Kent LiDAR Portal
How to Digitise and Record

How to use this guide

The **Kent LiDAR Portal** was set-up as a citizen science mapping project intended to enhance the county's record of known archaeological and heritage features by utilising LiDAR data. This is something which can be done by any interested volunteer, even from their own home.
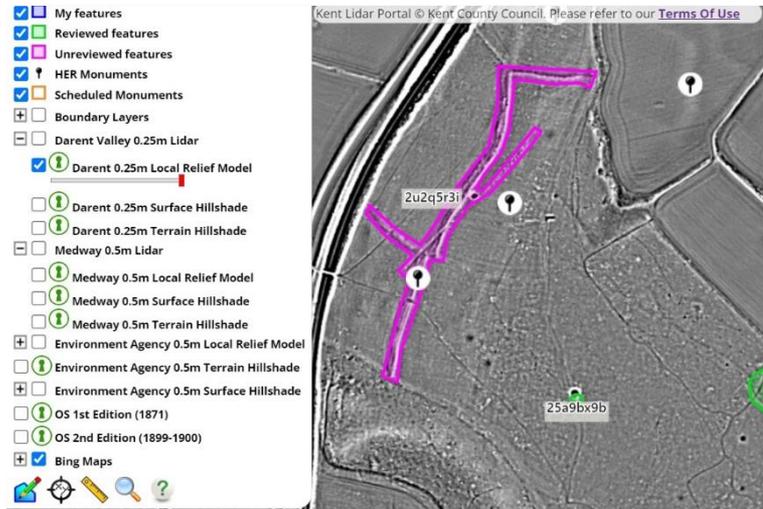

LiDAR is a valuable resource, particularly for mapping subtle surface features which might otherwise be easily missed. All is needed is a sharp pair of eyes and basic knowledge of historic monuments in order to spot and interpret potential features. The records which are then made from this data will be checked and, if valid, submitted as a permanent record to the HER (Historic Environment Record).

Additional, more detailed tutorial guides are provided which instruct on using the Portal and understanding some of the features you may find in the visualisations, including **How to Register**, **Guide for Desk-Based Study**, **How to Read LiDAR**, **Gazetteer of Monument Types** and **Guide to Groundtruthing**. We strongly recommend that you refer to them (**How to Read LiDAR** and the **Gazetteer** in particular) to make your records as informed as possible.

This guide provides the instructions to undertake digitisation of features. Please read these carefully and if you have any questions contact the Project Community Archaeologist (anne.sassin@kentdowns.org.uk).

Opening the Citizen Portal

1) Go to the Kent LiDAR Portal (kentlidar.org.uk), and log in using your username and password.
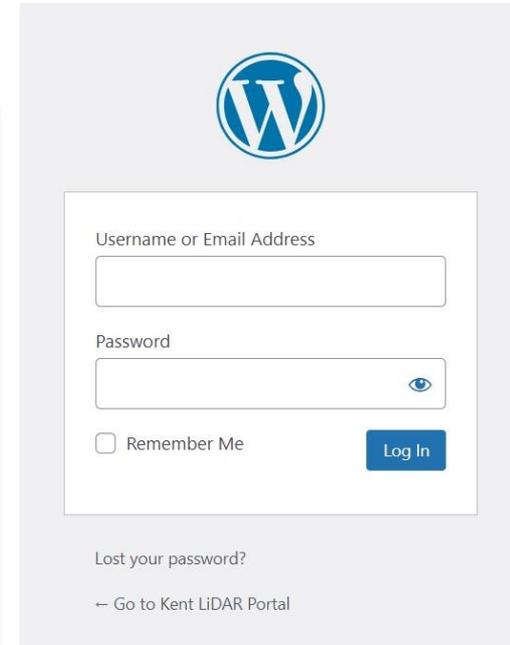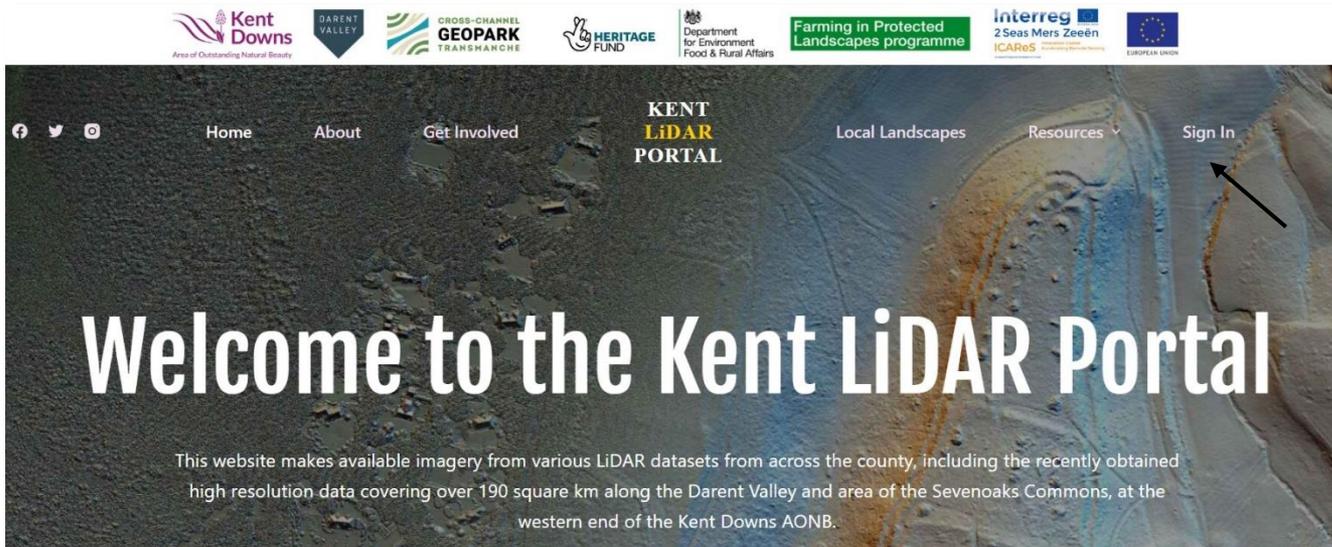
2) You will see a new option in the Menu 'Map'. Click on this link.

Opening the Citizen Portal

3) The Citizen Portal will open with the site details panel on the left. To the right is the main map which has various layers to be turned on or off (only the recorded features and basemap will be turned on when you open up the map initially).

Setting up your map layers

1) In the bottom of the layers panel, you can select your background mapping from the Bing layers. There are also zoom in and out buttons.

2) The LiDAR data and historic maps have been processed to overlay the Bing background maps. You can see the maps available in the layers menu.

If you are working on a small screen the layers menu will present as a 'hamburger' icon. Click on the icon to open the full menu.

3) You can check the white box to add any layer to the map.

It's best to zoom into your area of interest first, and then switch the layers on, as the map will work more quickly.

You can zoom using the buttons in the top right or by scrolling the roller-ball between the keys of your mouse.

Setting up your map layers

4) When you have found your place of interest, start exploring the various layers. Use the whole range of LiDAR visualisations, historic maps, aerial photos and modern OS (via Bing) to get an appreciation of the landscape and what each of the features you are seeing might be.

Modern OS (via Bing)

Aerial image (via Bing)

OS 1st edition c. 1871 (© KCC)

OS 2nd edition c. 1897 (Provided by National Library of Scotland)

Setting up your map layers
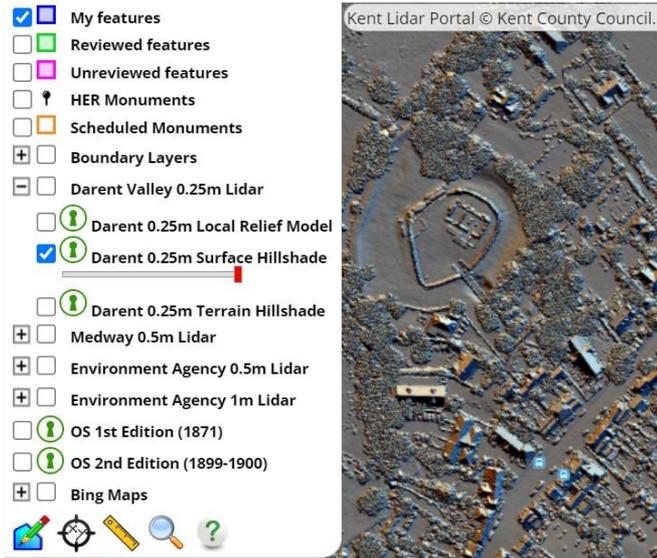
LiDAR Surface Hillshade (DSM)
(all buildings and vegetation included)
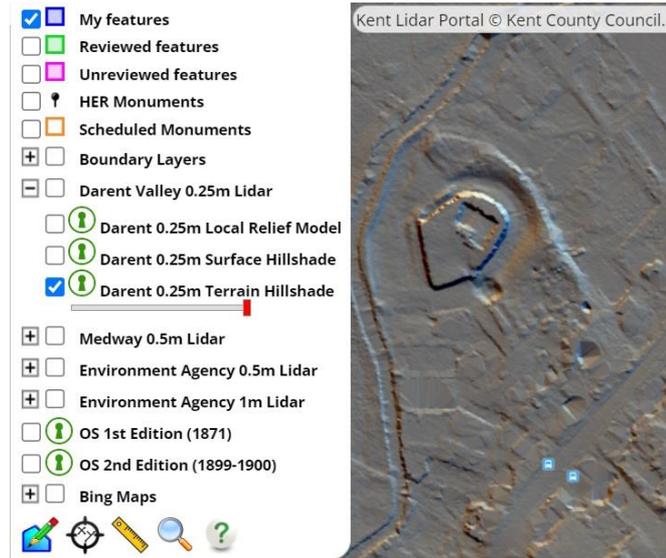
LiDAR Terrain Hillshade (DTM)
(all buildings and vegetation removed)
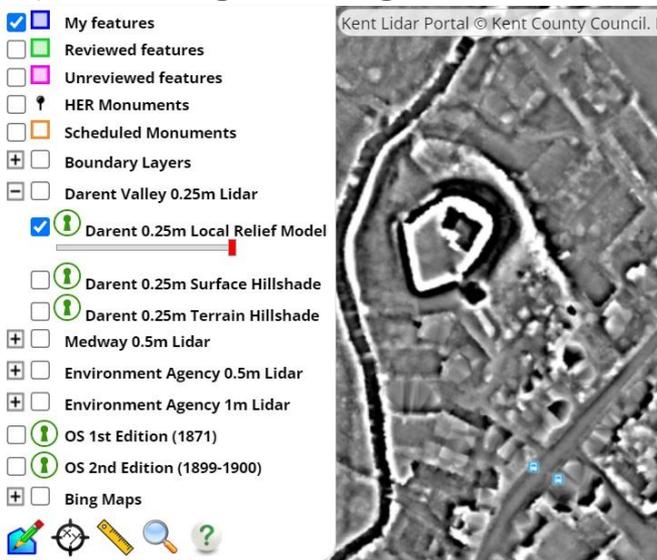
LiDAR Local
Relief
(specialist
terrain
visualisation)

For more historic and aerial maps, including the 3rd and 4th edition OS and 1946 and 1990 aerial images, visit the interactive map on **Exploring Kent's Past** (www.kent.gov.uk/her).

Setting up your map layers

5) Explore existing records by using the layers showing the extent of Scheduled Ancient Monuments ('Scheduled Monuments') and the 'HER Monuments' (Historic Buildings, Sites and Monuments Record data).

Click on the keyhole icon, which will open up a text box with a brief description of the site.

Click on the HER line and its url link which will then open a live link to the detailed record on **Exploring Kent's Past**.

Kent Lidar Portal © Kent County Council.

- ☑ My features
- ☐ Reviewed features
- ☐ Unreviewed features
- ☑ HER Monuments
- ☑ Scheduled Monuments
- ⊞ ☐ Boundary Layers
- ⊞ ☐ Darent Valley 0.25m Lidar
- ⊞ ☐ Medway 0.5m Lidar
- ⊞ ☐ Environment Agency 0.5m Lidar
- ⊞ ☐ Environment Agency 1m Lidar
- ☐ OS 1st Edition (1871)
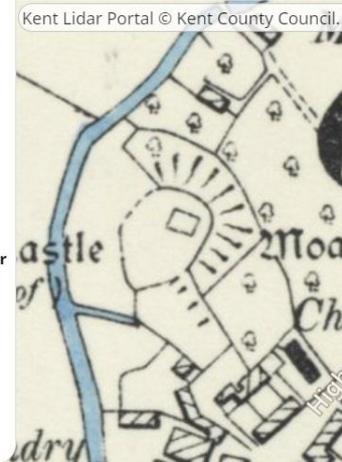- ☐ OS 2nd Edition (1899-1900)
- ⊞ ☐ Bing Maps

Scheduled Monuments : Eynsford Castle
HER Monuments : Eynsford Castle

HER Monuments

Name Eynsford Castle
Type Monument
UID MKE534
Link https://webapps.kent.gov.uk/KCC.Explo...
uid=MKE534

Exploring Kent's Past

Exploring Kent's Past
Simple Search
Advanced Search
Map Search
Explore More . . .
Glossary
Simple Timeline
Project Information
The Kent Historic Environment Record
Help
FAQ
Links
Terms & Conditions
Send us feedback

Show on map

It should not be assumed that this site is publicly accessible and it may be on private property. Do not trespass.

Monument details

HER Number:	TQ 56 NW 11
Type of record:	Monument
Name:	Eynsford Castle

Summary

A pre-Conquest stone structure, probably part of an 11th century residence has been revealed by excavation within the enclosure. At the time of Domesday the castle was held of the archbishop of Canterbury by Ralph son of Unspac. The lower stage of the existing stone curtain wall was built c.1100 by Ralph's son William de Eynsford I. An early 12th century hall and solar was built on the north-east half and the curtain wall was heightened. The hall was re-constructed after a fire in the mid-13th century but the castle was not inhabited for long. The castle was dismantled in 1312.

Images

Setting up your map layers

6) You can view two layers at once by using the 'Keyhole Viewer'. Click on the green keyhole icon beside any layer to move it to a keyhole window. You can then re-size this window and move it around the map.

Setting up your map layers

7) You can also make any of the layers in the layers menu transparent using the red transparency slider below the layer name to view two layers at once.

Setting up your map layers

8) Once you have identified a feature you can measure it using the measuring tool at the bottom of the layer menu.

Draw a line to measure, and then double-click to complete.

You do not need to draw a straight line but can continue around the perimeter of a feature.

Once you have more than two points drawn,
the area will automatically be calculated as well.

Kent 111.11 m, 1752 sq m

My features
Reviewed features
Unreviewed features
HER Monuments
Scheduled Monuments
Boundary Layers
Darent Valley 0.25m Lidar
Medway 0.5m Lidar
Environment Agency 0.5m Lidar
Environment Agency 1m Lidar
OS 1st Edition (1871)
OS 2nd Edition (1899-1900)
Bing Maps

My features
Reviewed features
Unreviewed features
HER Monuments
Scheduled Monuments
Boundary Layers
Darent Valley 0.25m Lidar
  Darent 0.25m Local Relief Model
  Darent 0.25m Surface Hillshade
  Darent 0.25m Terrain Hillshade
Medway 0.5m Lidar
Environment Agency 0.5m Lidar
Environment Agency 1m Lidar
OS 1st Edition (1871)
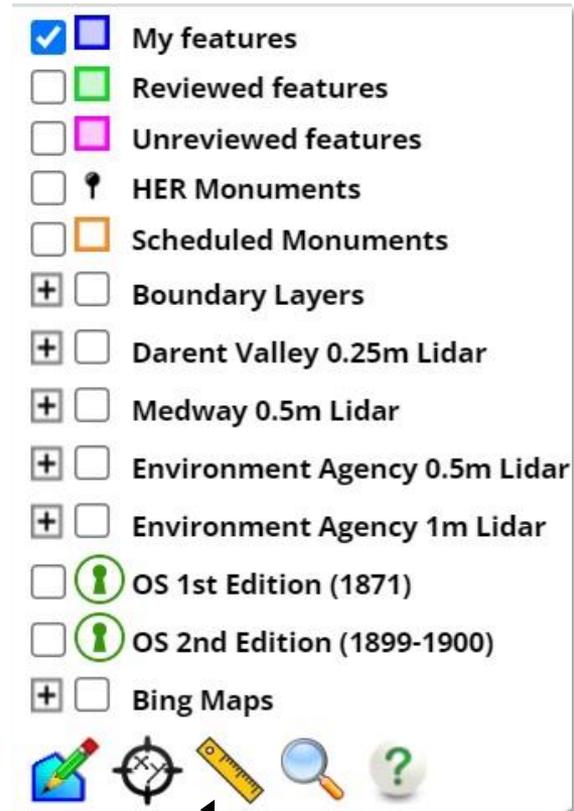OS 2nd Edition (1899-1900)
Bing Maps
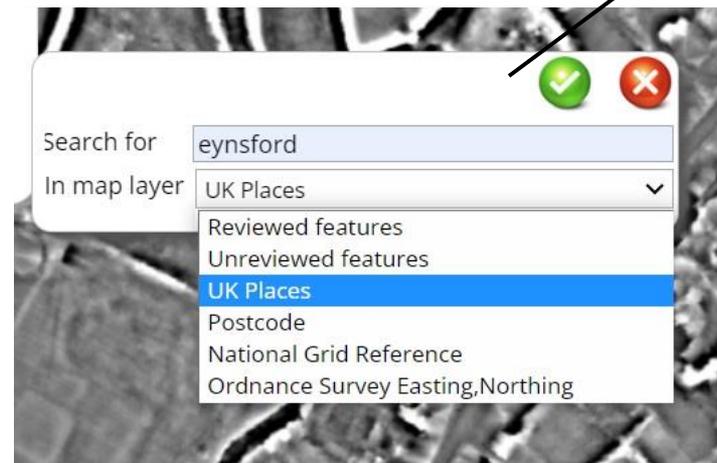
Setting up your map layers

9) You can obtain the grid reference by using the Compass tool and clicking on any point.

X/Y : 554147,165848
NGR: TQ5414765848

☑ 🟦 **My features**
☐ 🟩 **Reviewed features**
☐ 🟪 **Unreviewed features**
☐ 📍 **HER Monuments**
☐ 🟧 **Scheduled Monuments**
⊞ ☐ **Boundary Layers**
⊞ ☐ **Darent Valley 0.25m Lidar**
⊞ ☐ **Medway 0.5m Lidar**
⊞ ☐ **Environment Agency 0.5m Lidar**
⊞ ☐ **Environment Agency 1m Lidar**
☐ 🔑 **OS 1st Edition (1871)**
☐ 🔑 **OS 2nd Edition (1899-1900)**
⊞ ☐ **Bing Maps**

10) You can also search for a particular site or area by clicking on the magnifying glass (Search tool) at the bottom of the layers menu, which will then zoom to that point on the map.

This will allow you to search via several options, including by postcode, grid reference (NGR), easting and northing (X/Y) and UK Places (e.g. town or village name).

Search for   eynsford
In map layer   UK Places   ▼
Reviewed features
Unreviewed features
UK Places
Postcode
National Grid Reference
Ordnance Survey Easting,Northing
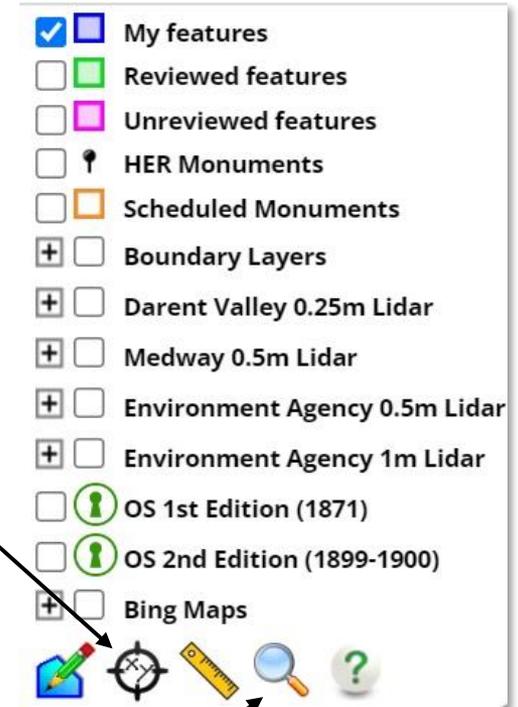
Adding a site record

1) First fill out the site details form on the left. You'll see that you have drop-down menus for the type of site and monument or feature within it.

'Site type' is a broad class, and 'Monument type' is a more specific class. So for a moated site, you would first pick 'Settlement' for site type, then 'Moated Site' for monument type.

The terms are from the national list utilised by the HER, and more detail can be found in the **Gazetteer of Monument Types**, which can be downloaded from the 'Resources' tab of the Portal.

You do not have to choose a monument sub-category, but a site type must be selected, even if 'uncertain'.

Adding a site record

2) Add a short description for the site. Please include a description of the monument location, dimensions, shape, historic map references and interpretation

You can also comment on the sources you have used and how the feature differs in visibility between them. This can include sources from elsewhere, such as Google Earth or other aerial maps, but make sure to include the year of the image if so.

Remember that to measure the size, use the Measure tool at the bottom of the layers menu.

Record Form ?

Please fill out as many sections as you can (click on the headings to expand)
Site Type
Settlement ⌄
Monument Type
Moated Site ⌄
Interpretation

A rectilinear ditched enclosure in an arable field west of Runfold Farm, 60m in length and 40m wide, possibly cut by a field booundary ditch to the north. The field boundary is shown on the 1st ed OS. The enclosre is apparent on aerial photos but

Adding a site record

Possible Period(s)

Check all periods that are related to the feature

- ☐ Unknown
- ☐ Prehistoric
- ☐ Roman
- ☐ Early Medieval
- ☑ Medieval
- ☐ Post-medieval
- ☐ Modern

3) You then have the option of choosing a possible chronological period for the feature.

The period does not need to be selected, and can also have more than one chosen, if there appears to be multiple phases.

Map Layers Used

Check all layers the feature is visible in.

- ☑ Local Relief Model
- ☑ Hillshade(terrain)
- ☐ Hillshade(surface)
- ☐ Historic OS Map
- ☑ Aerial Photography

4) Next use the check boxes to note the different map layers that the feature is visible in.

Other information

- ☑ Field Visit Recommended?
Any other comments?

5) Note down if you recommend a field visit to verify a feature, or any other comments you wish to make.

Photographs ➕ ❓

6) Then upload any images you may have (images may be from other maps and need not necessarily be photos, e.g. pdfs).

The field visit and any site photos will likely be part of the groundtruthing process. You may decide that no groundtruthing is necessary, but if you do undertake it, you can revise your record later with an added comment based on the results.

Adding a site record
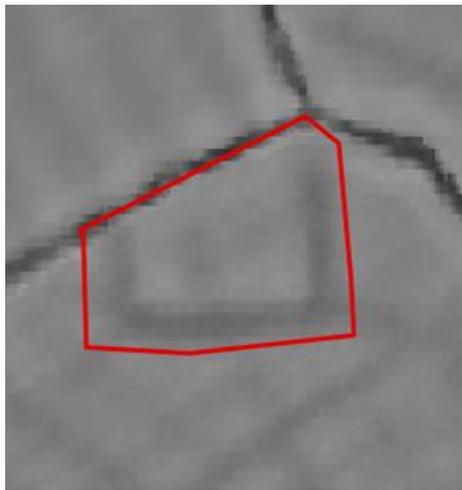

User Information

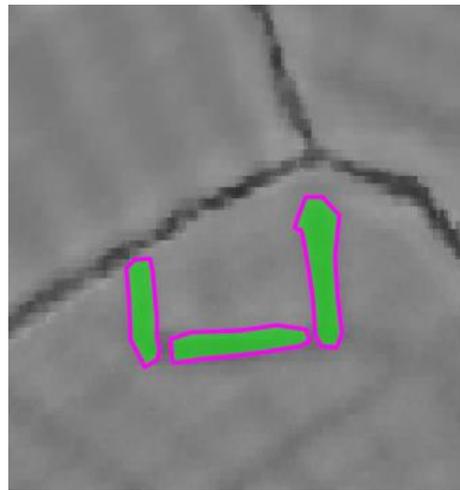Recorder name
test-user

Recorded date
12/07/2023

7) Your username and date should be added to the record automatically.

8) With the form completed you are now ready to digitise your site. However, you need to think carefully about what is the most useful way to record it, whether as one site or as features within it?

Correct digitisation

Incorrect digitisation

For some sites, such as a moated site, you would be best to digitise as boundary polygons (shapes that includes all the features relevant to a site), rather than a shape for each individual feature (in this instance, ditches).

In a deer park however, individual features such as park pales, fishponds, etc would be useful to be digitised, if not already on record.
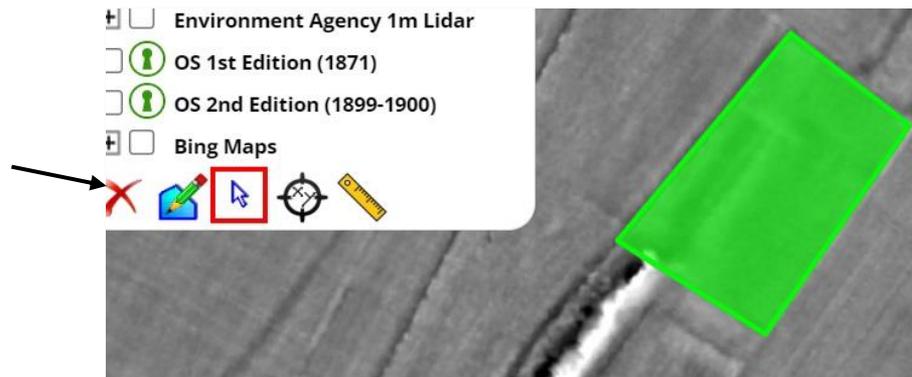
Adding a site record

9) Click on the Draw icon at the bottom left of the layer menu, and then click on the map to start drawing. Each click draws a node (corner) of your polygon.

To undo the last node click the delete node icon.

To abandon the polygon entirely click the abandon icon.
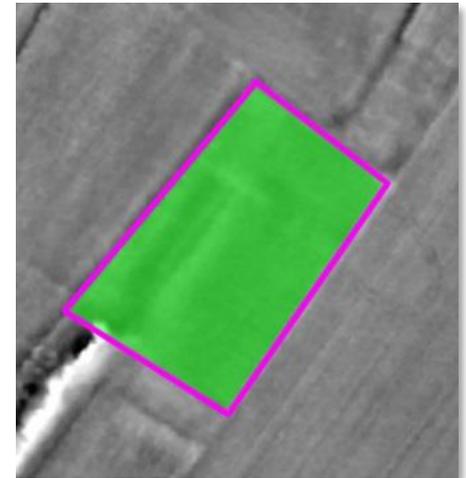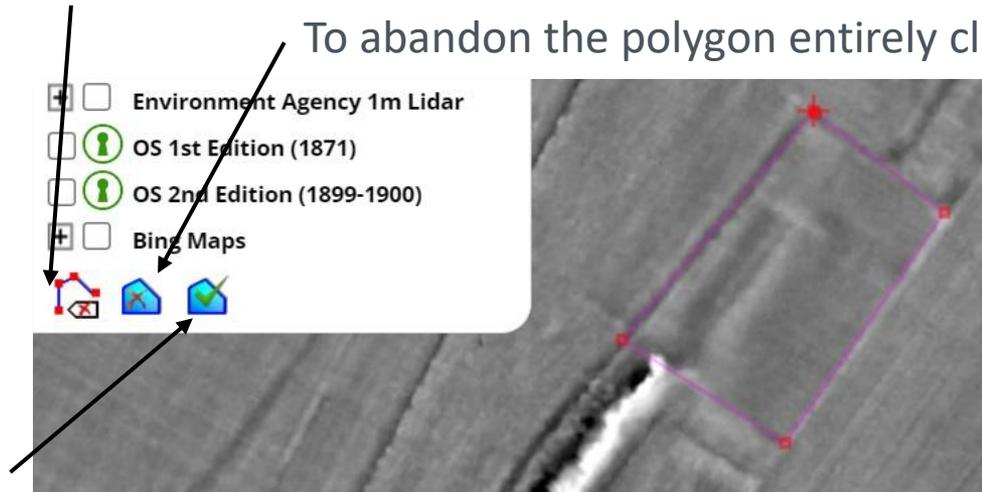
Double-click to finish the polygon (or click the finish polygon icon).

10) If you have completed a polygon but realise you have made a mistake, use the select arrow to highlight it in green and delete icon to remove it.

Adding a site record

11) With record and polygon completed, you are now ready to click 'Submit' and enter your record. The system will ask you to confirm. If you are happy, click 'Submit' again; if not, click 'Not now' to return to edit your record.
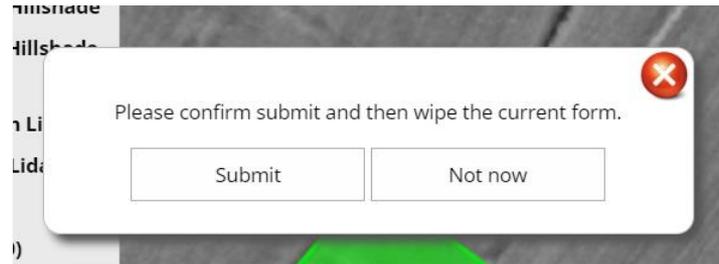

12) Don't worry if you make a mistake, but if you do, please follow the link to our online form so that one of the admin team can fix it.

Don't forget to use the Compass tool to help us locate the site!

Repeat the steps above as much as you like to keep mapping.

We recommend not making a separate record for a feature which another user has recorded, but rather commenting on it if you think an alternate interpretation is needed.
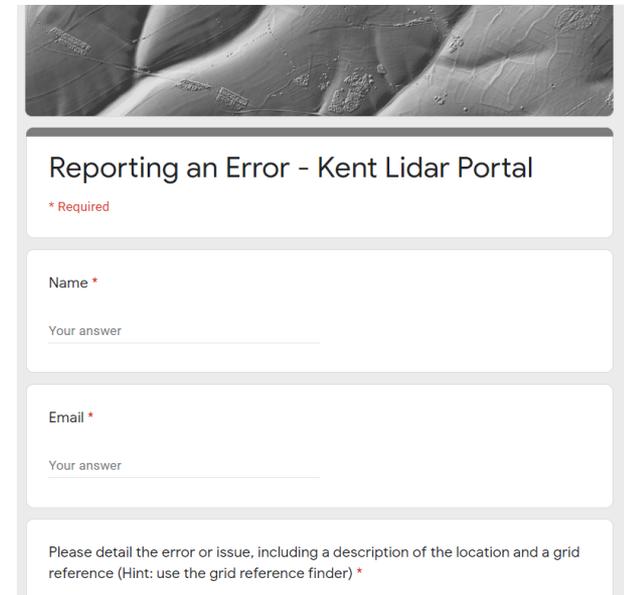
Reviewing a site record

1) Each recorded feature is also visible to other users, who are able to comment on it, if they feel a slightly altered interpretation is needed, or if additional information would be useful. Any comment you make will become part of the record for that feature.

In order to comment, click on the map polygon (magenta or green), and then click again in the 'Make a comment' box on the feature listing.

You can also attach images or other files (e.g. maps) if you think the information will be of use.

The 'comment' function was added in order to prevent multiple records being made of the same feature, and to allow other participants to enhance the interpretation.

Try to comment only if it adds to the record (e.g. just agreeing is not really worth submitting a comment).

Please ensure that you are polite and considerate in any comments which you might make!

Other information

Field Visit Recommended? : Yes
Any other comments? :
Moderator feedback :

Photographs

User Information

Recorder name : TestSub
Recorded date : 2020-02-06

Make a comment ...

Use this form to enter a comment and optionally attach some images or files.

I think this is actually a part of the motorway, rather than a heritage feature

2) Not all records which are made may be accurate in their interpretation, particularly if natural or false features and 'artefacts' from the processing of the data are interpreted as heritage features (see the **How to Read LiDAR** tutorial for more). In order to differentiate between records which are made but not confirmed and those which have been verified, a two-colour scheme will be used for the recorded monuments:

- Magenta is the colour for any initial record

- This will change to green once verified
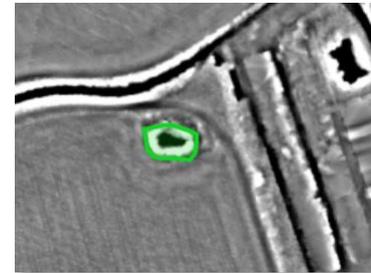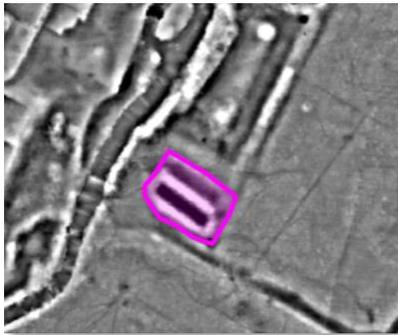
The review process can involve a combination of desk-based assessment and groundtruthing (verification in the field), and will be undertaken by the Project Team.

Some of the review process may involve amending details of a record (e.g. adding to the periods or altering the polygon of the site), as well as its interpretation, before submission to the HER. Bear in mind, even if a site is marked as 'reviewed', further edits may still take place.

The initial record is still essential though, regardless of any amendments, so do keep recording!

This guide on **How to Digitise and Record** was produced by the Darent Valley Landscape Partnership Scheme for interpretation of the LiDAR data on the **Kent LiDAR Portal**

April 2020
Updated July 2023

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Kent Downs
Area of Outstanding Natural Beauty

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