



We Dig!

A guide to setting up your own u3a archaeological group and how to dig (properly).



Introduction

Our u3a group began in 2018 with seven members, four of whom had some experience with a local archaeological group. In late 2019 we spotted an interesting crop mark in the back lawn of a nearby Hall and contacted the owners to ask if we could do a small excavation the following spring. Covid happened and we didn't begin until July. By August we were coming down onto a substantial stone structure and we contacted an historic buildings expert for his opinion. He thought it was the foundations of a high status 12th or 13thC building (now considered a Palace) associated with the Bishops of London who owned the site from Domesday (1086). He suggested we seek funding to help excavate in a way that would do it justice as it was painfully obvious we really didn't know how to record our findings.

In April 2021 – still with Covid restrictions in place and now in receipt of a grant for £4,400, we resumed our dig. With a senior archaeologist from Archaeology South East visiting once a week and armed with correct equipment to record, we were at last able to excavate the building properly.



Another £7000 grant later we finished the excavation and backfilled the site. Our swansong was opening for Heritage Open Days where we had 533 visitors who had no idea such an important structure was in their town. We had opened up nine trenches and showed visitors how we worked, and gave guided tours of the site.

The Southminster Hall excavation is now preserved as a permanent display at Burnham Museum and we've moved on to other projects. Our group has swelled to thirty members and we give talks about our excavations to local u3a and other organisations. We have links to other archaeological groups and have built up a network of experts to contact and help us, as well as senior council archaeological consultants.

Between us we have built up a range of skills which we aim to pass on to others with this guide and also 'Training Days' at our current site. This is our attempt to help other groups who might like to give it a go.

How to start – some questions

- Do you want to dig? It's hard work, especially on the knees and the weather can be unpleasant. Most excavations take place between April and the end of October. You'll need sturdy boots, preferably walking boots, plus old clothes and a hat to keep off the sun or cold! It can be muddy and slippery with uneven ground, and deep trenches. You may want to wear gloves and will need a kneeling mat.

- **Have you got a site?** Research your possible site - look at Heritage Gateway and the Historic Environment Records. You will not be allowed to dig on scheduled sites and you must have permission and the cooperation of the landowner. Google Earth is a great resource for spotting possible sites. Local history and archaeological groups are sources of information, you may want to join a local group before you set up your own. The internet is a great resource. Farmers can be willing to let you dig but probably not when crops are growing. A field walk can yield information



such as pottery fragments, also metal detecting (with the landowners permission). Visit your local records office and museums. Talk to people especially local historians, they may have ideas, it might be easier to find somewhere local for your first dig.

- **What is your objective?** At our current site we are taking part in a national project – Discovering England's Burial Spaces, as well as excavating a (non scheduled) church demolished in the 1870's. We aim to rewrite the history books by proving that the church dates back to the 1200's NOT the 17th Century as the Historic Environment Records claim.
- **Don't** expect to find 'treasure' every day! A piece of pot or tile might give you clues.
- **Do you need funding?** Probably not, we charge a sub of £10 a year for new members and we managed just on that for several years. When we give talks we ask for donations and manage to buy our supplies.
- **Before you start find a piece of land to practice on...with the landowners permission. Then you can hone your skills.**
- **Do a risk assessment** and have a first aid kit on site, you don't need injuries.
- **What will you need at your site?** Car parking, toilets and somewhere to safely store your equipment. Each digger will need a kneeling mat and their own trowel.
- What equipment do you need? **We started out with buckets, shovels, seed trays, plastic bags for finds, and trowels.** When we began to be trained by our archaeologist we found we needed more, not for digging but recording as that is what remains long after the site has been backfilled.

Wheelbarrow.

Half moon spade for cutting out trenches.

Hand brush for cleaning trenches prior to photographing them



30m rope coiled round a hosepipe drum, perfect for a baseline. We also use a 3,4,5m isosceles triangle of lengths of line to get right angles, we just made our own, each one has a metal ring at each end, we use tent pegs.

Sieves of different sizes

Technical equipment to be bought from an archaeological supplier

- **Building line** (string) plus **string hung spirit level**.
- **Red plastic survey pegs**, we also use tent pegs.
- **Mini mattocks**
- **Finds bags** – these look like freezer bags and are written on with the site code details.



- **30m surveyors tape measure**. We use about three at a time when surveying. Also steel tapes.
- **Blackboard and chalk** for photographing and recording the excavation, also a **compass and North Arrow marker** so the orientation of the trench can be photographed with the blackboard.
- **Context labels** made of plastic from supplier,

and nails to hammer them into the side of the trench, they also go into the finds bags with the same details.

- **Road Pins** these are used to mark out the base line and also to rope off the site.
- **Barrier tape** to go round road pins, also warning notices.
- **Perma Trace** this is a pre gridded plastic sheet which is perfect for drawing your vertical sections, plan drawings and site plans and elevations on with a **6H pencil**. Ours are stuck with masking tape onto rigid plastic sheets.
- **Ranging poles and photo scales** for use when photographing your trenches and finds.
- **Plan Frame** we use a metre square rebar which has a 20cms grid.
- **Context Register and Context sheets** can be bought online.
- Scales or balance for weighing bulky material.
- **Miscellaneous** - pens, pencils, eraser, plastic boxes, toothbrushes and water for cleaning finds, soft paintbrushes, magnifying glass, reference books, hand held metal detector, spray paint, ruler, note book for keeping notes on the excavations.

Don't worry if you haven't got all of the above, just start with the basics, you may be able to borrow or improvise a lot of the kit.



- **Use the skills of your group members like photography, art, metal detecting, research. Everyone on site is valuable and should feel wanted.**
 - Don't be too ambitious to start with until you are more confident in what you are doing
 - **Set a goal of what you want to find.**
 - Keep a site log/diary to record your achievements on site.
 - **Don't rush, have fun.**
- ***Don't be afraid to seek advice or help from other groups or professionals.***

Measuring and surveying your site – the basics



You've got your site and basic equipment. You'll need two or three 30m surveyors measuring tapes. Begin with establishing your base line. Everything will be measured and recorded from that.

Road pins at two ends of the rope line and a measuring tape strung from one end and clipped to the other, round up in metres eg 20m.

Put road pins in to make a square of four. Use the compass and 3,4,5 triangle to get a right angle (lay the 3m along the baseline, the 4m along your possible right

angle and the 5m will join the two, where the 5 and 4 intersect will be your right angle. To double check you have a square run tape measures from one diagonal to the other, they should be the same length.

Lay out your trenches at a variety of angles to catch as many features as possible. String out your trench so you can keep a neat edge with vertical sides. Start by removing turves with a half moon or spade, lay them in your designated spoil heap (not too close to where you're digging). Each trench has a number and each layer as you come down has a context number. The context numbers are assigned as you need them and will not be particular to each trench.



Start digging!

Scrape towards you with your trowel, each digger will have their own section. Scrape the soil onto a shovel and examine it. Finds go in each digger's seed tray which is labelled with the trench and context number. Spoil goes in the bucket to be sieved then onto the spoil heap for that trench. **Don't dig holes! The trench should be flat over its entire surface.** Each trench spoil heap to be metal detected every session.

The Finds Officer will be in charge of gathering the finds and putting them in bags with the trench and context details in at the end of the session.

Site Code

Give your site a short site code with the first letters of the name and the year eg **SOU SH21** (Southminster, Southminster Hall, 2021)

When packing up at the end of the session the trench should be photographed with the blackboard, writing on the site code, trench number, context number(s) and date. Use the measuring sticks, ranging poles, compass and north arrow. This will be a permanent record of the excavation through time. Photograph your finds with the context label and photo scale against each one.

Time for tea!



Finds

- **Finds Officer**- You will need to have someone responsible for all the finds from your site. It is their duty to keep a record of all findings. They will need a notepad, context labels, permanent markers, finds bags, seed trays, newspaper and a toothbrush! This person is responsible for all the items excavated on site, and they must be kept safe.
- At the beginning of each day give each archaeologist a finds tray (seed tray), with a context label relative to the trench and context that they will be working in. Use a clothes peg or bulldog clip to attach it, to prevent it blowing away. That way at the end of each day you know what finds come from each trench and context. Keep it simple.
- **At the end of each day** collect up the finds trays – always ensure that you know which trench and context the finds have come from. Double check if necessary. Using a permanent marker write up the



relevant details on the context label from the tray – this saves time. Each label must have the site code – in our case MAY for Mayland, STB – for St. Barnabas, 22 – which is the year you are working in. Check the finds and label the finds bag with the exact details taken from the label. Add the type of finds – ie CBM (Ceramic Building Material – basically anything that has been baked such as brick and tile, (NOT pottery).

- Finds can be washed on site if you have the time and facilities. Wash **GENTLY** using a toothbrush and plain water. **DO NOT SOAK** items. Do one piece at a time to prevent damage. If the water becomes too muddy – change it. Clip the context label and bag onto the tray which is lined with newspaper (if possible) to assist in drying. This way you wash one bag and context at a time to prevent mix up and errors.
- To wash or not to wash, that is the question! Not all items are suitable for washing, no matter how gently. **Use your common sense. If you think it will be destroyed by washing, DON'T wash it.**
- At the finds hut, the finds are washed (with the exception of metals, glass and anything which might be too delicate to wash, such as prehistoric pottery or painted plaster; another exception to this is charcoal which is kept intact to be sent to specialists).
- Below is a guide from Archaeology South East which we often use on site.

<u>Do wash</u>	<u>Don't wash</u>
<p>Animal bone and teeth—as long as the bone isn't crumbly, then this can be washed safely. If the bone is very porous, then place to one side of your clean finds tray. The only other time we don't wash bone is if it is articulated.</p>	<p>Metal—it will start to corrode or rust. Make several holes in the finds bag can breathe and prevent condensation.</p>
<p>Pottery—every surface can be washed, paying special attention to the sides of the sherds, as this is the diagnostic feature of the pottery that the specialist looks at. The only time we don't wash pottery is when</p>	<p>Plaster—it will disintegrate.</p>

<p>there is the potential for organic remains, eg residues, concretion or whole pot bases.</p>	
<p>Ceramic Building Material (CBM)—make sure you take the worst of the mud off the CBM, but mainly concentrate on the flat surfaces of the tile, as it is here you may find animal or human prints.</p>	<p>Shell—it will disintegrate.</p>
	<p>Glass—there is a safety issue here, where you may cut yourself if you are not careful. Also there may be some form of coating on the glass that will be destroyed if it is washed</p>

- **Drying:** Once washed, the finds are left to dry on some newspaper in a finds tray and must be completely dry before more work can be done to them.
- **Bagging:** All the bulk finds are bagged separately by context and find type and recorded in bulk finds recording sheets. This will usually involve weighing and sometimes counting each individual piece to get an idea of exactly how much of each find type there is in a context.
- **Specialists:** These are eventually sent to the relevant experts for further study and interpretation, if you have found something that you believe is worth further investigation.

Small Finds

Anything which is not a bulk find will be classified as a small find (sometimes also called registered finds). Small finds usually have different conservation requirements (specifically metals), but they can also be

labelled as small finds because they are of special significance to the site/context.

Processing small finds

- **Small finds – such as beads, pottery sherds are treated in the same way, but logged in a small finds book. Each item is given a separate number inside a triangle – which indicates that it is a small find. Keep small and delicate finds separately from CBM and heavier materials. The plastic take-away boxes come in handy for this.**
- **You will become more familiar and knowledgeable with finds and pottery in time. DON'T PANIC! There are numerous books and websites to help with identification. If you aren't sure try a website that specialises in Medieval Pottery Identification, or Mud-larking site for example – you'll be surprised how many people are ready to assist.**
- **Once totally dry, count the number of pieces of each material – ie CBM – 5, weigh them in total for each material and note in the book by each trench number.**
- **Conservation/specialists:** The small finds are kept together by materials, and sent to the relevant conservation or finds specialists for further research – if you have the funds!!

After the excavation

Once the finds leave site, they are stored in specially made cardboard boxes of the appropriate size and shape to suit the museum which will eventually house them.

There are some exceptions to this, for example metals which are traditionally kept in plastic containers, but this is generally up to the museum and their archive and conservation team.

BURNHAM u3a ARCHAEOLOGICAL GROUP

RISK ASSESSMENT DATE: 6 April 2022 by PN Burton u3a

LOCATION: St. Barnabas Old Church, Mayland Hall, Mayland Hill, Althorne, Essex CM3 6EA

DATES ACTIVE: April 2022 to October 2022

OVERVIEW:

The site is located in an uncultivated meadow overgrown with weeds, grass and brambles adjacent to Mayland Hall. It lies at the edge of the escarpment to the North of the Mayland Hill plateau. It is of open aspect and the area of interest is bounded to North by a hedge, to the East by hedges and the boundary fences of the cottages on the road, to the West by uncultivated rough meadow and to the South by hedges, trees and the boundary wall of Mayland Hall. The only access is by a field gate from the private drive to Mayland Hall. Although the public highway known as Mayland Hill passes the site, there is no access directly from the road. The narrowness of the road and the height of the hedge prevent direct viewing of the site.

GROUNDINGS

The area of interest is an ancient graveyard surrounding the site of the demolished church of St Barnabas which is in the care of the Anglican Church. In the centre of the original church Nave a stone memorial cross has been erected and is surrounded by standing and supine gravestones. Permission has been obtained to perform a survey of the site. The site is not a scheduled monument.

UTILITIES etc

No utilities or drainage ways have been located however the possibility always remains.

The overgrown vegetation will have to be removed prior to any work on the site. Protective clothing and footwear should be worn when undertaking the work and when using edged and cutting tools.

SLIP and OTHER HAZARDS

The ground surface although overgrown with vegetation is uneven due to being a graveyard and may still contain trip hazards as a result. There are fragments of grave markers present throughout the site.

Trenches represent the highest risk area and should be covered or made secure when no excavations are taking place. Warning notices should be positioned in appropriate places particularly at the site entrance. Trenches should be routinely inspected for potential problems such as collapse.

Be aware at all times for potential hazards such as spades, buckets, wheelbarrows and other equipment.

Spoil heaps should be located well away from the area of active work and identified as such.

Be aware of other people moving around the site especially when using the wheelbarrows to and from the spoil heaps.

First Aid facilities should be available. Pre existing health conditions should be notified to safety officer.

VISITORS

Visitors should be given a safety briefing prior to entering the active area of the site and wear appropriate footwear.

All visitors should be accompanied by a member of the archaeology group unless they are consultants and familiar with site conditions and restrictions.

COVID 19 No person who has been in recent contact with another person who has tested positive, whether or not they themselves have been tested negative should be present on site.



Archaeology supplies

<https://pasthorizons.com/>

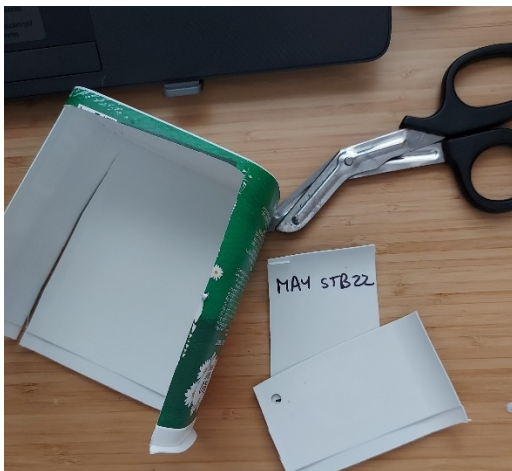
<https://www.yorksurvey.co.uk/>

Amazon

Remember it's cheaper to buy items in bulk, so get together to make up an order to save on postage costs. Shop around to compare prices – sometimes specialist sites charge more for the same item from a builder's store.

Cheaper & freebie hacks

The waterproof context labels can be quite expensive, so to save money and using too many, we use cut up thick plastic yoghurt pots and use the white side for writing on with permanent marker for the contexts in the trenches. Just keep checking that the writings not fading, and go over it again with permanent pen.



Join up online “Freebie” websites – many people are giving away unwanted tools etc.

My local allotment group has a “swap shop”, where people donate unwanted tools etc.

Make your own 3/4/5/ measuring lines with thin rope and curtain rings.

Wash and re-use the plastic take-away containers for your smaller finds, pens etc.