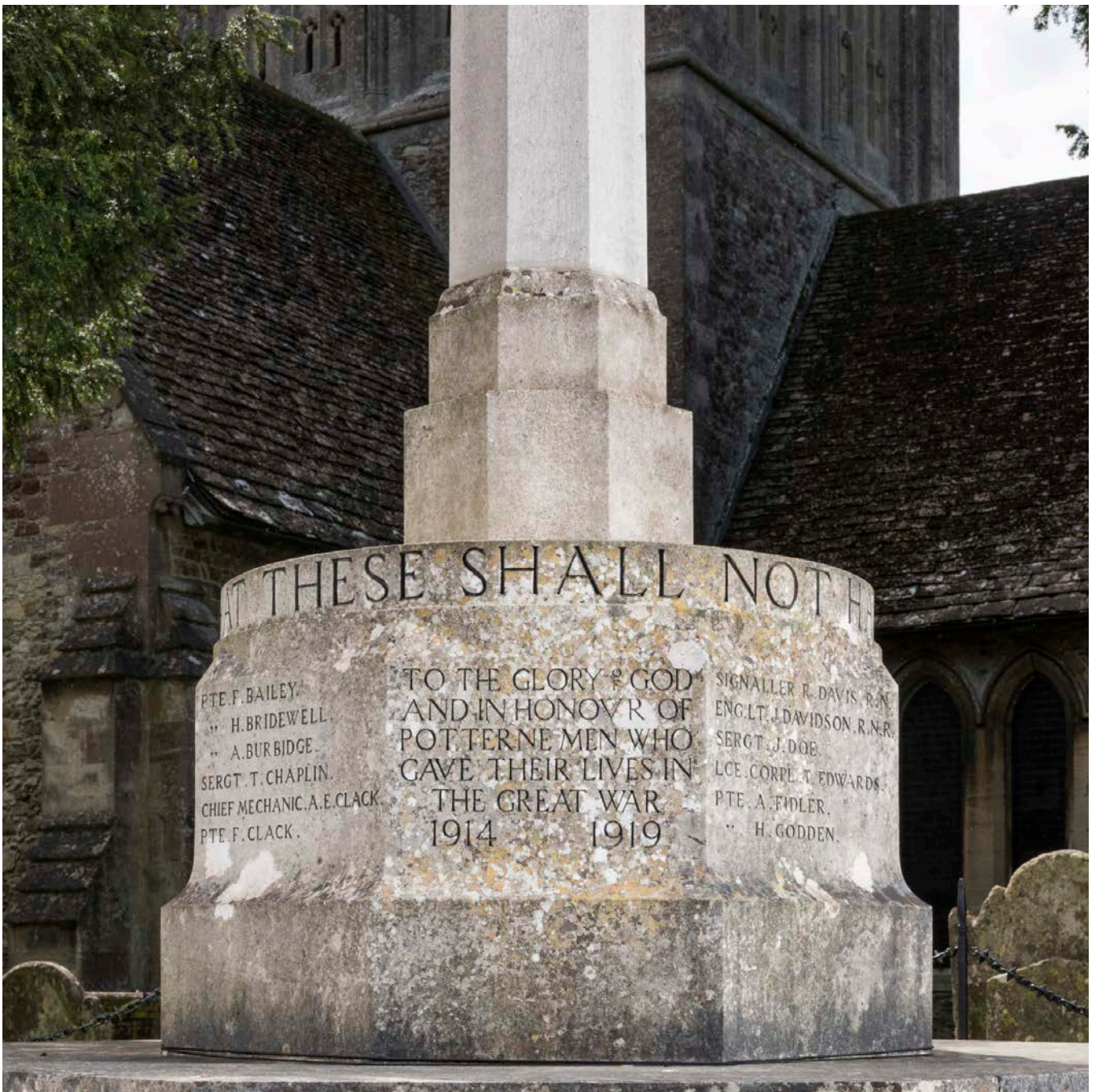




Historic England

Conserving War Memorials

Inscriptions on stone



Summary

This technical advice note describes good practice for conserving inscriptions on stone war memorials, outlining a step-by-step approach to aid decision making on whether any intervention is necessary and the range of techniques available. It includes where to get further help.

This guidance is intended for those designing, specifying and undertaking conservation and repair work to war memorials, such as architects, building surveyors, project managers, contractors, craftspeople and conservators. It will also be of interest to those responsible for decisions, such as local authority staff including conservation officers and custodians, parish or volunteer groups.

This technical advice note forms part of a series of resources, produced by Historic England. The series covers the overall approach to caring for war memorials and also some of the more poorly understood technical aspects. These include:

- guidance on how to record, repair, conserve, maintain and protect these unique monuments for future generations
- short technical advice notes covering inscriptions, structural problems and repairs, and maintenance
- case studies on conservation options for specific war memorial issues
- videos on technical aspects of war memorial conservation.

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HistoricEngland.org.uk/advice/technical-advice/war-memorials/

Front cover: St Mary's Church, Church Corner, Potterne, Wiltshire. An incised and painted inscription on a First World War stone memorial.

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1. Introduction

War memorials play an important role in the memory of individuals and communities. The inscriptions on them provide both a record of past conflicts and a way to honour the dead.

Soon after the First World War, a panel of experts including Sir Edwin Lutyens concluded that: 'Inscriptions may be carved in stone for many uses but the monumental inscription is usually designed to be a record for those who care to search for it rather than an announcement to the world – not so much an advertisement as a confidence.'

Over time, however, the text on war memorials can become less legible. Many war memorials are externally located and are exposed to natural weathering, resulting in erosion and the loss of carved and inscribed detail. Often, the sharp edges of cut lettering are reduced and the delicate paint layers lost. Lead infills can also detach. While these problems are most prevalent with external war memorials, internal war memorials may also experience variable environmental conditions and inappropriate treatments, which lead to deterioration.

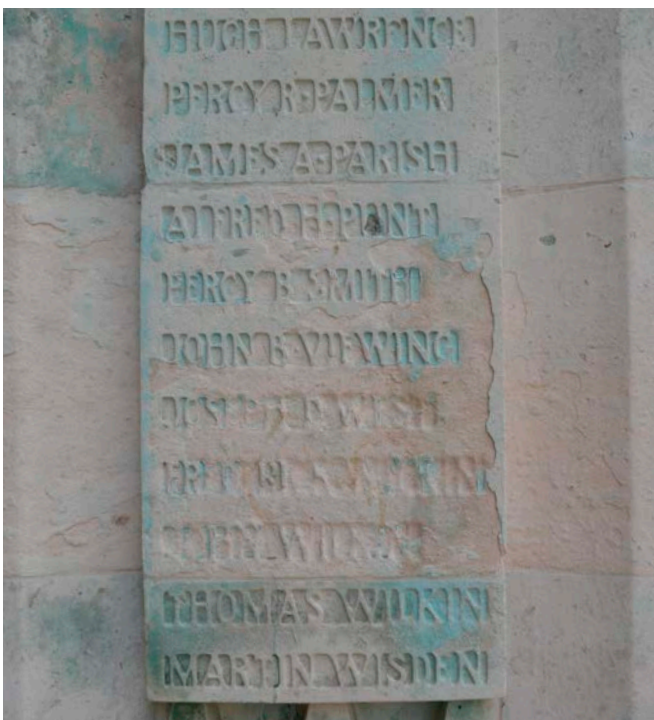


Figure 1: St John's Church, Waterloo, London. Weathering has particularly affected one stone, making that part of the inscription illegible due to surface delamination.



Figure 2: Men of Rainhill War Memorial Cross, Church of St Ann, Rainhill, Merseyside. Lower areas of the inscription are weathered and general algal growth makes the inscription very difficult to read.

Thus, when assessing the general condition of a memorial, legibility should be an important consideration. However, any intervention must be balanced against the need to retain the other heritage values of the memorial which contribute to its significance. For example, the materials and overall design of memorials contribute to their communal value as focal points in many urban and village settings. Memorials also have architectural and aesthetic values; some are examples of the ‘standard’ designs created by architects Reginald Blomfield and Edwin Lutyens, whilst others may include decoration or lettering by a renowned artist.



Figure 3: Detail of the inscription on the war memorial in Memorial Court, The King's School, Canterbury, Kent. Designed by eminent architect, Sir Herbert Baker, who was responsible for designing many war memorials, as well as Tyne Cot Commonwealth War Graves Cemetery and Memorial to the Missing, near Passchendaele, Belgium.



Figure 4: North Staffordshire Regimental War Memorial, Whittington Barracks, Tamworth Road, Lichfield, Staffordshire. As well as commemorating those lost in war, some memorials also record details of battles and campaigns or include military mottos and motifs, which contribute to their value as records of past lives and events.

2. Types of inscriptions

There is an abundance of stones suitable for monumental carving. Many are sourced from England, others from the rest of the UK, whilst in some cases communities import from around the world. Many are used for war memorials including fine-grained limestones, sandstones and granite. Marble and other polishable stones are also used, although mostly only for memorials inside buildings.

The properties of the stone often determine the style and execution of lettering. From the 1880s, hard stones such as granites could be inscribed with machine-cut lettering. The inscriptions were often infilled to make them more legible. On softer fine grained stones such as Portland stone, inscriptions are still hand-cut creating sharp edges and arises.

It is important to keep in mind that inscriptions are the products of craftspeople, who often used unique fonts. This adds to the complexity of any decisions regarding their conservation or repair. Some lettering may also be particularly important because it is the work of a significant artist, for example Charles Sargeant Jagger, who carried out a number of war memorial commissions.

2.1 Carved inscriptions

Incised

This is the most common method of inscribing stone war memorials in England. V-shaped incisions were hand-cut using a straight-edged chisel and a rounded letter-carving dummy or mallet. Fonts, styles and the depth of incision varied depending on the type and hardness of stone.



Figure 5: Stockwell war memorial, Lambeth Road, London. Incised lettering in Portland stone. The marks of the chisel are evident on each side of the 'V' cut of the letters.

Incised and painted

Incised lettering may have been painted as part of the original design or paint may have been applied subsequently to restore legibility. On porous stones, letters were carefully painted with a fine brush, keeping the paint within the edges of the 'V' cut. This was a time-consuming and exacting task. On hard stones such as granite, flood painting was often used. This technique involved painting the 'V' cut, but overlapping the edges at the face. Excess paint was then removed by sanding the face with abrasive paper.

Paint types vary, but they were traditionally oil-based. They may have required some sort of primer or ground, particularly if the stone was very porous. Often the ground was simply a few coats of oil-based sealant or varnish, which kept the edges of the lettering sharp by preventing the paint from being absorbed into the stone.

Incised and gilded

Gold leaf is sometimes applied to incised letters to accentuate the inscription. Its reflective qualities made it ideal for inscriptions in low-lit environments, such as in a candlelit chapel. Yellow or red oil-based paint was often used as a ground to seal the stone and to change the tone of the applied gold. The final preparatory step was to carefully apply oil size before adhering gold leaf to the lettering.

Raised

This technique involves chiselling the outline of each letter before removing the background stone to leave the letter proud of the surrounding surface.

Figure 6: St Anne's Church, Bagshot, Surrey. Incised and painted lettering.



Figure 7: News of the World war memorial, location unknown. Incised and gilded lettering.



Figure 8: Streatham war memorial, Remembrance Gardens, Streatham, London. Raised lettering.



2.2 Applied inscriptions

Lead

Lead is often used for lettering on war memorials. One method is to cut the inscription into the stone and drill small holes into the 'V' cut, tamping the lead into the incisions with a hammer. In order to make the letters flush with the surface, carborundum blocks and fine abrasive papers are used to remove excess material. Another method is to cut raised lead letters from a lead sheet laid on top of the stone. In both cases, the lead is kept in place during the procedure by tapping it into pre-drilled holes.

Although lead eventually oxidises and darkens, it usually remains stable. Lead lettering is sometimes painted (often in black) or coated with patination oil to improve and retain legibility.

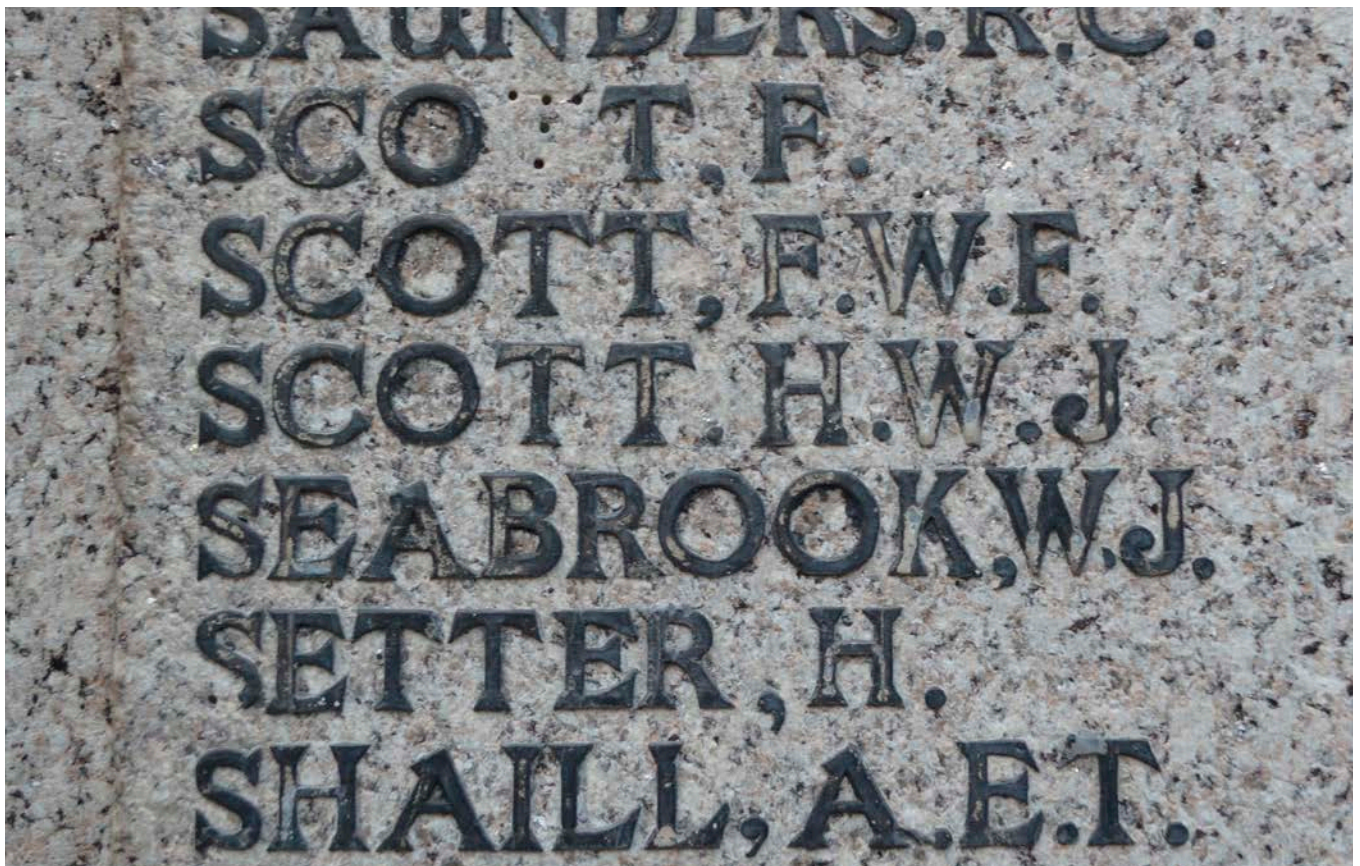


Figure 9: St Mark's Church, Kennington, London. Lead lettering applied to granite. The drill holes used to anchor the letters can be seen where a 'T' has been lost, and the paint layer is damaged showing the lead underneath.

Bronze

Bronze lettering is usually raised and cast integrally with a backing plate, although sometimes individual cast bronze letters are applied to the surface of the stone in the same way as lead lettering. Bronze is often chemically patinated (usually to a deep brown colour) during manufacture. Green copper carbonate and sulphate deposits often form on the surface of bronze over time, caused by exposure to the atmosphere. This characteristic green surface finish is known as verdigris.

Painted

Lettering was sometimes hand-painted directly onto a flat stone face using oil-based paints. There are also examples of lettering being applied as a glaze on a ceramic panel as part of the manufacturing process.

Mortar

Incised letters are cut in the same way as for lead and filled with coloured material such as mortar. This can sometimes be dark grey or black which gives the illusion of lead.

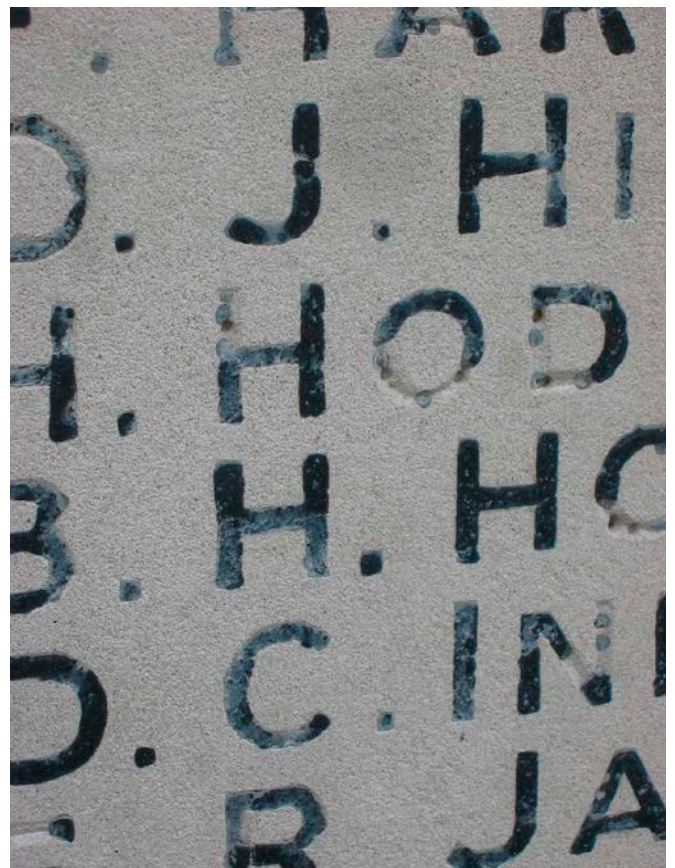


Figure 10: Bridge Street, Sheerness, Kent. Incised lettering with mortar infill. Holes have been drilled in the incisions to give the mortar a better key.

3. Loss of legibility

All materials deteriorate over time. When the surface of war memorials erode, inscriptions can become less legible. Various factors may contribute to the deterioration of fabric. They are outlined below. Further information can be found in Historic England's [Condition and Legibility video](#), available online.

3.1 Surface soiling

Soiling can build up on a stone surface over the years and may obscure significant details, such as inscription panels. A degree of light surface soiling can add character to an exterior stone monument, highlighting its age and history. However, heavy soiling can obscure inscriptions and may cause damage.

The origin of the dirt may be airborne pollutants, such as particulates or gases, microbiological growths, deterioration products from other materials or deliberate damage, such as graffiti.

Airborne pollutants

Before the Clean Air Act of 1956, high levels of sulphur dioxide in the atmosphere led to acid rain, which dissolved the surface of limestone and marble. The dissolved stone combined with particulates, creating black calcium sulphate streaks or crusts in more sheltered areas, weakening the underlying stone and making inscriptions more difficult to read.

Further legislation was passed in 1993, which lowered air pollution considerably. However, airborne pollutants and dirt still remain a problem. Sooty particulates may adhere to the surface, obscuring detail and potentially leading to permanent staining.

Microbiological growth

The presence of algae, moss and lichen on external stonework is common and not necessarily harmful. However, heavier biological growths can obscure the design and may encourage further soiling by providing a suitable surface onto which pollutants can adhere.

The growth of algae on a stone surface indicates the presence of water. Algal growths are usually green and slimy when fresh, and become black when the surface dries out. Moss will only grow where there are persistent damp and sheltered conditions, so it may form on the shaded sides

of war memorials. Lichen is slow growing and usually harmless. However, endolithic lichens grow inside the stone, causing blistering or pitting on the surface. Some mosses and lichen are protected species under the Wildlife and Countryside Act 1981 and it is an offence to deliberately pick, cut or destroy it. It is important to establish the types before considering removal.

Corrosion products

On some memorials, ferrous or copper alloy fixings may have been used to attach elements or metal lettering to inscription panels. As these metals corrode, some of the corrosion products leach into the stone itself, causing orange/brown iron staining or turquoise copper staining to appear on the surface. Although unsightly, this staining does not usually affect the legibility of inscriptions.

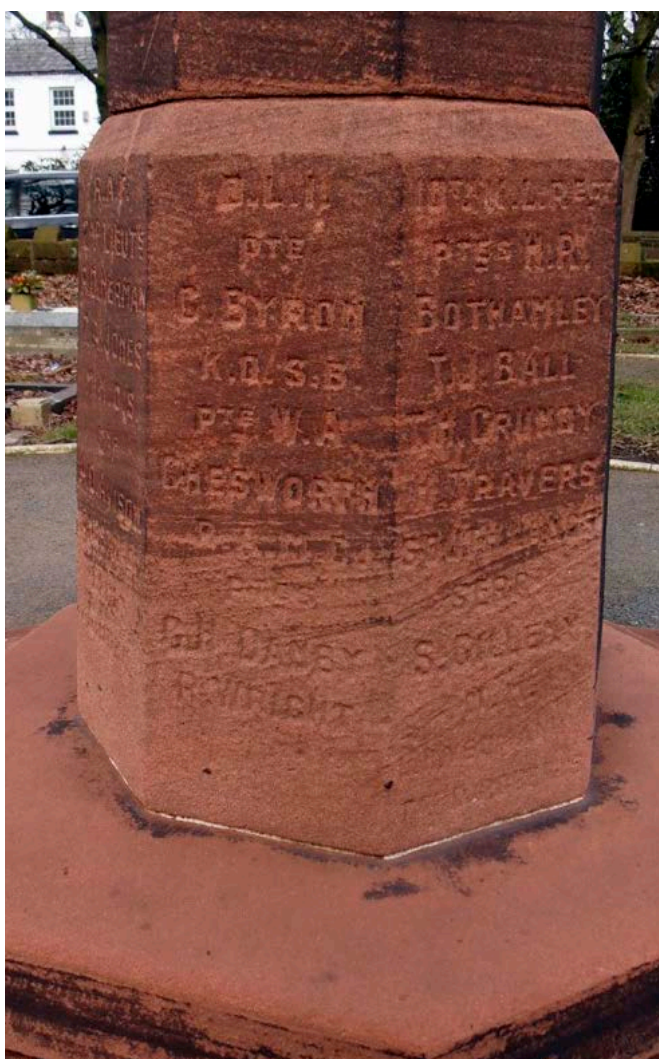


Figure 11: Rainhill war memorial, Merseyside. The names lower down on the memorial are barely legible.



Figure 12: Southwark war memorial, Borough High Street, London. Copper staining on a Portland stone inscription beneath a bronze plaque. Although discoloured, the inscription is still legible.

3.2 Stone decay

Natural weathering processes such as wind, rain and especially frost can lead to the decay of exterior stonework. In addition, atmospheric pollutants such as sulphur dioxide, nitrogen oxides and ozone can cause a change in the stone's surface composition, leading to decay and loss. Soluble salts, can have a detrimental effect when they are absorbed, because if they crystallise they may disrupt the stone's structure.

3.3 Poor design

Flaws in the original design of the war memorial may only become apparent many years later. For example, elaborate architectural constructions may not shed rainwater effectively, instead channelling it down areas such as inscription panels, eventually resulting in differential weathering. Softer stones may be vulnerable to decay and vandalism, and if sedimentary stones with pronounced bedding planes are not correctly orientated, their edges can be exposed, leading to surface delamination and the consequent loss of inscriptions. Corrosion of ferrous fixings or dowels may result in panels working loose or even splitting as the rust expands.



Figure 13: Memorial at Stanway, Gloucestershire. The lower part of this memorial is more exposed to moisture and soluble salts than the sheltered upper parts, causing deterioration of the inscription at low level.



Figure 14: Royal Marines Reserve HQ, Old Jamaica Road, Bermondsey, London. Inscription stained due to water run-off from the flat surface above.



Figure 15: Lewisham Hospital war memorial, Lewisham, London. Raised lead lettering applied to granite. Lead is a relatively soft material and some letters have been damaged through impact. The surface is mottled as a result of oxidation.

3.4 Previous interventions

Unfortunately, past attempts to clean or repair war memorials have sometimes been detrimental. Inappropriate methods and over-cleaning can cause irreparable damage. For example, air abrasive methods can cause damage to stone surfaces and inscriptions if not carried out by experienced practitioners. Repairs and fills using very hard cementitious mortars can accelerate the decay of adjacent stonework.

3.5 Detachment of applied lettering

Decay, weathering of adjacent stone and overzealous cleaning methods, such as pressure washing, can all cause the weakening of physical fixings and the loosening and even detachment of applied lettering. Inappropriate cleaning methods may also harm infilled coloured-mortar lettering.

3.6 Theft

The applied metal components of war memorials, particularly lead, copper and bronze, may be vulnerable to theft. Efforts to remove them often damage the surrounding fabric. Heritage crime is any offence which harms the value of the heritage assets and their setting. Historic England has [guidance on reporting heritage crime](#).

[In Memoriam 2014](#) is an initiative between War Memorials Trust and ©Detertech that encourages custodians to protect their war memorials.

4. Assessing condition and conservation need

The legibility of the inscriptions must be balanced against the need to conserve the naturally aged condition of the memorial. Before performing any cleaning or repairs, a condition survey should be commissioned. The survey will determine what, if any, interventions are truly necessary, and will prevent inappropriate treatments, such as over-cleaning, or the unnecessary replacement of original stonework.

The number of people involved in the survey will depend on the scale and complexity of the memorial. A small and simply designed war memorial can be assessed by a custodian. A large and complicated memorial may need a more detailed survey, which might involve an architect, surveyor, structural engineer and specialist conservator. Whatever the size of the project, a general survey should include a structural assessment, which looks at structural stability, and a surface assessment, which details losses and deterioration. It also determines whether the decay is active or stable. More specific questions about the inscription should also be asked, including the following:

- How much of the lettering is unclear? Is there significant weathering over the whole panel or only a few letters in specific areas?
- Is the meaning of the inscription still comprehensible even though some of the letters are damaged?
- Is the inscription illegible due to surface soiling or microbiological growth, rather than weathering of the stone?
- Is there any art historical significance attached to the specific carver or artist who cut the inscription?
- If the inscription, or parts of it, is now completely illegible, are there any accurate records of the original text?
- Is the stone stable enough to allow the lettering to be re-cut or for reinstatement of applied lettering?
- Is there any surviving paint?

Answering these questions will help determine if practical conservation is necessary and what form it should take.

The timing of works is important to consider since it takes considerable resources to undertake. For example, sensitive hand cleaning with water might be undertaken more frequently by the local community, whereas re-cutting lettering should only be undertaken when the inscription is illegible, by an experienced letter-cutter..

It is also important to record the inscription. This is easily done photographically. Taking a rubbing is also useful. It may be necessary to research some of the names which are indecipherable.

Parish records, local libraries, record offices and county and local societies are all good sources of information, as are members of the community who possess letters, photographs, drawings, diaries and other material about the memorial, both current and historic. War Memorials Trust has [helpsheets](#) on researching the history of war memorials and their ownership.

Condition surveys and photographs should be stored where they can be referenced in the future. [War Memorials Online](#) and the [War Memorial Register](#) are freely accessible repositories.

Guidance on war memorial condition surveys can be found in Historic England's [Conservation, Repair and Management of War Memorials](#).

5. Practical conservation

Any proposed conservation repairs should be based on [Principles of practical conservation](#), which ensures that any work is sympathetic to the significance of the memorial. It is important to employ specialist contractors to carry out the tasks appropriately.

Conservation work needs to be programmed to take account of the time to undertake research and secure funding. Work should be scheduled well in advance of any commemorative events, so that work can be programmed and carried out appropriately, rather than rushed. Treatments such as lime mortar repairs should not be carried out when the weather is extremely cold, because this is likely to affect curing.

Before undertaking any work on a memorial, it is important to determine the causes of deterioration and take steps to reduce or eliminate these if at all possible. Once this has been done, the following interventions should be considered step-by-step to achieve the desired improvement in the legibility of the inscription.

Getting consent for work to a war memorial

Many war memorials are included in the [National Heritage List for England](#). This celebrates buildings and monuments of special architectural or historic interest and encourages sympathetic and sustainable management. If a war memorial is included in the List, any proposed work, including sharpening, re-cutting or replacement, may require [Listed Building Consent](#) or [Scheduled Monument Consent](#) or Faculty Consent from the Church of England. This helps ensure that any proposed changes maintain the significance of the memorial and that appropriate methods and materials are used in any repairs. Before carrying out work on a war memorial, it is worth consulting the conservation or planning team at your local planning authority to find out whether permission is needed. [Historic England's Conservation, Repair and Maintenance guidance](#) (Section 4.2) gives further details of the types of works which may need consent.

Principles of practical conservation

Conservation of a memorial should never be thought of solely in terms of practical treatment. It is intrinsically linked to the values that we associate with the memorial, and understanding these values will influence the degree of intervention considered appropriate. Since the mid-19th century, a number of manifestos and charters have sought to identify the principles that should govern the conservation of historic buildings and monuments. These are described in detail in [Practical Building Conservation: Conservation Basics](#) (2012).

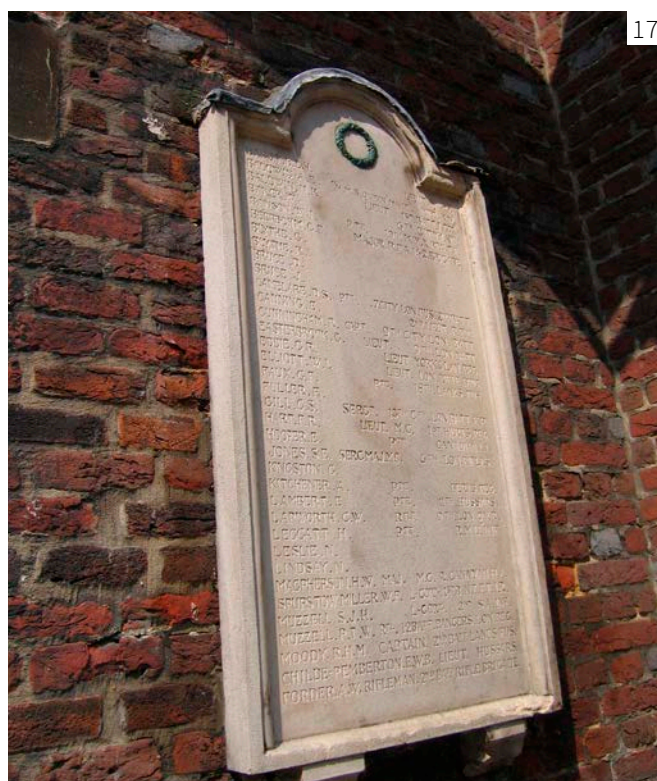
Phrases such as ‘reversibility’ and ‘minimum intervention’ are often used to summarise conservation principles. However, these do not fully answer the complex questions that need to be asked when evaluating the need for work to a war memorial. When considering options for practical repair, there are a number of overriding criteria that should be taken into account:

- Before undertaking any remedial work, try to determine the causes of deterioration and take steps to reduce or eliminate these if possible.
- Only materials that have been demonstrated to be appropriate to the original fabric should be considered. These will normally be the same as or similar to the host material. Where this is no longer possible (for example, the original stone is not available), the technical and aesthetic properties of any replacement must be compatible with the original.
- Any method should aim to involve the least impact to achieve the desired result. This might mean using a gentle water-based cleaning system rather than an abrasive method.
- Interventions should aim to maximise the life expectancy of the memorial while retaining as much of the original fabric as possible. This might mean retaining features if they can be repaired or are still performing their function.
- Interventions should aim for reversibility (that is, they can be removed without affecting the original fabric), although in many cases this may be neither feasible nor practicable.
- Interventions should not preclude repeated or other interventions in the future. This concept of ‘retreatability’ encourages the use of like-for-like repairs, sacrificial repairs and coatings.
- All works should be adequately recorded and the records made available to others. They should be stored where they can be referenced in the future. [War Memorials Online](#) and the [War Memorial Register](#) are freely accessible repositories.

5.1 Carved stone inscriptions

Cleaning

Cleaning can improve the legibility of inscriptions on stone. Removal of soiling can restore the contrast of shadows created by the lettering, particularly on lighter coloured stones. Sensitive cleaning (particularly hand cleaning with water) can often restore legibility without any further intervention. Conversely, inappropriate methods and materials and over cleaning can cause irreparable damage of the stone by chemical decomposition or physical abrasion. Household cleaning products such as bleach are inappropriate since they can react with the stone as well as depositing salts. Further information about cleaning can be found in [Historic England's Conserving War Memorials: Cleaning](#) and series of [videos](#).



Figures 16 and 17: Church of the Annunciation war memorial, Bryanston Street, London. Inscription obscured by calcium sulphate layer, caused by the area being sheltered by the moulding above and remaining unwashed (16). Inscription legible after cleaning (17).

Repair

Small lime mortar repairs can secure vulnerable stone surfaces, which will prevent the loss of lettering details. Raised lettering can be rebuilt using a mortar to reinstate the original profile. This may only have a limited life, but retains as much of the original fabric as possible. Repointing around the inscription panel with lime mortar will inhibit water ingress into the panel, thus preventing further deterioration.

Figures 18 and 19: St Mary's Church, Merton, London. Inscription before (18) and after (19) lime mortar repairs have been applied to the eroded areas to improve legibility and to protect vulnerable areas from further weathering.



Surface protection

Overall surface protective measures, such as limewashing and sheltercoating, can be considered. These are breathable and will provide a protective surface that will safeguard the original stonework. It is important to remember, however, that these applications are sacrificial and will need to be maintained every few years. Localised application of tinted limewashes can also be useful for picking out lettering, thus making it more legible.

Masonry paints, sealants and waterproofers should not be used as they can change the appearance of the stone surface and restrict moisture movement, thereby causing further problems.



Figure 20: Biggin Hill Memorial Museum, Biggin Hill, London. A thin sheltercoat applied to a war memorial made of Maastricht limestone provides a sacrificial, breathable and protective coating to the stone.



Figure 21: St Peter's Church, Cheltenham, Gloucestershire. Tinted limewash applied to incised lettering improves legibility.

Inpainting, re-gilding and refilling

If the letters have lost some of their original paint, gilt or infill, they can be sympathetically retouched to unify the inscription. However, it is essential to correctly match original finishes. Although it isn't generally appropriate to paint inscriptions where there is no historical evidence for it, it can be useful to improve legibility instead of more frequent cleaning. For listed memorials this may require consent.

Coloured infills (mortars, waxes, shellacs, and so on) will require analysis to confirm the original base material and pigments so they can be matched. Artists' acrylics, enamel or oil-based paints can all be used to fill in gaps in painted inscriptions. The choice of paints is important as inappropriate paints (such as household gloss) can be unsightly, block the pores of the stone and be very difficult to remove. The environmental conditions will determine which paint is the best option. For instance, acrylic paint, which is easy to remove, is a good choice for memorials sited indoors, but it is not robust enough to tolerate exterior or very damp conditions, where enamel would be more suitable. Paints such as household gloss paint aren't suitable since its sheen looks out of keeping. In-painting requires precision and skill to undertake well. For gilding gold leaf should be no less than 23 carat. Gold 'paint' would not normally be acceptable as it is made from bronze powders and is likely to oxidise and turn green within a few years.

A [case study](#) illustrating the conservation of mortar-filled inscriptions in Cheltenham is available to download from Historic England.



Figures 22 and 23: Alford war memorial, Lincolnshire. The inscription before and after inpainting.

Sharpening and re-cutting

If the surface is eroded and letters are mostly illegible, sharpening – for example, locally re-carving edges of letters or deepening the ‘V’ cut, or re-cutting the letters – can be carried out if the stone is sound enough and there is an existing record of the wording or names. Re-cutting is a more involved process to restore or recreate the letters when they are nearly lost. It may involve some re-surfacing of the stone. Inscriptions can only be re-cut a finite number of times and should only be carried out as a last resort. As long as the overall appearance is not compromised, the following treatments might be considered to make the panel suitable for the lettering to be re-cut:

- mortar repairs to fill voids or to protect vulnerable edges where stone has been lost
- resurfacing, involving careful removal of loose areas of stone before consolidation or lime mortar fills. Hand abrasive tools such as carborundum stone used sensitively can help prepare the stone surface, whereas abrasive wheels should not be used as they often result in spinning marks that cannot be removed.
- consolidation of friable areas using materials that are compatible with the stone to strengthen the original inscription panel. Consolidants such as nanolime can be effective on limestones and silica-based ones on sandstones. However, these materials can affect the permeability of the stone substrate and should be used as a last resort.

The original style of lettering must be retained. In order to ensure this happens, an experienced letter carver with demonstrable expertise should be appointed. The carver should be able to provide design drawings and examples of previous work for approval. This will help ensure that the work is carried out to the appropriate standard. If the memorial is listed or scheduled then sharpening or re-cutting of inscriptions may need statutory consent. Further information can be found in Historic England’s [Re-cutting video](#), available online.

Figure 24: An experienced letter cutter can sharpen the inscription on a deteriorated stone panel to improve its legibility.



Replacement

If the stone is severely decayed and structurally unsound, it might be necessary to cut out the affected stonework and replace it. This replacement piece should be of the same stone or one compatible with the original. Replacement with other materials or placing new panels over the top of weathered panels should not be done since this can cause adverse reactions and affects the original design. Advice on identifying and sourcing replacement stone for repair can be found in Historic England's publication [Sourcing Stone for Historic Building Repair](#). The style and font of the original inscriptions should be determined from records or adjacent surviving panels and the new inscriptions should duplicate them.

It is important to keep in mind that cutting out an inscribed structural element in order to replace it may damage other areas. It may be better to accept the weathering and record the names elsewhere in the vicinity of the memorial.

Figures 25 and 26: Cheltenham war memorial. Portland limestone indents of approximately 10mm square have been precisely inserted into the original stonework. The letters have then been cut into these and filled with a coloured mortar. A larger Portland limestone indent has been cut to closely follow the area of loss. This has less visual impact than if the indent was cut as a rectangular insert.

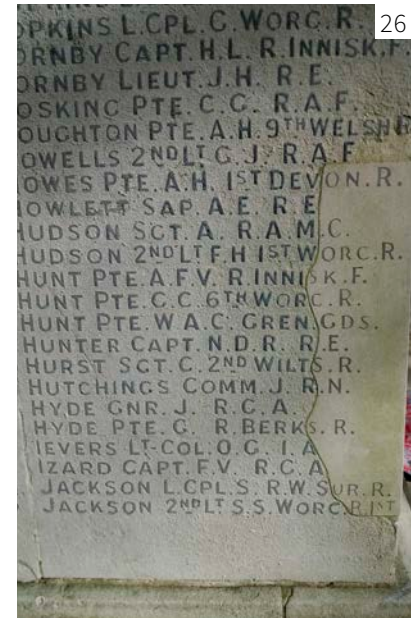
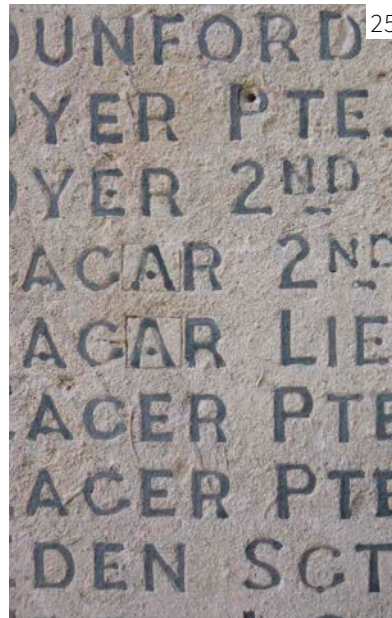


Figure 27: This war memorial at King's Cross station commemorates employees of the Great Northern Railway and the London and North Eastern Railway who lost their lives in the two world wars. The marble panels bearing the names of the fallen formed part of a memorial originally erected in 1920 that was dismantled in 2008 during redevelopment of King's Cross station. The panels were incorporated into this new memorial, which was unveiled in 2013.



5.2 Applied metal lettering

Lead

Damaged lead letters can be repaired by beating lead wool into any splits or damaged areas. Missing infilled letters can be refilled by tamping new lead into the incisions, with the original drilled holes providing the key. This requires a sharply defined incision at the edge of the letter. The finishing must be carefully carried out to avoid disturbing the original surface.

Raised surface letters are reproduced by cutting lead strips to size and beating them into the existing holes. The strip is then trimmed with a sharp chisel and rubbed smooth. Next, the letter is cut out using a variety of shaped chisels before finishing the surface with patination oil or black paint to match the surviving original letters.

Figures 28 and 29:

St Mary Magdalene, Ickleton, Cambridgeshire. Inscription with missing lead lettering (28). The fixing holes are evident as is the original colour of the stone beneath. The inscription after the lead lettering has been replaced (29). Great care needs to be taken to ensure that the font of the replacement lettering is the same as the original.



28



29

5.3 Adding new names

Adding or correcting names on a war memorial are activities which need thorough consideration and research. Understanding and researching why names may or may not have been included is essential, as well communication with the war memorial owner and local community. If the war memorial is listed or scheduled, permission should be obtained from relevant bodies before carrying out any work.

The location, style and method of lettering must be determined. It is not always possible to add new names to the panel, as often the original names have been listed in alphabetical order and spaced to fill the area completely. In some instances, this can require names to be added to an adjacent panel or recorded nearby. [Further information](#) on adding names can be found on War Memorials Trust website.



Figure 30: The war memorial at Ditton, Kent, records additional names on separate panels below the main list.

6. Further reading

6.1 Historic England

Videos

Further information on the conservation of inscriptions on war memorials is available in Historic England's [series of war memorial videos](#), available on YouTube. Topics include:

[Condition and legibility](#)

[Inpainting](#)

[Gilding](#)

[Re-cutting](#)

[Replacement](#)

Web pages and publications

Caring for Historic Graveyard and Cemetery Monuments (web page). <https://historicengland.org.uk/advice/caring-for-heritage/cemeteries-and-burial-grounds/monuments/>

Historic England 2008 *Conservation Principles, Policies and Guidance*. Swindon. Historic England. <https://historicengland.org.uk/images-books/publications/conservation-principles-sustainable-management-historic-environment>

Historic England 2015 *Listing War Memorials in England: A Guide for Volunteers*. Swindon. Historic England. <https://historicengland.org.uk/images-books/publications/listing-war-memorials-in-england/>

Historic England 2015 *The Conservation, Repair and Management of War Memorials*. Swindon. Historic England. <https://historicengland.org.uk/images-books/publications/conservation-repair-management-war-memorials/>

Historic England 2015 *The Listing and Grading of War Memorials*. Swindon. Historic England. <https://historicengland.org.uk/images-books/publications/listing-and-grading-of-war-memorials/>

Historic England 2015 *Types of War Memorial*. Swindon. Historic England. <https://historicengland.org.uk/images-books/publications/types-of-war-memorial/>

Historic England 2015 *War Memorial Parks and Gardens: Introductions to Heritage Assets*. Swindon. Historic England. <https://historicengland.org.uk/images-books/publications/iha-war-memorial-parks-gardens/>

Historic England 2016 *Conservation and Management of War Memorial Landscapes*. Swindon. Historic England. <https://historicengland.org.uk/images-books/publications/conservation-management-war-memorial-landscapes-updated/>

Historic England 2016 *Sourcing Stone for Historic Building Repair*. Swindon. Historic England <https://historicengland.org.uk/images-books/publications/sourcing-stone-for-historic-building-repair/>

Historic England 2017 *Commemorative Structures: Listing Selection Guide*. Swindon. Historic England. <https://historicengland.org.uk/images-books/publications/dlsg-commemorative-structures>

Historic England 2017 *The Setting of Heritage Assets: Historic Environment Good Practice Advice in Planning Note 3*. Swindon. Historic England. <https://historicengland.org.uk/images-books/publications/gpa3-setting-of-heritage-assets/>

Historic England 2019 *Conservation Area Appraisal, Designation and Management: Historic England Advice Note 1*. Swindon. Historic England. <https://historicengland.org.uk/images-books/publications/conservation-area-appraisal-designation-management-advice-note-1/>

Historic England 2021 *Graffiti on Historic Buildings: Removal and Prevention* Swindon. Historic England. <https://historicengland.org.uk/images-books/publications/graffiti-on-historic-buildings/>

Practical Building Conservation series

Aimed at those who work on or look after historic buildings, this series of books looks at the conservation of buildings, materials and systems.

[Building Environment](#) (2014)

[Conservation Basics](#) (2013)

[Glass and Glazing](#) (2012)

[Mortars, Renders and Plasters](#) (2012)

[Stone](#) (2012)

[Concrete](#) (2013)

[Earth, Brick and Terracotta](#) (2015)

[Metals](#) (2012)

[Roofing](#) (2013)

[Timber](#) (2012)

6.2 War Memorials Trust

War Memorials Trust provides guidance and helpsheets on various topics, including inscriptions on stone:

[Adding names](#)

[Inscription principles](#)

[Incised and relief inscriptions](#)

[Researching the names on a war memorial](#)

A complete A–Z of War Memorials Trust helpsheets can be found on their website:
www.warmemorials.org/helpsheets

6.3 Other publications

Ashurst, N 1994 *Cleaning Historic Buildings*, 2 vols. Shaftesbury: Donhead

Ashurst, J and Dimes, F (eds) 1990 *Conservation of Building and Decorative Stone*. London: Butterworth-Heinemann

British Standards Institution 2012 *BS 8221-1:2012 Code of Practice for Cleaning and Surface Repair of Buildings. Cleaning of Natural Stone, Brick, Terracotta and Concrete*. London: British Standards Institution

7. Where to get Advice

7.1 General advice

War Memorials Trust
14 Buckingham Palace Road
London SW1W 0QP
020 7233 7356 or 0300 123 0764
conservation@warmemorials.org
www.warmemorials.org

Historic England
The Engine House
Fire Fly Avenue
Swindon SN2 2EH
01793 445050
HistoricEngland.org.uk

Details of all listed and scheduled war memorials can be found at
HistoricEngland.org.uk/listing/the-list/

7.2 Historical research

Commonwealth War Graves Commission
2 Marlow Road
Maidenhead
Berkshire SL6 7DX
01628 634221
www.cwgc.org

War Memorials Online
War Memorials Trust
14 Buckingham Palace Road
London SW1W 0QP
020 7233 7356 or 0300 123 0764
www.warmemorialsonline.org.uk

War Memorials Register
c/o Imperial War Museums
Lambeth Road
London SE1 6HZ
020 7207 9851/9863
www.iwm.org/memorials

7.3 Conservation professionals

Building Conservation Directory
c/o Cathedral Communications Ltd
High Street
Tisbury
Wiltshire SP3 6HA
01747 871717
info@buildingconservation.com
www.buildingconservation.com

Conservation Register
(for conservators of materials)
c/o The Institute of Conservation
Radisson Court, Unit 2
219 Long Lane
London SE1 4PR
020 3142 6799
conservationregister@icon.org.uk
www.conservationregister.com

Conservation Register
(for conservation architects)
c/o Royal Institute of British Architects
66 Portland Place
London W1B 1AD
020 7580 5533
conservation.register@riba.org
www.architecture.com/working-with-an-architect/conservation-register

Directory of Accredited Conservationists

c/o Chartered Institute of Architectural Technologists

397 City Road

London EC1V 1NH

020 7278 2206

info@ciat.org.uk

<https://architecturaltechnology.com/joining/specialistregisters/conservation-register-new.html>

National Association Of Memorial Masons

1 Castle Mews

Rugby

Warwickshire CV21 2XL

01788 542264

www.namm.org.uk

Register of Accredited Building Conservation Surveyors

c/o Royal Institution of Chartered Surveyors

Parliament Square

London SW1P 3AD

0870 333 1600

contactrics@rics.org

www.rics.org/uk/join/member-accreditations-list/building-conservation-accreditation

Register of Architects Accredited in Building Conservation

AABC Register

No. 5 The Parsonage

Manchester M3 2HS

0161 832 0666

info@aabc-register.co.uk

www.aabc-register.co.uk

7.4 Contact Historic England

East of England

Brooklands
24 Brooklands Avenue
Cambridge CB2 8BU

Tel: 01223 582749
Email: eastofengland@HistoricEngland.org.uk

Fort Cumberland

Fort Cumberland Road
Eastney
Portsmouth PO4 9LD

Tel: 023 9285 6704
Email: fort.cumberland@HistoricEngland.org.uk

London and South East

4th Floor
Cannon Bridge House
25 Dowgate Hill
London EC4R 2YA

Tel: 020 7973 3700
Email: londonseast@HistoricEngland.org.uk

Midlands

The Foundry 82 Granville Street,
Birmingham B1 2LH,

Tel: 0121 625 6888
Email: midlands@HistoricEngland.org.uk

North East and Yorkshire

Bessie Surtees House
41-44 Sandhill
Newcastle Upon Tyne NE1 3JF

Tel: 0191 403 1635
Email: northeast@HistoricEngland.org.uk

37 Tanner Row
York YO1 6WP

Tel: 01904 601948
Email: yorkshire@HistoricEngland.org.uk

North West

3rd Floor, Canada House
3 Chepstow Street
Manchester M1 5FW

Tel: 0161 242 1416
Email: northwest@HistoricEngland.org.uk

South West

Fermentation North (1st Floor)
Finzels Reach
Hawkins Lane
Bristol BS1 6JQ

Tel: 0117 975 1308
Email: southwest@HistoricEngland.org.uk

Swindon

The Engine House
Fire Fly Avenue
Swindon SN2 2EH

Tel: 01793 445050
Email: swindon@HistoricEngland.org.uk

8. Acknowledgements

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