



**PHOTOGRAPHING
CARVED STONES**

TOM E GRAY AND LESLEY M FERGUSON

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PHOTOGRAPHING CARVED STONES

**A Practical Guide to
Recording Scotland's Past**

TOM E GRAY AND LESLEY M FERGUSON

The National Committee
on the Carved Stones of Scotland

in association with

HISTORIC SCOTLAND



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Front cover: *Pictish symbol stone at Logie Elphinstone, Aberdeenshire*; back cover: *medieval graveslab set into the wall of Torthorwald Parish Church, Dumfries.*
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THE PROTECTION OF CARVED STONES

The unparalleled geological treasury which made Scotland the home of modern scientific geology also gave it the potential for an unmatched heritage of carved stone monuments and architectural ornament. An abundance of carving and sculpture provides a record literally 'set in stone' of successive waves of cultural enrichment, a uniquely valuable insight into Northern European artistic development. The prehistoric and carved stone monuments of the Pictish and early Christian periods are well known, but Scotland boasts equally important collections of medieval and post-medieval carved stones.

Sadly this rich heritage has not always been recognised or preserved as it deserves. Even today, when a large number of carved stones are statutorily protected, either by scheduling or listing, many are neglected and in poor condition.

Even where carved stones appear to be in good condition, they may be adversely affected by well-intentioned attempts at conservation. They may be irreparably damaged by lifting, or moving fallen stones to set them upright, excavating around them to expose hidden parts or attempting to clean off moss and lichen to enable a better view. All such 'contact' operations should only be carried out by qualified and experienced conservators and may, indeed, require formal permission in the form of Scheduled Monument or Listed Building Consent.

Historic stone surfaces may be surprisingly friable or tend to delaminate. The roots of mosses and lichens in particular can be deeply embedded into the stones, and removal by brushing or scraping can blur important historic detail, or efface it permanently. Similarly, the abrasion required by the application of chalk, making

presses, moulds or rubbings can lead to grain loss. Irreversible damage and discoloration can also be caused by waxes and dyes, even when carried out with the best of intentions by those who want to appreciate the beauty of the stones. Spraying with chemicals, or just wetting with water, can also introduce harmful salts into delicate stones, and make them susceptible to frost and crystallisation damage, and accelerate decay.

As part of its ongoing nationwide programme of conservation research and education, Historic Scotland is keen to encourage the recording of carved stones, but this needs to be undertaken with care and appropriate guidance. Photographic records, by professional and amateur alike, provide a crucially important resource in protecting and preserving carved stones. It is precisely because it does not require physical contact or intervention that photography is such a valuable primary tool for recording the condition of historic carved stones.

Supported by Historic Scotland, this publication by the National Committee on the Carved Stones of Scotland is to be welcomed by all who care for Scotland's heritage. Written by the well-known photographer of carved stones, Tom E Gray, and by Lesley M Ferguson of the Royal Commission on the Ancient and Historical Monuments of Scotland, it is illustrated by Tom E Gray, Ian Gray, formerly of Historic Scotland, and the Photographic Department of RCAHMS, and edited by Anna Ritchie.

Ingval Maxwell

Director, Technical Conservation,
Research and Education Division
Historic Scotland

May 1997

PHOTOGRAPHIC RECORDING OF CARVED STONES

TOM E GRAY

The background to my advice on photo-recording is forty years in and around professional photography, including twelve years of museum, art gallery, and architectural work. I have also had a life-long interest in prehistory and history prior to about AD 1200. All this was combined in eight years of retiral in a concentrated project to photograph as much Dark Age sculpture as possible. This has been accomplished using relatively simple equipment such as many enthusiastic amateur photographers might possess.

This booklet is aimed at members of local societies or individuals who wish to make a photo record of medieval carved stones of the period from about AD 500 to the 16th century. A vast photographic knowledge is not required, and it is worth bearing in mind that even the simplest snapshot is a valuable record of a sculptured stone in time, place, and condition. For the more advanced work many societies will often have at least one enthusiastic photographer with the right kind of equipment, and if not it may be consoling to know that a suitable medium format camera with a couple of flashes can be had second-hand for less than the price of a good 35 mm single-lens reflex.

Much of what is written here will apply to the recording of later material, but this is covered very competently in Willsher (1985).

Photography is a non-destructive method of creating a permanent record, which, if properly done, can result in a print showing detail on worn stones that is scarcely visible, if at all, to the eye (illus 1) and which can then be used to produce a drawing if so wished.



1 *Fetterangus, NGR (National Grid Reference) NJ 981505, Allen and Anderson 1903, 164. A stone which the literature suggests is illegible but grazing light from one flash has revealed all three elements, cauldron, mirror case and harp-like object. This was done at dusk when the light was so poor that I had to use a powerful torch on the stone to set up the shot in the camera viewfinder. Such work could be done with the 35mm camera with its flash synchronisation limited to 1/60th second. TE Gray, neg no 3711, Sept 1990.*

CAMERAS

The very widely used 35mm single-lens reflexes such as Pentax, Olympus, Canon, and Nikon are excellent for much of this work when using natural light alone. The auto-compacts by the same makers, depending on make, price and specification, are also useful, although their usefulness may be limited to very dull days or night-time. The reason for this will be explained in greater detail in the practical section on lighting. This certainly limits the ability to carry out a sustained project on a lot of stones in a variety of working situations, where the object is to produce a quantity of top-quality monochrome work for archive or reproduction. The built-in flashes on many cameras are of little or no use in this field.

The technique of multiple separate flashes combined with daylight, used at an oblique angle to reveal the detail on very worn stones, is best used with a camera with between-lens shutter which synchronises up to 1/500 sec. This almost limits you to 120 rollfilm cameras of Mamiyaflex, Rolleiflex, Bronica, Hasselblad type, but it is certainly the method which yields the most satisfying rendering of detail on worn stones which is sometimes almost invisible to the eye. Such rollfilm equipment need not be expensive. Rolleiflex/Yashicamat/Minolta Autocord/Mamiyaflex twin lens models can be had second-hand in good condition for less than the cost of many modern 35mm single-lens reflexes, and a couple of suitable flashguns need not cost the earth. Many local history groups or societies are likely to have at least one enthusiastic amateur photographer member who possesses such equipment. Specialist photographic equipment shops are the most reliable source of information and help, and they often have such equipment for sale second-hand.

Special terms used in this booklet are explained in the glossary.



2 Collesie, NGR NO 293133. A stone 2.7 m (9ft) high where even a 2 m tripod was barely tall enough. I would have liked to get up level with the top of the stone to reveal more clearly in a detail shot the unusual hair style. A single flash. TE Gray, neg no 3720/1, Nov 1990.

TRIPODS

The use of a good solid tripod is essential for careful, accurate, considered work. One which extends to a height of seven feet or more can be very useful for sculpture in an elevated position (illus 2), but by implication you also need a light-weight set of aluminium steps in order to be able to see in the camera viewfinder!

LENSES

Probably 75 per cent of photographs of carved stones can be taken with the standard lens, ie 50mm on 35mm, 80mm on 120 rollfilm.

For stones in a confined space or behind railings, a wide-angle lens can save the day. Moderately wide-angle lenses (24 or 28mm on

35mm film, 50mm on 120 rollfilm) are virtually distortion free. Some of these lenses are available with a perspective control movement, which enables correction to be made on the negative to avoid the convergence of architectural verticals. Those who do not possess perspective control lenses but who do their own darkroom work will find that correction under the enlarger of distorted verticals works well. The writer has done this for many years using a home-made calibrated tilting baseboard with complete satisfaction.

Extreme wide-angle lenses can produce distortion problems.

Very occasionally for stones in an awkward position, high on a wall, or in difficult landscape, a longer focal length can be used.

FLASHES AND SUPPORTS

Flashguns powerful enough to have a guide number of at least 110, or preferably 150, in feet are necessary for the flash technique described later, when the use of the guide number will be explained. Lighting stands to support these guns are necessary, as are long leads (at least 4m). Unfortunately modern photo lighting stands are U-section alloy. The writer uses two ancient (pre-Second World War!) steel stands, and steel music stands have been seen which could be suitably robust and might be adapted for photography. Lightweight camera tripods with individually adjustable legs could prove very satisfactory for supporting the flashes.

It should be evident by now that to carry camera, meter, tripod, and two flashes with stands, any distance, a helper could be very desirable! The writer has not yet found an entirely suitable method of carrying all this equipment, sometimes walking ten-mile round trips to remote preaching crosses! It is the awkward shapes of tripod and lighting stands rather than the overall weight that causes problems. A rucksack can be used for camera, flash gear, and ancillary bits and pieces, but tripod and lighting stands are less easy to accommodate. Golf and shopping trolleys have been tried but are pretty useless on rough terrain.

For work indoors, where power points are available, a couple of modern domestic light stands fitted with 100-watt reflector-backed floods are ideal and allow the operator to study exactly what the light is doing in the way of revealing detail. Exposures may be several seconds but this is no problem with a firmly supported camera. If the budget extends to it, proper photo lighting stands using photoflood lamps permit shorter exposures but really offer little other advantage.

MATERIALS

The professional archaeology/art history requirement for an archive is still heavily in favour of monochrome photography, for its flexibility and long-term stability, and for the crisp contrast which renders the stones so well. Film of speed 100 ASA is ideal, especially if the camera is on a tripod. If the camera has to be hand held, or if the light is very dull, modern fast monochrome films of 400 ASA are sufficiently grain-free to be employed with every confidence, especially as it is unlikely that prints larger than 13 x 18cm (5 x 7ins) or 20 x 25cm (8 x 10ins) will be required.

For those who process their own monochrome film, there is little point in chopping and changing developers and techniques. Indeed everything is to be gained by standardising on one film, and a developer of D76 type, and getting to know the combination thoroughly.

Most amateur cameras nowadays are loaded with colour negative film, and the laboratory printing of these is of quite high and consistent quality, sufficient for recording. There is still a slight question, however, about the long-term stability and sharpness of the negatives and prints, as compared to monochrome.

For those readers who do their own black and white printing, it is well worth noting that, as stones are almost monochrome anyway (grey stone, green grass), these colour negatives print perfectly well as black-and-white on monochrome variable contrast paper, Kodak Polymax or the equivalent.

Colour transparency film can be highly desirable for lecturing purposes. Again the

question of long-term stability of the results arises. Kodachrome film is still considered to be best in this field; a life of 100 years has been quoted, with other makes of film close on its heels (eg Agfa, Fuji). Choice of film speed to be used with either negative or transparency colour film is much the same as with monochrome, somewhere around 64–100 ASA being first choice for quality and sharpness, and the faster ones in reserve for awkward situations.

To cover all eventualities, two cameras, or one of the rollfilm cameras which allows the use of interchangeable film backs, will allow both monochrome and colour to be tackled.



3 Aberlemno no 3, NGR NO 552558, Allen and Anderson 1903, 214. Using sunlight only. Had I used a standard lens, I would have had to risk life and limb in the middle of the road! This was one of those few occasions in this work where a telephoto lens was useful, allowing me to stand on the opposite verge. TE Gray, neg no 4015/2, Aug 1993.

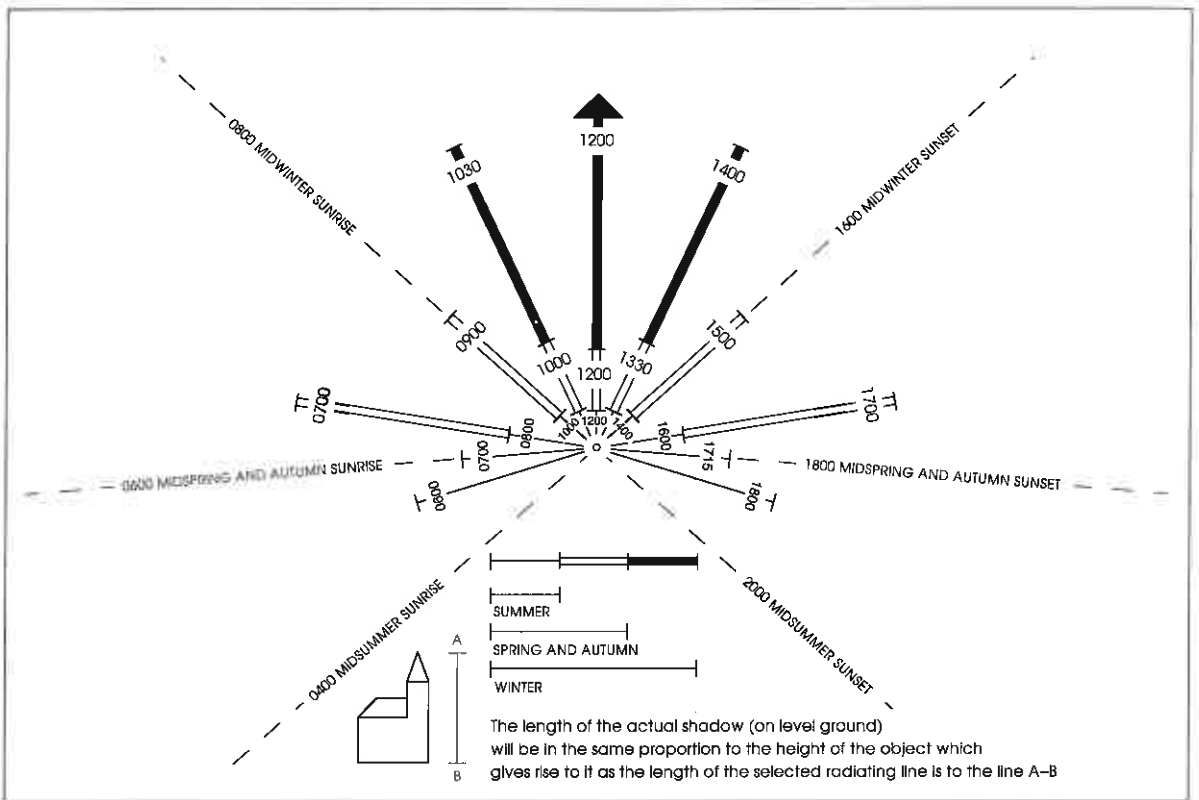
LIGHTING

Of all the factors involved in the production of first-class results showing good tonal rendering, and most important of all, fine detail, especially in worn stones and sculpture, the right lighting comes highest in the list. The ideal lighting is almost invariably a crisp clear sunlight at a grazing angle of 5 to 15 degrees across the surface of the stone (illus 3). Stones with high relief usually demand less of a grazing angle in order that detail is not lost in the deeper hollows. The worn incised Pictish symbol stones and simple early Christian crosses need a very sharp grazing angle indeed to bring out features which can scarcely be seen by eye.

To be sure of the correct lighting usually means a prior visit to the stone, compass in hand, to measure the orientation of the main face. Referring to the Sun Direction Indicator diagram (illus 4), it is then possible to forecast to within about 20 minutes just when one should be on the spot for the best sharp-angled light. Arrive a little early and watch the best lighting angle gradually develop.

All of what has been said so far about lighting obviously applies to those stones which are suitably placed to get the correct angle of sunlight at some time of the day. Working in sunlight, especially when there are white clouds around, fulfils one of the prime requirements of fine photography. This is that the amount of light falling on the subject from the sun should be three or four times stronger than that light which reaches the shadows, reflected from the white clouds. This is what skilled photographers call the ideal 4–1 lighting contrast. In these natural light situations the modern 35mm single-lens reflex will do a first-class job.

But what of those stones which face north, or are in a dark wood (illus 5) or are inside? Or you need to do six stones in one day and you cannot be at all of them at the right time for the sun?



4 Sun Direction Indicator. This, when used with a compass bearing from the major face of a stone, allows the photographer to work out to within about 20 minutes when to arrive to get the angle of the sun which gives best rendering of detail.

Or the stone may have carving on front, back and sides, which could mean four visits if you want to get the correct angle of sunlight for all four, which may never happen!

If you are working with the camera on a tripod in poor light, it is perfectly possible to use a longer exposure, and you will get a record of the stone, but, as the lighting is not the most suitable, the end result will indeed show that the stone exists, but it will almost certainly not bring out the detail of the stone, especially if it is badly worn.

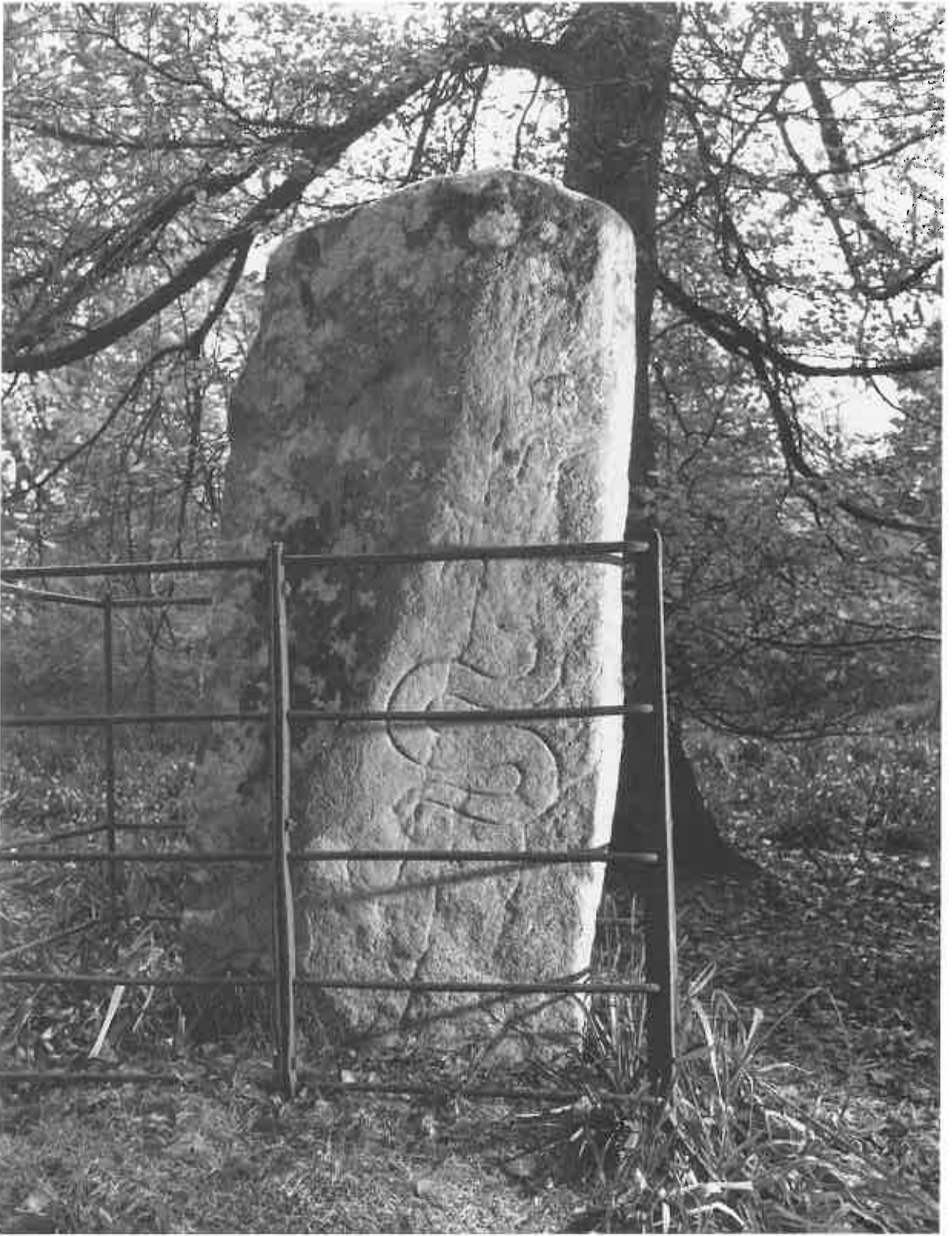
FLASH COMBINED WITH DAYLIGHT, THE PERFECT ANSWER

It is here that single or multiple flash comes into its own. Flashguns come in two forms. The entirely automatic gun incorporates a small photocell in the body of the gun, which 'reads' the light reflected back from the subject and shuts off the flash when the correct exposure is reached.

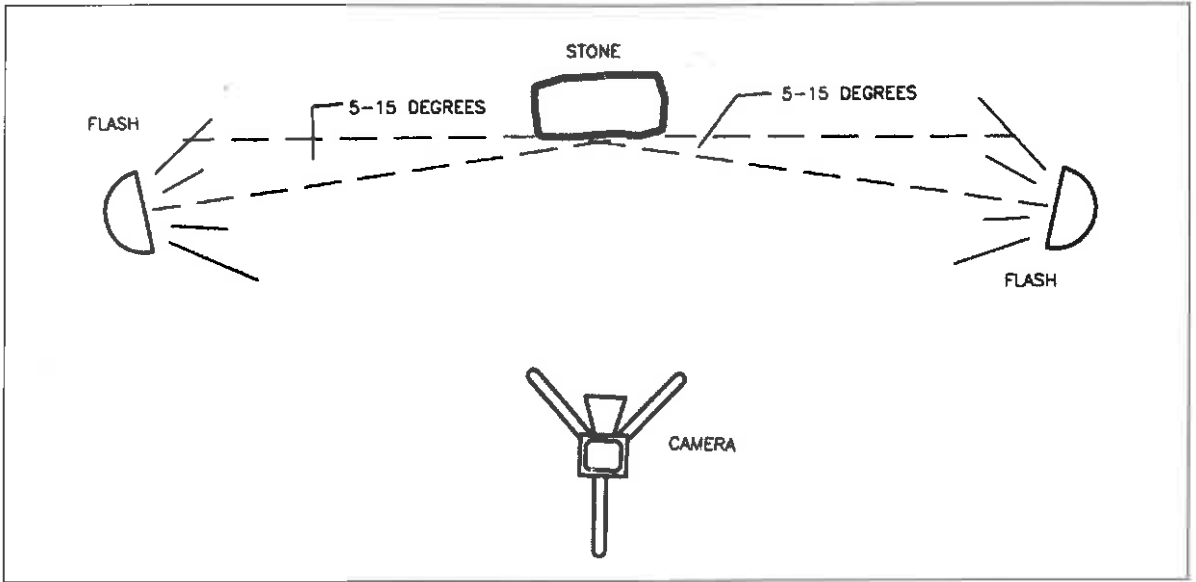
This is almost entirely unsuited to our work in that, first, they are not usually sufficiently powerful in light output, and secondly, due to the specialist nature of this photography and the acute angle at which the lights are used, the auto exposure is usually wrong.

The second type of gun is one which has an automatic function but can also be set to manual operation. At that setting, it gives its highest power at a fixed level and also allows the photographer to choose his own camera settings. This type is an essential choice for the serious worker. Two flashguns of the Metz 45 type and power, mounted on telescopic stands, remote from the camera, and fired by means of long leads or slave units from the camera, give the greatest flexibility and the finest results. The photographer is independent of sunlight, and the best lighting angle can always be achieved.

As these units are used at such an acute angle, normal methods of working out the aperture to



5 Glamis no 1, NGR NO 395465, Allen and Anderson 1903, 221. An example of a stone in a dark wood with two sides to be photographed, near impossible to do well without flash. TE Gray, neg no 3558/2, Nov 1989.



6 Diagrammatic plan view of the ideal lighting set-up. Whether with one or two lights the aperture of the lens remains the same. The addition of barn doors on the flasbes will prevent light reaching the camera lens and causing flare.

use, using the flash guide number, are only a very rough guide. Flash units are given a guide number for a particular film speed by the maker, and one divides the guide number by the distance in feet or metres from flash to subject to arrive at the correct aperture to use on the camera. For example, the instructions for my own Metz 45 guns suggest a guide number of 45 in metres for 100 ASA film. Using it at 1.8m from the subject and dividing the guide number 45 by 1.8 results in an aperture on the camera of F/25. This would be the correct setting if the flash were positioned near the camera, whereas, because of the light loss resulting from the acute lighting angle of perhaps 5 degrees, in reality I use F/8.

If you intend to do a lot of such photography, it is very wise to do a trial run in dull light or inside on a stone, using a flash at one or both sides at a measured 1.8m and bracketing the calculated aperture by three stops (illus 6 and 7). Choose the best negative and from then on you know exactly which stop to use. If, because of lack of space perhaps, the flashes have to be at 1.35m, the aperture will be one stop smaller. I find that I work almost invariably with the flashes at either 1.8 or 1.35 metres and thus know exactly which camera settings to use.



7 Aldbar stone. NGR NO 574580, Allen and Anderson 1903, 245. Now in Brechin Cathedral. A fine example of the use of two flasbes. It is well worth studying closely the lighting in every photograph to see if you can decide just how acute was the angle of the light or lights. TE Gray, neg no 4012/1, Aug 1993.

As a guide to assist in initial trials, it may be useful to know that I use one Metz 45 flash at 1.8m either side, 100 ASA film, and an aperture of F/8. On a trial run, if you use my suggestion of F/8, then a one-stop bracketing, F5.6–F/8–F/11, will be sufficient. If your gun has a maker's guide number that is different from the 45 metres of the Metz 45, or if you use a different film speed, some simple mathematics should result in the correct aperture.

This is not the end however. In order to balance the flash with daylight to fill some detail in the shadows, a meter reading of the daylight is taken, using a separate meter's incident light attachment, or the camera's built-in meter. The shutter speed indicated by the meter for the chosen flash aperture should be noted, and this should then be quartered, ie 1/60 becomes 1/250. This gives the correct lighting contrast of 4–1 as discussed in the section dealing with photography in sunlight.

You will now see why it was suggested in the section on EQUIPMENT that limited flash synchronisation of 35mm reflexes limits the available lighting choice. The meter daylight reading would have to be no faster than 1/15 for a camera whose fastest flash synch speed was 1/60. In other words, you will always need to work in dull light, very early or late in the day, or even in the dark. This brings its own problems, as some kind of light must be provided in order to see the image in the camera viewfinder to frame and focus. A powerful torch will serve. In contrast, the use of a camera with between lens shutter synchronising at all speeds up to 1/500sec allows working in bright light but with all the advantages of full control of lighting from one or two flashes.

There are occasions, perhaps when one side of a stone is close to a wall, when it is impossible to use two flashes. High quality results can still be achieved with the one flash (at the same aperture as used for both) and using a meter reading to get the correct balance of daylight. A great deal of fine work can be done with only one flash (illus 8), with a second kept in reserve for really difficult subjects.



8 Rossie, NGR NO 291308, Allen and Anderson 1903, 306. Because of the stone's proximity to a wall, only one flash could be used, which nevertheless revealed all the detail on this fine stone. Shots inside, such as this and Aldbar, come well within the capability of the 35mm camera with its limited flash synchronisation. To visit stones such as this on a private estate, permission should be sought in advance. TE Gray, neg no 3667/1, June 1990.

In the early stages of carrying out this photography, it can be difficult to decide the correct angle for the lighting. In dull light or indoors a powerful torch can be directed across the face of the stone and moved around until maximum relief and detail is achieved. The flash is then placed in this position.

INSCRIPTIONS

Not only is it necessary to set the flashes to the correct raking angle across the surface of the stone, but it is also necessary to light across the predominant lines, particularly with inscriptions such as oghams. Any lines at right angles to the lighting direction will show up very clearly, but those parallel to the lighting direction may disappear. The strokes of ogham (illus 10) and

those of the Latin alphabet are at various angles, and it may be necessary to take several shots with the flashes at slightly different angles, each of which will reveal different detail. The end result might be a drawing combining the detail revealed by each print. Some oghams use the

corner of the stone as the base line, and it is sometimes possible to use one flash on the edge of the stone and the second on the face as in the drawing (illus 11). The same technique can be used to create revealing lighting on two sides of a four-sided stone (illus 12). The archaeologist/art



9 Tote, Skye, used as a door-jamb in Tote until moved in 1880 to the present position, NGR NG 421490. An example of using a single flash on a dull day to simulate sunlight, which reveals every detail, even the much worn comb at bottom right. Taken on a typical Skye day, with a poly bag over the flash and camera, but not covering the lens, to keep out the rain! TE Gray, neg no 383011, Oct 1991.

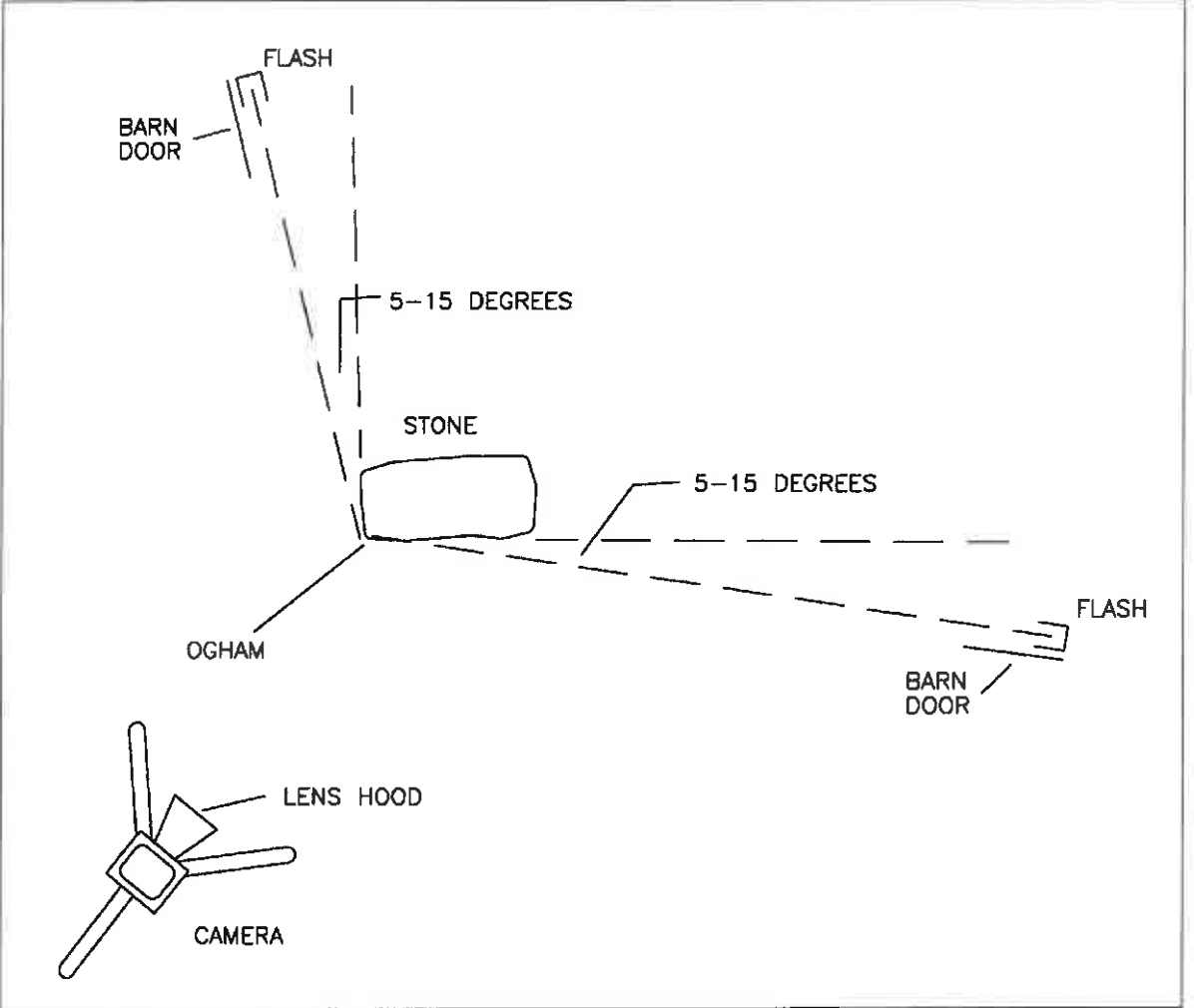


10 Golspie, NGR NH 837002, now in Dunrobin Castle, Allen and Anderson 1903, 48. The two-flash lighting has revealed the ogham inscription as well as all the other interesting detail. TE Gray, neg no 3658/4, June 1990.

historian may need the multiple exposure approach with different lighting angles in order to extract the maximum amount of information.

This description of the use of two flashes may seem very complicated to those with limited photographic experience. The advantages are

that it frees you of the necessity of having to depend on sunlight, allows a number of shots to be done in one day, deals easily with those situations where sunlight direction is unsuitable, or where the stone is in a poorly lit situation, and gives easily the finest rendering of worn detail.



11 Diagram showing how to light an ogham inscription which extends round the corner of the stone. The same lighting set-up yields very attractive and revealing results with stones which have a wealth of carving on all four sides, for two sides can be included in one shot, see illus 12.

PICTORIAL PHOTOGRAPHS

Some stones lend themselves to a more artistic or pictorial presentation, and such photos can enliven an article, book or slide talk in which the majority of photos are straight records. One approach is to capture the attractive historical landscape dominated by the stone, for example the Dupplin Cross in its setting (illus 13). Again the use of one flash away from the camera, perhaps laid on the ground shining up at the stone to simulate firelight, can evoke some ancient ceremony (illus 14).

DIMENSIONAL ACCURACY

Drawings of stones, such as those superb examples produced by RCAHMS, are very often based on photographs. For this purpose, and to get the necessary dimensional accuracy, the camera back should be parallel to the principal plane of the stone. I rarely use ranging poles or measures, because the dimensions of the vast majority of early medieval stones are already recorded by Allen and Anderson (1903) and elsewhere. For new finds, it will help the archives if you fill in an information sheet such as that at the end of this booklet.



12 Abercorn no 1, NGR 082792. This shows the fine result obtained by using two flashes set up as in illus 11. TE Gray neg no 3734/1, Feb 1991.



13 Dupplin, NGR NO 051189, Allen and Anderson 1903, 319. The stone in its commanding setting looking over the valley of the Earn. This is the type of shot which needs a small APERTURE to give great DEPTH OF FIELD, see Glossary. TE Gray, neg no 3597/2, March 1990.



14 *The Crow Stone, Rbynie, NGR NJ 496263, Allen and Anderson 1903, 182. This was 'dramatised' by laying a single flash on the ground pointing up to simulate firelight. I like to dramatise a stone when it lends itself to this treatment, provided that there is no sacrifice of the essential detail. Such shots lend excitement and variety to the illustrations in a book or slide lecture. TE Gray, neg no 3722/1, Nov 1990.*

ARCHITECTURAL RECORDING

So far all the recommendations have been aimed specifically at photographing what are by far the most plentiful carved memorials of the period AD 500–1000. These are incised or shallow relief carved stones, often located singly in fields or woods or in graveyards throughout Scotland, whether they be Pictish in the east, Dalriadan in the west, or of British or Anglian influence south of the Central Belt.

From about AD 1000 to 1400, the material crying out for recording is very different in character. We now find ourselves concerned with architecture or architectural fragments, whether in and around ruined or unused churches such as

Restenneth, or intact examples such as Dalmeny. Items such as mason's marks or shallow relief carvings can still be treated as described already, but doorways, windows, and other architectural detail are rather more easily photographed. Flashlights are rarely necessary, and crisp clear sunlight renders much of this material in an entirely satisfactory fashion (illus 15).

As churches are usually orientated approximately east-west it is not difficult with a little knowledge of the building and the help of the Sun Direction Indicator to estimate at what time of day sunlight will best reveal the detail. The heavily carved arch of a south doorway such as those at Dalmeny or Kirkliston probably needs two photos to extract maximum detail, for mid-morning sun will reveal detail in the western half of the arch,



15 Door of the round tower at Brechin Cathedral.
A simple shot using sunlight to point up the essential detail.
 TE Gray, neg no 2842, Nov 1977.

and mid-afternoon sun the eastern half (illus 16). With all other exterior features a reasonable knowledge of the building together with the use of the Sun Direction Indicator will enable the photographer to be on site at the right time for best results.

For interior detail, the directional light afforded by windows usually gives a very satisfactory relief to the work to be photographed. Because the photographer is much less dependent on flash lighting, lack of full flash synchronisation on most modern 35mm single-lens reflexes is not in this case a hindrance to the use of such cameras, and they are capable of producing informative and lasting records. For those doing their own monochrome printing, the use of a tilting baseboard helps considerably to correct converging verticals when necessary, as mentioned in the section on Lenses.

INDEXING

Ideally negatives should be accompanied by contact sheets, which should have full details on the back, stone name, location, map reference of find place and current site, date when photographed. Documentary references could also be included, eg Allen and Anderson 1903, p.342. A card or computer-based index is essential.

PERMISSION TO PHOTOGRAPH

When stones are in private hands on estates or in museums, permission should be sought by letter well in advance of the intended visit. Proof of the seriousness of the project, in the form of letters, publications or prints of other stones, should be on hand for production if necessary. Very occasionally, for one reason or another, you may have to arrive on an estate unannounced; again proof of serious intent should be produced, and permission sought in a courteous manner. But this is not an approach to be regularly used or recommended. Afterwards prints should be sent to owners with compliments to cement a good relationship.

16 (opposite) *Dalmeny church south door. To get all the detail in the arch two photographs are necessary, one mid-morning, and a second mid-afternoon. A study of the lines on the Sun Direction Indicator in relation to the east, south or west walls will enable an estimate of the best time to be made to within about 20 minutes.* TE Gray, neg no 504, Aug 1954.



This is a minefield area but in brief, some years ago copyright law was changed to give freelance photographers the same rights as all other 'artists'. When the photographer presses the shutter release, the end result is his or her copyright, even if commissioned and paid to do a job. More recently the duration of copyright has been extended, to bring Britain into line with other European countries, to 70 years after the death of the photographer. Only one museum in my experience insisted that copyright had to be assigned to them before permission to photograph would be granted, and this was a recent change in their rules. But photographers are likely to be faced with this situation more and more in museums that are under pressure to increase revenue, and in some cases the museum may demand the copyright fee in any publications. In all other situations, copyright remains with the photographer, but again in the case of publication it is common courtesy to acknowledge the source, and the help and co-operation received. Historic Scotland only ask that in publications acknowledgement should be made to them in the case of scheduled monuments.



- BARN DOORS** Pieces of thin light-weight black plastic card (can be bought in model shops) which can be attached parallel to the side of the flashguns with Velcro to prevent the flash shining into the lens.
- BATTERIES** A set of spares for flashguns, and for camera and meter if battery operated, should always be carried.
- CABLE SHUTTER RELEASE** Ensures shake-free results with exposures on the tripod.
- CAMERA** Plus standard lens, preferably one with a shutter which synchronises for flash up to 1/500 sec, for complete ease of working in any light with flash.
- CLEAR POLY BAGS** Used to cover flash gear and camera in rain, such bags make no noticeable difference to the amount of light from the flash. Do not cover the camera lens with the bag, it could spoil sharpness and cause flare. An umbrella is also useful.
- COMPASS plus SUN DIRECTION INDICATOR** A bearing can be taken on the main face of any sculpture, this bearing compared with the lines on the Sun Direction Indicator and the time chosen on the line which is likely to give the best raking light for showing maximum detail. Can be accurate to within about twenty minutes.
- ELECTRONIC FLASHES** Preferably those powerful enough to yield a Guide Number of about 45 m (150 feet) with 100 ASA speed films. A single flash will yield highly satisfactory results for the record, but two allow even more ambitious work.

17 Tombstone, Abercorn. Taken on a dull day when I had a number of stones to photograph. Using one flash to simulate sunlight and give some contrast, I was able to do the lot. TE Gray, neg no 3560/1, Nov 1989.

EXTENSION CABLES Connected to camera and flash, they will fire the flash when the shutter is released.

LENS HOOD A necessary item to shield the lens from the flash or flashes which are forward of the camera. It is useful to have a piece of black card of approx 155 x 205 mm (6 x 6 ins) which can also be used as an additional insurance to prevent light from reaching the lens and causing flare. See also BARN DOORS.

LIGHT METER Measures the strength of the daylight in order to adjust the shutter speed to give the correct 4-1 lighting balance with flash. A flash meter is not necessary, as a simple trial run will establish the aperture to be used for one or two flashes at 1.8 m (6 feet) and this remains constant thereafter.

LIGHTING STANDS These should preferably be of steel, especially for hill slopes. The alternative might be light camera tripods, the legs of which can be individually adjusted to deal with uneven ground. Lighting stands can be dispensed with if one has an assistant who can be relied upon to hold the flash steady at the correct distance and angle. Such an assistant can be pressed into service to help carry all the heavy gear!

NOTEBOOK AND PEN Necessary for recording technical details such as distance of flashes from subject, lens aperture, shutter speed, and also for recording stone details such as dimensions if it is a new find, current condition, whether in original position, OS map reference, and of course date of photography.

POWERFUL TORCHES Useful in weaker light to establish the correct angle of light to reveal maximum detail, the flash then being placed in this position. It can also be necessary when the light is rather poor, to put sufficient light on the subject in order to see the image in the camera viewfinder for framing and focusing. Useful too for seeing camera and flash settings in poor light.

SLAVE UNITS One of these, when attached to a second flash, will react to the brilliant burst of light from the first flash, thus firing the second. It is possible to dispense with extension leads by using slave units on the remote flashes fired by a weak flash from the camera.

SOFT CARPET BRUSH For light gentle brushing of loose dirt and debris from the surface of the stone. No more than this should ever be attempted, and if the stone is friable even this should be avoided. Never try to remove lichen, this is a job for experienced conservators.

SPIRIT LEVEL A small one can be had which slips in the camera's shoe, (a fitting on top of cameras for taking a variety of accessories), useful for ensuring that the camera is level.

TAPE MEASURE Ensures that flashes are at the required distance from the subject. Experience suggests that this is almost invariably 1.8 m or 1.35 m (6ft or 4.5 feet), for which distances a previous trial run has given the correct aperture to use. Also for taking the dimensions of stones where this information is not already recorded in ECMS or elsewhere.

TELEPHOTO LENS Can very occasionally be useful if the sculpture is high up on a wall or in an otherwise inaccessible position.

TOOLS A set of small instrument screwdrivers, some Blu-tack, lens brush, lens cleaning tissue, a small handbag mirror for seeing equipment settings in awkward corners; in other words a handy little kit of bits and pieces for dealing with the odd emergency.

TRIPOD This should preferably be heavy and substantial, extending to about 2m (7 feet) or beyond. A lighter weight tripod is useful to have for long walks to distant preaching crosses. A lightweight aluminium stepladder may be needed to see into the viewfinder.

WIDE-ANGLE LENS Very useful in restricted situations.



18 Columba's Cave, Ellery, Argyll, NGR NR 747766. The directional daylight from the cave mouth clearly showed the carved relief cross on the wall above the 'altar'.
TE Gray, neg no 3431/1, May 1987.

GLOSSARY

APERTURE The hole within the lens which is modified by means of the blades of the iris diaphragm, similar to the iris in the eye, thus giving control of the amount of light which reaches the film. Lens apertures are given an f-number, a large aperture might for our work be $f/5.6$, suitable for a single stone, a very small aperture being $f/22$, which might be used for the stone in its landscape setting. See DEPTH OF FIELD.

AUTO COMPACT CAMERAS Such cameras automatically take care of LENS APERTURE and SHUTTER SPEED, ensuring correct exposure, and focussing is also automatic. They are of limited use in sculpture photography because there is

seldom a flash socket to allow the fitting of long leads to fire remote flashes, and because the inbuilt flash gives too flat a light to provide relief and contrast to shallow carving. They could be very useful for subjects where one can be there when the sunlight is at the correct angle, and for photographing stones in their landscape settings.

BRACKETING A way of not losing opportunities, used mostly with transparency film which is sensitive to small variations in exposure. After the metered exposure is given, another exposure is made at one stop smaller, and a third at one stop larger, the best transparency being selected later.

CONTRAST The relative difference between the darkest and lightest parts of a subject. A spotlight stage scene with impenetrable shadows and brilliant highlights is of a very high contrast, the brilliantly lit parts getting perhaps 50 times as much light as the shadows. A landscape in cloudy conditions is of low contrast. Film has a limited ability to handle wide contrast ranges. A sunny landscape with white clouds exhibits the range of contrast which photo materials can handle well, and in this situation the light which falls on the sunlit parts is found to have four times the strength of the light reaching the shadows. This is the 4-1 ideal for which we aim when using flash to light the main area of a stone, balancing this by the use of daylight to fill in the shadows.

DEPTH OF FIELD The distance between the nearest and farthest parts of a subject which appear in sharp detail in the photograph. A tiny lens aperture of $f/22$ gives very great depth of field, a large aperture of $f/5.6$ gives very little depth of field. With shots of single stones a large depth of field is not usually necessary, but where the stone is set in an attractive landscape a smaller aperture with greater depth of field would be more appropriate to do justice to the scene.

FLARE If bright light from the sun or other light shines in the lens it can create bright patterns on the negative, usually the shape of the hole

in the diaphragm within the lens. A more insidious effect is an overall veil of density on the negative which considerably lowers its contrast. As much of the time in our work the flashes are forward of the camera and almost on the same plane as the subject, there is a distinct danger of flare from the light reaching the lens. The most effective way to eradicate this is by means of BARN DOORS on the flashes, much more effective than a lens hood, although that should be used as an additional insurance.

FILM SPEEDS Regrettably, four different systems are currently in use to indicate film speeds: ASA from the American Standards Association, ISO from the Swiss-based International Standards Organisation, Exposure Index (EI) from Kodak, and the German system DIN. The first three systems are arithmetical, ie 400 film speed is twice as fast as 200 film speed. DIN is a logarithmic system, ie a speed of 24 DIN is twice as fast as 21 DIN. Virtually all films are now marked in DIN speeds, in addition to ASA, ISO or EI.

The majority of cameras and exposure meters are at present scaled in ASA and some with DIN as well; only the most recently produced equipment is scaled in ISO speeds. It is likely to be some time, perhaps years, before the photographic industry is fully standardized in one system, which may well be ISO.

All this apparent confusion will become clear, because any film will have the same film speed in all three arithmetical systems (ASA, ISO, EI). Thus a film speed of EI 400 or ISO 400 can be transferred with perfect confidence to a camera or meter dial calibrated in ASA. If film and camera or meter are marked in DIN, there is no problem in using that system.

LENS HOOD These can be purchased to fit a wide range of cameras and lenses and are intended to prevent bright light reaching the lens thus creating FLARE.

SHUTTER SPEED Camera shutters are calibrated in fractions of a second, ie 1/30th, 1/60th, etc.

Shutter speeds and lens APERTURES are marked in such a way that each setting represents a halving or doubling of the light that reaches the film. For example, 1/250th at f/8, 1/125th at f/11, and 1/60th at f/16 all result in the same quantity of light reaching the film, the only difference being that f/16 would give much greater DEPTH OF FIELD than f/8.

ACKNOWLEDGEMENTS

I have been aided in my work by many museum curators and estate owners, in particular Mike Spearman of the National Museums of Scotland, Mike King of Fife Museums, Norman Atkinson of Angus Museums, Jocelyn Chamberlain-Mole of Peterhead Museum, Christine Sangster formerly of Elgin Museum, Robin Hanley of Inverness Museum, Elizabeth Marshall formerly of Groom House Museum, Lord Strathnaver at Dunrobin, and the Thurso Museum Trust. Graham Ritchie, Lesley Ferguson and Iain Fraser of RCAHMS were and are enormously supportive. Regional archaeologists were always helpful, and in addition many useful suggestions came from Charles Thomas, Leslie Alcock, Isabel Henderson and Edwina Proudfoot. The lighting techniques that I use are a modification of that developed many years ago for photographing the recumbent stones of Argyll, by Geoff Quick, formerly Principal Photographer of RCAHMS.

I would see little point in encouraging people to record stones if these records were not to be readily accessible to scholars, and I am grateful to Lesley Ferguson for her contribution on creating an archive. My thanks also to Ian Gray, formerly of Historic Scotland, who supplied the drawings.

I am grateful to my fellow members of the National Committee on the Carved Stones of Scotland for their support and many helpful suggestions which made my text much more readable, especially Anna Ritchie for her expert and sensitive editing, but any remaining mistakes are mine.

RECORDING CARVED STONES AND THE NATIONAL MONUMENTS RECORD OF SCOTLAND

LESLEY M FERGUSON, RCAHMS

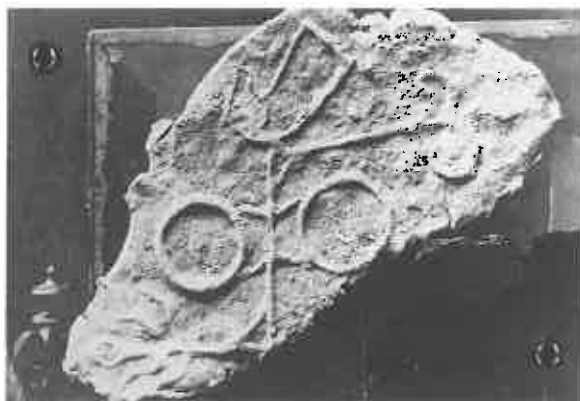
'We were fortunate, after long exposure by magnesium wire or ribbon, in procuring a remarkable photograph of this spirited symbol; and, at another time, my father made a stucco cast of it, which, for many years, adorned the drawingroom grate of my early home during the fireless days of summer.'

So wrote Jessie Patrick Findlay in an illustrated essay written to compete for the Society of Antiquaries of Scotland Chalmers-Jervise prize, in which she describes assisting her father John Patrick in 1902 to photograph the symbols carved in the caves at East Wemyss, Fife. The carvings had first been discovered in 1865 by Sir James Young Simpson, who had described them in the *Proceedings of the Royal Society of Edinburgh*, and they were later illustrated by others, but John Patrick was the first person to use the relatively new medium of photography to record the symbols. Publishing some of his photographs in *The Reliquary and Illustrated Archaeologist*, Patrick's enthusiasm and fascination for the symbols is apparent throughout the text, feelings shared by his daughter and numerous other

people who have in the past spent many happy hours recording in various forms all the different types of carved stones (illus 19).

The photographs of John Patrick and the typescript of Jessie Patrick Findlay are held in the collections of the National Monuments Record of Scotland (NMRS), an integral part of the Royal Commission on the Ancient and Historical Monuments of Scotland (RCAHMS), who have been responsible since 1908 for creating an inventory of archaeological sites, monuments and buildings. Currently, the NMRS holds information on more than 100,000 archaeological sites, monuments and buildings in Scotland, as well as curating a vast collection of photographs, drawings, manuscripts, books and aerial photographs relating to the past. Material in the collections ranges in date from the late 17th century through to the 1990s, and it is constantly being enlarged as new accessions are received. New sites (including carved stones) are also recorded on a daily basis from a variety of sources. These include sites discovered during the course of RCAHMS fieldwork or aerial photography, sites reported in publications such as *Discovery and Excavation in Scotland (DES)*, and sites described in letters from local researchers.

Photography was used in the early years of RCAHMS fieldwork, although it was not until 1957 that the first professional photographer was appointed and a photographic department established. The techniques used in photographing carved stones had changed considerably since the methods described by John Patrick, but there were still difficulties, particularly in dealing with eroded stones in poor



19 East Wemyss, Dovecot Cave, Fife, NGR NT 343970.
Stucco cast of Pictish symbol made by John Patrick, 1902.
NMRS, neg no B35180.

daylight. RCAHMS photographers tried various methods in the 1960s and 1970s to get better results, including wetting carved stones to create more contrast, circling stones with a hand lamp during a long exposure to highlight the raised details, and taking photographs at night using artificial light at oblique angles (Quick 1975). Through this process of experimentation, a system was developed and perfected using synchronized flash photography at oblique angles. Many of the resulting photographs were published in *Late Medieval Monumental Sculpture in the West Highlands* by KA Steer and J Bannerman, and in the Argyll Inventories. The photographic equipment has changed and developed, but this is still the system in use today by RCAHMS for recording carved stones, and it forms the basis of the methods described by Tom E Gray in this booklet.

Studying and recording any form of carved stone is still a very worthwhile and rewarding occupation, whether prehistoric cup-and-ring markings, Pictish symbol stones, early Christian stones, medieval graveslabs, architectural fragments or 18th-century gravestones. It is also very important, for it provides a record of a particular stone or stones within an area, at a certain point in time. Despite the wealth of knowledge built up over the years, there are still carved stones which have not been fully recorded, and there are many awaiting discovery. In *DES 1995* alone, there were over 60 new stones (including cup-markings) reported, and, although 11 of these were fragments from one excavation at Kirriemuir, the figure is indicative of the potential. Through the years there are stones which have been 'lost', often moved, forgotten, or which have become



20 Inverallan, Moray, NGR NJ 026260. This symbol stone was photographed by James Ritchie in 1910 (left), and again in 1990 by Tom E Gray (right). In the eighty-year gap between the taking of these photographs, there has been considerable erosion of the stone face, and the stone has been moved to a different location. These two prints clearly illustrate the importance of having photographs taken at different points in time. NMRS neg no A8685; TE Gray neg no 3688/2.

overgrown, and again various entries in *DES 1995* state 'originally found in 1870... lost for several years... it was rediscovered in 1988' or 'the fragment... noticed in the Manse rockery in 1984, and since lost, was rediscovered.' A carved stone should not be precluded from further recording, just because it has already been photographed or drawn.

It is important that we build up a record of carved stones, which will help to illustrate the history of each stone, including any movement or damage, or even just to assist in the individual identification where several similar stones are known. Historic Scotland has outlined some of the problems facing carved stones in a leaflet, *The Carved Stones of Scotland. A Guide to Helping in their Protection*. These problems include damage through exposure to the elements, very clearly demonstrated by the stone at Inverallan, Moray. This Pictish stone was photographed in 1910 by James Ritchie, and in 1990, using the techniques described in this publication, by Tom Gray. Comparison of the two photographs clearly indicates considerable erosion of the stone since 1910, as well as a change in position, the earlier photograph showing the stone next to a wall, at a slight angle, whereas by 1990 the stone had been moved and was built into the graveyard wall (illus 20).



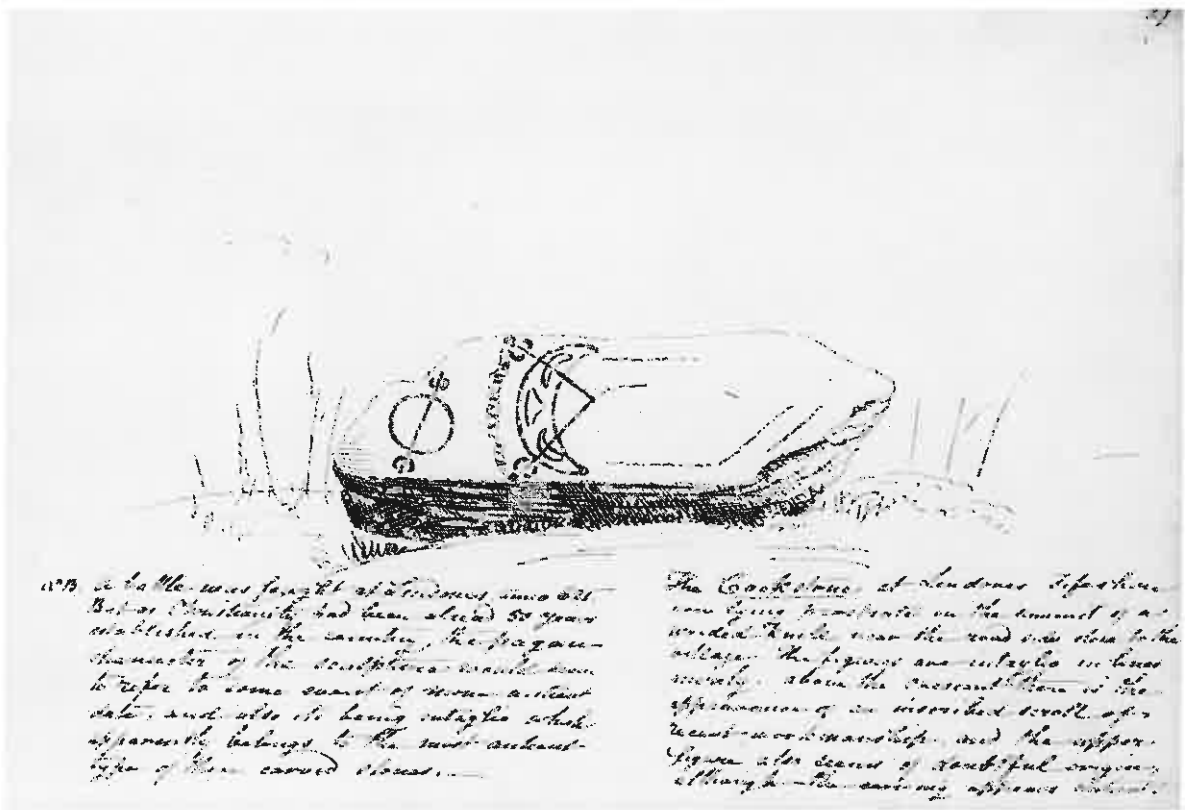
21 Clatt, Aberdeenshire, NGR NJ 538260. The larger of the two symbol stones is built into a wall, but the fragment to the left of the 'beast' photographed by James Ritchie in 1905 has since disappeared. NMRS neg no A8675.

Examination of references in 19th-century books and looking through the collections in the NMRS provide tantalising glimpses of numerous examples of stones which have disappeared or been moved since they were first recorded. Photographed in 1905 by James Ritchie, the Pictish stone with a 'beast' which is built on its side into a wall at Clatt, Aberdeenshire, has a fragment of another stone lying loose beside it, the whereabouts of which is not now known (illus 21). Other examples include the Lindores Stone, which was illustrated by James Skene in his manuscript album of 1832 titled *Drawings of the ancient sculptured monuments still existing in Scotland, as they presently appear* (illus 22). The stone is described in notes as 'now lying prostrate on the summit of a wooded knoll near the road side close to the village.' It is known that this stone came from the crest of a nearby hill and was later built into a garden wall at Lindores, before being moved to the Old Mort House at Abdie Churchyard. Fortunately in this instance, the movement of the stone is documented.

In recent years, professional excavation has preceded any movement of stones scheduled by Historic Scotland, and a written and photographic record has been made of each stone, in order that successive generations will be able to understand its history. At Fowlis Wester, prior to the removal of a cross-slab into the parish church, excavation demonstrated that the stone had been moved on a previous occasion, but there is no record to indicate when this happened.

The excitement of the discovery of carvings has in some instances been well documented. To return to Jessie Patrick Findlay in the East Wemyss caves:

'On the eastern, dimly-lighted wall of that cave there awaited us the crown of our quest for symbols - the discovery of a large and clear carving of a hitherto unrecorded form. Although I was the first to see it, it was not with the discerning eye of the archaeologist. That honour was reserved for my father who was photographing some markings on another wall while I wandered round and stumbled on "the great discovery". In my haste to inform him of it, I waved my candle too enthusiastically so that the flame was extinguished, leaving me groping, with all



1873 A battle was fought at Lindores in 1192. Before Christianity had been spread 50 years established in the country, the pagan character of the sculptures would seem to refer to some sort of war, a contest date, and all of it being cut in the which apparently belongs to the most ancient type of the carved stone.

The Cook stone at Lindores is perhaps now being transferred on the account of a window being near the road was close to the village. The figures are entirely in lines which about the present there is the appearance of an inscribed scroll of a recent workman's hand and the upper figure also seems of recent origin, although the entire appears ancient.

22 Lindores, Fife, NGR NO 261169. Drawn by James Skene in 1832, the position of the stone at that date is described. NMRS neg no FID/389/1.

sense of direction hopelessly lost.... Hastily relighting my candle I announced my "find" in flippant tones. "I have discovered a new symbol! - It's neither a Sun-Mansion nor a Sun-Snake. It looks like a Sun-centipede! - Or the skeleton of the whale that swallowed Jon-." "It's a Viking Ship!" cried my father who had sufficient faith to hurry to the spot. "What a find! ...". (illus 23)

Other discoveries have been illustrated visually, as here at Tillytarmont, Aberdeenshire, where a Pictish stone with an eagle and beast carving was uncovered by the farmer while ploughing in 1972 (illus 24). It is one of several Pictish stones recovered from the field since the 1860s.

All these examples represent a very small part of the NMRS collections, but should give an indication of the importance and value of having a record of carved stones. In the NMRS, we would welcome the deposition of any photographs or other material, such as notes, sketches, drawings



23 East Wemyss, Jonatban's Cave, Fife, NGR NT 345972. The boat carved on the cave wall as photographed at the time of its discovery by John Patrick, 1902. NMRS neg no F/8286.



24 Tillytarmont, Banffshire, NGR NJ 533472. This Pictish symbol stone was uncovered during ploughing in 1972. NMRS neg no B75938.

and so on, that would complement our existing collection and build up the visual record of carved stones. The material need not necessarily be modern, but could be examples from earlier years, for example, photographs from a family album from the 1900s.

Coupled with the role of collecting material and making information available, the NMRS has the responsibility to ensure that the collections will still be available for future research, and therefore conservation is of prime importance. The collections are stored in archivally stable conditions appropriate to the nature of different types of material.

Before the start of any survey, it is worthwhile carrying out some research to find out what is already known about a stone (if anything), and whether it is listed or scheduled. It is also essential to speak to the landowner to obtain permission to take photographs. The recording of stones

must not involve any action which might have a detrimental effect, such as digging into the ground, lifting or moving stones, or taking rubbings.

Taking the photographs is only part of the recording process. Other details are necessary to provide an essential and accurate record, which will be of considerable value both now and in the future. Betty Willsher describes in detail the best approach for surveying graveyards in *How to Record Scottish Graveyards*, and she recommends the use of a monument form with various categories for accurate recording. The booklet is full of useful information on surveying techniques, which apply more widely than graveyards, and it is an invaluable guide for anyone considering recording carved stones.

There are some basic details which may seem obvious but which are a vital part of any recording process, particularly for more

isolated stones. A recording form has been designed to assist with these details; you will find it at the end of this booklet, and it can be photocopied for use while you are examining the stone. A form has been completed, as an example, for the stone at Farnell in Angus. The following notes are for guidance.

- a. First of all, the most important information to note is the location of the stone or stones. A place-name is necessary but is not on its own sufficient, and the National Grid Reference (NGR) is vital to record the position accurately. If a large-scale (1:1250, 1:2500, 1:10,000) Ordnance Survey map is available, it can be annotated with a cross to mark the location. Taped measurements to permanent features marked on the map, such as corners of buildings, junctions of walls etc, can provide a mechanism with which to double-check the details and which will allow someone unfamiliar with the area to find the stone/s. Sketch plans are also of considerable use.
- b. A general description of the object, including details of what type of carved stone is being recorded, whether cup-and-ring marking, Pictish symbol stone, cross-incised stone, architectural fragment, gravestone etc; whether it is a free-standing stone, or a carving on a natural rock outcrop; whether the carving is incised or in relief; whether there is an inscription and if so what it reads; wherever possible, the metric measurements (height, width and depth) of the stone, accompanied by a sketch.
- c. The archaeological history of the stone is important. If it was discovered recently, we need to know how it was found and who found it.
- d. If there is an immediate threat to the stone, for example from the demolition of a wall, contact should be made as soon as possible with the Council Archaeologist or Historic Scotland.

- e. Recording undertaken. Reference numbers identifying the photographs taken are essential, along with descriptive details, for example 'stone viewed from west' or 'detailed view of mirror symbol'. The reference number can either be in the form of a film and frame number, or, if large numbers of photographs are being taken, a separate numbering system. It is best to avoid annotating the backs of photographic prints with too much detail; the film/frame numbers should suffice and this must be done in a soft pencil, as ink can 'bleed' through the photograph and destroy the image.

The NMRS is always interested to hear about new discoveries or to have further information on known sites which can be added to the database, and to receive copies of photographs or other material to add to the Collections. Staff are pleased to advise and to discuss any records you may have made, and we can be contacted at John Sinclair House, 16 Bernard Terrace, Edinburgh, EH8 9NX, telephone 0131 662 1456, fax 0131 662 1477/1499. The NMRS is open for public consultation from Monday to Friday (9.30–4.30, 4.00 on Fridays), and anyone interested in examining the collections or finding out more about any aspect of Scotland's archaeology or architecture is very welcome.

REFERENCES AND FURTHER READING

There seems to be little on the specialist subject of photographing sculpture, except for the valuable contributions from Quick and Willsher.

Allen, J Romilly, and Anderson, J 1903

The Early Christian Monuments of Scotland, Edinburgh.

A facsimile edition in 1993 by Pinkfoot Press, Balgavies, by Fortar, Angus, DD8 2TH. The 'bible' for anyone interested in Dark Age sculpture.

British Photographers' Liaison Committee

Photographers' Guide to the 1988 Copyright Act. The British Photographers' Liaison Committee, 9-10 Domingo Street, London, EC1 OTA.

Amendments on copyright for photographers are still under discussion, which leaves the above a little out of date, but it is a useful guide and will no doubt be updated.

Buchanan, Terry 1983

Photographing Historic Buildings, HMSO London.

Deals with sculptural fragments as well as the broader field of architecture.

Council for British Archaeology 1987

Recording Worked Stones, Practical Handbook No 1, London.

Has a useful little piece on photography.

Findlay, J 1905

'The sculptured caves of East Wemyss', *The Reliquary and Illustrated Archaeologist*, n.s., Vol 11: part 1, 73-84; part 2, 49-63.

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'Some vestiges of forgotten Fife - The caves of Wemyss'. Unpublished essay written to compete for the Chalmers Jervise Prize, Society of Antiquaries of Scotland.

Gray, T E 1988

'Correcting verticals under the enlarger', *The Photographic Journal*, December 1988.

Historic Scotland

The Carved Stones of Scotland. A Guide to Helping in their Protection.

Leaflet available free from Historic Scotland.

Quick, G B 1975

'The photography of relief carving', *The Photographic Journal*, June 1975, 272-7.

Deals specifically with lighting the recumbent monuments of Argyll to reveal worn detail. Applicable, modified, to much other sculpture.

Simpson, J Y 1866

'Notice of some ancient sculptures on the walls of caves in Fife', *Proceedings of the Royal Society of Edinburgh*, 2 (1862-6), 521-6.

Skene, J 1832

Drawings of the ancient sculptured monuments still existing in Scotland, as they presently appear. Unpublished manuscript, Society of Antiquaries of Scotland Collection, NMRS.

Willsher, Betty 1985

How to record Scottish Graveyards, Council for Scottish Archaeology, Edinburgh.

Includes a thoroughly practical guide to photographing later medieval and post-Reformation gravestones.

USEFUL ADDRESSES

Historic Scotland
Longmore House
Salisbury Place
Edinburgh EH9 1SH

telephone 0131 662 1250

National Committee on the Carved
Stones of Scotland
c/o Society of Antiquaries of Scotland
Royal Museum of Scotland
Chambers Street
Edinburgh EH1 1JF

telephone 0131 225 7534

Royal Commission on the Ancient and
Historical Monuments of Scotland
National Monuments Record of Scotland
John Sinclair House
16 Bernard Terrace
Edinburgh EH8 9NX

telephone 0131 662 1456

NATIONAL COMMITTEE ON THE CARVED STONES OF SCOTLAND

Scotland has a great wealth of carved stones from prehistoric cup-and-ring-marked stones, Roman sculpture, the symbol stones and cross-slabs of the Picts, the early medieval monuments of the Scots, Northumbrians and Britons, Romanesque and Gothic sculpture, from medieval churches, and late medieval grave-slabs, to more recent grave-stones and architectural sculpture. Many are of immense importance for archaeology, national and local history, the history of society, and as works of art.

These stones face many threats: Scotland's climate; acid rain and other pollution; surface growth; traffic; cattle; destruction and redevelopment of sites and buildings; vandalism;

theft; stone-rubbing; or well-intentioned but potentially destructive cleaning, repair and restoration.

Historic Scotland has launched an important programme of research into the decay of carved stones. In the context of this research and of growing public interest in Scotland's carved stones, Historic Scotland has set up a National Committee on Carved Stones in Scotland to consider how they should best be protected.

The Committee aims to increase awareness of the importance of Scotland's carved stones and of the threats that face them. It is hoped that it will act as a forum for co-ordinating programmes for recording and protecting these stones.

CARVED STONE RECORDING FORM

Stone location

Place name **FARNELL PARISH CHURCH**

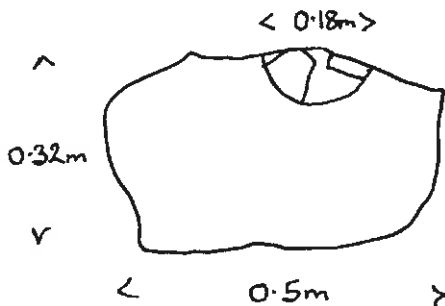
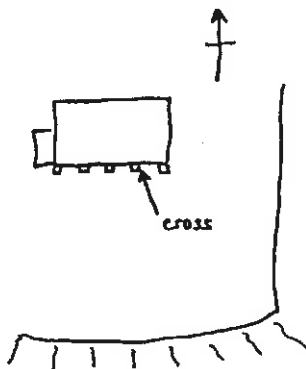
Parish **FARNELL**

NGR NO **627 554**

Local authority **ANGUS**

Sketch

Stone is built into
 outer face of S
 wall of church,
 0.5m E of
 second buttress
 from SE corner,
 and 0.35m above
 ground level.



General description

A block of dressed red sandstone, 0.5m long and 0.32m high, bearing what appears to be a portion of a consecration cross. This is incised, and is formed by intersecting arcs, meeting in a central disc, the whole contained within an outer circle.

History of stone

Date recorded **9th March 1996**

Who recorded it **I Fraser**

How was it found? **Examination of walls of church**

Threat

Threat of possible damage from debris stacked against wall of church.

Recording

Type of recording undertaken **Photography and measured sketch.**

Film number **1996/4** Frame number **24, 25** Description

CARVED STONE RECORDING FORM

Stone location

Place name

Parish

NGR

Local authority

Sketch

General description

History of stone

Date recorded

Who recorded it

How was it found?

Threat

Recording

Type of recording undertaken

Film number

Frame number

Description

Please continue overleaf



25 Pictish symbol stone at Broomend of Crichtie, Aberdeenshire, NGR NJ 779197. TE Gray. neg no 3575/1.

PHOTOGRAPHING CARVED STONES

A Practical Guide to Recording Scotland's Past

TOM E GRAY AND LESLEY M FERGUSON

Scotland has a rich inheritance of carved stones. Recording them by photography is a challenging task, but this booklet is an invaluable source of practical advice. Its clear text offers guidance on equipment, methods, lighting and record sheets, all illustrated by examples of the excellent photographs that can be achieved.

Tom E Gray is an experienced photographer whose images of carved stones have won him wide acclaim. Lesley M Ferguson has responsibility for the archaeological archive in the National Monuments Record of Scotland. The Foreword is by Ingval Maxwell, Director of the Technical Conservation, Research and Education Division in Historic Scotland.



The National Committee on the Carved Stones of Scotland

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