

## Case Study

# Learning through LiDAR

### Background

Secrets of the High Woods is a partnership project led by the South Downs National Park Authority with Chichester District Council and is funded by the Heritage Lottery Fund and the National Park Authority.

The project was established to investigate the archaeology and history of the “Wooded Estates” landscape character area – this is the dip and scarp slopes of the South Downs from the river Arun to the A3 road.

This area is heavily wooded. This means that archaeological sites are difficult to see, using traditional survey methods. LiDAR allows us to search beneath the trees and we now know that many sites are very well preserved.

The LiDAR survey is a relatively new technique for archaeological investigation and involves a lot of science and information technology – offering a wide range of learning opportunities.

This case-study looks at the learning opportunities presented through this project and outlines those achieved to date and plans for the future.



School children enjoying the Augmented Reality table at the project exhibition

### The project

At the beginning of this project a LiDAR survey was carried out; this is where a plane flies over the landscape and uses laser beams to ‘map’ the ground surface producing computer images known as LiDAR tiles. These LiDAR tiles are then compared with existing knowledge of the area and new potential archaeological features are identified.

The project has recruited and trained over 108 community volunteers to take part in archaeological fieldwork activity at local sites to check if the features do exist. This activity also included two community excavations in April and May of 2016.

More community volunteers have been busy researching the evidence from historical maps and documents of this area to provide more information about the sites from the medieval period onwards, for example researching how people lived on, and farmed the landscape, and took part in pleasure pursuits such as deer hunting.

Other volunteers have been involved with the oral history element of the project, meeting with local residents and voice recording their stories and memories of the area and how use of this landscape has changed over time.

From all this work a wide range of learning resources (including electronic media) will be produced to share the information, encourage young people to visit and explore, learn about the stories, and engage with the area.

“The South Downs National Park...(is) best known for its natural beauty, few people realise just how much history lies beneath their feet from prehistoric burial mounds to Iron Age hillforts and registered battlefields”

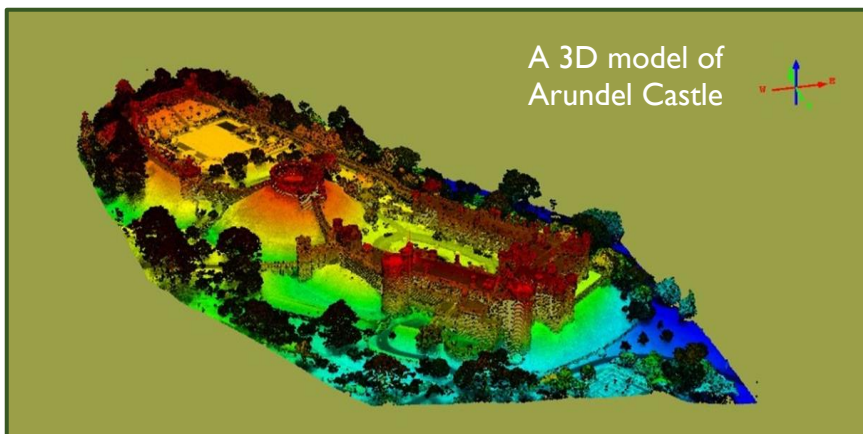
Historic England, 2014

## The outcome

Learning consultants, Past Participants, are developing the specific curriculum based learning resources with two key learning outputs:

1. To produce two learning resource packs, one for Key Stage 2 and one including more in-depth work for Key Stage 4. The resource packs are to be flexible enough for teachers to use as part of a virtual visit to the area or to support learning outside the classroom. Topics will include:
  - Archaeology of the South Downs
  - The use of science and technology in archaeology
2. To deliver a half-day workshop for teachers to:
  - Increase their knowledge on the heritage of the National Park
  - Increase their confidence in using the resource packs
  - Increase their ability to use the archaeology and heritage of the National Park to develop school curriculum materials and in their teaching practise.

In addition a digital design team, JAM Creative, has developed different ways of presenting the data in an engaging and appealing manner to excite young people. This includes Augmented Reality and Computer Generated Images (CGI) which allow children to enter a virtual historic world! All of which are currently touring local museum and heritage venues as integral elements of the project’s touring exhibition (June 2016-March 2017); they will also be integrated into the SDNPA Learning Zone on-line resources.



## The future

The learning resources will be made available on the Culture and Heritage pages of the SDNPA Learning Zone from March 2017.

These resources will be curriculum linked and provide exciting ways of introducing local history to the next generation.

Fieldwork opportunities to learn outside the classroom are also being developed with local heritage learning providers who are benefitting from training in the new resources by Past Participants.

There will also be self-led visit information available to encourage schools to explore and discover the hidden heritage at key locations in the project area.

For further information on all of these opportunities please contact:

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