GMT20230330-180510_Recording

📦 Mon, Apr 03, 2023 1:40PM   🕐 44:06

SUMMARY KEYWORDS

lidar data, features, landscape, lidar, archaeological, area, project, data, portal, volunteers, record, bit, layer, identify, interpretation, transcriptions, people, aerial photography, historic, information

SPEAKERS

Rebecca Bennett

00:03

Okay, so welcome everybody, it's really nice to see so many of you here this evening. I hope you can all see my screen share. And what I'm going to talk to you a little bit about today is the Champions of the Past project, the LIDAR portal, we're going to run through really an introduction to how this project sits within the rest of the offering. For the chasen chalk project, though, I'm assuming that many of you will actually be familiar with the Chase and Chalke scheme, so I won't be dwelling too long on that. I'll talk a little bit about the LIDAR data collection itself and why that was chosen as a method of investigating this landscape and what it's going to hopefully tell us, and then we'll get dive straight in have a look at the citizen science and the LIDAR portal. I'm going to run you through a bit of a training taster. So we're going to talk about some of the concepts that you'll go through when you do the training, that's all available through our online modules and then a little bit about the project outcomes and what's next. And we'll have time for questions at the end. So thank you very much for coming. Let's dive straight in.

01:09

So the champions of the past project, which you're all familiar with, is a landscape partnership scheme, currently managed by Johnny Monteith and I've been brought in as a specialist, with a team who worked with me specifically to develop deliver the citizen science elements of the champions of the past project. So the champions of the past is really designed to be able to help local people engage with the cultural heritage of their landscape and this runs alongside a whole series of other natural environment and educational projects as part of this wider lottery funded scheme.

01:46

What do we mean by the the landscape partnership? Well, the landscape partnership area, unfortunately, is not the totality of the Cranborne Chase area of outstanding natural beauty, but this area here that stretches from the region of Tarrant Gunville, in the southwest up towards Stratford Tony in the north. And this is quite a large area across which we've been lucky enough to get a high resolution LIDAR acquisition that is going to be the focus of our study as part of this project.

02:18

The area itself 254 square kilometres, it's predominantly rural and a very agricultural landscape. It's also of huge significance not just for cultural heritage, which is, of course, what we're here to discuss predominantly tonight, but also the natural heritage of the area. And I think it's fair to say that although there are some extremely well known and famous archaeological sites within the area, there is an awful lot more as yet unrecorded and and to to be discovered and to be better understood.

02:51

So what really are we aiming to do with Champions of the Past project? Well we really want to engage with all the communities so those people who are self-selecting and really interested in coming and doing skilled projects such as this, but also through local schools and various other forums, to raise awareness and inspire people to get involved with both investigating and looking after the heritage of their landscape. And this will be delivered, in part through making things like the LIDAR data and new skill sets accessible to people. So training is a really important part of what the project offer, but also the opportunity to get involved and do things proactively. What we hope to achieve by the broader champions of the past project is that there will be 15 archaeological sites that are in better managed and improved condition. So these are what we sort of promised at the Heritage Lottery Fund as a result of them giving us a nice amount of money to do this work. That we'll have more than 200 new sites identified, recorded and investigated and we'll talk a little bit more about what that means, as we go through the rest of this evening; that two new volunteer groups will be established for the long term legacy and continuity looking after sites within this landscape, and that will have close to 500 volunteers involved with the project. It's also really important that we engage with landowners and help them to understand the heritage of the landscape that they are curating and managing and working on behalf of us all. And then when I mentioned earlier, the wider community impacts this is also really important, to be able to take the results of what we're doing to share them with other people in the community to embed them into educational resources that I know the project is developing for schools, and to really allow the widest possible access to the information that the LIDAR data and other Heritage Resources hold for us.

04:49

Really, we want to see the impact of this project in terms of how well understood and managed the landscape is after after we've done all this work? We're looking to see a tangible improvement in the condition of archaeological sites. So of course, that starts off by assessing the condition of the sites currently, and looking at ways in which they could be managed differently or better. And really, the the most important outcome here is the upskilling. So the ability for local people to really understand and to engage with the sort of tools that will help them to manage the landscape, and understand the story of the landscape better.

05:31

We have, broadly five phases, and I'm going to talk about a few of these today and apologies if you've heard a little bit about this before, but I think it's important to set where this project is in the context of the other heritage themed projects within the landscape scale partnership. So we have LIDAR data

collection, I'll talk a little bit more about that in a moment, what LIDAR data is, why it's so important, and why it's been acquired for this particular landscape and what we're going to do it There's periods of community engagement, some of which have been ongoing for for many years now. And of course, during the period of COVID, the landscape scale partnership team have had to be really innovative with the different ways in which people could engage with these data.

06:11

The main subject of today, of course, is the Cranborne Chase LIDAR portal. So we're going to talk a little bit about how that works, what you might expect to gain from volunteering with that particular project and what we're aiming to achieve through it. Then leading on from that there are a series of what you might call physical interventions. So opportunities to go out actually into the landscape, having looked at it through this amazing digital resource, you know, sort of at your fingertips in your home, but then to go out and look at these sites to survey them to understand them better. And we'll talk a little bit as well about the feedback loop and why going and looking at sites on the ground and investigating different types of sources really improves the way that you can interpret the LIDAR data, and the sort of static resources that you have available through the portal. So trying to help people with an understanding in the round of this process of interpreting the different features that we're seeing, to fully understand the modern and also the historic landscape. And then the final phase moving on from this walkover survey, the investigation of features that we've identified through the LIDAR will be some geophysical survey and small scale excavation at sites as yet to be identified. Because of course, the whole point of this is that these projects lead on from each other and allow volunteers and the staff on the team, an opportunity to really be involved in each of the stages of the decision making process of that sort of archaeological process, that investigative process as we go through.

07:45

So a little bit to this, I've already mentioned that the community engagement has been going on for a while around these champions of the there has been local pop up events, archaeology, walk and talks, festival of archaeology, engagement events, online talks, particularly those were important while having to keep our distance during COVID. And I've already mentioned some work with local schools and community groups. Really, this is an ongoing enjoyment and challenge for the for the project team to be able to share the work that we're doing. And if any of you wish to be involved in these kinds of things, then certainly let the team know, because it's always wonderful when volunteers can share their experiences it brings a whole project to life.

08:33

The LIDAR data collection, what sort of where does that sit within what we think of as, as kind of traditional archaeological investigation of the landscape? Well, most of you probably know what LIDAR data is, but for those of you who don't, it's a high resolution metric survey of the landscape. And what do we mean by that, we mean that a little way back. I think in 2020, this data was collected, we had an aeroplane that flew backwards and forwards across the landscape collecting many, many, many measurements of the surface of the ground. The principles underlying LIDAR survey are pretty simple to, to understand, if you know the speed that something's travelling out, and the time it takes to get from A to B, you can work out the distance between A and B. So we know that

the laser is travelling at the speed of light. And we can calculate the time it takes to get from the plane to the ground and back again. And therefore we can work out the distance between the plane and the ground. And if you do that, again, again, again, millions and millions of times over across this landscape what you're then left with is a cloud of points, a cloud of height points across the landscape, which allows us to model really accurately two within a few centimetres, the ground surface.

09:51

So that's sort of a very brief introduction to what Lidar is, but why would that be useful? Why would that be helpful? For us as archaeological archaeologists, why would we want to collect this kind of data? Well, are the tools that we have available to us to analyse the landscape from the air principally, are things like aerial photography, we've got a very long history, more than 100 years of examining aerial photos for identifying archaeological sites, and features of historic interest within the landscape. The problems with aerial photography without going too deeply into it really are around the seasonality and the variability of the presentation of archaeological features within those photos. So you can take the same photo, and I've seen examples of this, only minutes apart, and archaeological features will be visible in one photo, but not in a second. So while aerial photography is a really hugely important resource for us, it's also quite a partial way of surveying the landscape. And we have to do multiple repeated acquisitions over different years through different crop types, in order to be able to collect a more holistic picture of what might be going on in terms of the historic landscape. And of course, the real Achilles heel of aerial photography is any area where there was woodland. And we know that across this Chase and Chalke landscape, we have a lot of areas that are wooded, and of course, you will only ever be able to see the top of that of that woodland canopy when you're looking at an air photo. Now, because LIDAR data is collecting height points, lots and lots of them, you can do some really clever filtering with that point cloud which removes those vegetation features. So trees, bushes, houses, manmade objects, also, you can choose to remove those from the models. And so what you're left with then, is what we call a terrain model, the surface underneath the vegetation. And so that allows us a glimpse really from the for the first time, the terrain underneath vegetated areas across a whole landscape. So while LIDAR can't show us crop marks in the way that aerial photos can show us crop marks, or you know, differences in vegetation, what it can show us is that micro topographic change, those little lumps and bumps that relate to all sorts of different activities that people have been doing in the past. So if you think about almost anything that a community might do be that agriculture, be it, land division, be burial, be it developmental building, even right the way through to the modern age, think about how each of those activities would make a change to the surface of the land. And that's really what we're trying to identify those different changes. And then we'll look to categorise those changes as to whether they might be modern, or historic, archaeological.

12:41

So, back to our LIDAR data, as I've already mentioned, it's very high resolution, we're really lucky. Some of you might be aware that we have environmental agency LIDAR data available as well give me a quick wave if you've heard of the environmental agency archive. Yeah, so you'll be aware that we're going to have one metre data for the first time this year for the whole of England and also for Wales, which is a huge step forward in terms of availability of public LIDAR data. Now that data is only one metre resolution, however, which, as you can imagine, it makes it a little bit tricky if we're looking at quite small features. There's a general rule of thumb when it comes to remote sensing, which is

what Lidar and aerial photography, category of research that they sit under, which says that you shouldn't be trying to identify features that are less than three times the resolution of your data. So if we think about the Environment Agency, one metre resolution data, the smallest feature we should hope to identify within that data has to be at least three metres in any given dimension. So that's actually quite large. Now, our Cranborne Chase bespoke LIDAR data is 25 centimetres, so three times 25 and we're looking at a feature that's only 75 centimetres, so anything that 75 centimetres and above, we should expect to be able to see present within the LIDAR data providing it's got a topographic form. So hopefully that gives you an illustration of the difference between the quality of the generic Environmental Agency data and the kind of bespoke data that we've been able to acquire thanks to funding from the from the Lottery Fund.

14:24

So this data is acquired, it's processed, it's turned into various different visualisations that help us to see the microtopography we'll talk a little bit more about that in a moment. But then what do we do with it? Because actually, it's a huge area more than 300 square kilometres. And that's a massive task. And the most successful ways of looking at these big bespoke LIDAR datasets for Heritage have been through citizen science projects. So this is why we partner with local communities, in order to be able to collect information from the LIDAR data to do that interpretation of archaeological sites. There's an obvious benefit for the heritage and for the archaeological record and that more records are able to be collected, because we've got more people working on it, and many more people trained in the art of understanding this landscape. But there's huge benefit in terms of the quality of our interpretations. And this might run a little contrary to where some people think about citizen science. Because some people might say, well, you know, the people who are coming into to work on these projects, just ordinary members of the public, how can they possibly have, the background and experience that a professional would have. And I would argue, of course not, we're not expecting, 20 or so years of aerial archaeological interpretation expertise from this task. But what they bring invariably is their experience of living in the community of walking these landscapes of working these landscapes over many years, the different professional professionalism and skill sets that they are all familiar with. We have shown time and time again, from work within the South Downs National Park, the Secrets of the High Woods project that some of you will be familiar with and we've got currently ongoing projects in Kent and in in Surrey, and also one that's just finished in the Chilterns that many of you will have heard of. Time and time again, this experience of the landscape and passion for the landscape really adds more than the sum of the parts to the work that we're doing. And, of course, as as you're all here, tonight, we know that you guys are perfectly capable of learning about archaeological interpretation and understanding the landscape and we're really, really happy to teach you and to work with you on this sort of project.

16:46

So to make it easy, because it's not entirely easy. You've got these LIDAR comes with enormous datasets, and you have to do quite a lot of work. But you have to put it into geographical information system GIS, for short. So how do we make this accessible to as many people as possible? Well, we do the hard work of hosting the data for you. And what we've created in the Chase and Chalke LIDAR portal is an interactive map that allows you to switch on different layers, not just the LIDAR visualisations, but also historic maps, information from the Historic Environment, record the sheduled,

monuments, sample transcriptions, and we'll take a look at all of this in a minute. And the idea is to bring everything together for you in a location that makes it as easy as possible for you to interact with the data and for you to record information that you see.

17:35

The LIDAR visualisation themselves are provided a seamless layer, so there's no joins between them, you can see every scale from the whole area, right the way down to a few metres. The role of a mouse, we've got, as I mentioned, the Historic Environment record data, it's important to say that that's from three different counties. So from Dorset, Hampshire, and Wiltshire has all been brought together, so that that's all at your fingertips as well. Each of those records allow you to link through to the original hosted record to so you'll see the summary within our portal, but then you'll also be able to link through to the full Historic Environment record from each of those locations. We've given you background mapping, modern satellite imagery, but also modern and historical Ordnance Survey mapping so that you can situate yourself within the landscape and compare the features that you're seeing within the LIDAR data to those which might be known from historic maps.

18:31

And to help you on your way, we've also arranged for the professional transcription of areas within the Chase and Chalke project so that you can look and see what an archaeologist with many years experience of looking at these types of data thinks about it. And most importantly, within the portal, we've also got all our online training, and I'll talk about that in a bit more detail in a moment. So that's that's all the resources that you need both to learn about it, but then also to reference back as you're undertaking the project work.

19:00

So this is what the portal looks like. We've got an area on the left hand side for you to record information, and of course, the map takes up most of the screen on the right hand side. And sitting there between the two we've got this area of our legends, the various different map layers that you can use. These get switched on and off using simple checkbox, hopefully that's fairly intuitive. And any layer that has a raster layer, so by that we mean an image layer, can also have its opacity change, so you can make it more or less transparent so that you can layer up and see through different layers. So without further ado, let's go and have a little bit of a look at the portal and you can see how it works live. So first of all, there's a typical cookie statement we're not going to ask you to sign your life away, but just to let you know that we do collect some user information, in part to satisfy the conditions of the Lottery Fund so we know how many people are using the site.

20:02

So you see here, we start off with three different features switched on My Features. So things that are in blue that are things that I've transcribed, Reviewed Features. Now, these are features that have been transcribed by the general public and then reviewed by a smaller group, comprising professionals, but also some more experienced volunteers. And the point of that review process is to help reassure you, that your contributions are not just drifting off into the ether that they are being

considered and they are being looked at, and compared to the rest of the professional knowledge. And also to help with that feedback loop so that when you've made some transcriptions, you can look at the review of those transcriptions and and build that into your future interpretations. And as you can see, the vast majority of these at the moment are, in fact, unreviewed features. So those are the ones in pink. And you'll see as we zoom in the map is fairly quick to refresh. So these are what we call polygon features. So they are individual shapes that have been drawn on the landscape. And if you click on any one of these features, you'll see it brings up a field record so that you can see exactly what was written and what has been recorded for any existing feature that's been transcribed.

21:29

So that explains the first three types of features. Essentially, they're things that you and other volunteers have added to the LIDAR port or coloured in three different ways. So that so that we understand where they are in the process of being being transcribed and being reviewed. We've got the Chase and Chalke project area, which is a large boundary that encompasses the entire coverage, just so that you know where that is. And then this next layer down is the archaeological transcription. So these are the areas that have been looked at by the experienced professional archaeologists. These transcriptions have been done in order to help you to have a bit more of a pointer as to what the features might be as you're looking at the LIDAR data. So here you can see, we've got a sample LIDAR transcriptions layer, this is a bank or earthwork, that's the category of feature, then you can see the sort of description that our professional, Emily, has put in there. All of this information seems like a lot, but it's there to help it's there so that you can cross reference it and help you to feel more confident.

22:36

So those are the sorts of those are the polygon layers that we've generated as a project or you've generated as volunteers. And then we have some some data that we've brought in from other sources. So the first of those is shedule monuments, you can see they appear here in orange. And they are also all labelled. And the reason they're labelled is because it makes it easier for you to find the reference for that feature, if you happen to be recording a feature that's associated with it from the LIDAR. Each of these features is a hyperlink to the scheduled monument record. So if we zoom in and take a look, we can see here that by clicking on it, we're able to access the hyperlink. And that will bring us to the Historic England list entry. And this is quite a nice one, actually, just by just by happenstance that we've got an image associated with it, the official list entry here, which gives you more information about the reasons for designation and this is nice archaeological information that helps to enhance your interpretation of what's going on in the landscape. In a similar way, we're also able to view those HER monuments that I talked about. So the HDR data are represented as points in this in this interface rather than polygons. And that's the consistency because not all of hrs have polygon eyes data. In fact, the vast majority of HER is in the UK are still working with point based data. So what we've done for consistency is make sure that any polygons have been changed into centroid (that's a central point). And as with the scheduled monument data, clicking on these gives you a summary of the information and then a link through to the, in this instance, the Wiltshire Historic Environment record for that where you'll find more information on that particular site.

24:33

So now on to the most interesting bit, perhaps it's all very interesting. I shouldn't say that.

Archaeological professional shouldn't have favourites, should they!? But we then get on to the different background layers that provide us with the information that we're interested in looking at. And the default layer here is something called the local relief model. Now this is a particular version of the terrain data so there's the data without woodland or buildings in it, that specifically highlights small scale features. If we take a little look at this area here, hopefully you can see that fairly well on my screen, I know that it's not always easy through through a zoom recording. But here you can see the faint outline of a field system running right the way across the top of this, these modern fields are within this area. So that's our local relief model. And we can also look at the same area in a hillshade. Now, this is a more common archaeological visualisation of LIDAR data. If you've seen LIDAR data, you'll definitely come across this one before. But as you can see, with the hillshade, there are some elements. So say, for example, on these on the size of these coombs here on the on the slopes, where it's just not quite as easy to identify the features or to work out if there are positive features. So something like a bank, or a mound, or a negative feature, so a dip a hollow, sort of a bowl Barrow or or chalk pit type feature. So by combining these two, the local relief model and the terrain hillshade, you're able to get a really good picture of what might be going on.

26:13

And one of the clever ways that we can combine the two as part of this portal is to use something called the keyhole viewer tool. So this little tool is accessed by the little green keyhole on the left hand side there. And what it allows us to do is open up this little pop up window that sits above the portal. And by clicking at the top of that window, we can move it around. and we can also make it bigger and smaller. This allows us effectively to view two different visualisations at the same time, but without changing the transparency. So they're both as sort of, you know, perfectly non transparent, perfectly opaque, and visible at the same time.

26:53

And you can see the difference here between how obvious or otherwise some of the topological features are when you compare them across the two visualisations. We can of course, switch both on and a little bit like layers in a cake. The features above will always obscure the features below in this order of the legend here. So we've got the local relief model on the top and the terrain hillshade underneath. And if I make the local relief model, more transparent, can you see how the layer underneath is coming through. So that's two out of our three LIDAR data resources. The other LIDAR data source that is also quite important is called the surface model. Now, this includes all that vegetation that I talked about before that has been removed. So just as a quick example, we'll pop the terrain hillshade on as, one of our popup windows here. So you can see on this area, we've got lots of woodland here on the slopes, as you'd expect to see in this landscape. And so in the surface model, all of that surface information that that vegetation, those buildings are there, in the terrain model, you can see that they've all been stripped away, and we can see what's going on underneath.

28:06

And you might ask if the terrain is what we're really interested in, why have we got the surface model in there? What's the point of Rebecca putting that in for us? Well, the point is that it really helps us to situate ourselves within what's going on in the landscape. Because reading the landscape isn't just about identifying features in the LiDAR, it's about understanding the context of those features, both in

terms of the current modern landscape and its modern land uses, but also in terms of identifying or being able to connect networks and an understanding of how features historic and archaeological features might interact with each other. So having the surface hillshade there is really a really important tool for you should be able to situate yourself in the modern landscape and to understand what's going on there.

28:54

So to very quickly run you through the other resources, we have second edition, Ordnance Survey mapping provided from the National Library of Scotland. And this of course, is you'd appreciate anybody who's looked at historic mapping is really helpful in terms of things like field boundaries. So what would have been considered contemporary features within that sort of 1899 to 1900s landscape, but also many of you will be aware, if not all of you, that the Ordnance Survey took quite an interest in archaeological features. So we do also get historic and archaeological features identified through the second edition Ordnance Survey data.

29:33

And then we have the opportunity to look at modern aerial photography. So this the satellite data provided through being modern and survey data. And if you really like to, I'm not quite sure that this is as useful but it comes as part of the package from Bing you can see the the roads there. So that's really a kind of quite a brief introduction to the portal itself and what what what sort of look like and what the different data is, you can search replays within here. So we've got tools here that allow you to search for a postcode within the Cranborne Chase area, you can also use the measurement tool to see how long something might be. So you see here, this little pop up, that tells you how long that how wide that field is. And that can be really useful if you're trying to understand the features, and describe the features that you're identifying within the landscape. And what are the tools we've got here? Yes, we've got the we can click and get an easting and northing. So if you wanted to be able to tell somebody where that feature was, you see that just by clicking on this little tool here, and and within your identifying an easting and northing up here that can be copied and pasted. So very basic in terms of the kinds of tools that you get in a GIS, obviously, this is really, really pared down. But we've pared it down to make it the most useful tools for you without having a kind of overwhelming interface.

31:03

On the left hand side here, I've already mentioned this, this is our feature details form. And this is where we put the information about any features that we'd see. So the way that this process typically I'd encourage you to do it is to kind of forget about that form for quite a long time and have a really good time orientating yourself in the landscape. So having a good look around looking at the different resources, looking at the different LIDAR visualisations, getting yourself familiar with some things that we already know about and then looking across from those features to the things that we don't spend a lot of time just looking, there's no pressure to record things as you're getting familiar with the landscape. But as you start to feel a bit more familiar with the landscape, then that's when we move on to the recording phase. And there's lots of really detailed instruction in our training materials about what we should be recording. But really, we're asking you to make quite minimum information. A free text description of what you've seen. And then we've got a series of different types that you

can pick from. And depending on which type you pick at the top of the site type, the broad type, they'll be a whole series of other types underneath that you can narrow that down into. And we've got as part of the training materials, a fully illustrated monument thesaurus. So you will go through and see all the different sorts of features that are we considered are going to be common and present within this landscape, and particularly present within the LIDAR data. Because remember, the Lidar is showing us physical features on the surface of the land, it's not going to show us things that are buried below it. Because it cannot penetrate through the ground surface is just showing us that high resolution mapping of the top. So while the LIDAR data is a really incredible resource, and it shows us a lot, there's also a lot that it can't show us in terms of the types of features that we might be interested in archaeologically. So it's always important to pair LIDAR investigations with other types of field work and other types of archaeological investigation. So running really quickly down this form. If you are able to give a possible period by analogy, you can check those boxes there. You can we also like you to tell us which map layers you've used so that we've got some understanding of how you came to the to the conclusions that you came to about that feature. And then this ties in with the other stages of work that we'll be doing the volunteers as part of this project, would you recommend going and visiting this feature in the field? Now, as you can probably imagine, we're going to have hundreds and hundreds of new features, perhaps 1000s of new features, and we can't visit every single one of them. So what we're asking you to do with this question is try to get an understanding of what is either tricky or unique or unusual or questions yet to be answered or questions that need to be answered that can't be answered from the LIDAR data itself. So a good example of that might be if you have a boundary that runs very close to a barrel cemetery, and the relationship between those two is unclear. So that would be a really good candidate for field survey, because you want to go out into the field and take a look at the relationship between different features that you've identified within the LIDAR to try and understand you know, if there's a chronological relationship between them if there's a physical relationship between them. Likewise, if you see a site that it appears to have had quite a lot of erosion, or that there might have been some sort of damage to the site, or it looks quite partial, that would also be a really good reason for wanting to go and have a look at look at it on the ground. And likewise, if you see something that you're just completely uncertain about, it doesn't seem to fit in any category. The information that you've gathered about it doesn't lead you to a particular conclusion. That's also a really good candidate for for a field visit.

34:55

So I'm going to pop back to the webinar now because I realise I spent quite a lot of time on that and we still got a few things that I'd like to be able to share with you about the rest of it. So just taking a moment here, we've had a quick look at the portal, but the really important element that I would strongly encourage you all to do is the online training. What I'm doing in this webinar is just giving you a bit of a taster for how the portal works and the information that we've got within within the online training, but you'll see that we've taken a lot of time and effort to put together these these online modules that step you through all the processes and the understanding that you need to feel confident about volunteering as part of this project. And the idea really, is that we can help you develop skills interpreting LiDAR and landscapes. And so we've taken all our experiences professionals and tried to pin it down into these modules.

35:48

So just to give you a little example of the sort of content of the modules, we'll talk about the differences in sort of the sorts of archaeology that we can see from the air. So we ground you in the expectations of what you should be able to see and what you shouldn't be able to see, and how LIDAR

can be used, but also why it might not be showing us particular types of features, and where we need to use other techniques. We look at the difference between topographical features and proxy indicators. By proxy indicators, we really mean crop marks in this instance, are well buried archaeological features are affecting the vegetation, versus actual physical extent, features, and no prizes for guessing. If you've all been listening carefully, which of those types of features, the LIDAR really excels at showing us on which type, it really can't show us at all. We look at some comparative sites here. So you can see what Knowlton, for example, looks like through the LIDAR on what can be seen on aerial imagery, just to really embed your understanding of aerial archaeology is a discipline. And then we went through more detail about the LIDAR. Earlier on in this webinar, I introduced the concept of LiDAR, but we've set you through a little bit more detail about what it is how it works, and what the pitfalls or drawbacks might be. So that you can really understand what it is you're looking at, and what you might not be able to see. We talked about the different models, how they're created. And we step you through. So here we go, we've got our examples of all the different ones together, lined up. There are 16 lessons as part of this online course, it takes about three hours to complete, it is entirely up to you whether you'd want to sit there and run it through in one block or whether you just want to dip in and dip out as you go. And at the end of the course, the portal instructions are also available as a downloadable PDF. So those are the kinds of "click here - this is how you do this" a little bit like the demo I just did live on the portal. And the reason for those being provided as a PDF is that sometimes it can be easier to either have those open on a separate window, if you're lucky enough to have two screens, or to print them out and have them in front of you as a little bit of a user manual for the for the web mapping itself.

38:03

But we're not just sending you off to do the training and leaving you there we'll have monthly informal catch ups and mapathons where you can get together with me and we can talk about different features that you've seen. You can ask questions, I can go through any hints and tips or if you've got any particular problems that that you want to raise with me and that you can kind of bounce ideas off each other and off myself. Because although it's really lovely that you can all do this from the comfort of your own homes, what we want to encourage here is a community of people that are happy to talk to each other and to support each other in this quite gargantuan task. I've already mentioned but some of the most kind of powerful resources that I think you'll be returning to time and time again, as you get used to this particular task is the sample transcriptions and the illustrated monument thesaurus. And these sit as part of the online training course. So you'll be able to see examples in the LIDAR data and in aerial photography of the different types of features and that should help to give you confidence to identify them.

39:10

And just to say before, I quickly move on to the wrap up here and bring you in to ask any questions, that the overarching thing that I would want to say about the process of interpretation is that identifying the features is really the core task. So so it's a sort of say what you see exercise describe to me what it is you're seeing in that LIDAR data, or in the historic mapping or in the aerial photo, that indicates to you that people have been doing things in that landscape in the past. Tell me about that. And then layer on what you think it might be. And the reason that I sort of I'm bringing this point to the fore and I want to really emphasise it is that interpretation is an ongoing process. Now sometimes in archaeology, we don't have very much resource. So when we see something in the HTR We think oh, well, that's that's what it must be. We've categorised this as a, you know, a Bowl Barrow, and it's

next to several others, and it belongs to this particular period, and that's really important information to have but it's also information that can be revisited. So what I'm trying to say here is that having done the training course and worked with us, you'll have some really, really good interpretations and really good insights into the landscape, but you shouldn't be frightened to make an interpretation, because that is a process that can be revisited and reworked and will be reworked at times in the future. So you shouldn't feel inhibited from giving it your best shot and, and having having a good go. And the reason I say this is because I know that quite often when volunteers first start on this sort of project, it feels a bit overwhelming to give an opinion as to what it might be. But what I'm saying here is, it doesn't matter scrap, just give it your best shot, because this will all be reviewed, and it will all be considered in the round in the long term.

41:00

So very quickly, last couple of slides, and then we'll open the open the session to questions in terms of volunteer training and on site surveys, we've already talked a little bit about the sort of quantity of this that we're expecting to happen. And this once again will be about professional partnering with volunteers who want to learn skills to be able to identify features on site, to measure up and do measured survey, and then also feed that information back into the interpretation from the LIDAR portal. And only once that process has happened, will the information from the portal be passed forward to the Historic Environment Records because the ultimate home of this data that we're creating will be with the his back with the Historic Environment Record. So that it can sit in our long term archive and in our planning system in our research system, so that data is curated and preserved in the long term.

41:57

A little bit about legacy, I won't labour this too much the slides will be available to you. But really what we hope to be able to achieve through this, this is quite transformative and we're really pleased that we've had so much interest in the project so far, in terms of in terms of the engagement and the willingness of people to try something quite different because we do appreciate that. Understanding landscapes investigating landscapes and using LIDAR data is perhaps a little bit different to the usual tasks that are offered to volunteers, it's maybe a little bit more technical, it certainly perhaps requires a little bit more support in terms of training and skills development. So we're really pleased to see you all here. And we will definitely let you have an opportunity to get boots on the ground as well! So you will definitely have an opportunity to dig holes too, if you wish to.

42:48

A couple of quick admin things just to say, if you haven't already signed up for the portal, please do you will need to sign up and undertake the training before you get access to the online mapping. Please also register to become a volunteer through the Chase and Chalke training hub because it's through the training hub that the other opportunities will arise to do the field walking, to do the geophysical survey, to do the excavation . It's unfortunate you have to sign up in two locations, but the reason for that is that the portal is very specific to the digital data entry task. Whereas the volunteer training hub is all about the training and volunteer community across the whole Chase and Chalke project. So step two, once you've signed up to both of those is do the online training and once you've completed the online training and got yourself signed off with your certificate, you'll have

access to the GIS mapping. And then come along come along to our monthly meetups, you'll get a reminder of when those will be and if you've got any problems I'm here and you can email me anytime and I will try and help.