. Butterflies Moths, and Other Insects

7. Learn about Lichens

This sheet explains what lichens are and how to look after them.

Lichens often form mosaics of colour, especially on stonework. These vary in form from simple, powdery scatterings and crusts to more elaborate leafy or even bushy structures. Lichens are particularly rich and varied in unpolluted sites.

What are lichens?

Lichens are two or more organisms living together as one. A fungus forms the visible part of the lichen and within, protected by threads of the fungus (hyphae), are cells of algae and/or cyanobacteria which can photosynthesise, giving food to the whole lichen.

Lichens reproduce through microscopic fungal spores which, if they find a suitable partner, can colonise any surfaces which are stable and not too shaded or too smooth. These spores are released from reproductive disc-shaped structures which look rather like tiny jam tarts, flasks or pimples. Lichens also spread by producing powdery outgrowths, minute projections or fragments which are scattered in the wind and rain, or moved by animals.

Where are they found?

Provided there is enough light and moisture lichens are able to grow on surfaces unsuitable for other plants. Some grow very slowly, sometimes less than half a millimetre per year; others grow more quickly. Many lichens are long-lived. An individual lichen may be almost as old as the gravestone it is growing on.

The importance of burial grounds

Churchyards and burial grounds are of supreme importance for lichen conservation, particularly where there are no natural outcrops of rock.

Of the 2000 UK lichen species, over 700 have been found in burial grounds. Almost half of these are rare and seldom if ever occur in other places.

Many burial grounds have well over 100 species of lichen in them. They can be thought of as lichen sanctuaries.

Burial grounds are also excellent sites for looking at lichens and for learning about them. Try looking at lichens through a hand lens or magnifying glass, or taking photographs.

Different rocks and building materials can have distinctive lichen communities: limestone, sandstone, ironstone, marble, brick, mortar, slate, granite. Also the various types of stonework: gravestones, walls and buildings will vary from rough to smooth, shaded to exposed, damp to dry, horizontal to vertical. All of these provide different niches for lichens and may have different species growing on them. The lichens on the shaded north side of a wall are different from those on the sunny south side.

Micro-habitats are also provided by recessed lettering, soil crevices in walls, sills stained with iron and copper, granite chippings within a kerbed grave. Again, these may have different species growing on them.

Lichens are also found on trees, wooden structures like fences and gates, grassy areas, pathways and even rubber dustbin lids!

How to help lichens

Lichen colonies have been described as 'minute, self-maintaining gardens that provide a natural cladding for the stone'. They are beautiful and endlessly fascinating, especially when viewed through a handlens or magnifying glass.

A balanced approach is good for lichens:

- Do not spray around memorials as this will damage lichens and also leave unsightly stains.
- If memorials become smothered in bramble, ivy or cow parsley, the lichens will die from a lack of light.
- Remove grass cuttings to a compost heap. Do not leave them to rot leaning against stonework as this will also kill the lichens.
- Walls and monuments built of good quality stone that have lichens on them have shown little deterioration other than that caused by natural weathering. Indeed a good covering of lichens may protect stone. Certain lichens, however, can damage susceptible stone types. Seek advice if you are concerned.
- Try not to clean lichens off monuments or memorials. If you do need to for some reason, then seek advice first and use a soft brush and plain water.

7. Learn about Lichens

- Some lichens are very susceptible to change such as repositioning of stones. If stones do need to be moved then lichens are more likely to survive if the north – south alignment of the stone stays the same. This is true for gravestones, repairs to walls and buildings.
- If old walls or buildings need repointing then use the same mortar type and, if possible, avoid damaging lichens. If the pointing work cannot avoid damaging the lichens then try not to do it all at once and consider having a survey of the lichens in advance.
- **The British Lichen Society** is a membership organisation which has been surveying churchyards for lichens since the 1990s. Check their website to see sites already surveyed and contact them regarding your site.

Lichens and their uses

Lichens have been used by human beings for centuries. In ancient Rome lichens were used to make purple dye for togas. In the Outer Hebrides lichens are still used to dye wool from orange through to brown in the making of Harris Tweed. Lichen is also used in the manufacture of perfume; the 'moss' and 'leather' fragrance comes from lichen.

Birds, such as long-tailed tits, use lichens to help camouflage their nests and some invertebrates feed on lichens.

Cladonia

Useful contacts

British Lichen Society, www.britishlichensociety.org.uk

Useful reading

Churchyard Lichens - Field Studies Council fold-out chart

Grasses, Ferns, Mosses & Lichens of Great Britain and Ireland – Roger Phillips, Macmillan

Lichens on Twigs - Field Studies Council fold-out chart

Urban Lichens 1 (on trees and wood) - Field Studies Council fold-out chart

Urban Lichens 2 (on stone and soil) - Field Studies Council fold-out chart

8 . Wonderful Waxcaps and Other Fungi

This sheet gives information about waxcaps and other fungi and guidelines on how to manage a burial site to benefit fungi.

Waxcaps are mostly brightly coloured fungi and many of the different types of waxcap are found in old, undisturbed grassland which has not been ploughed, reseeded or treated with chemicals. Burial sites are particularly good for finding waxcaps because they thrive in short, regularly mown, old grassland.

The waxcap is a flagship species of Caring for God's Acre.

KNOW YOUR WAXCAPS

Waxcaps are perhaps the most distinctive fungi of old grasslands and can be quite easy to identify. With names like ballerina, blushing, goblet, spangle and parrot they are fun to look for and appear in autumn like jewels scattered across the grass.

Before the development of the microscope in the 18th century, fungi were a puzzle, appearing overnight and sometimes taken to be the work of 'dark powers'. Actually the visible part of the fungus is the 'fruit', filled with tiny spores. The rest of the fungus is below ground and consists of tiny hair-like filaments called 'hyphae' which develop into a mesh, growing through the material from which they take their food. This mesh is called the 'mycelium'.

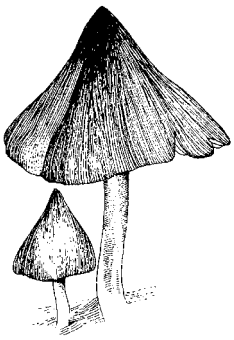
Grassland fungi

Waxcaps and many other grassland fungi form a mycelium around the roots of plants growing in grassland which has not been disturbed, ploughed or sprayed. In other words 'unimproved grassland' (see sheet A2, Caring for Grassland). They are part of the complicated structure of this habitat and most are decomposers and recyclers. They break down dead vegetation, returning its nutrients to the soil and are a vital part of life. Sites rich in fungi, and waxcaps in particular, are now rare in the UK and burial grounds form a crucial network of these sites across the country.

Other distinctive fungi of grasslands are fairy clubs, earth tongues and fairy rings.

Helping waxcaps

Waxcaps need short, regularly mown or grazed grass. When you are planning grass management (see sheet A2, Caring for Grassland), look out for waxcaps in autumn. If you have an area where they are abundant then consider keeping the grass short mown during the autumn when the waxcaps are likely to be fruiting. If this is within an area that you are managing for long grass in the summer, then try to give it a second cut and raking in September. When waxcaps appear, stop cutting the grass for a few weeks so that they can fruit and people can see them. As with all of the grassland, remove grass cuttings and do not use any lawn feeds, fertilisers or moss killers.



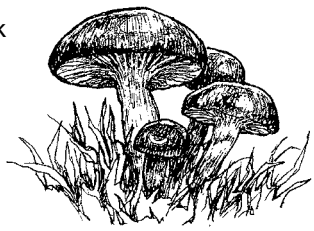
Hygrophorus

You can try to identify waxcaps and make sure to photograph them. These photographs can then be sent to a fungi expert (a mycologist) who may well be able to identify them for you.

Let people know about waxcaps growing in your burial ground; how special and pretty they are. Please send your records to Caring for Gods Acre (see sheet B10 Surveying and recording plants and animals).

FUNGI AND TREES

This is another amazing and complex relationship. Trees and fungi have evolved together and are necessary to each other. A range of fungi live in and around tree roots helping to absorb water and nutrients from the soil. Fungi break down deadwood and old leaves during the life of the tree and then, finally, they kill the tree and help to break it down, recycling the nutrients back into the soil.



Waxcap

Ancient yews, and other veteran trees, are hollowed out by fungi. This was once thought to make the tree more likely to collapse but is now seen as a survival mechanism which makes the tree stronger. Look out for the bright yellow 'chicken of the woods' growing on yew trees.

More about fungi and trees

Fungi and trees help each other by transferring nutrients between the fungal hyphae and the tree roots. Trees take up water and nutrients from the soil through fine roots and root hairs. Trees are able to suck up sufficient water but are poor at taking in enough nutrients to supply the entire tree; the fungus can help with this. The fungus absorbs nutrients throughout its entire web of hyphae which are then transported to the tree roots where there is a dense web of hyphae wrapped around tree roots allowing nutrients to pass into the root. In exchange the tree supplies the fungus

8. Wonderful Waxcaps and Other Fungi

with sugars which have been produced in the leaves by photosynthesis.

Fungi can take up to a quarter of the food that the tree, makes but this is still beneficial for the tree; so much so that seedlings in tree nurseries are 'inoculated' with appropriate fungi. This causes them to grow roughly twice as fast as un-inoculated young trees.

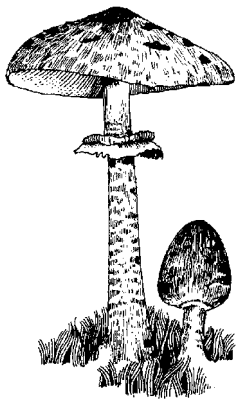
Fungi can break down all sorts of material including wood, leaves, bone, horn, feathers and fur. There are also fungi which break down creosote and oil including diesel and jet fuel! Some are general in what they feed on; others very specific such as *Arthroderma curreyi* which rots down feathers and also tennis balls, or *Marasmius buxi* which solely decomposes the leaves of box.

How to help

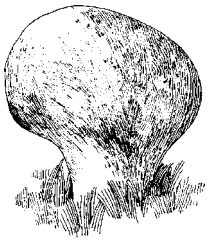
- Leave deadwood within a tree unless your arborist or tree surgeon says it is unsafe.
- Have a deadwood pile for any prunings or fallen tree limbs. This can be stacked neatly out of the way and will benefit many fungi which live on deadwood as well as a great many animals and birds.

Fungi are a vital part of both living and dead plants. Very few are poisonous and they are interesting to learn about. Do not damage or remove them and consider asking a mycologist to visit your site or to run a fungal foray in your area. **The Association of British Fungus Groups** and local wildlife trust may be able to help you do this.

Geoglossum



Parasol



Puffball

Useful contacts

The Association of British Fungus Groups, www.abfg.org

British Mycological Society, www.britmycolsoc.org.uk

Caring for God's Acre, www.caringforgodsacre.org.uk

Useful reading

Collins Complete Guide to British Mushrooms and Toadstools – Paul Sterry & Barry Hughes

Fungi Name Trail – Field Studies Council fold-out identification chart

Waxcap Website – www.aber.ac.uk/waxcap

9. Mosses, Liverworts and Ferns

This sheet explains what mosses, liverworts and ferns are, where they occur and guidelines on how to care for them in a burial ground.

The earliest land plants were related to ferns and mosses. They started life growing on the edge of lakes and rivers 400 million years ago. Today most ferns, mosses and liverworts still need to grow in moist places.

With our damp climate many burial sites prove ideal for ferns, mosses and liverworts, particularly in the western areas of Britain and Ireland.

MOSSES AND LIVERWORTS

Mosses and liverworts are known as 'bryophytes'. They are small, green plants which do not have flowers or seeds but produce spores instead. There are over 1000 different species of bryophyte in the UK and they tend to be found in sheltered, damp places as most of them cannot survive drying out. Few mosses or liverworts have English names and a microscope is needed to identify many of them.

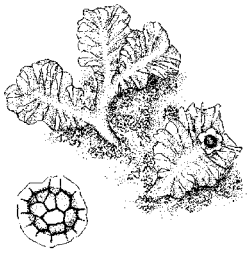
Thuidium

Mosses

Mosses can be found on all types of stonework, roofs and within grassland. A wide variety of mosses can be found within a burial ground often with beautiful colours and shapes.

Mosses attach themselves to the ground, wood, bark or stone by roots called 'rhizoids' and can grow in barren places without nutrients. The amount of shade, shelter and water will affect where mosses grow and which types. Typically a few moss species will grow together, softening stonework with cushions or growing over headstones. Flat stones can quickly be covered with moss which may protect the stone and any inscriptions on it.

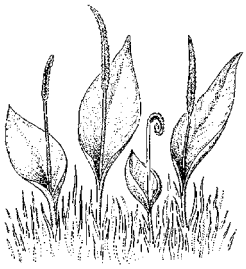
Mosses tend to grow in different places from lichens which need more sun and less water, so mosses and lichens rarely compete for the same space. This is also true in grassland where moss is found in damp, shaded areas, usually with sedges, rushes and fungi.



Petalophyllum ralfsii

Liverworts

Liverworts are similar to mosses but tend to be leafy and are less common. Liverworts are mostly found in woodland and by streams or rivers but can also be found on shady stones and damp soil in burial grounds. They are strange, distinctive looking plants and worth looking at closely or photographing their intricate shapes and subtle colours.



Adder's-tongue Fern

FERNS

In the cool, wet climate of the UK there are 64 types of fern. Look out for ferns on west or north facing walls in particular. The shady areas of burial grounds, and under trees, where grass cutters don't reach, will also be places where ferns can flourish undisturbed.

An amazing fact about ferns is that once established they can survive in quite dry places, such as walls. Unlike mosses and liverworts, ferns tend to have English names and many are quite easy to identify.

Ferns found on walls include spleenwort, wall rue, rusty back, polypody and shield fern.

Species more likely to be found under the trees include lady fern, male fern, hard fern and royal fern, as well as the shield ferns and polypodys also found on walls.

Polypodys can also grow on trees. If your churchyard has calcareous (limy) soil you may find hart's-tongue fern, or even, more rarely, adder's-tongue fern.

Bracken

Bracken is an invasive fern. It is easy to tell bracken from other ferns as it does not grow in clumps from a central point, but on separate stems. Bracken does have wildlife benefits, particularly for butterflies and moths which use it for shelter and egg laying. A clump of bracken in a burial ground is not a problem but if it is starting to increase then snap off the stems just as they are unfurling. Reapeated breaking or 'bracken bruising' will reduce the vigour of the plant.

How to help mosses, liverworts and ferns

Unless there is a clear problem such as a slippery path, leave these plants alone as they rarely damage stonework and are a natural part of grassland.

9. Mosses, Liverworts and Ferns

Exception

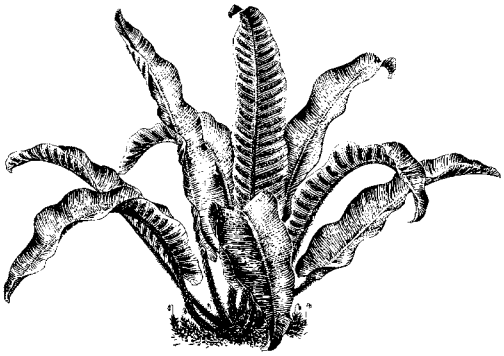
Moss can occasionally accelerate stone deterioration. It may be worth removing moss from the top surface of sandstone as the rhizoids can penetrate downwards into the stone. Other than this moss is not damaging.

If you are repairing a wall which has moss, liverworts or ferns growing on it then try to keep them *in situ*. If this is not possible then remove them carefully, keep damp during work and replace in the same location. Repairing a wall over time, rather than in one go, benefits these plants as it gives them some time to recolonise.

If a damp area of the churchyard supports ferns, then cutting less frequently in the area immediately around the existing ferns could help them to spread naturally, particularly if these surrounds are damp or shaded.

Do not allow invasive plants like ivy to cover mosses, liverworts and ferns. This can happen on a wall, monument or tree. Keep invasive plants in check by regular trimming or removal.

Mosses, liverworts and ferns are particularly susceptible to chemicals, which is one reason why they can thrive in burial grounds. Please do not use herbicides or pesticides.



Hart's-tongue Fern

Useful contacts

British Bryological Society, www.britishbryologicalsociety.org.uk

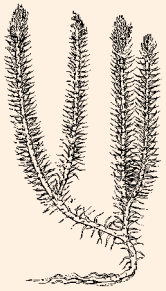
Caring for God's Acre, www.caringforgodsacre.org.uk

Fern World: British Pteridological Society, www.nhm.ac.uk/hosted_sites/bps

Useful reading

A Key to Common Ferns – Field Studies Council fold-out chart

Grasses, Ferns, Mosses & Lichens of Great Britain & Ireland – Roger Phillips, Macmillan



Club Moss

10. Surveying for Plants and Animals

This sheet will explain how to survey for wildlife and make a biological record. This allows you to learn more about your site and how it is changing over time, it also contributes to our Burial Ground Atlas, which includes all burial grounds in England and Wales.

A burial ground can be managed very well with little surveying of the plants and animals present, but it can be interesting to learn more. Caring for God's Acre are working in partnership with the National Biodiversity Network (NBN) who collate millions of biological records, making them available to everyone through the NBN Atlas. Together we have created a Burial Ground Atlas so that individuals, burial ground managers and also those making planning decisions can see what wildlife has been recorded in a burial ground. This helps them to make informed decisions which take consideration of biodiversity and nature conservation.

Learning about plants and animals also gives information for leaflets or talks and can lead to a great sense of achievement as wildflowers, reptiles or breeding birds increase over the years.

Digital photography has made identification much easier than it was. If in doubt take photos of the plant, nest, butterfly or dropping that is puzzling you. There are online systems such as iSpot that can help you identify species from a photo (see useful contacts).

SURVEYING FOR PLANTS

Caring for God's Acre have created a simple tool to help you survey grassland within burial grounds called The Burial Ground Botanical Companion. This survey tool is designed to be used by people who are not botanists, but do have some knowledge of plant types; perhaps keen gardeners? It involves counting the numbers of different plants within an area, without identifying what they are. This is followed by making a list of all the plants which you can identify. Please download the survey from the Resources page on our website or buy the booklet from our online shop, and have a go. The Field Studies Council fold-out charts are helpful for getting going, as is The Wildflower Key. We'd love to hear how you get on!

Early Marsh Orchid

Typical plants of coarse and tussocky grassland include:

False oat grass, cocksfoot, Yorkshire fog and hogweed. In an area of tussocky grass these plants are a sign of good management. If, however, these are increasing in your long grass areas year on year then consider mowing a bit more often (see sheet A2, Caring for Grassland).

Typical plants of fine grassland include:

Finer meadow grasses like sweet vernal grass and crested dog's tail. Flowers include bird's foot trefoil, stitchwort, cowslip, betony, ox-eye daisy, lady's bedstraw, scabious and speedwell. If numbers of these are staying constant or increasing, then give yourselves a pat on the back; your grass cutting regime is working.

Fungi are also good indicators of old grassland and thrive in close mown grass. Record the fungi present on a site and, if you cannot identify them, then take photos of the fungus when fully emerged, ideally showing both the top and underside.

Contact the Botanical Society of the Britain and Ireland (BSBI) and British Mycological Society. Is there a local group who would be interested in visiting your burial site?

If you cannot identify something then take a photo of it, including as much of the plant as possible (leaves, flowers, seeds). Give it your own name (e.g. purple flower, photo 1) until you find someone who can identify it for you.

10. Surveying for Plants and Animals

SURVEYING FOR ANIMALS

Amphibians and reptiles

Slow worms do not often come out into the open but find places to receive the warmth of the sun where they can stay out of sight. Put down a 'cover object' such as a piece of corrugated tin, old carpet, plywood or roofing felt. Place this in partial sun, away from visited areas, within an area of tussocky or long grass, near a compost heap or deadwood pile. The cover object needs to be 2ft square or larger. Lift up regularly and check to see if slow worms or other creatures are underneath. All reptiles are easier to see in spring and autumn or early in the morning on a hot summer's day as it is at these cooler times that they need to bask.

Grass snakes lay their eggs in compost heaps. When you come to empty the compost in the autumn keep an eye out for hatched grass snake eggs which are whitish in colour and leathery. Count eggshells, recording numbers of both hatched and unhatched eggs. You may also find the sloughed skin of a grass snake or slow worm.

See if there is a local Amphibian and Reptile Group with members who might be interested in visiting your burial ground.

Mammals

You may not see any mammals within a burial ground, but you can often see tracks and signs.

Look out for: footprints in soft mud or snow, bat droppings below eaves, 'runs' or paths through long grass (these become visible after cutting), gaps and paths through hedges, hair caught on hedges and used in bird's nests.

Contact your local Mammal Society and see if they would be interested in visiting your site and perhaps doing some live mammal trapping or setting up a mammal tunnel to record tracks.

Birds

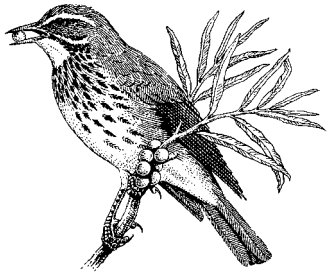
See sheet B4, Swifts and Other Birds, for surveying suggestions. Contact your county bird recorder, wildlife trust or the RSPB to enquire whether there is a local enthusiast to help.

Butterflies and Other Invertebrates

Butterflies are relatively easy to identify and can give you an indication of how good your burial site is for other invertebrates too. A site with a good range and number of butterflies is likely to host a great many other species as well. Butterfly Conservation run an annual survey in the summer, the Big Butterfly Count. Have a look on their website to learn more and take part.

Tip; check flower heads such as knapweeds for resting or feeding butterflies.

Comma



Redwing

Making a biological record

Whether you have noticed wildlife when you are strolling through a burial ground or have carried out a survey, you can make a biological record. You don't need to be an expert; in fact it is useful to have records of common species as well as rarities. Have you seen a yew tree or holly bush, a magpie, a squirrel or a mole hill? If so, you can record them.

To make a biological record you need to make a note of 4 things:

What you have seen, no need to know the Latin name, English is fine.

When you saw it, make a note of the date.

Where you saw it, which burial ground were you visiting?

Who saw it, we need to know your name. You can choose to include contact details if you want which will allow experts to get in touch if they need to know more.

Please have a look at the iRecord system on the Caring for God's Acre website and see if recording this way works for you. If not, then you can email your records or put a sheet of a notebook in the post. Why not also share the records with your local wildlife trust or county recording scheme? Provided you include 'what, when, where and who' all methods will feed into our Burial Ground Atlas, although the iRecord system is the quickest.

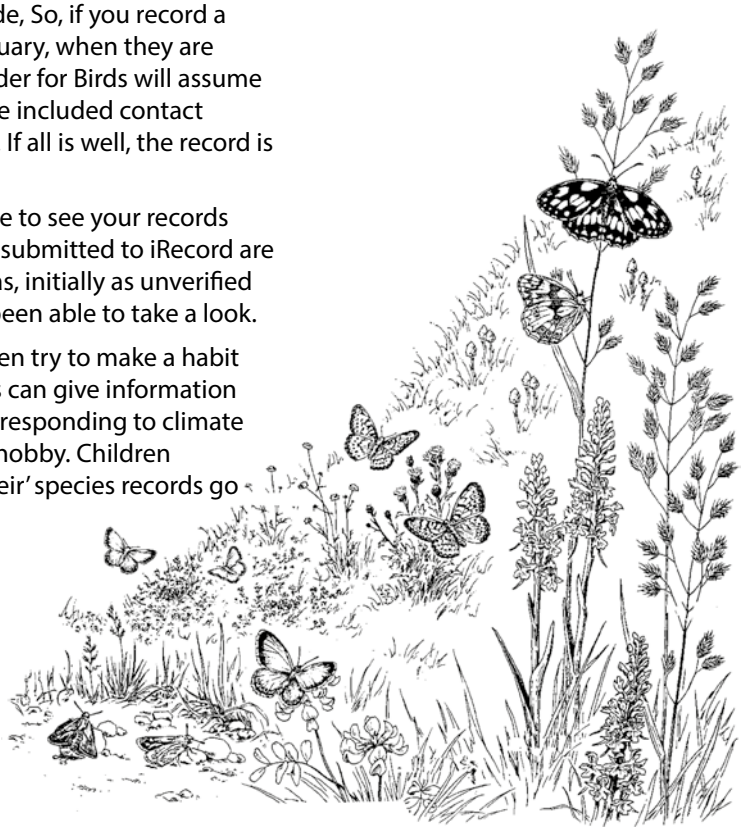
10. Surveying for Plants and Animals

What Next?

All biological records are checked by experts (County Recorders) who are usually volunteers. These people are experienced at identification and make sure that mistakes are not being made, So, if you record a migratory bird like a swallow in Cumbria in January, when they are overwintering in Africa, then the County Recorder for Birds will assume a mistake is likely to have happened. If you have included contact details with your record, they may get in touch. If all is well, the record is approved, otherwise known as 'verified'.

If you use our iRecord system then you'll be able to see your records appear on the Burial Ground Atlas. The records submitted to iRecord are periodically uploaded to the Burial Ground Atlas, initially as unverified records and then verified when an expert has been able to take a look.

If you visit your local burial ground regularly then try to make a habit of jotting down what you see. Seasonal records can give information on the arrival of the seasons, on how wildlife is responding to climate change and can become a fascinating lifetime hobby. Children particularly love making records and seeing 'their' species records go onto a national system.



Useful contacts

Amphibian and Reptile Groups – UK, www.arguk.org

Botanical Society of the British Isles, www.bsbi.org.uk

Butterfly Conservation, www.butterfly-conservation.org

Caring for God's Acre, www.caringforgodsacre.org.uk

iNaturalist, www.iNaturalist.org

National Biodiversity Network Burial Ground Atlas, https://burialgrounds.nbnatlas.org

Mammal Society, www.mammal.org.uk

Bank Vole

Useful reading

The Field Studies Council fold-out charts are an excellent tool for starting to identify and survey wildlife. Visit out website to order a copy of our fold-out chart 'Guide to Wildlife of Burial Grounds'.

The Burial Ground Botanical Companion, Caring for God's Acre, available to buy or download via our website.

The Wildflower Key, Francis Rose, Frederick Warne Books.

This information sheet is funded by Natural Resources Wales.

Cyfoeth Naturiol Cymru
Natural Resources Wales

10. Surveying for Plants and Animals

11. Burial Sites Across Britain

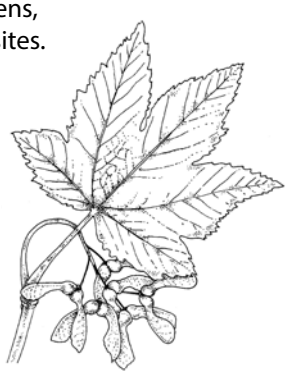
This sheet explains the differences in conditions on sites from across Britain – rural and urban, north, south, east and west, coastal, exposed and sheltered.

One of the fantastic things about burial sites is that they are found in all communities across Britain. They also reflect life in every century from prehistoric to modern.

Urban burial sites

Large Victorian cemeteries in particular may be a key refuge for wildlife in a built-up area. With parks, gardens, railway embankments and wasteland, they form a mosaic of interconnecting habitat.

Because urban sites suffer from more air pollution they may lack the range of lichens, mosses or ferns of unpolluted sites. (They do have several lichens however; see the FSC fold-out charts in Useful reading). Trees planted during the Industrial Revolution reflect a resistance to pollution; London plane, sycamore and large conifers are typical. All urban trees are important in removing pollutants from the air and should be particularly valued.



Sycamore

Rural sites probably have a wider variety of plants and animals, although when surrounded by intensive farmland this may not be the case.

Geology and soil depth will have a strong influence. The deep fertile soils of central and eastern Britain are very different from the thin, rocky soils of the west coast, the chalk downs or the mountains of the Lake District. These fertile areas are likely to have faster growth of grass, trees and other plants and mowing may need to be more frequent to prevent grassland becoming rank and tussocky.

Stonework will reflect the local geology, particularly in older sites, dating from before transport improvements allowed the movement of stone in any quantity.

Altitude affects temperature and windiness; a burial ground high in the Welsh mountains or the uplands of north east England will have slower grass growth and stunted or windswept trees.

Coastal sites contain salt tolerant plants and trees, again with stunted and windswept shapes. Coastal sites

may have a regular application of windblown, salty sand affecting grassland plants.

LOOKING AFTER UPLAND, WINDY OR COASTAL SITES

Plants and trees growing in exposed coastal and high altitude places can suffer from wind and salt burn following storms. This causes leaves or needles to blacken and die and can be mistaken for disease. The plant or tree is unlikely to be permanently damaged and will regrow.

Exposed coastal sites may contain salt tolerant plants and trees; if considering new planting then look at surrounding gardens to see what will cope with the conditions.

When planting new trees in exposed locations start with a small tree which has been grown in a local nursery with some degree of exposure. Do not give the tree a tall stake but stake it low down (30cm from the ground) so that the stem can move in the wind without the roots moving. This encourages the tree to root strongly against prevailing winds. Plastic mesh windbreaks can help new plants to establish and reduce drying out of young plants.

In some coastal or high altitude areas heath plants like heather and bilberry may be part of the grassland whilst trees struggle. Birch, hawthorn, rowan and pine can all grow in more exposed locations than other trees. Try not to shade the heath plants; in upland areas a burial ground may be a refuge for heathland and flowery grassland in an area of widespread sheep grazing.

Rainfall is another variable feature, with higher rainfall

in the west of Britain. Grass may grow all year round in a mild, wet, south-western site but slow down or stop during both summer and winter months in a colder, drier, north-eastern site.

Take the rainfall into account when planning mowing. If the grass grows all year round then you may well need more cuts than would be necessary in other parts of the country.

Localness

When planning new planting you may want to select plants and trees which reflect your locality such as strawberry tree and evergreen oak in Devon and Cornwall. Wayfaring tree is a lime loving shrub and a feature of southern limestones and chalks, as is old man's beard, the wild clematis. Box is found on the Surrey Downs and juniper is distinctively common in a few areas, both north and south.

It is now possible to buy seeds, bulbs, plants and trees of 'local provenance' which means that the seed was collected locally. These plants and trees are more likely to survive in your area and they may have distinctive shapes or hues found in that locality.

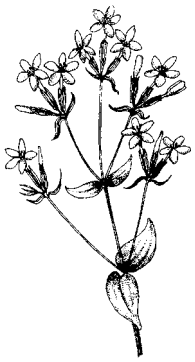
Building styles reflect regional conditions, traditions and history. To give a few examples of a fascinating subject:

- Devon banks and Cornish hedges.
- Flemish influence in East Anglia.
- Differences in dry stone walling and hedgelaying styles.
- Use of brick in old buildings where suitable clay was available.

Try to use local styles and materials when repairing existing built structures and when planning new ones.

If planting bulbs like bluebell or wild daffodil, or seeds such as a wildflower mix, make sure that they are of local provenance. This helps to maintain the rich variety of plants and flowery meadows with small regional differences to be found across Britain. Seek advice from **Flora Locale** or **Plantlife**.

Celebrate local distinctiveness – in the face of increasing globalisation the differences in plants, trees and building styles warrants appreciation.



Centaury

Pyramidal Orchid

Wild Garlic

Useful contacts

Caring for God's Acre, www.caringforgodsacre.org.uk

Common Ground, www.commonground.org.uk

Flora Locale, www.floralocale.org

Plantlife, www.plantlife.org.uk

Wildlife Trusts, www.wildlifetrusts.org

Useful reading

Flora Britannica – Richard Mabey, Chatto & Windus

Urban Lichens 1 (on trees and wood) – Field Studies Council fold-out chart

Urban Lichens 2 (on stone and soil) – Field Studies Council fold-out chart

1. Archaeology and Historic Built Features

Caring for God's Acre

This sheet gives information about the archaeology and history of churchyards and burial sites and their man-made features, with guidelines on recording.

Below ground archaeology

In archaeological terms, churchyards and burial grounds may contain buried evidence of earlier human use of the site. Some sites have pre-Christian origins and such continuity of use may span many centuries. There may be buried remains of structures, boundaries and other features which can throw light on the history and development of the church building. Historic burials can provide information about past funerary practices and reveal information about diet, disease and other aspects of human life.

Such information is usually inaccessible because of the difficulties of conducting archaeological excavations in churchyards and burial grounds, but other types of evidence do not require ground disturbance.

Above ground archaeology

Churchyards often contain visible earthworks such as disused boundaries marking the former extent of the burial ground. Even the shape of the site can be suggestive; a roughly circular plan is often thought to indicate early or pre-Christian origin.

Archaeology is only part of the picture. Churchyard and burial sites often contain important buildings and structures (not just the church itself) which are interesting features in their own right illustrating changes in taste, fashion or technology in a very immediate way.

Unlike the church building churchyards are rarely protected by listing or scheduling legislation and they can suffer from pressures of natural decay, rampant vegetation and vandalism. They need and deserve care, not only for their historic interest but also because that history gives us a sense of time and place.

Surveys

If your churchyard or burial ground has unusual features, an archaeological survey without digging could be worthwhile. A survey may reveal previously unnoticed treasures, as items may be half-buried in the ground. A survey also provides information on former boundaries, former buildings, the approximate age of each part of the site and the approximate date of features, such as preaching crosses.

A churchyard archaeological dig could take place if, for example, underground drainage work was essential. This is costly and an alternative which may be adequate is to have a 'watching' brief for an archaeologist to observe any digging work and write a report on findings unearthed. This is likely to be grant-aided if done in conjunction with other grant-aided work.

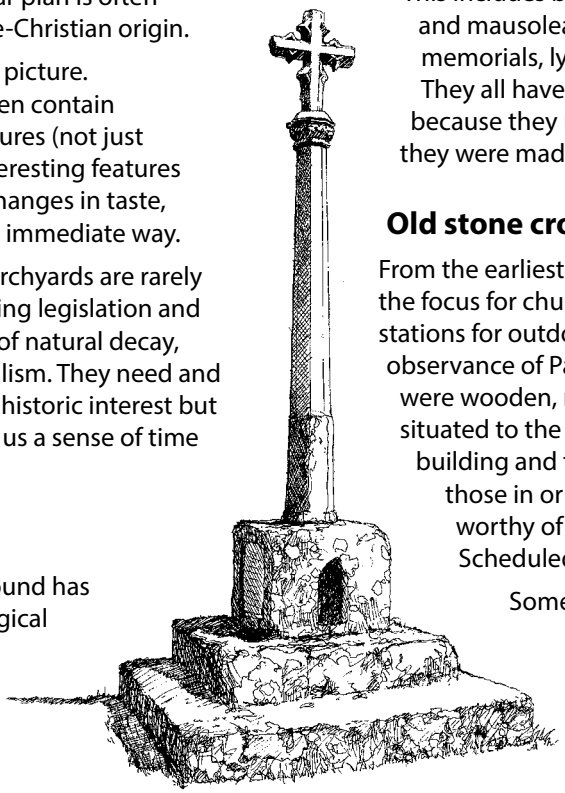
The law

As churchyards and burial grounds are historic sites, it is illegal to dig (other than grave digging) without applying for permission, and no large scale digging work should take place without an archaeologist in attendance. No item of stonework should be moved without similar permission being granted.

Contact your local council archaeology department or church offices for further advice.

Historic built features

This includes buildings such as bier houses and mausolea and other structures such as memorials, lychgates and preaching crosses. They all have potential conservation value because they represent the period in which they were made and set up.

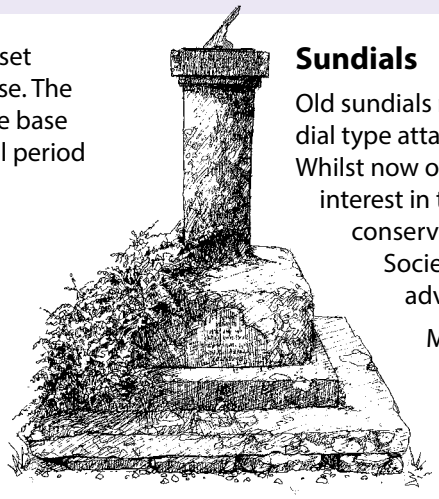


Old stone crosses

From the earliest times, churchyard crosses were the focus for church worship. They were also stations for outdoor processions, particularly in the observance of Palm Sunday. The earliest crosses were wooden, replaced by stone. They may be situated to the sunny south side of a church building and the crosses that survive, especially those in or near their original location, are worthy of protection. Many are designated Scheduled Ancient Monuments (SAMs).

Some of these old crosses had their cross heads taken away during the Refomation and these were sometimes replaced by sundials. The very old variety

may be monoliths, stone shafts often set directly into the ground, without a base. The more common forms have steps at the base and were erected during the medieval period up to the Reformation.



Lychgates

The word lychgate originates from the Old English word Lic meaning corpse. In the past the corpse was carried to the lychgate and placed on a coffin stone or a bier where the priest conducted the first part of the funeral service.

Lychgates are found at entrances to churchyards and sometimes at the exit too. They became popular in the 19th century and were constructed of medieval type joinery often to commemorate a local person, a special event or as a war memorial.

Carvings on walls

The exterior of the church can have a variety of interesting carved stonework: parapets, pinnacles, gargoyles and grotesques. There may even be a Sheela-na-gig, which is a seemingly erotic carving of a female figure. These are usually old and appear to be taken from a previous older building.

Sundials

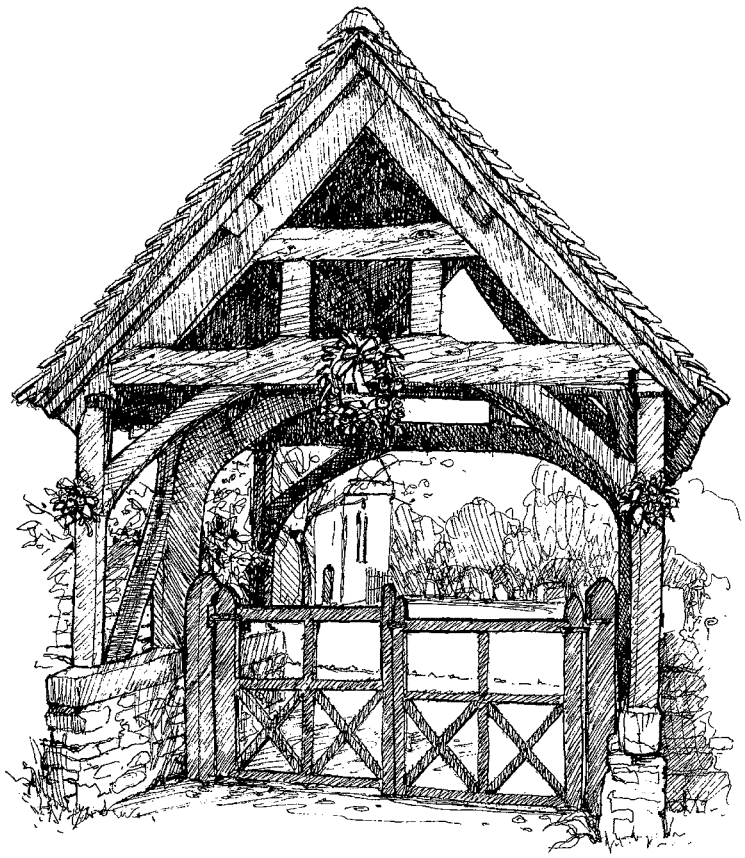
Old sundials may be free-standing or the mass dial type attached to the wall of the church. Whilst now obsolete for time-keeping, there is an interest in the science, design, construction and conservation of sundials. The British Sundial Society catalogues British sundials and advises on their restoration.

Mass dials (scratch dials) are medieval (c.1100–1600) dials found on the south walls of churches. They consist of a series of radiating lines scratched into the stonework, with a piece of wood or iron peg at the centre which would cast a shadow telling the time for mass.

Memorials and monuments

Initially churchyards held few or no permanent grave markers although burials were taking place. The average churchyard is thought to contain approximately 10,000 coffins but far fewer memorials or monuments. By studying memorials, we can have a glimpse into the society of the time.

As well as learning about the people commemorated, we can glean information on transport and how far different stone types were moved, on the technology of stone masonry and the fashions of the time. Look



out for the stone mason's marks which may be visible on older memorials.

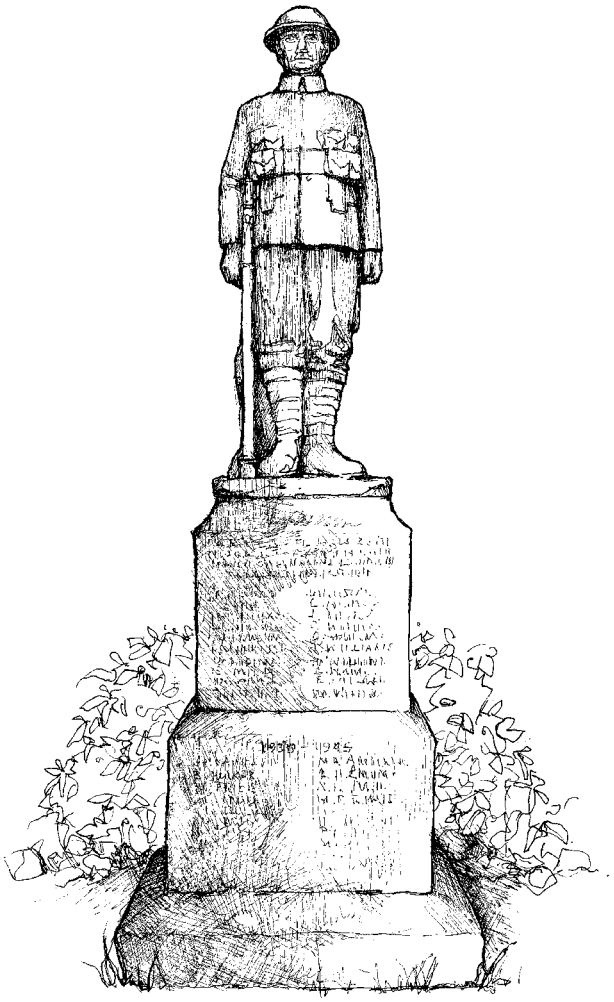
There is a huge variety of memorials from simple functional headstones to grandiose, eccentric and highly decorated structures. A few very early memorials such as rough stone coffin lids, sarcophagi and some early chest tombs still survive. Most of the memorials we see today date from the 17th century onwards, a time when the less rich as well as the powerful could erect an inscribed memorial.

Memorials can be headstones, ledgers (horizontal slabs), chest or table tombs. There are also more unusual grand types such as statues and mausolea, which are buildings constructed as monuments enclosing the burial chamber. Historically they were, and still are, large and impressive buildings for a person of importance. 18th century and early 19th century headstones are renowned for the lovely lettering.

The geology of memorials is interesting (see sheet C3, Geology of the Stones). The carved symbols found on memorials are a further area for study, known as symbology.

War memorials

A war memorial is generally erected by local communities or groups to commemorate those people killed in or affected by war or conflict. Many are important for their architectural and artistic heritage and are listed; new memorials continue to be erected. The **War Memorial Trust** works for the protection and conservation of war memorials in the UK.



Useful contacts

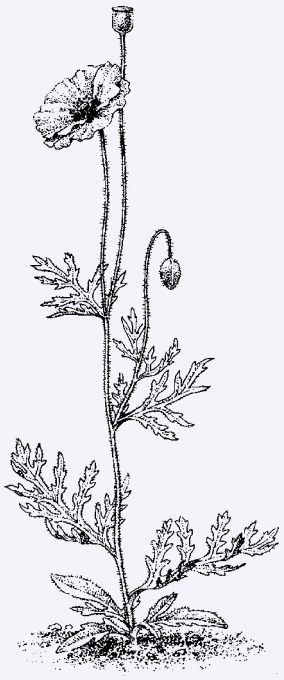
British Sundial Society, www.sundialsoc.org.uk
Church of England, ChurchCare, www.churchcare.co.uk
Church in Wales, www.churchinwales.org.uk/heritage
Churches Conservation Trust, www.visitchurches.org.uk
Council for British Archaeology, www.archaeologyuk.org
Federation of Family History Societies, www.ffhs.org.uk
Local Authority Archaeological Services
The Natural Death Centre, www.naturaldeath.org.uk
War Memorials Trust, www.warmemorials.org

Statutory government agencies:

Cadw, www.cadw.wales.gov.uk
Historic England, www.historicengland.org.uk
Historic Scotland, www.historic-scotland.gov.uk
Northern Ireland Environment Agency, www.doeni.gov.uk

Useful reading

English Churchyard Memorials – Frederick Burgess, Lutterworth Press
Understanding Scottish Graveyards – Betty Willsher, Canongate Books Ltd



Poppy

2. History, Folklore and Traditions

This sheet considers the history of burial grounds and the traditions and folklore associated with churchyards. This information can be useful to inspire interpretation, events and activities.

HISTORY

Britain contains many burial sites which chart the passing centuries, from Neolithic long barrows to new cemeteries and green burial sites.

We do not know the origin of churchyards in Britain but it is likely that some of our churchyards pre-date the church building.

In some cases churches and Christian burial grounds either replaced or were attached to existing pagan sites. It was Pope Gregory the Great (590AD) who recommended churchyards as burial places, so that worshippers walked past graves and remembered the dead in their prayers.

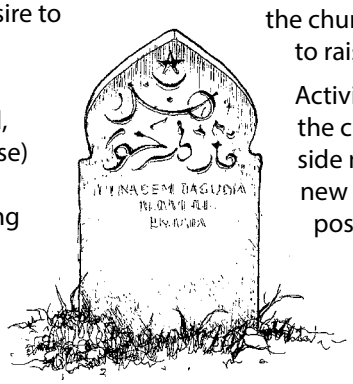
Churchyards were first consecrated for burial after Cuthbert, Archbishop of Canterbury obtained permission from the Pope in 752.

Cemeteries can give an interesting insight into the history of immigration in Britain. Large cemeteries often contain areas dedicated to a particular nationality or faith such as Russian, Serbian or Greek Orthodox. There are also burial grounds specific to faiths including Jewish and Muslim cemeteries.

The area of one acre around a church for burial was laid down in 943 by the Welsh king Hywel Dda. By the 10th century the area of 'God's Acre' was being marked by wooden crosses in churchyard corners.

Mechanisation of agriculture and the Industrial Revolution saw a migration of people from the countryside to rapidly expanding towns and cities. Cemeteries arose from the resulting overcrowding of urban churchyards and the Victorian desire to create gardens of remembrance.

The last few decades have seen the establishment of green burial grounds and, more recently, of 'QR' codes (Quick Response) giving digital information about the deceased. Burial grounds make a fascinating subject for studying history and social change.



FOLKLORE AND TRADITIONS

When we look at a burial site today what comes to mind? If we see only a group of tombstones, then we are missing much that these special places can tell us. Now relatively undisturbed and peaceful, they were once places for community activity; where the sacred and the secular met.

Much is known about our historic church and chapel yards:

- Yew groves and trees were sacred places to ancient Britons and some of the very old yew trees found in churchyards are known to be older than Christianity in Britain.
- There are records of Saxon Moots or parliaments being held in churchyards as well as markets, meetings and outdoor religious gatherings.
- On old church buildings you'll often find deep grooves scratched in the stonework. These are where the local men sharpened their arrow points during compulsory archery practice at butts set up in the churchyard.
- Miracle plays and sacred dramas in which clergy took part were once performed in churchyards and Morris dancers took part in ritual dancing relating to pagan fertility cults.
- Games such as quoits, ninepins, and wrestling took place in churchyards, and church or chapel walls were used to play fives. Even cockfighting occurred in the shadow of the church or chapel.

Some of the clergy were not too keen on boisterous sports which encouraged gambling, but King James the First had decreed in 1619 that 'traditional churchyard games' were to be encouraged, providing they were held 'in due and convenient time, and without implement or let of Divine Service'.

Beer festivals are not a new idea; the 'church ales' were feasts of eating, drinking and merrymaking held in the churchyard and organised by churchwardens to raise funds.

Activities took place on the north side of the church although the sunnier southern side might seem more favourable. When a new church was built it would have been positioned to the north of any existing High Cross, so that it would not cast a shadow upon it. The north side of the churchyard, behind the church and

away from the High Cross, became the place where gatherings happened and games were played leaving the southern part as the place of burial. In the past people buried on the north side would be those seen as less worthy such as criminals.

There are many old customs and superstitions concerning churchyards, particularly after darkness has fallen. The young girl strewing grain along the churchyard path at midnight, whom did she hope to see when she turned around?

Why did people creep into the church porch on All Hallows Eve? What voice were they listening for beyond the tightly shut door?

The intriguing folklore associated with burial customs harking back to pagan roots is extensive. This ancient worship of nature continued much longer in country parishes, notably in the Celtic west of Britain.

Early Purple Orchid

Folklore and uses of plants common in burial grounds

Because burial ground grassland is often very old, the flowers found have been present for centuries and there are old names, uses and tales associated with them. Look out for some of these plants.

Snowdrops	Candlemas Bells, February Fairmaids, Mary's Tapers. Candlemas is 2nd February.
Primrose	Prima Rosa – first flower, picked by children to give to parents and used to decorate churches. Primrose Day is 19th April.
Cowslip	Keys of Heaven or St. Peter's Keys. Cowslips were strewn in front of brides, worn in May Day headdresses and used for wine making.
Germander Speedwell	Angel's Eyes, God's Eyes and Eve's Tears – due to the blue of the flowers. Leaves were used for making tea.
Pignut	The tubers are eaten either raw or stewed with meat and taste like young hazelnuts.
Lady's Bedstraw	The name is unchanged and refers to the Virgin Mary. When dried it smells sweet and was stuffed in straw mattresses and strewn on floors.
Greater Stitchwort	Easter Bell or Sunday Whites (in Devon).
Meadow Cranesbill	Grace of God.
Elder	God's Stinking Tree – Elder wood was believed to have been used to make the cross.
Early Purple Orchid	Cain and Abel or Adam and Eve. Tubers were ground to flour and used in a milky drink called Saloop or Saleps.
Comfrey and Lungwort	Abraham, Isaac and Jacob – due to the different colours found on one plant.
Centaury and Solomon's Seal	Jacob's Ladder or Ladder to Heaven

Many churchyards have their own particular tales, entertaining now, but once treated very seriously, and all these are just another part of the treasures contained in our ancient churchyards and burial sites.

Useful contacts

Caring for God's Acre, www.caringforgodsacre.org.uk

Local History Societies, www.local-history.co.uk/Groups

National Federation of Cemetery Friends, www.cemeteryfriends.org.uk

Useful reading

Flora Britannica – Richard Mabey, Chatto & Windus

God's Acre: The Flowers and Animals of the Parish Churchyard – Francesca Greenoak, WI publication

The Cemetery Research Group – www.york.ac.uk/chp/crg/index.htm

Lady's Bedstraw

3. Geology of the Stones

This sheet looks at the rock types you may find in a burial site and what they are used for.

The stonework in a burial site reveals both the underlying geology of the area and also the range of different stone types used in memorials. Burial sites offer a great opportunity to look at geology, with many rock types brought together in one easily accessible place.

Monuments and memorials were made from local stone whilst transportation was limited. If the stonework in a burial site is older than the 1900s then it is likely to have been quarried close by, as transport was difficult and expensive before the railways.

There are exceptions to this; Stonehenge in Wiltshire is made from Welsh rock.

In Victorian times railways made transport easier resulting in granites, slates and Italian marbles becoming fashionable. More recently improvements in international transport have seen memorial stone brought from all around the world; India, China and South Africa are common sources.

A church, chapel or other pre-Victorian building is likely to be made of a strong local stone and will reflect the local geology.

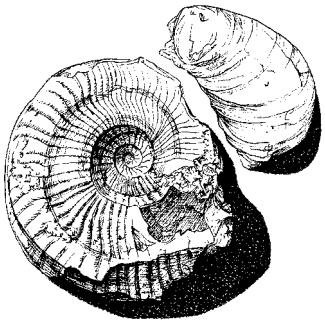
The walls around a burial site will also be local stone but probably not such good quality as that of the building. This stone may have been cleared from surrounding fields or brought from a quarry close to the site.

Soils are derived from the underlying rock and, in turn, affect the plants and animals on the surface. Limestones will have distinctive 'lime-loving' plants, whilst red sandstones produce a rich orange coloured soil which can colour resident frogs bright red!

THE FOUR MAIN ROCK TYPES

Igneous rock

This is made from molten rock called 'magma'. Igneous rocks can be 'extrusive' when volcanic activity pushes the magma to the surface of the earth. 'Intrusive' rock is formed from magma which is pushed upwards but not to the surface. This includes sills, dykes and batholiths. The magma crystallises on cooling giving a distinctive pattern; the slower the cooling, the larger the crystals. The largest crystals are found in igneous rocks which are intrusive such as Cornish granites.



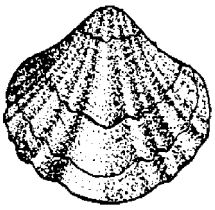
Types and uses

Igneous rocks include granite, basalt and dolerite. These rocks are hardwearing and the crystals within them shine when polished. Unless the burial site is in an area of igneous bedrock such as Cornwall, Shap or Aberdeen, igneous rocks are only used for headstones, pillars and slabs. These hard-wearing rocks are unlikely to be colonised by mosses and lichens.

Sedimentary rocks

These are made from grains, gravels and pebbles of other rocks which are weathered, transported by wind or water and then deposited in layers or 'beds' which then compact into rock. Sedimentary rock is extremely variable depending on the parent rock that the grains are made from and on how it has been compacted. Grains may be large or small giving rough or smooth stone and colours vary greatly. Red sandstones tend to form in deserts. Sedimentary rocks can have fossils of plants and animals within them and also ripples or raindrops preserved between individual layers.

Types and uses



Sedimentary rocks include: sandstone, mudstone, shale and conglomerate. They are used for buildings, headstones, flagstones and plinths and will often split along the layers in which they were formed, giving flat surfaces. This splitting or 'spalling' can also occur as the rock weathers and may be seen on many headstones.

Limestone

Limestone is a type of sedimentary rock as it is formed by the laying down of sediment, in this case the shells and skeletons of millions of microscopic sea creatures. These shells fall to the seabed or are dissolved in seawater. Limestone is made primarily of calcium carbonate, the building block of shells and skeletons.

3. Geology of the Stones

Another type of limestone, oollitic limestone, is fomed when calcium carbonate in seawater precipitates on fragments of sediment, forming little balls (ooliths) about the size of a pinhead. These then sink to the seabed.

Limestone may be coloured by minerals such as iron, giving a range of colours from white to dark grey or reddish. Limestone can contain fossilised sea creatures such as ammonites, corals, bivalves and sea lilies, or even fish and sea mammal bones. Limestone can be strong and good for carving but is prone to erosion by acid and blackening by soot, smoke and exhaust gases. Many buildings and monuments were eroded and discoloured during the Industrial Revolution, and subsequently from vehicle exhaust gases and by acid rain.

Types and uses

Limestone includes chalk, Portland and Bath stone. Many buildings, statues and finely carved memorials are limestone, including Roman sarcophagi and St Paul's Cathedral – both made from Portland stone. War graves are often white limestone.

Metamorphic rocks

After forming, rock may be subjected to intense heat and/or pressure whilst within the earth's crust. This usually takes place when rocks are buried deeply, for example in tectonically active areas. It can also take place where rocks are squeezed and heated by intrusive igneous rocks. It alters rocks and they become 'metamorphosed'. Metamorphic rock can be hard-wearing and easy to carve and includes slate which is formed from mudstone or volcanic ash and marble which is formed from limestone. Schist, gneiss and quartzite are also metamorphic rocks.

Types and uses

Slates are used for headstones, slabs and roofing, with characteristic green Lake District slate found in Westminster Abbey. Marbles are used for memorials and statues. Carrara marble has been quarried for 2000 years in the Apennines in Italy and many famous statues including works by Michelangelo are made of this marble.

Buildings, walls and monuments all mimic natural rock faces and cliffs in the wild. In an area without natural outcrops this may be particularly important for the plants, lichens and mosses which colonise rock face.

Tell the story of the stones

Burial ground geology makes a fascinating story as so many rock types are likely to be present, showing the effects of time and weathering. This information can be used in leaflets, information boards or by schools or clubs. Contact your local **Geology Trust** to see what is already known and if someone could give a guided talk and walk.

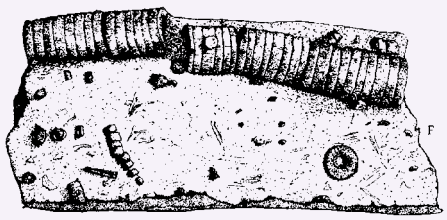
Useful contacts

The Geology Trusts, www.thegeologytrusts.org

The Geological Society, www.geolsoc.org.uk

Useful reading

Rocks – Field Studies Council fold-out chart



4. Social History of Burial Grounds

This sheet gives an introduction to social history and ways to investigate the social history of your local burial ground.

Graves contain a reminder of past lives, and are invaluable tools for genealogists. Burial grounds also have their own biographies, and their social history can reveal a fascinating insight into the way our ancestors made decisions on how to provide space for the dead.

SOCIAL HISTORY

Definitions are important! Churchyards and cemeteries fall under completely different legislation, and this difference is a reflection of the very real tensions that have existed over the last three centuries over the ownership and control of burial space.

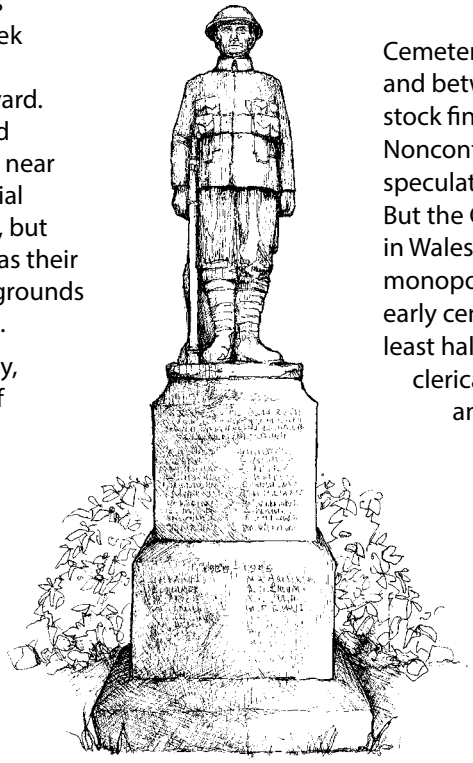
The consecration of land around a church took place routinely from around the tenth century. After the Reformation, The Church of England and Church in Wales, as a Protestant church, did not believe that burial in consecrated ground was necessary to the ultimate destiny of the soul. But consecrating space was still a way of 'dedicating' that space to God, and placing that ground under Church ownership and control.

From the sixteenth century, Dissenters from the Church of England – for example, Quakers, Baptists and Independents or Congregationalists – began to seek alternatives to burial in a Church of England or Church in Wales churchyard. These denominations often founded their own burial grounds, around or near to their chapels. Nonconformist burial grounds could be very large indeed, but are now often at risk of destruction as their ownership becomes moot and the grounds are threatened with redevelopment.

By the end of the eighteenth century, the political and economic power of Nonconformists was increasing rapidly. During the course of the nineteenth century, and well into the twentieth, battles between Church and Chapel were being fought on innumerable fronts. The battle over control of burial space was perhaps their most spectacular tussle, and was argued out in towns and villages throughout England and Wales.

Some historical legalities

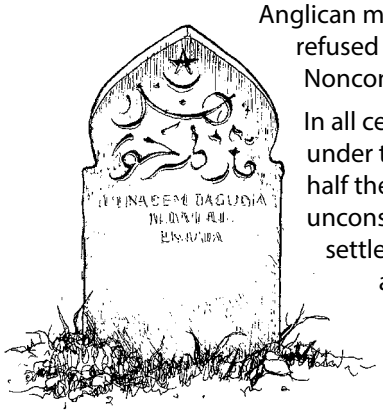
One key fact about burial in England and Wales is surprising: no-one has responsibility to provide burial space. The law is and always has been 'permissive', and in the past has relied on each parish vestry to decide for itself how best to provide space for the dead. Communities could continue to use their parish churchyard, but during the eighteen and nineteenth centuries the amount of space available was often overtaken by rapid growth in urban populations.



Cemeteries were ostensibly an alternative, and between 1820 and 1850 joint-stock finance provided a method for Nonconformists, town councils – and speculators! – to invest in cemetery space. But the Church of England and Church in Wales did not necessarily lose its near-monopoly of burial space. In many of the early cemeteries, the Bishop consecrated at least half the site and in doing so established clerical compensation for lost burial fee and legal oversight. This is why many cemeteries need 'faculty' or Church planning permission for actions in consecrated sections.

The Burial Acts were established during a time of increasingly passionate protest on the access of Nonconformists to their own independent burial space. Political rivalries between denominations meant that

4. Social History of Burial Grounds



Anglican ministers sometimes refused churchyard burial to Nonconformists.

In all cemeteries established under the Burial Acts at least half the land had to remain unconsecrated. But this did not settle matters in many rural areas, where there were insufficient numbers of ratepayers to afford a new cemetery. Passions continued to run high in many parishes, and it was not until 1880 that the Burial Law Amendment Act allowed that burial could not be refused to Nonconformists, and that ministers of other denominations could be permitted to take burial services in Anglican churchyards. Nevertheless, church and chapel arguments rumbled well into the twentieth century.

A rich seam of local history

The peculiarities of the law meant that during a time of huge urban and rural population change, communities as ratepayers were deciding for themselves how best to make arrangements where new burial space was required. This was also a time when fashions in commemoration meant that monuments were becoming increasingly elaborate, taking up even more space in churchyards that were already overcrowded.

Churchyard extensions were commonplace, made easier through a change of law in 1867 which meant that anyone donating an acre to the churchyard could keep a sixth of the extension for their own family burial. During the nineteenth century, burial in the church itself was banned for public health reasons, so the churchyard became a new location for aristocratic funerary elaboration.

INVESTIGATING SOCIAL HISTORY

You can use a variety of local historical documents to investigate the history of your burial site and create a biography:

Maps

- Old maps are a great source of information, particularly in establishing whether and when a churchyard extension took place.
- Look for the location of new cemeteries on old maps: where are they, who owned the land, how much did it cost?
- Was the cemetery itself extended? When, and why? Were there arguments as to who would pay for it?

Vestry minutes

- Vestries kept formal minutes, and many are still available in record offices. Search the vestry minutes around the time of a churchyard extension. Chances are there was a burial sub-committee. Fairs and fetes were often held to pay for the new churchyard wall.
- The minutes might show arguments between ratepayers as to whether the churchyard should be extended, or a new cemetery established.

Burial board minutes

- Some minute books are remarkably detailed: there are instances of whole boards being disbanded because no-one could agree on the apportionment of land between Anglicans and Dissenters; minutes often show how decisions were made about what kind of monuments would be allowed, or the range of prices, or what terms might be agreed with the Poor Law Guardians on pauper burials.
- Other documents are often kept with minutes including plans and architectural drawings; letters between the burial board and the Home Office sometimes arguing about the legality of certain practices; and surveys of how other burial boards were deciding issues like allowing Saturday and Sunday burials.

Terriers

- Routinely included questions on the churchyard itself and on burial fees which could include itemisation of the cost of bell ringing, and itemised detail on monument erection fees and other charges.

4. Social History of Burial Grounds

Burial registers

- Burials taking place under the Burial Law Amendment Act are marked as such in the register: look out for any comment the vicar might make in the margin.
- Count whether the number of burials was increasing prior to an extension being made: was it the number of burials or the elaboration of memorials that was the problem?

Local newspapers

- Reports on insanitary and overcrowded churchyards, consecration services, fractious burial board meetings, and on whether the churchyard should be closed all gained column inches.

London gazette

- Any churchyard closure had a formal notice in the London Gazette, searchable on-line. Check the burial records: did burials in your closed churchyard continued anyway? And what did people think about that?

By Dr. Julie Rugg

Useful websites

www.york.ac.uk/spsw/research/cemetery-research-group/about-cemeteries

www.thegazette.co.uk

Useful reading

Sylvia Barnard (1990) To Prove I'm Not Forgot: Living and Dying in a Victorian City, Manchester: Manchester University Press

Chris Brooks (1989) Mortal Remains: The History and Present State of the Victorian and Edwardian Cemetery, Exeter: Wheaton

Julie Rugg (2013) Churchyard and Cemetery, Tradition and Modernity in Rural North Yorkshire, Manchester: Manchester University Press

4. Social History of Burial Grounds

1. Involving Volunteers

This sheet gives guidelines on how to involve volunteers in the conservation of your burial ground.

'Many hands make light work'

Involving people in managing your burial ground has a great many things to recommend it:

- You share the workload and large or expensive jobs can become manageable.
- You involve your local community and get a chance to explain what you are doing and why, which can build local support.
- Volunteers start to become ambassadors for a burial site; they talk about what they are doing to friends and neighbours and can, in turn, recruit more volunteers and generate goodwill.
- Volunteers may bring different skills and experience to your group, such as gardening, plant identification or links to local schools.

ATTRACTING VOLUNTEERS

Wood Anemone

Managing a churchyard or burial ground in a way that is sensitive to both wildlife and people brings with it tasks that are varied and interesting. These may include creating compost heaps, putting up bird and bat boxes, finding out what species of wildflowers there are, scything meadow areas, dry stone walling and tree pruning. There will also be a need for someone to produce posters, publicise events through local media, organise tasks and keep people in contact.

In order to get a strong team of volunteers together and maintain enthusiasm and momentum, it is helpful to understand some of the barriers that stop people from volunteering.

These include:

- Lack of confidence.
- Lack of time.
- Have dependants.
- Work commitments.
- Don't know about it.
- Think it is not their problem as they are not part of the congregation.
- Think they have nothing to offer.
- Lack of awareness of the interest the site has to offer.

With the right planning and publicity, many of the above barriers can be overcome.

Planning a work party

Consider:

- What will the people who volunteer be doing?
- How many volunteers are needed?
- How long is the task likely to take and will it become regular? A regular day is easy to remember.
- Is the level of publicity suitable for the task? Will the task involve many people or a few?
- Which days and times will suit most people who might volunteer?
- Toilet and hand washing facilities. If you do not have a loo, is there one nearby that can be used? A village hall or pub perhaps or can you hire a portaloo?
- Offering light refreshments during or at the end of the task.
- Who will undertake a risk assessment? (See sheet D2, Health and Safety).

Looking after volunteers on the day

Tell volunteers what the structure of the day will be in advance: when you will stop for tea or lunch, when you plan to finish. Make it clear that they can leave whenever it suits them.

Go over any health and safety issues.

If a new person turns up on a task day make sure that they are welcomed, given something to do which is appropriate to their abilities and interests. Don't assume prior experience, explain a task carefully and demonstrate tool use.

Have some interesting information available about the site. Do a quick tour and point out features of interest to new volunteers, including telling them about the management plan and the reason for the task they are helping with.

Be prepared to find something to do for everyone who volunteers, no matter what their abilities. As well as physical jobs there are others such as: making tea, bringing cakes, taking photographs, recording plants and wildlife, writing articles for local press.

1. Involving Volunteers

Think about transport if people are coming from further afield. This might be lift sharing or offering to pay a bus fare.

Don't overwhelm new volunteers! Give them time to get to know you and to decide how much time and commitment they want to give.

Publicity

- Try as many angles as possible; word of mouth is often the best.
- Put posters in the church porch, village hall, local pub, shops and community notice boards. Create simple flyers so that people can take information away.
- Put work party details in the local paper or issue a press release.
- Is there a community website?
- Start publicity a month in advance.
- Register with your local Voluntary Action office.
- Hold indoor slide talks or guided walks in the burial ground.
- Make it appealing – 'Cake and Rake' days or a 'Scything Saturday' – with food!
- Link in with national initiatives. Newspapers and radio will pick up on national initiatives and give your event a higher profile.
  Some possible initiatives are:
  National Nest Box Week
  National Volunteers' Week
  National Tree Week
- Join in with national 'Love Your Burial Ground' week during the second week of June each year – contact Caring for God's Acre for information.
- Make sure that a friendly member of your group acts as a point of contact and put a phone number on to any publicity.

Keeping volunteers

Welcome people at the beginning and thank them at the end of every event, giving information about what happens next and when.

Find out what individuals like to do and what their interests are.

Help them achieve what they have come along for. This could have been to meet people, gain skills, look at wildlife or get fit.

Could one of the group keep an eye on everyone to make sure they are happy, and to introduce new people?

Think whether you can welcome children to your work party. Are there suitable tasks for children and could someone do activities for younger ones while the adults work? (See sheet D3, Things to Do, and also our Education Pack which has a great many activities for children). You may get many more volunteers if events are family friendly.

Compile a scrapbook of tasks with pictures of people, achievements and interesting wildlife for everyone to look at. N.B. If taking photos of children or vulnerable adults you need written permission from a parent or carer so have a simple form ready and explain to the adult what the photo will be used for.

See if the group would be interested in some training or in sharing skills. Ask around for what skills local people have: identification of wildlife, making bird or bat boxes, sketching memorials or wildflowers perhaps. Put on a training morning.

For larger specialist jobs such as dry stone walling you may want to hire a trainer to teach new skills to your group (see sheets A11, Caring for Stone Walls and D5, Applying for Grants).

Once your group is established, recognise special events like birthdays or the anniversary of the group.

Useful contacts

Caring for God's Acre, www.caringforgodsacre.org.uk
County Voluntary Councils, www.wcva.org.uk
Volunteering in Wales, www.volunteering-wales.net
Wales Council for Voluntary Action, www.wcva.org.uk

Useful reading

Education Pack - www.caringforgodsacre.org.uk
National Cherishing Churchyards Week – www.caringforgodsacre.org.uk
National Nest Box Week – www.bto.org
National Tree Week – www.treecouncil.org.uk

2. Health and Safety

This sheet gives guidelines on health and safety, first aid, first aid kits and on doing a risk assessment when running an event or volunteer work party.

It is the responsibility of burial ground managers to consider the safety of the whole site for the casual visitor. These guidelines are for groups running an event or work party as part of a conservation project.

Burial ground and churchyard managers need to think about the health and safety not only of visitors but also people who are volunteering. Cemeteries are likely to be the responsibility of the local authority and in most Anglican sites the Church Council takes the responsibility. This entails ensuring that a burial ground is as safe as is reasonably practicable and care is taken to minimise accidents. The responsible body must comply with health and safety legislation, hold public liability insurance and keep records.

When organising a work party or event you will need to consider the dangers, the associated risks and how to keep people as safe as possible.

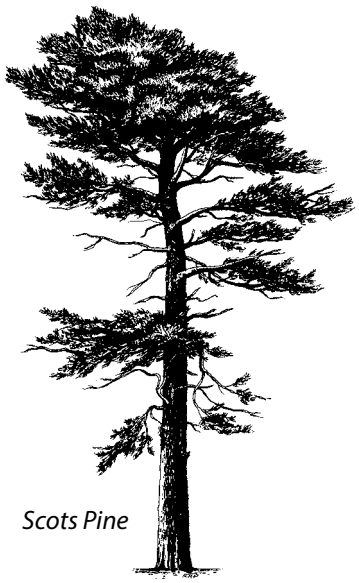
RISK ASSESSMENT

A risk assessment can become a useful check list for event organising; the first one you do takes time but this becomes quicker.

Site risk assessment

Start by looking at the site systematically, trying to imagine visiting it for the first time:

Paths and entrances – are paths even or uneven? Are any steps clearly visible? If there are railings by steps are they strong enough, smooth or sharp, are there any broken sections?



Scots Pine

Areas away from paths – what is the rest of the site like? Is the ground uneven? Are there stones that could trip, gravestones that are not clearly visible, brambles or nettles?

Stonework and monuments – are any of these unstable? Are graves surrounded by sharp railings?

Trees – are the trees safe, have you acted on recommendations from tree surveys? Do they have low, sharp branches or stumps? Are they poisonous?

Activity risk assessment

Look at the activity planned - what tools or equipment will be used? What is the range of ages and abilities of participants?

Tools – will there be sharp tools? If so list them. What about heavy or awkward tools? This could be cutting tools, sledge hammers, mowers.

Other equipment – will there be heavy things to lift, things to trip over? Are you planning to have a fire or boiling water?

The activity – what and where will people be working and what level of skill or training is needed? Will people be doing an activity for the first time or do you know that they have prior experience?

Are there particular risks with an activity: inappropriate tool use, lifting heavy or awkward objects, a need for space around the person? (Sledgehammer or strimmer use for example).

Will works be near or on a path or a road?

At the end of this process you will be feeling that the whole site is terribly dangerous, the activity that you are planning is potentially lethal and no one should be allowed onto your site! Hopefully the next stage will put risks into proportion.

2. Health and Safety

Risk level

You now need to calculate risk level. You should consider both the probability of an accident occurring and the severity if it does, giving them both a rating between 1 and 4.

Probability (P)

This is the likelihood of an accident happening.

1. Improbable / unlikely to occur
2. Possible / could occur sometimes
3. Probable / will occur several times
4. Likely to occur / event expected

Severity (S)

This is the worst likely outcome assuming no controls are in place:

1. Minor injury, e.g. cuts, bruises, sprains, minor burns.

2. Major injury but non-life threatening, e.g. fractures, dislocations, muscle strains, cuts, burns or disease needing medical attention.

3. Major injury which could be life threatening, e.g. loss of limb, major fracture, major disease, exposure or hypothermia, penetrating eye injury.

4. Fatality: the death of a volunteer, contractor or member of public.

Probability x Severity	=	Level of Risk **P** x **S** = **R**
Levels of risk, 1 to 4	=	Low risk
Levels of risk, 6	=	Medium Risk
Levels of risk, 8 to 16	=	High Risk

		Severity			
		1	**2**	**3**	**4**
Probability	**1**	1	2	3	4
	2	2	4	6	8
	3	3	6	9	12
	4	4	8	12	16

Example 1 – The probability of injury whilst nailing a fence may be likely (probability value of 4) but the potential outcome is a minor injury (severity level is 1). P x S = R, hence 4 x 1 = 4.

The level of risk with this activity is LOW (4).

Example 2 – Injury whilst having a bonfire might be regarded as probable (probability value of 4), but the potential outcome is major but non-life threatening, (severity of 2). P x S = R, hence 4 x 2 = 8. The level of risk with this activity is HIGH (8).

N.B. You must show your calculation on the form.

The risk level relates to the hazard before you apply precautions to reduce the risk.

You now need to think how you will minimise the chance of injury taking place.

Example 1 – Nailing a fence. This is a low risk but you could reduce it further by suggesting that people wear strong gardening gloves. You could also warn people to take care of fingers.

Example 2 – Having a bonfire. This high risk is lowered if you do it in the right conditions, take precautions and have enough space. This will lower the probability from likely to possible and therefore reduce the risk to LOW 2 x 2 = 4. If, when you do the risk assessment, you assess that there is not enough space to have a fire safely then the risk remains unacceptably high and the task should not go ahead.

Describe what precautions you will take to reduce risk, who will do them and when.

Recalculate the risk based on these precautions and see if it has become medium or low.

If it is still high then DON'T DO IT. If it is medium then think carefully before going ahead.

Several of the precautions are to be done by a 'task leader'. It is best to have someone to plan each event and lead on it. The leader should write the risk assessment, plan the precautions and explain them to the others. This may be a case of contacting people in advance and telling them to wear long sleeved clothes and strong boots, or of showing them particular hazards on the day.

See table on page opposite for some examples from an actual churchyard task risk assessment.

Contact CfGA if you would like help with a Risk Assessment or a template of a full Risk Assessment form. The form includes space for emergency numbers and the location of nearest hospitals and defibulators.

First aid kit

The first aid kit should contain contents suitable for the number of people and the risks identified (e.g. lots of sterile eye wash if dealing with lime mortar).

Volunteers should be briefed at the start of the session as to the risks associated with the work/event, the provision and location of the first aid kit(s), who is the trained first aider and where the emergency phone is sited.

For more information on the recommended contents of first aid kit(s) contact **St. John Ambulance** or the **Red Cross.**

KEEP RECORDS

Take a paper copy of the risk assessment and emergency contact form to the event.

Keep a file with all of your risk assessments in it. The site manager or church officials may want to store this file for you as it is a useful record for them.

Accident book

Keep a record of accidents and near misses. This can be a notebook with a pencil attached which is kept on site. Record the accident (including minor ones), the name of the injured person, the date, time of day and any particular conditions such as low light, rain or slippery ground. Near misses often go unrecorded but can give really useful insight. Use common sense when deciding what to record.

Example: 'Slipped badly whilst carrying sharp tools but managed not to fall'.

The table below gives some examples of how to assess initially, plan your precautions and then reassess.

Hazards	Type of risk	Risk level PxS=R	Precautions to remove hazard or reduce risk	Who?	When? Before During	New risk level
Uneven Ground	Trip & slip	2x2=4	Inspect working area for specific hazard areas. Warn about uneven ground.	Task leader	B	1x2=2 Low
Steep drop	Fall and injury	2x2=4 High	Point out drop and reinforce the need to keep area clear of trip hazards (e.g. tools, coats).	Task leader	B & D	1x4=4 Low
Gravestones	Gravestone falling and injury	2x4=8 High	Check for unstable stones. If present then warn participants to keep away from these. Corner off if appropriate.	Task leader	B & D	1x4=4 Low
Bonfire	Burns	4x2=8 High	Do not burn if very windy. Wear gloves, long sleeves and cover legs. Make sure fire is supervised. Position fire away from uneven ground and keep tidy. Use tools to manage fire and keep your distance. Keep water carrier near. Make sure fire is out at end of day.	Task leader & vols	B & D	2x2=4 Low
Bonfire	Smoke inhalation, eyes	3x2=6 Med	Work upwind of fire Do not light if too windy or burning towards work site.	Task leader & vols	D	2x1=2 Low

2. Health and Safety

REVIEW

One of the five steps to a successful burial ground project is an annual meeting and a review of the work and how volunteers are feeling (see sheet A1, The Five Steps).

During this meeting it is useful to review health and safety:

Consider:

- Do you have sufficient first aid training within your group?
- Would anybody like to do the training?
- Does the group have access to a landline or (working!) mobile phone to contact emergency services if needed?
- Has the first aid kit been used and has it been replenished as needed?
- Have risk assessments been carried out for all events and are there now copies in a file?
- Are you collecting emergency contact numbers of people who regularly volunteer?
- Are there any patterns emerging in the accident book?

For example:

If accidents happen in the last hour of the work day then consider stopping tasks earlier.

Lots of minor cuts occur when using a particular tool so do you need a new or different tool?

Useful contacts

British Red Cross, www.redcross.org.uk

Church of England, ChurchCare, www.churchcare.co.uk

Church in Wales, www.churchinwales.org.uk/resources/property

Health and Safety Executive, www.hse.gov.uk

St John Ambulance, www.sja.org.uk

Your insurance company!

Useful reading

Caring for God's Acre for risk assessment forms – www.caringforgodsacre.org.uk

Managing Visitor Safety in the Countryside – Principles and Practice, York Publishing

3. Recreation and Learning – Things to Do

This sheet explains how burial grounds can be excellent places for education, learning and enjoyable activities. Nestled in the heart of communities, they can be used as outdoor classrooms, full of natural, local and social history.

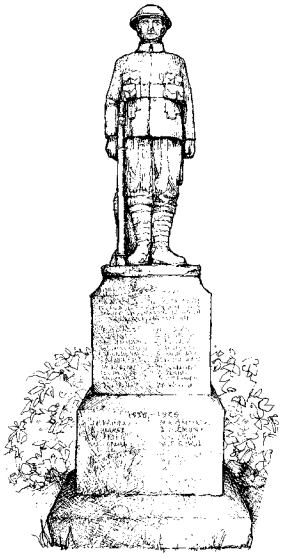
WHAT BURIAL SITES CAN OFFER

Local history

Burial grounds are repositories of local histories and there is a current resurgence in interest in family history. People are drawn to investigate burial records, cemetery registers and memorial inscriptions. These not only chart family histories but also immigration and settlement patterns.

Built heritage

Burial grounds are valuable sites for built heritage. They may contain monuments, memorials, preaching crosses, lychgates, sundials or gargoyles, some dating back to the Middle Ages. These monuments give a tangible connection to the past in a manner which history books can never achieve. Guided tours to learn more about built features can be popular.



Cultural heritage

Burial grounds are important to our cultural heritage, going back over a thousand years. They reflect fashions in landscaping, architecture, stone carving and verse. Churchyards were once the hub of the community with markets, games and archery practice taking place within them. There is interesting folklore attached to some of their features such as ancient yew trees. Local churchyards and burial grounds give people a link to the past and an understanding of their cultural and local heritage.

Natural history

Although small in size, churchyards and burial grounds harbour a disproportionate amount of important species, from the smallest lichen to large ancient trees. For example, Britain is the world's stronghold for ancient yews and three-quarters of these are found in churchyards. Since 1945 98% of flower-rich grassland (once widespread in the countryside) has vanished and many burial grounds act as havens for this old grassland and its associated animals. This natural haven, often on people's doorsteps, can be of interest to the natural history amateur and specialist alike.

Creative inspiration

The tranquillity, aesthetics and spiritual nature of burial grounds makes them inspirational places for creativity including art, poetry, photography and writing.

Take some time...

To look at your site and list the features that you think will interest visitors.

Find local people who can lead a guided tour, chat to a school group or write a visitor leaflet. However large or small, your burial ground will have something to offer.

Consider running an event as part of national Love Your Burial Ground week, held in the second week of June each year. See the Caring for God's Acre website for more details and a registration form.

Coppice crafts and greenwood working

Burial grounds are great places for running craft days which can be used to thank volunteers or enthuse new people. You may be able to make things from prunings generated on site:

- Stools from rounds of a felled tree.
- Trellis from hazel or willow coppicing.
- Christmas wreaths are simple to make using holly, ivy and other decorative leaves, seed heads or cones.

Consider having a craft person at an event, a basket weaver or bodger perhaps.

ACTIVITIES FOR YOUNG PEOPLE

Burial sites make excellent venues for youth groups such as schools, playgroups, Messy Church, wildlife groups, holiday clubs and groups in the scouting movement.

3. Recreation and Learning – Things to Do

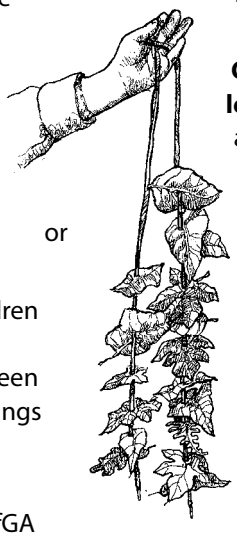
Many who manage churchyards and burial grounds actively encourage visits by these groups to help inspire young people.

Consider holding activities for children during any fetes and fairs taking place. Always remember to carry out a risk assessment before a group visit.

Things to do:

Rubbings – the old favourite – memorial rubbings, bark rubbings or stone rubbings. All that's needed is paper, crayons and safe memorials or trees! Be sure to ask permission before using memorials.

Signs and Symbols Scavenger Hunt – use the sheet in the Art and Architecture section of the CfGA **Education Pack** (see Useful reading). Young people spend time exploring the burial ground searching for symbols from the sheet and ticking them off when found. They can then draw or photograph their favourite memorial.



Treasure hunt – make a list of things children can search for and find: a purple flower, a carved cross, a feather, a spider's web, 3 green leaves etc. Photocopy the list (or use drawings for younger children) and encourage the children to explore and find the treasures.

Mini-beast safari – use the sheet in the CfGA Education Pack found in the Wildlife Safari section under Mini-beast Mania. There are ideas for mini-beast hunting, using a simple key to identify what you find and even building a bug hotel. You can find mini-beasts by looking under stones, beneath deadwood and by shaking a tree branch over a white sheet. Take a peek then watch what scurries off!

Alternatively children can use a pot and carefully encourage minibeasts into it with a small paintbrush, for a closer look. Remember to talk with children about not keeping the creature in the pot too long and replacing it where they found it.

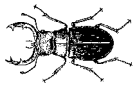
Tree bingo – use the sheet in the CfGA Education Pack found in the Wildlife Safari section under Tremendous Trees. There is a leaf template sheet which you can print out and give to children so that they can search for the different shaped leaves. Tremendous Trees includes other activities including tree measuring, estimating tree age by measuring girth and making your own food web. Include some folklore and uses for the different types of trees. This will make the activity more appropriate for older children. The Woodland Trust website has other tree related activities and information.

Collect fallen autumn leaves. Children find leaves and thread them on a shoestring. They can then take them inside and make a mobile, a collage or simply take them home on the string.

Make masks out of card. Before the session pre-cut the eyes as this can be difficult for children to do. Thread elastic through the sides of the mask. Stick double-sided sticky tape to the mask and encourage children to find and stick on grasses, petals and leaves.

Tree dressing ceremony – this is based on old customs from around the world. It highlights our responsibility for looking after the trees and reminds us of their enormous cultural and environmental importance. It can include storytelling, dance, music, or hanging ribbons and special prayers on your chosen tree.

Education pack – available in English and Welsh, our education pack is full of activities and ideas and can be downloaded from our website in whole or in part.



Useful contacts

Caring for God's Acre, www.caringforgodsacre.org.uk

Common Ground, www.commonground.org.uk – for ideas and inspiration!

The Woodland Trust children's activities, www.naturedetectives.org.uk

Useful reading

Caring for God's Acre Education Pack, www.caringforgodsacre.org.uk

Play Lightly on the Earth, Nature Activities for Children 3 to 9 Years Old – Jacqueline Horsfall, Dawn Publications

4. Telling the Story – Interpretation

This sheet explains the importance of good interpretation, giving advice on creating it, and of having events and celebrations.

INTERPRETATION

The benefits of good interpretation

- Enhances people's visits.
- Generates support and positive advertising by word of mouth.
- Can influence and change attitudes.

Interpretation is not the 'teaching' of facts.

Interpretation is a way of communicating which is enjoyable, entertaining and meaningful, with clear themes so that the audience will take notice and become engaged with the place they are visiting.

Remember who your best teachers were. These teachers communicated in a way that captured attention and imagination and helped you to remember and understand.

Visitors to churchyards and burial grounds are a non-captive audience; they don't have to take notice. Make your interpretation both engaging and inspiring.

Step by step guide to creating interpretation

Before embarking on interpretation please take time to plan carefully.

Think about why you want interpretation and how much money you have for it.

- What is its purpose?
- Who is it aimed at?
- Where will it be located?

It may be appropriate to have minimal interpretation and let the place speak for itself.

Once these questions have been answered then decide which media to use:

- Interpretive panels
- Leaflets
- Audio guides
- Art
- Special events
- Guided walks or talks
- Waymarked trails
- Website

Any interpretation needs to be tested to see if it works:

Stage 1 – Test it before the final production; ask your audience whether it works for them!

Stage 2 – Once installed, see if it is working; do people stop and look or is it time for a change?

The sight of uncared for and out of date interpretation gives a negative message about a place and its community.

Doing it yourself

Home-made interpretation will be more individual than professionally produced but you do need to get it right. Take careful note of the following advice and recommended reading. If this is not for you, have a look at grants to pay a professional (see sheet D5, Applying for Grants).

Telling the story of your churchyard or burial ground with words

Title

Think of a title which will get noticed and communicate a theme. For example, the title 'The Churchyard of St. Mary's Church', could become 'Haven on Earth - The Story of St Mary's Churchyard'.

Topics

The next step is to choose the topics or subjects for interpretation. Topics might include: grassland, trees, animals, people, stonework. More than 5 topics is overload! Remember, less is often more with interpretation – you don't have to tell people everything of interest.

Once topics are selected then the next step is to decide the theme of each topic.

Themes

Themes are what you want your visitors to understand, remember or feel when they leave.

As well as being memorable, themes focus the mind, making the job of writing interpretation easier. Any number of themes can be developed for each topic but a theme should communicate only one main idea.

For example

Title: Haven on Earth – the Story of St Mary's Churchyard

Topics: grassland, trees, gravestones, animals, people

4. Telling the Story – Interpretation

Themes for the topic 'grassland'

Buttercup

- The churchyard grasses and flowers have grown here for about 1000 years.
- This churchyard is a haven for over 50 species of wildflower – sadly most have disappeared from the surrounding countryside.
- In summer, take a walk through the grassland and discover the many visiting insects and butterflies.
- 'Like a Bride Bedecked with Jewels' – the description given to our flower-rich countryside by a medieval traveller and diarist. Imagine what it must have looked like!
- Our short mown grassland helps ground-feeding birds like thrushes and blackbirds.

Themes for the topic 'gravestones'

- Take a look at the different types of rock in this churchyard; there are more types here than anywhere else in the parish.
- Like old buildings, gravestones reflect the fashions in architecture and verse. Look out for florid Victorian gothic style in memorial carving.
- Look for old gravestones carved with symbols indicating the profession of the person buried.

It is easy to write boring themes but STRONG themes take time. A picture tells a thousand words; use plenty of good quality illustrations.

Writing for interpretation – hints and tips

- Use powerful active verbs and be positive – this sounds more natural and lively.

  'we manage…' is far better than 'this site is managed by…'

- Use metaphors, comparisons and analogies – these help people relate what you're telling them to something else they know about.

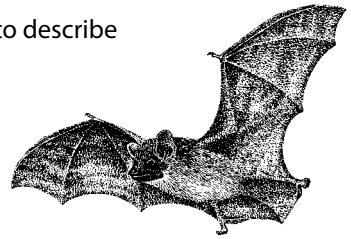
  Pipistrelle bats are so tiny they will fit into a small matchbox.

  The veteran yew tree is a living green monument.

  Long-eared bats are 'whispering' bats. They make quiet echolocation calls to avoid being heard by moths.

- Use visual metaphors to describe things.

  The grassy, mounded anthills, made by the harmless yellow meadow ant, are like icebergs – there is more below ground than above it.



Pipistrelle bat

- Be personal and address the reader in the first person; refer to them as 'you':

You can see the variety of different summer flowers in the churchyard grassland.

- Ask questions and engage your audience's imagination, maybe with size or timescale.

Why do you think snowdrops are also known as Candlemas bells?

Step back 500 years and you would see the local men practising archery in this churchyard.

If you were small enough to get inside a lichen then you would see that it's two things in one – a fungus and an alga working together.

- Write in short sentences and paragraphs. Short ones pack more punch! And avoid jargon and elitist vocabulary.
- Make text large enough and plain enough for people to read easily.

Visitors remember about:
10% of what they hear
30% of what they read
50% of what they see
90% of what they do

So the more you actively involve the visitor; look for the… smell the… touch the… the more they will remember.

EVENTS AND CELEBRATIONS

Burial grounds offer a valuable space for community events and activities. Try to link these to traditions, folklore and history.

In the past churchyards were used for archery practice and wrestling, for fairs and markets and 'church ales'. The natural history and built history of churchyards or burial grounds may well provide inspiration for events or activities, helping to interpret them for all visitors.

- Run special activities at your site to enhance town and village events such as a summer fete or carnival. The activities can be based on the natural and historical interest (see sheet D3, Things to Do).
- Put on events when there is something special to see, such as Snowdrop Sunday or Wildflower Wander. Serve refreshments.
- Link events or activities with nationally promoted weeks or days – National Tree Week or Volunteers' Week.
- Get in touch with the leaders of groups for young people. Explain the potential of the site for activities and give them a copy of sheet D3, Things to Do.
- Invite local groups such as Women's Institute and

4. Telling the Story – Interpretation

local history and wildlife groups for a guided tour, particularly when there is something of special interest to see or hear about.

- Work with others in your community and link with other local events or other interpretation for your area. Is there a town or village guide being produced that you could contribute to? Are there other interpretation boards or leaflets concerning the local area, in which case do you want to use the same style?
- Consider working with other burial grounds nearby, unified interpretation of all cemeteries in a city perhaps, or a booklet about all the churchyards in one parish.

When organising events and activities, always follow Health and Safety guidelines (see sheet D2, Health and Safety).

Useful contacts

Association for Heritage Interpretation, www.ahi.org.uk

Churches Tourism Network Wales, www.ctnw.co.uk

The Churches Tourism Association, www.churchestourismassociation.net

Advice and help on writing Church Guides, www.churchguides.co.uk

Useful reading

Environmental Interpretation – Sam H. Ham, North American Press

4. Telling the Story – Interpretation

5. Applying for Grants

This sheet has useful guidelines on making grant applications and information on where to find out about local and national grants.

There are many grants available to groups who are undertaking conservation work, finding out about their local area and its history, learning traditional skills and involving local people. A voluntary community group, managing a burial ground, can fit very well with the criteria required for some grants.

APPLYING FOR GRANTS

1. Have you the right structure?

It is a requirement of grant giving organisations that a group making an application has a constitution or set of written rules.

Churchyards and burial sites are in most cases managed by an existing organisation and any grant application will probably go through them.

On the very rare occasion where you need to form a group that is independent of the owners or managers of a site, seek advice (see useful contacts).

2. Develop your project into a winning idea

Make a list of what your churchyard project needs funding for.

This could be:

- A management plan
- Biological surveys
- Tools and tool storage
- Repair of boundary wall
- Leaflet and events
- Interpretation
- Repair of memorials

Split the list into essential and desirable. Involve the wider community to ensure everyone's interests are taken into account.

3. Draw together existing facts

Make sure that all the information about your project is readily available. Back up your proposal with facts and figures: how large is your burial site? Does it have any listed memorials? How many ancient yews has it? How many people use the church and churchyard? How many volunteers are involved in managing it? How many metres of dry stone wall need repairing? Obtain quotes for the work and services so you know how much money you need.

4. Research and identify likely funders

Cross reference your project with likely funders. Make targeted approaches to a few rather than writing a general letter to many.

Ring the funder and speak to them. Read their criteria. Can you weave what they are looking for into your project?

For example, if you want to repair a dry stone wall and the funder is looking for community involvement then add into the project a demonstration or training weekend. Often, adding to your project to help it to fit into a funder's criteria can actually greatly enhance it! It stimulates ideas that you may not have originally considered.

5. Write a good proposal

One person could take responsibility for writing the proposal while others get the background information and letters of support.

Read and follow the guidance notes. Check deadlines and keep copies of whatever is sent. If the funder has an application form then make a copy and plan your application in draft prior to doing the final version.

Write a clear and succinct application. Describe what support you have from the wider community; have you consulted with the community and other local organisations? Ask those organisations to write letters of support. Ensure you show how the project meets the funder's criteria.

5. Applying for Grants

6. Say 'Thank You' and meet your obligations if you succeed

Make a list of any restrictions or obligations. These could be acknowledging funders, documenting volunteer time or recording the number of people at events. Think about how you need to evaluate the impact of your project. Take lots of photos. Fully document how money is spent and ensure all receipts are kept.

7. Celebrate!

Take the opportunity to celebrate and let people know what you will be doing: in the local press and parish magazine, over tea and cake or at the Sunday service.

8. If you don't succeed

Ask the funder for feedback and find out whether you can re-apply. Look for other sources of funding and contact organisations that can help.

Work in partnership

When applying for grants there is no need to go it alone; could you link with other people to make an application covering several sites? Is there a local community group or initiative that you could work with? This might include developing a project with a local history group or joining with a town council in making public green spaces better for wildlife.

ORGANISATIONS WHICH CAN HELP

Volunteer centres and county voluntary councils

There are volunteer bureaux and centres across England. These organisations can help you set up a group, find grants, recruit new volunteers and tell other people about what you are doing. In Wales there are the **Wales Council for Voluntary Action, County Voluntary Councils.**

The local authority

Many local authorities have staff to help and advise volunteer groups. There may be a 'Community and Voluntary Service' within the council. Again, these staff may help you to find suitable funds or volunteers and often have suitable small grants of their own.

Community councils

If you are in England, there may be a community council in your area that could help you further. There are 38 charitable **Rural Community Councils** across England charged with community development.

National Lottery funding

The National Lottery has both large and small grants available for community groups that are straightforward to apply for. Take a look on the websites of the **National Lottery Community Fund** and the **National Lottery Heritage Fund.**

Useful contacts

Church of England, ChurchCare, www.churchcare.co.uk

Church in Wales, www.churchinwales.org.uk/heritage

County Voluntary Councils/Wales Council for Voluntary Action, www.wcva.org.uk, www.sustainablefundingcymru.org.uk

Community Councils are linked by the charity ACRE (Action with Communities in Rural England), www.acre.org.uk, and form the Rural Community Action Network (RCAN)

Local Authorities

National Lottery Community Fund, www.tnlcommunityfund.org.uk

National Lottery Heritage Fund, www.heritagefund.org.uk

Volunteer Centres (England), www.volunteering.org.uk

Volunteering in Wales, www.volunteering-wales.net

Useful reading

Fundraising for a Community Project – Simon Whaley, How To Books

Silver Birch

6. Sustainability

This sheet looks at sustainability, what it is and how to make your actions more sustainable.

To create the kind of world we want for ourselves and for our children we need to consider what we do, how we do it and what effect it will have on other people and the environment. In other words, is it sustainable?

Consider: reducing pollution, conserving energy and reducing waste. What effect might your plan have on the wildlife present?

FOSSIL FUELS

These are fuels made from plants and animals which have become fossilised over geological time. Oil, gas, coal and peat are all fossil fuels. The gases produced from burning fossil fuels contribute towards climate change and are generally polluting. We use fossil fuels to power our cars, to run other motors (strimmers and mowers) and to produce much of our national electricity.

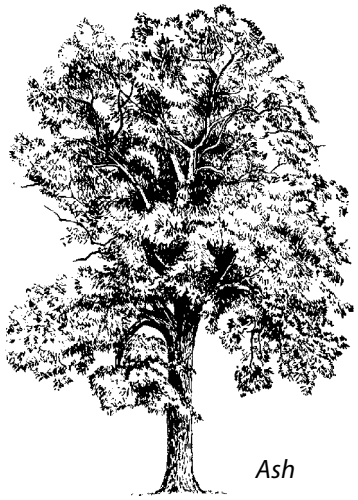
Peat, which is used in many commercial composts, comes from peat bogs and is a fossil fuel. By digging up peat for use in compost the greenhouse gases stored within it will be released. If you need to buy compost then look for the words PEAT FREE on the bag. Compost which does not say this clearly will almost definitely contain peat.

Air miles: as well as the fossil fuels used directly, consider the 'hidden fuel' or air miles that products have travelled. Sometimes there can be a local equivalent; for example buy British or European apples rather than apples from New Zealand.

WOOD

Timber, paper and charcoal can come from forests which are managed sustainably, which means that when trees are felled they are replaced with young trees.

It is easy to buy wood from managed forests; timber merchants are now used to being asked about this. Look for the forest-friendly FSC mark (Forest Stewardship Council).



Ash

Don't forget to consider where the wood in other products such as charcoal and paper comes from.

CHEMICALS

You may need to use chemicals on your site – a preservative for a fence perhaps or paint for woodwork or metal. Think whether you do need to use a chemical and if you do, try to find one which will not be harmful to the environment. There are various preservatives for sale which have active ingredients made from plant derivatives.

GENERALLY REDUCE

You may wish to think more generally about what you do and how you work. Try and reduce the amount you buy as well as the fossil fuel energy you use:

- Consider borrowing or hiring tools.
- If buying, what about second-hand?
- If buying new, look for high quality that will last and can be maintained and repaired.
- Avoid short life or disposable items.

MANUFACTURE

Do you know how the items that you are buying were made? Were the materials manufactured in a way which was not polluting or destructive of the environment? What are the living and working conditions of the people making them?

Sometimes the problems of pollution take place in another country where laws are less strong or less well enforced. You may wish to consider the living and working conditions of the people involved in manufacture and of the people living nearby.

Many people believe that to be truly sustainable we need to consider the welfare of all of the people in the world.

THINK ABOUT WASTE

Sustainability includes the whole life of something. What happens to it after you have finished with it?

REDUCE the amount of waste

REUSE where possible

RECYCLE whatever you cannot use

It is now possible to recycle a great deal. Think

about putting out recycling bins at events. This encourages your visitors to separate their own waste, which saves you an unpleasant job and shows that you care about waste.

BECOMING MORE SUSTAINABLE

Once you start to consider sustainability the list of things to think about can seem long and you may feel powerless. Don't try to tackle all of these issues in one go; take them one at a time.

For example:

You are planning a work party to replace some sections of a fence with new planks and to treat the whole fence with a preservative. Following this there will be a shared meal cooked on a barbecue.

Consider:

- Where have the planks for your fence come from? Look for the FSC logo and UK or European timber.
- What sort of preservative will you be using on the fence, and can you use an environmentally friendly one?
- What sort of a barbecue are you using? Try to avoid disposable.
- Where has the barbecue charcoal come from? Charcoal from UK woodlands is harvested sustainably and burns really well.
- Are you supplying cups and plates? Can people bring them from home? If you need disposable ones use paper not plastic.
- What food will you be cooking and where has it come from? Can you shop locally?

The fact that your group exists and cares for the churchyard or burial ground is, in itself, a great achievement and one to be celebrated.

Regular management and maintenance by a group of local volunteers who share responsibility and involve their community is a very sustainable way to look after a burial ground.

Useful contacts

Alliance of Religions and Conservation, www.arcworld.org

Eco-Congregation, www.ecocongregation.org

Centre for Alternative Technology, www.cat.org.uk

Christian Ecology Link, www.christian-ecology.org.uk

ChurchCare, www.churchcare.org.uk

Church in Wales, www.churchinwales.org.uk

Islamic Foundation for Ecology and Environmental Sciences, www.envirolink.org

Quakers for Sustainability, www.livingwitness.org.uk

Shrinking the Footprint, www.churchcare.co.uk/shrinking-the-footprint

Women's Environmental Network, www.wen.org.uk

7. Burial Grounds for All – Welcoming all abilities into your burial ground

This sheet explains the steps that can be taken to make your burial ground as accessible as possible based on what you already have in your grounds.

A CULTURE OF WELCOME

Making as many people as possible welcome in your burial ground is not as difficult (or expensive) as you might think. Accessibility is not only about ramps and wheelchair accessible paths, and whilst this is a great thing to do if possible and affordable, there is a lot you can do if it isn't. Remember to work with what you have, if only part of your site is or can be made accessible then that is better than no access at all.

Helping people to plan their visit

Whether people with access needs are visiting for an event, a service, to visit a grave or simply to enjoy this beautiful place, being able to plan and know exactly what to expect can be the single thing that allows somebody to visit. This knowledge allows potential visitors to make informed choices about whether they can visit independently or might need help. It can help soothe anxieties and offering detailed access information shows consideration and a spirit of welcome to all people.

Getting there

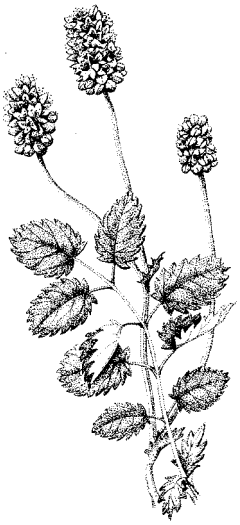
How do people arrive at your churchyard, cemetery or chapel yard?

Give as much information as you can including the location of bus stops or train stations and which bus routes it is on. What is the journey distance and conditions from leaving public transport to the burial ground entrance? How long is it, is there a pavement, crossing points, steep slopes up or down and are there are any seats along the route? Does the bus stop have a shelter and seat?

For people arriving by car, describe the parking available and how to get to it, whether the postcode will get a visitor directly to the parking or whether further directions are required. Describe the surface of the car park and whether there are designated spaces marked for disabled visitors. If the parking is on the roadside, make that clear, are there kerbs and pavements? Is the most accessible route between designated parking and the entrance to the site easy to find and clearly marked? If there are multiple entry points, which are the most accessible ones, and can you park near them? This is helpful for people who are getting a lift or taking a taxi, so that the driver can be directed to the best entrance.

Making a site welcoming to all need not be expensive or difficult. You have a responsibility to maximise access but not to make everywhere fully accessible. Most burial grounds have some parts which are not particularly easy. Do what you can to make reasonable adjustments, particularly when planning a change such as a new path, notice board or car park layout.

Once there



Tell visitors what they can expect once they have arrived. Is the ground level or not, what are the surfaces of paths and how does this change with the seasons? Are paths swept clear of wet autumn leaves or treated for ice? Are there steps, steep slopes or ramps and can these be avoided by selecting a different route? Describe any steps or slopes; is there a handrail, how many steps are there and how steep, are they lit on dull days or for evening events? Most people will have some sort of access need during their lifetime and your detailed knowledge of your grounds is a valuable thing to share.

An accessible toilet is a real bonus for visitors, if your burial ground has one then do let people know. If you have additional facilities such as a change table or a

hoist, make that clear too. When is the loo open and is it easy to get there from a designated parking place?

Many people need to stop and rest frequently and knowing where they can sit will allow them to explore. Does your site have any seating and how far it is in metres from the parking to the first seat? You can estimate this by taking long strides of about 1m or measuring on an accurate map. Are there more seats and if so where?

Say something like; 'you can find several seats in the new part of the churchyard, at about 40m intervals. The older section has one bench, which is about 150m away from the nearest seat along a grassed path'.

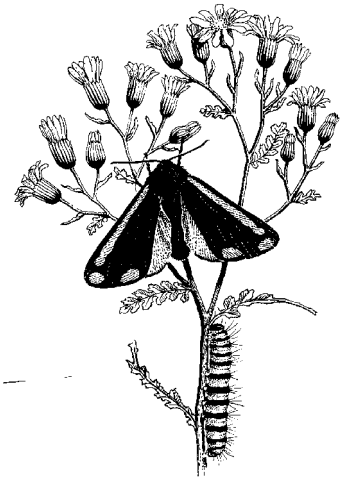
Think about how to reduce or remove any barriers that stop people accessing and enjoying your site. Do they need more information to be able to plan their visit? Where will they find this information? Is access made as easy as possible with information that is clear and useful? What extra things you can do to make your churchyard or cemetery interesting for all visitors?

How will visitors find this information?

Think about where people can learn about the accessibility of your site and any other interesting information that you want to share. Would a map or a series of photos on a website be a good way to let people know about what to expect or how about a short video? Is information available in a different form for those who have difficulty reading?

If you have an accessible, interesting place to visit please try to spread this useful information. Is there a church or community website or Facebook page? Think about local tourism offices, the community Hub or café, as well as local organisations that support people with access needs. Those who help plan activities on the site such as wedding planners, undertakers and those holding other events or functions need this information too. Consider providing a phone number for people to ring with access questions.

We have put together an access checklist to help you collate the information that might be helpful to anyone planning a visit. It is at the end of this sheet.



Information for visitors during their visit

Try to think of ways to welcome and help those with particular needs. Good access information on site makes it clear that all are welcome to visit and explore. If you are renewing your signage, leaflets or other interpretation then try to make it all as inclusive as possible.

How about putting Makaton symbols onto an entrance notice board? This welcomes children with additional needs. Can your signs be read when sitting down? Is text easy to read for those with partial sight or colour blindness? Can visitors receive the information by touch or sound rather than sight? It is a good idea to seek help and advice about this so see Useful Contacts for online resources and organisations offering guidance.

7. Burial Grounds for All – Welcoming all abilities into your burial ground

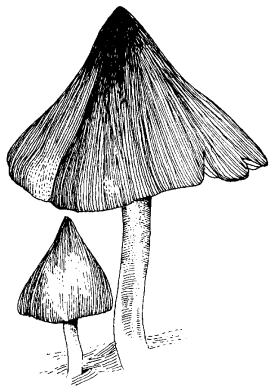
Other things to consider

Accessibility also includes non-physical access needs. Are you able to present information about your site for people who cannot read or find reading difficult? Providing information through pictures and photographs makes the information immediately accessible to young children as well as non-readers. To be able to sit back and listen to a recording of nature notes, stories about the stones or a descriptive tour of the grave yard can be enjoyed by anyone with adequate hearing including those with reduced mobility and those who have forgotten their reading glasses!

Few burial grounds will be entirely accessible to everybody on every level of need; however you can be creative in how you help people to explore and enjoy as much as possible.

This could include:

- An album of photographs of points of interest that might be hard to reach for some visitors. These might be the wildflowers, notable trees and interesting monuments in a further away area which is down a steep slope or flight of steps.
- A self-guided tour telling visitors what they can see, hear, smell from various (seated) points in the burial ground. This might be a podcast to download, a leaflet or a laminated map.
- A pictorial guide to the site at key moments in its history.
- A sensory garden with scented plants positioned around seating, that is easy to reach from the most accessible entrance.
- A short film available online.
- Audio recordings of the birdsong of various birds that visit the site.



If you do produce items like those above, make sure you tell people about them and where to find them.

Useful Contacts

The Sensory Trust, resources, ideas and advice on making the outdoors accessible

https://www.sensorytrust.org.uk/

Creating Accessibility, a list of documents, organisations and guidelines collated by Accessible Countryside for Everyone ACE

https://www.accessiblecountryside.org.uk/creating-access

The Church of England Accessibility Guidance

https://www.churchofengland.org/more/church-resources/churchcare/advice-and-guidance-church-buildings/accessibility

Government guidance on designing for accessibility

https://accessibility.blog.gov.uk/2016/09/02/dos-and-donts-on-designing-for-accessibility/

Government guidance on accessible formats

https://www.gov.uk/government/publications/inclusive-communication/accessible-communication-formats

Makaton symbols – this site has a free download section that covers a number of annual events and occasions https://www.makaton.org/shop/shopping/browseStore/Free-resources

Making your film accessible to the visually impaired.

https://zeroproject.org/practice/pra181261tur-factsheet/

Historic England's Easy Access to the Historic Environment document.

https://historicengland.org.uk/images-books/publications/easy-access-to-historic-buildings/

Good practice Guidance from Disability Wales

https://www.disabilitywales.org/wp-content/uploads/2018/03/WAY-TO-GO-Toolkit-E-with-links.pdf

7. Burial Grounds for All – Welcoming all abilities into your burial ground

Access Checklist

This list is to help you consider what you have on your site and might help you answer questions about accessibility for a prospective visitor. This is not an access audit. Distances can be approximate, measured out with paces.

Public transport

Does public transport pass close to the site?

How far (in metres) is it from the bus stop/train station?

What is the bus route number?

Is there seating or a shelter at the bus stop?

Is the route on a pavement?

Is the route up or down hill?

Are there any obstacles for someone walking with sticks or a frame?

Are there rest opportunities along the way?

What type of route is it? E.g. along a busy road, through a park etc.

Parking

What is the parking situation? Is it roadside or a car park?

Does the postcode get you directly to the parking or are further directions required?

What sort of surface does it have?

Does it have designated parking clearly marked?

Is the best access route visible or signed from the designated parking space/s?

Are there any kerbs, steep slopes or steps?

Toilets

Is there an accessible toilet?

Does it have any additional facilities (change table, hoist etc.)

When is it open?

Does the route from the car park to the toilet involve any steep slopes, steps or ramps?

Seating

Is there any seating in the burial ground?

Can you describe them? Do they have backs? Do they have arm rests?

Does the route from the car park to the closest seat involve any steep slopes, steps or ramps?

How far in metres is it from the designated parking in the car park (if any) to the first opportunity to sit?

What are the distances in metres from the first seat to subsequent seating?

Pathways

Is there a route accessible for wheelchairs and pushchairs?

What is the length of this route in metres?

What is the surface of the path?

Are the surfaces slippery when wet?

Do the paths get covered in leaves?

Do the paths get icy?

Is it well lit?

Are there handrails at any point?

If there isn't an accessible route can you describe the easiest route?

What is the length of this route in metres?

What is the surface of the path?

Are the surfaces slippery when wet?

Do the paths get covered in leaves?

Do the paths get icy?

Is it well lit?

Are there handrails at any point?

Is it sloping/steep?

How many steps are there?

Are the front edges of any steps a different colour, texture or material to the rest of the steps?

Are there rest opportunities?

Are there areas of the burial ground that cannot be accessed without negotiating steps or a steep path?

Information

If you have a notice or information board does the route to it from the car park involve any steep slopes, steps or ramps?

Can the information be read from a seated position?

Is there a seat from which the information can be read/viewed?

Do you have information in different formats? (Recordings, large print, pictorial guides) if so where can a visitor find them?

Is the information posted on site able to be found elsewhere e.g. a web site?

USEFUL CONTACTS

Action with Communities in Rural England
www.acre.org.uk

Alliance of Religions and Conservation
www.arcworld.org

Amphibian and Reptile Conservation
enquiries@arc-trust.org, www.arc-trust.org

Amphibian and Reptile Groups UK
www.arguk.org

Ancient Monuments Society – 020 7236 3934, office@ancientmonumentssociety.org.uk, www.ancientmonumentssociety.org.uk

Ancient Tree Forum – 01476 581135, ancient-tree-forum@woodland-trust.org.uk, www.frontpage.woodland-trust.org.uk/ancient-tree-forum

Arboricultural Association – 01242 522152, admin@trees.org.uk, www.trees.org.uk

Ancient Yew Group & The Tree Register – 01234 768884, tim@ancient-yew.org, info@tree-register.org, www.ancient-yew.org

Association for Heritage Interpretation – 0560 274 7737, mail@ahi.org.uk, www.ahi.org.uk

The Association of British Fungus Groups – 01460 221788, enquiries@abfg.org, www.abfg.org

Badger Trust – 08458 287878, enquiries@badgertrust.org.uk, www.badger.org.uk

Barn Owl Trust – 01364 653026, info@barnowltrust.org.uk, www.barnowltrust.org.uk

Bat Conservation Trust – 0845 1300 228, enquiries@bats.org.uk, www.bats.org.uk

Big Lottery Fund – 0845 4102030, www.biglotteryfund.org.uk

Botanical Society of the British Isles – coordinator@bsbi.org.uk, www.bsbi.org.uk

British Association of Local History – 01283 585947, info@balh.co.uk, www.balh.co.uk

British Bryological Society – www.britishbryologicalsociety.org.uk

British Hedgehog Preservation Society – 01584 890 801, info@britishhedgehogs.org.uk, www.britishhedgehogs.org.uk

British Herpetological Society – info@thebhs.org, www.thebhs.org

British Lichen Society – www.britishlichensociety.org.uk

British Mycological Society – admin@britmycolsoc.info, www.britmycolsoc.org.uk

British Red Cross – 020 7562 2050, information@redcross.org.uk, www.redcross.org.uk

British Sundial Society – chairman@sundialsoc.org.uk, www.sundialsoc.org.uk

British Trust for Ornithology – 01842 750050, info@bto.org, www.bto.org

Buglife – 01733 201210, info@buglife.org.uk, www.buglife.org.uk

The Building Conservation Directory – 01747 871717, info@buildingconservation.com, www.buildingconservation.com

Bumblebee Conservation Trust – enquiries@bumblebeeconservation.org, www.bumblebeeconservation.org

Butterfly Conservation – 01929 400209, info@butterfly-conservation.org, www.butterfly-conservation.org

Cadw – 01443 336000, cadw@wales.gsi.gov.uk, www.cadw.wales.gov.uk

Caring for God's Acre – 01588 673041, info@cfga.org.uk, www.caringforgodsacre.org.uk

Centre for Alternative Technology – 01654 705950, www.cat.org.uk

Christian Ecology Link – 0845 459 8460, info@christian-ecology.org.uk www.greenchristian.org.uk

Church Guides – www.churchguides.co.uk

Church in Wales – 02920 348200 www.churchinwales.org.uk

Church Monuments Society – churchmonuments@aol.com, www.churchmonumentssociety.org

Church of England, ChurchCare – 0207 898 1863, churchcare@churchofengland.org, www.churchcare.co.uk

Churches Conservation Trust – 0845 303 2760, central@thecct.org.uk, www.visitchurches.org.uk

The Churches Tourism Association – www.churchestourismassociation

Useful contacts

Churches Tourism Network Wales – 07815 062040, www.ctnw.co.uk

Common Ground – 01747 850820, info@commonground.org.uk www.commonground.org.uk

Community Composting Network – 0114 258 0483, info@communitycompost.org, www.communitycompost.org

Conservation Foundation – 020 7591 3111, info@conservationfoundation.co.uk, www.conservationfoundation.co.uk

The Conservation Volunteers – 01302 388883, information@tcv.org.uk, www.tcv.org.uk

Council for British Archaeology – 01904 671417, webenquiry@archaeologyuk.org, www.archaeologyuk.org

Council for the Care of Churches – www.churchcare.co.uk

Countryside Management Association – 01245 424116, cma@writtle.ac.uk, www.countrysidemanagement.org.uk

Dry Stone Walling Association – 015395 67953, information@dswa.org.uk, www.dswa.org.uk

Eco-Congregation – 0114 263 6421, www.ecocongregation.org

The Environment Agency – 03708 506 506, enquiries@environment-agency.gov.uk www.environment-agency.gov.uk

Environment Wales – 029 2043 1727, info@environment-wales.org www.environment-wales.org

Federation of Family History Societies – 01455 203133, info@ffhs.org.uk, www.ffhs.org.uk

Fern World – British Pteridological Society – www.nhm.ac.uk/hosted_sites/bps

Field Studies Council – 01743 852100, enquiries@field-studies-council.org www.field-studies-council.org

Flora Locale – 01488 686186, www.floralocale.org

Forestry Commission – www.forestry.gov.uk

Friends of Friendless Churches – 020 7236 3934, office@friendsoffriendlesschurches.org.uk, www.friendsoffriendlesschurches.org.uk

Froglife – 01733 558844, info@froglife.org, www.froglife.org

Garden Organic – 024 7630 3517, enquiry@gardenorganic.org.uk, www.gardenorganic.org.uk

The Geological Society – 020 7434 9944, www.geolsoc.org.uk

Geologists' Association – 020 7434 9298, sarah@geologistsassociation.org.uk, www.geologistsassociation.org.uk

Geology Trusts – www.thegeologytrusts.org

The Georgian Group – 087 1750 2936, info@georgiangroup.org.uk, www.georgiangroup.org.uk

The Hawk & Owl Trust – 0844 984 2824, enquiries@hawkandowl.org, www.hawkandowl.org.uk

Health and Safety Executive – www.hse.gov.uk

Hedge Link – 0845 600 3078, enquiries@naturalengland.org.uk, www.hedgelink.org.uk

Hedgehog Street – 020 7498 4533, hedgehogs@ptes.org, www.hedgehogstreet.org

Heritage Lottery Fund – 020 7591 6000, enquire@hlf.org.uk, www.hlf.org.uk

Historic Chapels Trust – 020 7481 0533, chapels@hct.org.uk, www.hct.org.uk

Historic england – 020 7973 3700, customers@historicengland.org.uk, www.historicengland.org.uk

Historic Scotland – 0131 668 8600, hs.website@scotland.gsi.gov.uk, www.historic-scotland.gov.uk

Institute of Archaeologists – 0118 378 6446, admin@archaeologists.net, www.archaeologists.net

Institute of Chartered Foresters – 0131 240 1425, icf@charteredforesters.org www.charteredforesters.org

Islamic Foundation for Ecology and Environmental Sciences – 020 8886 9952, harfiyah@lamaan.com, www.envirolink.org

iSpot – www.ispot.org.uk

Local History Societies – 01527 854228 www.local-history.co.uk/Groups

Maintain our Heritage – 01225 482228, timothy@maintainourheritage.co.uk www.maintainourheritage.co.uk

The Mammal Society – 02380 237874, info@themammalsociety.org, www.mammal.org.uk

Mausolea and Monuments Trust – 07856 985974, info@mmtrust.org.uk, www.mmtrust.org.uk

National Association of Memorial Masons – 01788 542264, enquiries@namm.org.uk, www.namm.org.uk

The National Churches Trust – 0207 600 6090, www.nationalchurchestrust.org

National Federation of Cemetery Friends – gwyneth1@btinternet.com, www.cemeteryfriends.org.uk

Useful contacts

The National Hedgelaying Society – nhls.enquiries@googlemail.com, www.hedgelaying.org.uk

The Natural Death Centre – 01962 712690, contact@naturaldeath.org.uk www.naturaldeath.org.uk

Natural England – 0845 600 3078, enquiries@naturalengland.org.uk www.naturalengland.org.uk

Natural Resources Wales – 0300 065 3000 www.cyfoethnaturiol.cymru, www.naturalresourceswales

Northern Ireland Environment Agency – 028 9054 0540, enquiries@doeni.gov.uk, www.doeni.gov.uk

Old Maps – www.old-maps.co.uk

OPAL Explore Nature – www.opalexplorenature.org

People's Trust for Endangered Species – 020 7498 4533, enquiries@ptes.org, www.ptes.org

Plantlife – 01722 342730, enquiries@plantlife.org.uk, www.plantlife.org.uk

Quakers for Sustainability – 01663 308656, info@livingwitness.org.uk, www.livingwitness.org.uk

Royal Horticultural Society – 0845 260 5000, www.rhs.org.uk

Royal Society for the Protection of Birds – 01767 693690, wildlife@rspb.org.uk, www.rspb.org.uk

Scottish Natural Heritage – www.snh.gov.uk

The Scythe Association – scytheassociation.org

Shrinking the Footprint – www.churchcare.co.uk/shrinking-the-footprint

Society for the Protection of Ancient Buildings – 020 7377 1644, info@spab.org.uk, www.spab.org.uk

St John Ambulance – www.sja.org.uk

Swift Conservation – mail@swift-conservation.org, www.swift-conservation.org

The Tree Council – 020 7407 9992, info@treecouncil.org.uk, www.treecouncil.org.uk

The Tree Register – 01234 768884 info@tree-register.org, www.treeregister.org

The Victorian Society – 020 8994 1019, admin@victoriansociety.org.uk, www.victoriansociety.org.uk

Volunteer Centres England – www.volunteering.org.uk

Volunteering in Wales – www.volunteering-wales.net

War Memorials Trust – info@warmemorials.org, conservation@warmemorials.org, www.warmemorials.org

WaxCap Website – 01970 622325, gwg@aber.ac.uk, www.aber.ac.uk/waxcap

Wildlife Trusts – 01636 677711, enquiry@wildlifetrusts.org, www.wildlifetrusts.org

Women's Environmental Network – 020 7481 9004, info@wen.org.uk, www.wen.org.uk

The Woodland Trust – 01476 581135, enquiries@woodlandtrust.org.uk, www.woodlandtrust.org.uk