# Health and Safety Brief

It is the duty of all personnel, under the Health and Safety at Work Act 1974, to take reasonable care for the health and safety of yourself and other persons who may be affected by your acts or omissions at work. You must also co-operate with the Site Director or Site Supervisor regarding any duty or requirement imposed on the Director or any other person by or under any of the relevant statutory provisions so far as it is necessary to enable that duty or requirement to be performed or compiled.

All personnel taking part in the fieldwork have a responsibility to adhere to sensible standards of behaviour. All archaeological and non-archaeological personnel should be aware of location hazards and co-operate with the health and safety measures implemented. Please be aware that this policy extends to Site visitors who may be protected under the Safety at Work Act.

## Basic Safety Provisions

i. The likely safety problems or risks will be identified and discussed prior to any fieldwork. All locations will be subject to General Risk Assessment Forms that contain a list of potential hazards that will be rated to determine the severity of the risk and suggestions on how to minimise the risk. The assessment of risk can be delegated to anyone the Director feels has competence in a particular area - i.e. the archaeological site supervisor.

ii. Any work will be planned carefully, considering experience and the nature of the terrain and or excavation site.

iii. The personal equipment and clothing of all participants should be suitable for all weather conditions and terrain.

## Tetanus

Tetanus is a disease found in soil, which can only transfer into humans through an open cut or wound. All personnel working on location are advised to make sure they have up to date anti-tetanus protection and any cuts should be appropriately dressed before you start work. If you have had an anti-tetanus booster within the last ten years you are up to date.

## Clothing and Skin Protection

This is basic commonsense really. Make sure that you wear sturdy boots and suitable clothing for the job in hand.

Bring sturdy long trousers along if we are digging thorny scrubland or waterproofs if rain is forecast. If you are working in a field, park or garden it is likely that the soil will contain pesticide residues therefore it is important that all team members wash their hands prior to eating or drinking. Please bring along appropriate sun cream or insect repellent if you are particularly susceptible.

Specialist protective gear such as hard hats and safety glasses will be provided as required or requested. It is however the individual's responsibility to ensure that he/she is adequately dressed in relation the location and work to be carried out.

Where there is a danger from chemicals, dust, flying splinters of stone or plant material, eyes must be protected by either safety glasses/goggles or a facemask.

Where noisy machinery is in operation ear defenders will be provided as required or requested.

Gloves will be provided when appropriate or requested.

## Accidents

In severe cases please dial 999 and ask for an ambulance immediately.

ALL accidents must be reported to the Site Supervisor and entered in Accident Book.

Full details (including phone numbers) of the nearest A & E unit and Emergency Services are provided in the site office.

A First Aid Kit is always available in the site office.

## Solo Working

Generally speaking solo working is not encouraged and no one should ever excavate alone. However, we acknowledge that it may occasionally be necessary for non-excavation work. If you intend to leave the location and work solo please ensure you inform either the Site Director/Supervisor of your intended route and estimated time of return. Please carry a mobile phone with you if possible.

## The Correct Use of Tools

All tools used in archaeology, such as the mattock, pickaxe, spade and shovel, can be dangerous when defective, and lethal when used without due care and consideration. Site workers should return any damaged tool immediately to the Site Supervisor for replacement. It is his/her responsibility to see that all tools are serviceable and safe.

Due care and consideration involves making sure that:

i. There is enough working space not to endanger colleagues working nearby.

ii. When two or more workers are engaged on a single task there is clear understanding between them on the way in which work is to be done.

iii. Never work with any hand tool with a split shaft or with a head which has worked loose.

Misunderstanding, as well as carelessness and defective tools, lies behind many site accidents. If in doubt, or if a dispute arises over method, consult the Supervisor and follow his instructions. This is important when working with tools with which you are unfamiliar.

Never leave tools with the blade uppermost, such that they can spring up if stood on, this is particularly important with sharp tools such as spades and forks.

Keep an eye on your own kit and make sure that you have done your best to keep it out of anyone else's way. If you see stray or defective kit, please bring it to the site directors / supervisors attention.

## Tripping, Slipping and Falling

It is the very nature of an archaeological site to be uneven and to have deep holes and trenches that cannot be covered or fenced. In wet weather, when the ground is muddy and slippery, the danger of a fall is greatly increased.

Whenever possible, handrails and barriers should be provided, but it must be the responsibility of each person on site to wear suitable footwear and to move with all due care.

An archaeological site must be kept tidy. Rubbish, buckets, barrows, tools, finds boxes and trays, stones and any other obstacles that could cause tripping must be kept in their proper places, and well clear of paths and thoroughfares. Accidents through tripping are as common as accidents through simply slipping and falling.

The cardinal rules are:

i. Look where you are going

ii. Watch out for obstacles and extra slippery areas

iii. Move with care and never run

iv. Pay particular attention to the position of the site datum pegs, surveying tripods and other "fixed points" around the site.

In general, extreme care should be taken when walking onto, on, or off the site to avoid disturbing section lines, marker pegs, grid strings, tags, etc.

## Section and Soil Collapse

Excavation invariably involves the digging of trenches and the creation of standing sections and baulks, and most ground, particularly that which has been disturbed, is potentially or actually unstable. The Site Supervisor is responsible for the adequate shoring, or the safe angling or battering of a section as soon as excavation reaches a depth where workers could be buried if the side collapsed.

Sections are particularly dangerous when they form the sides of a narrow trench. A person working in a narrow trench can be engulfed faster and more effectively than he would be in a wider trench. As a general rule, trenches should never be narrower than one-and-a-half times their maximum depths below the ground surface. Also, the sides of a trench become even less stable when water collects in the bottom. Although pumping may keep a cutting "dry" it can also cause a flow of water into the excavation, which may be sufficient to cause the soil to run. Any trench, which has had standing water in it should not be entered immediately after it has been pumped out.

A further danger is soil collapse due to heavy weight, like machinery, barrow runs, spoil heaps, etc., being too close to the edges of the excavation. It is the Site Supervisor's responsibility to keep such weights well clear of the vulnerable areas, but in this it is essential that he has the co-operation of everyone on site.

In any excavation that goes deeper than a person's height (or waist level where most of the work is done kneeling down) safety helmets must be worn. No one should ever work alone on an excavation. No one should ever go into a deep cutting or trench where soil collapse is even remotely possible, unless there are other people and equipment near by, and there is an adequate escape route for speedy evacuation. Always work within sight of at least one other person.

Personnel should refrain from sitting on or walking near the edge of baulks - which can result in section collapse. Remember that a machine-cut trench is inherently less stable than a hand-cut trench; and mechanical excavation provides less opportunity for judging soil conditions. Where possible, the edges of excavations more than 2 metres deep should be protected with substantial barriers where people are liable to fall into them.

## Lifting, Carrying and Throwing

Injuries from lifting and carrying fall into three common categories:

i. Personnel straining themselves in attempting to lift heavy and unwieldy loads (i.e., large stones etc.,) with a result of some form of back injury or hernia

ii. Personnel injuring their hands and fingers by trapping them under heavy loads

iii. Personnel injuring their feet and legs when heavy loads are clumsily dropped

There are correct and incorrect ways of lifting, and there are measures that can be taken to cut down the risks involved. Never try to build too big a load for one person, and most important, use the correct lifting method. As a general rule lift with your legs and not with your back, but if in doubt ask the Site Supervisor.

## The Use of Ladders

Ladders must be used at all times for access to, and egress from excavations more than 1 m deep. The use of ladders can be dangerous, both from ladder slipping, and user slipping. Leaning ladders are designed so that their safest angle of use comes when every 1 measure out from the wall is matched by 4 measures up to it (rungs are usually about a third of a metre apart so it is easy enough to get the distances roughly right). Do not stand a ladder on a slippery or unstable surface, and make sure that it is the correct length for the job. Ladders must extend at least 3' 6" above platform or ground level and must be firmly clamped or roped at the top. If the ladder is broken or damaged in any way do not use it. Report the damage immediately to the Site Supervisor.

If the weather is, or has been, wet, take extra care not to slip off the rungs because of wet and muddy footwear. Always keep a firm grip on the ladder and never attempt to carry heavy tools when using it.

## Hoists, Pulleys, Scaffolding and Photographic Towers

When a hoist or pulley is being used to remove spoil and stones from a deep excavation, workers loading the bucket or barrow, and guiding its ascent or descent, must wear safety helmets, and must stand as far back as practical while the hoist is operating.

Buckets and barrows must never be overloaded and must be prevented from swinging and striking the sides of the excavation. Only a person who is thoroughly familiar with all aspects of operating a power hoist will be allowed to use it, and then only with the express permission of the Site Supervisor.

Scaffolding, used to support a hoist or pulley, or used for any other purposes (e.g. as a photographic tower) must only be erected by suitably experienced and competent staff. No one will be allowed to use such scaffolding except those responsible for it, and those specifically delegated by the Site Supervisor for specific tasks. The Site Supervisor is also responsible for a regular inspection of the ground and section immediately below a scaffolding superstructure, and for seeing that any sign of a developing weakness is immediately dealt with. Ladders used in association with scaffolding towers should be securely attached. Scaffolding towers pose particular hazards during erection and dismantling. Persons involved in these duties must wear protective headgear; and no one else should work within an area of diameter equal to one-and-a-half times the height of the tower. The same rule-of-thumb applies to towers that are being moved.

Scaffolding constructions should never be left unattended in an incomplete state.

## Spoil Dumps

All spoil should be deposited in stable dumps at a safe distance from the excavation areas and not in positions likely to cause other hazards. NEVER stand on a spoil heap.

## Back-Filling

Particular care should be taken in back-filling a site:

i. To keep machinery and personnel safely apart

ii. To leave the site in a safe condition

iii. To retain topsoil separately for final replacement as topsoil.

## Fire Risks and Chemicals

Smoking should be discouraged in order to prevent discomfort to other workers, the risk of contaminating the archaeological evidence and the possible risk of fire. Workers must never smoke in a trench. Smokers should be encouraged to take their breaks well away from the excavation and to dispose of their cigarette butts with great care.

Litter should be placed in receptacles provided.

There is the possibility of pesticide residues in agricultural and parkland. Never handle food or drink if you have been digging without first washing your hands.

In the event that potentially toxic materials are found such as old medicine bottles, chemical containers etc, the Site Supervisor will halt the excavation and consult appropriate experts to make the area/objects safe.

Chemicals may be used in certain conservation processes. In such cases appropriate health & safety arrangements should be made in consultation with the specialist conservator.

## Engine Powered Devices

From time to time, engine driven equipment such as pumps or generators are used on site. In all cases use and maintenance of these is strictly limited to authorised personnel only.

The following general rules apply:

i. Always use the correct fuel for the device.

ii. Always switch off the engine before refuelling.

iii. Always keep spare fuel at a safe distance from the equipment.

iv. Never work on the equipment with the engine running.

The following apply to specific types of equipment:

### Generators

The use of these is very strictly limited to properly authorised and trained personnel.

Generators should always be used under cover in uncertain weather conditions, again making certain that exhaust fumes can be dispersed.

Electricity, however generated, can be lethal.

Never connect, or disconnect, the distribution cable with the engine running.

Always site the machine on a dry level place to minimise possibilities of shock.

Keep the distribution cable raised above ground level, where possible, so that it is visible, and avoid running over it with vehicles.

### Water Pumps

Ensure the suction and outlet hoses are correctly identified.

Ensure the outlet water can drain away without causing problems.

Ensure the pump is “primed” before use.

### Strimmers

The use of these is very strictly limited to properly authorised and trained personnel.

Ensure all the required personal protection equipment is used will working with these.

## Use of Metal Detectors etc on Areas of Archaeological Importance and Scheduled Ancient Monuments

Note that, under the Ancient Monuments and Archaeological Areas Act 1979, as amended by the National Heritage Act 1983, specific permission for the use of such equipment must be given, even in cases where permission to excavate has been granted.

## Unauthorised Entry to Archaeological Excavations

Note that members of the public, especially children, may be protected under the *Health and Safety at Work* Act. All reasonable steps must be taken to exclude such persons.

## Vehicles

Vehicles will only be used by exception on-site and only with the express prior approval of the Director and/or the Site Supervisor.

All vehicles shall be capable and fit for the terrain and conditions at the time.

All vehicles shall comply with all requirements of the Road traffic Acts.

All drivers shall be insured against third party risks **on private land**.

The maximum speed limit on **all** the private land is **25mph** with sections restricted to **10mph**. The speed limit on the field containing site is **3mph**.