



Standards and guidance for forensic archaeologists

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This IfA Standard and guidance is endorsed by the Forensic Science Regulator



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1 Introduction

This Standard and Guidance document has been developed by the Institute for Archaeologists (IfA) and an advisory group comprising forensic archaeologists who had previously been accepted by the Council for the Registration of Forensic Practitioners through a process of peer review.

This document will allow forensic archaeologists to demonstrate high levels of professional performance by validation against accepted standards. This is underpinned by guidance on working methods which will ensure these standards are maintained during delivery. The document is designed to provide guidance within the legal framework of England and Wales whilst outlining best practice which is also compatible with the legal system in Scotland.

At present there is no single central text upon which to draw and the methods employed in forensic archaeology remain in continuous development. Therefore, this document draws upon pre-existing UK professional standards and accepted techniques for archaeological practice including those outlined by the IfA (2008 a and b, 2009), technical papers issued by English Heritage and other professional bodies (Museum of London Archaeology Service 1994) academic references (Hunter and Cox 2005, Hunter et al 1997). The agreed standards and guidance of the Forensic Science Regulator (FSR) and other appropriate authorities¹, and international standards outlined by the American Academy of Forensic Science and the United Nations have also been considered.

The document is divided into numbered sections. Each section outlines the standards required of a forensic archaeologist at a specific stage in the investigative process. The standards are underpinned by guidance on best practice which will ensure they are maintained.

All practicing forensic archaeologists will be expected to demonstrate competency against the standards outlined in this document and those of the FSR. New recruits and trainees must demonstrate competencies appropriate to the level of work undertaken.

This document refers throughout to 'features'. A feature is considered to be any archaeological entity of interest, including but not exclusively, clandestine graves.

¹ The Crown Prosecution Service in England, Wales and Northern Ireland and the Procurator Fiscal in Scotland

1.1 The duties and responsibilities of the forensic archaeologist

In line with other forensic support services, the following elements are considered to be the key duties and responsibilities of the forensic archaeologist:

- Actively maintaining professional expertise: through continuous development (which may include an IfA members CPD log), the forensic archaeologist must ensure a good breadth of archaeological knowledge and keep up to date with methodological advances within both the archaeological and forensic spheres. They must also be able to demonstrate a good basic knowledge of human skeletal anatomy and taphonomy
- Working to agreed and documented standards and participating in formal and informal peer review and audit, ensuring reliability and consistency by performing within the confines of the individual's skills and expertise and by ensuring the integrity of the evidence at all times, and by maintaining all specialist equipment to an appropriate standard to ensure the prevention of contamination between scenes
- Effectively communicating: providing clear information during the investigative process and presenting findings in a balanced and impartial manner
- Understanding their role within the criminal justice system, legislation concerning both human remains and archaeology and the obligations and responsibilities of the expert witness

2 Professional standards in forensic archaeology

2.1 Introduction

Adherence to this code of practice will be an essential requirement in the provision of forensic archaeology services. The forensic archaeologist must be prepared to demonstrate justification for any unavoidable departure from these standards to colleagues, the IfA and the criminal justice system.

There is at present no central register for forensic archaeologists. Some practitioners will have come to the discipline through an academic route and be able to provide evidence of relevant qualifications which will assist the customer in establishing competence of an individual. Other practitioners will have developed their skills 'in the field' through many years of archaeological experience in different historic and/or forensic circumstances (search, body recovery, mass graves etc). The standards outlined here are designed to enable this wealth of knowledge and experience to be effectively measured alongside formal qualifications and enable the customer to determine the competence of the forensic archaeologist.

Forensic archaeologists may be employed by commercial archaeological or forensic service providers, universities or as sole traders. Some service providers will have existing charging agreements with the police. In all other instances the forensic archaeologist should charge for their time and reasonable expenses incurred during an investigation.

Archaeological practitioners are not compelled to be members of any professional body. There is no established organisation covering forensic archaeology alone, though practitioners may be members of a number of professional organisations providing measurement of competency to practice. The IfA promotes professional standards in archaeology through a system of peer reviewed, corporate (professional) membership (IfA 2009 a), underpinned by a Code of Conduct (IfA 2009 b) and disciplinary procedure to investigate allegations of malpractice.

The three grades of IfA corporate membership summarised below supply a pre-existing, framework to assess competency to practice within a defined level of responsibility and are therefore referred to for guidance in subsequent sections.

- Practitioner (PIfA): able to undertake skilled tasks under the guidance of others
- Associate (AIfA): has a high level of working and background knowledge, able to carry out, delegate or bring pieces of work to conclusion with some autonomy but without holding ultimate responsibility
- Member (MIfA): has authoritative knowledge and depth of understanding with the competence and responsibility to initiate, negotiate, carry out and/or delegate, and bring pieces of work to a conclusion

Organisations may also register with the IfA. A Registered Organisation (RO) will be led by a MIfA and must agree to adhere to the Code of Conduct and the standards and by-laws of the Institute (IfA 2008 c).). They must demonstrate compliance with the Code of Conduct every 2 years and are subject to sanctions if they fail to comply.

2.2 Guidance

All practicing forensic archaeologists should abide by Principle 1 and rules 3.1 to 3.5 of Principle 3 of the IfA Code of conduct (IfA 2009), whether or not they are corporate members of the Institute. Rule 1.4 requires that a member only undertakes work for which they are qualified. Principle 3 requires that work is conducted in such a way that reliable information may be acquired and the results properly recorded.

The forensic archaeologist must be able to demonstrate operating procedures which comply with the standards outlined here.

The **overall responsibility** for any work must be held by a person with skills and competence equivalent to those required of a MIfA. Opportunities for training/mentoring of staff should be considered where appropriate, in consultation with SIO and CSM. Trainees and recent recruits (considered to be equivalent to a PIfA) should work only under supervision of a more qualified and experienced forensic archaeologist. The forensic archaeologist must be aware of their own limitations. (Please see the IfA Code of Conduct 1.4 and section 6.2.6, this document)

2.3 Keeping up to date

Forensic archaeologists should ensure that they have access to a library of relevant journals and reference materials, including historic mapping. Practitioners should demonstrate awareness of the need for secure information and confidentiality issues.

2.4 Peer review and assistance from other specialists

Regular consultation with colleagues is encouraged and forensic archaeologists must have in place systems to enable peer review and ensure quality control (e.g. a critical conclusions check) (see also 7.1 c-f). They must maintain contacts within the discipline and within related forensic and archaeological services on whose advice or assistance they can call when required.

2.5 Record keeping

All records should be maintained in appropriate, secure storage. The forensic archaeologist must comply with the advice of the police or CPS regarding the retention of records. The forensic archaeologist must proceed with reference to Annex K of The Disclosure Manual for expert witnesses (2005), retaining all illustrative, written and electronic data, until otherwise instructed.

3 Initial contact with the forensic archaeologist

3.1 Standard

The forensic archaeologist must advise of the importance of and methods for limiting further disturbance and establish from the senior investigating officer (SIO) or their deputy:

- a) The nature of the case
- b) The reason for requiring attendance of a forensic archaeologist

- c) How to reach the briefing location and any access issues which could affect the time required to reach the location and/or limit the equipment which can be brought to the scene
- d) The details of the SIO if they are not the initial point of contact and the name(s) of the forensic archaeologists contact at the scene/briefing

The initial contact must be documented by the forensic archaeologist, with relevant dates and times.

3.2 Guidance

It is the responsibility of the forensic archaeologist to establish that they are able to attend the scene/search area within the required timescale and provide advice regarding the requirements for other specialist or support services.

There should be no unreasonable delay in responding to a call. Police must be made aware of the time required to prepare for and travel to the site. The police may make arrangements for travel. The forensic archaeologist should also consider the time required to carry out background research prior to attendance (see 6.2.1).

4 The Briefing

4.1 Standard

An effective briefing is essential to ensure the integrity of archaeological work. The forensic archaeologist must liaise with the SIO, crime scene manager (CSM) and other experts in attendance to determine:

- a) The potential scope for forensic archaeological involvement
- b) Their responsibilities and the responsibilities of others at the scene with regards to health and safety issues relating to the search and/or recovery
- c) An initial plan for the approach to the search/excavation
- d) The best approach to evidential issues and prevention of scene contamination
- e) Requirements for support services and/or equipment

4.2 Guidance

The briefing should be conducted by the SIO or the relevant police representative at the earliest opportunity. During the briefing the forensic archaeologist must ensure that they obtain all available details for the search of a particular location. Using the information provided an initial plan for the approach to the search or excavation and evidence recovery should be established by the forensic archaeologist in consultation with the SIO, CSM and other specialists who may be involved. Specialist scene preparation (e.g. screening) may be discussed with the CSM where appropriate.

The briefing should include information on the circumstances of any previous discoveries, witness reports and information advanced by the suspect.

The forensic archaeologist should ensure they are aware of the available resources e.g. Police Search Advisors (POLSAs), photographers and other specialists, and the capabilities of those resources.

The forensic archaeologist should establish and help to identify, in discussion with the SIO and other specialists if required, whether there are any known or suspected health and safety issues relating to the search area.

By liaising with the SIO and/or CSM as appropriate, the forensic archaeologist should ensure that they are aware of any risks to health and safety resulting from the environment of the scene/search (e.g. biohazards). If there are any specific risks associated with the archaeological work, appropriate advice should be given and documented. The forensic archaeologist should be prepared to provide themselves with appropriate PPE for attendance to a construction or demolition site.

The forensic archaeologist should maintain a record of all briefing information provided by the police, including relevant dates and times

5 Search

5.1 Standard

Prior to and during search the forensic archaeologist must:

- a) Undertake all practical research to enable a full understanding of the area to be investigated
- b) Establish the parameters of the area to be searched based on the information available at the time

- c) Produce a documented specialist search strategy in consultation with any POLSA search strategy, based on the information obtained and making optimum use of available resources within the requirements of the search
- d) Ensure that the agreed search strategy is compatible with that of the CSM
- e) Work at all times with an awareness of contamination issues and within the scene management strategy of the CSM, using agreed routes of access and protective clothing as appropriate
- f) Understand the requirements and potential contribution of other attending specialists and members of the search/investigative team
- g) The forensic archaeologist must have, or be able to obtain, an adequate knowledge of the type of archaeological deposits and structures relevant to the scene.
- h) Document background information and resulting discoveries (positive and negative findings)
- i) Where appropriate, advise on and determine the identity of evidence and other material and on their protection and storage
- j) With the agreement of the SIO, report previously unknown archaeological (non-suspicious) findings and trench locations to the local planning archaeologist/SMR/monitor and be aware of the legislative requirements of intervention into archaeological deposits

5.2 Guidance

5.2.1 Pre-scene attendance

The forensic archaeologist should endeavour to undertake research to enable as full an understanding of the area as necessary and formulate a search strategy based on the information obtained.

Background research should include obtaining geological and topographic information relevant to the search parameters and information on the past history of the area including archaeological information and evidence of possible contamination or health and safety issues. The forensic archaeologist should also gather information from the briefing and from other attending experts. If aerial photographs are available these should also be interrogated. Background research should include investigation of reliable internet sources for historic information and local images of the area.

The forensic archaeologist should have a thorough understanding of archaeological formation processes. They should establish the presence of characteristics which may affect the visibility of features of forensic interest, and the presence of historic burial grounds and archaeologically sensitive areas. Historic maps (from local archives or on-line databases) and the sites and monument record (SMR) should be consulted. Areas

of potential interest, such as changes in the landscape which may indicate areas of concealment, should be identified.

Background information should be documented at the scene and a reference copy provided to the appropriate member of the investigative team as required. Receipts should be obtained for all documents provided to the investigative team.

5.2.2 Search Strategy

The search strategy should be prepared in discussion with the SIO, CSM and POLSAs as appropriate. This should include the staffing levels required for effective archaeological work. Best practice should consider the requirement for a minimum of two attending forensic archaeologists to assure quality, reduce bias and provide corroboration of specialist interpretations. The CSM should be advised of any welfare and lighting requirements.

The information gathered prior to attendance and on scene should be combined to advise the CSM of high and low priority search areas.

The specialist search strategy should define the parameters of the search, any intelligence regarding the case or activities on the site, the available resources and methods of deployment. Discussion of the indicators which determine that areas require further investigation should be carried out (e.g. crop marks, obstacles, changes in ground surface or flora).

Methods for search which may be considered include field survey and scanning, earthwork survey and archaeological landscape assessment, geophysical survey, remote sensing (e.g. aerial and thermal imagery), fingertip search and the use of cadaver dogs. Non-destructive search methods and methods with minimal destructive potential are outlined in Annex 1 of the Standard and Guidance for field evaluation (IfA 2008 b). Difficult working environments may require the consideration of different search and recovery methods, as well as additional health and safety protocols, in discussion with the forensic archaeologist,.

The search should identify if there are areas of interest which require further invasive investigation which must then follow the standards outlined in section 6. Recommendations should be justified and documented, and the level of significance discussed with the SIO/CSM.

5.2.3 Search Management/Action at the scene

Prior to the search the forensic archaeologist should be briefed by the relevant police representative (see 4). Where a briefing has not been possible before attendance, this should take place prior to the commencement of archaeological work.

During the search it may be appropriate to reconsider decisions made at the briefing and in the initial search strategy. As anomalies or items/features of interest are located, search methods may also be altered, for example, fingertip searches of areas of interest should be considered. Changes to the search strategy required during its implementation should be documented.

The search area may consist of a large area of landscape/waterway or be a clearly defined scene under the control of the CSM in conjunction with POLSA. In either instance, the forensic archaeologist should consult with the CSM before entering any area. Discussions with the CSM should include routes of access, and the prevention of contamination.

The identification and investigation of any areas of interest should be fully recorded. Each distinct archaeological entity (context) should be assigned a unique identifying number. Items of interest should be exhibited under the instructions of the CSM.

Liaison with the investigative team should involve discussion of the potential state of preservation of human remains and associated evidence (taphonomy), including differential decomposition, based on the following factors (if known):

- Age, size and prior health of the target individual
- Surface disposal versus buried or submerged remains (including airflow, depth of overburden etc)
- Entomology, microbiology, scavenging and dispersal of human remains (influenced by location/ timeframes/ season)
- Barriers (e.g. clothing/ wrappings)
- Vegetation re-growth and silting
- Temperature, sunlight and other environmental impacts (e.g. effect of weathering on bone, clothing and other associated evidence)
- Anthropogenic impact (e.g. trauma, burning and dismemberment)

5.2.4 *Involvement of other specialists*

The forensic archaeologist should ensure that they have a basic awareness of other specialist techniques and evidence types which may be of importance during the search. They should determine if and when it is appropriate to seek advice or assistance from other specialists (e.g. pathologist, environmental profilers, entomologists, forensic anthropologists) and communicate this to the SIO. The forensic archaeologist should consider the requirements and methods of other specialists and implications for the order of work when determining an initial strategy and during the search, prior to any invasive investigation of features of interest. Where other specialists are involved they are expected to maintain their own documentation.

5.2.5 Importance of notes

The forensic archaeologist should record their actions, decisions and observations during the search using comprehensive written notes. Documentation would normally include the production of sketch and measured plans, context sheets and scene notes, as appropriate, supported by photography (see 5.2.6). The location of all items and features of interest should be accurately recorded.

5.2.6 Photography

The forensic archaeologist should determine the provision of support services including the requirement for a police photographer. The forensic archaeologist should advise the SIO on the importance of adequate photography of anomalies prior to any physical intervention/excavation and of aspects of those anomalies during further investigation (see 6.2.5). Requirements should be discussed with the police photographer and the forensic archaeologist should advise of the usefulness of being provided with the relevant photographic catalogue to refer to in any subsequent report. Photographs should include an appropriate scale; the direction of the photographs should be noted. It is also useful for the forensic archaeologist to maintain a record of photographs relevant to their work, as recorded by the crime scene photographer

5.2.7 Prevention of contamination at scene

Appropriate clothing, as determined by the CSM, should be worn at all times during the search. The forensic archaeologist should be aware of the issues of scene contamination, the potential for disturbance of other evidential material during a search and the importance of the adoption of a common approach path.

The forensic archaeologist should maintain all specialist equipment in line with section 9 of IAF/ILAC-A4 (2004). A documented cleaning protocol should ensure that equipment which may be used on more than one scene is cleaned using appropriate cleaning agents to prevent cross-contamination. Requirements for equipment procurement should be discussed with the CSM and wherever possible, disposable equipment should be used. The forensic archaeologist should be prepared to exhibit items of equipment used on scene for the elimination of materials from the enquiry (e.g. tool marks, brush fibres) if requested by the CSM or other crime scene specialist. A contamination log and scene log should be provided to the CSM when scene work is finished.

5.2.8 Reporting

All notebooks and other records from the site should be retained whether the search is successful in locating features of interest or not. Records should be maintained by the forensic archaeologist in a secure location. All electronic records should be maintained in a secure directory (i.e. password protected or with limited user permissions) with a regular backup protocol to ensure data is not lost. Retention should be carried out in line with the guidance of Annex K of The Disclosure Manual (2005).

Report structure should draw on the guidance in Annex 2 of the Standard and Guidance for field evaluation (IfA 2008 b) to ensure that both the methods and results of the search are fully documented. The report should be clear and the conclusion easily read by a non-specialist to ensure it is suitable for presentation in court if required. Where technical or specialist terminology is used, this should be supported by a non-technical explanation (see 7.2.1).

The report should include details of the briefing, search strategy, results and their interpretation and the conclusions drawn.

Each context should be referred to by its unique identifying number and all recovered items by the exhibit number assigned during lifting. Photographs, sketches and measured plans should be cross referenced in the report to enable the full reconstruction of the search and any findings. The minimum requirements for context recording are considered to be comparable with those outlined in section 3.1.1 of the Museum of London site manual (Museum of London Archaeology Service 1994) and consist of the location, description (written, measured and drawn), interpretation and stratigraphic relationship of each context, together with the date, initials of the recorder and cross references to photographs, plans and samples as appropriate.

All archaeological interpretations should be supported by appropriate evidence. The date and nature of finds or features should be established by relative (stratigraphic and contextual) and/or absolute (scientific techniques) as appropriate. Skeletal remains should not be established as non-suspicious by isolated observations of the colour, weight or preservation of the bone. This is of particular importance where remains are surface finds or have been deposited in waterways or waterlogged contexts where the state of preservation may vary.

A final report and/or statement or formal letter communicating the findings of the search should be completed as appropriate to the nature of the work. This should include dates and times, methods used and conclusions drawn, supported by appropriate archaeological evidence. Conclusions should be justified and supported. Alternative explanations should be discussed and discounted (see 7.2.7).

Where the conclusion of a search is that no items or features of forensic interest are present the forensic archaeologist has a professional duty (see IfA Code of Conduct rule 1.10) to report items of archaeological interest to the appropriate authorities and advise other parties on the legal requirements² relating to the discovery of historic human remains (including but not exclusively the Human Tissue Act 2004, the Burial Act 1857, the Disused Burial Grounds (Amendment) Act 1981 and the Town and

² The precise legal requirements will depend upon the specific circumstances of a burial ground. In particular, you will want to be aware that some older burial grounds were established under a local or private Act of Parliament and have their own requirements for the removal of remains.

Country Planning (Churches, Places of Religious Worship and Burial Grounds) Regulations 1990). In such instances, and with approval of the SIO, the reporting process should include informing the local planning archaeologist or English Heritage archaeological advisor and the relevant SMR officer of the location and nature of any findings.

5.2.9 Health and safety

Safe working practices should be followed at all times in line with any scene risk assessment carried out by the police and the advice of the Health and Safety Executive. Health and safety arrangements must be agreed and understood by all members of the search team before work commences.

In addition, the forensic archaeologist should work in accordance with section 3.3.6 of the IfA guidance for archaeological excavation (IfA 2008 a) and advise the CSM/POLSA on the application of this guidance.

6 Recovery

6.1 Standard

The forensic archaeologist must:

- a) Ensure that features are investigated and excavated using the archaeological technique most suited to the specific circumstances of the case
- b) The forensic archaeologist must undertake all excavation with the aim of
 - i) maintaining stratigraphic integrity
 - ii) maximising the recovery of evidence
 - iii) carrying out in-situ evidence recording
 - iv) ensuring that the details of the scene are reproducible through the production of written, illustrative and photographic records
- c) Work at all times with an awareness of contamination issues and within the scene management strategy of the CSM, using agreed routes of access and protective clothing
- d) Advise the CSM on the need to retain excavated material
- e) Advise on samples that should be taken and bring contextual evidence to the attention of the CSM
- f) Understand the requirements and potential contribution of other attending specialists and members of the investigative team and be prepared to advise as to the appropriateness of other specialists' attendance

- g) Sufficiently document the excavation or recovery (written and illustrative records) to enable a three-dimensional reconstruction of the feature to be constructed if necessary
- h) Advise that adequate photographs are taken at appropriate stages of the archaeological work and provide guidance as necessary
- i) Ensure that all exhibit labels for any material or samples retained by the forensic archaeologist are signed at the time required by the exhibits officer to maintain continuity
- j) Offer advice on preservation issues that may be associated with particular evidence types

The forensic archaeologist must record their actions at the scene and those of others, which may have affected their work

6.2 Guidance

6.2.1 Pre-scene attendance

Please also see sections 4.1 and 4.2 (relevant parts thereof).

Either prior to or upon arrival at the scene the forensic archaeologist should be involved in a briefing with the investigators, Crime Scene Examiners (CSE) and other specialists. Information required by the forensic archaeologist will include background information pertinent to the case and crime scene. Please refer to section 4.1 (this document). Relevant information may include an estimated deposition date for the remains, the site's use prior to the estimated deposition date and the use of the site between this date and the present.

The forensic archaeologist should ensure that relevant parties are made aware of the technical, methodological and logistical requirements of an excavation. The excavation strategy should also be discussed and decided at this time. Best practice should consider the requirement for a minimum of two attending forensic archaeologists. The CSM should be advised of any welfare and lighting requirements.

The scene will be under the control of the CSM and initial approach to the scene, a consideration of contamination issues and all subsequent actions undertaken at the scene by the forensic archaeologist will be carried out following consultation with the SIO, CSM and other scene-of-crime experts present.

6.2.2 Recovery of surface remains

The forensic archaeologist may be required to assist with the recovery and preliminary identification of surface remains, some of which may be partially or completely disarticulated and scattered. This work may be carried out in association with CSEs and specialist POLSAs.

In these circumstances the forensic archaeologist may need to establish and utilise strategies for both search and excavation. Any search and/or excavation will be carried out in accordance with the Standards outlined in this document (sections 5 and 6.2.3).

The forensic archaeologist should be aware of the need for other forensic specialists (e.g. pathologists, environmental profilers, entomologists, forensic anthropologists) to attend the scene and be able to advise the SIO or CSM if appropriate.

When recovering partially or totally decomposed and scattered remains the forensic archaeologist should ensure that once located, body parts or skeletal elements are adequately photographed and located before their removal. The requirements of all attending specialists should be considered and the search and excavation strategies adopted should ensure that no evidence is compromised.

6.2.3 Excavation of cut features

When a cut feature has been identified, consideration should be given to the appropriate excavation strategy. All excavation should be undertaken in accordance with guidelines comparable with those set out by the Museum of London Archaeology Service (1994) and Annex 1 of IFA Guidelines (2008 a).

The forensic archaeologist should be prepared to adopt a flexible approach to excavation strategy and to change and adapt these as necessary.

6.2.4 Recording

The forensic archaeologist should produce both written and illustrative records during the excavation. These records should include a note of all observations and actions undertaken by the forensic archaeologist during the attendance at the scene.

In addition, pro-forma record sheets should be completed at the scene. These should include context sheets but may also include others, for example level recording sheets, as appropriate (see 5.2.8). Illustrative records may include sketch plans of the scene as well as scale plans showing the location of any target features and evidence, and detailed, scaled plans and sections of any excavated features as appropriate.

Upon completion of the excavation, sufficient records should have been made by the forensic archaeologist to enable a three-dimensional reconstruction of the feature if necessary.

6.2.5 Photography

The appointed scene photographer should take all photographs, with guidance given by the forensic archaeologist where necessary and ensure that record photographs are taken before excavation begins and at appropriate stages throughout the excavation. Additional, more detailed photographs (e.g. use of macro photographs, or oblique lighting to show tool marks etc) should be requested if deemed necessary. Requirements should be discussed with the police photographer and the forensic archaeologist should advise of the usefulness of being provided with the relevant photographic catalogue to refer to in any subsequent report. Photographs should include an appropriately sized scale. It is useful for the forensic archaeologist to maintain a record of photographs relevant to their work, as recorded by the crime scene photographer.

6.2.6 Involvement of other specialists

The forensic archaeologist should be aware of the requirements and potential contribution of any other specialists present at the scene and be able to work effectively alongside them to ensure that no evidence is compromised. The forensic archaeologist must also be aware of their own limitations and be prepared to seek advice and assistance from other crime scene or forensic specialists if necessary (see section 2.1 this document). They may need to inform the SIO or CSM of their concerns and request the attendance of additional specialists. Where other specialists are involved they are expected to maintain their own documentation.

6.2.7 Recovery of exhibits

The forensic archaeologist should be aware of the policy for seizing exhibits before the excavation begins. The exact location of any exhibits identified should be recorded before their disturbance or removal, where possible. If exhibits have already been disturbed, recording should be undertaken as soon as practicable.

6.2.8 Preservation issues

The forensic archaeologist should ensure that they have an appropriate knowledge of the methods for safeguarding relevant evidence recovered during excavation, based on minimising contamination, requirements for labelling and packaging of exhibits, an awareness of biohazards and the appropriate measures for processing and storage of evidence (e.g. use of drying cabinets, freezing and refrigeration as required). When fragile, ephemeral or sensitive evidence is encountered, specialist lifting, or casting measures may be appropriate in recovery and/ or recording. Fragile materials (e.g. corroded metals and degraded textiles) may require additional support measures and/ or considerations for packaging and storage. Standard archaeological conservation

procedures (e.g. Watkinson and Neal 1998) may not be appropriate as these techniques may conflict with other forensic requirements.

6.2.9 Taking of samples

It may be necessary for the forensic archaeologist to take soil samples during the excavation process or for them to make provision for other specialists to collect samples. Forensic archaeologists should be aware of the requirements of other specialists, especially if it is necessary to take samples on their behalf. It is the responsibility of the CSM to manage the requirements of different specialists, but this information should be obtained and considered by the forensic archaeologist in line with the standards set out in sections 4.1 and 6.1. Reference should also be made to the Human Tissue Act 2004 (Section 39)

6.2.10 Retention of spoil

The retention and storage of spoil and other recovered material should be discussed with the CSM before the excavation begins, in order that provision can be made. Justification for this should be considered and explained if necessary. Retained spoil should be separated in accordance with any divisions made during the excavation process and appropriately labelled with context and exhibit numbers (see also 6.2.8, 7.2.6 and 7.2.8).

The processing of spoil may be undertaken or supervised by the forensic archaeologist during the crime scene investigation or at a subsequent date. The forensic archaeologist should consider the fact that spoil may be contaminated with human tissue. In these instances the forensic archaeologist must adhere to the guidelines set out by the Home Office (2005).

6.2.11 Prevention of contamination at scene

Access to the scene is normally restricted to those personnel essential to the scene examination. Please refer to EA-5/03 section 9.4, and section 5.2.7 (this document).

In cases that involve multiple scenes, inter-scene attendance is not recommended. However, if necessity dictates, inter-scene attendance is permitted as long as it can be demonstrated that all practical measures have been taken to avoid cross contamination (for example new PPE, maintenance of cleaning log for non-disposable tools etc).

6.2.12 Body recovery

The forensic archaeologist should be satisfied that all necessary recording and identified evidence recovery has been completed before any attempt is made to remove the body from the grave or scene. The requirements of other specialists such as the forensic pathologist should be considered (refer to *Code of practice and performance standards for forensic pathologists* section 5.2.11).

The responsibility for the recovery of a body lies with the relevant authority³ or CSM. However, the assistance of the forensic archaeologist may be required for the physical removal of the body. The forensic archaeologist should ensure that sufficient excavation has taken place to enable the effective removal of the body from a grave, in order to minimize the risk of damage to the remains.

When dealing with recent remains, the forensic archaeologist should be satisfied that the relevant authority⁴ has been informed of the discovery.

7 The forensic archaeologist's report

7.1 Standard

The forensic archaeologist must:

- a) Produce a formal report to record:
 - i) The information provided to them with regards to the history of the case
 - ii) That data justifying actions and decisions taken at the scene have been retained
 - iii) The excavation strategy and methods utilised and/or considered
 - iv) The results of the excavation
 - v) The justification for preferring one explanation over others, where findings may lead to more than one explanation,
 - vi) Conclusions and explanations for those conclusions, with reference to current and pertinent literature when appropriate.
 - vii) Quantification of all records and samples kept by the forensic archaeologist, referring to police exhibit numbers where allocated
 - viii) Any additional information required, with reference to the Crown Prosecution Service guidance on expert witnesses' obligations on disclosure (Annex K of The Disclosure Manual, 2005)
- b) Ensure that the requirements outlined in the Criminal Procedure Rules (2010), Part 33 are met
- c) Have in place a critical conclusions check
- e) Produce the report as quickly as is practical within the specific circumstances of the case and within an agreed timescale
- f) Be prepared to consider new information and produce supplementary reports as appropriate

³ The Coroner in England, Wales and Northern Ireland and the Procurator Fiscal in Scotland

⁴ The Coroner in England, Wales and Northern Ireland and the Procurator Fiscal in Scotland

- g) Ensure that the report contains sufficient detail to comply with current and relevant guidance
- h) Write the report in a fair and unbiased manner, taking into account all relevant issues.

7.2 Guidance

7.2.1 General comments

Records should be maintained by the forensic archaeologist in a secure location. All electronic records should be maintained in a secure directory (i.e. password protected or with limited user permissions) with a regular backup protocol to ensure data are not lost.

The statement or report must be laid out in a logical, clear and easily accessible way and with reference to Annex 3 of the IFA Standards and Guidance for Archaeological Excavation (2008 a).

The following headings are recommended:

- Non-technical summary
- Introduction
- Background
- Methods
- Results
- Supplementary analysis
- Discussion and conclusions
- Note on quantification of records and samples retained (see 7.2.11)

The report should be clear and easy to read. The summary and conclusions of the report should be easily understood by the layperson, to render it suitable for presentation in court. The use of technical terminology should be kept to a minimum with non-technical explanations of these terms given where they are felt to be essential. However, the report must contain sufficient detail and precision for other forensic archaeologists to be able to comprehend the significance of the results.

7.2.2 Introduction

The introduction should include the name, qualifications, appointment and range of experience of the forensic archaeologist. Please refer to Home Office Guidance for

Witness Statements, Issue 1 (page 2 Mandatory Requirements, Mandatory Declarations).

This section should also identify any relevant senior police officers, crime scene examiners other attending forensic specialists in attendance. A note should be included to detail the date and time of arrival at the scene.

7.2.3 Background

This section should include case history. This involves summarising the information given to the forensic archaeologist at the briefing stage of the investigation. Whilst this is regarded as 'hearsay evidence' its inclusion completes the forensic archaeologist's report and is acceptable as long as the source of any information is clearly stated

A brief description of the scene upon arrival should also be included in this section.

7.2.4 Methods

The methods considered, utilised, as well as those excluded in the search and excavation should be detailed and reasons for the chosen method should be given. Any changes to the proposed methodology found to be necessary as excavations progresses should also be included, and the reasons for these changes should be explained.

If any aspect of the archaeological work was carried out by, or with the assistance of, others, they should be named and their role in this work clearly stated. It should also be made clear which aspects of their work were carried out under the control or supervision of the forensic archaeologist.

7.2.5 Results

This section should seek to outline the results of the work in an easily accessible manner. Each context should be referred to by its unique identifying number and exhibit numbers included as necessary. Photographs, sketches and measured plans should be cross-referenced throughout the report to enable a full reconstruction of the site. In accordance with Directive 80/181/EEC all measurements should be stated in SI units (conversions may be given in brackets).

7.2.6 Supplementary analysis

The forensic archaeologist may be able to provide advice in the use of additional analysis (e.g. scientific dating methods, isotopic analysis) which may be of use to the investigation. They should be prepared to facilitate this analysis if required by the investigation team.

Supplementary work may also include the processing of retained spoil. Where such work is under the control of the forensic archaeologist, they should ensure that it is undertaken in controlled conditions, with reference to EA-5/03 section 9.4.

7.2.7 Discussion and Conclusions

Conclusions should be set out in a comprehensible manner. Opinions should be fair, unbiased and justified and in no way written to assist one side or the other.

This section should outline the interpretation of all relevant findings, and the facts that lead to those interpretations. All archaeological interpretations should be supported by appropriate evidence. The degree of reliability of the conclusions should be considered, with alternate interpretations discussed and discounted with reasoning. If findings are made that are determined to be irrelevant, the forensic archaeologist should explain why.

As a result of the forensic archaeologist's findings, they should be able to reconstruct the sequence of events relating to a feature and its contents.

The forensic archaeologist should comply with the requirements of Part 33 of the Criminal Procedure Rules (2010). In particular they should:

- summarise any range of opinions that exists with regards to the data contained within the report and provide reasons for their own opinion
- provide a summary of conclusions reached
- state that they understand their duty to the court and that they have complied, and will comply with this duty
- make it clear that they may change their opinion and that this will be communicated to relevant parties and the court should it occur

7.2.8 Retention of samples

The report should clearly indicate any material that has been sent for further analysis by the forensic archaeologist, as well as any material (for example grave fill) that has been retained. Reference should be made to the relevant context and exhibit numbers as appropriate. Where samples of or containing human tissue are to be retained, the forensic archaeologist should follow Home Office guidance (2005) relating to the implementation of the Human Tissue Act.

7.2.9 Final check

Before signing and submitting the report it is the responsibility of the forensic archaeologist to check their work for typographical and grammatical errors. Misinterpretation of the findings can easily result from a simple typographical error such as metres (m), instead of millimetres (mm). Such mistakes can also give the impression of a lack of care or interest in the work or report.

The forensic archaeologist should ensure that a critical conclusions check has been undertaken whereby another archaeologist scrutinises the report to ensure that

- there is consistency within the report
- any conclusions drawn are justifiable considering the data contained within it
- the report is a complete and stand-alone document

The report should state that a critical conclusions check has been carried out by another archaeologist.

The forensic archaeologist should be able to identify complex cases that may require additional peer review and have such a procedure in place.

7.2.10 Time of submission of the report

Following the completion of work at the scene, an estimated delivery date for the report should be given to the investigative team, to reflect the complexities of the case and nature of the report required. It is best practice to submit the report at the earliest possible opportunity.

The forensic archaeologist should be prepared to submit an interim report if required to do so by the investigative team. If there is a delay in the report production, the investigative team should be informed of the fact and reasons for it.

7.2.11 Archive storage and quantification

The report should contain a quantification of all scene records and material held by the forensic archaeologist. This should include all unused material, for example written notes, record forms, illustrative material as well as any retained samples. An Index of Unused Material should be compiled (please see Annex K of The Disclosure Manual (2005)).

7.2.12 Disclosure of information

The forensic archaeologist will ensure that all findings are made available to the Police Investigating Officer and surrender all information to the Police Investigation Team in accordance with the relevant sections of the The Disclosure Manual (2005)).

8 Conferences and other subsequent action

8.1 Standard

The forensic archaeologist must be prepared to:

- a) Attend any conference or meeting called by the police or CPS to discuss their findings, report or any other issues relevant to the case
- b) Discuss their findings and interpretations

The forensic archaeologist must record all relevant information and discussions accurately and comprehensibly.

8.2 Guidance

The forensic archaeologist should be prepared to consider alternative explanations and give advice based upon the facts of the case and established practices. They should also identify, clarify and summarise any areas of agreement and disagreement.

The forensic archaeologist should record all relevant information and discussions accurately and comprehensibly.

9 Attendance at court

9.1 Standard

The forensic archaeologist must:

- a) Ensure that they are well prepared in advance of their appearance in court to give evidence
- b) Ensure that their appearance and behaviour is in accordance with standards expected by the courts
- c) Deliver all evidence in a clear, audible, and comprehensible manner
- d) Ensure that testimony given is in accordance with the contents of their written report
- e) Answer questions truthfully and impartially
- f) Consider any alternative hypotheses that are presented to them

- g) Ensure that any conclusions and statements given lie within their field of expertise
- h) Attempt to bring to the attention of the court any evidence which appears to have been misunderstood or misstated by a lawyer
- l) Be willing to enter into discussions with other specialists prior to attendance at court, with regards any differences in opinion that exist regarding findings and conclusions

9.2 Guidance

Forensic archaeologists should be suitably prepared prior to attending court to give evidence. They should ensure that all relevant documentation, such as a copy of their report and contemporaneous notes, are taken to the court.

The forensic archaeologist should conduct themselves in a manner compatible with Principle 1 of the IFA Code of Conduct (2009) at all times. Evidence and opinions should be unbiased and objectively presented.

It should be made clear which parts of the evidence are fact and which are opinion, with evidence upon which those opinions are based made available. If questions are unclear, the forensic archaeologist should seek clarification before offering a response. They should also avoid the use of technical language when answering questions and offer explanations for such language if required.

Proper consideration should be given to interpretations or conclusions presented by the defence. It is also possible that facts may emerge during an investigation or court case, which may make the forensic archaeologist reconsider a previously held opinion. The forensic archaeologist has a duty to give due consideration to any such facts and to ensure that their opinion remains objective. The forensic archaeologist should be prepared to change their opinion if the facts dictate it, and to state this change clearly to the court.

10 References

Burial Act 1857 (c.81)

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EA-5/03 Guidance for the Implementation of ISO/IEC 17020 in the field of crime scene investigation

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11 Membership of author groups

Advisory group for Forensic Archaeology

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