

“Using LIDAR to see through trees”

Jon Hoyle

Senior Archaeology Officer for Gloucestershire County Council

The Society's lecture on the 18th September was a joint meeting with the local History and Archaeology Society.

Jon has been involved in using new technology to identify ancient hidden sites in the Forest of Dean. Remnants from the industrial revolution were plentiful; but more ancient sites were rare due to the dense woodland cover.

This was where the newer technology of Lidar offered a solution. Lidar is a radar system using intensified light rays, and by choosing the optimum wavelength and applying correcting algorithms a 3D image of the bare land surface contours is produced. The equipment is aircraft mounted and photographic sweeps are made over the designated area.

Some 1,700 artifact areas were identified. A large number of these were leveled platforms of ground associated with the charcoal burning industry, which has been there since pre-Roman times, and is associated with iron production.

However, 45 features were identified as more complex, and have been noted for protection against disturbance until resources are available for investigation later.

Three sites were excavated to confirm the archeological value of the new system. One was a large circular Bronze Age ritual centre complete with a standing stone circle. Another was a temporary Roman barracks from the first century A.D.

Other earthworks investigated were associated with Roman or medieval field systems, confirming that the cleared forest had been used for agriculture in the past. This has now been reclaimed by the dense forest.

The Lidar system has proved valuable and cost efficient in finding and protecting our archeological heritage.

Given on Wednesday 18th September 2013 at the Ashcroft Centre