

Ponds of Historical Interest

We have a pond that may be of Historic Interest, how do we go about researching and restoring it?

Box 1 Some historical and cultural uses of ponds

Curling ponds	Flax retting ponds	Ornamental garden ponds
Decoy ponds	Forge/furnace ponds	Peat ponds
Dew ponds	Hammer ponds	Pond bays
Distillery ponds	Heathland ponds	Reclamation ponds
Drinking water tarns	Ice ponds	Silt ponds
Droving ponds	Livestock watering ponds	Stew ponds
Duck ponds	Marl pits	Subsidence ponds
Dye ponds	Mill ponds	Swimming pools
Extraction ponds	Moats	Traction engine ponds
Fish ponds	Old farm ponds	Watercress beds

There are many types of historic pond (See Box 1). Some pond types are far better researched than others. Fish ponds, for example, are often well documented. Marl pits, on the other hand, are incredibly common in some parts of the country, yet little is known about them.

Analysis of the 2500 records including the term 'pond' in the National Monuments Record (NMR) for England and Wales¹ indicates that the majority (89%) fall into two classes: 'fishponds' and unspecified 'ponds'. The remaining 11% of records are largely made up by pond bays, dew ponds, ornamental ponds, decoy ponds, ducking ponds and mast ponds.

However, many ponds that are not scheduled may still be historically important because either:

- They are important historic *features* in their own right like moats, fish ponds, duck decoys or brick pits; or places with literary or historic associations.
- Their structure and their sediments may *contain* important information about the history of the waterbody, its surrounds and the wider environment. In some cases, particularly where ponds have not been dredged, these sediment records may span thousands of years, and provide a unique 'section through time'.

Items of value to archaeology that both scheduled and unscheduled ponds may contain include the following:

- Remains of pond linings, structural timbers or evidence of the way the pond was constructed or maintained.

¹ No analysis of 'ponds' in the National Monuments Record of Scotland (NMRS) has yet been undertaken.

Ponds of Historical Interest

- Associated features such as sluices and outfalls; on a larger scale, remains of monasteries or a medieval village could be present.
- Preserved animal and plant remains, including pollen and seeds trapped in the pond sediments (which normally decay quickly on dry ground). These may include remnants of plants and animals from the pond and its surrounds which give important insights into the vegetation and management of past landscapes.
- Manufactured objects, particularly wood, leather and textiles which do not normally survive on dry archaeological sites. Ponds have considerable potential for containing waterlogged deposits in anaerobic (oxygen-free) conditions. Particularly significant objects preserved in the sediment include shoes, wicker fish-traps, nets, rods and items of clothing, which may be precisely datable.
- Evidence of old ground surfaces may be sealed beneath pond banks or under platforms of moated sites. These could contain clues to previous land use as well as environmental remains.

Finding out about historic ponds

Doing your own research

For many individuals and community groups, finding out about the history of their pond can be fascinating work.

Whether undertaken by an amateur or a professional, the first steps in finding out about the history of a pond are the same: a desk study which will provide the first indication of the pond's importance, together with many clues about its origin. This information will also support any applications for grant funding.

Contact your County Archaeologist to check if the pond or surrounding area is listed on the County Sites and Monuments Record.

The Sites and Monuments Record (SMR) - is held at County (or sometimes District) level, usually by the local authority. You can also request information direct from English Heritage (<http://www.english-heritage.org.uk/server/show/nav.19920>). The listing of a pond on the SMR may be due to its rarity, state of preservation, or its value in association with other historical features.

If listed on the SMR, the data about the pond may contain archaeological information describing both the site and its surroundings. The record could also hold supplementary information such as survey and excavation reports, aerial photographs and the legal status of the monument, including whether the site is a Scheduled Ancient Monument or, in the case of a structure, whether it has been Listed.

An SMR search can be requested for the specific pond site (by parish and grid reference), and will usually be provided as a print-out of the available information held on a database, with a map of the location.

It is recommended that anyone researching their pond, request an SMR search for at least 500 metres around the pond, in order to obtain information on surrounding

Ponds of Historical Interest

archaeological features. Management strategies can take these into account to avoid causing damage.

Data on all known sites, of all dates will be provided, not just those of direct relevance to the pond. The pitfall of this system is that the list may not be comprehensive, as there may well be sites in the vicinity of the pond yet to be discovered, but which may subsequently be picked up during fieldwalking or geophysical survey etc, as part of the pond survey.

Check-list of archaeology desk study information sources

- Sites and Monuments Record
- Planning Archaeologists
- Public and County Record Offices
- Local Studies Library for maps, photos, and documents.

Public and County Record Offices are well worth a visit, particularly to look at old maps of the area. Historic maps, documentary sources and treatise may provide an indication of function, form and date of the pond and surrounding features, as well as charting subsequent alterations.

Leases, tithes and estate records may also have information on ownership.

Some record offices only admit researchers on the issue of a reader's card, so it is advisable to contact the record office in advance. Cards can usually be obtained on the day of the visit, on production of identification (for example a Driving Licence). Check beforehand whether the office opens at the weekend or in the evening. There are usually restrictions on how many documents can be examined at any one time, so plan the research when it

is known how many items are available for the locality. It may be possible to obtain a photocopy of the map or document, depending on its copyright and condition.

The presence or absence of ponds and associated features on various historic maps will enable the researcher to chart the pond through time, albeit to a limited extent. Alterations to form or function may be apparent between maps. Names of fields, roads or even later pubs or housing estates may provide clues to former use.

The appearance of a pond on a later map in a series of editions may give a quite close date range for its construction. Its origins may be unclear if present on the first available map of the area, in which case, it can only be said to predate that particular map. On occasions the pond may not have been mapped on an estate, tithe, enclosure or parish map for a particular reason, but could have been present, and indeed may be shown on an earlier map. Situations such as this will be misleading, and maps should therefore be used with caution, and in conjunction with other sources of information.

Consulting the latest available maps first, starting with the current and the 1960s edition Ordnance Survey 1:2500 scale (approximately 25 inches to the mile) would familiarise the researcher with the details of the local terrain, showing current landmarks and boundaries. Working backwards through to the First OS editions, should prove useful in determining and/or establishing the date of relatively recent ponds. Maps may be available in a variety of scales - 6" (1:10,560) or 25" (1:2500), 1:10,000 or, in some cases, 1:500 scale.

Ponds of Historical Interest

The first edition OS maps (which are available for the whole country from the mid-18th century) include the smaller details such as ponds and prove a useful 'base map' for comparison with historic maps. Some landscape patterns may survive through time relatively unchanged but, as the scales may be in chains or non-standard, direct comparisons may be harder. Some historic maps can be at best schematic and only of value if transcribed onto later maps using common points between them.

Leases, tithes and estate records may provide specific details of ownership and tenants, expenditure, whether alterations have been carried out, perhaps a clue to a construction date, and/or earlier ownership and function. As with maps, the pond may not be mentioned in certain documents if it was not a revenue-generating asset, or if it was not part of the particular ownership/ leasehold agreement. Tithe maps are particularly useful for field names, and may indicate former pond origins, e.g. Marlpit Field.

Local Studies Libraries may hold similar information as the Records Office, for example maps and published works. Local collections of photographs and newspaper cuttings may also prove useful.

Other sources worth consulting might be local history societies, or local residents who might have local knowledge of the pond.

Getting professional advice

Historical research can be time consuming and is not always straightforward. Specialists may need to be brought in for a number of reasons:

- 1) To carry out the research on the community group or individual's behalf.
- 2) To help interpret the information and findings.
- 3) To carry out more specialist investigations such as coring (see below).
- 4) To give advice on the implications for pond management: identifying what needs to be protected and how best to do this.

Archaeologists may be commissioned for this type of task, or advice can be sought from archivists at Record Offices.

Specialist skills

In addition to desk study work, archaeologists use a number of other techniques for gathering information about sites of interest. Some of these, such as fieldwalking, can be undertaken by non-specialists, but archaeologists will often give a more informed slant. Other techniques such as geophysical surveys need specialist equipment, whilst invasive techniques such as sampling (coring) and excavation, should only be undertaken under the guidance of an archaeologist. Managing ponds of possible historic interest

If you are planning to restore or manage a pond and its historic interest is not known, there are a number of checks that should be made to ensure that any historic interest is not damaged or lost.

- 1) Check the National Monuments Record to see if the pond is listed. If the pond is a Scheduled Ancient Monument this provides them with

Ponds of Historical Interest

special protection from alterations and damage (see below).

2) Assess the pond to consider whether it is likely to have an archaeological or historical value that could be damaged by invasive management, such as dredging, tree clearance or repair of sluices etc?

If the pond has been recently dredged, then much of the relevant evidence may already have been lost.

In practice, damage is also unlikely if:

- The pond is of recent origin (i.e. is less than 50 years old).
- The pond has been dredged in the last 30-50 years, so that much of the evidence in its sediments has been removed or displaced.
- The pond has already been severely damaged, or restored as part of an existing water management system.

If none of these is the case, or you are not sure, then further research is needed (see “finding out about historic ponds” above). This will ensure that important information is not damaged and that management can be as sympathetic as possible.

3) Talk to the County Archaeologist who may have additional knowledge about the site, and can advise on good practice.

Restoring ponds of known historic interest

If the information about a site suggests that it has an historic or archaeological importance it is vital to get further advice from the Planning Archaeologist (see below).

The advice will *not* usually lead to the site being given further protection,

Pond Conservation: The Water Habitats Trust

April 2010

except in special cases, but rather to inform pond management options at an early stage.

In general when considering management or restoration bear in mind the following points:

- Gather as much historical information about a pond and its surroundings as possible, so this can be used as a basis for management.
- Wherever possible, and with due regard to cost, ensure restoration is as sympathetic as possible to the surroundings (for example earthen dams should be repaired with soil rather than concrete).
- Conservation work should take account of both the pond itself and its overall setting, if this is an important part of the historic interest.
- If the value of the pond is sufficiently high (e.g. where few examples of a pond type survive in pristine condition), this may mean that emphasis should tend towards preservation rather than restoration. Note that there are a few ponds that simply cannot be restored for landscape or nature conservation purposes because this would destroy nationally important archaeological deposits, or obscure important information such as islands or ridge-and-furrow in the base of the pond.
- If any important archaeological remains are found *in situ*, then they will need to remain undisturbed unless there is a very good reason for moving them.
- If the remains lack structural integrity, consider whether

Ponds of Historical Interest

maintenance will cause a high degree of damage.

- Wherever possible, opportunities should be taken for integrating conservation of animal or plant habitats with the preservation of archaeological remains.

Ponds that are Scheduled Ancient Monuments

In addition to the above, if the pond is one of the small number of sites that have been recognised as a Scheduled Ancient Monument, this provides them with special protection from alterations and damage.

Any groundworks to a Scheduled Ancient Monument (SAM) must be carefully researched and authorised before being undertaken. This includes even putting in or removing fencing if it involves disturbing the ground.

It is essential, if considering management of an SAM to consult a **Planning Archaeologist** - usually officers of a County or sometimes a District Council, for the relevant area to confirm that any proposed work is a legal operation.

Planning Archaeologists can provide advice on the archaeological implications of any planned refurbishment. They may also give help on Scheduled Ancient Monument consent procedures. Permission has to be granted by English Heritage before any groundworks take place on any SAM or Listed building site. Consent is applied for with the submission of an archaeological assessment and mitigation strategy. This outlines a detailed scheme the reason for the works and the likely impact on the

archaeology, plus the way in which any damage will be minimised by archaeological intervention. Modification of the scheme may be required before the application is granted.

Further assessment at this stage may identify areas where significant archaeological remains may be damaged or destroyed. If a mitigation strategy cannot be designed to reduce the impact of work then excavation or observation during the restoration may be necessary to record the remains. For example, dredging could be limited to those sediments of recent origin.

Repairing dams

Around Britain there are many ponds which have broken-down dams resulting in much lower water levels than they would have had originally.

Often these ponds have developed as rich wildlife habitats *because* they are now much shallower - this is likely to be partly because of the greater variety of marsh and other wetland plants that have been able to grow up, and partly because the site may have few if any fish - allowing other animals, like newts and dragonflies, to flourish.

Managing these sites can present difficulties because repairing the dam to refill the pond to its original level may damage or completely eliminate the current pond community.

In addition, very careful assessment should be made of the archaeological value of such sites, to ensure that historically important structures are not damaged or destroyed by refurbishment.

Ponds of Historical Interest

Prior to any management work, a careful choice may need to be made between amenity, nature conservation and archaeological, objectives. Fortunately, dammed-up ponds frequently occur as series and it is often possible to zone their use so that some function for amenity, others for wildlife or archaeology.

Methods for detailed investigation of the historical value of ponds

Documentary research: At the individual site level, detailed analysis of documents and maps can assist in interpreting identified archaeological remains. Examples of data sources which may be relevant include:

- Early maps e.g. Estate Maps (generally from 17th century onwards), Tithe and Enclosure Maps;
- Ordnance Survey maps (from 1800 onwards);
- 1930s Land Utilisation Survey;
- Aerial photographs (generally from the 1940s onwards);
- Estate Records;
- Research literature relating to history and environmental archaeology (including literary references).
- Other documentary sources may also be relevant (e.g. Aberg, 1978 for moats).

Assessment of aerial photographs: Aerial photography has been extensively used in the identification of archaeological features.

Fieldwalking: Methodical walking, usually of ploughed fields, collecting and plotting artefacts. Analysis of the material found and its distribution can indicate areas of settlements, burials or industrial activities.

Geophysical surveys: Sensitive electrical surveys used to locate buried features and designed to suit the scale of the project and the type of features suspected.

Earthwork survey: Search for associated features (e.g. mounds and hollows) visible on the ground surface. This can include marked changes in vegetation such as grass to nettles which may show ephemeral traces of infilled features.

Test pits: Excavation of small holes down to bedrock which are usually done at regular intervals in areas of grassland (i.e. unploughed areas not available for fieldwalking). This process, with total or sample sieving of excavated soil, is designed to find artefacts and environmental information.

Trial excavations: Excavations of trenches to test the depth of stratification, and the extent and survival of features on known archaeological sites.

Sediment coring: Extensively used for environmental reconstruction, coring to collect biological and anthropogenic remains has been undertaken successfully on a variety of small shallow water bodies. This technique is also used to assess the likely impact of desilting ponds.