



ERIC HOULDER—WOOD HALL ARCHAEOLOGICAL TRUST

Photography has been an essential part of archaeology since the first camera, as record, experience and art. More shots are being taken by archaeologists than ever before: but how good are they? We launch an occasional look at the craft with traditional advice from an experienced site photographer, Eric Houlder

Since first on an excavation in 1957, I have been surrounded by controversy regarding equipment. In the early days the question was large format or 35mm; today it is digital or film.

Of greater significance is that many of the basic principles are being forgotten or ignored. The sophistication of modern cameras does not excuse the archaeologist from proper preparation of the subject. There are too few photographers who are archaeologists, and too many archaeologists who imagine that they are also photographers! So I intend to return to the basics of obtaining good pictures, when archaeological photography is at its most precise, and arguably most interesting: in recording excavation.

CLEANING UP

The prime requirement is cleanliness and tidiness. Such things as trimmed grass edges, curbed spoil heaps and absence of loose spoil and tools should



THINK BEFORE YOU CLICK

come naturally to the photographer, assisting subsequent interpretation and instilling an air of professionalism.

Soil characteristics play a major role. Sandy soils show colours only when damp, so that preparation of important features is best done in cloudy or even light rain conditions. Such soils cut beautifully with the trowel but drying causes edges to crumble and colours to fade. Brushing sometimes helps clarify detail, but more often blurs it. Spraying is usually beneficial, but only as the lightest mist; any semblance of a jet will cut into the surface.

Clay soils must never be brushed, as grains adhering to bristles blur colours and destroy textures. Spraying clay is disastrous; much better to keep it damp under polythene. In general clay must be prepared using trowels only.

Limestone and chalky soils respond to brushing. Large areas may be prepared with a stiff yard-brush, but the writer prefers to use hoes to avoid any possibility of blurring. Never

Opposite: An animal burial being cleaned for photography. Two scales are already in place. Diffused summer sunlight allows the colours to glow but hides no detail in shade. Glacial sands clean beautifully, but tend to blur quickly as they dry

Above: Overcast spring light can be quite penetrative depending on the density of cloud. Note poorly-trimmed grass and obtrusive spoil-heap at top, spoiling this record shot of part of a Romano-British site

prepare such areas the day before photography: no matter how clean the surfaces, if it rains muddy puddles will develop as if by magic. The only cure is to allow the site to dry out, and re-scrape the lot.

Preserved timbers and bones must not be scraped with metal tools. Medical spatulas are ideal and inexpensive.

Always prepare vertical surfaces before horizontal ones, so the scrapings that inevitably become trodden in are removed before photography. When preparing a large area it is wise to plan the cleaning, giving jobs to each individual, an order of work and a route out so no one leaves footmarks.

LIGHT EFFECT

Light is the key. On the whole the site photographer must make do with whatever the heavens provide. Luckily the heavens provide some beautiful conditions, though not always at the

proper times!

The archaeological photographer must familiarise him/herself with different lights, and also with the path of the sun around each site, so that the optimum time for recording each area is known in advance. A useful strategy is to make a rough plan of the entire site, noting sun direction at given times throughout the day.

Conventions should not be followed slavishly, but they do form a useful guide. Never be afraid to break them, but insure against failure by taking the standard shot too.

Lighting is said to be hard or harsh when it comes from a single source such as the unobstructed sun. It will cast hard, dark shadows which are difficult to illuminate, resulting in contrasty pictures. Soft lighting is usually from a number of sources, or from an overcast sky, when it casts little or no shadow. Bright overcast conditions are best, but the inevitable result will be a successful collection of



Above: A cloudy summer day was chosen to record this medieval masonry, collapsed into the adjacent moat. The stonework was scrubbed with clean water, and the picture taken before it could dry

very boring pictures. Take the conventional picture, and then experiment.

Skeletons are best shot in soft light, but occasionally something harsher is needed. One example met by the writer occurred on an early medieval cemetery under rescue conditions. The skeleton was much abraded, and surviving bones were exactly the same colour as the surrounding matrix: they disappeared into the background. Shot directly from above, with a flash fixed to the camera on a side-bracket, each bone cast a thin very dark shadow, as if someone had run a black felt-tip pen around it.

Light also has “temperature”. Warm lighting occurs early or late in the day, or sometimes after a heavy storm, and has a large yellow/red content. Colour pictures shot in these conditions tend to appear too red. Cold lighting occurs when a high sun shines from a cloudless blue sky. Here, the light takes many of its characteristics from the sky and gives the opposite effect to warm light: slides in particular may appear too blue. Pre-dawn light is often cold, but with a marvellous penetrative power into shadows.

Contre-jour light occurs when the sun faces the camera, creating high contrast and deep shadows. It is perfect for some archaeological situations. Surfaces like roads and yards are best shot in counter-light. Done well, such

pictures have a snap or sparkle; done thoughtlessly with automatic exposure, and the results are horrible. A safe picture of standing masonry is almost guaranteed in overcast lighting, but an exciting one is possible with skilful use of hard or even counter-light.

GETTING HIGH

There can be few digs without a tower, though it is easy to make do if the proper article is not available. In well over 40 years I have used derelict houses, stacks of hay bales, car roofs (someone else's, of course), ladders braced upright with rope and ladders leaned against scaffold-poles. Safety is paramount and the photographer must wear a hard hat. A step-ladder is quite high enough for photographing the average burial.

Placing the tower is critical: you must study the direction of shadows beforehand to avoid extreme embarrassment in the presence of large numbers of people. It is as well to make a sun/shadow chart for the site within the first few days, noting trees, pylons and buildings that may cast shadows or reflections. Even so, the preparation of an area may be a race against time before the sun moves, or before it comes out or goes in. A useful tip when one tower position is envisaged, is to scrape debris to the tower end of pits and behind walls and so on. As long as it is not in the picture, it does not matter

if it is still on site – to the photographer!

Other items to hide include tools, covers, planning equipment, loose spoil, shed garments, and usually, people. If humans are placed in a picture for scale, they must be seen to be engaged in some likely task, but without the normal paraphernalia of buckets, loose coats etc. Only very careful observation through the viewfinder will ensure that the area is ready to photograph.

The photographer should climb the tower regularly during the day to observe the site under varying light, or at different stages of drying after rain. High winds may reveal ancient features by the way in which dry soil or sand collects in depressions. On more than one occasion this practice has resulted in the discovery of previously unsuspected features, such as ancient plough grooving or post-pits.

SOLVING PROBLEMS

On urban sites the biggest problem is often litter. The slightest breeze will produce its harvest of crisp packets and papers. Pizza boxes are heavier and tend to stay put more! Weekends are worst. It may seem obvious to cover everything with plastic sheets, but this may encourage the inquisitive or destructive. Preparation is best done immediately before photography and early in the day.

Rural sites have their own problems. I have just completed a dig with the worst: blown stubble. Cut cereal stubble flies everywhere. On one site, I kept two workers in stocking-feet after an area had been prepared. The instant a stalk was seen, one could tip-toe out and retrieve it.

One of the site photographer's most useful tools is a gardener's atomiser spray. It must be robust enough to survive being cleaned out often, and have a large capacity to avoid too frequent fillings. A smaller spray of about half a litre is useful for small finds and burials of tiny animals.

Spray darkens soils, increases colour-saturation, differentiates similar tones (when used with care) and makes hair-roots disappear by darkening them. Used as a jet, the spray will clean preserved leather, wood and other organic remains with little risk.

Sensible precautions are necessary. Never use a spray without the permission of the supervisor. Always check where exhaust water is going. Ensure that water will not cause accelerated decay, and if this is possible, ask your conservator whether a fungicide should be added or distilled water used.

Most of the best-run sites are littered with informative labels. It seems invidious to remove them for photographs, only to spend hours captioning the pictures with basically the same information. I leave them in the picture, making sure each is readable and clean. If photographs are required without labels, then one person should be in charge of removing and replacing them.

Some photographers like to include an information board. Plastic letters may be purchased, but a stick of chalk is more convenient and being pocketed (in a 35mm film can) less likely to be mislaid. Take another picture of the same subject without the board for publication.

For those embarking on a career or wishing to find out more, I recommend study of the work of the masters, from Maurice Cookson to Nigel Macbeth and Andy Chopping.

Eric Houlder is a freelance photographer specialising in excavation and palaeopathological close-up pictures, chair of the Pontefract & District Archaeological Society and committee member and past chair of CBA Yorkshire

Top: Detail of bow construction of a sunken ship shot entirely by flash as soon as the tide had retreated enough to allow the photographer to reach the spot. There was no daylight. With direct flash, tilting the scale avoids flare (Humber Hulks Project)



Centre L: The photographer needs a set of scales. Black and white gloss paint give the best and most durable finish: stencil the length onto each one. Smaller scales can be made on a PC. The teaspoon is particularly useful for cleaning out eye-sockets (and making tea). The black instrument is a separate viewfinder which enables the lens choice to be made without having to carry everything up the tower!



Centre R: Hard winter sunlight is ameliorated in intensity by nearby water to allow detail in the shadows of the fallen ship strakes. Contre-jour light picks out constructional detail (St Aidan's Sunken Ships Project)



Bottom: Diffused spring light outlines the frames of this early clinker-built vessel without obscuring detail. The wider view places the vessel in context on the gradually reflooding river bed (St Aidan's Sunken Ships Project)





Left: A large horizontal area seen from the tower, deliberately shot during the final stages of cleaning. The figures add a more human dimension to the scale. Note how the significant area has been marked off with tape (Courtesy Wood Hall Archaeological Trust)

Opposite: Vertical section along the length of Sutton Hood Mound One. Only one level has been marked, that of the 1939 surface. The whole section has been sprayed, and the picture shot at the best point in the drying. Safety regulations mean that few today are privileged to see such complete sections of this height. Scale in feet (Courtesy the late R Bruce Mitford and British Museum trustees)

ERIC HOULDER

Photos are key excavation records, yet it is often not until the dig is over that someone notices the right shots were not taken. In the second of an occasional series, Eric Houlder continues his tips for better site photography

FOCUS ON THE SUBJECT



I have discussed site cleaning, the quality of light and the use of towers (Mar/Apr 2006). After further preparatory tips, I will here consider photographing particular subjects.

The final step before taking the photo is placing scales. The configuration is for the director, but the photographer should supervise this from the camera position. A separate viewfinder is useful, to check that horizontal scales are parallel to the top frame edge, and that longitudinal ones are vertical and parallel with each other. If you keep vertical scales away from frame edges, they will appear upright; foreshortening caused by

Some comments may seem applicable only to film, but the principles are universal: digital practice is starting to think of original files as negatives. We will cover digital photography in future articles. Ed

Right: Markings show that at f11 the depth of field – the focussed zone – lies between infinity (the sideways 8) and 0.8m. Shot with a long focal length lens, which has a narrow depth of field: background is out of focus and not distracting

camera tilt is obvious. Few sites are flat, so the person doing the placing should be highly experienced, and have a pocket full of nails, longer pins and even golf tees to position scales.

The zone in focus is known as depth of field. It depends on the lens aperture and focal length, being greater at small apertures (eg f11) than at wider (eg f4), and narrower the longer the focal length. Almost all lenses have an engraved scale showing depth of field at selected apertures. It is vital that you



understand how to use this. A rule of thumb is that the zone of sharpness extends one third towards the camera and two thirds beyond from the point focussed on. Focus on a point one third into your subject, and check the depth of field at different apertures using the scale on the lens or the depth of field preview button.

Only exceptionally will you use auxiliary lighting on site, normally in the form of one or two powerful flashguns, and perhaps a reflector or two. As even the most powerful flash has a limited range, it will be restricted to illuminating shadow areas. For smaller areas a white reflector like a covered drawing-board is far better, and much more predictable. For many years I used a white melamine cupboard door! The umbrella-type reflectors so useful in portraiture are a liability on site, taking off spectacularly



Above: Animal burial with foetus, probably bovine. Sprayed with water, allowed to dry and photographed whilst the matrix was still damp. Shot from a step-ladder using a 35–70mm zoom lens, an ideal optic for burials (Courtesy Wood Hall Archaeological Trust)

at the wrong moment.

To illuminate a deep grave or pit, place the flash on a stand to simulate sunlight coming from the top left. Place a reflector or less powerful flash opposite to fill in shadows. Bracket exposures two stops: a flash meter is invaluable in this situation.

Many books have been written on exposure, suggesting that it is a complex business. Conversely, owners of high-tech modern cameras may feel that exposure can safely be left to the camera. In reality, neither standpoint is valid. I suggest three simple rules:

1. With negative film take the reflected light meter reading from the darkest area in which detail is required in the picture
2. With reversal (slide) film, read from the lightest area in which detail is required
3. With a digital camera, try both and adjust in Photoshop.

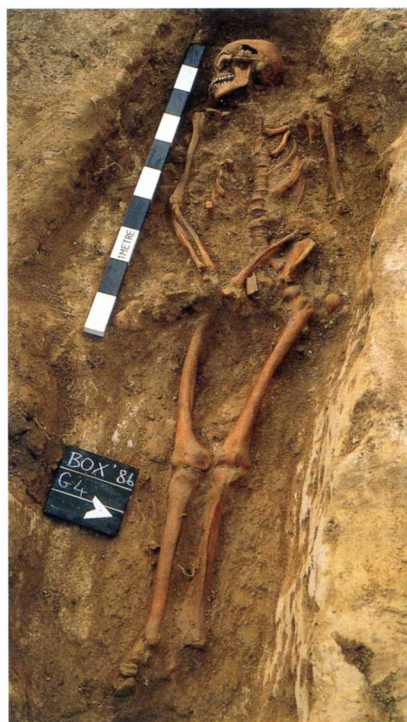
SECTIONS

It is important to ask exactly what is required of the photograph. Should stratification be emphasised (at the risk of missing, or worse, creating a horizon) or left to itself, to show or disappear at the whim of film and lighting? The director's wishes are paramount, but if emphasis is desired, a competent excavator must help the photographer. The procedure described here assumes that situation.

Begin cleaning at the top, trimming any overhanging foliage with shears. On urban sites it may be wise to place planks or old doors along the edge.

Work each stratum vertically at first, then follow depositional lines. Carefully outline protruding objects with a narrow groove into the matrix. Repeat this groove down edges and along the base where the section ends. Leave items that would fall out if undercut on supports, made clear with vertical and smooth faces. The grooves cast shadows which differentiate each surface in the photograph.

Strata may be emphasised in several ways. The most convincing is to enhance natural textures by judicious trowel work. Spraying will darken a layer, but is difficult to control on thin strata, and dries at different rates. Layer junctions can be emphasised by



Right: A medieval burial. A dreadful picture, for which my only excuse is the large noisy bulldozer behind me! Note footprint, protruding root and imperfect cleaning. The viewpoint is not vertically above, either. The point is, I hope, taken

carefully undercutting to create a shadow. In some soils, adequate differentiation can be achieved by spraying the whole section and waiting until the drying reaches the point at which layers show best.

Position the camera as perpendicular as possible to the section and halfway down. Use the longest focal length lens to cover the subject area, and try to select hazy or overcast lighting. As a well-cut section is shallow front to back, there is little advantage in using a smaller lens aperture. If the predominant tone of the section is lighter or darker than average, take the reading for exposure from an average toned object held in front of it first. An upright ranging pole is usually the only scale needed.

AREAS

Horizontal areas are the most frequently photographed subjects in archaeology. Most have some vertical parts, if only the edges, so first treat these as sections, ensuring the mini-groove that defines the base of the cut shows a shadow from the camera position.

Then decide on a single scraping direction with trowels, hoes or spades. Experienced diggers will produce few marks, but novices' grooves will show in side- or back-lighting. Newer trowels with straighter edges are better for this than the worn instruments beloved of veteran diggers. Unexcavated post-pits must be carefully scraped out a fraction deeper, unless the director wishes them recorded solely as colour-changes (they may then be scraped at right angles to the general line of cleaning).

Area photography will usually be from the tower. Counter-light is often ideal for large areas, when an increase in exposure above that indicated by the meter will be needed. For negative film open up two stops (eg from f16 to f8), and for slide film one.

Place ranging poles in Ts, with the crosspiece parallel to the top frame edge, and the vertical pointing directly at the photographer.

SURFACES

Paved roads and floors usually stand up to a stiff brush. If the director approves, they may be scrubbed with clean water. In Britain mosaics are inevitably Roman, though some medieval tiled floors may come into this category. Cleaning must be done by

or under the supervision of a conservator. Take care that wide angle lenses do not distort proportions and dimensions. A polarising filter will clarify detail; a light yellow filter will give truer tones in monochrome.

Masonry ranges from complete walls of perfect ashlar to rubble foundations. Interstices between stones must be cleaned of soil, hair-roots, etc taking care to avoid removing mortar. The last stage is to brush stones with clean water if they are not too friable. Photography is best done before they are quite dry. Sometimes differential drying may help define various materials, so the preparer must keep an eye open and inform the director. Scales must emphasise the various dimensions, so that larger buildings may have several horizontal ranging pole Ts, with perhaps a one metre vertical scale against an angle in the walling.

BURIALS AND FINDS

Cleaning of burials and small finds in situ is a delicate process. The best tools for burials are plasterer's leaves, with teaspoons, dental-probes, spatulae and fine brushes. Aim to remove soil without disturbing the bones, if necessary leaving matrix supports beneath fragile items: as with protuberances from sections, shape the support to mimic a bone's outline, but undercut enough to cast a shadow. Except in the case of the most fragile remains, I prefer to use nails, long pins etc to hold bones in situ. Cut hair-roots with shears, and remove soil from eye-sockets and pelvises with the teaspoon.

In rescue situations most experienced archaeologists will excuse you from removing every grain of soil (mud!). In the past it was the norm to wash and dry each skeleton before photography. This produces an excellent photo, but takes time. Consider spraying to dampen the whole grave and photographing it wet; hair-roots and small loose soil grains will disappear.

Graves are traditionally photographed from above, with a 2m ranging pole alongside the skeleton. For large cemeteries, include a white plastic north arrow and a data-board in each shot.

Look out for pathologies such as healed fractures or wounds. After a locating picture showing a recognisable part of the skeleton, home in to the



Above: Medieval door on the base of a moat. Pictured from vertically above from a plank across the surviving drawbridge structure. In nearly all such situations, the scale is more aesthetically pleasing when parallel to one of the frame edges (Courtesy Wood Hall Archaeological Trust)

Right: Medieval pot in situ. It was important to record the surrounding strata which suggested the jug had been dropped into a pond. The site was under a large tree, and to achieve a reasonable record I had to set up a flash broly. Even on a nearly still day it kept blowing over, but the results justified the trouble (Courtesy Wood Hall Archaeological Trust)



close-up with a small scale. Such pictures need to be very sharp: there is no substitute for a tripod. An orange filter benefits monochrome photos of wet bones.

Small finds are often more delicate than burials. Cleaning is probably best done with the spatula, with a ready-focussed camera on a tripod nearby in case the find threatens to collapse. The director or site conservator is the best judge as to how much preparation the object will stand. Only quick records are usually permitted before the item is rushed to the lab for micro-excitation.

The most informative way to photograph pits or post-sockets is usually after half-sectioning is

completed. Prepare the undug half and section as described above. Set the camera on a tripod with a moderate wide angle lens to show the near lip and the full depth of the section, with a scale up the centre. Ensure that the undug portion is in the shot, check depth of field and shoot in subdued or hazy lighting. If the sun refuses to cooperate, a burst of flash will illuminate the section face.

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Alongside the formal records discussed in my two previous features (Mar/Apr and Jul/Aug 2006), the site photographer will be shooting other types of picture. The three categories of progress, instructional, and publicity photo are grouped together here because they are in many ways related.

Most archaeological photographers, if they are like the writer, rather enjoy shooting these types of pictures. Without many of the rigours of cleaning, preparation and scaling it is possible to bring a greater degree of creativity to the picture making. So what exactly are these pictures, and what are their uses in archaeology?

To approach these questions from the consumer's viewpoint, it is probably fair to say that most still images seen by the general reader fall conveniently into one or all of these categories. Even projected images at conferences and symposia conform, though obviously these sequences tend also to include rather more formal records than general publications do. In my own case, I travel extensively giving lectures and talks illustrated with slides, and the progress/instructional-type images are far better received than the formal records.

Progress pictures are shot primarily as an aide-memoire for the excavation staff. They

do not pretend to be formal records, and only occasionally appear in this guise if something drastic has happened to the latter. In spite of their informality, however, they do need to be sharp, so if shot digitally a minimum of six million pixels is needed. Because they are often used in lectures, I tend



ERIC HOULDER COURTESY R BRUCE MITFORD & TRUSTEES OF THE BRITISH MUSEUM

Above: Sutton Hoo Ship One, during reexcavation in 1967. The dramatic nature of the subject, the viewpoint, and the colourful staff make

this progress/ publicity picture one of the author's all-time favourites (published in the Yorkshire Journal). The composition, identical to the

photo of the St Aidan's ship (opposite), is completed by the figure on the right looking into the picture (as requested!)

Opposite: St Aidan's Site Four ship, using a medium telephoto lens. The composition is strengthened by the many figures looking into the

picture (published in the Dalesman)

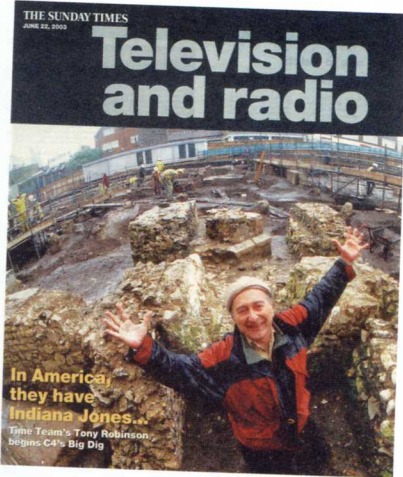
In his third feature on photography in archaeology, Eric Houlder considers progress, instructional and publicity shots

SHOW TO TELL

nowadays to shoot them on slide film, and order scans when sending for processing. It is then easy to produce inkjet or chemical prints from the resulting CD, whilst the actual slides give superior projected images.

Another form of progress record is the video. A number of the sites on which I have worked in the last 15 years have used broadcast-quality video to make a continuing record complete with commentary by the director or a supervisor. However, it is as well to remember that videotape, and its more recent upmarket cousins, have no record of archival stability. It is as well to transcribe important facts on to good old paper as soon as possible.

Instructional photographs are intended to show students how certain tasks and operations are performed.



This may be at any level, from Young Archaeologists' Club members to postgraduates, but the principle is the same; a picture is worth a thousand words, and a sequence is worth a million. Increasingly photos are also needed to inform a wider public, for use in exhibitions, newspapers or magazines, as postcards or in guidebooks or other broad appeal publications. Often, of course,



Left: Time Team's first Big Dig was attractive to the media as well as to viewers, but the Sunday Times would never have given it such pole publicity (priceless to producers and broadcasters) without such a perfect image

instructional pictures may be used for publicity or even progress record; it does not matter.

Publicity pictures are important, as archaeology seeks to justify its existence and funding. The site photographer should have an idea of what is required as soon as possible, in order to secure official pictures of the right type for the desired outlet. Failure to do this results in the organisation sending along its own photographer, and we have all seen the sort of negative publicity which can result from letting an archaeologically ignorant

photographer loose on site.

Different markets have different requirements. Newspapers used to like A4 or 10x8 inch glossy colour prints, whilst the better magazines can still prefer transparencies. Increasingly editors expect digital images. It is not generally appreciated, however, that for cameras costing less than thousands of pounds, a drum-scanned quality transparency still gives superior reproduction to a digitally-originated image. Whilst some digital images can be indistinguishable from film-derived ones, the majority taken by

The Archaeological News Letter

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J. ALEXANDER
D. R. CONNELL
J. K. W. P. COFFMAN
S. G. COOKE
G. WEBSTER



Left: The cover of the 1964 magazine that made an early impression on the author. The editor, Miss D Heighes Woodforde, rarely credited pictures so Eric Houlder never knew who took the photograph. He has a full run of The Archaeological News Letter which he will gladly donate to any university department willing to collect

Right: People are essential for publicity photos, but dramatic light can make an image really stand out. Here storm lighting silhouettes the iron girder bridge across St Aidan's Site Four ship as the day's work draws to an end

archaeologists are visibly poorer.

The most important feature of a publicity picture is the inclusion of people. Whom do you choose? Rather than upset or antagonise people, it is much better to use those available, giving them prior notice to change T-shirts or wash and brush hair.

All participants must be doing something credibly archaeological, and as the viewer/reader could be anyone from the director of the CBA down to one's own director (choose your own Most Important Person here) it is as well to select something realistic and in context for the "models" to do. Avoid site no-nos such as sitting on trench edges, or digging with the point of a trowel.

Think about health and safety. Earlier this year I was showing some slides of a 60s dig, and a colleague remarked on the fact that a young woman in the picture was standing next to a soil section that towered above her.



Left: Juxtaposition of archaeologists and skeletons is a photographic cliché, but eternally popular with the media: this photo was given a full page in 35mm Photography. An extreme wide angle lens (17mm) draws the viewer into the activities, here novice diggers practising on relatively recent animal burials



Naturally, she was not wearing a safety helmet, and the section was not protected with shoring – this was 40 years ago. Today such a picture could well be the basis of a prosecution! So be very aware of what your "models" are, or more importantly are not wearing and doing before you shoot pictures for the press.

We are all products of our past, and the images which we frame in the viewfinder must, to a greater or lesser degree, be influenced by our previous work and by our viewing of other photographers' images. The best images must leave a lasting impact and stay in the viewer's mind for a long time. Those of us who have been shooting archaeology for some years will have a mental list of those pictures which have made the most personal impact on us. For me, this begins with the work of Maurice Cookson in the 40s and 50s, and continues into the present with pictures by Nigel Macbeth, Mick Sharp and Andy Chopping.

Of the publicity pictures on my list, one in particular, from the early 60s, stands out. The March 1964 issue of The Archaeological News Letter carried on its front cover an uncredited image of a worker excavating a human skeleton. This had an immediate impact, and though by then I had photographed numerous skeletons, I

had never consciously tried to compose an image juxtaposing the contrasts of living and dead as this picture did. Since then this particular oeuvre has become almost a visual cliché but, and this is important, it still works.

That particular image was almost certainly shot on a twin lens reflex camera producing a square negative of superlative quality, but with no choice of alternative focal length lenses. However, technological development in the 60s and 70s led to the widespread availability of wide angle lenses for both twin and single lens reflex cameras. The immediate result was the ability to shoot extended soil sections in one piece, but of course it also became possible to use the exaggerated perspective to enhance publicity pictures of the type already alluded to. And the wider angle the lens, the more of both living and dead could be included. Cliché or not, include such a picture in a selection sent to an editor of a newspaper or magazine and I guarantee that if only one image reaches the printed page, this will be the one.

Another visual cliché is the "goody" shot. The major characteristic of this image is the monetary value of the find which, if it is jewellery, is often displayed on an archaeologist.

Much depends on the size of the goody. Torcs are no problem

photographically as they tend to be in proportion to the model. Tiny items, like finger rings, however, are worth discussing in this context as their very size, or lack of it, presents problems. The particular difficulty is to show both the ring and the model sharply, with both in focus.

An extreme wide-angle lens (about 17mm on 35mm cameras) will indeed show both sharply, but the ring may still be too small, and the model disproportionately smaller. One answer is a split-field close-up lens. This cheap accessory is basically half a close-up lens, which means that a much more normal optic can be used, like a 35mm lens. With the split-field lens screwed on to the lower half of the mount it will render the ring sharp whilst the main lens is focussed on the person wearing it. Total cost is well under £20, assuming, of course that you already own the main lens.

So far we have looked at the creation of publicity material from finds. However, more often it is the whole site or a portion of it that must be pictured for publicity. In this situation we must look for unusual viewpoints, distortion of perspective and dramatic lighting.

On most sites, the photographer is restricted to using the tower for an unusual viewpoint, though occasionally there may be something better like a steep hill or a high bridge. A long focus lens from such a viewpoint may just be the answer, but the addition of dramatic lighting could be the icing on the cake. Unfortunately, dramatic lighting rarely appears when it is needed, and too often occurs just when everything is being packed up for the day, or when the site is not fit for public

viewing. However, the photographer can help things along somewhat by being prepared.

My own favourite lighting is just before or just after a storm. Often sunlight can burst through and illuminate areas against a very dark sky. One of my most memorable images came as we were packing up to leave the St Aidan's site one winter's day, near Leeds. Large scale opencast coalmining was removing the old channel of the river Aire, and an ancient lock, dry dock and boats were uncovered. As the site was in a mine, everything for each day's work had to be carried down the access ramp at the beginning, and then carried back up in the evening. Inevitably, the most dramatic lighting appeared as we were packing up! By far the best viewpoint was undoubtedly from a railway overbridge slightly upstream of the Area 4 wreck, which was lying on the largely drained riverbed.

As the light began to show promise I seized a camera bag (containing my medium format kit) and began the trek up, out of the riverbed, and along the muddy track to the bridge. The parapet of this bridge was too high to accommodate a tripod (always worthwhile if possible) but rigid enough to help support a hand-held camera in reasonable lighting. As I arrived, the sun burst through and revealed my colleagues already beginning to remove kit, but lit by lovely warm sunlight with the hard shadow of the bridge cutting straight across. I fitted the appropriate lens (decided mentally during the trek) took a spot-meter reading, and shot several images until the light disappeared as quickly as it had come. I shot a number



Above: The choice of your magazine's cover story is heavily affected by available images. Archaeological excavations very rarely make it, not because there are no digs worth the exposure – far from it – but because the right photos have not been offered to the editor. These three issues led with strong stories: but it was also the power of the images (none supplied by the archaeologists) that saw the articles headlined in shops across the UK

Left: Video can provide valuable records of fieldwork in progress, as well as publicity and information sequences. Here Jim Goodwin and Simon Tomson are compiling a video record of a recent dig



of other pictures from here during the course of the dig, and all have achieved publication, including three front covers.

A rainbow must be the jackpot in terms of dramatic lighting. From experience, however, they are nearly always in the wrong place. Only twice in nearly 50 years have I encountered rainbows that could be used behind a site picture. Both images were failures as the sky competed with the activity below, and won.

Using lenses to alter apparent perspective is rather more predictable than dramatic lighting. It can take two forms: apparent compression by using a long focus lens, and distortion of close objects and exaggeration of distance with a wide angle lens.

Most people are familiar with the compression effect as it is seen often on television news. The opposite is less familiar, but recognisable when seen. Its chief characteristics are the apparent enlargement of close objects and the shrinking of distant ones. Wide angles also have the effect of giving more depth of field (zone of sharp focus) and of making the viewer feel a part of the scene. Their ability to pack more information into the picture makes them particularly useful in restricted areas, and for publicity pictures.

My final point is the most important. No published picture must trivialise archaeology or people from the past. We have enough problems without bad publicity created through unwise photography. When picturing skeletons in particular, be very aware of people's sensibilities, especially if working outside western Europe. No matter how tempted you are, and the younger less experienced members of a team can be quite persuasive, do not picture skeletons wearing hats, or apparently smoking cigars. Dissuade them if they want to shoot such images on their own cameras too. There is no better way of upsetting the locals, whether in Yorkshire or Yemen, than letting such images fall into the wrong hands. Far better not to have taken them in the first place.

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