The UKDN WORD

ISSUE 29
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World Of Responsible Detecting

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World Of Responsible Detecting

About us

UK DETECTOR NET was created on September 28th 2002 to bring together responsible metal detectorists everywhere to discuss the hobby, their finds, the machines they use and a million and one other detecting related subjects.

Visit the forum

UKDN newsletters to download

http://www.forumukdetectornet.co.uk/phpBB2/viewforum.php?f=166

If you would like to **contribute to the newsletter** please contact either UKDN as above, Phil D via PM, or Corinne Mills at Corinne.mills@ourpasthistory.com

UKDN AIMS

UKDN is a forum for people who are interested in the hobby of metal detecting. UKDN is an online community where members can exchange and share knowledge, their views, discuss the hobby, their finds, the machines they use and a million and one other detecting related subjects.

UKDN actively works towards the following aims:

1. Develop a greater understanding of the hobby and some of the wider issues through healthy pro-active debate within the forum and through the monthly newsletter, which is distributed to, and read by, our membership and beyond. The newsletter includes UKDN based news and articles, as well as wider news, debate, and issues of heritage interest.
2. Provide a platform to inform beginners in the hobby of the basic principles in the use of a metal detector, gaining permission, site research, basic heritage law, farming scheme rules and in the 'best practise' for conservation, recording and co-operation.
3. Actively promotes the 'Code of Practice for Responsible Metal Detecting' to all members of the UKDN online forum and beyond.
4. Encourage all UKDN detectorist's to record their finds with the appropriate bodies (depending where they detect); In England and Wales, this is with the Portable Antiquities Scheme, in Scotland this is the Treasure Trove Unit.
5. UKDN will actively work towards ensuring the future security of the hobby. We will liaise and co-operate with heritage professionals in a way which is mutually beneficial to all parties whilst maintaining our independence, and we encourage their active participation, either in the UKDN online community or through our on-line newsletter.

Happy New Year from the Team at UKDN

As we write this the weather is still freezing and its obvious that not many of us are getting out into the fields - all the more reason for you to browse and spend some time on UK DETECTOR NET Forum.

We are now having our Find, Coin and Hoard of the Year competitions so why not jump to the Finds Competition area at viewforum.php?f=29 and cast your votes in the Polls which will be set up very shortly if they haven't already been done so.

What great finds have been made in 2009, what with the Staffordshire hoard, the Scottish Torc hoard and the hoards that you will see in the UKDN Hoard of the Year competition. This proves again that there are still lots of spectacular hoards to be found and one never knows just what that next signal might be.

This year, 2010, will be the 1600th anniversary of the Romans leaving Britain in 410 AD and UK DETECTOR NET will be celebrating this event with a variety of features and events throughout the year. We're sure you will all want to become involved in these.

The forum itself will probably move to a new server in or around March and Karv will keep you all up-dated regarding the progress of this.

The forum itself continues to grow in membership and is running very smoothly.

Thanks to all involved in keeping UKDN what it is during 2009, there are so many of you that we will not attempt to name you all suffice to say that if you have helped in some small way then.... **THANKS !!**

We wish you all continued success and happiness in 2010 and hope you all make some cracking finds in 2010 and share them with us at UK DETECTOR NET !!

UK DETECTOR NET Christmas Raffle 2009 Results

We held a Christmas Raffle which ended on 15th December 2009. 99 tickets were sold and the prizes were bought from Nigel Ingram of Regton at a much-reduced price (Thank you so much Nigel)
The raffle made a profit of £202.80p which has been put towards the annual renewal fees for the server, due in March 2010. The results are as follows.

Results of UKDN Christmas Raffle

Winner of Garrett Ace 250 metal detectors - Number 78 - **pappajohn65**

Winner of 1st Garrett Probe - Number 43 - **Tom Redmayne**

Winner of 2nd Garrett Probe - Number 53 - **Kev Woodward**

Winner of 3rd Garrett Probe - Number 76 - **jon5379**

Well done to all winners and thanks to everyone for taking part

Edward I Farthing Dublin I' ERA/NG/LIE Spinks 6267

by Puffin (Barry Carpenter)

Luck of the Irish

Because of the continuous rain, we were back on one of the club standby fields, easy parking, stubble, big and sometimes very productive. I've had a few very good bits and coins off this field in the last two years. Today was no different. Basically a night soil field, close to a known Medieval village. The morning started fairly well and I recovered a couple of medieval artifacts, plus a couple of hammered coins.

One was tiny, a farthing and was clearly Irish because of the triangle on one side. As is the custom, I put a call out on the walky talky, "Another hammered to the total Jim." And a chorus of hammering hand signals soon went around the field. Jimmytheferret is the club field boss and keeps a record of who finds what, soon he bears down on my position with camera in hand. After a few ooohhs and aaaaarrrhs, we got back to the job in hand, searching the field for more hammered coins and whatever else that often pops up unexpectedly.

Whatever you do, don't let my good lady near your best find of the day. She picked the coin up by its edge to have a look, while I was preparing to clean it up. She felt it go crack between her finger tips. Her name was mud for a week! Even though the farthing had cracked it stayed in one piece and I managed to get hold of a glue designed for jewellery that can be removed in the future. A couple of spots stabilised it from further movement. Oh well! It turns out that these Irish hammered coins where made from a frail debased grade of silver, that and a few 100 years in the ground did the coin no favours whatsoever. Still a nice find after all, even if the wife did not get her Christmas present this year.

Puffin aka Barry Carpenter

Find of the Month Coin

Edward I Farthing Dublin I' ERA/NG/LIE Spinks 6267

by Puffin (Barry Carpenter)

Gold Roman ring depicting Fortuna

By guildy (John Guild)

I arrived at Ulcombe near Maidstone in Kent for the Weekend Wanderers dig at 8/15 on Sunday the 15/11/09 for a 9 o'clock start. By lunch time not a lot had been found, I had heard of about 5 hammered coins, I had only had modern coins and lots of junk as the field that we were on had been used as a pick your own strawberries in the 70's.

In the afternoon the farmer let us on some more fields and I walked though two fields without detecting; then in the third field I picked a lane as I like detecting in straight lines and started off down the lane. It was much better than the morning field, not so much junk, a few buttons and bits and pieces, then, about a third of the way down the lane a good signal!

I put my spade in and turned over the top 4 inches and there was the ring, it would have made a great clod shot but I got so excited I just grabbed the ring without thinking. I was well chuffed, it was my second bit of gold in two weeks as I had had a James 1 gold half crown a couple of weeks earlier off a club dig.

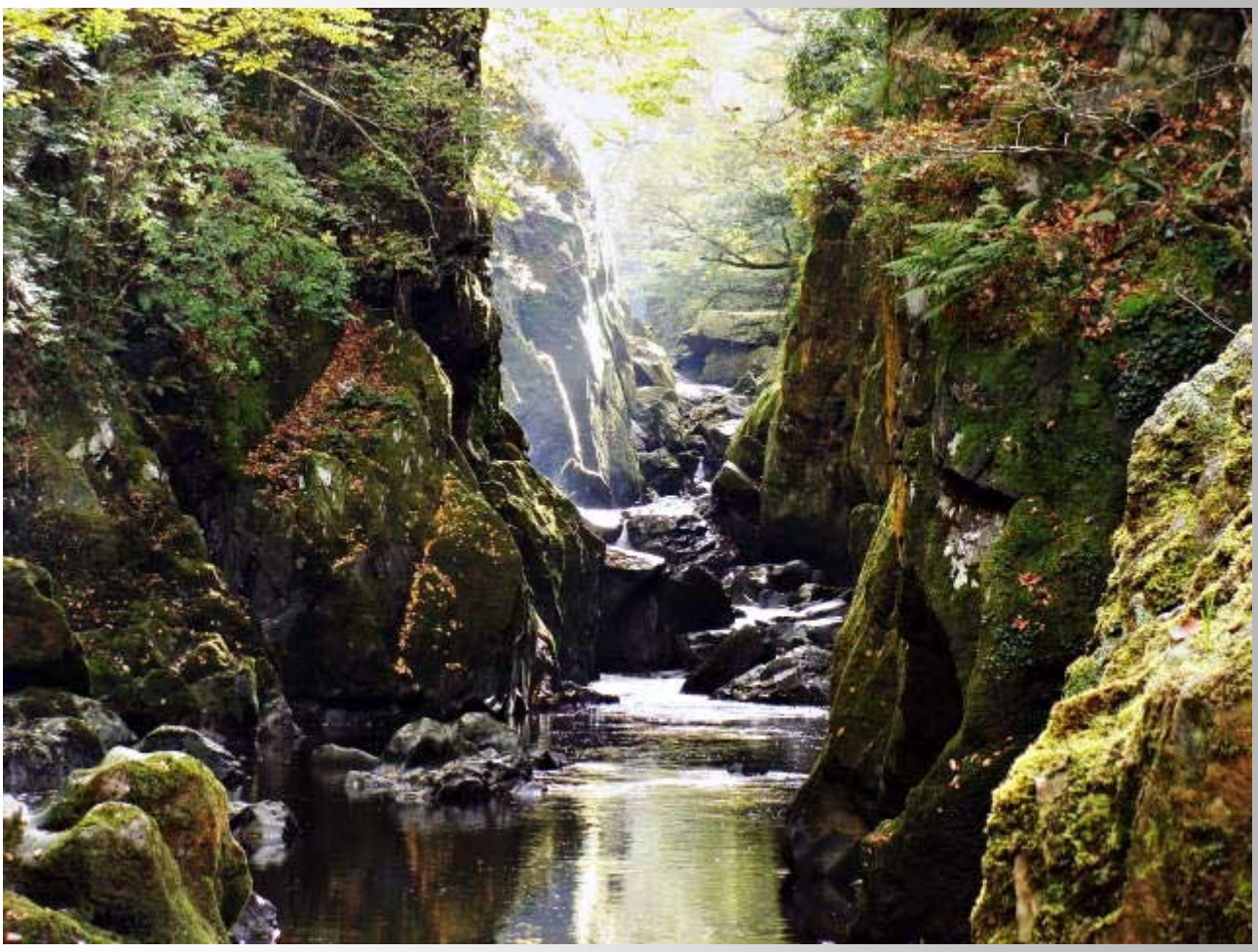
After showing it to every one near me and about three fags later, I started detecting again but didn't find much else - too excited and not concentrating, but really enjoyed the day. I would have done even without the ring as it was nice land to detect on and very well organised, well done WW.

Gold Roman ring depicting Fortuna

By guildy (John Guild)

The Gorge

by cheapo (Colin Jones)



Taken using a Sony dsc - h10

Fairy Glen in Betws y Coed, This is from the Conwy valley, and shows the power of water.

This is my favourite pic to date, hope you like it too

You can view more of Colins excellent photos on flickr—click on the image below

Lost Ring

By Nigel

When Brian Cross posted a request for someone to go find a ring lost in a snowy garden in Bromley South ASAP, a reply came twelve minutes later from Nige 150 taking him up on the offer, other members also contacted Brian by private message. The ring was found after a ninety minute search. Well done Nigel.

A few words from Nigel;

Hi all. It was especially touching because the ring belonged to a chap called Dhiraj who had only flown in from New Delhi, India, two days ago to see his sister, brother-in-law and niece two weeks. Qatar Airways managed to lose his luggage, which eventually was delivered by courier.

Then, last night, witnessing the first snow he had ever seen in his life, Dhiraj managed to lose this special ring during a snowball fight! The whole family were utterly charming and hospitable, and treated us to delicious bhajis, Indian delicacies, hot potato wedges and drinks, and then insisted on offering us a boxed Christmas cake, plus chocolates for the children.

They were very interested in our detecting finds and my son Jake (just 13) told them tales of Roman coins and medieval hammereds! It has made this Christmas very special!

The picture shows (left to right): Rhagav, me, Libby, Jake and delighted Dhiraj

Nigel.

The Bromley Times also carried an article on the find which you can read about HERE

Don’t Panic Captain Mainwaring

by Georgian Tim (Tim Storer)

If you are the sort of person who never wears gloves whilst detecting, eats their midday butties whilst your hands are covered in dirt and never suffered a days sickness in your life then skip this article. However, if you would like a small insight into some of the nasties out there then read on.

With all the dangers from germs, bugs and other small critters out there I am surprised that we don't all spend our weekends in A&E. As the evidence proves otherwise the occurrences of picking up various bugs on the farm are few and far between and we shouldn’t panic but it is useful to be aware of what is out there.

Just about every animal on a farm can pass diseases to people as they do not have places to rest or eat that are away from where they pass manure. Imagine eating your meals off the loo seat and you can see what I mean. Some people are more likely than others to pick up the bugs and there are many factors involved such as age, general health, underlying medical conditions etc. Normally wearing gloves whilst detecting and thoroughly washing your hands with running water and soap before eating is good enough to protect yourself but that is not always practical in the field. Personally I carry an anti-bacterial hand gel with me a bottle of water in the car for hand washing.

So, what is out there? There are too many to list and you would probably fall asleep before reaching the end of this article so here is a summary of some of the more common occurrences:

Escherichia coli often called E. coli. This germ can cause bloody diarrhoea in people. In addition children can develop kidney failure. Most commonly passed from hand to mouth. The symptoms are fairly obvious and are mainly connected with severe stomach cramps and diarrhoea.

Leptospirosis This is also known as Weil's disease and commonly passed in the urine of rats and it is believed to be one of the most common zoonotic infections in the world. Common symptoms include jaundice, fever, joint pain and chills .

Avian influenza This is the bad boy from a few years ago but still a potential problem. The most likely source of contamination is from bird muck in the fields. Symptoms are similar to normal flu.

Campylobacter Another farm favourite as it originates in the gut of most animals and is liberally spread on the fields. Symptoms are the same as salmonella.

Not quite in the same class is our old friend Ringworm. This is a fungal disease associated with nearly all farm animals and easily passed from hand to hand and then to the rest of the body. As the name suggests this leaves a ring shaped red patch on the skin.

Don’t Panic Captain Mainwaring

by Georgian Tim (Tim Storer)

Moving up in size scale we have Ticks. These little critters climb up a blade of grass and wait for their next victim before burying them selves in a bit of exposed skin. Deer ticks are easy to spot due to their size but most of them are the size of a pin head and very hard to spot. Symptoms can vary from feeling sick and joint pain through to flu like symptoms. The worst case scenario is Lyme’s Disease which if left undiagnosed, can trigger serious heart and joint problems. It is estimated that as 2,000 people may now be catching it every year.

It can be treated with antibiotics, but if it is allowed to progress it can become very difficult to beat, leading to long-term fatigue, plus create problems in the heart, joints and nervous system.

I have found the best way to remove them is smother them in Vaseline and cover with a plaster overnight. The next day they can be pulled off without leaving their mouth parts embedded in your skin.

Special mention should be made to Organophosphates. They are not a virus, germ or insect but a group of pesticides that, according to the Environmental Protection Agency (EPA), were first developed during the early 19th century. However, their poisonous effects weren't widely known until the 1930s when the German military developed them for use in World War II as a neurotoxin. Farmers have been using them for years in just about anything from sheep dip to sprays and the residue still lurks in the soil.

They work by disrupting the insects’ brains and nervous systems but the down side is that they (allegedly) do the same to humans which is why it is used in nerve gas and other weapons. They have also been linked with cancer, decreasing male fertility and Parkinson's disease but no one really knows for sure what harm exposure to such chemicals could cause.

Tetanus is the final one I will cover but it is also the most likely we could catch if our boosters are not up to date. There are several variations on the boosters with some people not requiring them any more to some who need one every ten years. I recommend that you contact your surgery and ask them for advice.

It is basically an infection caused by a bacterium called Clostridium tetani which can attack the muscles and nervous system. At best it is a serious infection and at worst it is a killer if left untreated. The germs responsible can live in just about anything but mainly in the soil and dirt and often get into your body through a cut or a wound in the skin.

The South-Lancs & Cheshire Metal Detecting Club has been in existence since September 1978 and for a long period in the 1980's and 1990's the club newsletter was written by both Brian Cross and John Fargher. The front covers were designed by Dave Berry, club member and resident artist. The newsletter front cover became a classic of good humour, hobby relevance and fine design and each month the club members looked forward to what Dave was going to put on the cover. Many club members could see themselves captured by Dave and featured on the cover, Brian & Mo' for example, courting at the time, often saw themselves below a heart carved in a tree or Brian would be featured wearing Wellingtons on the end of suspenders.

Dave has kindly given us permission to feature some of the classic covers and for this we thank him.

Cover Description: *Doesn't need one really although at the time many of us wished a manufacturer would see the cover and incorporate many of the features in a new developing detector. At the time many of us detected the parks and not the fields hence the several references to park keepers, who in some parks, were a pain in the backside. .*

The Queens Seedmen

By Jerry (JBM)

I never fail to look at every item that I locate as often after a wash and brush up they can prove interesting.

The other day I found a Bag seal and so often some folks just push them to one side or throw them into the scrap lead box for a charity fund etc.

I cleaned this one up and noticed that it said Webbs "The Queens Seedmen". Wordsley, Stourbridge.

Well Queen Victoria went through my mind and I decided to follow it up.

This pretty Brochure front cover of theirs from that era coupled with the lead bag seal itself make a nice piece of history to share and pass on to others.

Jerry (JBM)

SHORT CROSS COIN HOARD

By detectavin63 & damo12 (Vince & Damian)

To be honest it started like any other day's detecting, walking aimlessly up and down rows of cultivated land with nothing to show except for pieces of lead, lead and even more lead, with of course the occasional button and viccy copper for that bit of added excitement!

I guess like lots of detecting stories you read in the magazines, most of us think, 'yeah right I believe that', about it starting to come good on the row heading back to the car. Just as I thought I'd had enough for the day, I started to find a few interesting bits starting off with a medieval buckle plate, then a crisp signal from my Explorer II which turned out to be a worn smooth silver disc. Right, I thought, at least I've had my silver for today so I carried on up the field. A few minutes later I got another good signal which when retrieved turned out to be a lizzy penny, in fairly good nick as far as lizzy's go! It was after finding this that I changed my normal detecting habits and instead of carrying on up the same row to the end, decided to turn right after a few paces and come back down the next row, which is where the real story begins.

About two feet from the hole where the lizzy came from I got a really nice pure signal, and this turned out to be my first short cross penny from the field. Great, I thought, three silver coins in about ten minutes, I took another couple of steps and another signal, exactly the same as the short cross, and yep it was another one! The portrait was so good you could see every hair on his beard, but it didn't end there, I turned to come back up the next row and within a couple of feet from the other holes I got three belting signals, the alarm bells really started ringing! I dug the first signal, and guess what, yes, it was another short cross.

By this time my hands were shaking as I knew it was at least a purse loss. Eager to find out what the other signals were I got on with the job in hand, and dug the second and third and both were shorties, it was then that I contacted my detecting partner Damian (Damo) who had just left off work, and told him I thought I'd found a purse loss or maybe even a dispersed hoard. He said he would come over and help me look for them if I wanted which I welcomed - amazing how a 35 minute journey only took 25 minutes this time! By the time he had arrived, I'd had another two, both from within an area of about 12 feet square.

Damian arrived on the field and like a greyhound out of the traps was across to where I was waiting. Still shaking, I showed him the coins which he thought were John or Henry III. After switching on and noise canceling he asked me where I wanted him to start, and after deciding on a few rows out within seconds he had his first signal, another short cross in cracking condition. We carried on for 45 minutes to an hour by which time it was starting to get dark so we marked the spot and had a count up. I had 10 in total of which 8 were short cross, Damian had 6 short cross and a William the lion Scottish hammered dated to the same period. We arranged to meet up bright and early the next morning.

I set my alarm for 6 am even though we were not meeting till 9 and was still wide awake before the alarm. As I was itching to get back on the field I was there by 8.30, waiting for Damian. We made our way to the area and started where we finished off. Going as slow and methodical as we could and even going over the same area as the previous day, it paid off as I had 3 more short cross and a really nice Edward IV Irish penny, suns and roses issue. Damian had another short cross, a cut quarter short cross and a eddy penny. As we walked off the field and back to the car, Damian telephoned our FLO and coin expert, who said he would contact our local archaeologist and get back to us as soon as he could to arrange to visit the site. He phoned back within the hour, and we all arranged to meet up three days later on the Friday morning at 10 am.

I was lucky enough to get out on the Thursday afternoon and went over the same area again in the opposite direction and another 3 short cross coins (it's amazing how easily they're missed!).

Friday morning arrived and we all met up, and after showing them where the nucleus was, they decided to dig a trench 6 feet by 5 feet by 1 foot deep. Myself and Damian took turns at detecting the spoil heap and the hole, and finally after a half hour we got a signal in the bottom of the hole which much to our relief, was another short cross.

SHORT CROSS COIN HOARD

By detectavin63 & damo12 (Vince & Damian)

Edward IV

Irish

John class 5c...Moneyer.. willelm b on Londo

SHORT CROSS COIN HOARD

By detectavin63 & damo12 (Vince & Damian)

On detecting the spoil we had another one from the edge, but as there were no more signals from within the hole, they decided there was no point digging any further. The area was measured and recorded, and we started to back fill.

The total for this season was 23 pennies, a cut-quarter short cross, and a William the lion from the hoard, and a few other hammereds not associated with it.

We are hoping there may be more to come next season, and after a meeting with the landowner and his wife, he has said that when the crop comes off he will either deep plough it for us or maybe even take off the top soil, so here's hoping.

His wife was really interested and very excited about such an important find coming from their land and looks forward to us hopefully adding to them. From our meeting we came away with not only a very happy feeling but also a few more fields and it just goes to show how something like this can open doors and build good feelings between detectorists and landowners. All that I can say is that the farmer and his good lady have our sincere thanks for allowing us to detect on their land because at the end of the day, it may be our hobby, but it's their livelihood.

We will hopefully update you all in 2010 when again we can get on this exciting bit of land.

Happy hunting to you all.

Vince and Damian.

It's the 1600th Anniversary of AD410!

By Stuart Laycock

A Happy 2010 to you all. Probably plenty of anniversaries on the way this year, and here's one of the most important. It's the 1600th anniversary of the end of Roman Britain. 1500th was probably a bigger one, as will be 2000th, but since none of us were around in 1910 and none us is going to make it to 2410 (unless medical science makes some pretty major forward strides pretty fast) we're going to have to make do with 1600th.

Like all anniversaries, it's a time to commemorate the original event and also to think what the original event really meant. You'll be glad to know there's plenty of both planned for 2010.

If you want the full details, go to http://www.410.org.uk, but as a brief run-down, there are plenty of conferences up and down the country where the experts in the field will be chucking the latest evidence around and debating what really happened and when. The biggest conferences are the 'Debating the End' conference at the British Museum on 13th & 14th March, and the 'Emperors, Usurpers, Tyrants' conference at Cardiff University 30th & 31st October. But there are plenty of smaller conferences as well. Then there are going to be re-enactment festivals. The biggest of these looks set to be the Old Sarum 410 event, at the beautiful Old Sarum hillfort 19th-20th June. But again, there are going to be more events elsewhere in the country to mark 410-2010 like the events Comitatus are running in northern England. The archaeologists too are going to be busy digging this year, exploring sites like Binchester, Vindolanda, Caerleon and Colworth in the hope of unearthing more vital information about the end of Roman Britain. And there's yet more great things planned, like a 410 season at Chichester Museum. All in all, by the end of 2010, the End of Roman Britain should have been well and truly commemorated.

By this time, you may be asking yourself two questions: first, why is 410 important to me, and secondly (hopefully!) how can I as a detectorist get involved? Fortunately, as you probably suspected, I've got answers to both.

The thing about 410 is that in many ways it's as important a turning point in this country's history as 1066, in many ways perhaps it's even more important. Before 410 most of Britain was part of a European Empire, with all that meant in terms of cultural and political integration with mainland Europe. After 410, whether you think the break was sudden or less so, Britain was on a path away from Rome, off on its own, a path that lead to a Britain fragmented into small kingdoms, a Britain that would see the arrival of Angles, Jutes, Saxon and Franks across the Channel and North Sea to create Anglo-Saxon kingdoms and eventually England. So if you're English, 410 is the start of the journey that creates your home territory. And actually the same applies if you're Welsh and even to some extent if you're Scottish. The end of Roman control in Wales is the beginning of the process that leads to the creation of the Welsh kingdoms like Dyfed, Gwynedd and Gwent. And even, though, by 410, Rome controlled none of modern Scotland, the centuries after the end of Roman control are hugely significant ones in terms of Scottish history, with the rise of kingdoms like Dal Riata and the arrival in southern Scotland of Anglo-Saxon power.

Just as its natural to want to know where your family comes from, it's natural to want to know where your country comes from. The slight difference is that while you can find out quite a lot about your family just by doing a spot of online census searching, it's been rather harder to find out how Roman Britain ended and England, Wales and Scotland began. 100 years ago, people thought that texts like Gildas or the Anglo-Saxon Chronicle gave an almost eyewitness account of how it happened and that we could take at face value their descriptions of rampaging Anglo-Saxons and cowering Brits. Now we're beginning to work out, that while there are indeed elements of truth in these descriptions, in fact, what actually happened was all rather more complicated.

It seems that Roman Britain had basically collapsed even before the Anglo-Saxons turned up. The economy of late Roman Britain had real problems and then there was something of a credit crunch as the Roman currency collapsed around 410. And when the Anglo-Saxons did finally turn up, Brits may have been just as eager to fight each other as to fight the newcomers.

It’s the 1600th Anniversary of AD410!

By Stuart Laycock

In fact, they may have hired some of the newcomers to fight other Brits. Plus, when the Anglo-Saxons did take over, they probably didn’t entirely wipe out the Brits in Eastern England. There may have been a process of at least some Brits adopting a new Anglo-Saxon culture, just as they’d previously adopted a Roman culture. And just because Britain had left the Roman Empire didn’t mean that Britain had lost total contact with Gaul and the Mediterranean beyond. In fact, there are signs of continuing links.

We’re beginning to get a clearer picture of what happened in the period after the end of Roman rule, but we need even more information still to answer all the questions that remain, and this is where you come in. With UKDN, we’re going to be making this coming September ‘410 Month’ for detectorists, as part of the 410 commemorations. And what we’ll be asking you to do, is to trawl through your finds old and new looking for anything that looks Roman or early Anglo-Saxon. To help you, we’ll be running a few articles here and in the detecting press telling you some special types of artefact you can look out for. If you think you’ve found something, just take it along to your local PAS Finds Liaison Officer so it can be recorded and help us build an even better picture of what 410 meant then and means today.

Stuart Laycock

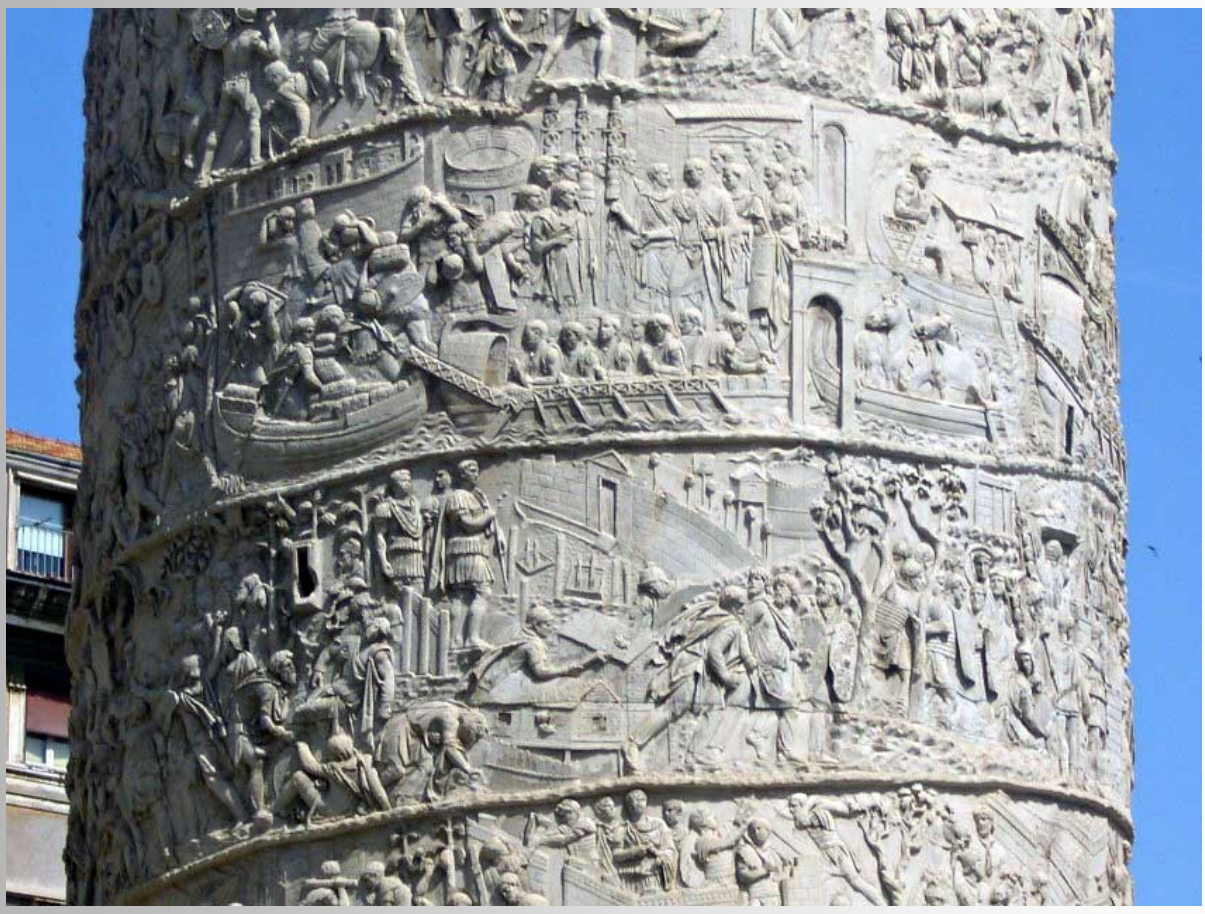
Always follow the Code of Practice for Responsible Metal Detecting.

The walls of Roman Silchester. Why were the cities abandoned?

It’s the 1600th Anniversary of AD410!

By Stuart Laycock

A rare fragment of Quoit Brooch Style strap end. We need more QBS examples to understand their significance.



The Roman army in action on Trajan’s Column. 410 marked the end of all this in Britain.

My Favourite Field

by Donnydave (Dave Watson)

I imagine everyone who goes metal detecting has a favourite field and they probably change yearly as new search permissions are obtained and an interesting new field comes to light. My favourite, obtained this summer has been left fallow over winter so we can visit it regularly over the coming weeks.

On our first visit I found a medieaval harness pendant a few buttons and copper coins, but then every visit seemed to produce more interesting coins and artifacts. This field is also attractive with a nice view of the surrounding countryside and the shiny ribbon of the river Humber in the distance, and a little copse at the bottom of the slope.

I have had silver coins from a Roman denarius, an Elagabalus 221AD and a Saxon sceat (710-760) my first ever

Also hammered coins from numerous reigns including Richard 1 penny (1189-1199), Henry 111 short-cross penny (1216-72), Henry 111 longcross cuthalf (1247-72), two Edward 1 farthings(1272-1307) one an unrecorded type with E R ANCLIIE in the legend instead of the usual E R ANGLIE. A Henry V penny (1413-22),a Elizabeth 1 threefarthings (1558-1603), a James 1 Irish sixpence (1603-25), and a Commonwealth half groat(1649-60).

My wife one day decided to try her hand at detecting and on the couple of visits she made to this field using a Tesoro I bought for a back up machine she found the Commonwealth half groat, a lovely pair of roman tweezers,a roman brooch, a small buckle and a roman button and loop fastener, she was well impressed with my favourite field.

On top of this there are the finds that my detecting partner Dazz has found on here, not as many as me but quite a few. All these finds have been recorded with my local FLO, and I am wondering how all these great finds got there, we have had a few finds from the surrounding fields but nowhere near as many as the finds on this small field.

Best wishes to everyone for the New Year and good hunting - Donnydave.

Metal Detecting Surveys on Historic Battlefields & Beyond

A Simple Methodology

(Draft)

Adapted by Tim Sutherland from the Edgehill Battlefield Survey Methodology with modifications: with acknowledgement & gratitude to the Battlefields Trust

Please record your finds with the Portable Antiquities Scheme (PAS)

for the benefit of future generations

INTRODUCTION

Several historic battlefield archaeological surveys have now been undertaken in Britain using hand-held Global Positioning System (GPS) instruments. Many of these have been carried out using the following methods or close parallels. In order to compare the initial spatial results of as many of these surveys as possible a similar method can be used. Each survey might then require amended survey strategies so that they are tailored to each specific site and its conditions.

Ideally archaeological surveys should be undertaken using the most accurate system of recording available to the surveyor. The accuracy of each find can also be recorded to potentially within millimetres if a traditional total station or precision GPS system is used together with the hand-held GPS units. If the hand-held GPS is used in isolation the accuracy will be in the order of metres, depending upon a number of factors, including the satellite 'visibility'.

Individuals, such as amateur archaeologists or metal detectorists working independently within a field can now record the location of artefacts found on or just below the surface of a ploughed field. Those willing to do this, and pass on this relatively accurate information to the general public by allowing access to it, will add to and not subtract from the value of this archaeological resource.

Note: During the metal detector survey it may not be possible for the detectorists to wear steel toecap footwear. If such requirements form part of a site's Health and Safety Policy this matter should be addressed before work is initiated.

REQUIREMENTS FOR THE SURVEY

The archaeological survey team will require:

- Geographical Information System (GIS) program capable of downloading data from most GPS systems (if this is not available an alternative method is to down load the data straight onto *Google Earth*)
- Traditional Total Station or precision GPS system
- Digitised map of the survey area
- A number of (at least 100 for every 5 detectorists) survey marker flags (plastic flags on wire stems) in at least two, but preferably three different colours (currently £9.00 per 100: April 2009)

Each metal detectorist will require:

- Metal Detector (good quality with discrimination mode eg. Minelab or Whites)
- Hand-held GPS capable of recording Trackpoints and Waypoints (e.g. Garmin eTrex Vista or Ventura)
- Spare batteries, carried at all times, so that the survey and recording can proceed in the event of battery
- Failure, cable ties, reusable rubber ties or factory made mount (to connect GPS to top of detector shaft)
- Plastic finds bags of varying sizes, preferably with white strips to allow written text
- Indelible pens (at least two) and back up 'ball point' pens (for emergency if other pens fail to write)
- Additional coloured survey flags (of different colours) to mark find locations

SURVEY METHODOLOGY

Baselines

The baselines are laid out on either side of the field or area to be worked prior to the start of the survey. This can be done using either a long tape measure (30 or 100 metre), or another suitably accurate measure. An approximate right angle for the alignment of transects from a boundary is preferable but as long as the transects remain the desired distance apart this is not crucial. Ranging poles with a 'cross-sight' ranging pole, or an optical square, can be used to give a right angle of greater accuracy.

Transects

The transects should be initially laid out at 10m intervals parallel with, or perpendicular to a convenient boundary. If a deeply ploughed field is to be surveyed then the survey should, wherever possible, be carried out to walk across, and not along the furrows. This has been shown to increase the number of artefacts located during metal detector surveys. On a linear site such as on the proposed route of a new road or pipeline, 'rolling' parallel transects will make for a more user friendly survey in that they allow a break in the routine at the end of each transect. These should therefore be aligned *across* the route of the linear site so that a continual pattern of parallel lines progress along the site (like railway sleepers and not like railway lines). This will also ensure that the team remains in the same area and are not dispersed over a great distance

Each transect is marked by at least two flags of the same colour so that each detectorist can follow a single colour along a given transect. Each transect is therefore marked by a different colour to those on either side of it (at least two or three different colours are therefore required). Each long transect (over 50m) is marked by more flags of the same colour so that they can be seen as the detectorist proceeds across the field.

Each detectorist makes a single traverse from flag to flag across the field. Upon reaching the other side of the field they then move on to the next transect, which has not been surveyed, to return. This could be many tens of metres away if there is a large team of metal detectorists working at one time. Caution must therefore be applied not to either miss out or duplicate a transect.

Detectorists must also be aware that the signals of some metal detectors (and in some case radio headphones) interfere with those of others and so if this occurs a greater distance should be allowed between such instruments.

Each member of the team is encouraged to walk at a similar pace and scan a similar amount of ground on each sweep (approx. an arc of 1- 1.5 metres) in order to minimise any survey biases. This is intended to provide a consistent sample of the artefacts across the whole field.

The use of hand-held Global Positioning System (GPS) units now provide the ability to track, and therefore permits a clear understanding of, where each detectorist has walked and where they stopped for longer than a few seconds, for example when they find something. Typical GPS units are the Garmin Etrex Venture or Vista. Each detectorist carries a GPS unit set to record their location (Trackpoint) every 15 seconds during the survey. The units usually hold many hundreds of these Trackpoints, enabling a whole day's survey to be logged.

At the beginning and end of each transect the detectorist records a Waypoint to confirm the transect length detected. When downloaded into a Geographical Information System this data enables the actual spatial coverage and timing to be accurately mapped. This provides information on exactly how much time was spent prospecting as opposed to digging, as well as time not detecting. The intention is that this will provide an effective method to compare surveys on different battlefields.

Data can also be downloaded straight into Google Earth. This enables the Trackpoints and Waypoints to be automatically superimposed upon an aerial photograph of the field under survey.

Each archaeological find, which is or may be, for example, a battlefield related artefact, and any other potentially significant artefacts (whether earlier or later) are separately bagged when found. The GPS is then used to record a Waypoint. The GPS unit stores the time and 10 figure grid reference for each Waypoint. The finds bag is then marked with the detectorist's initials and the Waypoint number so that it can be tied in with the GPS data downloaded into the GIS later. When the work on that field for that day is completed then all the finds bags from that field from that day are then placed together in a single large bag and dated. Brief notes are also made as to the land use, soil conditions etc. of the field, weather and other information relevant for the understanding of the effectiveness of the detecting on that field on that day. The metal detector used by each detectorist should also be recorded.

WHAT TO RECORD?

The question of what should or should not be recorded often arises. Much of this will depend upon the site in question and the objectives of the survey. As a vague rule unidentifiable ferrous/iron should be replaced in the hole from whence it came, unless there is a good reason not to do so. This means that the item does not have to be subsequently analysed, potentially X-rayed and conserved unnecessarily (a difficult and costly exercise). Non-ferrous items should be recovered at the discretion of the person who is leading the survey. For example, scraps of lead could appear meaningless but they might represent lead collected to remould into bullets that were subsequently lost again. Distorted lead finds might be a former lead shot that has hit something after firing. Lead balls from 'pistols' and 'muskets' should always be recorded as this information is of great importance to Battlefield Archaeologists. Likewise, in Britain, areas of .303 cartridges might show where, for example, WWI or WWII activity has been undertaken, for example by the Home Guard. As a rule, if in doubt, either record it or replace it in the ground. The artefact is better left in the ground to be recovered at another time than to be thrown away or left unrecorded.

If a find is located, which might potentially form part of a hoard, for example a silver or gold coin, it is a good idea to finish the transect and then return to the site of the find in order to scan around the location (at about a 3m radius) before moving on to a new transect. By doing so any other finds associated with the first one will be discovered and therefore identified as part of the same collection or hoard.

PROCEDURE TO START SURVEY

Each GPS instrument needs to be identifiable (for example by the user's initials) so that its data can be associated with a particular metal detector. If the initials of any detectorist are duplicated then full names should be written on the finds bags and not just initials. The batteries in each GPS should be either new or have a good charge. A DOUBLE CHECK SHOULD BE MADE THAT ALL COLLECTED DATA HAS ALREADY BEEN DOWNLOADED AND SAVED.

The GPS Instrument:

Go to Trip screen – check all fields have been reset to zero (if data already acquired has previously been downloaded)

Go to Satellite screen and allow GPS unit to find satellites (ensure not beneath or close to trees or buildings etc)

Ensure 10m or better accuracy achieved before starting survey work.

GPS unit is attached to the stem of the detector by suitable method (purpose made mount, rubber shrub ties or plastic 'cable ties'), which can be undone or snipped off with wire cutters at the end of the day. Locate the instrument on the shaft to ensure that the GPS unit always has a good view of the sky and can accurately record the Trackpoints and Waypoints for the survey

To conserve GPS memory, to ensure it has storage space for tracking for the whole day, and to aid battery life, turn off GPS during long breaks and turn it on again when re-starting.

FIELD RECORDING PROCEDURE FOR DETECTORISTS

Always work with GPS showing satellite screen and, before recording a Waypoint for a find, check accuracy on satellite screen readout. If the accuracy is not down to 10m or less then hold out in front of you level and allow a few seconds for it to settle to 10m accuracy. If under trees etc then accuracy may not recover.

Mark the beginning of the transect with a waypoint and begin detecting. At the location of a find record a Waypoint and write the number on the bag and place find in the bag. To obtain a Waypoint number, press the appropriate button. A Waypoint flag appears with a number in it. Write that number on the finds bag together with your own initials. Press the button again and release immediately. The satellite screen should return – if it does then the Waypoint has been stored in the GPS unit. This is the point where there is the potential for incorrect recording because if the Waypoint has not correctly stored in the computer then the number will be repeated again next time a find is to be logged. If any other screen than the Satellite screen appears it is because the wrong button has been pressed. In such cases use the appropriate button to scroll back to the satellite screen and repeat the procedure. This may give you the next Waypoint number if you had actually stored the original number. It does not matter if extra Waypoints are stored that do not have accompanying finds as these points can be discarded when the data is correlated on the computer. At the end of a transect record another Waypoint.

Always work as consistently as possible. If an interesting find is discovered always finish the transect before stopping for any reason other than recording it, for example, when discussing the find with other detectorists. Otherwise the transect times will be affected both of that of the finder and potentially of that of the person or people sharing the discussion.

RECORDING A FIND

To record a find place it in a bag, write ones initials and the waypoint number on the bag, pierce the bag with a spare flag (of a different colour to that of the transect flags being worked) and stick the flag in the ground to mark its location and continue the transect. If the survey is also to be recorded by a GPS/Total Station then leave the flags and finds to be recorded and collected by the surveyor. This gives the best possible accuracy for each find. After the field has been detected and recorded recover all of the finds bags and all of the flags. Make sure the field is given a number and also write that on all the bags. Each find will therefore have a field number, a finds number (Waypoint) and the initials of the person who found it.

FINISHING THE SURVEY

At the end of each day the survey data from each GPS unit should be downloaded into a Geographical Information System. It can also potentially be downloaded onto Google Earth as a backup. If the GPS units are to be removed from site and downloaded by a single person each instrument will need to be identifiable to its user, preferably by his or her initials written on the GPS. The instruments can then be emptied of their data each evening to allow for the capacity to restart afresh each morning. DO NOT EMPTY THE INSTRUMENT OF ITS DATA UNLESS THE INFORMATION HAS DEFINITELY BEEN DOWNLOADED.

(If necessarily the batteries in all instruments need to be checked and potentially replaced or recharged each evening).

FINDS DATABASE

Back in the office a database (e.g. Microsoft Access) of all of the finds can be constructed so that each find is given a description by type, period, material, etc. The spatial data, which this type of survey records, enables the information to be analysed and maps produced that show distributions of artefacts under different criteria. Roman coins, for example might show the location of a buried villa, arrowheads or lead balls, the location of a conflict, etc. The Trackpoints within the data allow the location of each detectorist to be mapped over time and distance and therefore show the area coverage.

HOT-SPOTS

If a particular type of find appears to be concentrated in an area of interest then subsequent surveys can be carried out using closer transects, for example at 2.5 metre intervals. This should show if other similar finds are in the same area. Using this method even relatively dispersed archaeological sites, such as historic battlefields can potentially be identified.

GPS SET-UP

- Interface: Garmin
- Units: Metric / British National Grid
- System: WAAS enabled / Normal
- Time: 24hr / London zone
- Display: 15 second time out/ Contrast low
- Tracklog: don't wrap (data is not overwritten when instrument full)/ record time/ interval 15 seconds

SOME RELATED WEBSITES

Centre of battlefield archaeology

CAIRN - Conflict Archaelogy International Research Network

Guardian - Maev Kennedy Article

Towton Battlefield Society

Times Online - Towton, the bloodbath that changed the course of our history

UK Battlefields Research Centre - Edgehill metal detecting survey

BAJR - Battlefield archaeology - A guide to the archaeology of conflict

Many thanks to Tim Sutherland for permission to use this excellent document and to the producers of the websites above for such valuable information.