Colchester Archaeological Group Study Days

Applications of Online Imaging Tools to Archaeological 'Desktop Research'

Roman Circus House Saturday 9 November 2019 10.00 – 15.00

Draft Programme – Session 1

The aim is to demonstrate interactively some of the tools available. Participants are enouraged to bring a laptop, ideally with Google Earth Pro installed, so that small groups can take part in practical exercises during the sessions.

CAG Members: £15 Full Time Education: £8

1. Introduction

How to get Google Earth Historical Imagery

Streetview and its uses

Using Layers and My Places

Add a Placemark and edit its name

Using the Ruler tool for measurements

Importing preexisting .kml files

Other sources: old maps from the National Library of Scotland (https://maps.nls.uk/index.html)

2. Further applications with Google Earth

Recording features using simple line and path generation (eg for Roman roads and cropmarks)

Saving and reloading 'objects' created under Ruler or Path

Editing saved objects on-screen, e.g. to change line colour or thickness, or adjust location.

Grouping and Saving created objects: KML[1] files

Creating KML files for export / sharing with others

Image Overlay (under Add), for example a site plan or geosurvey results

Saving and scaling on-screen images

KML (keyhole markup language) internal format

Simple kml file editing, for example changing an image overlay for another version or adjusting transparency.

Importing hand-held GPS receiver 'recordings'; Placemarks and Tracks.Coordinate conversions to and from OSGB36
(Online: https://www.ordnancesurvey.co.uk/gps/transformation/)

Aligning saved images to OSGB36

1 KML = Keyhole Markup Language

Draft Programme – Session 2
(date to be arranged)

1. UK Environment Agency Lidar

Online Lidar viewing tools (https://www.lidarfinder.com/)

Full-coverage National Lidar Programme (NLP) and older (floodplains only) datasets

Digital Surface Model, Digital Terrain Model

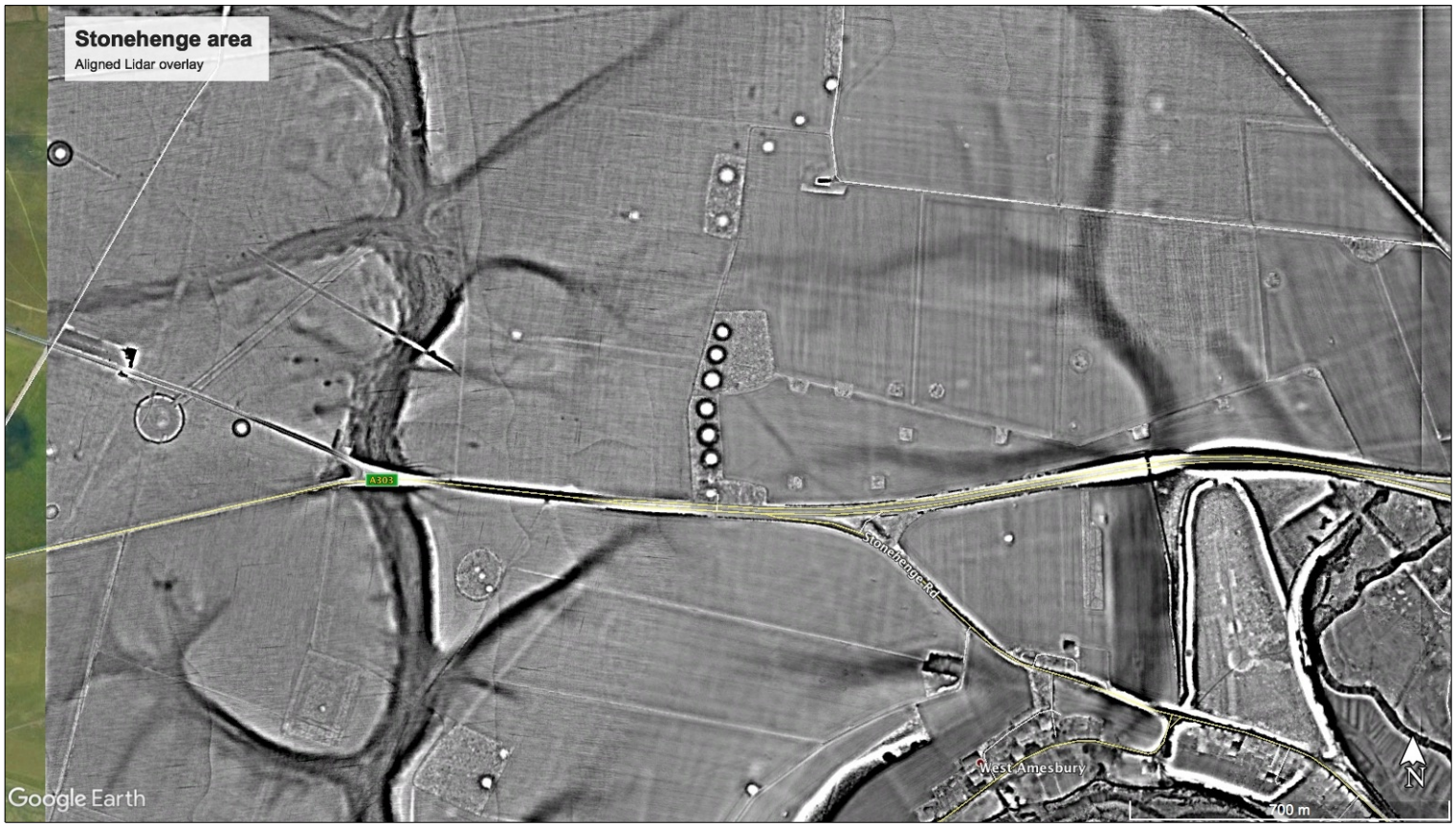
Introduction to Image processing and enhancement methods

Using pre-prepared OSGB36 Google Earth overlays –
CAG's planned library and how to add to it

On-screen display adjustments, e.g. altering overlay transparency

External processing of overlay tile images (PhotoShop or GIMP)

Observing and recording 'features of interest' – what to look-for and what to avoid



Highpass filtered Lidar Digital Terrain Model (DTM) image overlayed on Google Earth for the area around Stonehenge (centre left). This is 'old format' and does not have full coverage. DTM removes trees and other tall structures, including the stones.