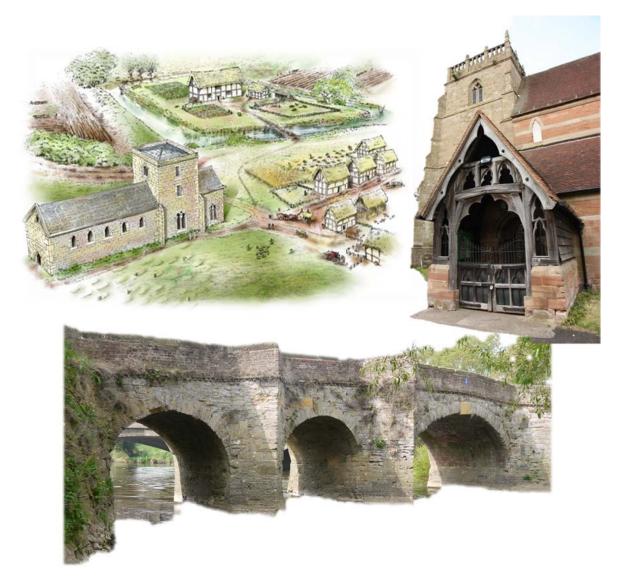
A Thousand Years of Building with Stone

A guide to archaeological field and building survey







Developed by Worcestershire Archive & Archaeology Service, with funding from:





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Origination Date: 17/03/2014 Reviser(s): Author

Date of last revision: 16/03/2015

Version: 2 Circulation: Draft





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Contents

Part 1	Guide to archaeological field survey	4
1.1	Introduction	4
1.2	Preliminary work	5
1.3	Getting out there	7
1.4	Measured Survey: Tape-and-offset planning	. 10
1.5	Taking Photographs	. 12
1.6	Writing a Report	. 14
Part 2	Guide to archaeological recording of Historic Buildings	. 16
2.1	Introduction	. 16
2.2	Equipment	. 17
2.3	Safety	. 17
2.4	Completing the WAAS Building Record Form	. 18
2.5	Photography	. 21
2.6	Drawing the Structure	. 22
3	Glossary	. 23
4	Bibliography & Online Resources	. 23
4.1	General:	. 23
4.2	Buildings:	. 24
5	Contacts	. 24
6	APPENDICES	. 25
APPFN	DIX 1: SURVEY DRAWING CONVENTIONS	

APPENDIX 1: SURVEY DRAWING CONVENTIONS

APPENDIX 2: MODEL BUILDING RECORDING FORM

APPENDIX 3: DATING HISTORIC BUILDINGS

Part 1 Guide to archaeological field survey

1.1 Introduction

1.1.1 Background

Worcestershire Archive & Archaeology Service (WAAS) is keen to provide training and assistance to people undertaking archaeological research in the voluntary sector. These notes are intended to assist people wishing to undertake survey work as part of the Earth Heritage Trust's *Thousand Years of Building with Stone* project.

1.1.2 What is archaeological field survey?

Field survey is the process of visiting a site of known or suspected archaeological interest, making notes, taking photographs, measuring and drawing the archaeological features and disseminating the results. It may incorporate documentary and/or cartographic research and the gathering of local knowledge. The end result might be anything from a detailed report to a plan with a few paragraphs of description.



Archaeological Earthwork Survey at Crowle, 2013

Common to all field survey work is the process of looking at a site carefully and systematically. This can be very rewarding, especially as you may be the first to look at the site in such depth with an archaeological approach.

1.1.3 Why is it important?

Archaeological field survey is one of the best non-intrusive tools we have to gather information about the nature of a site, its condition and any potential threats to its stability. However, it can be quite time-intensive, and with hundreds of thousands of sites recorded by Historic Environment Records across the country, archaeologists simply don't have the capacity to survey them all, so any contribution that can be made by volunteer researchers is really important.

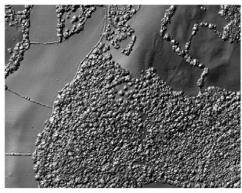
New archaeological sites are discovered all the time, and without reliable, detailed information on such sites it is much harder to ensure that they are adequately looked-after and considered as 'heritage assets' in the planning process.

1.1.4 What needs recording?

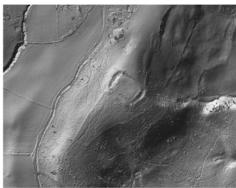
There's a huge variety of sites of archaeological interest, many of which have elements visible as above-ground (or 'upstanding') features. These might include walls of former houses, agricultural, industrial or military buildings, or land management features such as drains, culverts, bridges or pumps.

There are also hundreds of 'earthwork' sites around the county – 'lumps and bumps' which comprise the traces of many different types of human activity, from Bronze Age barrows and Iron Age Hillforts to quarries, moats, mills & fishponds, 'ridge & furrow' agriculture and deserted settlements. New sites are discovered all the time, and with new remote-sensing techniques such as LiDAR we are identifying more and more potential sites of interest.

However, a LiDAR image alone is rarely sufficient to tell us all we need to know about a site, and good old-fashioned boots-on-the-ground survey with low-tech, low-cost equipment still plays a vital role in understanding the nature and condition of sites of archaeological interest.



LiDAR survey showing tree cover



Tree cover removed revealing Iron Age enclosure

LiDAR survey, Wyre Forest

1.1.5 HER integration – How, why and when?

Historic Environment Records are growing databases which record the archaeology of local areas. Most are run by local authorities. They are a powerful tool, used for research but also to inform the planning process. By integrating information gained through archaeological work, whether that is carried out by professional archaeological units or local groups, a more complete picture of the history and archaeology of an area can be built. This is a great help to efforts to protect and manage the historic environment.

In Worcestershire, when first considering undertaking a piece of archaeological work, an event number should be requested from the HER office. This is a unique number which should be quoted on all paperwork for the site. This unique number is then added to our database and allows us to identify areas where work is being carried out. It also allows us to easily cross reference submitted reports with the correct site. An HER search may be requested at the same time as the event number. This search retrieves all database entries for a particular area in addition to a list of sources and relevant historic mapping.

1.2 Preliminary work

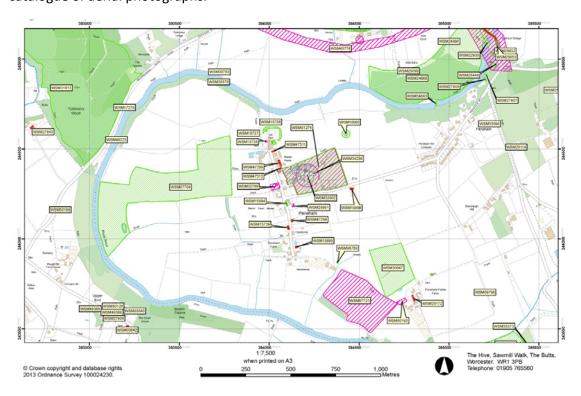
1.2.1 What is already known?

1.2.1.1 Maps

Some historic features are mapped by the Ordnance Survey. Tell-tale 'hachures' and tantalising little labels marking a 'Fort' or 'Tumulus' can be found on the 1:25,000 and 1:50,000 OS Maps. However, these represent only a very small proportion of visible archaeological features – many are too small or too slight to have been mapped by Ordnance Survey, or may not have been recognised as features of archaeological interest. Even sites which are marked will probably be depicted with little detail.

1.2.1.2 HER

If you have identified a potential site that you would like to survey, it is worth checking the extent of the information we already have on the local Historic Environment Record. They may have existing maps or plans, geophysical surveys and/or more information on the date, type or function of the site. The HER may also contain historic maps, which may give a clue as to the nature of a particular site, and LiDAR imagery, which can provide a really good overview of above-ground, earthwork and features. Some will also have an extensive catalogue of aerial photographs.



Example of an HER search plan, showing existing records of sites (green), events (purple) and buildings (red) ©WAAS

Is it still worth surveying Site X if it's already in the HER?

Generally, yes! Check with the HER first, but even in cases where there are old plans or LiDAR imagery/aerial photography, field survey records can be invaluable. A field survey allows the observer to interpret what they're seeing, to assess the condition of a site and whether it's at any risk, to observe any changes since it was last recorded and to record details that aren't visible from the air, such as vegetation cover and architectural details.

1.2.1.3 Other Sources

It is worth asking landowners, tenants and local residents if they know anything about the site, or if they know of any previous research. Local history societies may have more information, or may have carried out surveys of their own that have not made it into the public domain. In any case, it is generally considered good practice to keep interested local parties informed about your work — they may be able to offer help, advice and contacts, and may be interested in the results of your work.

1.2.2 Getting Permission

Before undertaking any fieldwork, it is vital to get permission from the landowner to access the site. You will also need permission to carry out any work such as cutting-back or removing vegetation to improve visibility. Be aware that removing vegetation can destabilise upstanding walls or banks, so take care to assess the chances of this before removing any material. If in doubt, seek advice!

1.2.3 Safety

Work with others if possible. If lone working can't be avoided, ensure others know where you are, what you're doing and when you're expected back. Take a fully-charged mobile phone. Remember that in cold weather battery life can be significantly shortened. Check signal coverage in advance if possible: most operators' websites offer a coverage map enabling you to predict signal strength. Carry a first aid kit with you.

Be aware of potential dangers such as unstable earthworks, water features and structures. Vegetation can conceal holes, animal burrows and sudden breaks of slope. Never enter unknown water features. Be wary and respectful of livestock. Hi-visibility clothing, protective headgear and gloves and safety boots are sensible precautions if working around potentially dangerous sites or structures.

1.3 Getting out there

1.3.1 Equipment

The equipment you will require will depend on the type of survey you're undertaking. Here's a basic list of essentials for producing a measured drawing:

- Sturdy notebook, with goodquality paper (waterproof notebooks such as those made by Chartwell are a good investment!).
- Stiff clipboard with A4 sheets of drafting film or quality drawing paper, and masking tape for



Equipment for a measured tape-and-offset survey

fixing sheets into position.

- Good quality magnetic compass, from which accurate bearings can be taken.
- Pencil hard pencils are best for survey drawing as they smudge less and retain a sharp point for longer. Use 6H / 7H for drawing on drafting film, or 4H / 6H for paper. It is worth trying out different combinations before you head out into the field. Most professional archaeologists will use 6H / 7H.
- Scale ruler: a 150mm ruler with multiple scales, including 1:20, 1:50, 1:2500 etc is a useful tool & fits into a pocket. 300mm triangular scale rules are more widely available but less convenient.
- 1:25,000 Ordnance Survey map of the area.
- 1:2500 Ordnance Survey plan of the site location: the HER can supply these in PDF format if you've contacted them to request information.
- Long fibreglass measuring tape: ideally 50m. 'Closed-reel' type tapes are more convenient to transport but more prone to jamming and less easy to rewind than 'open-reel' types.
- Survey 'pins' or large tent pegs, coloured red to aid visibility.
- Bulldog clips to secure long measuring tapes.
- Digital Camera.
- Photographic scales (sometimes known as 'ranging rods') – these come in a variety of lengths. A good all-rounder is a 1m long scale painted half red, half white. It is worth taking two of these, to be arranged in a 'T' shape for effective scaling of photographs. Fold-away versions can be bought.

Ranging rods can be made quickly and cheaply: cut a wooden dowel rod to size, spray with several coats of white hobby spray paint. Wait until dry, mask off the half to remain white at the 50cm point, then spray the other half red.

 Good boots! Comfortable, waterproof boots are invaluable. Ideally, they should provide some ankle support – slips and trips are common when clambering over lumps & bumps, and a sprained ankle in the middle of nowhere is no laughing matter.

1.3.2 First Impressions

Before launching into a detailed scale drawing, take some time to observe the site. What is its extent? Are there other related features nearby such as trackways or watercourses? Are there any aspects which might provide evidence of the function of the site (i.e. demolition debris, certain types of vegetation, architectural features or fittings etc.)? Make some notes. If working in a group, discuss your interpretations.

1.3.3 Initial sketch

It can be helpful to make an initial sketch of the site. In some cases, this may be all that is required, or all that you have time to do.

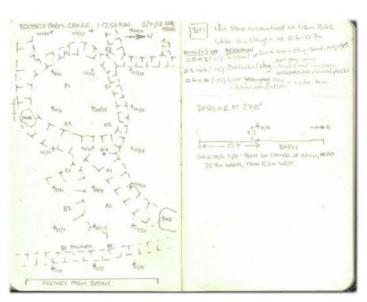
Alternatively, it may help you to understand a site before carrying out a more detailed measured survey. Although a sketch doesn't need to be accurately measured, it can be helpful to 'pace out' dimensions. For estimating heights of banks and walls, you can use ranging rods.

Before doing this, it's a good idea to check the average length of your pace! Lay 10m of tape out on the ground, then walk along it. Divide the paces taken by the length walked to find your average.

If using drafting film, it may come printed with a faint grid. In this case, place a white sheet of paper behind the film, and secure both to your board. If there is no grid, it can sometimes be helpful to place a sheet of graph paper behind the film to give you a guide whilst drawing.

1.3.3.1 What to include

Remember to include location information on your sketch. This could be anything from a point measured with a handheld GPS device to annotations on the sketch showing distance and direction to known points located on OS maps, such as the corners of fields, buildings or roads. Try to get at least 3 well-spaced points marked, if available. Sometimes, you may find vourself in the middle of a wood with no



Sketch Plan of Rectory Farm, Crowle

distinguishing features whatsoever! In this case, try to give a rough indication of location, such as '200m NW of junction between footpaths X & Y'.

- Before starting, check that you'll be able to fit your drawing onto one sheet, and orientate your board or notebook accordingly
- When surveying earthworks, remember that you are creating a 'birds-eye' plan view. Your drawing should show the top and bottom of each man-made slope. These are known as 'breaks of slope'. The angle and direction of the slope is denoted by 'hachures' (see Drawing Conventions, Appendix 1). It can sometimes be

Finding the 'Break of Slope'

This can be tricky, especially where earthworks have lost their definition after centuries of erosion. One method is the 'toe-test'. Shuffle carefully towards the top of the slope, feeling with your toes for a change in angle. Repeat at the base of the feature to find the bottom break of slope.

- difficult to tell the difference between natural slopes, natural slopes that have been enhanced by human activity, and man-made features. If in doubt, record it you can always come back to the drawing later and remove elements.
- If you're recording upstanding walls, it can be helpful to visualise your drawing as a
 'slice' through the structure, just above the ground. It can sometimes be difficult to
 gauge the point at which a wall becomes a jumble of rubble, particularly if the site is
 overgrown. Make sure any uncertainty is noted on the plan, and don't be afraid to
 use the 'uncertain edge' type of line, detailed in the Drawing Conventions appendix.

1.3.3.2 Labelling your plan

- Add any dimensions you have measured or paced
- Include a north arrow
- If recorded at an approximate scale, include this information
- Include the grid reference of the centre of your site, if available. Ideally, this should be expressed as an 8-figure reference, e.g. NGR SP 1234 5678, which gives an location to 10 metre accuracy
- Add a 'key' to any abbreviations or drawing conventions used. Conventions can vary and change over time, and it is important that anyone viewing your work in the future can interpret the symbols you've used!

1.4 Measured Survey: Tape-and-offset planning

'Tape-and-offset' planning is an effective and accurate method for low-tech, low-cost survey of archaeological sites and features. It is a technique used on archaeological excavations as well as above-ground surveys.

The basic principle is to set out a baseline or small grid using 30/50/100m long measuring tapes secured by pegs, and then measuring points on the site against the baseline, before plotting these points onto a sheet of 'drafting film' and joining the dots to create an accurate plan of the site.



Tape & Offset planning

1.4.1 Setting up a baseline or grid

 First, choose a 'baseline' along which to set out a tape. This is generally done along the 'long axis' of the area to be surveyed or parallel to major features, with the start and end of the baseline extending beyond the limits of the site.
 Alternatively, you may prefer to align it north-south or east-west if there is no obvious pattern to the features.



- To set out the baseline, pin the zero point of the tape into the ground using a visible marker like a ranging rod or survey pin. Run the tape out along the length of the baseline, trying to keep it as horizontal and as taut as possible! At the end of the tape, secure it at the 30/50/100m point with another peg (this is where the bulldog clips come in handy!). Then go back along the length of the tape placing intermediate pins in the ground at 10m/20m intervals, depending upon the size of the site.
- If the site covers a broad area, it can be useful to set up a parallel baseline, making a grid. This is where your school maths teacher finally triumphs, as it is a case of a practical application of Pythagoras' theorem!
 - Run a second tape roughly at 90° from the zero point of your baseline,
 4m in the direction to which you wish to extend the grid.
 - Take a third tape, and starting from the 3m point on the primary baseline, run it towards the 4m mark on the second tape.

Pythagoras' Theorem: $a^2 + b^2 = c^2$

So, in practical terms, if the lengths of the three sides of a triangle are 3m, 4m and 5m, a right angle will always exist at the intersection of the two shorter sides.

- Hold tapes 2 and 3 together at the point where 4m on tape 2 meets 5m on tape 3. Mark the point.
- You now have a point at 90° to the 0m point of the original baseline. Run tape 2 out as far as you need to extend the grid, then mark the 0m point of the new secondary baseline.
- Repeat at the far end of the original baseline to give you the endpoint. String a line between the two points, and you will now have a parallel baseline.

1.4.2 Taking Measurements

Set out the baseline or grid on your drawing board, ensuring that you choose an appropriate scale. Ideally, you want a scale that enables you to fit the site onto one sheet of drafting film, but at a scale at which features can be easily plotted. For a single building or small extraction pit, 1:100 might be ideal, but if you're plotting features across a wide area something like 1:500 might be more appropriate.

Small & Large Scale:

Remembering the difference can be tricky. On a **small** scale map, individual features are small, e.g. OS 1:25,000. On a **large** scale map, features are large & more detail is possible, e.g. a 1:100 site plan.

Smaller scale = less detail

SCALE	DISTANCE ON GROUND	DISTANCE ON DRAWING
1:500	10m	20mm
1:200	10m	50mm
1:100	10m	100mm

- Starting at the 0m point of the primary baseline, select the nearest feature to be plotted. If part of the feature crosses the baseline, mark the point.
- Now, measure the 'offsets'. Select a point of interest, like the edge of a wall or top of a bank. With the help of, ideally, two other people, have one person hold the 0m end of a long tape at the point of interest, whilst the second person runs the tape back across the baseline, turns, then swings the end of the tape back and forth across the baseline until they are satisfied that they've got a right angle.
- Once satisfied, the second person should read off the coordinates of the intersection: first read off the distance along the baseline, then the offset distance to the point of interest. The third person should plot this point on the plan.
- Continue until all points of interest such as corners, breaks of slope and edges are plotted for that feature, and then join the dots, add 'hachures' to mark the direction of any slopes. Stand back and compare, then repeat for the next feature.
- Once all are plotted, ensure that all labels are comprehensive and accurate as
 possible, as outlined in section 3.3.2, and that your drawing follows the conventions
 outlined in Appendix 1.

1.5 Taking Photographs

A high resolution digital camera, with at least 7 megapixel resolution, is an essential tool. If possible, set the camera to save images in TIFF format rather than JPEG: although TIFF files are larger than JPEGs, they are 'uncompressed', higher quality and more stable.

Ensure that shots are in focus and well-lit. A tripod, if available, can be useful for composition. For other types of site (e.g. earthwork sites), the combination of low sunlight, high contrast and low vegetation makes the winter months ideal for photography.

Low January afternoon sun reveals the remnants of a Bronze Age barrow, Kempsey Common



Include ranging rods for scale in at least some of your photos, although it can also be beneficial to take some photographs without scales. Where scales are included, try to make sure that they are lined up parallel to the edges of the shot, otherwise they can appear untidy and distracting.

It is often useful to include a range of different views within the photographic record of a site. As a general rule you should include

- A general view of the structure in its setting or landscape
- Detailed shots of individual components of the site, e.g. standing walls, floor platforms, banks or ditches
- Working shots of the survey in progress, showing techniques, weather conditions, vegetation etc. These not only help to illustrate any report you may wish to write, but can also provide useful background information for anyone looking at your work.



A picture tells a thousand words! Surveying in waist-high vegetation, Crowle Summer 2013 ©WAAS

It is worth noting the photographs you've taken on a list as you go, recording the following information.

- Photograph Number
- Direction of shot (e.g. SE, NW)
- Short description of picture, e.g. 'north-west corner of bank'
- Details of any ranging rods used, e.g. '2 x 1m'
- Date, and initials of photographer

If the site is large or complex, annotate your site sketch with the photograph number and a small arrow indicating direction to avoid confusion

When you get home, remember to download your photographs, and make sure the file names can be matched to your field records! It is a good idea to back photographs up onto an external hard drive, CD or memory stick as soon as possible to insure against computer problems.

1.6 Writing a Report

This is a vital but much-feared and misunderstood aspect of archaeological survey work. A report doesn't have to be onerous or stressful, and can be as long or short as you like. A concise, succinct report can be much more useful than a lengthy treatise. The form your

account takes may depend on whether there is much existing documentation on the site: if this is the case, you may wish to focus more on the condition of the site, any visible threats and any new features identified.

It is often helpful to start with a summary, containing the following information:

 Site Name: does your site already have a name? If not, keep it short and relevant, e.g. 'Earthworks at Field X / Farm X' or 'Lime Kiln off X Lane'



- **Grid reference**: Take the approximate centre point of the site, expressed as an 8 figure grid reference, including the 100km two-letter 'Prefix' code, e.g. 'NGR SP 2345 6789' this gives position to the nearest 10m.
- 'Monument type': what <u>is</u> the site? English Heritage maintain a Thesaurus of site types, which can be very helpful when trying to work out whether you've recorded a 'Marl pit' or a 'Bell pit'! The thesaurus, which forms the basis for record descriptions in the HER, can be found and explored here: http://thesaurus.english-heritage.org.uk/
- A single sentence describing the site, which can be used as a summary description
 for the HER database entry, e.g. 'A group of three partially ploughed-out Bronze Age
 barrows, surmounted by the remains of a WW2 observation post'.

Once you have this, you can add a couple more paragraphs of detail, including the following:

- A description of the **site 'setting'**: what is the surrounding flora? Is it wooded, in pasture, within a built-up area? What is the topography: is it atop a mound, on a slope, within a depression, next to geographical features such as a stream or rocky outcrop?
- An assessment of the 'condition' of the site: is it overgrown or unstable? If there are structural remains such as walls, how much of these survive? If there are earthworks, how well-defined are they? Is there evidence of burrow damage or erosion?
- Is the site **aligned along a particular axis**? For example, a Holloway may run 'northwest to south-east', or an enclosure may have 'an entrance in the south-west corner'.
- If the site is particularly complex or appears to have multiple different phases/functions, it can be beneficial to break it down into sections and describe each separately. If this is necessary, make sure that your site plan is adequately labelled.

Your record can be further enhanced by adding any documentary evidence you've collected:

- If the site is shown on historic maps or plans, include details and (if copyright permits) images.
- If you have other documentary records such as news articles, estate records, trade directories etc., discuss these. Remember to reference them appropriately!
- Personal correspondence or comments from local sources of knowledge can be included, but be sure to attribute them appropriately and check facts where possible!

Now, the fun part: include a few paragraphs on your interpretation of the site. Try to avoid wild speculation, but don't be afraid to put forward your opinion. Always show your working: if you believe site X was a mill, highlight the evidence that supports your interpretation.

Lastly, don't forget to include a high-quality copy of your sketch or measured plan, together with a location plan showing the site's location within its surroundings.

For further advice on report writing, see WAAS's *Guidelines for post-excavation reporting* and archiving of archaeological field research (2015).

Part 2 Guide to archaeological recording of Historic Buildings

2.1 Introduction

2.1.1 Why record?

Recording of historic buildings is a crucial part of the process of cataloguing, and therefore enabling the interpretation and protection of, the Historic Environment. Standing historic structures are some of the most visually prominent aspects of the Historic Environment, and are in themselves a great source of archaeological information. This guide presents a quick overview of the techniques and equipment necessary for carrying out basic visual recording of historic buildings.

2.1.2 Levels of Recording

Recording of historic buildings can be carried out to 4 different levels, set out by English Heritage's best practice guidance. At its most basic, building recording can constitute a brief visual record as part of an assessment of a wider area, such as a Landscape Characterisation Survey. At its most detailed, it can be a comprehensive analytical survey of a single building, incorporating detailed measured survey and an in-depth review of all available documentary and historical evidence. The table below summarises the key features of the 4 levels.

	DRAWINGS	PHOTOGRAPHY	WRITTEN ACCOUNT
LEVEL 1	Sketch plan and/or elevation with dimensions, sketch of any significant architectural details	General view of the building in its wider setting or landscape & oblique shots of visible external elevations	Completed Building Recording form
LEVEL 2	Measured sketch plan & elevations, measured sketch plan of details and location plan if appropriate	As level 1, with addition of general shots of internal rooms and circulation area	As level 1, with an expanded description of form, function, status and development, including details of builder, architects & owners if known
LEVEL 3	Measured plan, elevation and detail drawings, sometimes cross-sections, 3-D projections or reconstructions	As 1 & 2, plus any structural or decorative details & inscriptions, contents or ephemera relevant to building's history	Detailed, analytic account of the building and consideration of context & setting
LEVEL 4	As level 3, with addition of further interpretive drawings looking at function and/or movement of people/materials	As Level 3	As level 3, with substantial consideration of wider context and inclusion of relevant testimony from a comprehensive list of sources

2.2 Equipment

2.2.1 Basic Equipment

In order to complete a basic, Level 1 building appraisal exercise, the following equipment is needed:

- Robust 5m retractable tape measure
- 30/50m metric measuring tape
- Magnetic compass
- Black BIC ballpoint pen
- Recording forms printed on high-quality paper
- Ruler: preferably scale rule
- Stiff clipboard
- Camera
- Ranging rods: 2 x 1m
- Camera
- 1:25,000 Ordnance Survey map

2.2.2 Advanced Equipment

For more detailed records in which measured drawings/sketches are required, the following additional equipment is useful:

- 6H Pencil
- Pencil eraser & sharpener
- Drafting film
- Graph paper (if drafting film isn't pre-printed with grid)
- Masking tape
- Planning board: stiff A3 size board with plain white backing
- An extra 30/50m metric measuring tape
- Line Level
- Plumb bob
- String/builders' line and masonry nails
- Bulldog clips
- Pair of compasses and/or set-square

2.3 Safety

Follow the principles outlined in section 1.2.3. In addition, it is worth noting that buildings in poor or derelict condition can be very dangerous places. Do not enter structures unless you are sure it is safe to do so, and have permission. In order to avoid suspicion or confrontation, ensure that you are carrying details of what you're doing, including project documentation and contact references if applicable.

2.4 Completing the WAAS Building Record Form

The 'Building Record' form is designed to comprise the primary record of a field survey. It is by no means exhaustive, but enables the recorder to note the key features of a building.

2.4.1 Site Code, Site Name & Date

Site code	Site name	Date
Building 12345	House, Villagaton	1/11/13

The site code is an identifying code that ties together all the records associated with a site or project. There are numerous conventions, but one common form is to assign each piece of fieldwork a 'site code' comprising three letters and two numbers, representing location and year. Thus, a survey of historic buildings in Pershore in 2013 might be coded **PER 13**.

2.4.2 Initials, Building Number, Type, NGR

Initials	Bu	uilding number	Type (agricultural, domestic, ecclesiastical, industrial)	NGR		
skg		1 of 2	Domestic	50	1234	1234

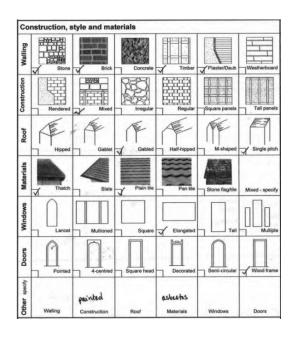
Where the building recorded is one of a series (for example, in a survey of all stone buildings within a given area), assign each building within that series a separate number. Give a broad description of the type category into which it falls. Categories include:

Domestic, Agricultural, Industrial, Military, Garden, Ecclesiastical, Retail, Public

If not noted elsewhere (eg on a site plan or map), give an OS Grid Reference to as great a degree of accuracy as possible.

2.4.3 Construction, Style & Materials

This section allows you to summarise the construction techniques and materials at a glance. Tick the relevant image for the building concerned – if multiple styles are present, tick each that occurs. Further details can be recorded in 'OTHER'.



2.4.4 Notes

Notes	
2 bau	central part is timber-fraud.
	and linestone extensions of kitches
and	stable. Pigsty also limestone.
Line	tone sections are matched.
Centr	al timber-frame section is
tiles	
The	walls are a mix of finber
mitu	brick infill, stone and
	r nim plaster infill. Huch
	e plaster survives on the
novan	gable wall of contral part.
Muss	t all external faces are
whi	te painted.
	of the windows are
case	nents in pegged wooden
frame	
Pig V	un converted to store has
	gated asbestos vod.

This section allows the recorder to expand on any features not fully covered by the 'Construction, Style & Materials' box, such as evidence of alterations or cases in which multiple styles are used within a single building. Any information is relevant, including your thoughts as you record the structure.

2.4.5 Function

Function (current and original)	•
A Probably originally a	2 bay house.
Non still a mouse bu	t greatly extended
Extensions were a	kitchen, still used; a stable, now
	house; prigsty and run, now used as
outbuildings.	7105
3	

Use this section to detail any evidence of current or past functions. Has the building been converted, for example from agricultural use to domestic (e.g. a barn conversion)?

2.4.6 Provisional Date

Provision							
Timber	france	powt	is	17thc	in	architectural	style
Stone	extens	ions	an	1 18th	an	architetural d 19th c in	date

Include any available evidence from historic maps, architectural details, date-stamps/stones or documentary sources.

2.4.7 Condition

Condition						
In use for original function / House still used	Partial ruin					
In use & Extensions have changed use now	Ruin					
Disused	Destroyed					

Tick applicable description, with a short description if necessary.

2.4.8 Architectural Details

Brick	Brick coursing	Flooring	Stone type	Arches	No of storeys	No of bays	Other
size/colour etc	draw English	tile, stone, etc	Walls, roof, floor, etc	windows	Inc. basement/cellar		specify
83/4" × 4"	Bond	quarry tile	casnold				
x 2 1/2" red /brown	77777	, ,	(coursed rubble)				

Fine details not recorded by the broad 'Construction, style and materials' section should be noted here, such as the sizes, coursing and bonding of building materials and details of types of material used. Other architectural details of interest, such as decorative string courses or dentillation, can be included.

2.4.9 Other Features of Interest & Historical Information/Background

Features of interest (describe) / Historical information/background (eg. when last used/lived in, last/first owner, etc)	

Space for further notes on architectural details or additional information not covered elsewhere.

Include a brief summary of any known historical context, current ownership status, any known designations (e.g. is the building listed or within a conservation area), and any other information of relevance to the specific project. Include anecdotal evidence from owner/occupiers and/or passers-by.

2.5 Photography

A high resolution digital camera, with at least 5 megapixel resolution, is an essential tool. If possible, set the camera to save images in TIFF format rather than JPEG: although TIFF files are larger than JPEGs, they are 'uncompressed' and have the advantage that, unlike JPEGs, they do not deteriorate in quality with repeated opening and saving.

A lens with a focal length of 50mm or more is ideal for photographing building exteriors. If taking interior shots, a wide angle lens (28mm or less) may be necessary. Ensure that shots are in focus and well-lit. A tripod, if available, can be useful for composition. For shots in which a visual indicator of scale is beneficial, ranging rods can be a useful addition.

It is often useful to include a range of different views within the photographic record of a building. More detailed surveys may require more (see Table 1), but as a general rule any buildings survey should include:

- A general view of the structure in its setting or landscape
- Views of each visible external elevation. These can be within either general oblique shots or, if a particular aspect is deemed particularly complex or significant, a 'front-on' shot focusing on a single elevation may be more appropriate.



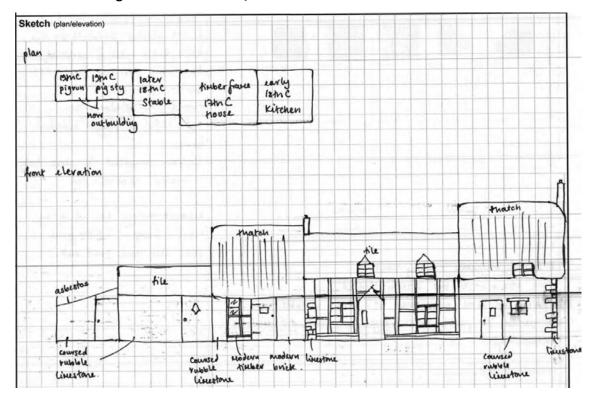
2.6 Drawing the Structure

2.6.1 Why Draw?

Drawing a structure by hand may seem old-fashioned in the age of high-resolution digital photography and survey, but it still serves a useful purpose and is an invaluable skill for the recorder. Although in a professional context the use of digital survey equipment has largely replaced the measured drawing as the primary recording technique, most surveys will also still make use of the hand-drawn plan or elevation.

Drawing is a very efficient way of conveying evidence, and allows the recorder to capture and highlight subtle features and relationships that may be difficult to capture in a photograph or digital survey, and to annotate these appropriately. It also forms an important part of the interpretation process, compelling the recorder to methodically observe all parts of the subject.

2.6.2 Producing a Basic Sketch Plan/Elevation



The gridded space on the recording form can be used for a basic sketch, showing the rough layout of the building (where visible/accessible) and/or the key elevations. Sketches do not have to be works of art! A simple overview is sufficient, with any relevant measurements annotated and any significant features included.

3 Glossary

Cartographic: Relating to mapping

Hachure: A drawing convention used to indicate man-made or artificially altered slopes. Spacing, length and direction of the annotation indicate steepness, length and direction of slope. See Appendix 1 for examples

Historic Environment Record: the database, maintained and managed by WAAS, which contains records of all known archaeological sites, monuments and events in the county, in addition to historic maps, LiDAR data and aerial photographs.

Holloway: A sunken path, etched into the landscape over years of erosion due to foot, hoof or cart traffic and water run-off. Can indicate former field boundaries and routeways removed by post-medieval enclosure of land, or industrial activity such as quarrying or mining.

Large Scale Mapping: Large scale mapping refers to maps on which features appear relatively large, i.e. 1:100 site plan.

LiDAR: Stands for Light Detecting And Ranging – a remote-sensing survey technique whereby an aircraft-mounted laser fires pulses of light to provide high-resolution topographic data. The advantage of LiDAR over traditional aerial photographic survey is that tree canopies and overlying vegetation can be 'stripped away', revealing underlying archaeological features.

Small Scale Mapping: Small scale mapping refers to maps on which features appear relatively small, i.e. 1:50,000 OS Maps

4 Bibliography & Online Resources

4.1 General:

The BAJR web portal contains informative and accessible guides: http://www.bajr.org/BAJRread/BAJRGuides.asp

Past Horizons supply a comprehensive range of survey equipment, including virtually all the items mentioned in this guidance: http://www.pasthorizonstools.com/

A suite of useful guidance including 'check-lists' and links to relevant documents, is available at the ISGAP (Introduction to Standards & Guidance in Archaeological Practice) website: http://www.isgap.org.uk/ ISGAP is the result of a collaboration between English Heritage, the CBA and the IfA.

The Royal Commission on the Ancient and Historical Monuments of Scotland (RCAHMS) produced a wonderful resource for the 'Scotland's Rural Past' project in the form of 'A Practical Guide to Recording Archaeological Sites' (2011). Although focused on recording abandoned Scottish farmsteads, the principles are universal, and it is a first-class guide, with a wealth of useful illustrations, covering in great depth survey methods not discussed here

such as 'Plane table' surveys and detailed building elevation recording. It is available from their website as a free PDF download: http://www.scotlandsruralpast.org.uk/

English Heritage's Monument type thesaurus can be found here: http://thesaurus.english-heritage.org.uk/

4.2 Buildings:

4.2.1 Books and Publications

Brunskill, R.W. 2000 (4th edition). **Vernacular Architecture: An Illustrated Handbook**. London: Faber & Faber. This is a wonderful guide to interpreting historic buildings, beautifully and comprehensively illustrated.

English Heritage 2006. Understanding Historic Buildings: A guide to good recording practice. Available here: http://www.english-heritage.org.uk/publications/understanding-historic-buildings/

Institute for Archaeologists 2008. Standard & Guidance for the archaeological investigation and recording of standing buildings or structures. Available here: [PDF, 180kb] http://www.archaeologists.net/sites/default/files/node-files/ifa_standards_buildings.pdf

4.2.2 Useful Websites/Apps

Looking At Buildings: http://www.lookingatbuildings.org.uk/index.html

Bricks & Brass:

http://www.bricksandbrass.co.uk/design by element/design of period house by element t.php

Geograph – Building Elements: http://www.geograph.org.uk/article/Building-Elements

Pevsner's Architectural Glossary App (for iPhone/iPad): http://yalebooks.co.uk/display.asp?K=e2013012516430528

5 Contacts

For HER enquiries, contact the HER Workroom on 01905 765560 or email archaeology@worcestershire.gov.uk

For advice and support in planning Community Archaeology Projects, contact Rob Hedge on 01905 765654 or email rhedge@worcestershire.gov.uk

6 APPENDICES

APPENDIX 1: SURVEY DRAWING CONVENTIONS

If there is a variation or addition to the convention, annotate the plan or section, or make a note in the description of the record. Lengths of lines given are approximate.

General				
Grid point – with easting/northing. At least two on each plan eastings first, northings second		1002E - • 900N		
Location of level/spot height		A		
Edge of excavation/trench edges			_ · · · -	
Temporary edge of excavation/ test trenches				_
Edge/limit of features				_
Base of cut features or slopes/inclines (used in combination with hachures)				-
Line of truncation				-
Uncertain edges				
Drawn Section location - mark section n one or both ends	io. at	<u></u>	<u>-</u>	Sec. 99

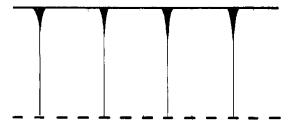
Hachures

Hachures are used to show the direction of a slope. The head of the hachure represents the top of the slope and the length of the hachure represents the horizontal distance from the top to the bottom of the slope. The closer together the hachures are, the greater the incline being represented.

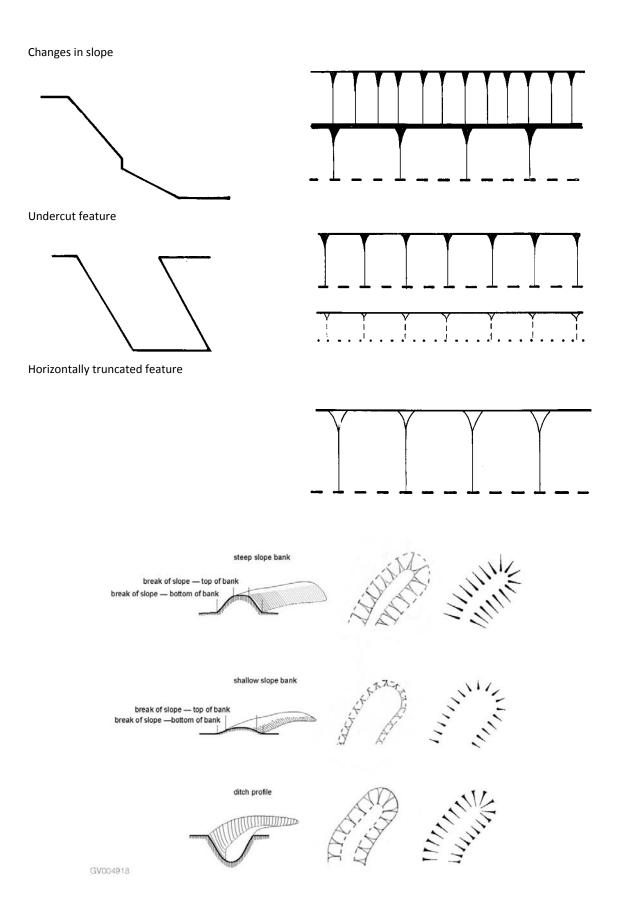
The examples below can be used as a guide.

Gently sloping



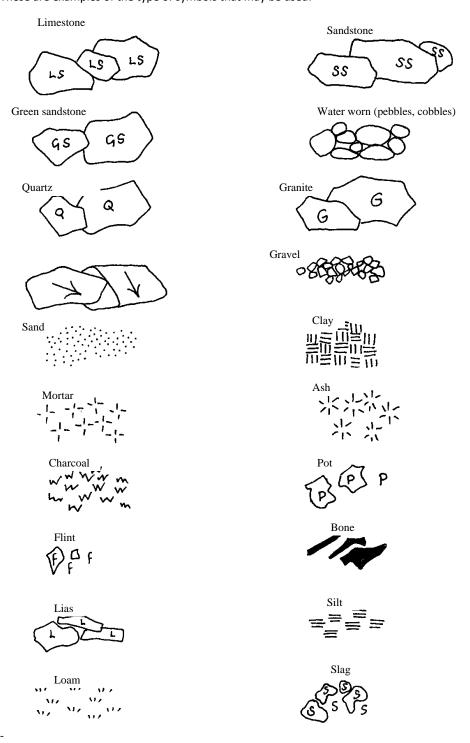


Moderate slope Steeply sloping Vertical Gradual



Materials and inclusions

If it's necessary to identify materials or inclusions on a plan – e.g. ash charcoal sandstone – use simple symbols to identify. Make notes on every plan where this occurs to explain the new convention. Make sure any notes are legible and that any new symbols or conventions clarify rather than confuse the drawing. These are examples of the type of symbols that may be used:



APPENDIX 2: MODEL BUILDING RECORDING FORM

Sit	e code			Site name					Date
Ini	ials		Building r	umber	Type (agricult	ural, domestic, eccle	esiastical, industrial)	NGR	
				of					
Co	nstruction, s	style and n	l naterials				Notes		
					227				
Walling									
^	Stone	Bri	ick Cond	rete Timber	Plaster/Daub	Weatherboard			
ction									
Construction					2 22 23 23 23 23 23 23				
٥	Rendered		ed Irrec	jular Regular	Square panels	Tall panels			
Roof									
~	Hipped Gat		let Ga	bled Half-hipped	M-shaped	Single pitch			
als						,			
Materials									
≥	Thatch	Sla	Plain	n tile Pan tile	Stone flag/tile	Mixed - specify			
Windows									
	Lancet		ed Sq	uare Elongated	J Tall	Multiple			
Doors									
	Pointed	4-centr	ed Square h	Decorated	Semi-circular	Wood frame			
specify									
Other	Walling	0	D. of	Matadala	Mar days	Danie.			
	nction (current a	Construction	n Roof	Materials	Windows	Doors			
	`								
Pro	ovisional date	e (give reasons	s)						
		• (give reason)							
								_	

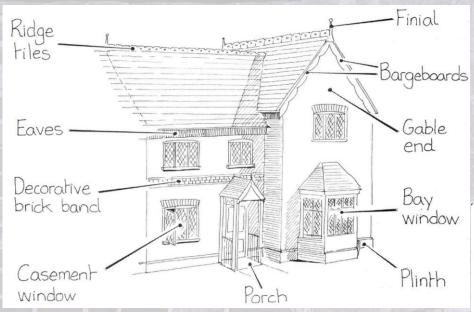


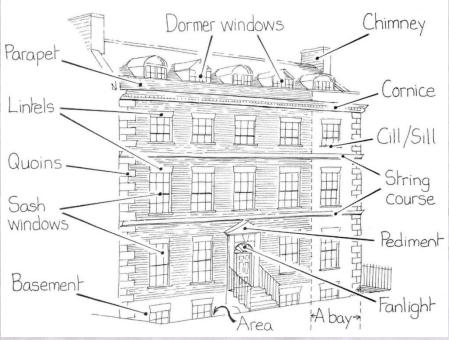
Condition																																
In use for original function										Partial ruin																						
In use									Ruin																							
Disused									Destroyed																							
Architectural details (describe or draw)																																
Brick Brick coursing F					Flo	Flooring Stone type						Arc	hes			No	of	stor	eys	N	No of bays				Other							
size/colour etc		draw	draw			tile,	tile, stone, etc			W	Walls, roof, floor, etc			windows			Inc.	Inc. basement/cellar							specify							
Features of interest (describe) / Historical information/background									oui	nd (e	eg. w	hen	last u	used	/live	d in, la	ast/fir	st ow	ner, e	etc)												
Sketch (plan/elevation)																																
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Dating Historic Buildings

Earth Heritage Trust Training

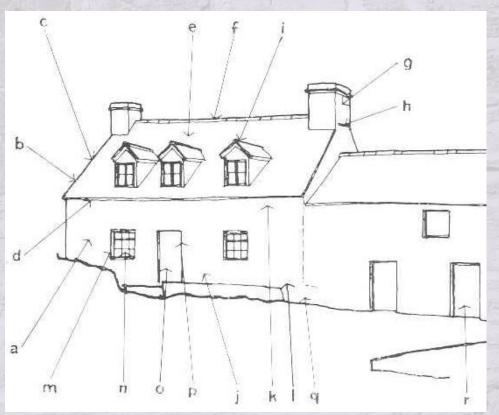
Parts of a building





Looking at buildings

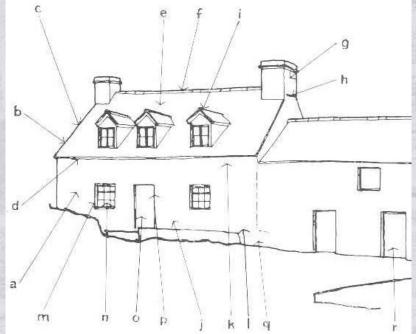
- a) Walling material, shape, coursing, jointing, finish
- b) Roof shape
- c) Detail at verge
- d) Detail at eaves
- e) Material and method of laying
- f) Ridge
- g) Chimney position
- h) Water tabling etc
- i) Dormers, position, shape, roofing, walling material
- j) Plan form
- k) Sectional form
- l) Staircase provision
- m) Window shape
- n) Window frames
- o) Door shape



- p) Door details
- q) Relationship between outbuildings and house
- r) Use of outbuildings

Looking at buildings

- a) Sandstone, random rubble, irregular shape, wide joints, widely spaced mortar, quoins not stressed, colour washed overall
- b) Gabled roof
- c) Plain close verge
- d) Plain close eaves, cast iron rain water goods added
- e) Welsh Slate roof, regular courses, thin slates, steep pitch (over 45°) suggests replacement of thatch
- f) Tile ridge
- g) Chimneys at each gable, plain square stacks, 1 larger than other
- h) Water tabling remains to protect junction with lower roof
- i) Three dormers, all in roof space, Welsh Slate roofs and cheeks, tiles ridges, wooden barge boards, date from re-roofing of house
- j) Two-unit
- k) One storey with continuous loft

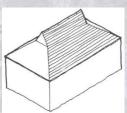


- l) Currently straight
- m) Square(ish), wooden lintels
- n) Vertical sliding sash, prob renewed
- o) Square head, no dressings
- p) 4-panelled door in door frame
- q) Farm building attached at lower end, no interconnection
- r) Attached cow house

Roof shapes



Hipped



Gablet



Hipped mansard (gambrel)



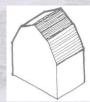
Hipped M-shaped



Gabled



Half-hipped



Gabled mansard (gambrel)



Gabled M-shaped



Dutch gable



Gable parapet

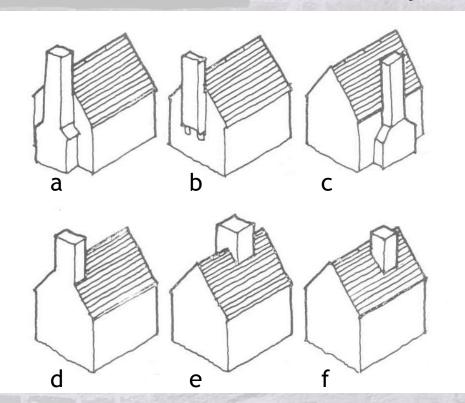


Coping at gable



Plain close verge

Chimney stacks



- a) Against gable
- b) Projecting from 1st floor gable
- c) Against side wall

- d) In gable wall
- e) Projecting through ridge
- f) Projecting through roof

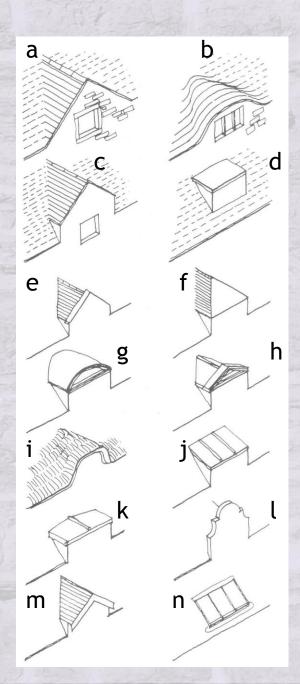
Chimney styles e) and f) tend to occur in buildings converted from open halls.

Style d) tends to be constructed as part of building and is common in 18th and 19th C houses.

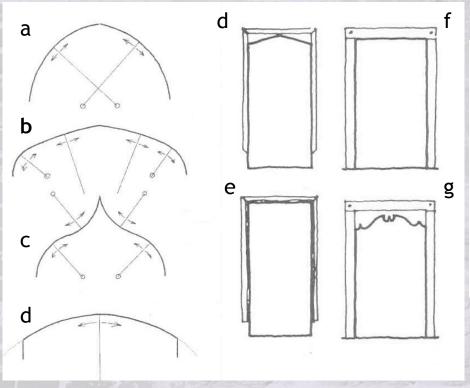
Chimney pots on vernacular houses are almost always 19th C or later.

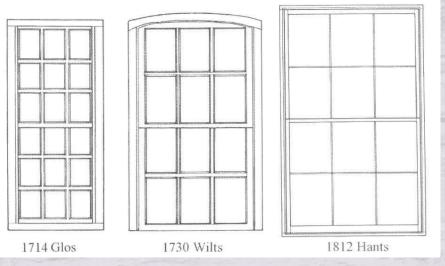
Dormers

- a) Gabled dormer
- b) Eyebrow dormer
- c) Gabled dormer window below eaves
- d) Roof space dormer
- e) Gabled dormer with plain coping
- f) Hipped dormer
- g) Segmental pediment
- h) Triangular pediment
- i) Thatched hood
- j) Sloping lead roof
- k) Flat lead roof
- l) Dutch gable dormer
- m) Bargeboards on gabled dormer
- n) Sloping rooflight



Window and Door openings



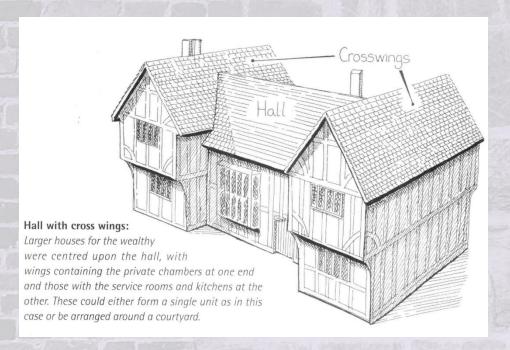


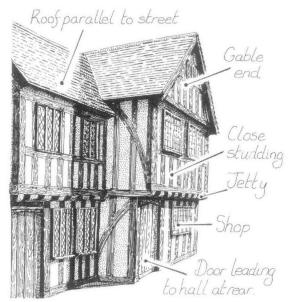
Glazing bars became narrower through time

- a) 2-centred arch e) False 4-centred
- b) 4-centred arch f) Wood frame

- c) Ogee arch g) Square head
- d) Segmental arch h) Carved head

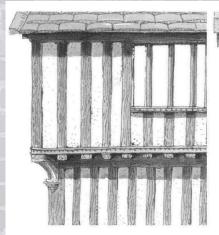
Tudor Buildings - 1485-1560

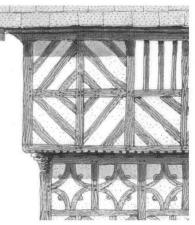




Urban house with jetty: *Urban houses were usually timber framed with jetties providing extra room on upper floors and higher status.* Some had the gable end facing the street; in others the roof ran parallel to it.

Tudor Buildings - 1485-1560

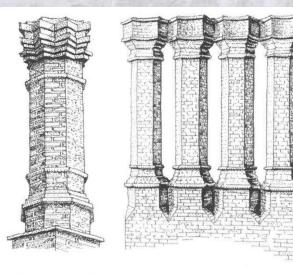




Close studding and decorative panels:

Examples of close studding (left) which was popular in the south and east and decorative framing (right) which was more usually found in some western counties. This excessive use of timber was a sign of wealth.

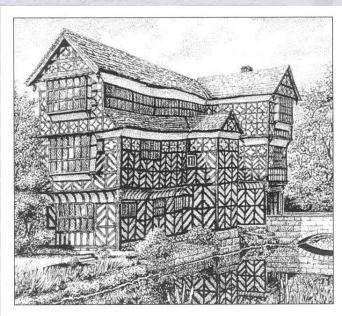




Brick with stone dressing and diaper patterns: A close-up of a brick wall with long Tudor bricks and a lighter coloured stone dressing. The darker ends of burnt bricks form the crosses which make a diaper pattern on the upper half while below they are laid in an English Bond, alternate courses of the short ends (headers) and long sides (stretchers), which were all popular in this period. Brick had been reintroduced into this country in the 14th century and was popular in the east and south of the country.

Chimneys: Fireplaces were a new luxury fitting and tall decorative brick chimneys were fitted above to display the fact.

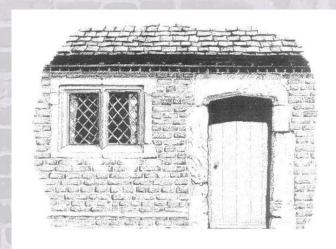
Elizabethan and Jacobean Buildings- 1560-1660



Little Moreton Hall, Cheshire: Most houses were still timber-framed in this period, the finest examples as here at Little Moreton featuring decorative panels, numerous jetties and masses of patterned glass.

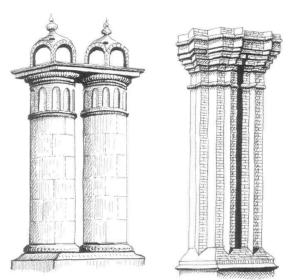


Elizabethan and Jacobean Buildings- 1560-1660

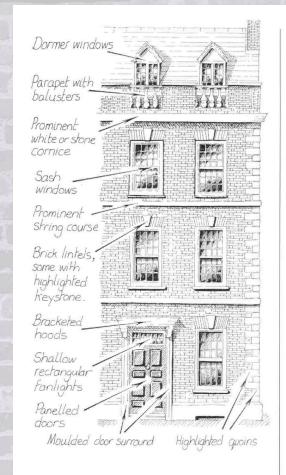


Doors: On many houses four-centred arched doorways and mullioned windows were still fitted. These are more likely now to have moulding around them and diamond-leaded glass. The door was usually a plank and batten type with vertical fillets covering the joints and long strap hinges.

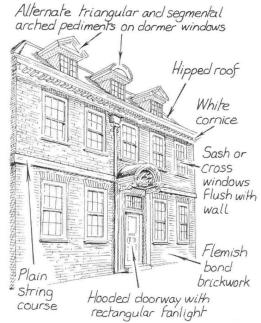
Chimneys: Chimneys continued to be tall and thin, arranged in groups of two or more. There was a wider variety of forms on the finest houses, including cylindrical (left) and later more rectangular types often with jetties of brick at the top (right).



Restoration Buildings-1660-1714



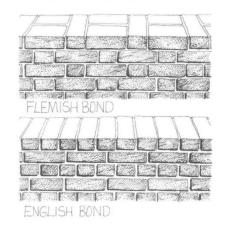
Terrace house: A medium-sized house dating from the reign of Queen Anne (1701–1714) with labels of characteristic features from this period.



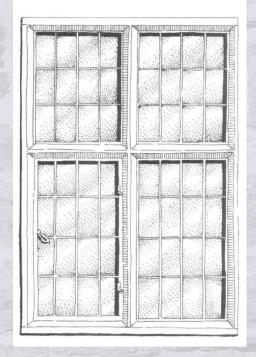
Dutch style house: A characteristic stout red-brick house with two equal height storeys and an attic, dating from the late 17th and early 18th century, with labels of its period details. The projecting string course, often of contrasting stone, ran horizontally around in place of the separate hood moulds over individual windows which had been popular before.

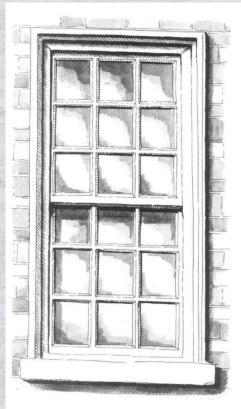
Restoration Buildings-1660-1714

Brick bonding: The way bricks were laid in walls began to change, with Flemish replacing English Bond. Soft orange/red bricks known as rubbers were used as they could be sanded down to make fine jointed decoration to contrast with the main walls. Stone dressing was used with brick for a similar effect.



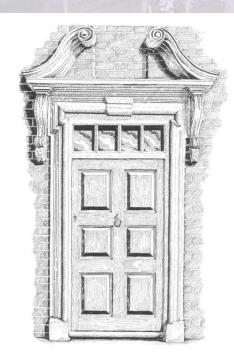
Cross windows: Cross windows with a single mullion and a transom set slightly above centre and rectangular rather than diamond shaped lights became popular on the finest houses as their tall dimensions suited Classical proportions. These were often replaced by sash windows at a later date.





Sash windows: From the 1680s sash windows became available. Two frames (sashes) divided by glazing bars, typically creating 9, 12 or 16 lights in each one, were set in a wooden box. At this date just the lower sash moved up or down and the box was flush or slightly projecting from the exterior wall.

Restoration Buildings-1660-1714



Doors: These were panelled in the finest examples, often with six or eight panels of varying size. Above was usually fitted a shallow rectangular fanlight divided up with vertical mullions, some added later making the door below seem rather squat. Most doors, however, were still plank and batten with mouldings applied to make them look similar to panelled versions.

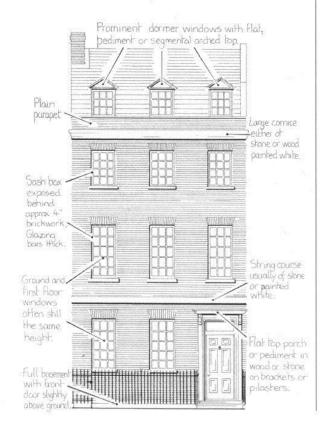


Pediments: Pediments above doors and windows could be either triangular or segmental or often a mix of both. Stone or white deep-set examples on dormer windows were distinctive of this period.

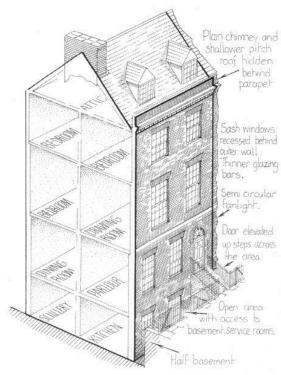


Georgian Buildings - 1714-1790

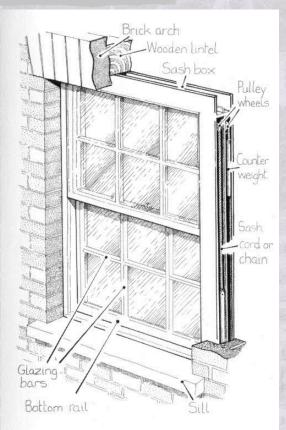
Early façade: A large early Georgian terrace with labels of some of the period features. It was common at this date for the basement to be fully sunk below the house with the front door flush with the pavement.



Later façade: A modest-sized later terrace, with labels of some of the period features. Houses of this class and above generally had a half basement, with steps leading up to an elevated front door and an open area in front to access the service rooms below.



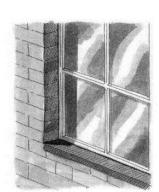
Georgian Buildings - 1714-1790



Sash window: A drawing of a sash window, with labels of the parts. This example shows one with the sash box recessed behind the outer brick as defined in the Building Act of 1774.

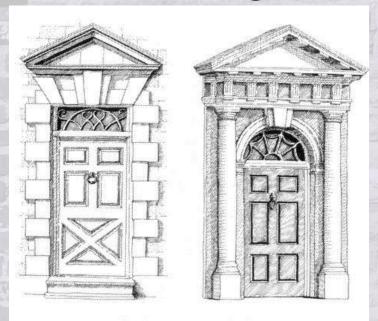
Window regulations: The position of the outer sash box in relation to the wall changed due to fire regulations in this period. Éarly examples could be exposed and flush (top) but from 1709 had to be set back four inches, and then finally recessed behind the brickwork after 1774. Other exterior wood decoration was also banned to stop the spread of fire across the front of a building.





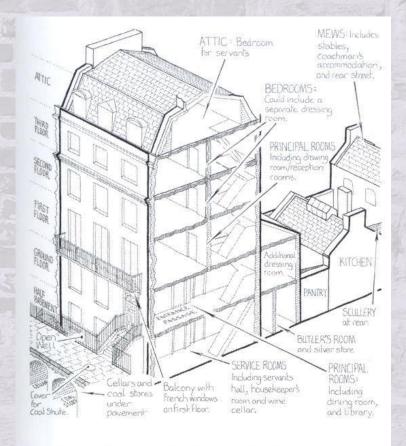


Georgian Buildings - 1714-1790



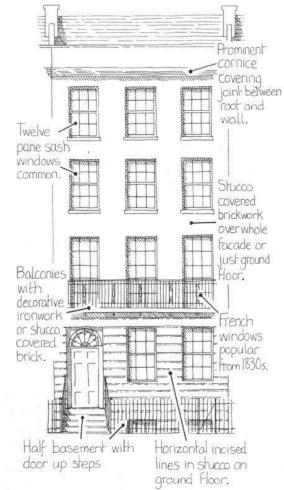
Doorways: The six-panelled door was dominant on houses although there were some decorative variations (left). Larger houses could have elaborate door surrounds. The Gibbs surround (left) was popular early in the period, while pedimented types with engaged columns and semi-circular fanlight (right) date from the second half of the century.

Regency Buildings - 1790-1830

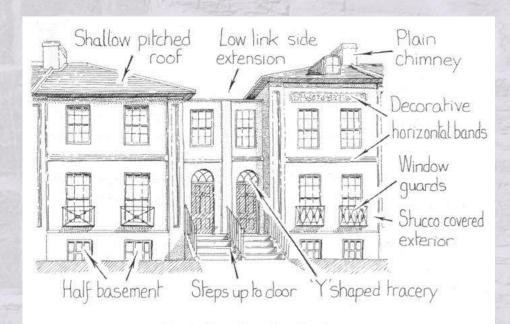


Large terrace: A cut away of a large terrace from the Regency period, with labels of its parts. Note the half basement, rear extension and mews along the back as service rooms and quarters grew in scale.

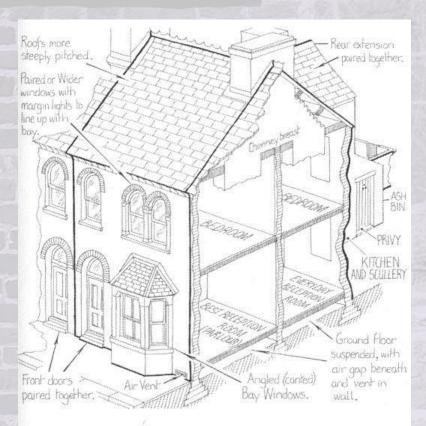
Regency Buildings - 1790-1830



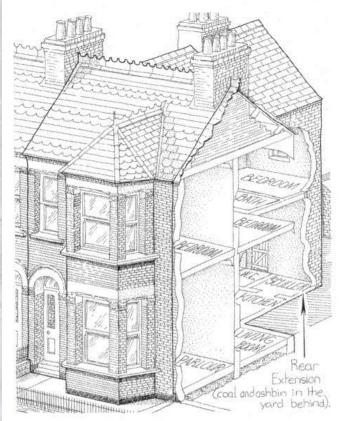
Regency terrace façade: A fashionable terrace house with labels of some of its period features.



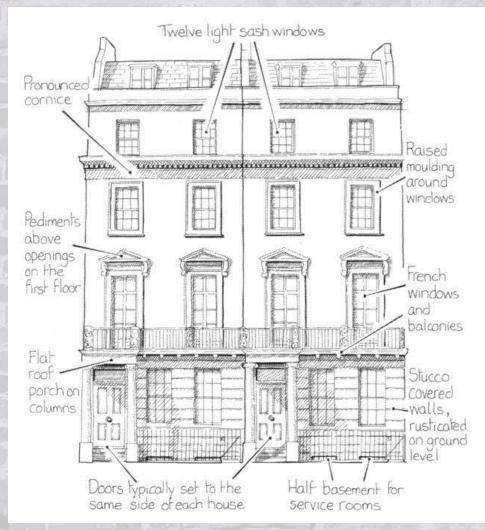
Semis façades: A pair of villas with labels of their fashionable features.
The lower link extension with their front doors set within is a distinctive feature of the period.



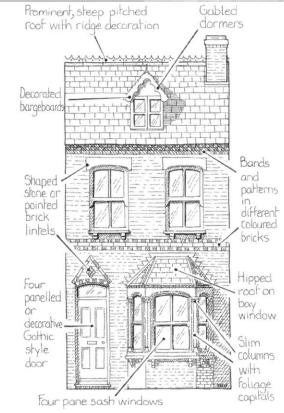
Victorian house structure: A cut-away of a middle class terrace house showing some of the structural details which were typical during the second half of the 19th century.



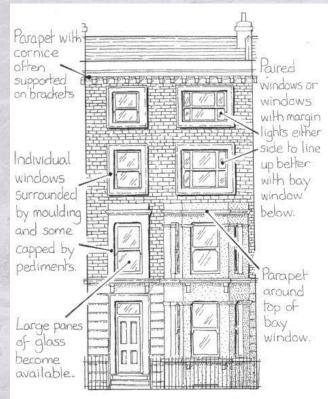
Late Victorian terrace: By the late Victorian period middle class homes could have full height bays, later examples of which were usually square sided rather than angled. Front doors were usually paired together and deeply recessed as in this example.



Early Victorian terrace: An early Victorian large terrace with labels of fashionable details of the time. Although they continued to be built in a similar style to the previous Regency examples, the four-panelled door had by now replaced the six as the standard form.



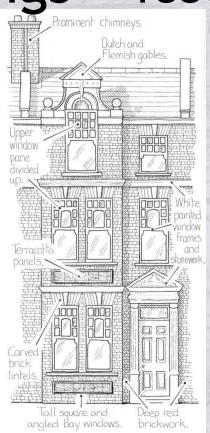
Mid Victorian façade: The front of a middle class terrace from the 1860s and 1870s with labels of some of its fashionable features. The repeal of the window tax and the widespread availability of cheap glass meant bays could now be fitted to this class of house, although they were usually just single storey at this date.



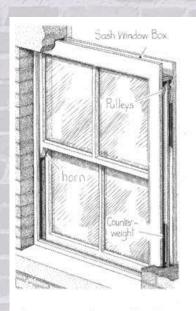
Mid Victorian Classical: Elevation of a medium/large terrace house in a Classical style showing some of the key features from this period. Windows with thinner pieces either side were popular, to line up with the fashionable angled bays below.



Late Victorian façade: A middle class terrace from the 1880s with labels of fashionable details. Doors often had glazed upper panels, and were deeply recessed back into the house with tiles often flanking the side and the pathway up to it.



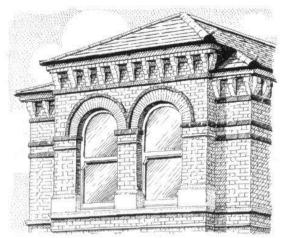
Queen Anne façade: By the 1880s Norman Shaw had popularised a new style based upon late 17th-century houses (not actually in the reign of Queen Anne), with Dutch gables, red brick, and white dressings and painted windows. The large pane sash window did not suit this Classical style so a compromise which was distinctive of late Victorian and Edwardian houses was to have the upper sash divided by glazing bars but the lower left as a single sheet so as not to block the view.



Mid Victorian sash window:

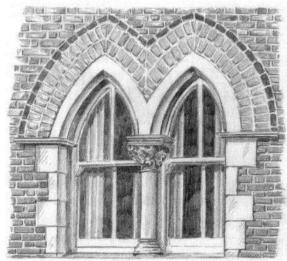
These usually had two panes in each sash or in the finest houses just a single one. Without the glazing bars the frame became weak so short protrusions below

the centre bar called horns were added to make the joints stronger. Most windows at this time were painted a dark colour or grained to imitate a hardwood.



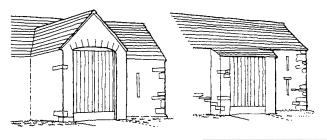
Italianate style: This was popular in the 1850s and 1860s after Queen Victoria's Osborne House had been completed in the style. Shallow pitched roofs with eaves supported on brackets and pairs of roundheaded windows were elements which found their way onto ordinary terrace housing.

Gothic style: The pointed arch was one of the key elements of this revival of medieval architecture but its application to the mass of terrace housing was limited usually to the occasional front door or, as in this case, a window.



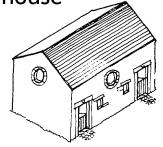
Other Buildings

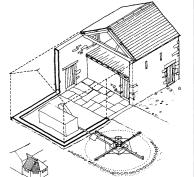
Threshing barn







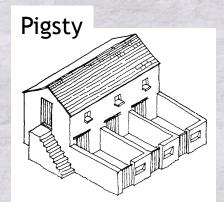




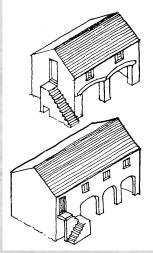
Hay barn

Shelter shed

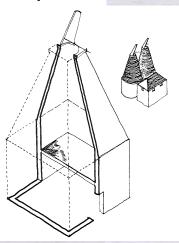




Granary & Cartshed



Hop kiln



Examples

- Georgian
 - Simplicity, elegance
 - Door surround
 - Large windows
 - Flush sash windows
 - Symmetrical



Examples

- Regency
 - Steps over 'area'
 - Half basement
 - Stucco ground floor
 - Sash boxes hidden
 - High parapet



Examples

- Victorian Italianate
 - Eaves brackets
 - Semi-circular head windows
 - Group of windows
 - Gently pitched roof

