"Introduction to QGIS for Desk-Based Research" Information Sheet
CIFA Accredited 1 day training course

If everything happens somewhere then geographical information systems (GIS) have to be one of the best tools available historic environment professionals. There are many platforms to choose from but we think that Quantum GIS is the best tool around for desk-based research. It is user-friendly, lightweight but powerful and best of all there's no hefty price-tag as the QGIS is absolutely free!

That sounds great, but how do I get started?

Our practical, hands on, one day course will get you set up with all the basics so that you can use QGIS for your work or research. Run by historic environment professionals with over a decade of experience in a variety of GIS applications, this course covers essential concepts needed to understand and use QGIS.
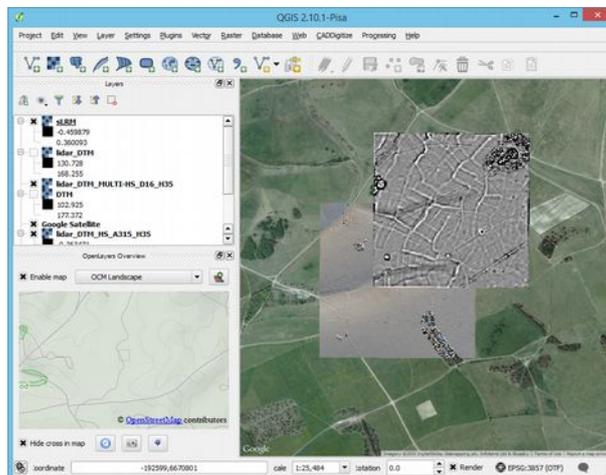
Through practical guidance and hands on sessions this course will cover the following topics:

- Setting up your GIS project
- Sourcing and importing different types of data
- Georeferencing images
- Digitising features to a shapefile
- Styles and labelling
- Saving and printing maps for publication
- Finding help and further resources

You'll use your own laptop for the course, and even have the option of bringing your own data, ensuring that you are fully ready to apply the new skills you've learnt in your day-to-day work.

Who is the course aimed at?

The course is aimed primarily at archaeological and landscape conservation personnel operating in national agency and local authority heritage environments. However this course will also be of benefit to professionals working in commercial, independent and research environments and to community groups working with spatial data.

Course Aim

"To improve your knowledge and understanding of the use of QGIS for collating spatial data relating to the historic environment."
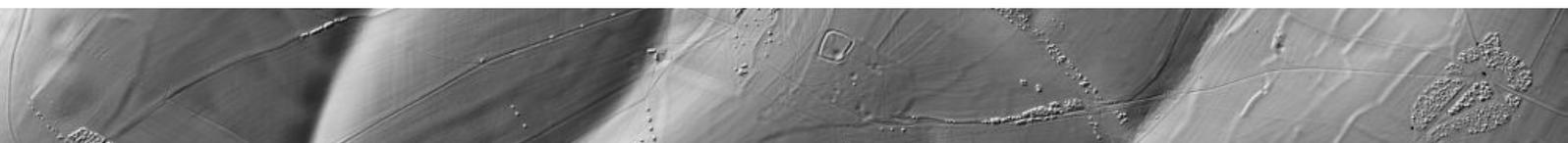
Course Objectives

1. *To provide theoretical background on the use of QGIS for collating and presenting historic environment data*

2. *To provide guidance on where to source and how to import a variety of geospatial datasets into QGIS including OS open data, Historic England designation data, OpenStreetMap and Google Satellite Data*

3. *To provide practical instruction in how to georeferenced data such as aerial photography, old maps or geophysical images*

4. *To provide practical instruction in how to create publication-ready maps from the datasets explored.*

This course provides skills and knowledge in support of the following National Occupational Standards AC8 - Undertake analysis and interpretation of archaeological material and data; AC1- Research and analyse information to achieve objectives and AC2 - Conduct non-intrusive archaeological investigations (see Additional Information below for more details).

Cost and Booking Information

The course is **£150** per participant, including lunch and refreshments. Paypal payment via our website preferred. Please go to http://www.pushingthesensors.com/booking-form/

Numbers are limited to 8 places so pre-booking is essential and bookings close at noon two weeks before the course date (or earlier if all spaces are filled). If you find that you can't attend we will refund the cost of the course minus an administrative fee of £20 until noon 14 days prior to the course date. Refunds will not be made after this point, but transferring your place to another individual or credit for a future course will be considered where possible.
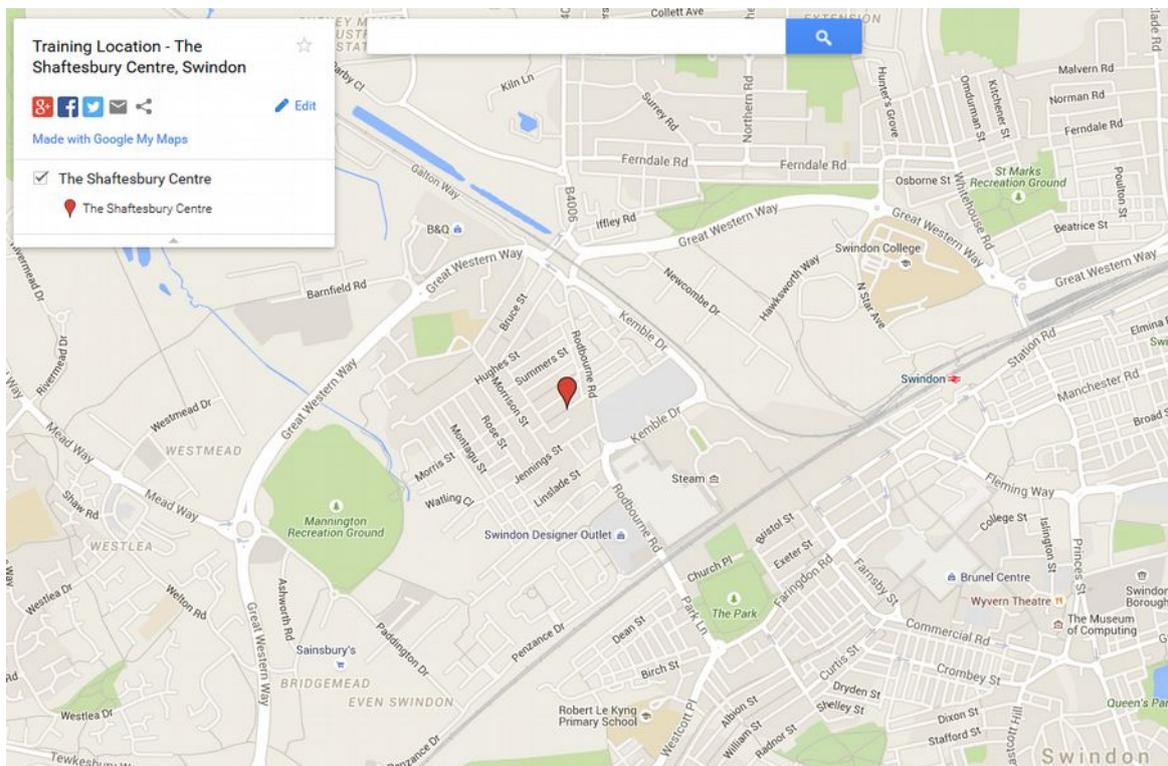
Requirements

You will need to bring your own laptop and mouse [Windows Vista or newer, Mac OS X or linux with at least 8GB RAM, 1GB memory] with QGIS installed (don't worry full instructions on how to do this will be sent out with your welcome pack).

The Venue

The course will be held at Air Photo Services Ltd, the Shaftesbury Centre, Swindon SN22AZ (within easy reach of Swindon train station). Bus route 5 connects the station to Rodbourne Road and a taxi one- way should be around £5.

There is ample free public parking off Morris Street, to the rear of the Shaftesbury Centre building.

The training room is on the second floor with lift access. Please let us know if you will need any specific modifications to make your training day more comfortable.

Travel and Hotel Information

The venue is located 4 miles from junction 15 of the M4 (or 6 miles from junction 16) and within walking distance (20mins) from Swindon town centre and the railway station. Swindon is on the Great Western Bristol-London route, serving London, the Midlands, South West England, the South Coast and South Wales.

If you need to stay overnight there are a range of hotels in Swindon, with the closest to the venue being:
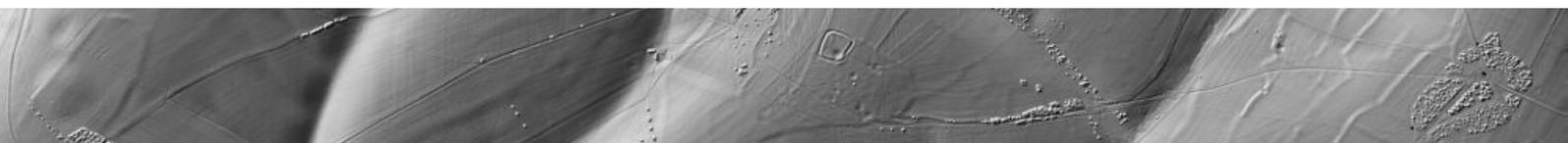
Holiday Inn Express Swindon City Centre, Bridge Street, SN1 1BT
The Great Western Hotel, 73 Station Rd, SN1 1DH
Jurys Inn, Fleming Way, SN1 2NG

Please check online for prices and reviews.

About the Trainer

Rebecca Bennett has over a decade of experience in GIS and is one of the UK's leading researchers in airborne remote sensing including airborne laser scanning (lidar), multi and hyper-spectral imaging for archaeological prospection. She has previously worked as the Conservation Data officer for the National Trust and is a member of the HEROS development group. Over the last 10 years she has introduced students and professionals across Europe to the wonders of integrating airborne laser scanned data into their research through the use of open-source software QGIS and GRASS. You can find out more about her interests and publications at www.pushingthesensors.com

Additional Details - National Occupational Standards Outcomes

This course provides skills and knowledge in support of the following National Occupational Standards for Archaeology (ordered by most relevant first).

AC8	**Undertake analysis and interpretation of archaeological material and data**	P1-5 K1-13	**Performance Criteria**

- Accurately identify requirements for analysis and interpretation
- Identify and apply relevant technical and ethical standards
- Analyse and assess the accuracy, currency and completeness of data and identify any additional data and material requirements
- Obtain additional data and material from relevant sources as appropriate
- Select, propose and agree appropriate methods for analysis and interpretation

Knowledge and Understanding

- How to carry out analysis and interpretation
- Data protocols
- Relevant technical and ethical standards
- Types of analysis and interpretation
- Types of method
- How to conduct analysis and interpretation
- Sources of specialist information and advice
- How to observe and measure accurately
- How to adapt analysis and interpretation procedures and practices to suit different conditions
- How and where to record and store analysis and interpretation data
- Types and modes of analysis and interpretation
- Circumstances and conditions which can affect analysis and interpretation activities
- Data protocols used in different analysis and interpretation methods

AC1	**Research and analyse information to achieve objectives**	P13-14	**Performance Criteria**

- Ensure the methods are appropriate to the type of data and the research aims
- Analyse information accurately according to the appropriate methodology

AC2	**Conduct non-intrusive archaeological investigations**	P22-P24	**Performance Criteria**

- Verify that data collected during investigation is sufficient for analytical purposes and is collated accurately
- Check and verify investigation data for accuracy and integrity
- Process investigation data accurately and present it in a format that will assist in making a balanced interpretation