

TUTORIAL 5: Geometries

This section records details about the geographic location and extent of the Resource that you are recording.

1 Getting Started

Click on 'Geometries' in the Card Tree on the left side to go to that Card (Figure 1).



Figure 1: (Navigating to) the geometry card.

2 Geometries

2.1 General lay out

When you click on the 'Geometries' Card, you will see a map. There is an extra menu to the right side of the screen with four options to edit and configure the map (Figure 2).

- The Card will default to the 'Edit' screen where you will enter information into the fields (see Figure 1).
- Click 'Basemap' to change the basemap you are seeing as a background. Currently you can choose between 'satellite' and 'street', but more may be added later.
- Click 'Overlays' to turn different layers of data on and off using the toggle.
- Click 'Legend' to see the map legend.





Figure 2: Geometry menu (red rectangle), showing the 'Basemaps' options.

2.2 Geometric Place Expression

In the 'Geometric Place Expression' field you choose the type of geometry you wish to create to mark the location of the site in the database.

• Currently this must be done manually, but the functionality to upload a .kml or .geojson file is in development.

2.2.1 Finding the location of your Heritage Place

If you used the previous version of the EAMENA database, you are probably used to finding the location of your Heritage Place by typing in the coordinates or drag-and-dropping a kml-file into the map window. Unfortunately, these functionalities are still being developed for the new database, and for the time being you will have to use one of the following methods:

- 1. Zoom in manually to your site location using the '+' button in the upper left corner or use the scroll on your mouse.
- 2. Type in the place name of a nearby modern place in the search bar in the upper right corner of the map, and subsequently move around and zoom towards your Heritage Place.
- 3. If you know the coordinates:
 - a) In the 'Geometric Place Expression' field, choose 'Add Point' and use your mouse to add a point to the map in any random place.
 - b) Then, click on 'Edit GeoJSON', below the 'Geometric Place Expression' box and the added geometry (Figure 3).
 - c) You now see the GeoJSON code do not let this put you off. Look for the coordinates and replace these with the correct ones.
 - NB the coordinates must be entered in WGS84 decimal degrees, with X/easting/longitude first, then Y/northing/latitude (Figure 4).

- If your co-ordinates are not already in WGS84 decimal degrees, use the EAMENA converter spreadsheet to convert your coordinates or use your preferred tools (there are many online convertors, or you can look it up in Google Earth by changing your preferences, or use QGIS).
- d) The point you drew above will automatically move to the correct location.
- e) Finish by clicking on the green 'Update Features' button.

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Figure 3: Click on GeoJSON editor, after having added a point geometry in a random location.

1	{
2	"type": "FeatureCollection",
3	"features": [
4	{
5	"id": "237efc20ea2e51905e3b49
6	"type": "Feature",
7	"properties": {
8	"nodeId": "5348cf67-c2c5-1
9	},
10	"geometry": {
11	"coordinates": [
12	35.760234892587306,
13	31.17353123133539
14],
15	"type": "Point"
16	1
17	

Figure 4: Adjusting the coordinates in the 'Edit GeoJSON' field.

2.2.2 Add a Geometry

Once you have found your location, click on the 'Geometric Place Expression' box. You can choose to draw a point, line, or polygon.

- Whenever possible, try to draw a polygon to indicate the extent of a site or feature, even if it is very small or linear.
- Choose a point if you do not know the exact location of the site but want to put a placeholder in roughly the right area.
 - For example, a publication describes a site located in a particular valley but provides no further indication of its exact location.
- You should only add ONE geometry at a time and complete all of the next fields in the card in relation to that geometry.
 - Once you have finished all of the data entry for your first geometry, THEN you can add additional ones if necessary (see **Section 2.6**).

2.2.3 Drawing a polygon (or line, or point):

To draw a polygon:

- Find the location of your site using one of the methods in **Section 2.2.1** above.
- Click the 'Geometric Place Expression' field and select 'Add polygon' (Figure 5).
- Click on the map with your mouse to draw the outline of your polygon (Figure 6).
 - Double-click to stop drawing or by closing the polygon on the first point (vertex) again.
 - Click once somewhere on the map outside the polygon to complete it. It will change colour from orange to blue (Figure 7).
- If you want to make changes to your polygon, select 'Edit' next to the polygon or click on it (Figure 8). It will turn orange again to show it is in 'Edit' mode.
 - Put your mouse on one of the vertexes. Click on it once to highlight it and then drag it to where you want.
 - Add a new vertex by clicking on the smaller dots in the middle of the line.
 - Move the whole polygon to a different place by clicking inside it and dragging.
- If you want to delete your geometry, click on the 'bin' icon next to it (Figure 8).
 - If you used Method 3 above to find the location of your site, after you have drawn your polygon, delete the original Point you drew.

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Add a new feature	•
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Add line	
_ Add polygon	
Select an option	
Geometry Extent Certainty *	
Select an option	

Figure 5

Figure 7: Geometry card with one polygon, showing the outline of the archaeological remains.

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Figure 8: Editing (or deleting) a geometry. You can also edit the geometry by clicking on it in the map.

2.3 Location Certainty

In this field you will indicate how certain you are that the location that you have entered for the site is accurate.

- Ask yourself, how certain are you that have identified the location of the site you are recording correctly?
 - For example, if you have determined the location of the site based on older maps or survey information, you may not be certain what you see on the satellite imagery is the site described.
- Click on the field and choose your certainty from the dropdown menu that appears.
 - Refer to the Glossary for definitions for each of the terms.
 - Note that 'Definite' should only be used for sites that have both been recorded in the field (e.g. with a GPS) and ideally also positively identified in the satellite imagery.

2.4 Geometry Extent Certainty

In this field you will indicate how certain you are that the boundaries of the geometry you have drawn are accurate.

- Ask yourself how sure you are that you have accurately drawn the boundaries of the geometry.
- Click on the field and choose your certainty from the dropdown menu that appears (Figure 9)
 - Refer to the Glossary for definitions for each of the terms.
 - Note that 'Definite' should only be used for sites for which the boundary of the site has been mapped in the field.
 - If no polygon has been created, because, for example the exact location or boundaries of the site are completely unknown, choose the term 'Negligible'.

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	Low	
	Negligible	

Figure 9

2.5 Geometry Type

In this field you will identify what kind of information your geometry represents. For example, is it the perimeter of the site, the modern property boundary, the site datum point, etc.

Click on the 'Geometry Type' field and select a term from the dropdown menu.
Refer to the Glossary for definitions for each of the terms.

Once you have filled in all the fields above, click '**Add**' to save the information in this card.

2.6 Additional Geometries

The most common Geometry Type you will enter is a 'Perimeter Polygon' to indicate the extent of a site or feature. In most cases, no further geometries will be necessary.

- If you need to add further geometries, e.g. a buffer zone, or modern property boundary, click on '+Add New' in the top right corner of the window, or click the '+' sign next to the 'Geometries' card in the Card Tree on the left.
- Repeat the steps above and it will appear as a new entry under 'Geometries' in the Card Tree on the left.