Surrey Archaeological Society

EXCAVATION RECORDING MANUAL

INTRODUCTION

The Research Committee wishes to encourage use of a common method of site recording in Surrey. A copy of the standards currently used by the Roman Studies Group is lodged with the library at Castle Arch and is available on the Society's website. It would be of assistance to current and future researchers if these standards were commonly used by all Society members when undertaking excavations in the county.

Excavation so often destroys that which it seeks to understand. We see this most clearly when examining archaeological remains that were unearthed in times gone by when there was an emphasis on "wall chasing" and a concentration on Roman and medieval period relics to the exclusion of those of other periods. For these reasons we have seen a desire to preserve unexcavated sites for the future – when techniques might be expected to improve. Preservation in situ is not always possible and in such cases 'preservation by record' is the best that can be managed. Research excavations can only be justified if the best possible approach to recording is achieved.

This manual is concerned with preservation by record. If the information from a site is to be "preserved", then a comprehensive recording system is implied. Similarly, as the object of a record system is that data contained therein should be easily retrievable, the design of the system should promote a logical approach.

The Society is keen that our members should follow high standards of recording and therefore wishes to encourage all to follow a standard system which will achieve the desired standards. There are many suites of documents in use but most follow a similar approach which is based on the identification, recording and ordering of the stratigraphic relationship of "contexts". The system which is described here has been developed and used over a number of years by Society members who consulted, amongst other sources, the Essex County Council and Museum of London Archaeology Service manuals.

Comments are welcome and will be taken into account in any future modifications of these standards. Consideration will also be given to the provision of standards for other forms of survey and recording documents., possibly as separate publications.

David Bird (Chairman, Research Committee), May 2010.

Use of the following documents and systems is described:

A specimen of each form is included as an Appendix to this document and may be copied for use on site.

CONTEXT RECORD SHEET

General Note
Where a field is listed as "Required", it is not permitted to leave it blank. If there is no information appropriate to enter there, it must at least contain a dash or "n/a" or " none".

Site Code Required
This must be a unique code, agreed beforehand. It will be normally in the form of three or four letters followed by the year (e.g., ARV 09), but may integrate a Museum accession number.

Grid Reference Required
Since the purpose of a grid reference on the Context Record Sheet is to locate the context, a co-ordinate to the nearest 10m square should suffice. Co-ordinates relate to the southwest corner of a site-specific or OS related 10m square. Depending on the expected size and spread of the excavation, more precise coordinates may be required. Eastings (written first) and Northings (written second) should be separated by a slash (e.g.1234/5678).

Site Subdivision Required where appropriate
Where several trenches or areas are open on a site, it may be convenient to attribute a site subdivision code, e.g. "Area A".

Context Number Required
This will be a unique number from a sequence which may be extended from year to year and is issued from the Context Record. It is essential that no duplication of context numbers occurs. The sequence may contain gaps; batches of numbers may conveniently be reserved for different areas of the site.

Category Required
There are four acceptable categories into which all archaeological remains are divided by type. These are "Cut"; "Deposit"; "Standing Structure"; "Group".(see p7)

Type Required
Must be a keyword from a predefined wordlist (see p6). This field requires a certain amount of interpretation, and may be amended in the light of further information. Multiple or alternative entries (e.g. Pit/Post-hole?) are not permitted. Uncertainties are flagged by the Query field.

Query Optional
Where doubt exists about the identification in the Type field (only), a question mark may be inserted in this box.

Reduced Levels Top and Bottom Optional
When a feature has been drawn, its reduced levels can be entered here. There may be occasions when it is not deemed necessary to reproduce this information here, but in most cases - and particularly for Cut contexts - this field is required.

Dimensions (Length, Breadth, Diameter, Depth/Height)
Required
These measurements are best entered on site, but may be added later from plan and section information if necessary. All site measurements must be in SI units 0.01mm-99mm; 0.10m – 0.99m Representative or maximal dimensions should be given in each field; more detailed information may be included as required in the field Description

Matrix description (Colour, Composition, Texture, Inclusions)
Required
All contexts such as fills, deposits, layers, etc will require description in these fields. These fields are required and therefore should be marked with a dash or "n/a" for all contexts which do not consist of soil.

Colour
Soil colour must be taken from a moist sample, and use standardized words from a predefined word list (see p5). Munsell soil colour numbers may be used if desired.

Composition
Standard terms derived from a predefined word list (see below). Some excavators will find it useful to give an idea of the relative percentages of silt, clay, sand (e.g. Sandy Clay (30%/70%)) It is important to remember the distinction between the noun and the adjective in these descriptions: sandy silt is mostly silt, but silty sand is mostly sand.

Texture
Standard terms derived from a predefined word list (see below).

Inclusions
This field describes the coarse components of a soil such as stone and shell; it is also used for mottles, unnumbered lenses, and discrete lumps of soil. For each type of inclusion, the colour, density range, size range, and if appropriate shape range should also be described (e.g. pebbles, rare/rounded/small-medium). Soil components comprising less than 10% of a matrix may also be recorded as inclusions. Finds will not normally be recorded as inclusions unless they are a significant component of the deposit.

Consists of/Filled By Required where appropriate
In the case of a cut, all the contexts which it is thought to contain must be listed here. Where a Group number has been assigned, for example, to a post-built structure, all the components (cuts, layers) of the structure are listed here. Similarly, all the segments of a ditch can be entered here where the context is the Group number for the line of the ditch. This field is reciprocal with Part of/Fill of.

Part of/Fill Of Required where appropriate
Reciprocal with "Consists Of/Filled By". A context which is contained within, or is part of, another context, must have this other context listed here. Note that this is not intended to be used for immediate stratigraphic relationships - all the fills of a cut will have the cut number listed here, not only the lowest fill; all the posts of a structure, all the segments of a ditch, will likewise give the overall structure/ditch number here.

Stratigraphic Relationships Required
These fields are used to record **immediate stratigraphic relationships only**. Where there are other physical relationships not covered here, these are recorded in the field "Description". It is important to enter reciprocal information on all the appropriate sheets (e.g. if 1 is above 2, then 2 must also be recorded as below 1).

Below. Required
Reciprocal of "Above". List in this field all contexts which this context is immediately stratigraphically below. All contexts will have this relationship with another context unless "Within" applies, or the context is topsoil.

Above. Required
Reciprocal of "Below". List in this field all contexts which this context is immediately stratigraphically above. All contexts will have this relationship with another context unless "Within" applies, or the context is "natural".

Within Required where appropriate
Reciprocal of "Contains". Used for a lens entirely within another layer, or an object (e.g. cremation urn) which has been given a context number and is within a fill. The context must be completely surrounded by what it is deemed to be within. This must not be confused with Part of/Fill of; **it is used to record the immediate stratigraphic relationships only**.

Contains Required where appropriate

Reciprocal of “Within”. This must not be confused with “Consists of/Filled by”; **it is used to record the immediate stratigraphic relationships only**.

Same As Required where appropriate

To be used when two contexts turn out to be a single entity (e.g. a single fill of a pit which has been dug as two quadrants). Reciprocal of the same field on the other contexts affected. The two contexts which are deemed to be the same must have the same stratigraphic relationships.

Equivalent to Required when appropriate

This field is used to record contexts which are interpreted as stratigraphically equivalent, even if not actually physically contiguous as excavated for example a fill of a ditch which appears in two discrete segments cut through the ditch. In this case, the two contexts cannot be said to be a single entity (which would be “Same As”), as there is an unexcavated area between them. Reciprocal with the same field on the other affected contexts.

Uncertain Required where appropriate

To be used where two contexts exhibit a relationship, but the stratigraphic sequence is unclear. Reciprocal of the same field on the other affected context(s)

Matrix Diagram Required

Used to display the immediate stratigraphic relationships only. No more than one step up or down on the stratigraphic sequence may be shown here. In some cases (e.g. long ditch lines) it may be necessary to continue the matrix on the reverse of the context Record Sheet, using any available space, or to attach a new sheet.

Description Required

It is important to use this field to amplify the details contained elsewhere on the context record sheet; although in some cases time may not permit a full description here. Information relating to shape irregularities, alignment, the nature of the interface with neighbouring contexts, etc., should be entered here. All appropriate physical relationships between the context and its neighbours should be described here (remember that the relationships described in the fields above must be the immediate stratigraphic relationships only). Finds density should be recorded as “rare”, “occasional”, “common” or “frequent” (as for inclusions). The description should represent a summary of the context record. It is helpful when writing a description to follow the Prompts carefully so as not to omit information through oversight. Prompts are provided to ensure that, at least, the minimum required level of information is provided, but they are not meant to be exhaustive or exclusive. It may be appropriate, for instance, to record inclement excavation conditions which render the interpretation uncertain. An indication may be made of the method of excavation, and of any factors affecting the reliability of the results. Any other information not covered by other fields can be included in “Description”. If the description is continued on the back of the sheet or on another sheet, then “continued over” should be ringed.

Plans; Sections/Elevations/Profiles; Sample Numbers; Photos

Required

For all these fields, the relevant information taken from the individual registers must be entered here as a cross-reference (e.g. a context may have yielded Sample No 34, and be recorded on plans 2, 56 and 145, on section sheet 35 and have been photographed on images numbered 5 and 6). Only the numbers are required here, as more detailed information is contained in the relevant registers.

Reliability Required

Tick one box to indicate how secure the attribution of finds to this context is, or how reliable the interface with its surroundings. If necessary, any other comments relevant to this assessment can be made in “Description”.

Method of Excavation Optional

Standard terms from predefined word list (see below) Additional information may also be recorded as part of “Description”.

Interpretation Required

A free text used to record information which is not properly within the realms of "Description". Notes concerning the function and associations of contexts should be recorded, including the evidence (if any) upon which such interpretations are based. If the interpretation is continued on the back of the sheet, or on another sheet, then "continued over" should be ringed.

Completed By and Date Required

It is useful to have this information so that any problems which arise can be referred to the original excavator. A sheet has been completed when all the required fields have been filled in. The recorder's initials should suffice for "Completed By".

%EXC Optional

This field is used to indicate if a context has been fully removed, half-sectioned, or sampled in some other proportion. If appropriate, additional comments may be included in "Description". This information can be useful for finds analysis. Sometimes it may be appropriate also to estimate the total volume of soil excavated, which will never be a precise measurement, but may be included in "Description".

Date/Period Optional

To be filled in at an appropriate stage, this might not be until long after the excavation, allowing for appropriate analysis; or may be done in the field if this is deemed appropriate.

Sketch Optional

Space is provided for any drawing which will illuminate the context record. In some cases; no drawing will be required; it may normally be appropriate to give a rough sketch plan and section, or even a diagrammatic representation of associations here.

Finds Type Required

The appropriate boxes can be ticked to indicate the presence of finds. Where there are no finds, it is important to tick "None".

Special Finds Required where appropriate

Enter the number and the material of all registered finds derived from this context. Numbers will be assigned from the "Special Finds Register"

Permitted words for use in key fields

Soil Descriptions:

Colour

Colours can be given as a modifier, hue and colour. Not all descriptions will require a hue.

Modifiers	**Hues**	**Colours**
Dark	blackish	black
Light	greyish	grey
Mid	reddish	red
	pinkish	pink
	orangey	orange
	yellowish	yellow
	greenish	green
	brownish	brown
	bluish	blue
	whitish	white

Texture
Compacted
Cemented
Firm
Hard
Friable
Plastic
Sticky
Soft

Composition
Gravel
Silt
Clay
Sand
Peat
Mortar
Silty
Sandy
Clayey
Humic

density
rare (<5%)
occasional (5—15%)
common (15—40%)
frequent (>40%)

shape
rounded
flat
angular
sub angular
irregular

size
small (<20mm)
medium (20—6Omm)
large (>60mm)

Method of excavation

Hoe
Machine
Mattock/pick
Sieve
Spade
Spatula
Trowel

The following provides the types acceptable for each of the four categories. In cases where doubt is likely to arise, a brief note is added to clarify what is intended by the term listed. Full advantage should be taken of the Interpretation field to assign a commonly understood term to a context if that term does not appear below.

Cut
Foundation Pit
Foundation Trench
Hearth Construction
Kiln Construction
Oven Construction
Stoke-hole
Robber Trench
Ditch
Drain
Flue
Gully (linear feature slighter than a ditch).
Slot (near-vertical-sided gully.
Cremation pit
Grave
Well
Pit
Post-hole
Post-pipe (to be used in describing the void left by the removal or decay of a set post.)
Stake-hole: (to be used in describing the shape left by a driven stake.)
Wear: e.g., wheel rut
Subsidence
Natural: including such features as rabbit burrow, tree bole.
Unknown Cut
Other Cut

Deposit

Bank
Layer
Make-up layer: a deliberate raising of the ground for construction.
Floor
Prepared Surface: e.g., cobbled, paved etc
Occupation Layer
Spread: discrete distribution of artefacts/ecofacts.
Build-up Layer: accumulation against standing structure
Coffin
Cremation Urn
Cremation Fill
Grave Fill
Skeleton
Lining
Post-hole Fill
Fill i.e., any fill not provided for by the types above
Collapse: includes demolition.
Dump: a single deliberate deposit.
Natural
Other (please specify)
Unknown
Lens
Machining Layer
Bonding: Matrix in which a wall is set

Standing structure

Note that this Category may include structures which are not necessarily standing above ground. For example:

Grave Structure: e.g., a headstone, cist or tomb; does not include a coffin
Hearth i.e. a structural element of a hearth group, e.g., the wall, floor.
Kiln i.e.,a structural element of a kiln group, e.g., the kiln wall, floor or pedestal
Oven i.e., a structural element of an oven group
Post i.e., a set structural timber
Post-Pad
Stake i.e., a driven structural timber
Wall i.e., one element of a wall group.
Well Lining

Group

Note that: a Group may consist of cuts, deposits, fills and standing structures; Groups are "umbrella numbers" for data retrieval and should be used with care and after careful consideration of all the relevant information. As information tends to come to light at varying stages of an excavation - and interpretations develop as excavation progresses - it is generally better to restrict their use to post-excavation analysis.

Building
Structure
Fence
Wall
Roof
Floor
Bank
Rampart
Mound
Midden
Drain
Kiln

SFB: (Sunken-Floored Building)
Ditch Line: (used to bring together various segments across a single ditch).

Path	Oven
Road	Burial
Hearth	Other

Context record sheet prompt lists and further information

It is not necessary to use key words in the “Description” fields.

Those given below are for guidance only.

Cuts

1 Shape in Plan.
2 Corners. (Rounded, angular, square, etc).
3 Break of Slope (top). (Sharp, gradual, imperceptible).
4 Sides. (Concave, convex, stepped, irregular, straight) If straight describe inclination in the form of a gradient y mm (vertical) in x mm (horizontal)) from horizontal. Where necessary sides/steps should be described separately.
5 Break of Slope (base). Sharp, gradual, imperceptible
6 Base. Flat, concave, sloping, irregular, tapered.
7 Orientation
8 Inclination of Axis. Applies only to post and stake holes and only when not vertical. Describe gradient as in 4.
9 Truncation (See 10)
10 Physical Relationships. List contexts physically cutting/truncating or cut by this context.
11 Definition. Describe the reliability of horizons, and a measure of your confidence in the description.
12 Other Comments. Record here any other relevant information.

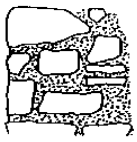
Deposits

1 Extent. Not required for fills. In the case of layers refers to the general area covered by the context.
2 Physical Relationships. Include overlying and underlying contexts, those cutting and abutting.
3 Definition. Describe the reliability of horizons, and a measure of your confidence in the description.
4 Finds Density. Describe as “rare”, “occasional”, “common”, frequent (as for “Inclusions”)
5 Other comments. Record here any other relevant information.

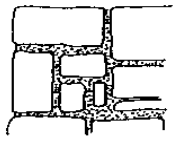
MASONRY RECORD SHEET

All masonry standing structures will be recorded on the specific masonry sheet. Context numbers will be assigned from the Context Register but note that general numbers assigned to walls as Groups (umbrella numbers) will be recorded on the general Context Record Sheet when describing a masonry standing structure, the specific prompts given below should be used.

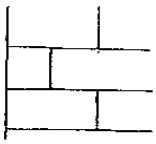
1 Materials. Record all building materials present
2 Size of all individual pieces. (Bricks = length x breadth x width). If these vary, give the range from the smallest piece to the largest.
3 Overall dimensions of masonry as found.
4 Finish. Describe the finish of individual stones (e.g. roughly hewn, squared and faced, unfinished etc).
5 Coursing/Bonding (See illustrations, below)
6 Direction of Face.
7 If brick wall give the height of 4 bricks with 4 beds
8. Bonding material. Describe its composition
9. Butts/Butted by: give the physical relationship of the structure to other structures.
10. Other comments. Record any other relevant information.



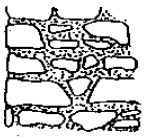
Random Uncoursed



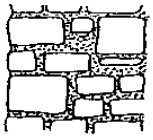
Squared Random



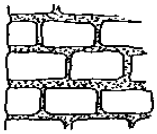
Ashlar



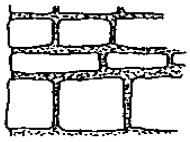
Random Coursed



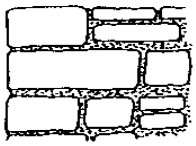
Squared, built to courses



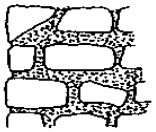
Regular Coursed



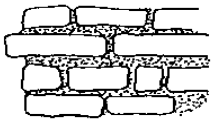
Uneven Coursed



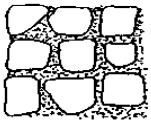
Quoins (corners) Stressed



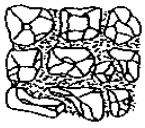
Quoins Unstressed



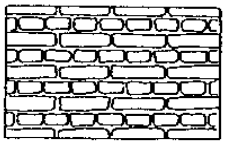
String



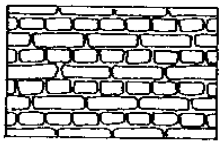
Fair Face



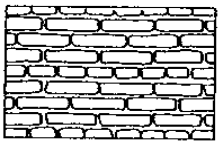
Rough Face



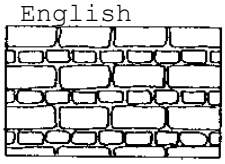
English



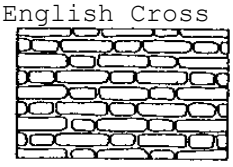
English Cross



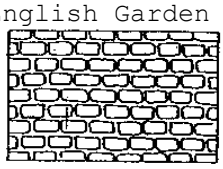
English Garden Wall



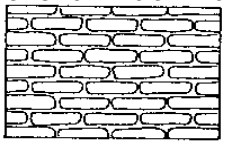
Dearne's or Rat Trap



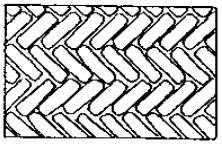
Flemish



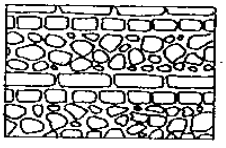
Header



Stretcher



Herringbone



Lacing Courses

RECORDING SKELETONS

Excavation of human skeletal material is a rare event in amateur fieldwork but it does occur occasionally and it is important to consider the following in advance of any work:

- For a cemetery environment a specialist human osteologist can advise on a suitable collection policy taking into account the state of preservation of the remains, the numbers and density of burials, the methods of burial and the date range.

- Excavators should be aware of the likelihood of intercutting burials which may inform as to the stratigraphic sequence of the site.

- Soil sampling from around the skeletal material may provide useful environmental and organic information and a suitable strategy should be in place.

- The Director should ensure that suitable tools, such as soft brushes and plasterer's leaves, dental tools and protective clothing are available.

SKELETON RECORD SHEET

Where this differs from the general Context Record Sheet, notes follow:
"Co-ords A and B": refers to the points in the exploded diagram.
Note that levels are recorded on the reverse of the sheet.
Exploded Diagram: shade in all the bones present.
Associated Fills. Note numbers of all fills in the same grave.

The skeleton diagram should be shaded in as appropriate to indicate which bones are present.

Description prompts

1	Orientation: Normally refers to the alignment of the spine from head to feet (e.g., East-west), but if the spine is flexed, or the head detached, then more detailed description, and a sketch, will be required.
2	Coffin Number, if any.
3	Attitude of : describe the positioning of the various body parts in relation to the spine.
4	Articulated/Disarticulated?: self-explanatory.
5	Epiphyses: if present.
6	Truncation: if any, note cut number and extent of damage.
7	Condition of Bone: i.e., "good", "fair" or "poor". Describe prior to lifting.
8	Specialist Treatment: note any specialist involvement in recording, treating or lifting the bone.
9	Grave Goods: note the position of any significant goods in relation to the body.
10	Pathologies: note such features as bones broken in life, trepanation, and other oddities.
11	Other comments.

Levels Skull, Sacrum and Feet: approximate positions as marked 1, 2 and 3, respectively, on the exploded diagram.

Sketch A stick-diagram of the orientation and articulation of the body; may also show truncations, grave goods, coffin remains, and any other noteworthy features.

Samples Should be taken from the (supposed) area of the Head and Stomach with a Control taken from the (supposed) area of the feet.

Context Number Context numbers will be assigned from the Context Register

TIMBER RECORD SHEET

Context numbers will be assigned from the Context Register.

1. Type:	Baseplate, post, brace, plank, top-plate etc
2. Position:	Vertical, diagonal i.e. leaning or horizontal. Note the gradient and describe, if different, whether this is as found or the assumed original setting.
3. Alignment:	Note in terms of compass bearings, e.g. N-S. NE-SW.
4. Cross-section	Describe its conversion from natural (see Fig.2) and draw this on the diagram at the bottom of the sheet. Take care to position your drawing well on the diagram so as to illustrate the conversion method and the survival of bark, sapwood etc. If it changes along the length of the timber note this here and illustrate with section drawings
5. Condition	Note whether complete/broken (in antiquity or as a result of modern activity); Note whether the timber has been burnt, charred, worn, suffered insect attack or decay etc.
6 Dimensions	Record the maximum length in m. and the breadth, depth or diameter in mm. Sketches can be drawn on the reverse of the sheet. All measurements should be taken as soon as the timber is exposed as it will shrink irreversibly by up to 25% thereafter regardless of how often it is sprayed. Always state whether the length quoted excludes tenons and other features which are not normally visible until after the structure has been dismantled
7 Tool Marks	Saw, axe, adze, auger, chisel, or other tool marks should be described. If possible make a measured sketch , on the timber drawing, of any well-preserved tool mark(s). Remember to do this as soon as possible because when the timber starts to dry out the evidence for the working will disappear.
8 Joints and Fixings	Note all nails, spikes, pegs, and evidence of surviving cloth and moss as fixings. With joints note the type, number, dimensions and whether they are, or may be, residual from previous use. Each different type of joint and/or fixing should be drawn, either as part of the general timber drawing or, if particularly complex, separately at 1:1. For joint types see page 16.
9. Intentional Marks	e.g. marking out lines, lines around joints, assembly marks, tally marks or graffiti. (All these should be drawn/traced at 1:1)
10. Surface treatment	Note on the timber sheet and on the drawings the presence of any paint, pitch, lime wash, charring, moulding or carving. The profiles of all mouldings should be drawn at 1:1.
11. Other Comments	Note on the sheet and on the drawings any colour variation, stains from fixings or impressions from other timbers etc.
Method and conditions	Note whether the description was made before or after excavation of the timber, and whether the timber had become dried or distorted before recording took place.

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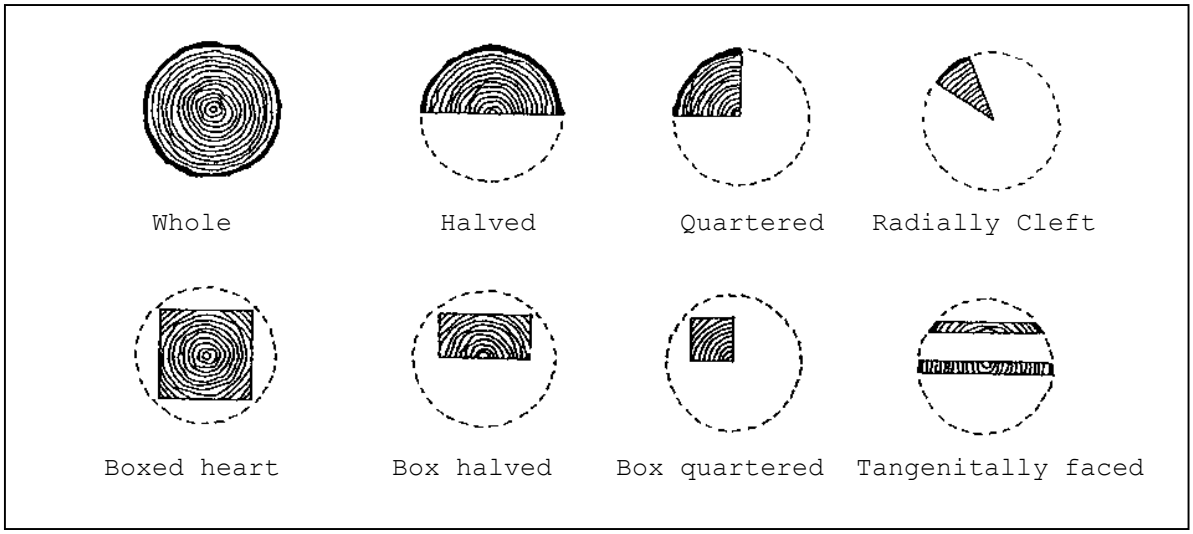
Fig. 2 timber conversion



Re-use

Tick the appropriate box and if reused discuss in Interpretation its possible previous use. Reuse is indicated by any features, which do not appear to be relevant to the timbers last use. Some reused timbers may be recorded at 1:1 at this stage, or removed to a more secure store. Ideally record photographs should be taken as soon after excavation as possible.

Having drawn the shape of the cross-section on the diagram, tick the relevant boxes to indicate the presence or absence of bark and/or sapwood, and whether the timber was particularly knotty or straight-grained.

N.B. Always label joints, peg holes, pegs, stains, signs of decay (modern or ancient) to timber etc. on the timber drawing in situ. Give orientation details and state which face you are drawing-top, base etc.

The detailed recording of timbers and timber structures can provide information relating to:

(a) Structural and constructional aspects as timber (worked wood)
(b) Environmental and constructional aspects as wood (part of a tree)

Structures likely to be encountered may include wells, drains, pit linings, mills, bridges, buildings, boats, and revetments. Many include reused timbers from earlier buildings, boats etc.

It is important to remember that as timbers are only rarely retained and conserved the field and environmental record will be of primary importance in the recovery of vital information.

The record should be sufficient to:

(a) establish the stratigraphic position, and form, of a timber;
(b) draw up an isometric projection;
(c) enable a carpenter to produce a tolerably accurate replica of the original timber.

Every timber has a unique context number and should be recorded on the timber context recording sheet. All fields should be filled in as for the general context recording sheet. The description should follow the prompts given on the sheet and annotated above. When completing the written record structural timbers should be cross-referenced to other timbers to which they are jointed, as well as to related stratigraphy.

Timber cross-section

Guidelines for the recording and handling of timbers and timber structures.

The written record

Every timber should be recorded on site as a 1:20 plan (with levels; i.e., as a stratigraphic unit), and on a separate plan sheet if obscured by other elements of the structure.

> After a timber structure has been dismantled as many representative structural timbers as possible should be drawn. Every structural timber (unless identical to others already drawn from that structure) is drawn as an edge and face (i.e., elevation) timber drawing, together with sections as appropriate.

The drawn record

They should be drawn (at 1:10) from as many sides (i.e., edges, faces and ends) as possible; similarly, cross-sections through the structure should be drawn (at 1:10) whenever possible, especially to show constructional detail.

Indicate by labels:

> the direction of grain, knot-holes, rings and rays
> areas of surviving bark or insect infestation
> any signs of deliberate working such as: joints, recesses, burnt areas, stains, fixtures and chamfers, carpenters or setting out marks.

Distinguish between:

> empty peg-holes and ones with pegs still in.
> natural decay (rotting) and modern damage (such as trowel, or machine damage before or during excavation!)

Use hachures, shading, and coloured pencils as appropriate.

As many dendrochronological/species-identification samples that can be taken from any one structure are taken.

The photographic record

A photographic record is made of the structure in situ, the dismantling operation and the individual timbers. The photographic record of the complete structure might include details of joinery or fixings, joint assembly marks, working photographs of the dismantling of the structure and record photographs of timbers after dismantling to show details not visible in the assembled structure.

Handling guidelines

1 If the wood is solid it should be kept in the same conditions as when it was exposed i.e. if found wet, keep it wet or if found dry, keep it dry.

2 Recording and labeling must take place as soon as possible.

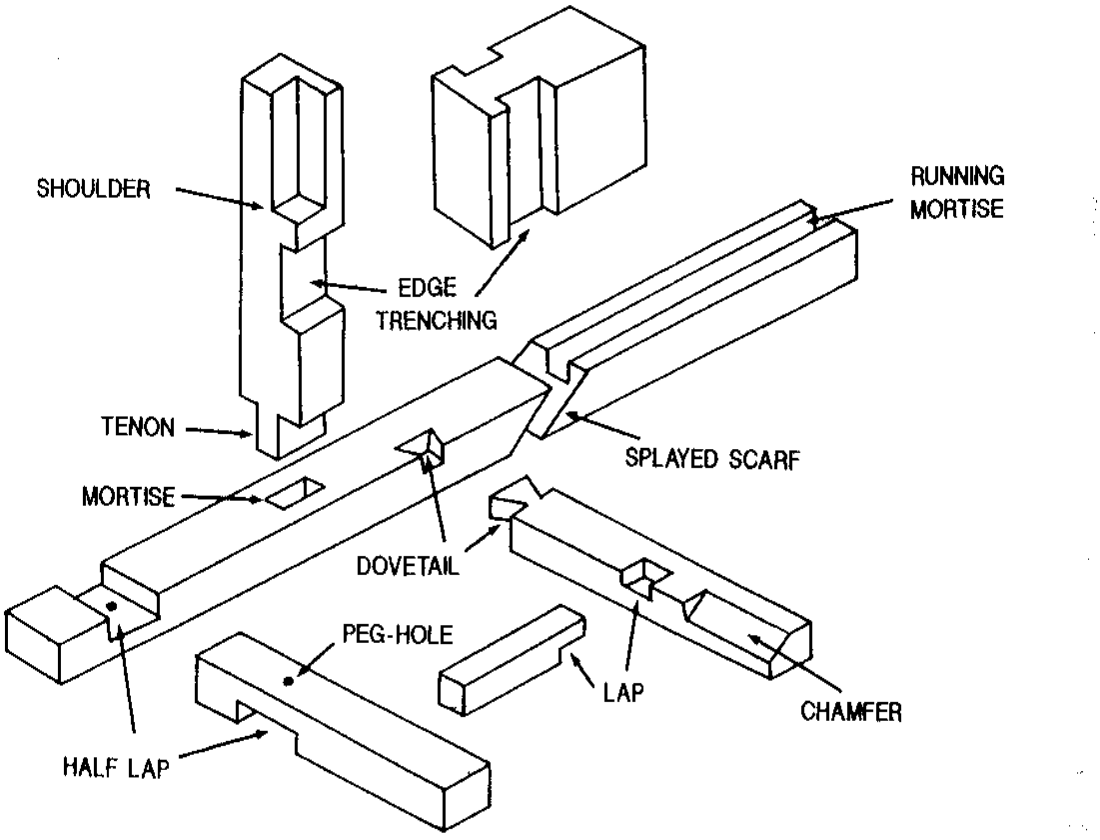
3 The wood should be wrapped using a combination of cling film, bin bags, polythene, sponges, string, tape etc. Kept wet, if necessary and kept free from any contamination (such as oil or petrol)

4 Depending on size and preservation a decision to remove the timber may have to be taken. Only excavate it when it is stratigraphically possible, and, in the case of deep features, safe to do so.

5 Wrapped and labelled timbers should be safely removed, using supports such as planks or rollers if needed. Every effort should be made to cushion the timber from shock, and equal effort should be made to conform to safe working practice. Waterlogged timbers can be extremely heavy. Large wet timbers may need a tank or container to store them in. Each label should be secured with two tacks/drawing pins, at opposing corners. It should record site code, context number, state which face is labelled (preferably the top) and indicate a north point with a labelled arrow.

6 Individual timbers, once fully recorded and removed, may need a sample number if they are to go to the wood specialist. Liaison with the Environmental Supervisor may be required.

Fig. 3 Some Common Carpentry Joints



Glossary

Dovetail: see “lap joints”.

Edge-Trenching: a cut or trench in the edge of a timber, into which a similarly edge-trenched timber may be set.

Lap Joints: a category of joints in which one part of a timber overlaps another. They could be either face-to race or end-to face joints.

Halving: the removal of half the depth of each of two timbers so that they may cross each other at any angle without variation in thickness.

Mortise and Tenon: a category of joints in which a tongue (tenon) at the end of one timber is housed in a slot (mortise) in the edge or face of another. Often used to join posts to principal base-plates.

Peg: wooden dowel used to lock a joint securely, used in the manner of a nail. Can occur in many situations.

Peg-hole: purpose-built recess to contain a peg.

Scarf: an end-to-end joint used to make one long timber from two shorter lengths

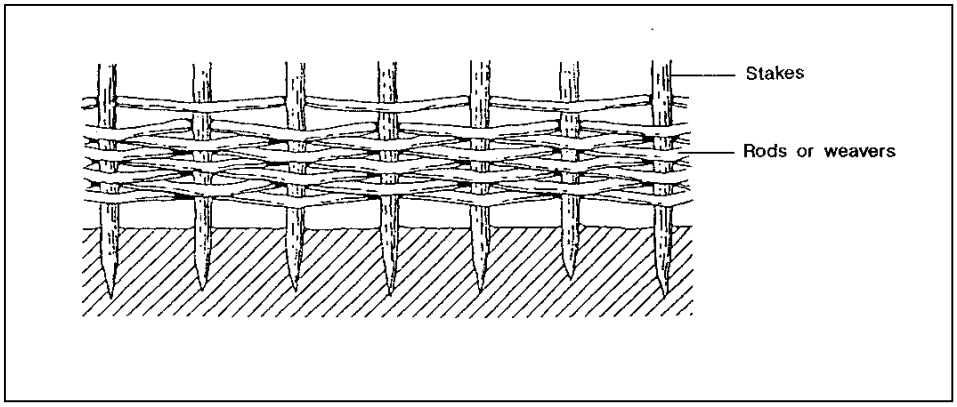
Recording wattle structures

Structures made of woven small timbers survive as pit linings, fences, fish traps, walls or revetments, floors or trackways. Recording wattle structures is often difficult because of the large number of individual timbers. Constraints of time and degree of preservation will affect the detail of its recording. It is essential to indicate the nature of the weave. The normal recording procedure - 1:20 plans and 1 :10 elevations - should be carried out, but additional records and sampling should follow the guidelines below.

Heavy wattle structures

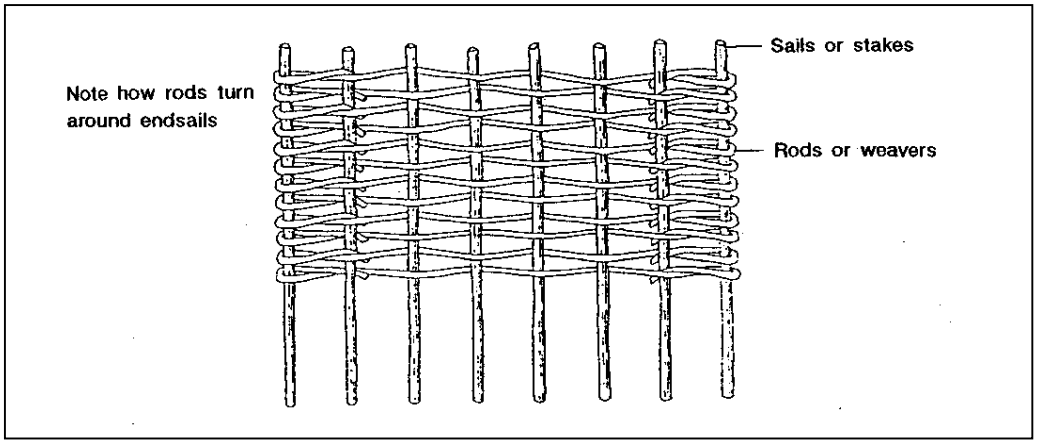
When recording heavy wattle structures woven in situ (Fig.4) individual uprights (stakes or sails’) can be numbered and described on a timber recording sheet as for any other timbers (though drawing only a sample in detail may save time and duplication. The horizontal elements (rods or weavers’) can be described briefly on the context sheet allocated to the entire structure (Group sheet), reference should be made to their dimensions and cross-section. Samples should be taken in the form of slices from each of the uprights, whereas the horizontals can be sampled by the method described below. The slices from uprights should be assigned their relevant context numbers; samples from horizontals should be numbered with the context number of the structure.

Fig.4 heavy wattle structure



Wattle Hurdles
Light wattle structures or wattle hurdles (Fig.5) - portable wattle panels where some of the horizontal elements are twisted back around the last upright - are best recorded on a single Timber context sheet.

Fig.5 Wattle Hurdle



Sampling wattle

Analysis of the wood used in wattle structures can yield information on the species of wood exploited and on the coppicing cycle. From this it is possible to analyse methods and circumstances of woodland management.
Where wattle is well preserved, extensive recording and sampling is necessary if such information is to be obtained. The following steps should be followed:

(a) Locate individual rods and sails.

(b) Locate the thickest end of the rod. This is the part that was closest to the stool; it will have the most rings and so will be the most useful for study.

(c) Take a sample about 100mm long of each rod and each sail.

(d) Bag and label each sample - i.e. each individual rod or sail separately.

(e) A sample sheet should be completed for every sample and the position of each sample clearly marked on the plan and/or elevation.

Where the rods are fragmentary and difficult to follow, samples of c.l00 mm long should be taken of the sails and rods. These should be bagged separately as rods and sails, but single bags for each 100mm length are not required. These samples will be identified to species but not used for age determination.

SITE PLANNING

Each plan and section is to be recorded in and numbered from either the “Plans” or “Sections” Register as appropriate

Drawing Plans

The site director will decide on which trenches and/or features are to be planned.

Each plan will have a discrete number which will be assigned from the Plans Register.

Plans will be drawn at a scale of 1:20 on plastic film using a hard pencil.

Each plan is to be headed with the plan number, site code, the date, the scale at which drawn, the trench number or name of feature, the initials of the recorder and a “north” arrow.

The co-ordinates of each corner of the trench should be recorded in the plan.

All contexts illustrated are to me numbered and the conventions which follow are to be employed.
.
Features such as burials, cremations etc will be planned at larger scales, 1:10, 1:5. However the 1:20 site record must also contain a plan of the cut.

Where appropriate all lettering should be in block capitals and, along with numbers, should be 5mm high. Additional comments may be added.

As many spot levels as are required to illustrate the topography of a feature should be taken. Their positions should be marked with a numbered OS datum symbol and their reduced value only listed alongside the drawing. The original readings and calculations should be carried out in the Levels Register, except in the case of “pre-excavation” plans, where a separate levels register is used.

Drawing Sections

Each section drawing will have a discrete number which will be assigned from the Sections Register

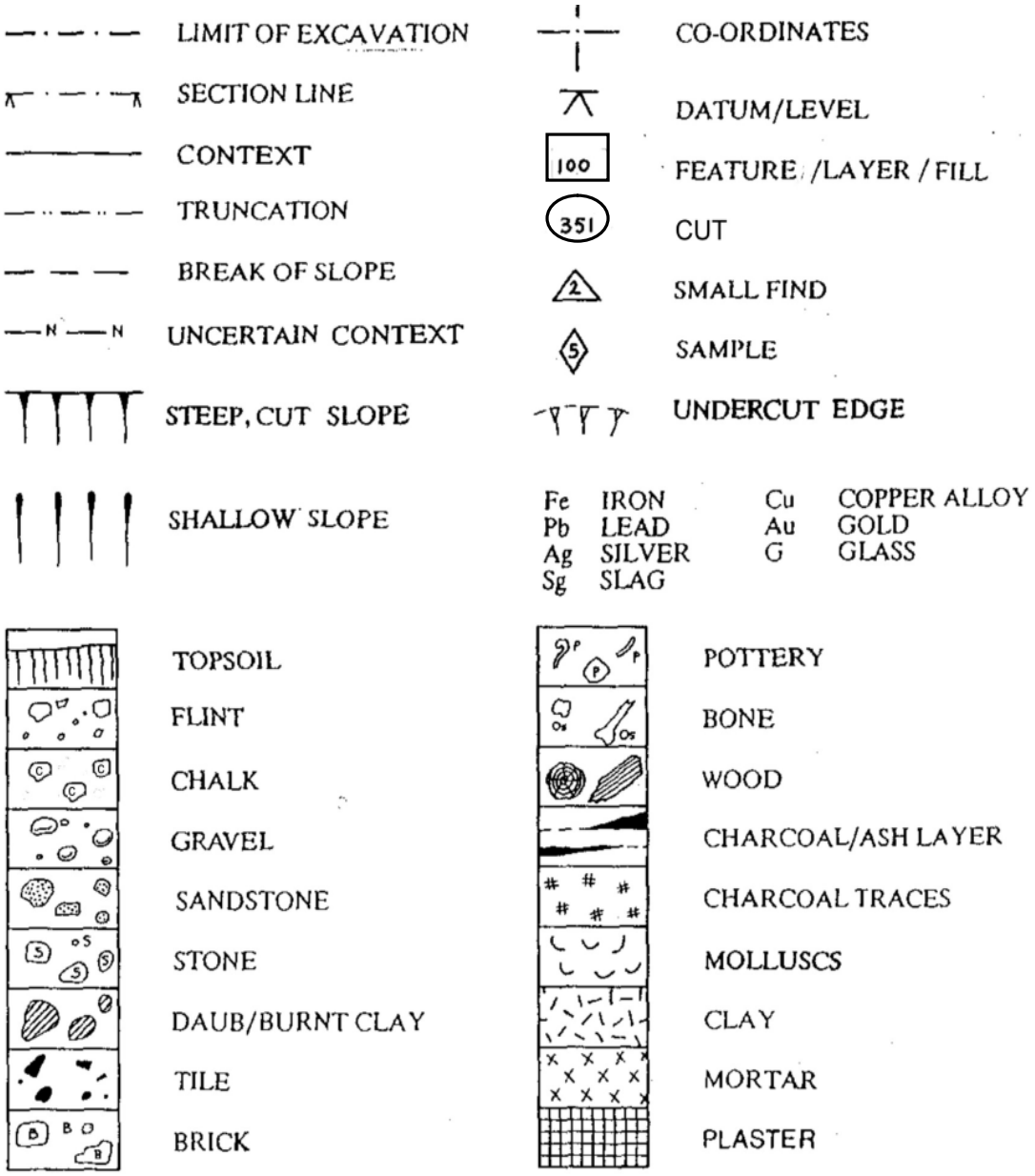
Each section of each trench excavated is to be drawn at a scale of 1:10 and it is usually most practicable to leave section drawing until excavation is completed.

Each section is to be headed with the section number, site code, the date, the scale at which drawn, the trench number or name of feature, the initials of the recorder and the alignments (N-S or E-W) of the trench ends.

A spot level should be recorded on the levelling line.

All drawings are to be neat, accurate and clearly labelled. The conventions to be followed are shown below. For a guide to specialist timber drawing see above..

Drawing Conventions



ENVIRONMENTAL SAMPLING

Introduction

Environmental sampling is carried out in order to recover biological remains, which may be indicative of the nature of past environments, diet, living conditions, agriculture or economy, both within a site and the local area. Sampling should be carried out in order to address specific objectives outlined in the sampling strategy section of the project design.

A number of types of sample may be taken on any site (see sample record form completion guidelines), with the majority normally being bulk or general samples, taken in quantity by the excavators from most context types. In addition excavators may take smaller samples where concentrations of specific materials are observed during excavation. Where necessary, samples may also be taken for the recovery of certain materials for analysis by specialists, such as pollen, and for dating purposes, such as wood and charcoal for radiocarbon dating.

Not all remains are obvious and so ideally all contexts should be sampled, but in practice it will normally be necessary to sample from contexts fulfilling a number of criteria:

They should have potential for plant and animal remains;
They should be datable so that any biological remains can be assigned to a phase of the site;
They should be sealed contexts containing little or no intrusive or residual material.

Obviously, such factors will not always be apparent during excavation, only coming to light during off-site processing. However the general rule is if in doubt, sample! Doubtful material can always be discarded later.

Non-waterlogged deposits

From non-waterlogged contexts, charcoal and other carbonised plant remains may be recovered, together with bone from large mammals, small animals and fish. Smaller bones and charred plant remains are often only recovered by wet-sieving.

In addition to spot samples (see sample record form completion guidelines page no ?), larger samples of 1 - 30 litres should be taken from non-waterlogged deposits which are well defined, closely datable and with rapidly accumulated fills (e.g. refuse pits, hearths, cremations etc.). Deep pits wells and ditches can act as traps for small animals so should be sampled. At least 20 litre samples are normally required to sieve for carbonised plant remains, unless there are clear concentrations.

Large samples (5 - 30 litres) will be subjected to flotation to 250/500 um. Small samples (1 - 5 litres) will be subjected to fine wet sieving to 250/500 um. Larger samples of 50 - 200 litres may also be required for bulk sieving to recover large animal bones, where such material survives. There should be 100% sampling of layers apparently rich in burnt organics in Saxon contexts for example, particularly hearths, taken as material for scientific dating.

Waterlogged deposits

Waterlogged deposits preserve a wider range of organic material, particularly microscopic remains such as pollen, parasite eggs and insect remains, which can give a fuller picture of the environment of a site. Macroscopic remains such as wood and leather may also be found, which would not normally survive in dryer conditions.

These deposits can occur at the bottom of wells, pits and ditches and sometimes as isolated pockets in generally non- waterlogged features. On some low lying sites water logging may not be contemporary with the archaeological deposits excavated i.e. there may have been a rise in the water table following occupation of a site, and so there may be a lack of preserved material.

30 litre samples will be taken from waterlogged deposits in deep features where continuous water logging since the backfilling episode is likely.

Macroscopic waterlogged remains such as worked timbers or large leather fragments encountered during excavation may require specialist attention and conservation.

Specialist samples

A number of other samples may also be taken during the course of excavation in order to address more specific objectives. These may be taken by on-site staff in consultation with the environmentalist/specialist or by the latter:
Dendro samples: Large wood samples (>50 rings) will be taken where present in continuously waterlogged contexts for dendrochronological analysis (tree ring dating).

Pollen samples: Soil monoliths will be taken from contexts where the specialist feels useful pollen assemblages are likely.

Soils: If buried soils survive, small soil blocks may be taken for micro morphological study.

Phosphates: Small soil samples (c. l00g) taken at regular intervals across a site to analyse for soil phosphates, which may indicate areas of organic activity e.g. manuring on a site.

Radiocarbon: Samples of organic material taken for 014 dating. These may be samples of contexts rich in burnt organics (see above) or of specific materials such as wood, charcoal or bone. For precision better than +1- 35 years the following minimum sample sizes are required:

Wood;	150g dry	(600g wet)
Charcoal;	50g	
Bone;	750g*	

*The above sizes cannot be achieved by bulking together material not necessarily of the same date (e.g. animal bone from rubbish deposits). Articulated bone will therefore be kept together and recorded as such during excavation. In practice, a 100% sample will be taken of “charcoal ‘ from hearths that are not datable from archaeomagnetism (see below).

Archaeomagnetism: Features where in situ burning has occurred, such as hearths and kilns may be suitable for archaeomagnetic dating. Specialist (AML) advice will be sought if such features are uncovered.

Dos and donts

DO	use cleaned tools when taking samples.
DO	sample well defined, organic rich deposits.
DO	label samples correctly.
DO	take samples in large lumps.
DO	remove any finds likely to be seriously damaged or lost during sieving.
DO	ask a supervisor or the environmentalist if there are any queries.

DON’T	smoke whilst taking samples or others are doing so, as all materials are sub—sampled for specialist analyses which may be affected by cigarette ash etc.
DON’T	overfill sample bags.
DON’T	sample layers which are clearly contaminated, or sterile/natural gravel layers.
DON’T	trowel the sample into a fine matrix.
DON’T	remove any finds, particularly ceramics which will survive sieving.

Sample sheet completion guidelines

Each sample will be assigned a discrete number from the Samples Register.

Site code: Main site identification code

Area code; Area within site (ask supervisor if unsure)

Co-ords: Co-ordinates of where the sample was taken from, preferably to at least the nearest metre. (This is particularly important for large, linear features).

Sample no.: Next number taken from the sample register.

Context no.: Context number of the material sampled.

Cut no.: Cut number of the feature from where the sample was taken

Type of sample: There is a number of categories which may be used here:
Bulk: Large soil samples of 10kg or more, where more than one sample bag of material has been taken. Bulk wet-sieved.
General: 5-10kg single bag soil samples. Bulk wet-sieved. Small: 1-4kg single bag soil samples. Fine wet-sieved
Spot: Concentrations of interest; small bones, charcoal, seeds, insects, coprolites etc. Box if delicate.
Dendro: Samples of wood for dendrochronological dating. Consult supervisor and/or environmentalist.
Radiocarbon: Samples of organic material taken for radiocarbon dating. Consult supervisor and/or environmentalist.
Phosphate: Small samples taken for soil phosphate analysis. Taken by environmentalist/specialist.
Monolith: Soil blocks taken for pollen, soil micromorphology etc. Taken by environmentalist/specialist.
Burial: Small soil samples (1-2kg) taken from burials (head, abdomen and feet). Specify Location.
Other: Any other sample type. Taken at the discretion of the supervisor/environmentalist/specialist.

Size of sample: 1 bucket full = c.15 litres. 1 sample bag = c.1O litres, Only fill in for bulk, general and small samples.

No. Of bags; Important to fill this in for bulk samples when a number of bags of material are taken (see Basic Sampling Guidelines).
Soil water state: Tick the box that most accurately describes the soil moisture.
Organic content: Tick the box that most accurately describes the perceived soil organic content
modern biological activity: Tick relevant box(es).

Contamination from other contexts: Tick the box that most accurately describes the perceived contamination.

General description of context: Basic soil description, noting any details relevant to the environmentalist, e.g. abundance of particular organic materials etc.

Reason sample selected for sampling: For the majority of bulk, general and small samples this will be 'routine', but other factors, e.g. abundance of carbonised material or the deposit was waterlogged', should also be noted. For other sample types the reasons will be more specific and should be stated as such.

Sampled by: Initials of the person taking the sample.

% of context sampled: Give an approximate percentage of the whole of a context sampled (where possible). This will be different from '% EXC' (on the site Context Record Sheet) except where a 100% sample is taken.

Date: Date the sample was taken.
Bulk sieved: To be completed by the environmental processor.
Sieved: To be completed by the environmental processor.

Environmental sapling: basic guidelines

1 Sample from cleaned, uncontaminated contexts using cleaned tools, either from section or during excavation.

2. Do not smoke whilst taking environmental samples or near others taking samples.

3 Ensure that the sampled material is as unbroken as possible i.e. do not trowel the sample into a fine matrix.

4 shovel sample material straight into sample bags to avoid contamination. Use hand shovels! Do not remove finds during sampling, except registered rinds and others not likely to survive bulk sieving. Do record the presence of finds on the back of the Sample Record Sheet, so that this information can be passed on to the rinds Supervisor and the specialists.

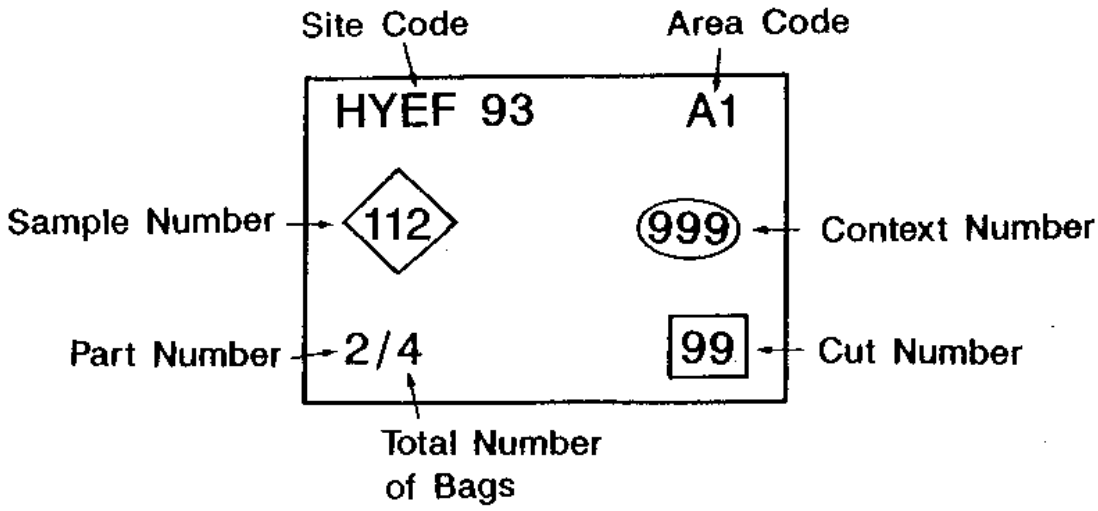
5 Fill sample bags to a sensible level. i.e. don't overfill.

6 Use two waterproof labels, one inside the bag and one tied round the neck of the bag.

Seal the bag as tightly as possible round the neck with string.

Fill in labels as follows:

fig. 6 environmental sample label



Do ensure that the total number of parts of each sample is clear, as is the part number. i.e. 2/4 indicates part 2 of a total of 4 parts to the sample.

There should be no need for double bagging as the sample bags should be of sufficient strength, provided they are not stretched or over-filled.

Environmental sampling: sieving guidelines

Two fractions will be obtained from each sample: “Flot” and “Residue”. These should be labelled ES/F/1 etc. and ES/R/1 etc. respectively.

1 Always ensure that there is sufficient water in the tanks for sieving.

2 Do not smoke during environmental processing.

3 When processing Hulk samples do not combine parts but sieve each bag individually.

Take a 0.5 - 1kg sub-sample of material (according to sample size), bag, label and store.

5 Tip the sample into a cleaned, graduated bucket and record the volume (and weight), along with all other information, on the sieving register.

6 Position the fine mesh/sieve on the grill in the lower tank, below the weir of the upper tank. Clamp the coarser mesh in the upper tank.

7 Tip the sample into the mesh in the upper tank and activate the water flow.

B Agitate the coarse material in the upper tank until the matrix is completely disaggregated and no more material floats over the weir.

9 De-activate the water flow.

10 Unclamp the coarse mesh, remove and drain. Tip residue into a newspaper-lined, labelled seed tray. Place on drying rack.

11 wash the flot into a filter paper in a funnel positioned over a jar and leave to drain. When drained, transfer to a box and leave to dry on a drying rack.

12

All sieving tanks will need emptying of sludge periodically.

THE PHOTOGRAPHIC RECORD

Introduction

This section is a guide to photographic procedures and recording standards, and to the rudiments of good practice on site and in the field. It is not intended to be comprehensive and assumes some photographic experience and competence.

Composition and Function

The photographic record will normally consist of digital images at a resolution of at least 300dpi. Great care must be taken that all images are backed-up during the progress of a project and files for archive should be saved in TIFF format and stored on archive quality CD or similar medium.

Subjects

Exactly what is photographed must be at the discretion of the individual director or supervisor, but the photographic record should include the following:

1. Location shots, illustrating the site in its setting;

2. General site views and working shots;

3. Overall views of the site and/or areas and trenches, both before and after excavation, and when stratigraphy of single or related phases is exposed;

4. Post excavation record shots of all features and significant groups of features (such as those recorded as Groups) and pre-excavation record shots as appropriate;

5. Details of significant finds in situ;

6. All sections

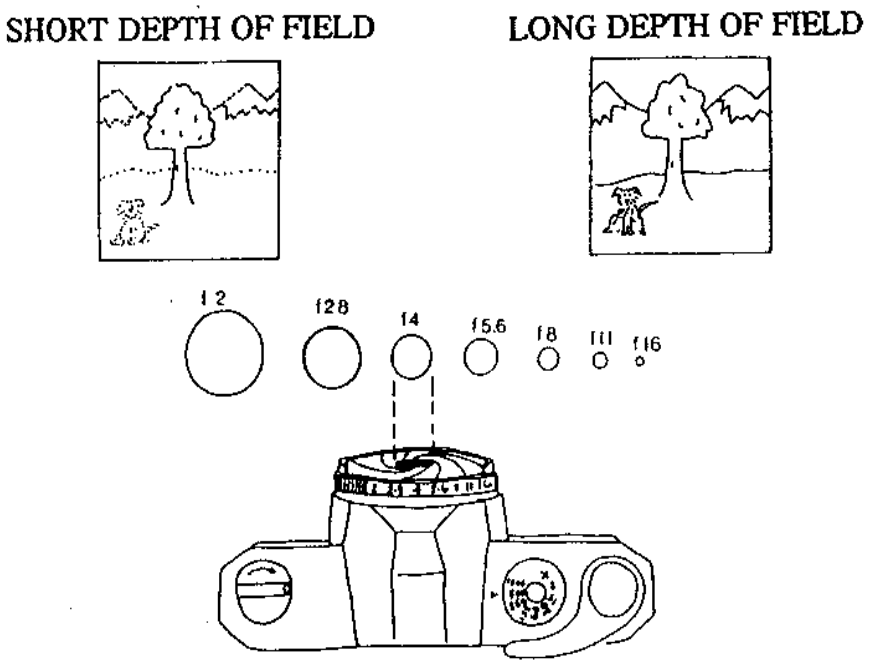
Procedures

.
Photographic register sheets must be kept for each site or project. Each exposure should be numbered on the record sheet. These will then form the basis of the archive photographic register.
.

All archive shots (except in the case of certain publication shots where it is decided that they are unnecessary) must include an information board recording the site code and context number, a north arrow and a scale.

Using the camera.

Fig. 7 choosing exposure: Aperture vs Shutter Speed.



Aperture: the width of the opening

Shutter speed: the length of time for which it stays open.

Two things have to be taken into account here:

1 Shutter speed: if this is too slow then 'camera shake' will result, and the picture will be blurred: don't go lower than 60. The faster the better: i.e. higher numbers.

2 Depth of Field, or how much is in focus. This is controlled by the aperture, and determines what distance between the foreground and the background is in focus.

A small aperture: (20, 16) = long depth of field
A large aperture: (2, 2.8, = a short depth of field

As photography is all about using available light to produce the picture you want, these two things must be combined to properly form the photographic image. The depth of field will depend on the type of shot you are taking, so I will explain by giving three typical examples.

Section shots.

Very little has to be in focus here, only the single plane of the section, the info board and scale. Therefore the depth of field need only be short:

1. A large aperture (e.g. 2.8) Light entering: high
2. A fast shutter speed (e.g. 1000) Light entering: low

These should be combined to produce the correct Light meter reading.

Features

Depending on their size possibly a couple of metres depth will need to be in focus, so a slightly longer depth of field is needed:

1. Smaller aperture (e.g. 8) Light entering: medium
2. Slower shutter speed (e.g. 250) Light entering: medium

General site shots

These need a long depth of field to produce focus from the
Fore-ground to the back of the shot:

1. Small aperture (e.g. 22) Light entering: low
2. Slow shutter speed (e.g. 60) Light entering: high

If the lighting conditions call for a slower setting than 60, then sacrifice depth of field (i.e. choose a larger aperture) rather than a slower shutter speed. It is better to have less depth of field than everything blurred. Use of a tripod may enable the use of slower speeds when appropriate

Shot composition.

In principle all photographs should be to publication standard. Look at the edges of the frame to see how the feature is positioned in the shot. The subject should be clean and the background tidy, and (with the exception of working shots) there should be no section lines, equipment, clothing etc in the frame. Care should be taken to ensure that scales are of the appropriate sizes and that they are placed so as not to dominate the photograph. Arrange scales so that they are parallel with the edge of the frame or aligned with perspective so as not to distort the scale rod.

Place the info. boards in the foreground - it only takes a little distance before they become illegible.

If you have any queries have a look at the booklets which came with the cameras.

. Appendix.

Specimen Site Record Forms for Copying

Context Register

Context Record Sheet – Front

Context Record Sheet - Reverse

Levels Register

Masonry Sheet

Photograph Register

Plans Register

Samples Register

Sections register

Skeleton Record Sheet - Front

Skeleton Record Sheet - Reverse

Special Finds Register

Accident/Injury Record