

4.1 Legal protection

4.1.1 Local authorities can use existing legislation to extend appropriate protection to carved stones. For example, local authorities have the same powers as the Scottish Ministers to take ancient monuments into care (sections 11-16 of the Ancient Monuments and Archaeological Areas Act 1979 (the 1979 Act) refers) or to enter into management agreements with the occupier of an ancient monument (section 17). Local authorities also have an invaluable role to play in protecting the setting of monuments, whether scheduled or listed, through the planning process (see Appendix B).

4.2 Raising awareness

4.2.1 People are encouraged to report a concern about an urgent and active threat to an important carved stone direct to the owner and the appropriate authority (Historic Scotland for scheduled ancient monuments, the local authority for the remainder).²¹

4.3 Conservation strategies and practice, including intervention

Principle of minimum intervention

4.3.1 The principles of minimum intervention and sustainability should apply in any conservation works associated with a carved stone. Interventions need to be justified on conservation grounds, appropriate, carefully considered, authoritatively based, properly planned and executed and, where possible, reversible. Historic Scotland, in liaison with others, provides guidance, including guidelines for treatment of specific categories of carved stones (see Further Reading).

Figure 16 The relationship of a carved stone to its cultural and natural setting is an important consideration during the conservation planning process. At Achnabreck, Argyll and Bute, trees surrounding the prehistoric rock art have been felled enabling the visitor to appreciate where the carvings sit in the landscape and why they might have been carved here.



²¹ In the case of Category A listed buildings, the local authority needs to forward relevant enquiries to Historic Scotland.



Figure 17 At Kilmory Knap, Argyll and Bute, the medieval chapel has been sensitively reroofed to create a suitable shelter for a collection of early medieval and later sculptures gathered from the site.

Assessment of significance and conservation strategies

4.3.2 Conservation strategies for individual carved stones or collections (and their associated monument or landscape) should be determined by an understanding of their cultural significance and their conservation needs. The cultural significance of a carved stone is embodied in:

- its fabric, design, context and setting (Fig 16)
- in associated documents
- in its use
- in people's memories and associations with it ('social value').²²

It is best understood by a methodical process of collecting and analysing all the relevant information, drawing on appropriate expertise. Significant gaps in knowledge should be identified and addressed so that conservation strategies are underpinned by appropriate inter-disciplinary research.

Conservation plan format should be adopted, where applicable (see Further Reading, e.g. for Management Plan format for graveyards).

4.3.3 It is particularly important that the conservation strategy takes into consideration the relationship of the carved stone to its natural and cultural surroundings. Only rarely is a culturally significant carved stone self-contained within definite boundaries – there is usually a visible link to its broader environment, or the carved stone may be part of a larger monument or cultural landscape, all

or part of which contributes to an understanding of its historical context. Care of a carved stone may therefore sometimes involve actions outside the immediate (legal) boundaries around the carved stone, or be better addressed as part of a holistic approach to a monument or historic landscape (such as a graveyard).

4.3.4 There is a presumption in favour of the retention of the physical association of a carved stone with its locality, where this is feasible. The importance of the precise present location to the overall significance of the carved stone and its site therefore requires careful assessment before any decisions are made about moving it. Where a carved stone which still possesses visible monumental qualities is believed to be *in situ* or in a place of significance, the presumption is that it will not be moved unless the importance of retaining it there is outweighed by demonstrable conservation needs that cannot be satisfied in any other way. Such considerations also need to take into account not simply archaeological and historical factors, but also social and economic ones. In the case of some carved stones that are found beneath the present ground surface, reburial may be the most appropriate course of action.

4.3.5 Where it is in the best conservation interest of known carved stones that they are removed, it is normally preferable that they are located as close as possible to where they are being removed from, providing that curatorial needs can be satisfied (e.g. in an appropriate existing local structure or registered museum). Individual circumstances will dictate how 'local' local can be, but the expectation is that this would normally be associated with the same site or geographical area (Fig 17). It is advisable to check with the TTAP whether there are any legal implications for ownership before moving a known carved stone. New discoveries will certainly be subject to treasure trove procedures.

4.3.6 If considering moving a carved stone, particularly if moving to a new structure, consideration needs to be given to:

- future public access to the structure and its contents, and how these can be displayed
- long-term responsibility for conservation of the carved stone, including regular monitoring and access to specialist conservation skills
- long-term stability and maintenance responsibilities of the structure housing the carved stone

²² For social value see Jones 2004 *Early Medieval Sculpture and the Production of Meaning, Value and Place*.

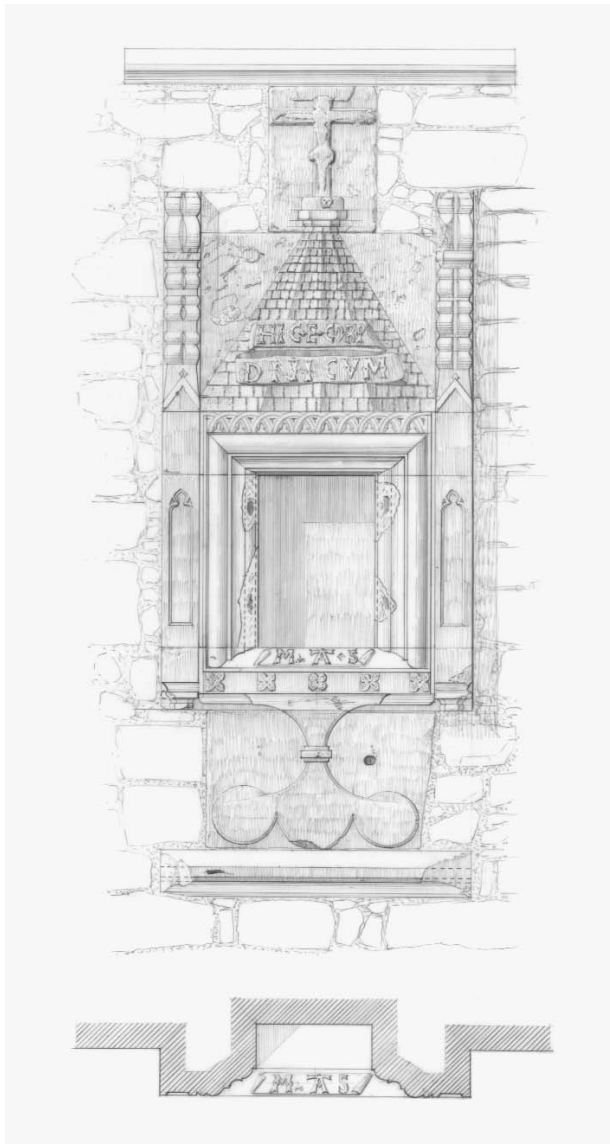


Figure 18 The RCAHMS continues to produce detailed record drawings of carved stones of all periods: the early 16th-century sacrament house at Auchindoir, Aberdeenshire. Crown copyright: RCAHMS.

- how the carved stone can be safely relocated, both with reference to the carved stone itself and the health and safety of those persons involved in the project.²³

Importance of recording

4.3.7 Full recording is encouraged, especially where continued preservation is no longer possible or where unavoidable loss is taking place through change or ongoing decay (Fig 18). The aim should be to prioritise those carved stones known to be most at risk. Of these, the better surviving carved stones should have priority over poorly preserved examples, unless the latter are typologically

²³ For Health and Safety guidance in the context of graveyards and gravestones see Historic Scotland 2003b Electronic Graveyard and Gravestone leaflets 4, 5 and 6.



Figure 19 The 9th-century Dupplin Cross is removed for conservation and relocation in 1998. Prior to this the surrounding area has been excavated by professional archaeologists seeking evidence for the history of its use on this site.

important (this requires assessment by those with appropriate expertise).

4.3.8 Rubbings or squeezes should only be made of carved stone surfaces in very exceptional circumstances; chalks or other substances should not be applied to the surface to enhance their visual appearance, however temporarily. In those exceptional circumstances where rubbing may be desirable for recording purposes, the correct protocol should be followed (see Appendix C). With regard to laser scanning, this requires specialist consideration of the possibility that it will alter the archaeo-luminescent status of the surface layers of the stone (it has been suggested that this may affect future dating potential).

4.3.9 Stones should be fully recorded in advance of their removal or enclosure in order to recover information relating to construction, erection, functions (including secondary uses) and broader landscape and historical context. Full archaeological provision should be made for any disturbance of the ground associated with the relocation of a carved stone (Fig 19).

Understanding the immediate context from which a carved stone comes will usually entail exploration of an area larger than that strictly necessary to lift the carved stone. The research, excavations, publication and archives should be to an appropriate



Figure 20 The conservation of carved stones requires the skills of a professional stone conservator: work on the Howmore armorial panel from South Uist, Western Isles.

professional standard, in line with Historic Scotland operational policy on publication and archiving.

Treatment of surfaces

4.3.10 As a general rule, carved stones should only be cleaned when the need has been identified and this will not harm the stone. Even gentle brushing with a soft bristle brush and rinsing with clean water has the potential to cause irreversible damage to porous stone. Cleaning should be undertaken by a professional conservator (Fig 20).

4.3.11 Many lichens cause no damage to stone and may, in some circumstances, have a protective effect. Some do cause damage and their growth on important carved stones should be monitored and controlled. Some lichens are rare so the advice of a lichenologist should be sought before removing lichen or relocating a stone with lichen growth, since change in orientation and light conditions can kill lichen. It is also necessary to check in advance whether the type of lichen is protected by law.

4.3.12 Moss can have a protective effect, especially on flat carved stones, and should only be removed where there is clear evidence that the growths are having a detrimental effect on the integrity of the stone (e.g. they are causing enhanced deterioration or increased frost damage). However, it is advisable to remove moss from the top surfaces of sandstone upright stones, such as gravestones, to prevent the downward penetration of roots (root damage will depend on how hard the stone is).

4.3.13 Carved stones, including gravestones or gravestone inscriptions, should not be painted as this may harm the stone. Where there is evidence that paint was applied as an original feature, seek professional advice from a conservator before re-painting.

4.3.14 Seek specialist advice to deal with graffiti as inappropriate treatment can cause irreversible damage.

4.3.15 Research into the effects of the use of biocides on stone is still ongoing²⁴ so it is difficult to say yet whether their application to carved stones is advisable. Published research to date has confirmed that the efficacy of biological applications was generally limited, that health and safety considerations need to be fully taken into account and the need to consider other methods of controlling biological growths.²⁵

4.3.16 Where an inscription has been lost from a gravestone, recutting the stone should not be undertaken. It is preferable to position a plaque, with new, additional or existing text reproduced, in the ground at the front of the original tombstone.

Buried stones and deturfing

4.3.17 Deturfing of buried carved stones is not normally recommended because of the potential to do more harm than good to the condition of the stone and its immediate surroundings. The Carved Stone Adviser Project is developing a protocol for temporary deturfing of non-scheduled gravestones in advance of recording.²⁶ Any new discoveries must be reported to the TTAP (see Appendix A).

Design of shelters

4.3.18 Protective shelters or enclosures for carved stones should be designed to create the correct internal environment for the carved stone with due regard for the surrounding conditions and location. A stone conservator should be consulted on the relocation of carved stones into any different environment in order that future potential problems from soluble salts, etc can be addressed before

²⁴ A European partnership project involving Historic Scotland, Biodam, is researching how to control biological growths on stone: <http://biodam.biogema.de/>.

²⁵ Cameron *et al* 1997 provides the best source to go to for information on the complexities of controlling biological activity on stone.

²⁶ See www.scottishgraveyards.org.uk



Figure 21 Shelters for carved stones need to balance protection of the monument with allowing as much public access as possible: Sueno's Stone, Moray, a 9th-century cross-slab illuminated at night.

damage occurs. The design of shelters should allow for as much visibility of all sides of the monument as possible. The security of the structure and the carved stones that it houses is also paramount (Fig 21).

Use of replicas and markers

4.3.19 Carved stones that are to be moved can be replaced with an appropriate replica (which should be clearly labelled as such) or marker. Replicas should be created using techniques that are non-destructive of the original fabric. Moulds and casts from carved stones should not normally be undertaken since such techniques may cause damage to the stone surface. Alternative routes towards replication should be sought, such as 3D laser scanning. In the exceptional circumstances when casts are made, this should only be undertaken by a professional conservator after assessment of whether this will harm the carved stone and of the most suitable techniques to be used. Prior permission is needed to make casts from scheduled ancient monuments.



Figure 22 The modern replica of a Pictish cross-slab at Hilton of Cadboll, Highland, is sited away from the most archaeologically sensitive parts of the site.

4.3.20 Replicas and markers need to be dated in a permanent manner, i.e. self-documenting modern monuments. A replica will not involve any conjectural restoration, while accompanying interpretation ought to make it clear that what is seen is a replica and how its form relates to the original.

4.3.21 Where the site of an above-ground carved stones is significant (if in their primary position or the cultural significance of the secondary location can be demonstrated) any replica should normally be sited where the carved stone has been removed from. Where the original location of the carved stone is not known or there will be an adverse impact on other cultural heritage values (such as archaeological remains or the setting of a monument), it may be more appropriate to site the replica elsewhere. However, its location, form and orientation should still be informed by the prevailing understanding of such monuments. Prior archaeological evaluation of the site of the replica may be required (Fig 22).



Figure 23 Mounting sculptures, particularly when highly fragmentary, is an enormous challenge if the carved stone is not to be damaged in any way: St John's Cross, Iona.

Long-term monitoring and maintenance

4.3.22 Carved stones, particularly those not in museums, require regular programmes of monitoring and maintenance.

4.3.23 The effects of any interventions to carved stones should also be monitored so that this knowledge can be disseminated and fed into future conservation strategies.

Skills for the job

4.3.24 It is important that those working on carved stones should have the appropriate training, skills and experience for the job.

Mounting

4.3.25 Where carved stones require to be made structurally stable by placing them on a mount, this should not involve any physical destruction or abrasion of the fabric of the stone. Mountings for carved stones should be sympathetically designed and constructed so as to facilitate the easy removal of the carved stone at any time for conservation treatment or maintenance of the surrounding fabric (Fig 23). Cushioning should be provided as an

interface between a metal support and carved stone to prevent abrasion damage. If metal is being used for brackets, non-ferrous metals (and 316 stainless steel) are recommended for outside or humid conditions; in a dry internal environment a coated mild steel may be acceptable. A stone conservator should always advise on what is appropriate.

Storage

4.3.26 Carved stones should be stored in such a way that they are secure and free from inadvertent damage, yet as publicly accessible as possible. Stones placed in storage should be isolated from one another and be protected from any external influences that might affect their long-term preservation. The storage environment itself should also be conducive to their long-term preservation.

Reforming or joining carved stones

4.3.27 Where presentation and mounting of the carved stone requires parts of the stone to be reformed, or stone fragments to be joined, the modern fabric should be self-documenting (the monument can tell its own story without recourse to written documents), identifiable on close inspection, and should not be aesthetically invasive or disturb the coherence of the whole. The compatibility of the material used in the repair should be well researched. Reconstruction (through the addition of new material) of even limited parts of a carving should generally be avoided unless there is clear evidence upon which to base all elements of this and its presence will directly aid consolidation and presentation of the sculpture in question.

4.3.28 Repairs of gravestones will require the use of non-ferrous dowels of suitable length and either a thixotropic resin (for clean breaks) or lime mortar (for wider joints). For repairs to stone, hard cement mortars should be avoided and lime mortar only used. Lifting stones must only be carried out under specialist supervision and it should be recognised that friable stones are liable to break-up if lifting is attempted.²⁷

Portable carved stones

4.3.29 Theft is a serious risk to portable carved stones that are not in a secure and supervised

²⁷ See Historic Scotland 2003b Graveyard and Gravestones Electronic Leaflet 6.

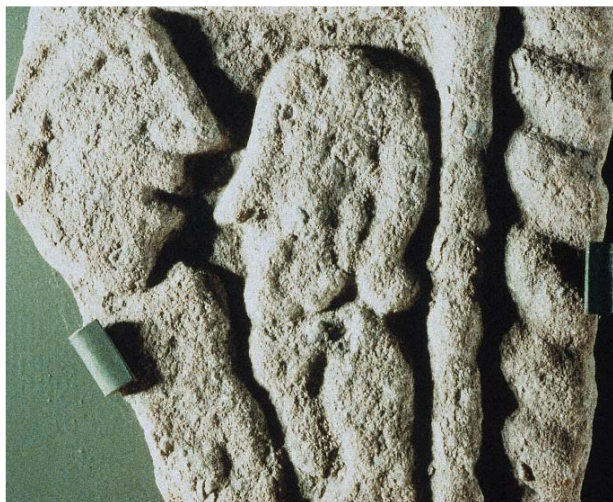


Figure 24 Portable carved stones are at risk unless properly curated, and even the tiniest fragment can be highly significant: Anglo-Saxon carved stone from Jedburgh Abbey, Scottish Borders.

location. Significant collections of vulnerable portable sculptures can be found throughout Scotland (Fig 24). Owners and others with responsibility for the cultural heritage in their areas are encouraged to address this issue, which Historic Scotland addresses at our properties in care through an active programme of collections management.

4.4 Research and information

Research

4.4.1 Research underpins best conservation, management, interpretation and presentation practice.

4.4.2 Research into carved stones should employ non-destructive techniques (visual assessment, laser scanning, magnetic susceptibility and x-ray diffraction, for example, taking into account concerns about loss of archaeo-luminescent information). Only in exceptional circumstances, and when there is no threat to the long-term significance or conservation of the carving in question, should any form of destructive analysis, however minor, be considered. Any cores and samples require documentation and long-term curation to ensure availability for future scientific study.

Interpretation

4.4.3 Making carved stones accessible to as wide an audience as possible applies not just to people who are able to visit carved stones for themselves (there is no substitute for experiencing the original and authentic remains), but also to those dependent on remote access. Such interpretation should be

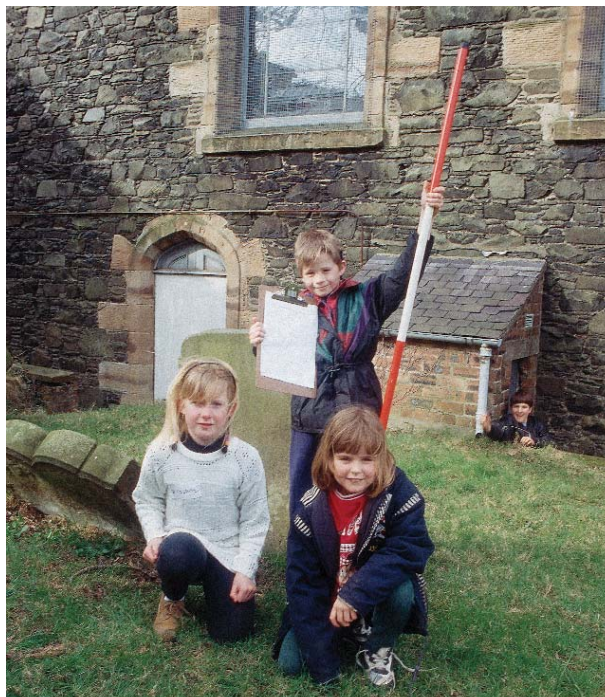


Figure 25 Carved stones are of high educational value: Council for Scottish Archaeology Young Archaeologists Club records a graveyard in Stranraer, Dumfries and Galloway. Copyright CSA.

designed to meet the needs of all, including people with disabilities that might make visiting or appreciating the originals difficult (e.g. provision of copies that can be touched or off-site interpretation).

Education

4.4.4 The social, historical, architectural and artistic interpretation of carved stones, whether *in situ* or *ex situ*, provides not only the capacity to support formal learning and teaching in Scottish schools across a range of subject areas, but also the inspiration for a variety of community-focused lifelong learning initiatives. Learning about distinctive local heritage can be placed in a national context, thus heightening awareness of the important contribution local heritage makes to our understanding of national identity and culture. Furthermore, it can help engender a sense of pride in the local community which may contribute to the longer term conservation of carved stones for future generations (Fig 25).

Provision of technical guidance and training

4.4.5 Historic Scotland recognises the value of involving as many people as possible in caring for their local heritage of carved stones. To be effective and provide best value for money, support, training and co-ordination are required, as well as the identification of local priorities for action.