
Caring For Your Archives

INTRODUCTION

Record Offices and other institutions are designed to provide the optimum conditions for the preservation of archives, but private individuals can also ensure survival of their archives if certain general principles are followed. The same principles apply whether you are looking after personal documents or the archives of a small organisation, or whether the documents are old or modern. For certain types of material specific procedures are recommended also.

Ensuring the long-term preservation of documents requires time and common sense. Some expenditure will also be necessary for purchase of archive-quality packaging materials that are generally of better quality than those commonly available. Three aspects in the life of archives should be particularly considered when planning to care for documents. These are:

- 1) General storage conditions,
- 2) Packaging, and
- 3) Handling.

These notes relate primarily to these types of archives:

- Paper and parchment documents and books, together with oversize examples of these.
- 4) Meanwhile certain archive formats have additional storage considerations. These include:
- Books,
 - Black and white (including sepia) and colour photographs,
 - Photographic negatives and transparencies on either plastic or glass base,
 - Blueprint plans and blue-toned “cyanotype” photographs,
 - Video and audio magnetic tape,
 - And computer media: ‘floppy’ discs and ‘optical discs’ such as CD and DVD.

Brief advice is given here regarding these. If you need further advice on any issue arising from this fact sheet please contact us, we are happy to help to ensure the better preservation of archival materials particularly those relating to Suffolk. See the end of this document for details of how to contact us.

Many recommendations in this document are based on those in British Standard 5454:2000 *Recommendations for the Storage and Exhibition of Archival Documents*. It is recognised that private individuals are unlikely to be able to fully comply with them all but they are still useful as guidance of practice that can be aspired to.

1) GENERAL STORAGE CONDITIONS

“General Storage Conditions” here encompasses the geographical location of the storage area, including aspects of this such as vulnerability to fire and flooding and breaches of security.

a) Storage Location

If you are storing documents at home, keep them in a dry and cool place. Avoid storage in attics, basements or outhouses. Attics should be avoided because they are subject to the extremes of temperature and humidity of external conditions. Moreover in summertime temperatures can soar. Basements and outhouses generally suffer from dampness in wintertime as they are not heated. Surprisingly basements can suffer high humidities in summertime as well.

If you are responsible for custody of the archive of an organisation, the quantity of material will be larger than usual. Sometimes such collections will be stored in undesirable locations such as basements, attics, and outhouses because space restrictions in living accommodation dictate this. As above, roof spaces should not be used for storage areas and neither should unheated outhouses. Basements are often used for document storage due to space limitations as they are generally drier and cooler than the other two, secure, cheap, and are easily accessible. If your collections are located here monitor the storage conditions to help you decide how to proceed. Always strive to locate the archives in cool but dry conditions if you can - see section b) for guidance on the conditions to aim for.

b) Environmental conditions: Light, temperature and humidity.

If material is stored in locations fit for human use then generally the storage conditions will be suitable for archives. However even then there are additional points to consider.

- i) **Light.** Material should be protected from natural light including sunlight as the light energy can cause fading and a general increase in the rate of decay (see what happens to newsprint when left in the sun for a few days). Meanwhile artificial light generally used in domestic settings (“incandescent light” from light bulbs) is weak and generally not damaging though it does heat material that is in close proximity. Like sunlight, fluorescent and halogen lights emit UV light so causing fading. Generally damage from light is only problematic if items are exposed for extended periods – by being on permanent display (framed) or otherwise exhibited. Fading is the most noticeable consequence of light exposure: the colours of watercolours, photographs, textiles and ink-jet prints can be especially prone to damage. Conversely oil colours are not so light sensitive. Suffolk Record Office can give further guidance if this is a concern.
- ii) **Temperature.** High temperature levels accelerate rates of chemical decay in organic materials while cool storage conditions help to prolong their life- we use refrigerators in every day life to slow down the biochemical decay of milk for example. High temperatures also cause brittleness or shrinkage of items as water vapour is lost. High temperatures can be caused locally by exposure to sunlight in summer while central or other heating in wintertime can cause generally high temperatures in rooms. For mixed paper or parchment based collections *British Standard 5454:2000* recommends storage temperatures of between 13 and 16°Celsius for infrequently used collections or 16 and 19°C for frequently used material. It should not alter more than 1°C either side of a chosen point within these ranges¹. It is likely that the lower

¹ If you do not have air conditioning machinery it will be impossible to meet the requirements of consistently adhering to fixed levels of temperature and humidity as recommended by the *standard*.

conditions of this range will be achievable only with air conditioning equipment. Private individuals may not be able to match these recommendations but surprising results may be achieved naturally in cool areas of a building.

- iii) **Humidity.** There is a balancing act to be made between levels of temperature and humidity: generally, cooler air brings risks of higher humidity in our climate. However cold temperatures are not always a threat – winter air may have quite low humidity once it is inside a building and warmed up. Levels of humidity can be measured and monitored with the widely available digital hygrometers, or whirling hygrometers are available from specialist suppliers. The former can cost less than £25, the latter less than £50. Humidifiers and dehumidifiers can be used to correct levels when problems arise. Digital hygrometers are very convenient to use but they will need occasional re-calibration for accuracy unlike the whirling hygrometer.

British Standard 5454:2000 recommends a relative humidity between 45% and 60% for mixed paper or parchment based collections, but not alternating more than 5% either side of a chosen point within this range². Maintenance of correct humidity levels is important - excessive humidity can lead to mould damage on paper, parchment, and photographic gelatine, but it also increases the rate of chemical decay of many modern media including plastics, photographs and paper. Furthermore, although conditions overall in a room may be good local high humidities can occur- for example the juxtaposition of warm air against a cold external wall in a room can lead to 100% relative humidity and the resulting condensation.

c) Insect and rodent damage

Damage from insects is a curious phenomenon- they are at times miniscule creatures yet because the larvae can be growing and eating out of sight for years, and because of the high levels of infestation that can occur, they can cause significant amounts of damage. As is often the case the safe custody of archives is connected to the environment they are stored in- and insects will prefer damp conditions to dry ones. If you keep the storage area within the limits defined above you will have gone some way to preventing insect infestations. Silverfish and booklice for example will be inhibited by dry conditions.

Prevention of all insects including bookworm (also known as woodworm), and protein-eating insects such as *clothes moths* and *varied carpet beetle* is best achieved by careful vigilance and inspection for signs of infestation. Furthermore sticky 'blunder traps' are very cheap monitors that can be deployed- if regularly checked for signs of insect life they're a very useful warning system.

Birds' nests are very attractive to insects so they should be removed if discovered in roofs. Rats and mice can eat paper and parchment archives when hungry – if material is kept in conditions suitable for people the rodents are unlikely to reach them. The only insecticide tested against conservation criteria for suitability of use with textiles, paper, pigments and dyes is "Constrain", available from Historyonics of Cardiff <http://www.historyonics.com>. It's registered for domestic use (i.e. by anyone) under the Pesticides Regulation Act 1986. Sticky traps are also available.

d) Catastrophic Damage: how to minimise risks of fire or flood damage.

Many in East Anglia will remember the Norwich Central (lending) Library fire of August 1994. Although many damaged items were replaced this serves as a reminder of the threats fire and water damage pose to archives- once damaged archives can be difficult or impossible to replace. Prevention is the best way of limiting the risk of catastrophic damage and loss. Regular

However you may be able to achieve storage conditions somewhere within the full ranges recommended. Even if not, the recommendations are helpful as a target to aim for.

² As footnote 1

maintenance of building services and systems will help prevent water leaks and fire. Contact the Fire Service and Environment Agency to inform yourself of the risk of fire and flooding to your building. Placing your archives within strong boxes (see below) will also help preserve them if disastrous fires or floods do occur, large or small. Also consider storage area security and the risk of intrusion leading to theft or malicious damage. Catalogue or list the documents you hold.

The principal reason against using a basement for storage is that in the event of flooding, whether from internal plumbing systems or external sources, water will accumulate in the lowest point it can reach. For this reason archives should never be stored on the floor.

You should bear these aspects in mind especially if you are responsible for a large archive such as that of a business or a town council. Your aim should be to *prevent* harm befalling documents in the first place. Contact the Suffolk Record Office if you need further advice regarding disaster prevention, salvage planning or the salvage of material after damage.

2) PACKAGING MATERIALS

Use the following guidelines to help choose packaging materials. The Record Office can supply small amounts of these materials if you need them. Please ask us for freely given advice and/or our price list of packaging materials available separately.

a) Paper and Board

- i) Archives should be packaged in acid-free boxes and folders. No strict definition of 'acid-free' exists but for the purposes of the *Standard* this means: the paper and board has a pH between 6 and 9; has a CaCO₃ alkaline reserve of up to 3%, and is lignin and sulphur-free.
- ii) Sturdy exterior boxes protect archives from risks such as careless handling, light, dust, and any other risks. Boxboard should be 1.5 or 2mm thick, and the Suffolk Record Office recommends boxes be made with solid not corrugated board for greater strength.
- iii) Folders immediately enclosing items help to keep them orderly and in manageable bundles. The weight (thickness) of folder card is not specified, however in the Suffolk Record Office we use acid-free card of not less than about 225 grammes/metre² ("gsm") for this. Other card weights available include 125 and 300 gsm. Ideally the folders enclose the items on all sides.
- iv) Steel papers clips, rubber bands, pins and all corrodible items that may rust or damage should be removed. At the Suffolk Record Office we replace these with 100% brass (not brass plated ("brassed")) paper clips that do not corrode. Plastic would be suitable also. However folders themselves can be used to collate material as paper clips can easily become detached.
- v) Unbleached wide cotton tape is used as a simple and cost-efficient way of securing bundles enclosed in folders. This replaces other means of this such as rubber bands, string, coloured tape with fugitive or water-soluble dyes, etc.
- vi) As acid-free materials are more expensive than the normal qualities of packaging materials commonly available, and as acid-free boxes are not usually available in board thickness of 2 mm, like The National Archives (formerly the "Public Record Office") and many other archives the Suffolk Record Office uses *low acid* boxes to provide physical protection for materials. Within these boxes we wrap material in full specification acid-free folders to provide full protection against acidity.
- vii) There is current debate amongst professionals regarding suitable pH levels of photographic storage paper, specifically whether the mildly alkaline papers (pH 7- 9) mentioned above for

general archive storage are safe for photographs. For about 25 years specialist photographic storage papers have been available of a very high specification. They have a special pH neutral value (about pH 6-7) and may be made of a very pure 100% cotton pulp. However BS ISO 10214:1991 *Photography- Processed photographic materials- Filing enclosures for storage* recommended alkaline papers for black and white material. More recently its successor BS ISO 18902:2001 goes a step further recommending alkaline papers for colour images also. There is some debate still. Use of special pH-neutral photographic storage papers still remains very safe although these papers may be more expensive. But alkaline papers will be safe for black and white material and should be safe for colour images. See 'Colour prints, transparencies and negatives' below for more information.

b) Plastics

Plastic is also used for archive storage, usually for photographic material. Plastic enclosures allow handling and viewing of their contents without touching, as they are transparent. Plastic enclosures are available as individual pockets/sleeves of different sizes or as ring binder or hanging file pages incorporating a number of pockets. Plain sheet plastic is also available for making bespoke items. Plastics used for archival storage should not include additives, plasticisers and should not have surface treatments- they should be the pure plastic. The following types of plastics are considered *suitable*:

- i) Polyester, poly(ethylene terephthalate) (PET). Recycle code 1. Used for archive storage in sheet form under the brand names Melinex[®] or Mylar[®]. The most widely accepted archival plastic, this is glass-clear and strong, but has the disadvantage of having a static charge so it is not suitable for storage of items with a powdery or flaking medium (e.g. pastel, charcoal drawings).
- ii) Poly(ethene) / polyethylene, commonly "polythene" (PE). Recycle codes 2 & 4. High density (HDPE) or low density (LDPE) are acceptable but the former is better. The two can be distinguished in sheet form- LDPE is floppier and easier to stretch. HDPE is more naturally slippery. Overall PE is more flexible than polyester but translucent rather than glass-clear in its uncoloured state.
- iii) Poly(propene) / polypropylene (PP). Recycle code 5. Rigid like polyester, but also less clear like polythene. Sheets can be very slippery next to each other.
- iv) Polystyrene (PS). Recycle code 6. In its unexpanded' state, rigid. Commercially used for bottles such as pill bottles and boxes (sometimes used in museums for general storage of items). Also used for slide mounts. Glass-clear like polyester when uncoloured.

The following plastic is considered *unsuitable*:

- v) Poly(vinyl chloride) (PVC). Recycle code 3. Clear when uncoloured. When made into storage pockets PVC is rendered flexible by addition of a plasticiser. With time PVC releases the plasticiser and possibly hydrochloric acid, which causes shrinking and can damage enclosed items.

Contact the Suffolk Record Office if you need further guidance on these issues.

3) HANDLING

Once the storage regime has been improved the main risk to material occurs when it is handled.

- a) Use of folders / enclosures not only helps order material within boxes but also protects items when extracted from boxes.
- b) Keep food and drink out of range when consulting original material - accidents can happen. Similarly use pencil when working with unique material instead of ink pens.
- c) Handle material with clean, dry hands. Photographic prints or negatives should not be handled with bare fingers as acids and sweat from fingers will damage the image. Similarly magnetic tape. In these situations gloves are used- disposable surgical gloves are considered best as they allow a good grip and are hygienic. Cotton gloves can be used but these have less grip.
- d) As mentioned already transparent plastic enclosures also enable viewing of material without having to handle items directly. Most types of paper-based material (including photographs and maps) can be enclosed in archival plastic sleeves if finances allow.
- e) If you need to mark your documents with a reference number use a soft pencil that can be erased. Write on the back and avoid pressure that may cause embossing. Information can also be recorded on the enclosures housing material.
- f) If you have responsibility for a large archive collection, consideration of shelving styles, trolleys and packaging to protect material in transit between the storage area and reading areas will help prevent damage.

4) SPECIAL CONSIDERATIONS FOR CERTAIN MEDIA

Generally most paper, parchment and leather-based archives will be well preserved if the advice above is followed, and the advice given so far should be regarded as a 'baseline' which anyone hoping to preserve material indefinitely should be working towards. If you have doubts that you can meet such recommendations and you feel your material is of public interest the Suffolk Record Office would encourage you to place your material on deposit with us or the most suitable archive to help better ensure its preservation. Please don't hesitate to contact us for impartial and freely given advice in this regard.

The sections below deal with storage recommendations regarding specific media, many of which have special needs. Modern media have been subject to decay as some products have been introduced into the marketplace with inadequate research into their long-term stability. Archive, museum and library collections usually have to cope with the consequences of this.

Private owners will be able to implement most of the recommendations below with the possible exceptions of the specific storage climates. Storage environment recommendations are tailored towards public and professional storage facilities and are designed for material that is to be preserved *indefinitely*, (or until some of the more fragile media can be copied onto better storage). However the details below will serve as targets to aim for if not ones that can always be realistically achieved. By following the principles and doing what you can, you will be doing your best to preserve your material. The Image Permanence Institute have collated the *IPI Media Storage Quick Reference* booklet which will give some more details on the recommendations below if you need them.

See http://www.climatenotebook.org/MSQR/MSQR_home.html.

Other details aside significant preservation can be achieved if items are stored in a good environment- "cool and dry"- that also remains stable. Room temperature in the UK climate can be up to 24°C when heated in winter and cooler or warmer when unheated in summer. Humidities can be low or high depending on circumstances.

a) Books

- i) Use a book rest to support fragile bindings during use especially if the book covers are detached or nearly detached. Supporting them helps to prevent damage. 'Snake' or other soft weights are used to hold book pages open that tend to close.
- ii) The simplest type of book rest nowadays is a 'bean bag' type. These conform to the contour of the book when open though generally they should be formed into 'V' shape when the book is first placed on the bag.
- iii) Take note of the weight of oversize volumes when picking up to avoid dropping them. Oversize heavy volumes are best shelved horizontally to take strain off the book structure.
- iv) Extract books from shelves by gripping them halfway up the spine, pushing in neighbouring volumes to do this. Extracting them by pulling at the top of the spine causes the common problem of loss or damage to the 'endcap'.
- v) In storage, books shelved upright should not be allowed to sag or slump from the vertical. Use bookends to keep books in half-filled shelves upright.

b) Black and white (including 'sepia') prints and negatives.

Always use gloves to handle archival photographic media of all types.

- i) Archival monochrome photographs can date from the 1830's up to the present day. Recommended storage temperatures for b/w prints are below 18°C (*BS 5454:2000*). Lower temperatures however will lengthen life expectancy.
- ii) High humidity is damaging to the silver image and accelerates decay, early prints being more sensitive than modern ones. Recommended humidity ranges are between 30% and 50% relative humidity for a mixed collection of formats (negatives either on paper, glass or plastic, mixed with prints). Mould will grow on gelatine-based photographic emulsion on prints and negatives, and other historic emulsions such as albumen, if humidities rise above 65%.
- iii) Conversely humidities should not fall below about 20%-25% RH as this can cause desiccation of the photographic emulsion and also delamination of the emulsion from the base.
- iv) Very early photographs are much more light sensitive and generally only copies should be exposed to light by exhibition. All 19th century photographs and even modern colour photographs should be exhibited with care- ask for advice.
- v) 'Sepia' prints can in fact be the result of extensive decay. Especially if they are prints made with an albumen emulsion (precursor to gelatine), they would originally have had a darker image. Both the image-forming silver and the albumen emulsion have usually been subject to deteriorative processes causing fading ("loss of image density") and yellowing. This is irreversible and is accelerated by storage in high humidities.

c) Colour prints, transparencies and negatives.

Always use gloves to handle archival photographic media of all types.

- i) The popular colour processes used today became common in the post-war era. 'Chromogenic' colour processes as still used have a weakness in that the dyes can fade disproportionately to each other causing colour shifts. Many readers may have seen this decay in their own images. Significant advances in stability of papers have been made in the 1980's and 1990's, but *BS 5454:2000* recommends that colour photographs intended for permanent preservation are kept at no more than 2°C and 30-40%RH. The *American National Standard IT9.11-1991* for film storage (see next section regarding film) mentions medium-term storage recommendations (for a 10-year life) as well: store colour film at 10°C. Private individuals do not necessarily need to

individuals do not necessarily need to place all their photographs in the refrigerator, but will find prints will last longer if they're kept in cool & dry conditions.

- ii) There is debate amongst professionals regarding colour photograph storage papers. Dyes in traditional colour photography can be affected by both strongly alkaline and acid pH levels so neutral pH papers like the specialist photographic ones are safest. However, allowing for the exception below, modern research suggests alkaline archive storage papers should be safe for colour images as long as you keep them away from damp conditions. Keep items cool & dry, avoiding extremely dry conditions. Also remember there are many plastic enclosure systems that can be used for photographic storage, a way to get around this problem if you have concerns.
- iii) Note though that cyanotype photographs and blueprint plans that have a blue and white colour *should* be stored in specialist pH-neutral (neither acid or alkaline) photograph paper to preserve their colour.

d) Photographic Film and Glass- negatives and transparencies.

Always use gloves to handle archival photographic media of all types

- i) The first translucent material used for negatives was paper and then waxed paper. However from the late 1840's glass was used as a transparent base for negative images. Subsequently the invention of the first plastic cellulose nitrate enabled a transparent negative base that was flexible also, giving birth to roll film.
- ii) The first consideration for glass negatives is of course careful storage. Store plates upright. Paper enclosures should be used in preference to plastic ones. '4-flap' or cruciform enclosures are best enabling viewing of the plate without touching it. View over a cool light box. Watch out for delamination of gelatine emulsion from glass base at low humidities.
- iii) Plastic films can be self-destructive. Both cellulose nitrate and its replacement cellulose acetate ("safety film") have been used as bases for negatives and positive transparencies in still photography. Cellulose nitrate was first introduced in 1889. Later acetate films were introduced in the 1920s becoming widespread in the 30s. Since 1940 all cut sheet film has been acetate that in turn was replaced by polyester during the 1960s and 70s. Roll film continues to be acetate to this day- polyester is used for specialist applications only such as astronomy, X-ray film etc.
- iv) At advanced stages of decay cellulose nitrate will decompose forming a sticky brown mess, turning powdery. The material can combust at temperatures above 40°C and will be impossible to extinguish. Because of this fire risk, nitrate films must be stored with great care and at low temperatures. However if the film is not degraded it can be stable for many years without problems- as long as storage conditions are correct. You must seek professional advice if you think you have cellulose nitrate and aim to deposit the film in a professional store. *BS5454:2000* recommends storage at temperatures less than 11°C and at a relative humidity of 30-40%. The Health & Safety Executive publish "The Dangers of Cellulose Nitrate Film", <http://www.hse.gov.uk/pubns/>, that gives further advice and refers to British Standard BS ISO 10356:1996. If you have motion picture on nitrate base contact the East Anglian Film Archive in Norwich: (01603) 592664, <http://www.eafa.org.uk/>.
- v) The replacement for nitrate, cellulose acetate, whilst not being flammable has not turned out to be as stable as expected. Eventually the polymer will decay, shrinking, and emitting acetic acid giving its characteristic vinegary smell- "vinegar syndrome". 'Channelling' may become apparent as the emulsion separates from the acetate. Acetate films have a life expectancy of about 50 years at moderate room temperatures, but once decay has begun they can take only a few years to deteriorate markedly.

However like nitrate the lifespan of acetate can be significantly enhanced by storage at low temperatures and low humidities, and air ventilation. Storage recommendations for acetate film: below 18°C and as low as -1°C, and less than 50%RH (above 20% and less than 40% recommended). See the Image Permanence Institute's *IPI Storage Guide for Acetate Film*, online: http://www.imagepermanenceinstitute.org/sub_pages/8page3.htm. Even in 2004 consumer 35mm roll film is produced on triacetate base instead of the more durable polyester. Triacetate is more durable than earlier versions of cellulose acetate but will also eventually decay.

e) Audio-visual archives: magnetic tape

- i) Magnetic tape should be protected from dust in storage and the tape should not be touched- handle tape with gloves. "Magnetic tape" can encompass audio and videotape. Although some tape has been made of cellulose acetate, polyester has been used for tape base in recent decades. Magnetic tape can suffer from a particular decay to the binder holding the magnetic layer onto the base tape. This causes sticky loss of the layer – "sticky tape" or "sticky shed". Again storage in cooler and particularly drier conditions will slow down decay but not too cold- the *Association of Moving Image Archivists* (<http://www.amianet.org>) recommends conditions of between 8°C and 20°C; while the International Standard *ISO 18923 Imaging materials- polyester base magnetic tape- Storage Practices* recommends storage above 11°C. The National Archive's new "Standard for Records Repositories" (2004) in fact states: "Magnetic tape should be stored in an environment as close as possible to that which it will be consulted."
Consult a specialist sound or video archivist if you need further advice in this area.
- ii) Whatever the conditions chosen for storage, in this case it is important they are consistent. Fluctuations in humidity will lead to absorption and desorption of humidity by the tape, causing deformation of the tape possibly leading to signal losses on playback or 'dropouts'. Other causes of signal loss include creasing and poor winding. It is best to store tape so that it has to be rewound before playback. Store tape rolls (even compact cassettes) vertically.
- iii) Magnetism. Authorities generally agree this is less of a danger than once thought. A few inches separation is enough to reduce the risk of erasure from strong magnets in loudspeakers or magnetic fields generated by high electrical voltages such as the cathode ray tubes of televisions and CRT computer monitors. Avoid proximity to lightning conductors.

f) Computer media: 'optical discs' such as CD and DVD

- i) Optical discs come in a variety of forms – CD & DVD capacity, and 'ROM', 'R', 'RW', and 'RAM' recording capabilities. More formats exist for DVD's. Generally they are robust and will last well but the recording capability does affect their life expectancy. CD and DVD '-R' discs are the most reliable for long-term storage while '-RAM' discs are the least reliable. Manufacturers' estimates vary between 20 and 100 years life expectancy for '-ROM' (pre-recorded) discs.
- ii) These recommendations come from *Care and Handling of CDs and DVDs* (Fred Byers, 2003). The report also recommends storage temperatures between 4 and 20°C and 20-50% RH. 'R' type discs should be kept away from sources of UV light such as sunlight as the dye used for recording can be damaged. ROM and RW types will not be affected. Generally keep discs away from heat and moisture. Discs should be stored upright in cases designed for them.
- iii) Do not damage the label on CDs and only use pens designed for use with them. CD's are particularly sensitive to damage to the label area as the recording layer is just below it. The recording layer in a DVD is sandwiched in the middle of the disc so is better protected.

5) CONSERVING YOUR DOCUMENTS

If your archives need treatment it's best to seek professional guidance. If you suspect mould or insect infestation, seek advice especially– mould can be damaging to health.

The Suffolk Record Office maintains a list of local book and art on paper conservators – please ask us for this, and the conservation unit in Ipswich is happy to give you general advice also. Online advice regarding the availability of conservators in the UK can also be found at: www.conservationregister.com, together with basic advice on the care of materials.

Bury Record Office, 77 Raingate Street, Bury St Edmunds, IP33 2AR

Telephone: 01284 741212

Email: bury.ro@suffolk.gov.uk

Ipswich Record Office, Gatacre Road, Ipswich, IP1 2LQ

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Lowestoft Record Office, Clapham Road, Lowestoft, NR32 1DR

Telephone: 01502 405357

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Email: lowestoft.ro@suffolk.gov.uk

Suffolk Record Office web site: <http://www.suffolk.gov.uk/sro>

Suffolk Heritage Direct website: <http://www.suffolkheritagedirect.org.uk>