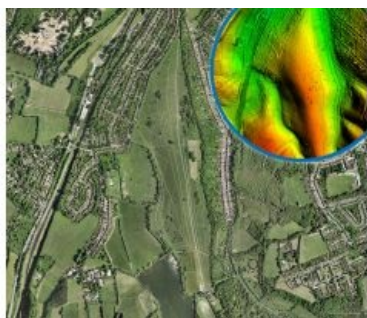


# Lidar Technology Reveals Archaeological Legacy of London Landscape



A detailed laser mapped aerial survey from Bluesky is helping the City of London Corporation understand and plan for the future of London's most extensive, natural grassland. The historic environment assessment of Farthing Downs was completed by the Museum of London Archaeology (MOLA) and will form the first stage in the preparation of a Heritage Conservation Management Plan for the Site of Special Scientific Interest (SSSI).

Using the Lidar data from Bluesky, alongside historic maps, geological data, archaeological reports and aerial photographs, researchers were able to identify a number of features including evidence of post-medieval farming techniques, Later Iron Age earthworks and Second World War bomb craters. The desk-based study which assessed

buried heritage assets (archaeological remains) concluded that survival across the site is likely to be moderate to high and the findings will provide background data for a more detailed field walkover survey.

"Lidar data is an excellent tool for archaeological studies as it is non-invasive, can penetrate ground vegetation that may obscure evidence of historic activity and is also highly accurate," commented Rupert Featherby, lead consultant (archaeology) at MOLA. "Working with [Bluesky](#) we were able to capture a detailed 3D record of the whole site which, using our desktop mapping software, we could review to identify a range of features."

## Digital terrain models

The Bluesky Lidar was captured to a resolution of 50cm across the site located in Coulsdon in the London Borough of Croydon. Supplied to MOLA as a mosaic dataset, researchers rendered the Bluesky data using ArcMap desktop geographical information system (GIS) software. Using the 'hillshade' option, 3D models (Digital Elevation and Digital Terrain Models, DEM / DTM) were created and illuminated from different directions and angles to identify both negative features such as ditches and pits and positive features such as banks or mounds.

As part of an ongoing review of land management, there is a need to identify, assess and manage the historic environment and so the [City of London](#) Corporation commissioned MOLA to carry out the assessment baseline of heritage assets at Farthing Downs and the New Hill Commons. The site forms part of the South London Downs, London's newest National Nature Reserve, and is recognized nationally for the preservation of archaeological features and historic landscapes. Not only do the Commons contribute to the understanding of the time depth and development of the landscape, but also to the distinctiveness of each of the landscapes.