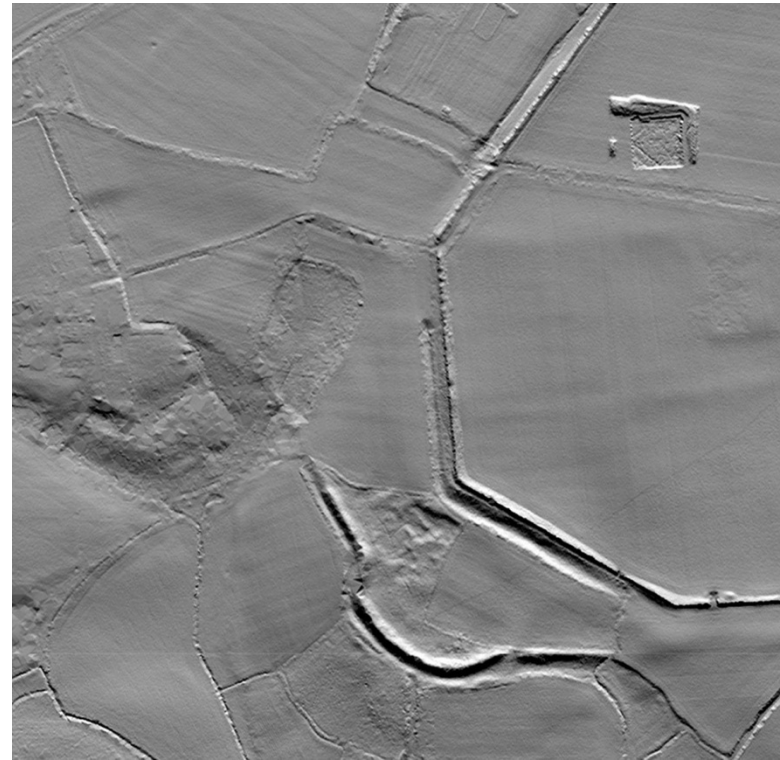


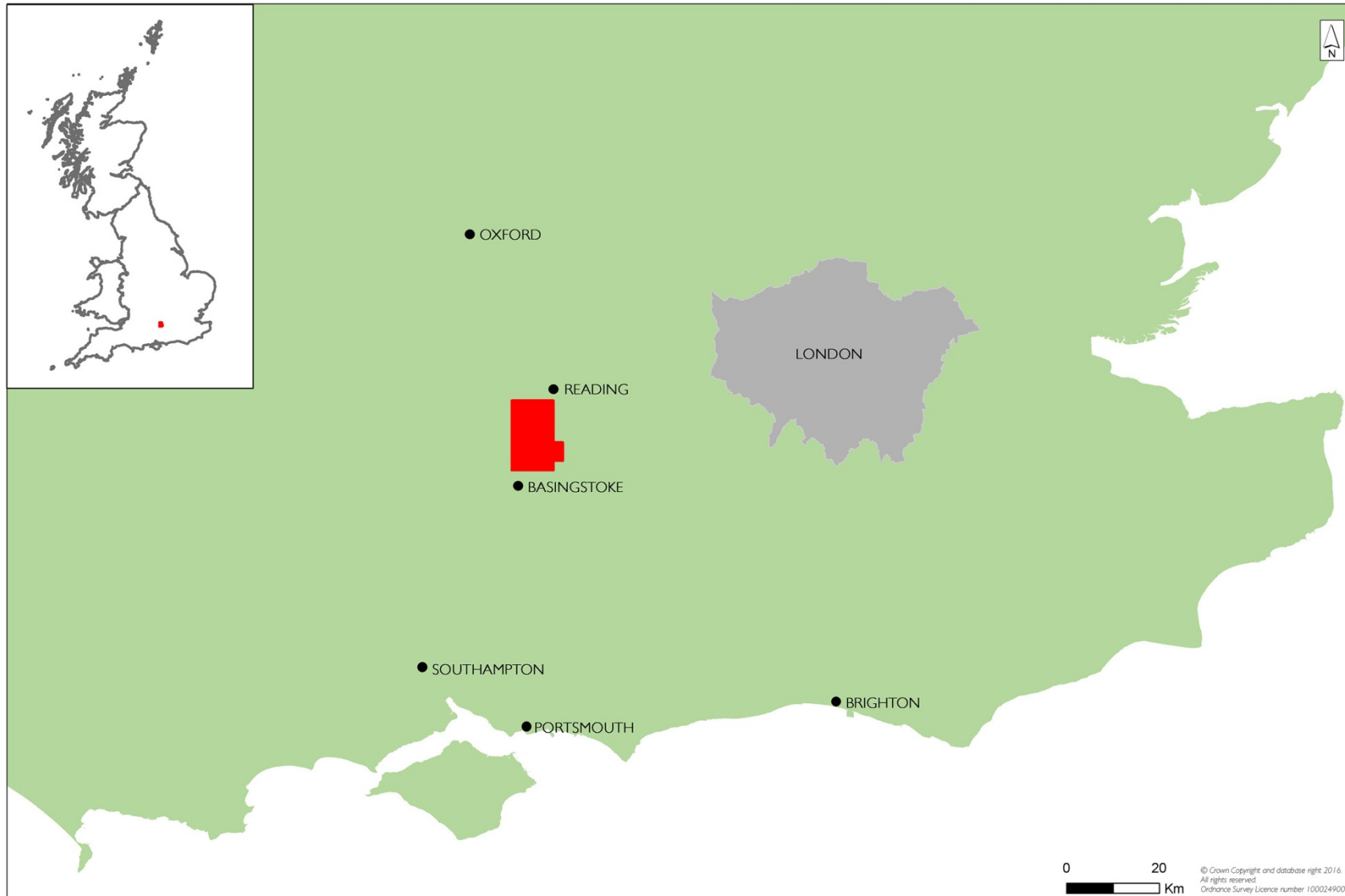
UNCOVERING THE IRON AGE ENVIRONS OF CALLEVA

The pros and cons of using Environment Agency
lidar

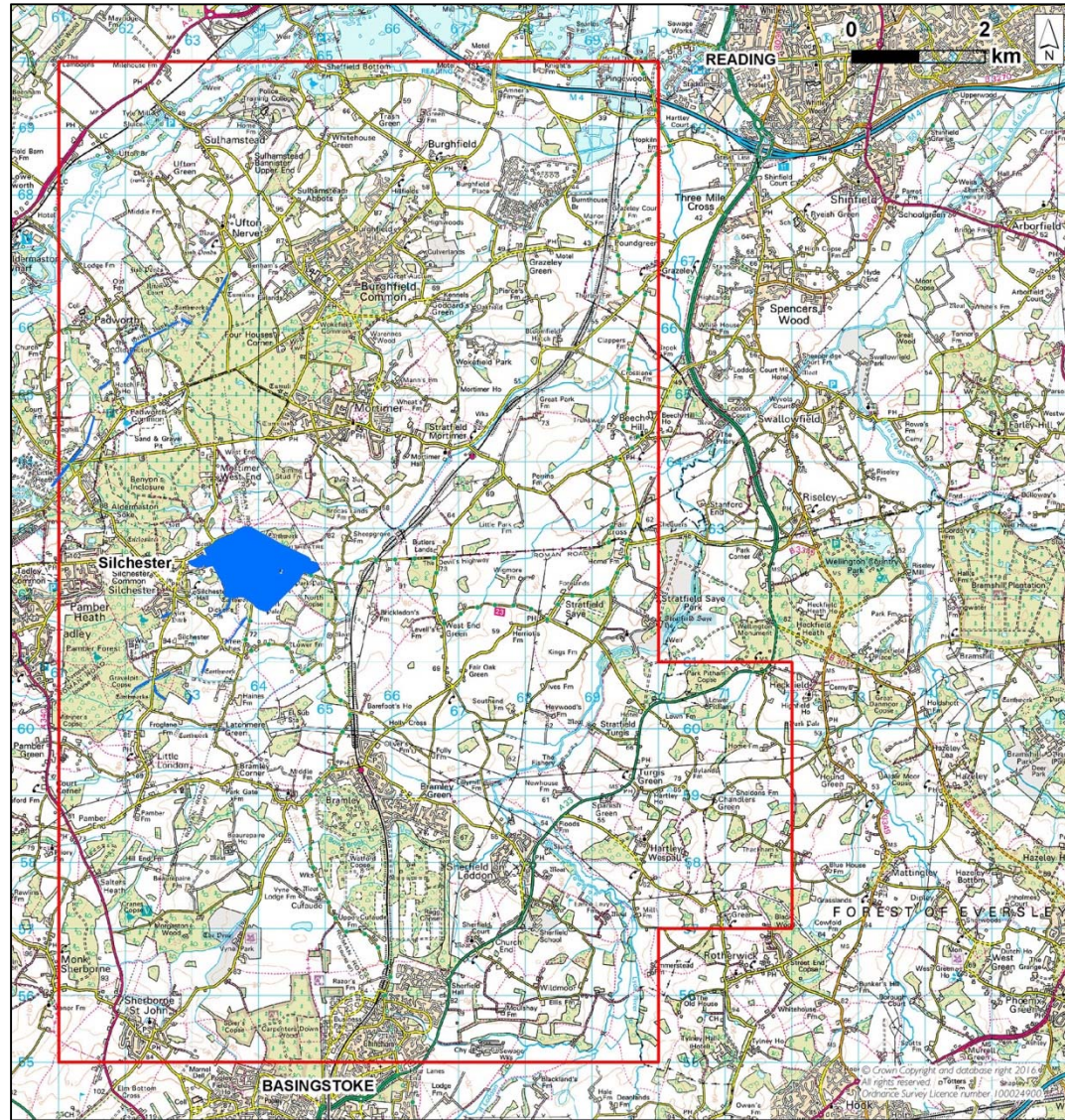


Krystyna Truscoe, School of Archaeology, Geography and
Environmental Science, University of Reading

PROJECT LOCATION



PROJECT LOCATION

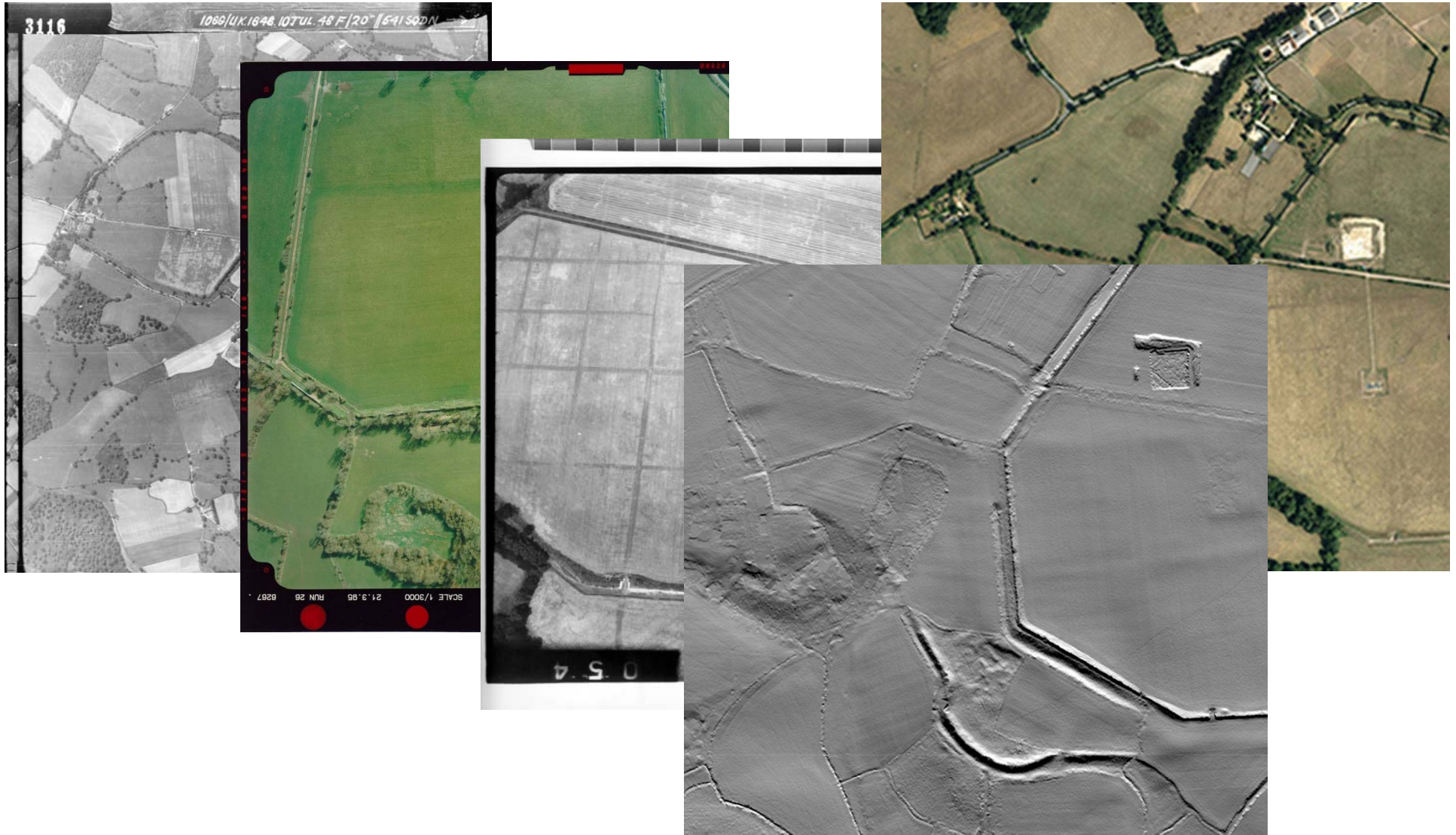


PROJECT BACKGROUND

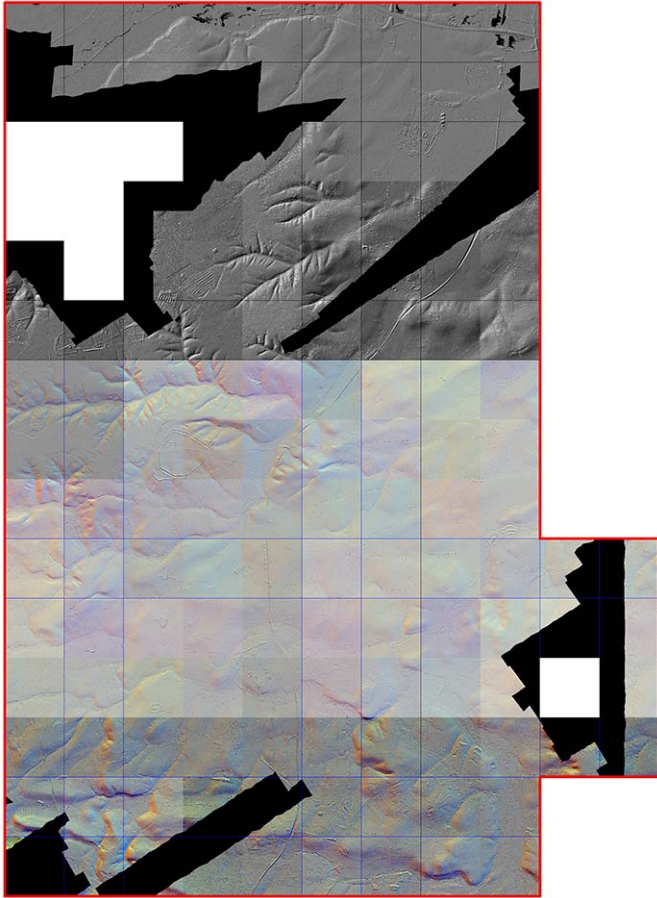
- Project area around the Late Iron Age *oppidum* and Roman town of *Calleva Atrebatum*
- Aerial photo and lidar survey is being used alongside geophysical survey, earthwork survey, coring and excavation
- The overall project aim is to uncover information about the Iron Age origins of Calleva and its landscape
- Aerial photo and lidar survey is also recording earlier and later use of the landscape



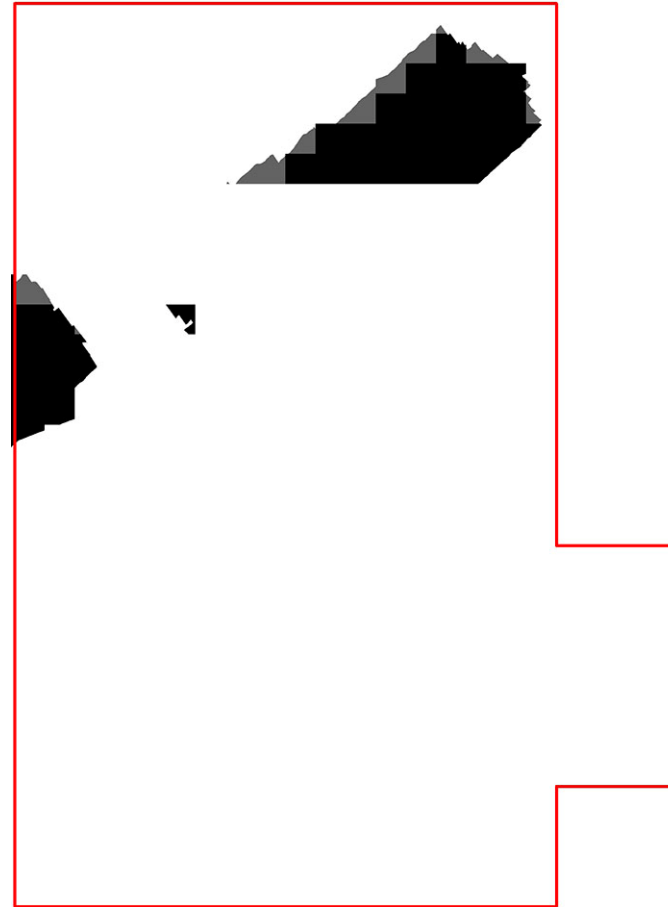
SOURCES



LIDAR COVERAGE

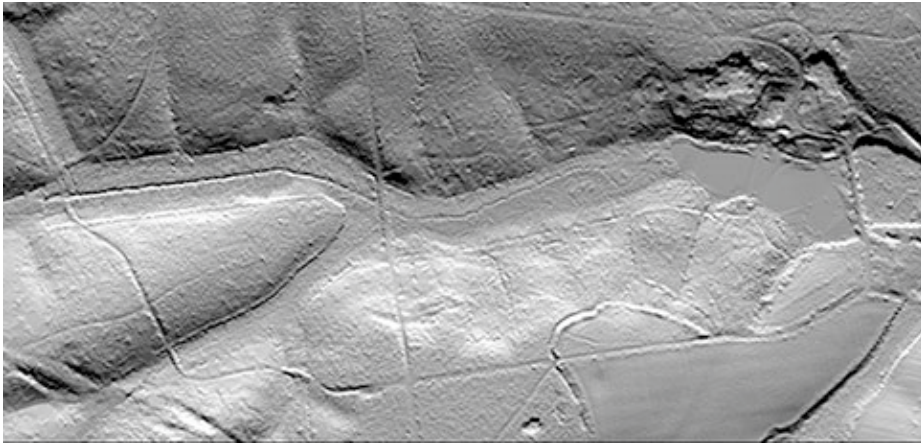


1 m resolution coverage

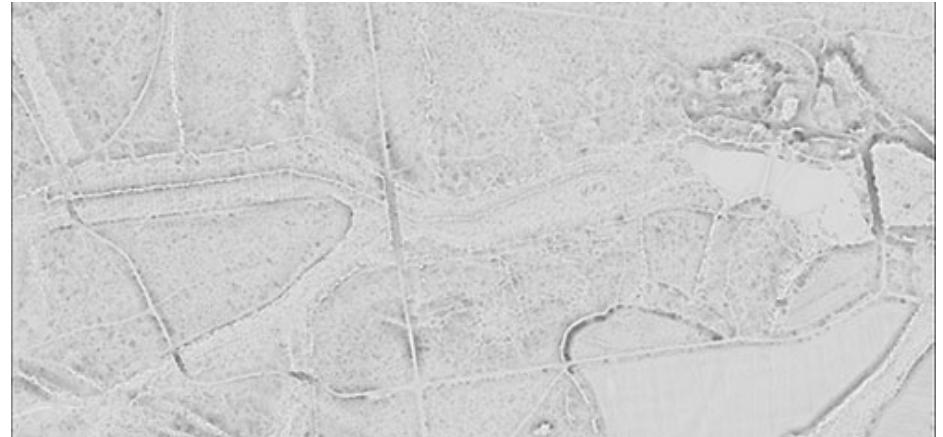


25 cm resolution coverage

PROCESSING THE LIDAR



Multi-lit hillshade



Openness Negative



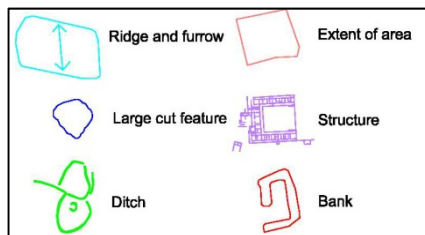
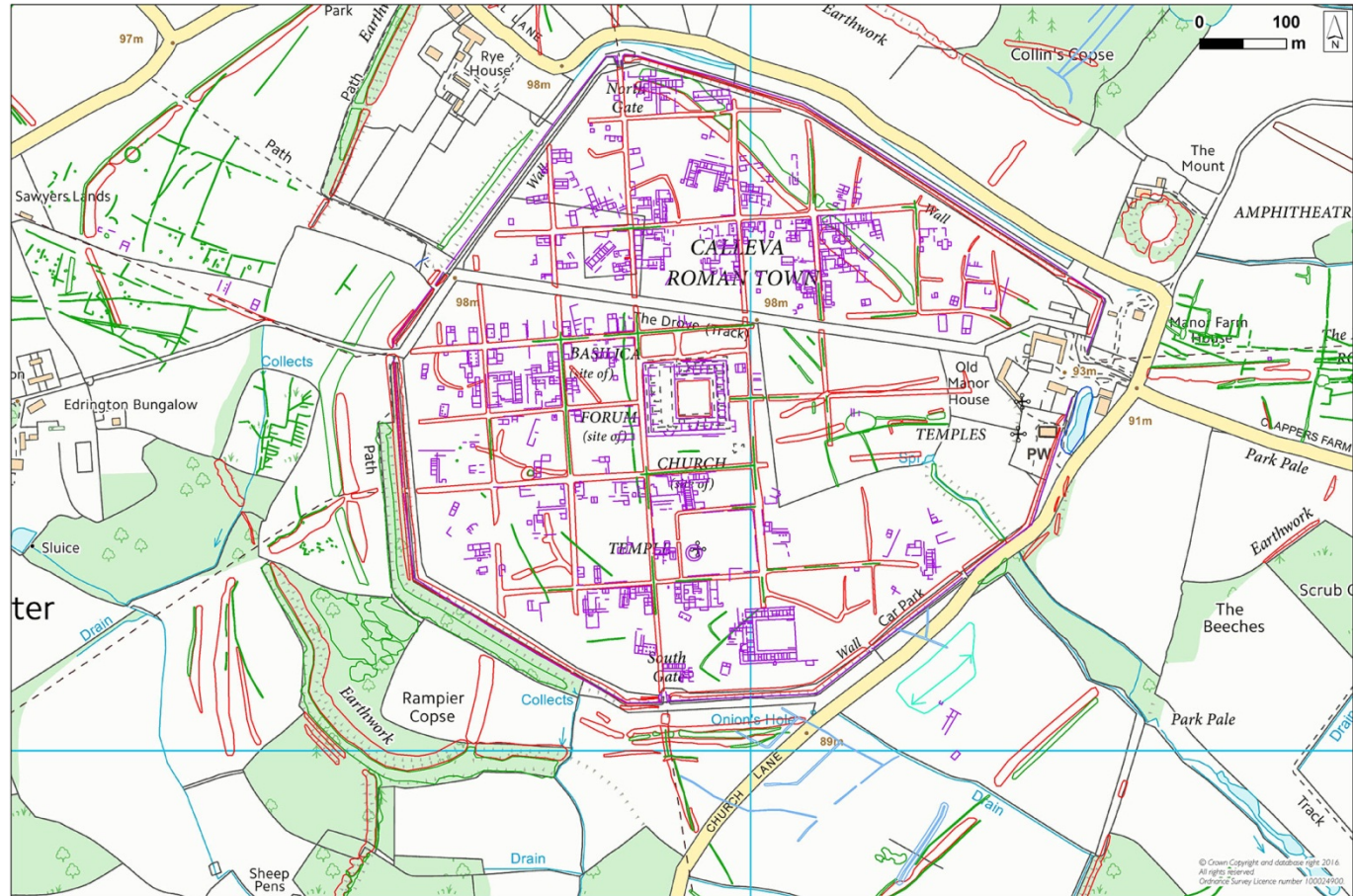
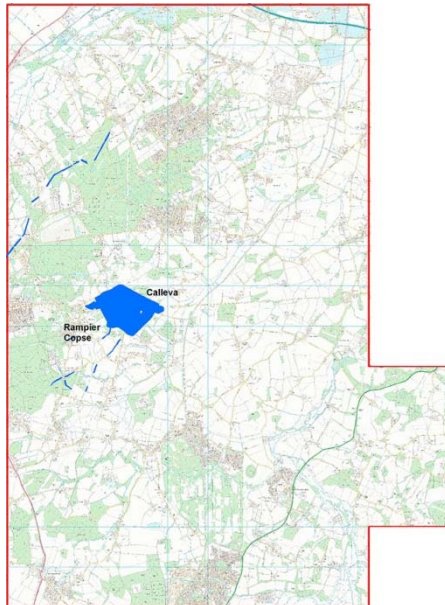
Openness Positive



Sky View Factor

Geomatics Lidar (2015)

GOOD RESULTS



GOOD RESULTS

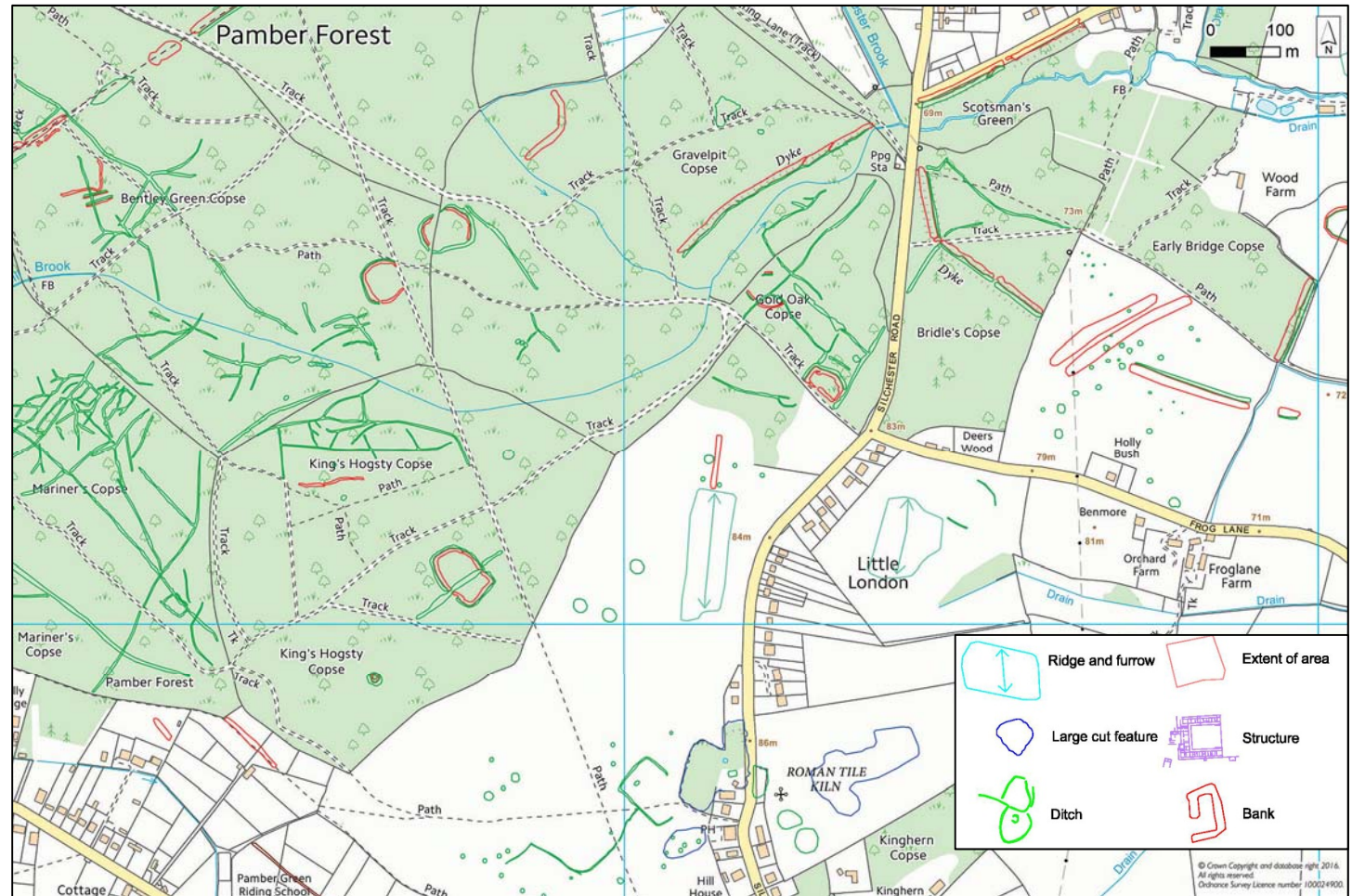
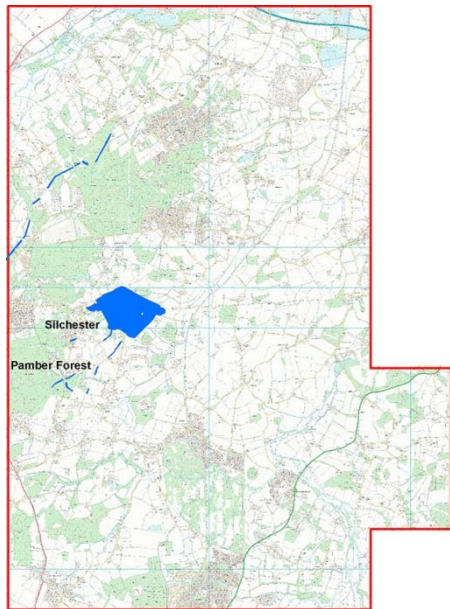


Google Earth 2005

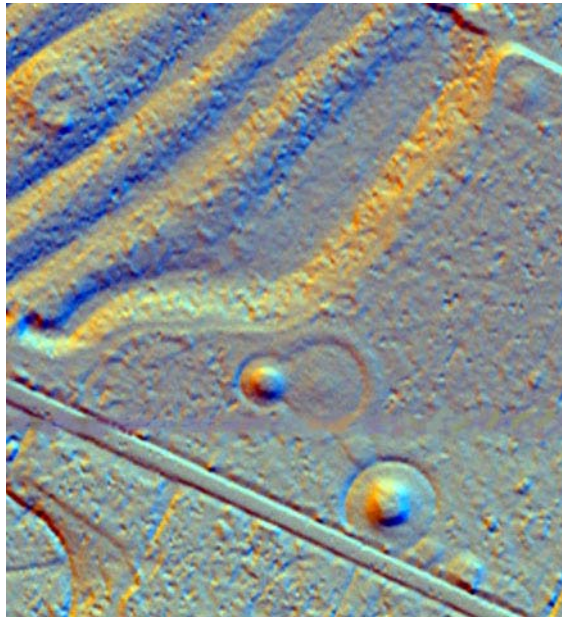
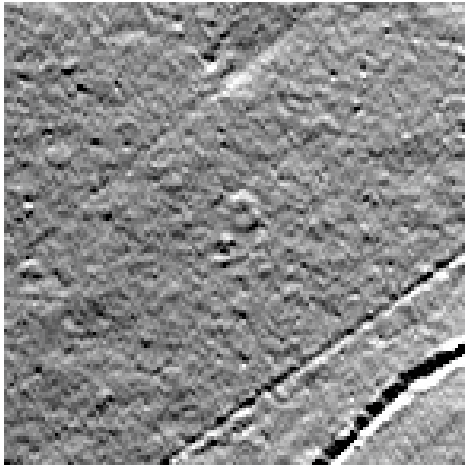


Geomatics Lidar (2015)

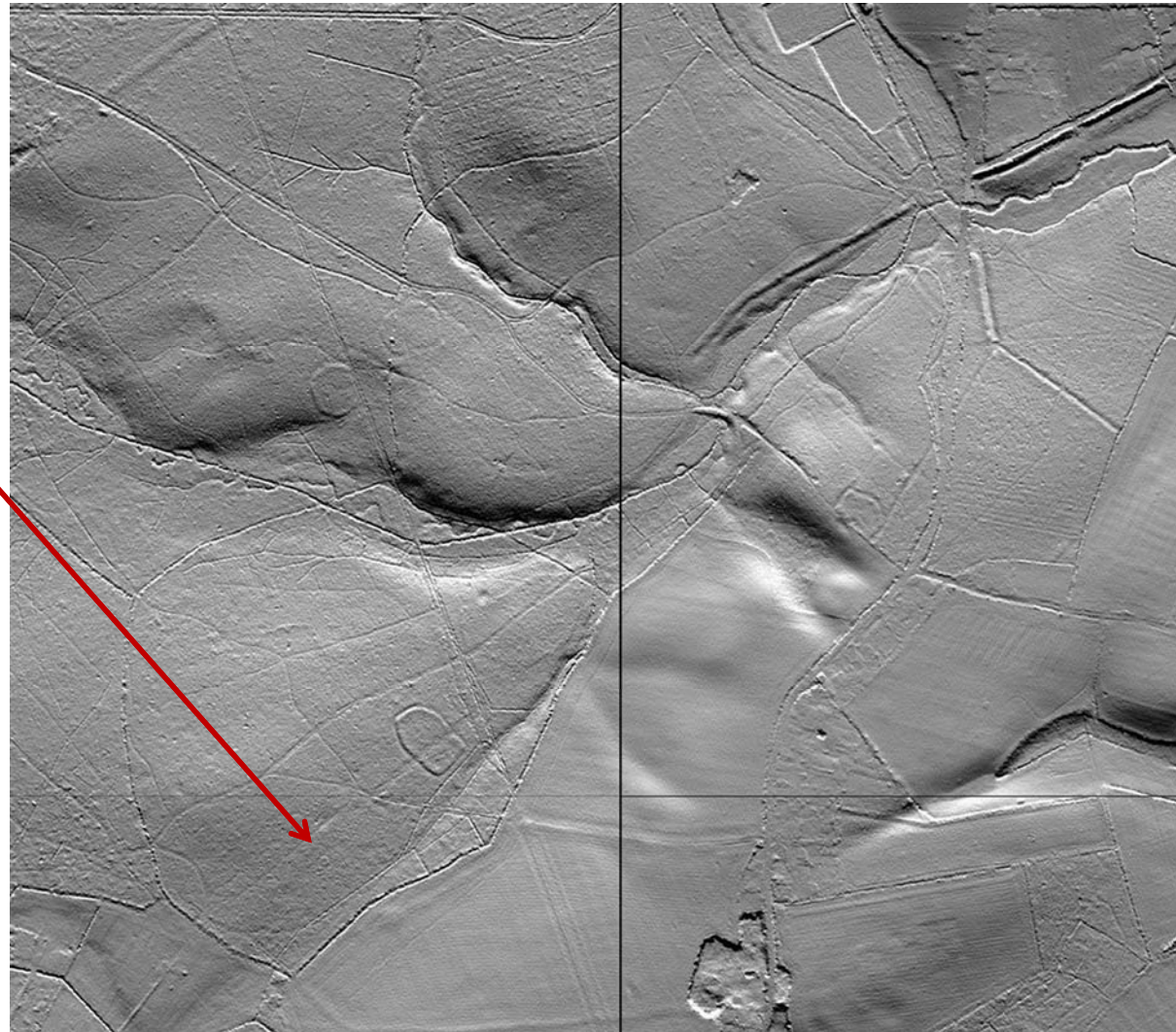
GOOD RESULTS



GOOD RESULTS



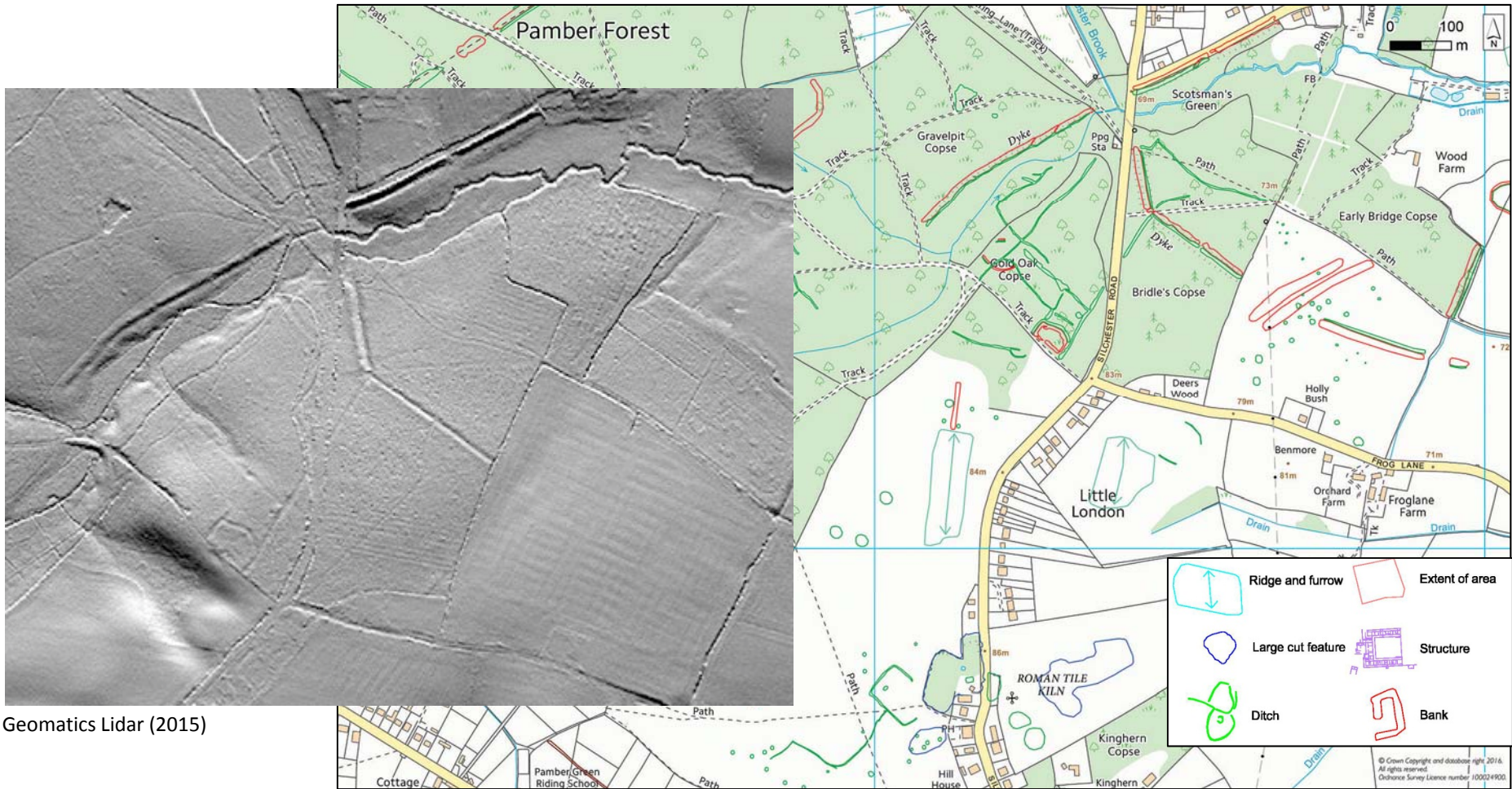
Holden Firs barrow cemetery



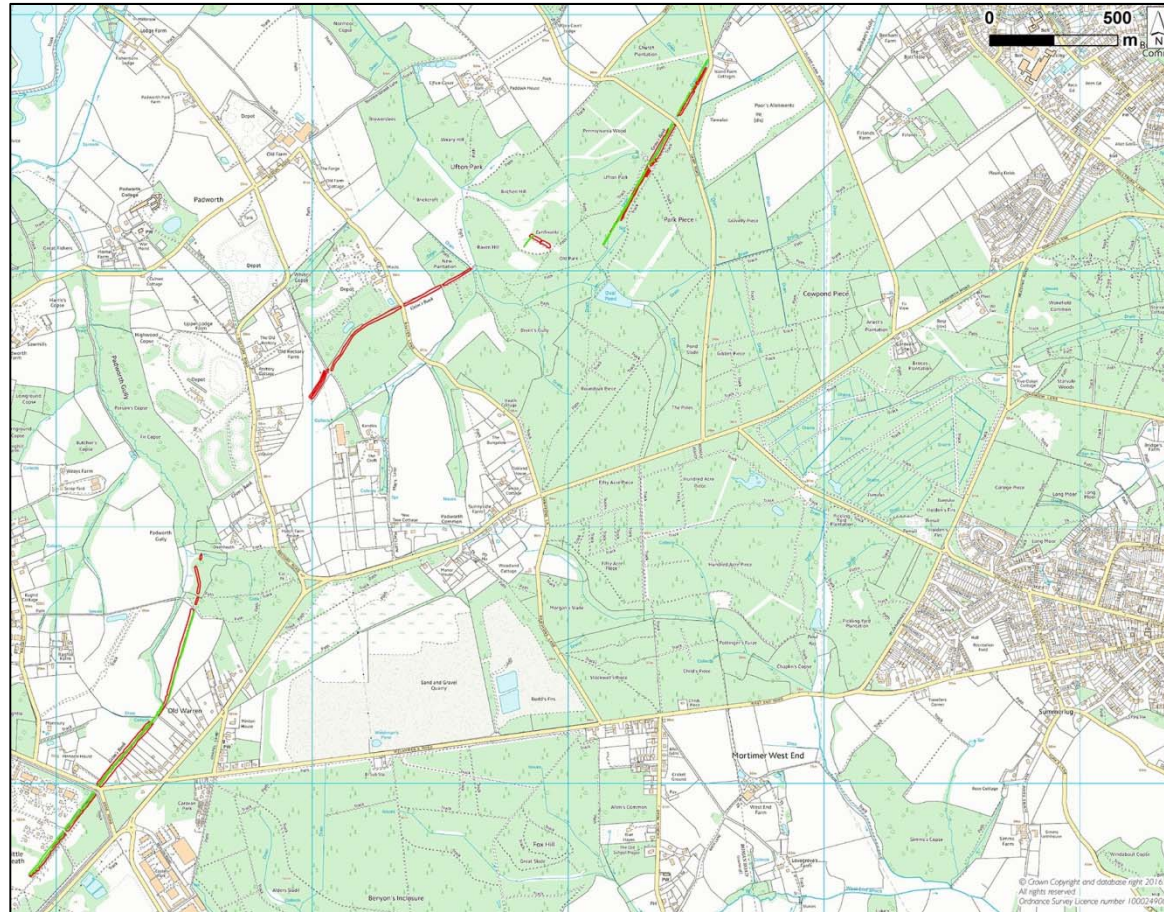
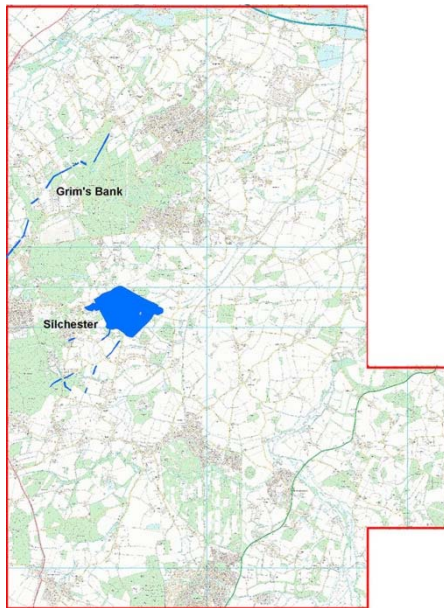
Geomatics Lidar (2015)



GOOD RESULTS



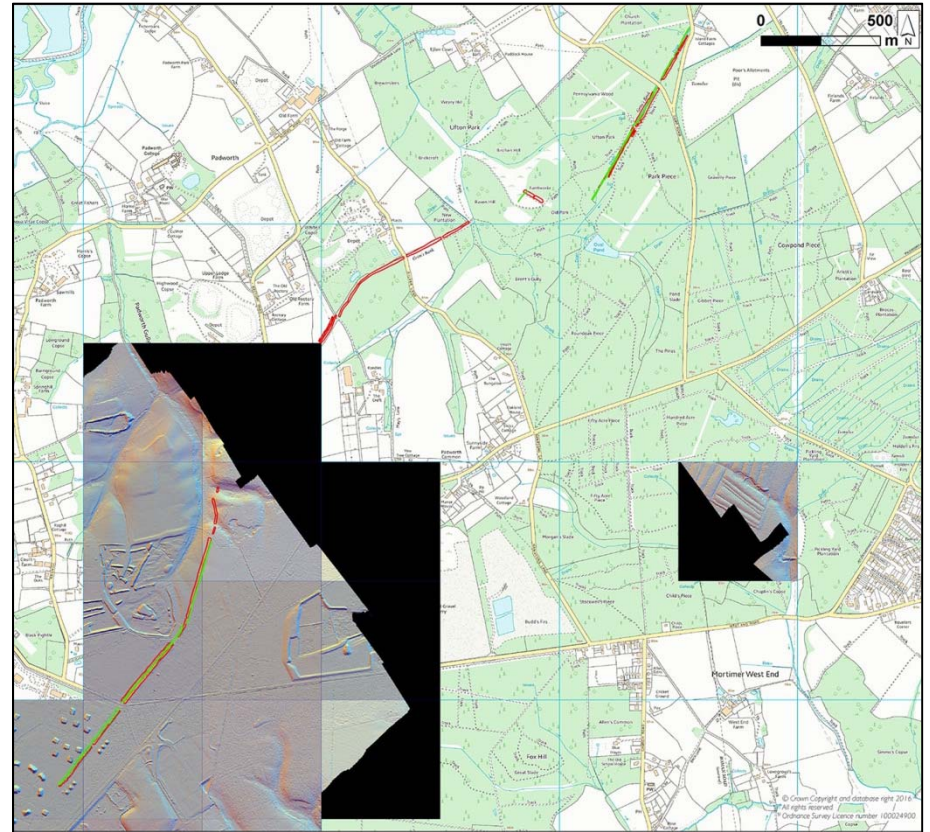
BUT WHAT TO DO WITH THE GAPS?



BUT WHAT TO DO WITH THE GAPS?

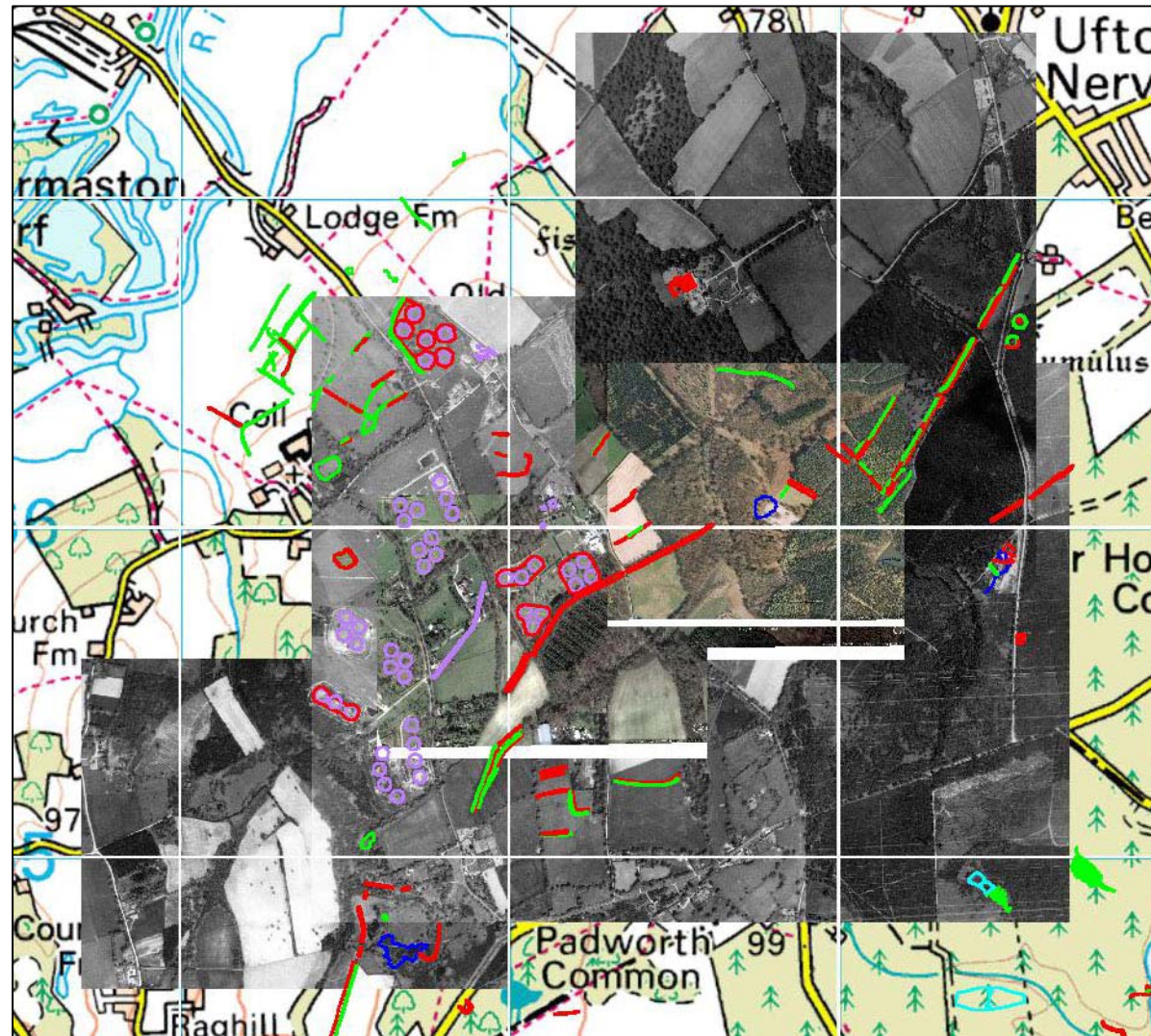


1 m resolution coverage

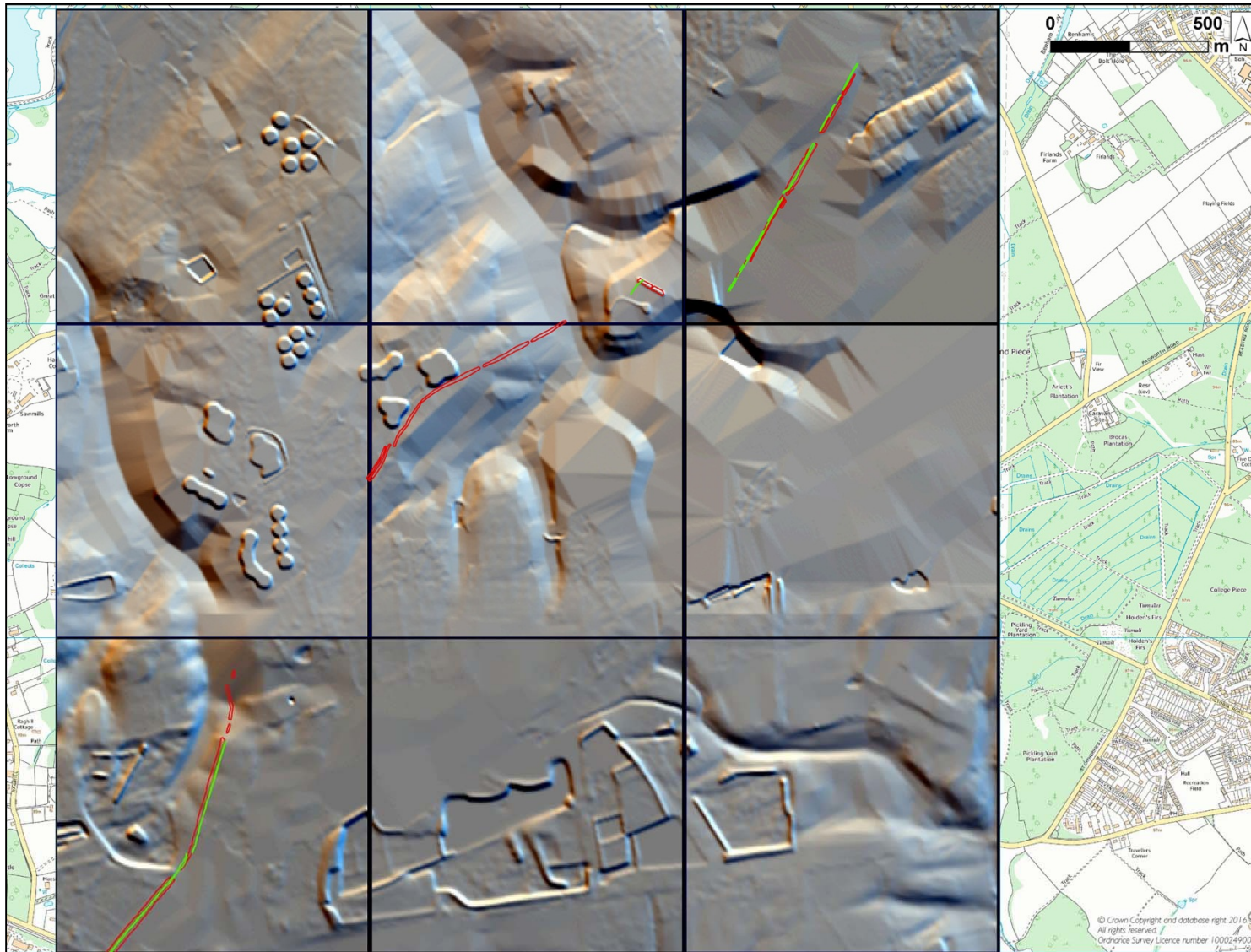


25 cm resolution coverage

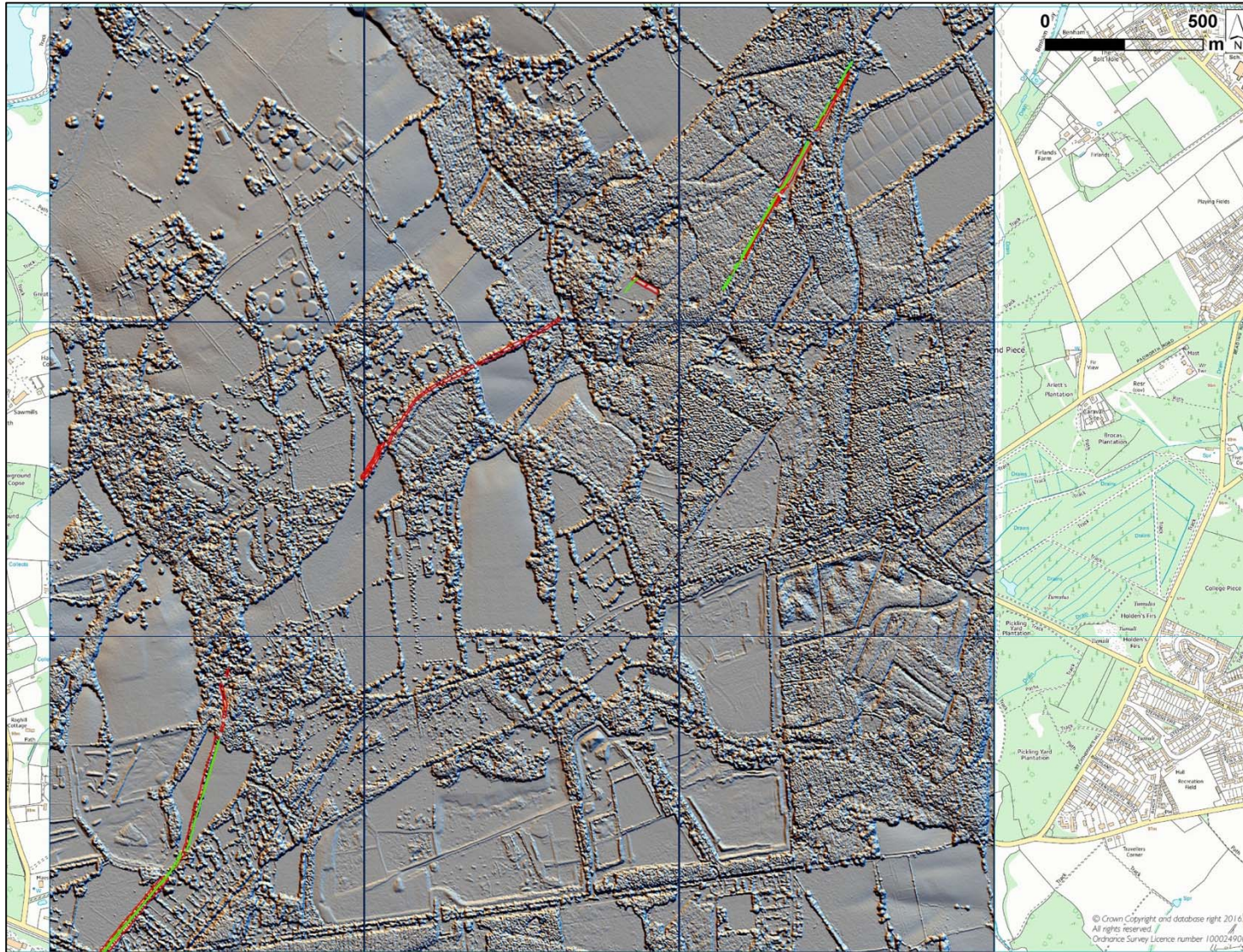
SOLUTION 1: AERIAL PHOTOS



SOLUTION 2: NEXT PERSPECTIVES HEIGHT DATA



SOLUTION 2: NEXT PERSPECTIVES HEIGHT DATA



CONCLUSIONS

- Publicly accessible sources of lidar are extremely useful for archaeological survey, but:
- Because these data are collected for reasons other than archaeology there are gaps in coverage
- The gaps can be plugged in open areas using aerial photographs
- Creating a virtual lidar with the Next Perspectives also provides some extra detail of archaeological sites, but the resolution is poor

k.m.truscoe@reading.ac.uk

The Silchester Environs Iron Age Project

<https://www.reading.ac.uk/silchester/Excavations/Sil-Environs-Iron-Age.aspx>