



Digital Dig Team

Site manual and user guide

Digital Dig Team: Site manual and user guide

The aim of the DigVentures Site Manual and User Guide is to provide a brief tour of Digital Dig Team and the recording methods that we use at DigVentures. Unlike traditional recording techniques, we record everything straight from the trenches onto smartphones and tablets. This guide takes you through the process of using Digital Dig Team, providing some introduction to archaeological techniques and guiding you through recording. You can find out more about the recording system along with 'how-to' videos via our you tube channel here: <https://goo.gl/QF3PPx>.

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Putting archaeology in your hands: our approach to archaeology

Founded in 2012, DigVentures is an innovative social enterprise committed to developing and delivering collaborative archaeology projects. We believe that heritage is fundamental to the forging of identity and fuels conversations about a place's social and economic future, and that archaeology is one of the most tangible and visible activities which offers involvement in this process. Our organisational outcomes are inspired and grounded by this priority.

At the heart of our social enterprise, we are practicing field archaeologists and the only community-focused archaeological organisation to have been accredited by the Chartered Institute for Archaeologists (CIfA) as part of the prestigious 'Registered Organisation' scheme. We are also the first Accredited Field School appointed by CIfA to deliver NVQ-level training, and have pioneered a field school curriculum in line with National Occupational Standards.

We have developed an online recording system, Digital Dig Team, which enables our team to record and publish archaeological site data straight from the trenches. Digital Dig Team was partially born from the frustration caused by site reports and information going unpublished for long periods, resulting in much of the valuable knowledge and data being inaccessible and sometimes lost. With our method, the data that we record is published instantly, making it available for anyone to access and use online. Digital Dig Team also provides a project information hub, disseminating the dig and our findings to the wider community.

What, why and how?

In this manual, we'll take you on a tour of DigVentures unique recording system, guiding you through functions and demonstrations of the methods we use to create the site archive. We have included a glossary at the back (keep an eye out for words in bold font). If you want to have a look around the Digital Dig Team site at the same time as you read this manual, feel free to explore the digital pages as you work through each section.

Top Tip: When you join us at an excavation, you will be able to log in to your own profile on the DDT microsite, and your name and profile pic will appear in the top left of the page when logged in.

Each chapter in this manual introduces a different section of Digital Dig Team. It is meant to provide a look-up for each area as well, so you can go straight to the relevant section and keep going back as much as you need to.



Getting started with Digital Dig Team

The microsite

Each of our projects has its own Digital Dig Team 'microsite' which houses all the data, records and information linked to that project (see Figure 1). From this page, you can access the background information to the site, see who is on the project tea, keep up to date with all the project news via the timeline, and access the open data. You can also log in from this page and gain team level access to Digital Dig Team (more about that in a bit). The project microsite can be found from the main DigVentures website, just go to www.digventures.com, then find the project page and follow the link to explore.

The dig timeline

If you want to know a bit more about any DV excavation, the dig timeline is the best place to start! Here you will find key dates, the site diary, announcements, photos, and all our social media gathered together under one digital roof. We like to involve everyone in communicating the excitement of doing archaeology, so you might be asked to contribute... be ready to help produce a site diary entry, be pictured with your finds, or give us a smile for a photo!

Getting around the records

Archaeological excavation includes a lot of recording: as we investigate the site, there are deposits, finds, features and samples which need to be documented before removal, so we can piece it all back together again. Traditionally, records are kept on paper forms for each site, entered into databases and spreadsheets once the excavation is complete. These are called the 'site archive' which is made up of all the records, finds and samples as well as photographs and digital data associated with the project. At DigVentures, we use Digital Dig Team in the place of paper records, recording the same information digitally so it is published in real time to the microsite.

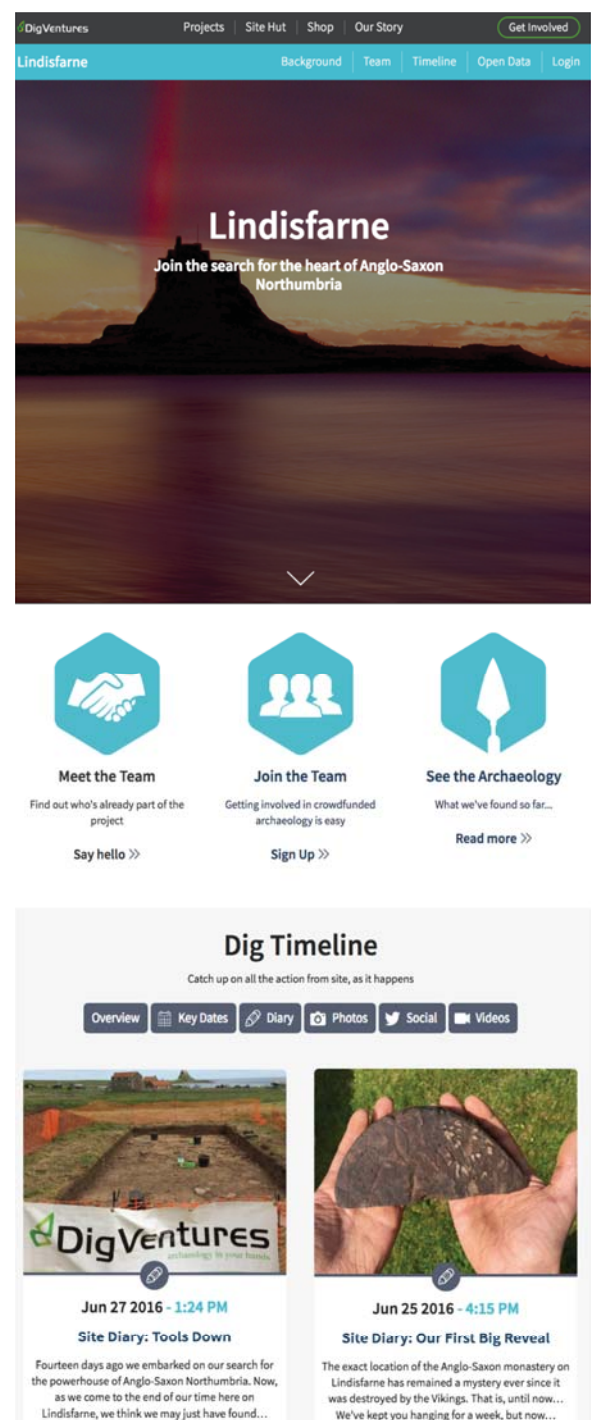


Figure 1 DDT microsite landing page

To look through the sire archive, you just need to click on the link to 'Open Data' at the top left, or select 'See the Archaeology' icon below the header image. This will take you to the DDT records page where you can see the picture tiles (or buttons) corresponding to each of the different types of site records (Figure 2). The different sections are: Context, Find, Plan, Section, Sample, Photo, Feature and Trench. This manual will take you through each of the different sections of Digital Dig Team, with a step-by-step guide to help you add records and understand the conventions we use on site.

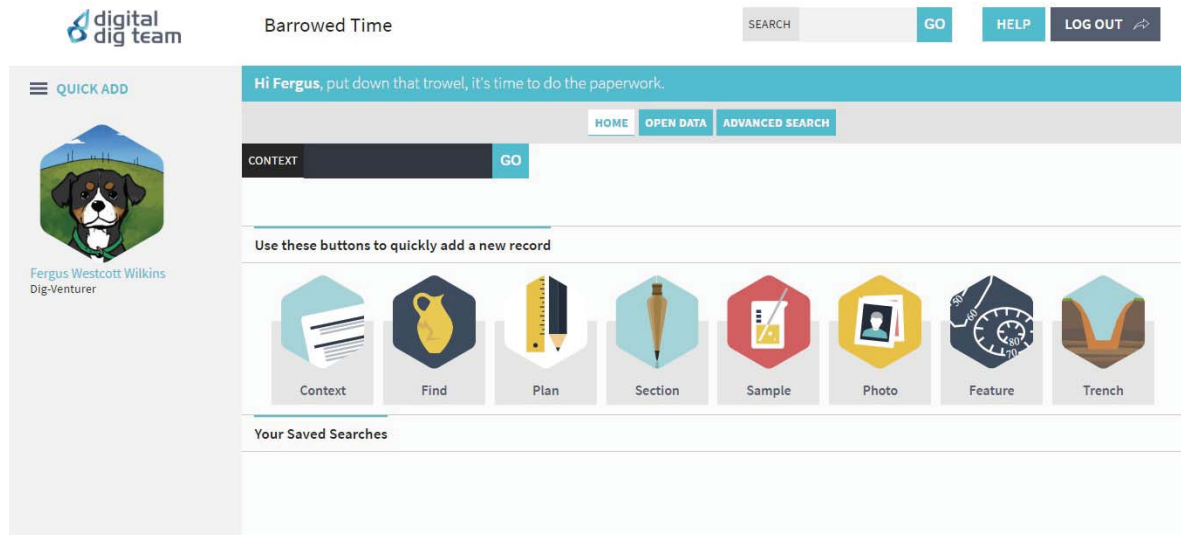


Figure 2 DDT Home page

To access the different areas, just click on the relevant picture tile displayed on the Home Page and this will take you straight into the relevant section. If you are logged in, you'll see the entry form which allows you to add a new record at the top of the page (the dark grey box) and, beneath this, a list of completed records will also be displayed for you to browse (see Figure 3).

Logging on

If you are joining us on an excavation, you will be issued with The DigVentures log in details. With these you can create new records, recording the archaeology you find directly onto the site's very own microsite using Digital Dig Team. Everything you need to see as you are reading this manual is available without logging in.

When you first log in to the system you'll be taken straight to the project records page (see Figure 2); from here, you can access or create any type of record, or run a search for a particular entry. The Help button on the top right of the screen will also take you through to some pointers if you get stuck.

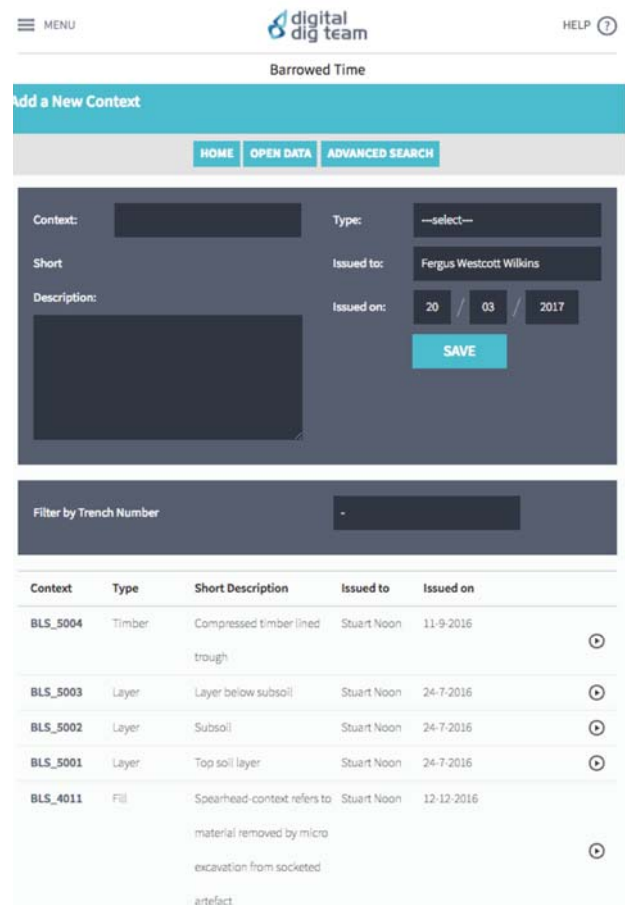


Figure 3 DDT Records page, with the entry form and completed records below

Once you are logged in, you will be able to record your archaeological endeavours, by creating and writing records linked to the contexts, drawings and finds you discover. DDT will assign any created records to individuals, so you will need to select your name from the list when you are recording. Think of Digital Dig Team as your personal site folder, keeping all your records organised in one place. You can keep track of everything you've entered by clicking on your profile picture, or selecting on your name in the 'Issued To' field of a record. You can also access all the records which your fellow diggers have produced.



Keep an eye out for question mark symbols, they provide extra help where needed with some hints and tips on how to complete the records.

Archaeological contexts and stratigraphy

Archaeological sites are excavated stratigraphically and logically. When you arrive at an archaeological site prior to its excavation, you will be looking at its most recent phase of activity, whether that is the topsoil of a field, or the tarmac in a car park. The archaeological excavation removes material from the site one context at a time, recording each layer or deposit as it is excavated. This process results in a site archive which includes all the information, records, data and material recovered and produced through the dig.

Wait, what's an archaeological context?

An archaeological context is a cut, layer, deposit, fill or structural feature which is identifiable as a unique unit. Think of an archaeological site as one giant jigsaw puzzle; through excavation and research we are able to piece together a picture of the past. In order to do that in a scientific way, we need to ensure that every scrap of evidence recovered is also recorded, and this is where archaeological contexts come in. By giving each identifiable unit a unique number, we can easily understand the location and characteristics of the context as well as linking to it any evidence recovered.

Contexts can be a number of different things, such as: layers (such as fills in a pit, or a floor surface), structural features (such as masonry of a wall) or discrete deposits (such as a dump of midden or ash). In some cases, a context number might be given to an action or event, rather than something physical. The most common example of this is what archaeologists refer to as cut features: contexts which are the result of something being removed such as the hole which is dug for a pit, ditch or posthole. In this case, the hole itself will have its own number, and the fill of the hole will have a different number. Where the numbers are written down, such as on site plans and finds bags, or in reports, it is often useful to distinguish a cut number from other context numbers. At DigVentures we use square brackets to denote a cut number [2015] and curved brackets around all others (2006).

Recognising different types of context

There are basic context types which make up the nuts and bolts of the excavated record. Contexts can be separated into two main groups: deposits and cuts, which can be described as either positive or negative features. Together, different types of context might make up a single feature such as a pit or ditch. The cuts for features would be considered a negative context, whereas the deposits which fill them are positive. A negative feature is simply something which has left a negative impression; something has been removed from the site such as the spoil from a pit, which may well appear as a positive feature somewhere else! Positive features add to the archaeological record, and could include ditch fills, skeletons or brick walls.

Different types of context are recorded in different ways, as they have specific attributes. The main types included in our Digital Dig Team recording system are: cut, fill, layer, masonry, skeleton and timber. You shouldn't find anything which does not fit into one of those groups, but let us know if you do!



Recording contexts in Digital Dig Team

What you need to know

It is good practice to record contexts as they are excavated! Make sure any context you are working on has a number issued, so that you can connect associated finds and information, and provide a detailed description before the feature has been fully removed. Once it's gone, you can't bring it back! The sections below provide a step-by-step guide of the DDT records, describing each field of information and how to complete it.

Each context is issued a unique number by the Trench Supervisor and, in most cases, a label will mark both the number and location of the context within the trench and/or trench section ('section' means the wall of the trench). You will need to know the context number before you add information to Digital Dig Team, so if you are unsure of the number or whether one has been issued, just ask a supervisor. In addition, if you think you have revealed a new deposit or feature, let the Trench Supervisor know so they can issue a new number. There is a different form for the main types of contexts; cut, fill, layer, masonry, skeleton and timber.

Adding a new context

Before you get started, make sure you check whether a record for your context has already been issued on Digital Dig Team. You can do this by clicking on the Context Icon button, and looking up the context number. You can 'filter by trench number' to make this easier. If it already exists and you are simply adding information to the record, select that context and add to or amend details, saving each section as you go along. Remember you must be logged in to create or amend any records.

Where the record does not already exist, you will need to add a new context. To do this, select the Context icon (which you can see above); this will take you to the 'Add a New Context' screen. You will need to input the Context number, select the type of context, and provide a short description. Your description is what appears in the table of contexts, so should be short and concise, giving just enough detail that other users can see what it is (so something like, 'Primary fill of pit [3012]' or 'Hearth deposit in main area of building'). Once you have saved the record, you will then be able to select it and add the detailed description.

This is the screen you need to be on for adding a new context

Add your context number in here

Your short description should be snappy and clear - just one sentence to describe the context

Once the details are in - simply save and the context will appear in the list below

This is the list of contexts which have been issued

This is a drop-down menu where you select the type of feature you are recording

These details should auto complete, but might need to be changed if you are working on someone else's login details....

Use this to filter the contexts listed below to a particular trench

To add the descriptions or amend, select the context record here

digital dig team

Barrowed Time

MENU

HELP ?

HOME OPEN DATA ADVANCED SEARCH

Context: [text input]

Type: [drop-down menu]

Issued to: Fergus Westcott Wilkins

Issued on: 2d / 03 / 2017

SAVE

Filter by Trench Number [text input]

Context	Type	Short Description	Issued to	Issued on
BLS_5004	Timber	Compressed timber lined trough	Stuart Noon	11-9-2016
BLS_5003	Layer	Layer below subsoil	Stuart Noon	24-7-2016
BLS_5002	Layer	Subsoil	Stuart Noon	24-7-2016

Figure 5 Digital Dig Team: Add a New Context screenshot, with notes

Take a Sketch photo

Using your tablet or smartphone camera, take a photo of the context you are recording. If there is more than one context visible in the photo, make sure that it is clear which context you are describing is clear, either by using context labels or a trowel to point at the context in question. You can use an item to give scale if you want to, such as a trowel or ruler, but the main aim of the Sketch Photo is to provide a quick and accurate view of what you are looking at when recording. Don't worry about it looking too clean and beautiful; the archive photograph will provide the publication level photo, and the plan and section drawings are the technical record. Sketch photos can be rough and ready, as long as it is clear what the context is. You can also add more than one image if you feel one shot is not enough.



A) The good

Lovely photo, but which is the context is being recorded?



B) The bad

A bit better, but we can't easily read the labels here. Maybe a closer shot to make sure the label can be read, or use a prop to point at the context.



C) The ugly

It might not look like it, but this is a good sketch photo. A quickly cleaned up section shows the differences between layers, and the labels can be easily read.

Figure 6 *The good, the bad and the ugly*

Complete the detailed description

Each context type comprises slightly different information which needs to be recorded, often using particular terms and/or measurements. The 'Description' section of each record is where you describe in detail, making sure that anyone is able to go back and digitally understand what you've described. In order to make sure our results are consistent across the site and comparable with other excavations, we need to use specific terminology. You will find a breakdown of the terms we use as well as some guidance on how to use them, in the 'How to record' sections below. Please read the guidance carefully before recording contexts for the first time in Digital Dig Team, and don't worry about asking any of the team for advice!

Record the relationships

To help us understand the relationship between the contexts, we develop a stratigraphic matrix for the site and illustrate the site's chronological sequence. The relationship one context has with another is very important, and provides the first steps to helping us piece the site together. As we dig, we record the primary relationship of each context (what came before and what came after) in order to build a diagram of the whole site. This is known as a stratigraphic or Harris matrix, and looks a bit like a family tree while acting in a similar way to the London Underground Tube map: essentially providing a technical illustration of how each context is linked to another.

Provide an interpretation

The final section in the context record is the interpretation, which can strike fear into experienced archaeologists, new students and first time DigVenturers alike! Just what is that context you are recording? A floor surface? A pit for rubbish? An abandoned longhouse? A robbed-out wall?

Don't worry, you don't need to solve all the big questions about the whole site in this one small box. Just summarise what you think! This part of the record is the place to provide your idea of what the feature might be, taking into account what you have discovered whilst up to your elbows in the archaeology. Rather than describing the feature's technical attributes, this is where you can think about what it is, how might it have been used and what the evidence it telling you. Interpretations may change as we progress through the project, but these early ideas are the building blocks of developing the story. Remember, archaeology is not a tick-box exercise of recording facts and figures; we are investigating what happened at a particular place over time, and to do that we need to start thinking about what all of our contexts represent as soon as we start digging.

How do I record a cut?

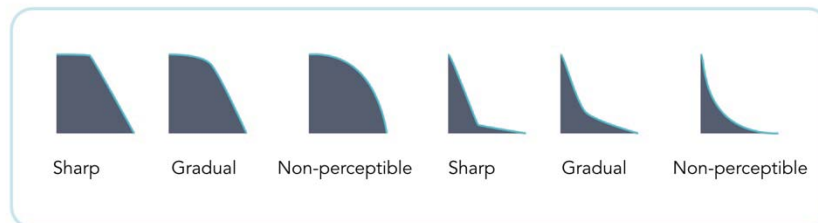
Describing a cut

Cuts are recorded as a stratigraphic unit. They may form the edges of holes, ditches, pits, graves, or foundation trenches that were 'cut' into the ground defining the shape of a feature. Square brackets are used [1013] to indicate that the context is a cut. When you record a cut, describe its physical attributes within each field of the description section, using glossary terms to describe each one. You will only be able to do this once it has been fully excavated, so this is the last part of recording a cut feature.

Fields to describe Cuts <i>These are the fields you need to complete.</i>	Glossary terms <i>These are the terms which you will need to use.</i>	
Shape in plan <i>Describe the rough shape of the top of the cut.</i>	Circular Sub-circular Square Rectangular	Oval Irregular Linear Curvilinear
Corners <i>Describe the shape of the corners of the cut (if present).</i>	Square Rounded	
Dimensions <i>Record the size of the context in metres to two decimal places.</i>	Enter the data in metres (m), in this order: - Length (L) – eg L: 0.80m - Width (W) – eg W: 0.34m - Depth (D) – eg D: 0.23m	
Break of slope <i>Describe the angle at which the top of the cut slopes into the sides (see Figure 7).</i>	Sharp Gradual Non-perceptible	
Orientation <i>What is the alignment of the cut? If it is a post-hole or a stake-hole, what direction is the top of the cut relative to the bottom?</i>	North-South West-East North West-South East etc.	
Side of slope <i>Describe the nature of the slopes that make up the sides of the cut (see Figure 7).</i>	Undercut Vertical Steep	Shallow Concave Convex
Break of slope – base <i>Describe the angle at which the sides of the cut meet the base of the cut (see Figure 7).</i>	Sharp Gradual Non-perceptible	

Base <i>Describe the shape of the base of the cut</i>	Concave Convex Straight or flat Irregular	Sloping V-shaped Undercutting Tapering
Inclination Only relevant to post-holes and stake-holes. <i>Describe the form of a gradient in millimetres e.g. a post-hole can have a vertical slope with a height of 25mm (Y) achieved in the space of 15mm horizontally (X) (see Figure 7).</i>	Y = height of slope in mm X = Width of slope in mm	
Truncation <i>Does the cut look like it has been truncated (cut into) by anything else? If yes, state what has truncated it.</i>	e.g. Cut truncated by later ditch [1023]	
Other comments <i>Include any other information that may assist the description and aid in the interpretation of the cut.</i>	e.g. Eroded on the eastern side Naturally formed ditch or gully Evidence of timber present	

Break of slope



Side of slope



Inclination

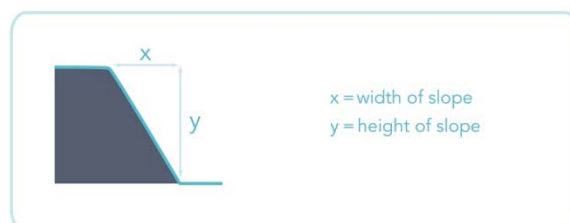


Figure 7 Describing slopes and inclination

How do I record a deposit?

Describing a deposit

Deposits can be accumulations or deposits of material which form a layer or fill a cut feature, such as a pit or ditch. They can also be a physical entity buried in the ground, such as the remains of a post or a burial. Rounded brackets around a context number like this (1012) indicate that the context is a deposit. For deposits such as fills and layers, a context sheet is completed which records information including soil composition, colour and compaction. For physical entities, like skeletons or timber, separate record sheets are needed as they demand more specific types of information.

When recording a fill or layer, you will be asked to describe the physical aspects of the soil and its inclusions, such as pebbles or charcoal flecks. A cut feature such as a pit can hold more than one deposit, depending on whether it was a posthole, opened and closed as a single 'event', or a pit or a ditch that silted up over many years. If you have multiple fills, you will also need to try to describe whether it represents a primary, secondary or tertiary fill. As with cuts, you need to describe the various physical attributes of the deposit in each box of the description section on DDT:

Fields to describe deposits <i>These are the fields you need to complete.</i>	Glossary terms <i>These are the terms which you will need to use.</i>	
Compaction <i>This refers to the amount of force needed to excavate or shape the deposit. Here, both the sediment type and compaction status can be noted.</i>	Coarse grained – Compact (Requires mattock for excavation). Coarse grained – Loose (Can be excavated with a hoe or trowel). Fine grained – Stiff (Cannot be moulded with fingers). Fine grained – Hard (Moulded only with strong pressure). Fine grained – Soft (Easily moulded and spreads between fingers). Fine grained – Friable (Non-plastic, crumbles in fingers). Peat – Firm (Fibres compressed together). Peat – Spongy (Compressible and open structure). Peat – Plastic (Can be moulded and smeared between fingers).	
Colour <i>Archaeologists often use the Munsell Soil Chart to identify soil colour through its Value (lightness, ranging from 0 (black) to 10 (white), chroma (purity or saturation, brighter colours will have higher numbers) and hue (colour, listed on the Chart as red @, yellow-red (YR) or yellow (Y). We use a simplified reference sheet which gives a range of commonly found colours (see Figure 8)</i>	Modifier: Light, Mid, Dark Hue: Pinkish, Reddish, Yellowish, Brownish, Greenish, Blueish, Greyish Colour: Red, Yellow, Blue, Pink, Brown, Green, Grey, White, Black eg Dark reddish brown, light greyish yellow Also worth noting are any colour changes you might notice on excavation.	
Composition <i>Describe the type of sediment which forms the deposit, each component should make up more than 10% of the total deposit. Use the soil identification chart below to guide your decision (see Figure 9).</i>	Sand Silty Sand Clayey Sand Sandy Silt Silt	Clayey Silt Sandy Clay Silty Clay Clay
Inclusions <i>Describe the components that make up less than 10% of the total deposit. This should include the type, the frequency they occur, the shape, how well sorted they are, and the percentage of the deposit they can be found in (see Figure 10).</i>	Type: e.g. Chalk, Flint, Stone, Charcoal Frequency: Frequent, Moderate, Rare Shape: Angular, Sub-Angular, Rounded, Sub-Rounded Sorting: Well Sorted, Moderately Sorted, Poorly Sorted	

Dimensions <i>Record the length, width and depth of the context in metres to two decimal places.</i>	Length (L) – eg L: 2.12m Width (W) – eg W: 0.83m Depth (D) – eg D: 0.45m
Other comments <i>Include any other information that may assist the description and aid in the interpretation of the deposit</i>	e.g. On excavation, the percentage of stone inclusions increased towards the base of the deposit.
Method/Conditions <i>Record the method of excavation for the context, and the weather conditions at the time. The way a context is excavated can effect what is found and how finds are retrieved. The weather may also have an impact on the recovery of materials.</i>	Method: Trowel, Mattock, Hoe Conditions: Bright, Overcast, Light Rain, Heavy Rain.



Figure 8 Describing colours

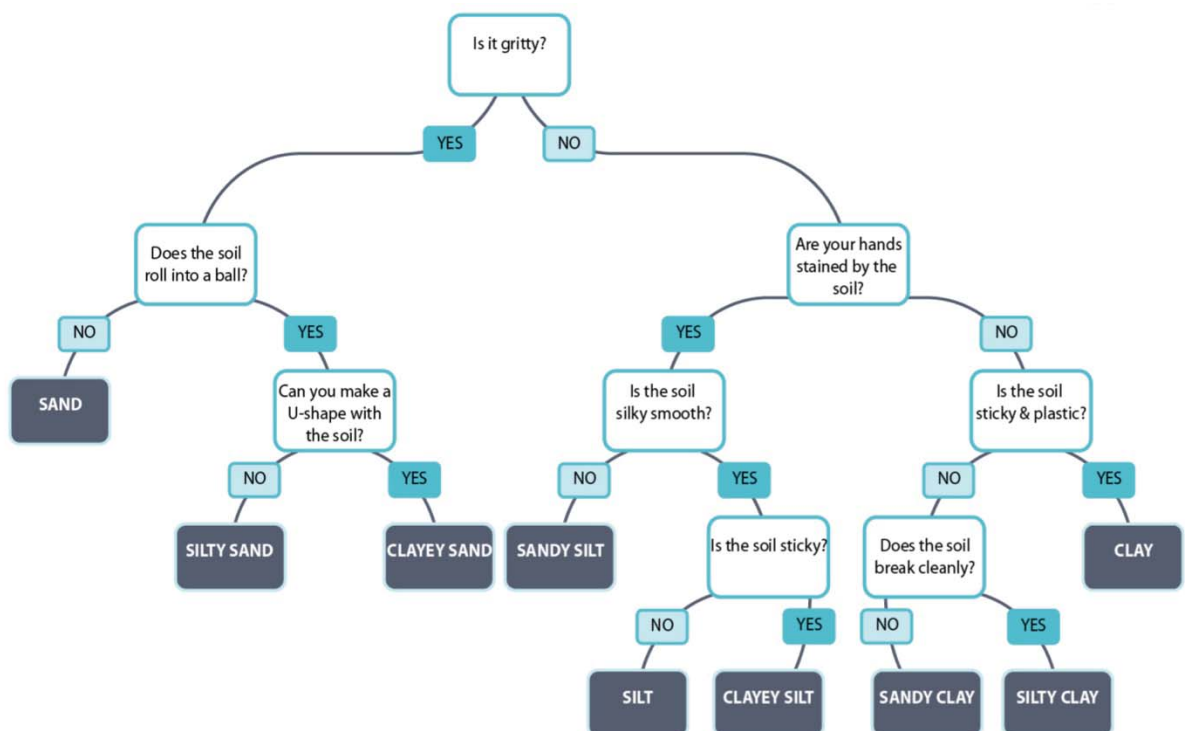


Figure 9 Identifying types of soil

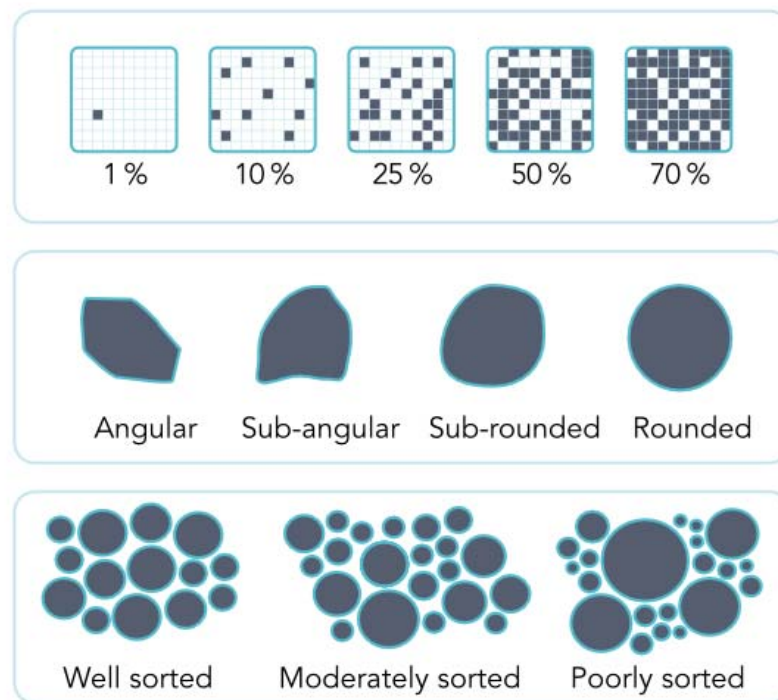


Figure 10 Describing inclusions

How do I record a skeleton?

Describing skeletal remains

Excavating an articulated skeleton is complicated, and requires a number of considerations prior to removal as well as specific lifting and handling techniques. Relevant guidance material should be available onsite and an osteologist will be consulted. Where a skeleton is fully excavated, the skeleton record sheet provides the necessary prompts to ensure that the correct information is noted, such as burial position and general condition. It's vital to record the exact By recording the skeleton before it is lifted, any fragile areas can be identified and given due care during excavation.

Fields to describe a skeleton	Glossary terms
Attitude of body <i>Describe how the body is positioned in the ground.</i>	Supine (face up) Prone (face down) Crouched (right or left side?) Extended
Attitude of head <i>Describe how the head is positioned, and note whether any parts are missing.</i>	Facing upwards/downwards Facing to the right Facing to the left
Attitude of right arm, location of right hand <i>Describe the position of the right arm and hand, and note whether any parts are missing.</i>	e.g. Arm extended by side, arm flexed against chest, arm crossed over pelvis etc.
Attitude of left arm, location of left hand <i>Describe the position of the left arm and hand, and note whether any parts are missing.</i>	e.g. Arm extended by side, arm flexed against chest, arm crossed over pelvis etc.
Attitude of right leg <i>Describe the positioning of the right leg, and note whether any parts are missing.</i>	e.g. Leg straight, bent to the right, crossed over left, tucked beneath pelvis etc.

Attitude of left leg <i>Describe the positioning of the left leg, and note whether any parts are missing.</i>	e.g. Leg straight, bent to the left, crossed over right, tucked beneath pelvis etc.
Attitude of feet <i>Describe the positioning of the feet, and note whether any parts are missing.</i>	e.g. Crossed, extended, right on top of left etc.
Extent of in situ bone degeneration <i>Describe any damage or degradation to the skeleton prior to lifting.</i>	e.g. Deterioration evident on left tibia and right scapula. Loss of bone around lower right pelvis.
State of bone after lifting <i>Record any accidental or unavoidable damage to the skeleton that occurs during excavation or lifting. This may affect interpretation later if not recorded.</i>	e.g. Bone in good state after lifting, though with some minor damage to the right scapula.
Other comments <i>Include any other information that may assist the description and aid in the interpretation of the skeleton.</i>	Has the burial been truncated or disturbed in the past? Are there signs of any obvious illnesses or injuries? Are clear burial practices evident?

How do I record masonry?

Describing masonry

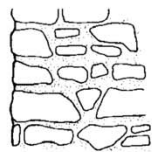
Masonry can include buried features such as walls, building foundations, wells and drains which would have been part of a larger structure. As positive contexts, their numbers are recorded in round brackets (). Where surviving building material is present, separate masonry and timber structure record sheets are filled out, recording aspects such as size of materials, and in the case of walls, coursing and bonding patterns. Structures may also be represented by negative features, such as foundation cuts or postholes, which would be recorded using the cut record sheets discussed above.

The masonry record sheet asks for information on the individual materials used within a masonry structure, and then describe how they are bonded together.

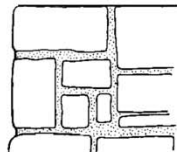
Fields used to describe masonry	Glossary terms
Materials <i>Describe all forms of building material used in the structure.</i>	Materials might include: Stone, Brick, Flint, Sandstone, Limestone etc.
Size of materials <i>Record the sizes of all materials used in millimetres, and record the dimensions of bricks if used.</i>	e.g. Stones vary in size from 350mm x 250mm x 100mm to 550mm x 450mm x 300mm (Length x Width x Depth)
Finish of stones <i>Describe the appearance of the stones.</i>	Squared Ashlar (masonry made of large square-cut stones) Roughly Hewn Fair Face
Coursing/Bonding <i>Describe the pattern of the masonry, and how it bonds together (bonding is most relevant to brickwork). If a wall or foundation is complex it may be necessary to describe it course by course.</i>	Coursing: Random Uncoursed, Ashlar, Regular Courses, Uneven Courses, String Coursing Bonding: English, English Cross, English Garden Wall, Rat Trap, Flemish, Header, Stretcher, Herringbone, Lacing Course

Form <i>Describe the form the structure takes, and note whether it's a rebuild or a repair.</i>	e.g. It could be a wall, a well, a foundation, or an arch etc.
Directions of face(s) <i>If the structure has one or more faces, which direction do they face?</i>	e.g. North, South, South West etc.
Bonding material <i>Describe the composition of the bonding material as if it were a deposit.</i>	e.g. Very hard, light, pinkish yellow mortar. Inclusions of frequent sub-angular pebbles, and moderate flecks of charcoal.
Dimensions <i>Record the overall measurements of the masonry structure in metres to two decimal places.</i>	Length (L) – eg L: 3.18m Width (W) – eg W: 1.12m Depth (D) – eg D: 1.55m
Other Comments <i>Include any other information that may assist the description and aid in the interpretation of the structure.</i>	e.g. Are there any mason's marks, or are worked stones or reused materials present?

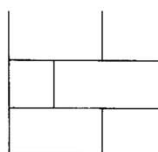
Coursing



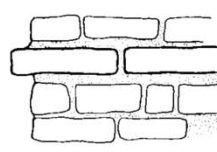
Random courses



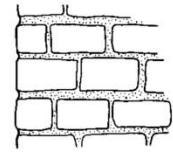
Squared random



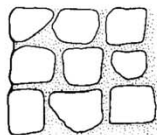
Ashlar



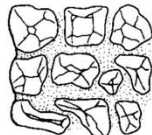
A String



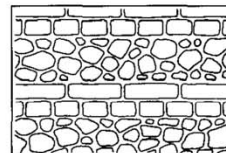
Regular courses



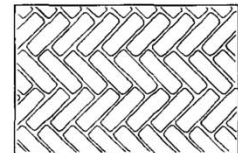
Fair face



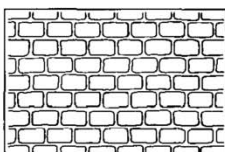
Rough face



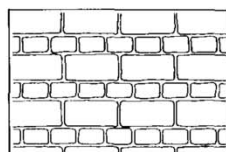
Lacing course



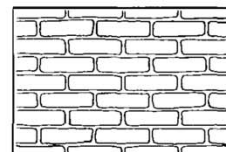
Herringbone



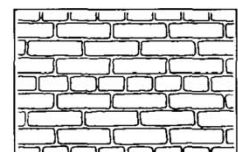
Header



Dearne's or Rat Trap



Stretcher



English Garden Wall

Bricks

Figure 11 A selection of descriptive terms used for stone masonry and bricks (after MOLA 1994)

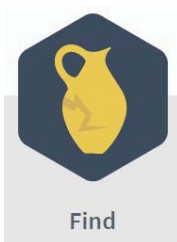
How do I record timber?

Describing timber

The timber record sheet asks for information on the function and condition of an individual piece of timber.

Fields for recording timber	Glossary terms	
Type <i>What type of thing was the timber used for?</i>	Baseplate Post Stake	Plank Brace Peg
Setting <i>Describe the position of the timber, and note whether this is its original setting or setting 'as found'.</i>	Horizontal Vertical Diagonal (note the inclination)	
Orientation <i>If the setting is diagonal or horizontal note the orientation of the timber.</i>	North-South West-East North West-South East etc.	
Cross-Section <i>Describe the cross-section in terms of its shape.</i>	Rectangular Square Circular Triangular	
Condition <i>Record whether it is complete or damaged. If damaged, was the damage done in antiquity or through modern intervention? Note any areas of decay, burning or insect damage.</i>	e.g. Complete, but with slight charring on the South end. Signs of woodworm damage throughout, and decay to the base.	
Dimensions <i>Record the length in metres to two decimals places, and the width and depth or diameter in millimetres. Ideally, all measurements should be recorded as soon as the timber is uncovered, as it will shrink on exposure.</i>	Length (L) Width (W) Depth (D)	
Conversion <i>Describe how the wood was converted into the timber object.</i>	Whole Halved Quartered Radially cleft	Boxed heart Boxed halved Box quartered Tangentially faced
Tool marks <i>Record any evidence of tool marks including the type of tool and location of the marks.</i>	Axe Saw Chisel Auger	Hammer Knife Adze
Joints and fittings <i>Describe the type, number and location of any joints or fittings</i>	e.g. Bird's Mouth Joint, Dovetail Joint, Lap Joints, Mortise and Tenon Joints etc.	
Intentional marks <i>Describe any marks on the wood that have been intentionally carved.</i>	Assembly Marks Makers Marks Tally Marks Graffiti	
Surface treatment <i>Record any evidence of materials or treatments applied to the surface of the wood.</i>	e.g. Paint, Pitch, Carvings, Mouldings	

Other comments <i>Include any other information that may assist the description and aid in the interpretation of the timber.</i>	e.g. Slight staining to the centre of the timber, the wood also appears to grow darker in colour towards each end.
Method / conditions <i>Note the recording method of the context, and the weather conditions at the time. Indicate whether the timber was retained for post-excavation analysis.</i>	Recording method: On Site Pre-Excavation, On Site Post-Excavation, Post-Excavation (Laboratory) Conditions: Bright, Overcast, Light Rain, Heavy Rain.



Archaeological finds

Why do we collect finds?

Artefacts provide invaluable information about the historic environment. They have an intrinsic value, storing information about their manufacture, use and disposal, and can inform our understanding of the formation and use of archaeological sites. They can inform us about trading patterns, the development of certain technologies, living conditions and other factors that influence the everyday lives of the people we study.

DigVentures has a number of processes effecting the recovery, analysis and archive of archaeological objects, designed to maximise the information we gather from artefacts. Any investigation undertaken will include a methodological statement regarding finds and samples which forms part of the Project Design, which outlines how artefacts should be recovered and treated in the field. In addition, the on-site finds recovery strategy will highlight specific protocol for the recovery of finds in the field and for the treatment of finds once recovered.

Depending on the type of material, some finds will be more susceptible to damage than others whilst being handled. If you are unsure as to how finds should be correctly handled, speak to the Trench Supervisor or on-site Finds Assistant. Each site should have a Finds Toolbox with all the bags, boxes and packaging material generally needed on site. As a rule, you should aim to keep finds in a similar condition as they were in the burial environment. Our policy at DigVentures is to store all finds in bags and process them under controlled conditions during the excavation or back at DV HQ.

What are small finds?

Finds are an archaeologist's bread and butter: the artefacts recovered from within archaeological contexts help to identify the who, what, when, where, and how of everything from dating to deposition. From the humblest piece of pottery to a treasure chest, finds are the stars of any excavation. Sometimes, you will find something particularly special or unique, such as a ring, a coin, or an item made of worked bone. Be careful! These are called 'small finds' or sometimes 'special finds' and are treated differently to other more common artefacts, known as bulk finds. Excavate all finds with care. You should always clean around an artefact and ensure that the whole artefact is excavated prior to lifting. NEVER pull the find out of the burial environment as this can damage the material. The Find records on Digital Dig Team are for logging these small finds.

What to do when you find a 'small find'

1. Start a new finds record on Digital Dig Team. To do this, first click on the 'Find' tile, and add a Short Description, the find Type, and Context number that the find was found in and hit Save. The find will automatically be issued the next number in the sequence (see Figure 12).
2. Once the item has been removed from the ground, look after it! Different finds need to be treated differently, and some need special attention – First Aid – to prevent them being damaged or corroding. If you are not sure what to do, speak to a member of the team.
3. Each site will have a Small Finds box near to each main trench, within which you will find sealable bags, a black marker pen, garden tags and nails.
4. Carefully place the find in a Small Finds Bag, and write the unique Small Find Number (SF No.) in a triangle, along with the site code, the context you found it from and the basic material (eg pot, iron, glass). We sometimes ask to include your initials and the date, especially if there are a lot of finds from one site (see Figure 13).
5. Seal up the bag, making sure it has been punctured a couple of times with a nail to let damp finds 'breathe', and place the find in the Finds Box (not your pocket, tool bag, or the side of the trench).
6. Place a garden tag with the SF no. on it in the ground using the nail, at the exact spot you found the artefact.
7. If your small find is actually pretty big, you can tie a Tyvek label around the artefact and label with the same information.
8. Fill in as much of the record sheet as you can; if you're unsure, don't worry about adding too much detail, the record can be added to and amended by a specialist during the post-excavation phase.
9. Take a Sketch Photo of the find in your hand, or next to a trowel for scale – although it isn't always necessary, it does help link the find to the record on DDT if we have a visual record.
10. The exact location of the find will be surveyed in at some point, so make sure the trench Supervisor knows there is a new find! If you or another team member are planning the trench, you can also mark on the location of any findspots when you are drawing.

The screenshot displays the DDT interface for a finds record. At the top, there's a navigation bar with 'FIND' and 'GO' buttons. Below it, a breadcrumb trail shows 'LDF 22 Object'. A row of buttons includes 'EDIT TYPE', 'EDIT NUMBER', 'X', and 'VIEW PAGE'. A secondary navigation bar contains 'HOME', 'USER ADMIN', 'OPEN DATA', 'ADVANCED SEARCH', 'DATA TYPES', 'MARKUP', and 'IMPORT'.

The main content area shows the record details for an 'Inscribed Name Stone'. It includes a 'Short Description' field with the text 'Inscribed Name Stone' and an 'Issued to' field with the name 'John Horrocks' and the date '29/06/2016'. To the right of this text is a photograph of the stone, which is a semi-circular, flat object with some inscriptions. Below the text is a 'Short Description' section with a text area containing 'Inscribed Name Stone' and an 'EDIT' button.

The 'Interpretation' section contains a table with the following data:

Interpretation	Interpreted by	Interpreted on
BY DR ELIZABETH OKASHA (University College Cork) Lindsafarne XV Examined 1 August 2016 Found during excavation on Lindsafarne June 2016 and currently in the care of the Department of Archaeology, University of Durham. Finding The stone was found in a spread of rubble to the east of the priory along with fragmented human bone. A carved but uninscribed stone was found nearby and also an Anglo-Saxon coin, a sceatta. The most-recently found Lindsafarne stone, apart from the current one, was also found to the east of the priory, in 1957 in a field known as Sanctuary Close.	David Petts	3-5-2017

Below the interpretation table is a '3-D Models' section showing a 3D model of the stone, titled 'Lindsafarne: Anglo-Saxon Name Stone v1' by DigVentures. The model is a semi-circular object with a play button overlay.

The 'Comments' section shows a message: 'No text data has been added'.

The 'From Context' section shows a table with the following data:

Context: LDF_2004
Short Description Fill of linear feature
Issued on 19-6-2016
Issued to John Horrocks
Issued on 29-6-2016

Figure 12 The Finds records in DDT

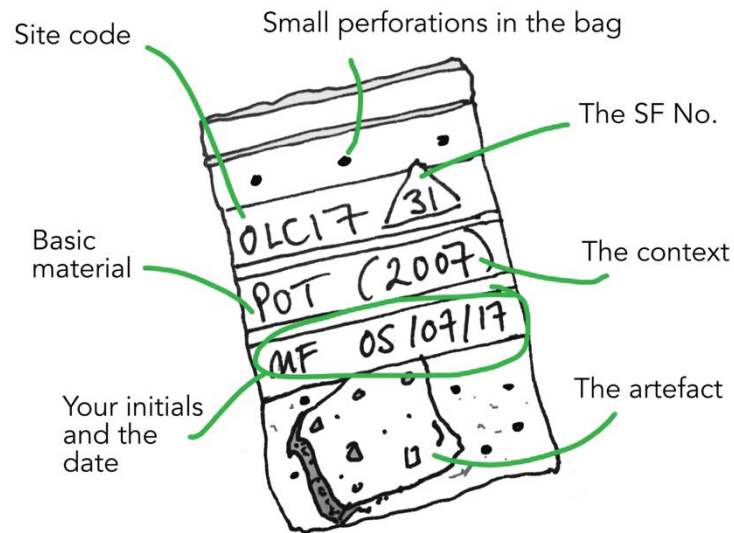


Figure 13 A labelled finds bag

What are bulk finds?

Bulk or Context finds are those that are removed from the context but not 'small found'. These are usually unworked material such as bone, or common and ubiquitous artefact types, such as post medieval pottery or ceramic building material (CBM). You may find a high degree of certain types of material based on what type of site you're excavating; such as, at a pottery kiln site lots of wasters; or at a smithing site, lots of hearth bottoms and slag. In both these cases, the material recovered would be done so as bulk, not small, finds. The finds recovery strategy will help identify which materials will be considered Bulk Finds, and which should be treated as Small Finds.

Bulk finds are not given unique numbers but are instead grouped by context, and placed in context trays. When the trays are full or at the end of the day, they should be collected and taken to the site office. Finds should be counted and/or weighed, as this will give the specialist and field archaeologists a good idea of preservation and fragmentation across the site, which itself can tell you a lot about the depositional nature of a context. See Figure 14 for a pretty good example of a context tray which has been brought in from site and deposited at Finds HQ.



Figure 14 A context tray

Although bulk finds don't need to be recorded in the same way as Small Finds, there are some on-site rules to follow:

1. The context tray should be clearly labelled with the context number before any finds are put in it.
2. Recover finds carefully, don't rub them or try and clean them up on-site, just place them carefully in the tray.
3. You can include all finds types in the context tray, but if there are some more fragile materials, be careful not to pile lots of stone on top of them!
4. Do not overload the finds tray – once it is reasonably full, return it to the finds supervisor and get a new one.
5. If you have lots of material, it might be easier to sieve the soil, or remove the bulk finds into bags rather than the tray. Just speak to the Trench supervisor about this and work out a good strategy!

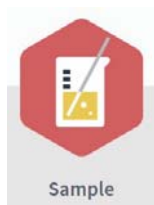
Sieving

However careful you may be excavating contexts, sometimes the number of objects are either so many or so few, that other forms of recovery are used. Very small objects, corroded metal objects and badly fired ceramics are all artefacts which could get lost within your excavated spoil, and some sites have very high volumes of material such as tile, slag and pottery which can slow down the excavation of the site.

Dry sieving excavated soil can increase the recovery of finds by a significant amount, as well as speed up recovery. Ordinary garden sieves can be used, with a mesh size of around 10mm, and soil can be kept separated by bucket or wheelbarrow to make sure it is all from one context. Where dry sieving is seen as a significant technique for artefact recovery, a more systematic process will be set up using a swing sieve. To ensure that the context number is maintained, spoil for sieving should be clearly marked by the context number on buckets used. If large areas are being sieved (such as topsoil) it is also good practice to grid the area to enable some spatial analysis of the material recovered.



Figure 15 *Some of our younger archaeologists using a swing sieve*



Environmental samples

What, when and why sample soil

Sampling for environmental material is a core part of every excavation, and specific guidance will be identified in the site finds recovery strategy and incorporated into the Project Design. As a general rule, we recover samples on-site and process them back at DV HQ. It is therefore essential that everything is well-documented to assist in post-excavation.

Soil samples are taken to recover archaeological evidence, including artefacts and biological remains, that can only be obtained by processing the sample. Biological remains from archaeological sites are examined for two principal reasons: to reconstruct human past activity and to reconstruct past environments. Samples can provide information on past diet, agricultural practices, economy, environment, industrial and domestic activities.

Some general rules should be taken into account when collecting soil samples:

- sample contexts which are judged to have good potential to recover artefacts or ecofacts
- contexts should be sealed and dateable, make sure there is no contamination from other contexts
- samples should be representative of the types of deposits across the site
- if in doubt, over-sample. It is easy enough to go through a trench plan with a list of samples and choose which samples are most suitable for processing and assessment
- The sampling strategy adopted by DigVentures is generally referred to as 'judged' as opposed to a 'random' strategy. For further explanation of sampling strategies see the Historic England guidelines. You can find a free document available for download at: <https://www.historicengland.org.uk/images-books/publications/environmental-archaeology-2nd/>

The majority of samples taken onsite will be General Bulk Samples (GBS, see Figure 16), but sometimes we might take smaller Spot Samples to look at a particular type of evidence, such as pollen or soil micromorphology. The guidance below summarises the process for taking GBS and how we deal with these onsite.



Figure 16 Bagged and tagged General Bulk Samples

Recovering a General Bulk Sample

What equipment do I need for taking a sample?

- Two sample bags (strong polythene, usually between 10 and 40 litres).
- A clean shovel.
- 4 blank Tyvek labels and permanent marker pen.
- String or cable ties

When recovering material for samples, the devil is definitely in the detail. Specific information is needed to ensure that microscopic evidence can contribute to the overall site story: from tiny pieces of flint, bone or pottery to invisible environmental particles and specialist material, everything picked up will be recorded as part of the site archive. When you come to take a sample on site, you can record all the details on Digital Dig Team, which means that samples also have a unique number and record.

You'll be asked to issue each sample you take with a Sample Number, and will need to take the next in the sequence on Digital Dig Team. Fill in the sample record noting the context that it has been taken from, the condition of the deposit, whether any contamination has occurred, and the sample size. You will also need to record the sample status, noting the priority for processing, and the sample type - what you're hoping to find inside.

You'll also see a section called 'Original Sample Question' which allows you to add a reason why that the sample was taken. This will later help to direct those processing and analysing it, so make sure you fill it in! Reasons for taking a sample might include to capture that all important carbon to help scientifically date the site, to recover pollen, seeds and grains so we can understand what people were eating and growing, or to recover tiny fragments of bone and eggshell from small mammals and birds. General Bulk Samples can simply be recorded as 'well stratified and uncontaminated deposit, with potential for recovery of general environmental evidence'.

Recording samples on DDT

1. Start a new sample record on Digital Dig Team as detailed above.
2. Clean the surface of the context carefully, to remove any potential contamination.
3. Place the deposit that you are going to be sampling into the sample bags using clean equipment.
4. Write the Site code, (Deposit Number) and <Sample Number> on the Tyvek labels, including the number of bags (eg Bag 1 of 2, and Bag 2 of 2)
5. Place one label inside the sample bag, and tie one to the outside using the string or cable tie.
6. Complete the sample record as detailed above, and record the sample location on the trench plan.
7. Take the sample to be processed or stored.

Sample	Context	Sample Status	Taken By	Taken On
LDF_24	LDF_1004	Processed with External	Brendon Wilkins	19-8-2016
LDF_23	LDF_1016	Processed with External	Brendon Wilkins	18-8-2016
LDF_22	LDF_2011	Processed	Brendon Wilkins	18-8-2016

Figure 17 DDT Sample record form



Planning

What is a plan?

A plan is a bird's eye view, scaled drawing of an archaeological context, feature or trench. It complements the written record by mapping and recording the spatial information of each context. Plans provide a means to record the extent, location, height, and position of a context or feature, as well as its stratigraphic relationships with other contexts and features on site. A plan also records other data, such as the location of small finds or where environmental samples have been taken.

The drawn record forms a central part of the site archive for any archaeological project. Plans and sections provide a technical record of what has been recovered, as well the ability to highlight key archaeological features, such as walls or charcoal rich dumps, which a photograph might not pick up. Plans and section records can't be drawn on DDT (yet!), but a record for each of them can be created and linked to their associated contexts.

Why am I drawing a plan?

The process of excavation actually removes the archaeology, meaning we basically have once chance to capture all the data needed. It's essential for archaeologists to draw an accurate plan to record the position and appearance of each context and feature prior to excavation, in order to document the evidence that will be destroyed through digging. We use plans extensively during post excavation to piece together all the evidence, and they also provide the starting point (with survey data) for how we can accurately illustrate what we find. With a bit of guidance, anyone can plan an archaeological feature.

What equipment do I need?

- Two measuring tapes
- Six-inch nails and string
- Gridded drawing board
- Permatrace (basically weather-proof tracing paper)
- Masking tape and/or bulldog clips
- Plum-bob (a weighted bit of string to measure vertically upwards from a point)
- Pencils (4H, 5H or 6H)
- Eraser

How do I draw a plan?

1. Clean your trench! Plans need to record all the details accurately, so you need to see what you are drawing. Make sure that the feature you are planning has been cleaned and that the surrounding trench surface is clear of any tools and spoil.
2. Now to Digital Dig Team! Click on the 'Plans' icon, and being a new plan record from the DDT 'Add a New Plan' section (Figure 18). Use the plan register below the grey box to determine what Number your plan will be. Write a short description of what you are drawing, select the scale of the plan, note who it is drawn by, and add any contexts that are associated with it and will feature on the plan.
3. Set up your equipment with the baseline tape measure running down the centre of your trench, or between survey grid pegs. Lay your tape measure as close to the context as possible, and secure it with a couple of nails.
4. At the top of your Permatrace sheet (or next to your drawing), write the following information:

- a. Site Code, Plan Number, Scale of the drawing, Title, Date, your Name, and draw the North Arrow
 - b. Draw in some reference points for your scale, small crosses on each 1m square helps, and add the GPS location data for at least two corners of the drawing (you may have to add the data once you have finished)
5. Draw the edges of your trench so that you can position the context correctly inside it. Hold your second tape measure at an exact 90° to your baseline, measure the distance from the baseline to the trench edge, and then plot this on your plan. In plans we use a scale of 1:20 (1 square on the Permatrace = 20cm), so if the distance from your baseline to the trench edge is 1m long, it should cover 5 squares.
6. Repeat the measurement again every 10cm along the baseline before drawing a line to connect all of the dots. Repeat this process on the other side to get an accurate drawing of your trench.
7. Now, following the same process to draw in the trench edges, measure the distance between the baseline and the first point of your context. Plot this on your plan, then continue to take measurements at regular intervals around your context before joining all the dots together.
8. Once you're finished, label the context (remembering to put deposits in circular brackets, and cuts in square brackets) and then start annotating the drawing with further detail using the Drawing Conventions below (Figure 19).
9. Label the locations of all small finds, samples taken, and levels taken (making sure to record the values of the levels themselves next to the plan), and then file your plan ready to be scanned into Digital Dig Team.

Add a New Plan

[HOME](#)
[OPEN DATA](#)
[ADVANCED SEARCH](#)

Plan:
Context:

Short Description:
Drawn By:

Drawn On: / /

Plan	Context	Short Description	Drawn By	Drawn On	
BLS_11	BLS_4002 BLS_4003 BLS_4004 BLS_4005	Trench 4 multi-context plan	Stuart Noon	10-7-2016	
BLS_10	BLS_3003	Trench 3 with overlay showing location of vessel	Stephanie Watkin	14-7-2016	
BLS_9	BLS_1002	Plan of extention in trench 1 south	Nigel Steel	17-7-2016	
BLS_8	BLS_1003 BLS_2003 BLS_2004 BLS_2005 BLS_2006	Multi context plan of Trench 2 West - 2 parts	Nigel Steel	17-7-2016	
BLS_6	BLS_1002 BLS_1004 BLS_1005 BLS_1008	Multi context plan of Trench 1 north	Brendon Wilkins	17-7-2016	

Figure 18 'Add a New Plan' on Digital Dig Team

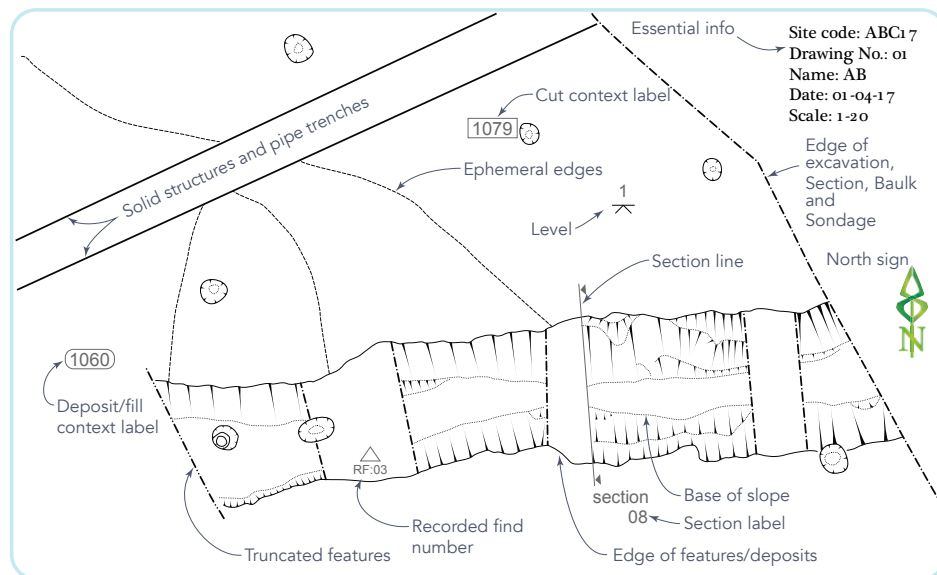


Figure 19 Planning conventions for the drawn record

Things to remember

If you are drawing more than one plan on the same sheet of Permatrace, make sure that the separate drawings are evenly spaced and clearly labelled, using a bold ruled line to divide them.

Use standardised drawing conventions, and keep all handwriting clear and in capitals. If you use less common conventions to show types of fill or inclusion, such as shell midden or charcoal flecking, include a key on your plan.

Remember to take the levels for your drawing. We use a GPS system to record levels on plans, and it is possible to annotate the plan with the final heights taken. Ask your Trench Supervisor if this is necessary, and make sure they check your final plan.

Do a final check: firstly, that all the details are clear – are the contexts all labelled, has the plan been levelled, have you included the scale and north arrow, the plan number and contexts (check against the illustration in Figure 19). Secondly, check the features you have included in the drawing are clear, it's a good idea to walk over the area with your plan and make sure it is all nicely finished.



Sections

What is a section?

Archaeological sections are vertical slices through features and contexts that show the profile of the area in question. They're essential for defining, documenting, interpreting, and understanding stratigraphic relationships in a trench and, like a plan, provide an essential tool through post excavation analysis.

Within any archaeological site, you will always have at least two types of sections within the trench. The trench edge itself is a section through that particular of the site, and we will often record one or more of the trench sections as the excavation develops. The second type are related to specific areas: sometimes a section will be excavated through a single feature, a pit for example, so we can look at the profile and depth and how the deposits within it are stratified. In a similar way, a sondage, or slot, might

be inserted into a particular area to investigate the deposits further. This will also create a section which will need to be drawn.

What equipment will I need?

- Drawing board
- Permatrace paper
- Masking tape (to attach the Permatrace to the drawing board)
- Hard pencil, sharpener and rubber
- 3m hand tape
- 2 x six inch nails with string for section line
- A small spirit level to hang on the section line

How do I create a section drawing?

1. Clean your section! Make sure that you have cleaned the section so you can see all those lovely deposits, inclusions and archaeology. Ensure that the area you are working in is clear of tools and spoil.
2. Take out a new section record from the Digital Dig Team (see Figure 20), and use the section register to determine what number your section will be. Write a short description of what you are drawing, record any levels taken, note who it is drawn by, and add any contexts that are associated with it.
3. Set up the section line above the section, making sure that it is straight and completely level (use the spirit level to check).
4. Ask your Trench supervisor what scale to draw your section (this will usually be at 1:10).
5. At the top of your Permatrace sheet, write the Site Code, Title, Date, your Name and the Orientation of your section with compass points above each grid peg (such as NW, SE).
6. Record the profile by taking a measurement at each 10cm interval from the section line to the bottom of the cut and then join the dots.
7. Measure each fill or layer within the cut using the same technique and plan them onto the section drawing.
8. Label all of the contexts (remembering to put cuts in square brackets, and deposits in circular brackets) and label locations of all small finds and levels taken (levels are normally taken on the top of a feature).
9. Add levels and a GPS location to each end of your section line, so it can be properly recorded on the system and also illustrated on plans.
10. File your drawing ready to be scanned into Digital Dig Team.

Add a New Section

HOME OPEN DATA ADVANCED SEARCH

Section:

Context:

Short Description:

Drawn By:

Drawn On: / /

Section	Context	Short Description	Drawn By	Drawn On
BLS_10	BLS_5001 BLS_5002	Trench 5 running step section	Stuart Noon	10-7-2016
	BLS_5003 BLS_5004			

Figure 18 'Add a New Section' on Digital Dig Team

Things to remember

If you are drawing more than one section on the same sheet of permatrace, make sure that the separate drawings are evenly spaced and clearly labelled, using a bold ruled line to divide them.

Use standardised drawing conventions, and keep all handwriting clear and in capitals. If you use less common conventions to show types of fill or inclusion, such as shell midden or charcoal flecking, include a key on your plan.

Remember to take the levels for your section line at each end. We use a GPS system to record levels, and you will need to annotate the section drawing with the final heights taken.

Do a final check; firstly, that all the details are clear – are the contexts all labelled, has the section drawing been levelled, have you included the scale and the ordinals, the section number and your initials (check against the illustration in Figure 21). Secondly, check the features you have included in the drawing are clear, it's a good idea to have a final check over the section and make sure it is all nicely finished.

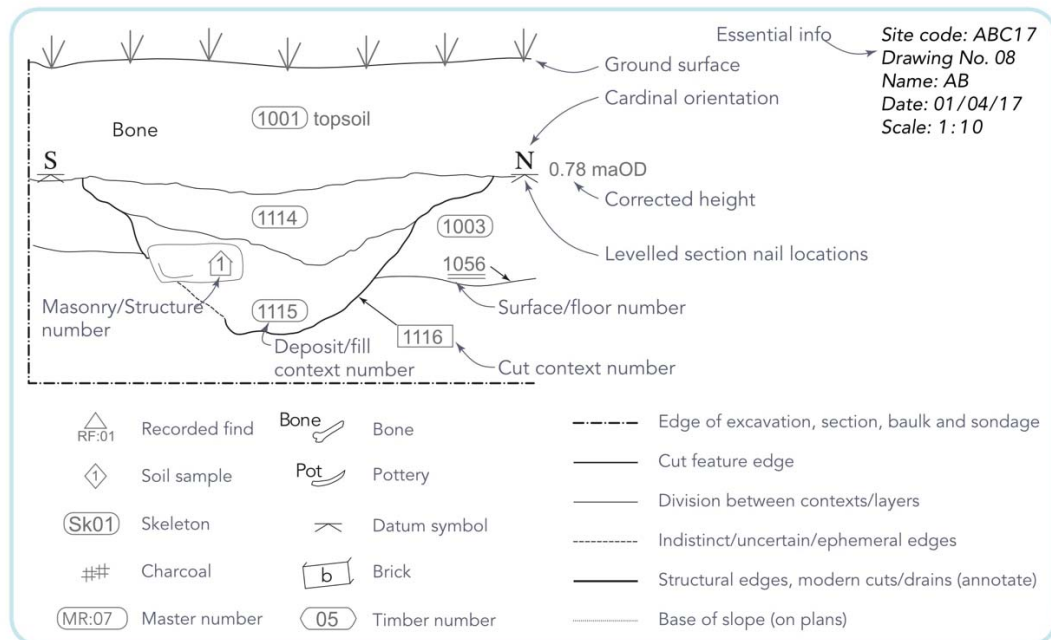


Figure 21 Section conventions for the drawn record

Levels

What are levels?

Levels record the height of a context, find or feature above sea level, which allows us to map the out the relative heights of the archaeology throughout the site. The position and value of each level that we take is marked on any corresponding plans or section drawings in the form of a numbered benchmark symbol, so that a precise location for the data is recorded.

DigVentures tends to record levels using our GPS system (see Figure 22), which will record the complete x, y and z data for each point (so we know exactly where it is in space). However, one of the simplest methods of taking levels is using a Dumpy Level. This is an optical instrument that we can look through

to establish a point on a horizontal plane. Together, with a tripod and ranging pole (basically a giant ruler) we're able to take measurements that allow us to calculate the height of the archaeology.

What equipment do I need to take a level?

A Dumpy level head
Tripod
5m Levelling staff
Pen and paper for the calculations
Your drawn plan or section
A couple of helpers

How do I take a level?

1. First set up your tripod and Dumpy level, making sure it's in viewing distance of both the site Temporary Benchmark (TBM) and the context, find or feature you're recording. The TBM is a data point with a known height above sea level that we can use as a starting point for calculating the levels of the archaeology.
2. Set the tripod to a height that allows everyone to be able to see through it, make sure it is perfectly level by using the embedded spirit levels on the tripod and the Dumpy - you can use the adjustable to legs of the tripod and the dials on the Dumpy's baseplate to achieve this.
3. Take a 'backsight reading' (BS) of the TBM by getting a helper to stand with the ranging pole resting vertically on this point. Look through the Dumpy Level and take the reading at the point where the central cross-hairs lie, to the nearest centimetre. Each white or red block on the staff represents one centimetre.
4. Once you have your reading, add this to the height of the TBM to calculate the Dumpy Level or Instrument Height (IH) above sea level. It's a good idea to have some paper handy to record these calculations, or better still, show your workings on your plan!
5. Mark on your plan where you will take your levels and then move the staff over to the first levelling position and begin taking 'foresight readings'. Make sure to have each reading checked by another person to ensure a level hasn't been misread.
6. Record each reading on your plan, the Dumpy level should stay where it is throughout this entire process, otherwise you won't get an accurate reading!
7. Once you've taken all of the readings, all you need to do is to calculate the height of the archaeology, by subtracting your foresight readings from the instrument height. This will give you your reduced levels (RL).



Figure 22 Using the GPS system to level a finished plan

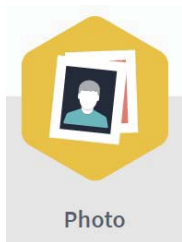
Things to remember

Each time the tripod is moved, the whole setting up process and taking of the backsight reading will need to be repeated.

Make sure you take the reading from the central cross-hair, not the ones above and below, and get each one checked by another person.

If, when you're taking the readings, the cross-hair falls in the middle of a red or white block, always round the measurement up to the nearest centimetre.

Once you're finished taking your levels, ensure to pack the equipment away carefully into the boxes provided.



Photography

Archaeological photos are an itemised record of all aspects of an excavation such as contexts, features and sections. They provide another important dimension to the archaeological record, and are more than just a set of snaps! At DigVentures, we use photography in three main ways: to provide a quick visual aid to recording (a Sketch photo, see Figure 6 above), a detailed and conventionally taken shot for publication and archive (an Archive photo, see Figure 23), and a series of high resolution images which we then knit together to create a 3D model of the site (Ortho photos).

We have discussed Sketch photos above, and our 3D models will be created on-site by Trench Supervisors. This quick guide will take you through taking an archive quality image to show up your fabulous archaeological features. The great thing about Digital Dig Team is how all the archive data can be brought together (see Figure 23), so when you add a new image to the collection, you need to include some key information, just like adding any other new record.



Figure 23 A lovely example of an archive shot: clear soils, clean trench and well placed scales

When do you need to take an archive photograph?

- Before you excavate – to show what the trench looked like originally (these are called Pre-Ex shots).
- During excavation – action shots to show how you did the work (these are sometimes less formal and called Mid-Ex shots).
- After you have excavated – to show what the trench surface looks like with the feature removed (these are called Post-Ex shots).

Five steps of site photography

1. Archive photographs should be taken using a high resolution Digital SLR camera; speak to the Trench Supervisor if you are unsure about using the right camera for the task!
2. Check you have bright diffuse light (ideally) and whether your subject is showing up clearly (a high sun or dark skies can ruin a good image, as can the soil being too dry).
3. Make sure that your trench is as clean as a whistle and completely empty; move your spoil bucket out of the way, get the tools away from the trench edges and watch out for stray footprints.
4. Start a new photograph record, using the next number in the Digital Dig Team photographic sequence.
5. Use a scale bar placed either horizontally or vertically (or both) to show the relative size of your trench or feature. Make sure you use a clean scale that's the most appropriate for the size of the subject matter i.e. don't use a 2m long scale for an object that's less than 20cm long!
6. Take the photo, ensuring your camera is set to get the best possible exposure, and ensuring that the full scale of the feature or trench is framed in the photograph.
7. You will need to download the photos, review them and select your archive images with the Trench Supervisor.
8. Finally, complete the record and upload the photograph to Digital Dig Team.

Top Tips for site photography

Do a weather check if you know you will be taking photographs in the next day or so, and try and plan to avoid rain showers or bright sunshine. Ideally photos should be taken in diffuse light.

Use the Aperture Priority setting or similar to ensure depth focus, and you can opt to use auto-focus or manual-focus depending on your subject.

If you are on scaffolding or standing on a ladder to take the photograph, ALWAYS have someone watching you and supporting the structure.

Download photographs taken at the end of each day, it means you can keep a clean SD card on-site with lots of room for new photos, and you also have a back-up set of all those taken for the duration of the project.

Take plenty, but only upload the best images to Digital Dig Team. While it's a good idea to take lots of photos and make sure you get a good choice, it is essential to spend time looking over the shots with the Trench Supervisor and selecting the best example to use on DDT.

Features

Features are made up of a group of contexts which combine to make up a discernible event or entity within the archaeological site. This may comprise a number of different types of contexts, such as deposits, cuts or structures, to make up the feature: the fills and the cut of a pit are both part of the same feature - which is the pit itself. Features can be ascribed during the excavation and are often added while post excavation analysis is being undertaken, as new features are recognised. They provide a useful way to refer to the development of the site and its archaeological features, as well as a shorthand to discuss chronology and stratigraphic relationships.

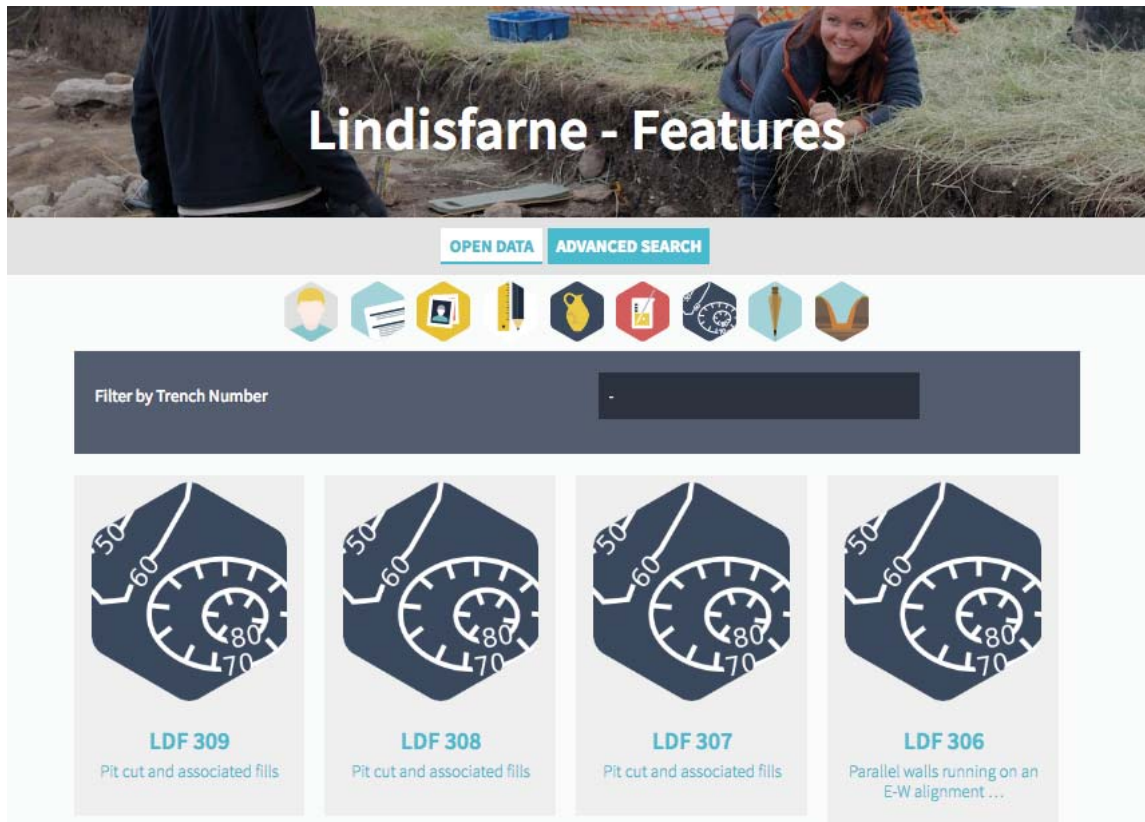


Figure 24 The features landing page

Feature records can be added through Digital Dig Team, using the next number in the sequence from the list you will see beneath the new record box:

- You will need to filter by trench number, and then add the next number in the sequence as the first digit is always linked to the trench number.
- Add in the first context and provide a short description.
- Save the record, and it will appear in the list below, you can now select it to add more details. These will include all the contexts which are part of your feature. Type the site code and then select the contexts you want to add, which will then be connected to the feature record itself.
- In order to record how the site developed over time, you are asked to add the primary stratigraphic relationship between your new feature and another, if this is possible.
- Finally, you can add some interpretation: the feature narrative (a longer description of how the feature developed and what it was), and a dating narrative (to provide an opinion on the chronology of the feature, and how long it was in use).

Trenches

The trenches of an archaeological site are often taken for granted, as we tend to talk about the individual contexts, features and finds, especially when things get really exciting! When Digital Dig Team was being designed, we included the trenches section to allow us to collate all the information relating to each trench under one heading, and provide a home for the 3D photogrammetry models of each trench. This means that all the contexts, finds, plans, sections, sample, photos and features that you record on site will be associated with one particular trench.

The trench records bring all of these together under one master record. Think of it as a summary page that gives you a taster of all the archaeology found in each trench, and provides links to all the relevant individual records. Once a trench record has been created, it's just a case of pulling through all of the relevant records by adding them in the appropriate field. It's a good idea to do this as you go along, adding each record to the associated trench once it's complete.

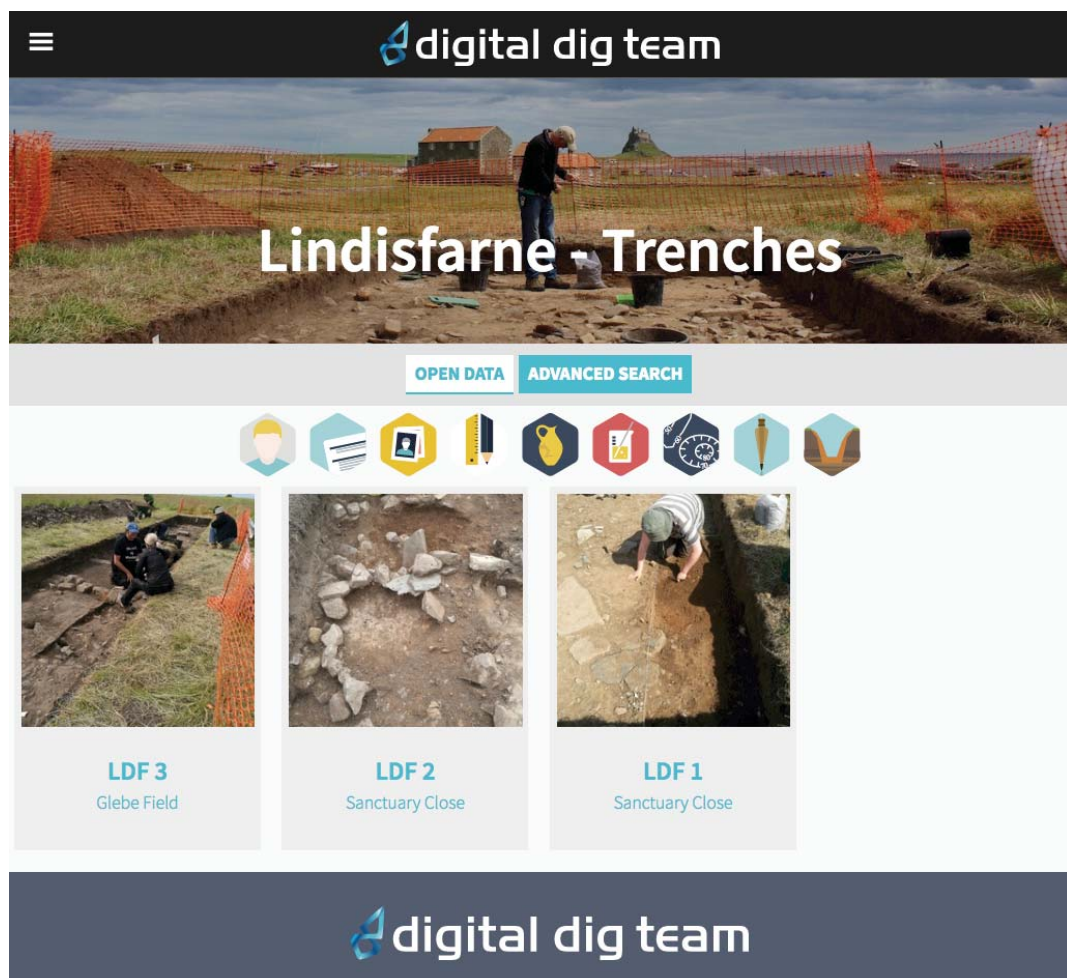


Figure 25 The trenches landing page

Searching the system

Finally, if you're searching for a record rather than entering one, the system can be interrogated in any number of ways to help you find just what you're looking for. Whether you're looking for a specific find or feature type, context number, or user, you'll be able to use the Advanced Search function to aid you in your hunt. There's even a 'free text' option to allow you to enter your own search terms.