



Appendix 5: Assessing Risk

This appendix to the Ingleborough Archaeology Group (IAG) Health & Safety Policy serves two purposes. Firstly, it explains to IAG members and others why, and how, we conduct risk assessments before we embark on any IAG activity or project. Secondly, it provides guidance to Activity Leaders and others who assess risk, particularly to those who are either new to risk assessing, or who are new to working with us.

The law. The 'Health and Safety at Work Act etc 1974' governs legal health and safety requirements for any organisation that uses paid workers or controls any premises. It contains specific requirements aimed at protecting people who are doing paid work. This includes providing, 'as far as is reasonably practicable', safe equipment and safe substances; necessary information, instruction, supervision, and training; and a safe and healthy working environment.

Groups that do not have paid workers or control premises still have a general legal responsibility to take care not to cause injury to people. In the eyes of the law, IAG has a duty of care to its members and to others who are affected by its activities. This means that IAG needs to do what it can to protect people from harm.

Why else do we need Risk Assessments? A risk assessment that is circulated to all participants helps them think about their own health and safety.

Applications for permission to carry out archaeological work often require IAG to have carried out a risk assessment of the proposed work.

If there were a serious incident or accident, IAG might have to prove that it took all reasonable steps to avoid the occurrence. A written risk assessment, properly implemented, would help to provide that evidence.

For professional archaeologists, it is a legal requirement that everyone carrying out any form of fieldwork should assess the risks and devise a strategy to minimise them.

Even if there were no legal requirements, it would still make good sense to think about possible hazards and develop strategies to eliminate or minimise any consequential accidents and injuries.

The IAG commitment. IAG will risk assess all its activities including walks and visits, fieldwork and excavation, and all public events. It will implement the decisions contained in those risk assessments and do all that is reasonably practicable to eliminate or reduce the risk to those participating in, visiting, or affected by, IAG activities.

What is a Risk Assessment? A risk assessment is simply the process of thinking about possible hazards and what will be done to avoid them. A risk assessment lists the different hazards that people might encounter while taking part in an IAG activity; lists how those hazards might cause injury; and then lists what will be done to prevent, or minimise the possibility of, an accident or an injury.

The Activity Leader is responsible for the risk assessment but may be aided by others.

There are varying methods for assessing risk. The IAG recommended method for assessing risks associated with its activities is described on pages 2 and 3 of this Appendix.

Risk assessment forms for walks, and for fieldwork & excavation activities, are on pages 4 and 5 of this Appendix.

Walks: Assessing Risk. A risk assessment for an IAG walk needs to be considered carefully but it does not need to be over-elaborate.

The completed risk assessment form should be headed with the name of the risk assessor, date of the assessment, name of the Activity Leader, name of the walk, date of the walk, summary of the route, distance to be covered, approximate time to complete the route, amount of ascent in metres, the nature of the paths and a summary of the terrain. Any safety equipment which will be carried by the Activity Leader should also be listed, e.g. O.S. map, compass, whistle, survival bag, torch and first-aid kit (if the Activity Leader is qualified).

Underneath, there will be three columns headed, 'Hazard', 'Action to Avoid Injury' (often referred to as 'Control Measures'), and 'By Whom/When'.

In the 'Hazard' column, the assessor should list any potential hazard identified on a recent reconnoitre of the route, e.g. stiles, steep ascent on slippery ground, low overhanging trees.

In the 'Action to Avoid Injury' column, the assessor should state what they intend to do about the hazard. For instance, if the hazard is a tall wooden ladder stile, the actions might be: 'One person to be stationed at each side of the stile to offer a helping hand to all' and 'Pass walking poles and bulky bags over stile before ascending'.

In the 'By Whom/When' column, in the above stile example, it might read, 'Activity Leader at one side of the stile, Back-up person or volunteer at the other'.

The IAG Health & Safety Policy 'Appendix 1: Walks Guidance' should be read in conjunction with the risk assessment. The guidance contains a table showing the kind of risks that might be met on a walk and the action to avoid injury. This is a generic list designed to help everyone think about risk, hazards, and safety. It should never just be copied into a risk assessment. Each walk must be individually assessed.

Fieldwork & Excavation: Assessing Risk. A risk assessment for IAG fieldwork and excavation activities is necessarily a little more involved than an assessment for an IAG walk, but the same principles apply.

The completed risk assessment form should be headed with the name of the risk assessor, date of the assessment, and name of the activity leader. It should show the period of operation and the location of the work. Where the work is at a discrete location rather than a wide area, the map reference (OS NGR) of the site also should be shown. Safety equipment at the site should be listed, e.g. goggles, hard-hats and first-aid kit (if a qualified first-aider is on site).

Underneath, there will be five columns headed:

| Hazard | Likelihood of Risk <i>(score 1-5)</i> | Potential Harm <i>(score 1-5)</i> | Risk-level Rating <i>(likelihood score x harm score)</i> | Control Measures |
|--------|--|--------------------------------------|---|------------------|
|--------|--|--------------------------------------|---|------------------|

The assessor should list all the hazards identified in the 'Hazard' column. For each hazard, the assessor will then consider the likelihood of risk. The following descriptions will help the assessor decide the most appropriate likelihood of risk score to be entered in the second column.

| Likelihood | Broad guidance descriptor | Score |
|----------------|--|-------|
| Rare | <i>This will probably never happen. Frequency less than 0.1%</i> | 1 |
| Unlikely | <i>Not expected to happen but it is possible it may do. Frequency 0.1 - 1%</i> | 2 |
| Possible | <i>This might happen or recur occasionally. Frequency 1 -10%</i> | 3 |
| Likely | <i>Will probably happen or recur, but it is not a persisting issue. Frequency 10-50%</i> | 4 |
| Almost Certain | <i>Will undoubtedly happen or recur, possibly frequently. Frequency more than 50%</i> | 5 |

Once the likelihood of risk has been decided, the potential harm arising from each risk should be considered. The following descriptions will help the assessor decide the potential harm score to be entered in the third column.

| Potential harm | Broad guidance descriptor | Score |
|----------------|--|-------|
| Insignificant | Requires no or minimal intervention or treatment | 1 |
| Minor | Requires minor intervention | 2 |
| Moderate | Requires professional attention | 3 |
| Major | Leading to long term capacity or disability | 4 |
| Catastrophic | Death, multiple permanent injuries, or irreversible health effects | 5 |

For each identified hazard, the 'likelihood' score in the second column, and the 'potential harm' score in the third column are multiplied together and the resultant figure entered in the fourth column. This becomes the 'risk-level rating' for that hazard. For example: if the likelihood score is 3 and the potential harm score is 2, the risk-level rating would be 6.

The next step is to decide for each hazard the action that should be taken to reduce, or eliminate, the likelihood of an accident. These are the 'control measures' and they are entered in the fifth column.

In considering the control measures, very careful attention should be given to the risk-level ratings in the fourth column.

Risk-Level Ratings. A risk-level rating of 1-3 is considered low and tolerable with the risk-level not much greater than that which is expected in normal daily life, or that it has already been reduced to the lowest level that is reasonably practicable. No special controls need to be implemented other than those in the Health & Safety Policy Appendix 2: 'Fieldwork & Excavation Guidance' and addressed in the on-site safety briefing.

A risk-level rating of 4 to 6 indicates a moderate level of risk. Efforts should be made to reduce the risk where possible and very careful thought given to the control measures.

A risk-level rating of 8 to 12 indicates a high risk. Work should not be started until the risks have been reduced.

A risk-level of 15 and above is extreme and intolerable. Work is prohibited.

Below is a summary of the risk-level scoring method shown as a '5x5 risk-level matrix'.

| Risk-level matrix | | Likelihood | | | | |
|-------------------|--------------------|---------------|---------------|---------------|---------------|---------------------|
| | | 1 Rare | 2 Unlikely | 3 Possible | 4 Likely | 5 Almost certain |
| Potential harm | 1 Insignificant | 1 Low | 2 Low | 3 Low | 4 Moderate | 5 Moderate |
| | 2 Minor | 2 Low | 4 Moderate | 6 Moderate | 8 High | 8 High |
| | 3 Moderate | 3 Low | 6 Moderate | 9 High | 12 High | 15 Extreme |
| | 4 Major | 4 Moderate | 8 High | 12 High | 16 Extreme | 20 Extreme |
| | 5 Catastrophic | 5 Moderate | 10 High | 15 Extreme | 20 Extreme | 25 Extreme |

The assessor must consider the likelihood and harm scores honestly. It is unacceptable to manipulate the scores to achieve a lower risk-level rating. The solution must always be to reduce the risk and then reassess.

On the Ground, Risk can Change! On site, as work progresses, risks can escalate. For instance, in unexpected poor ground conditions, the walls of a trench as little as 80cm deep might become dangerous and need shoring before work can continue. Where risk substantially increases, the work should stop, a new assessment made, and control measures introduced reduce the risk to acceptable levels.

Other Activities and Events: Assessing Risk. IAG activities other than walks or fieldwork & excavation shall also be risk assessed. They shall be assessed in the same manner as that for fieldwork & excavation described above.

Risk Assessment Forms. IAG risk assessment forms are available to assessors in both Microsoft Excel and PDF format.



Risk Assessment form for an IAG Walk

| | |
|-----------------------------------|--|
| IAG ref. (Office use only) | |
| Title of walk | |
| Date of walk | |
| Name of risk assessor | |
| Date assessed | |
| Name of Activity Leader | |

| | | | | | |
|--|--------------|--|-----------|-----------------------------|------------------------------|
| Summary of the route | | | | | |
| Scheduled start time | | | | Expected return time | |
| Distance of walk | miles | | km | | Total ascent (metres) |
| Nature of paths and summary of the terrain | | | | | |
| Safety equipment carried by Activity Leader | | | | | |
| Any other information | | | | | |

| Hazard | Action to avoid injury | By whom/when |
|---------------|-------------------------------|---------------------|
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| IAG ref. (Office use only) | |
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| | |
|------------------------------|--|
| Name of risk assessor | |
| Date assessed | |
| Assessor's signature | |

| | | | | | |
|---|-------------|--|-------------|--|--------------------------------|
| Location of work (add NGR if discrete site) | | | | | |
| Period of operation | | | | | |
| Estimated min. and max. numbers in workgroup | Min. | | Max. | | Name of Activity Leader |
| Generic hazards | | | | | |

| Hazard | Likelihood of risk (score 1-5) | Potential harm (score 1-5) | Risk level rating (Likelihood x Harm) | Control measures |
|---------------|---------------------------------------|-----------------------------------|--|-------------------------|
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|--------|--------------------------------|----------------------------|---------------------------------------|------------------|
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| Likelihood of risk | Broad guidance descriptor | Score |
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| Possible | This might happen or recur occasionally. Frequency 1 - 10% | 3 |
| Likely | Will probably happen or recur, possibly frequently. Frequency 10 - 50% | 4 |
| Almost certain | Will undoubtedly happen or recur, possibly frequently. Frequency more than 50% | 5 |

| Potential harm | Broad guidance descriptor | Score |
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| Insignificant | Requires no or minimal intervention or treatment | 1 |
| Minor | Requires minor intervention | 2 |
| Moderate | Requires professional attention | 3 |
| Major | Leading to long term incapacity or disability | 4 |
| Catastrophic | Death, multiple permanent injuries, or irreversible health effects | 5 |

| Risk-level matrix | | Likelihood | | | | |
|-------------------|--------------------|---------------|---------------|---------------|---------------|---------------------|
| | | 1 Rare | 2 Unlikely | 3 Possible | 4 Likely | 5 Almost certain |
| Potential harm | 1 Insignificant | 1 Low | 2 Low | 3 Low | 4 Moderate | 5 Moderate |
| | 2 Minor | 2 Low | 4 Moderate | 6 Moderate | 8 High | 10 High |
| | 3 Moderate | 3 Low | | 6 Moderate | 9 High | 12 High |
| | 4 Major | 4 Moderate | 8 High | 12 High | 16 Extreme | 20 Extreme |
| | 5 Catastrophic | 5 Moderate | 10 High | 15 Extreme | 20 Extreme | 25 Extreme |