

# Innovation in Archaeology and Minerals Development

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**ARCHAEOLOGICAL  
RESEARCH SERVICES LTD**

*Digging with Purpose*

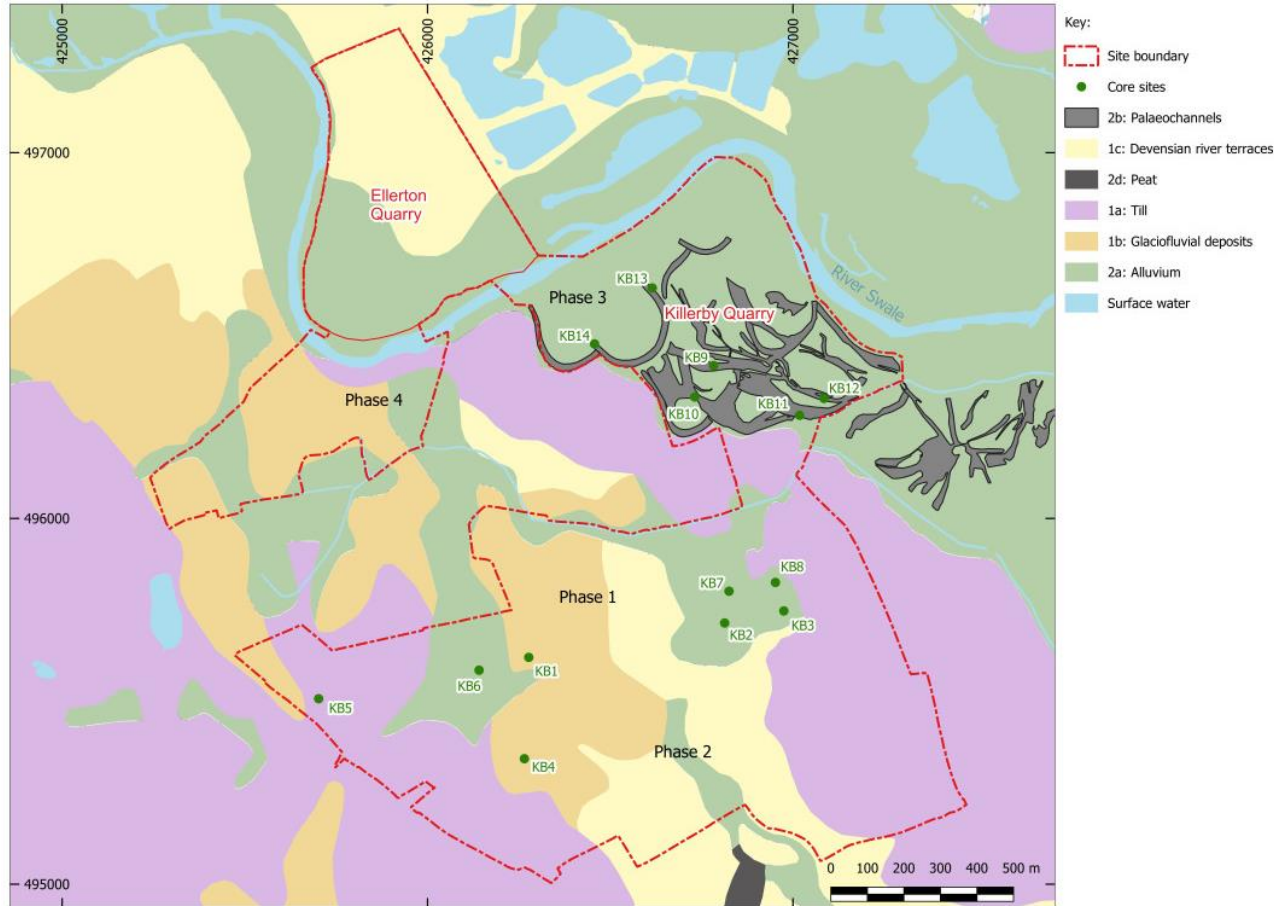
# Key Challenges

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- Current methods can miss significant archaeology
- Same old approach finds same old archaeology
- Expansion of trenching works at pre-determination evaluation stage drives up cost at highest risk stage of a project
- Increased trenching damages soil, archaeology and increases carbon footprint
- Failure to deliver / recognise social value commensurate with scale of archaeological works undertaken

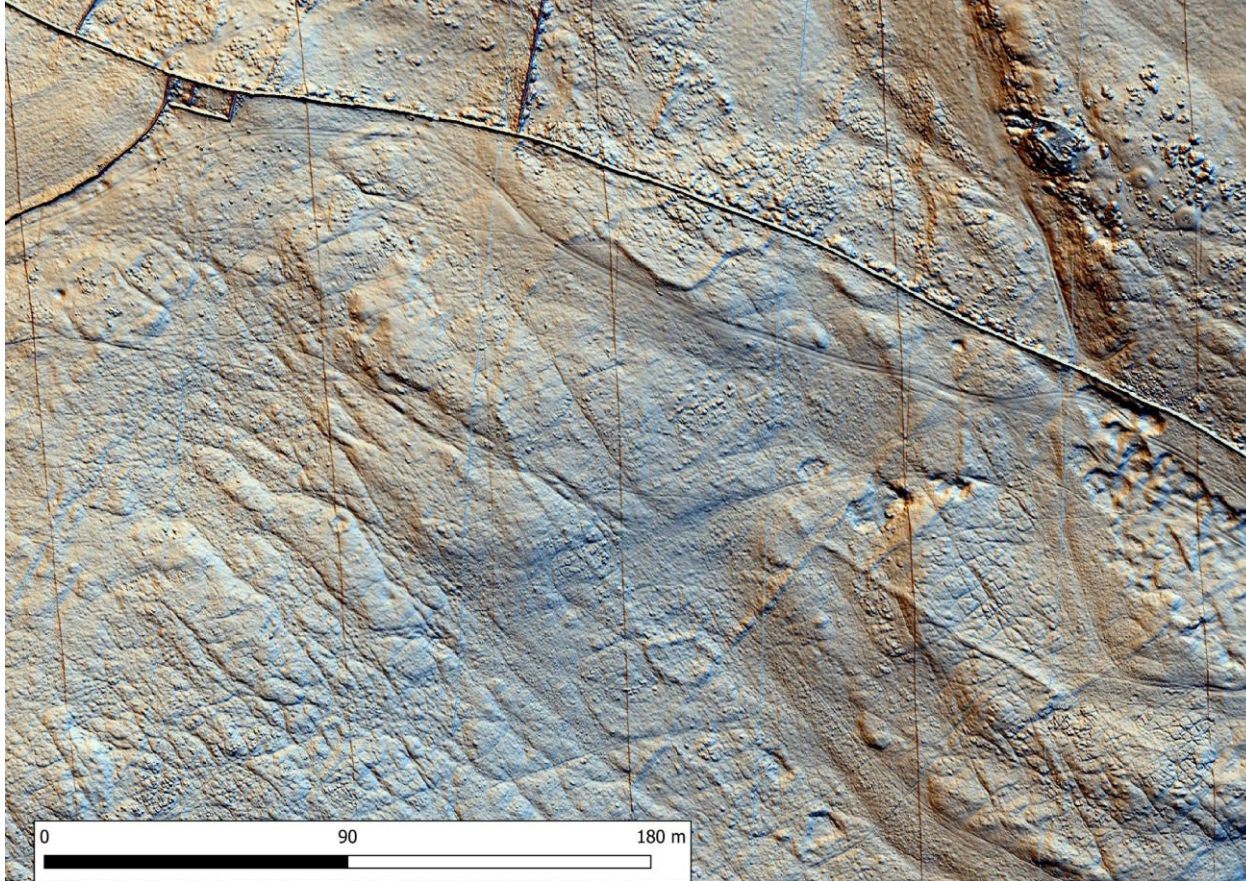


# Geoarchaeological Mapping



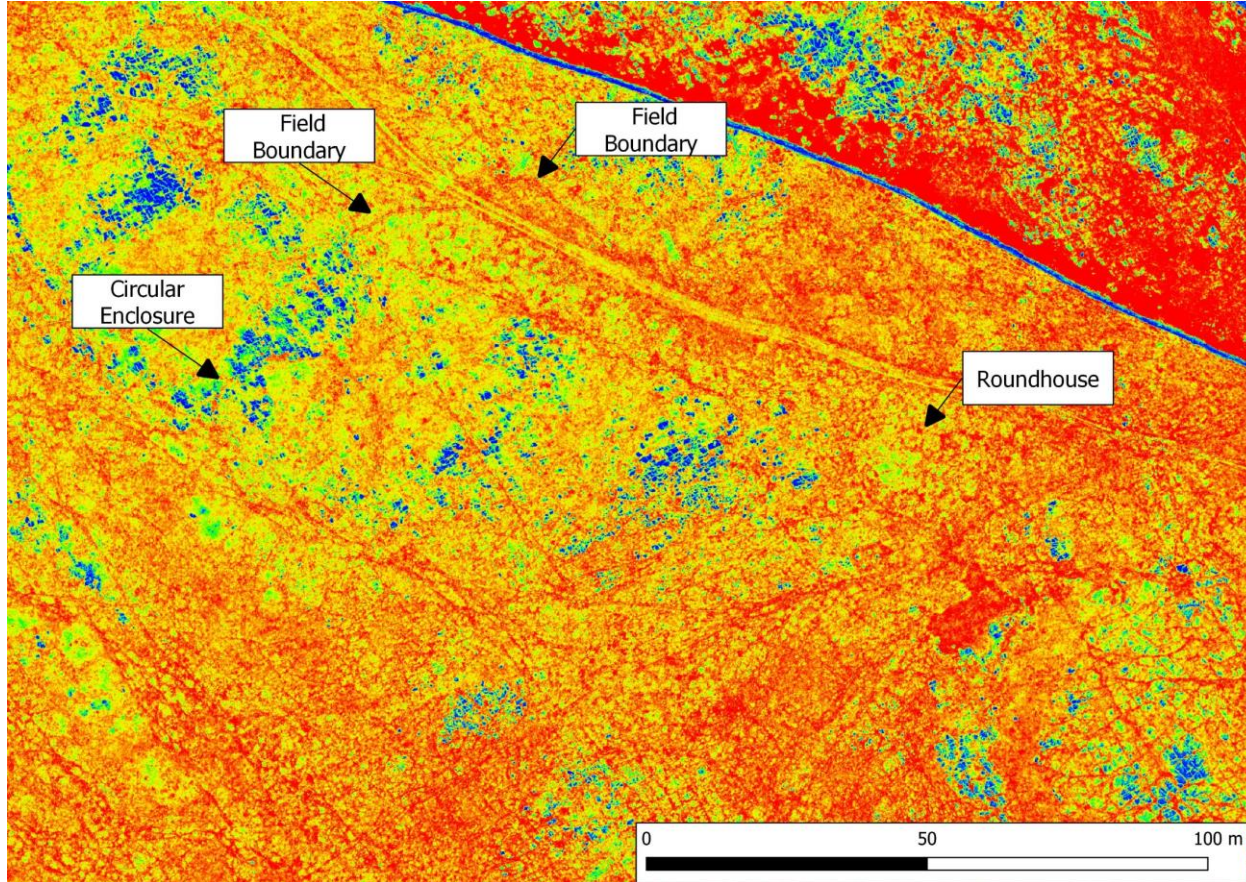


# High Resolution Lidar and Multispectral Survey



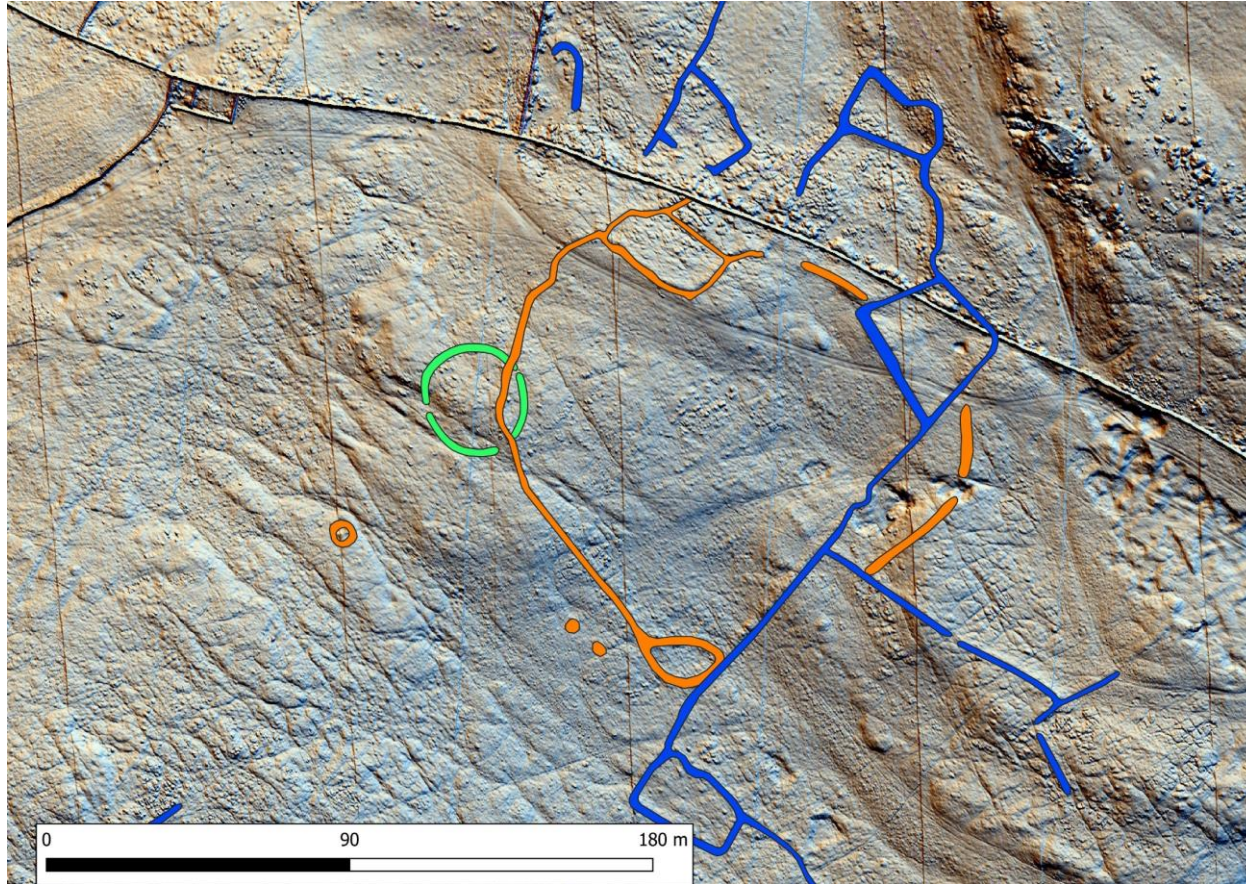


# Multispectral Survey



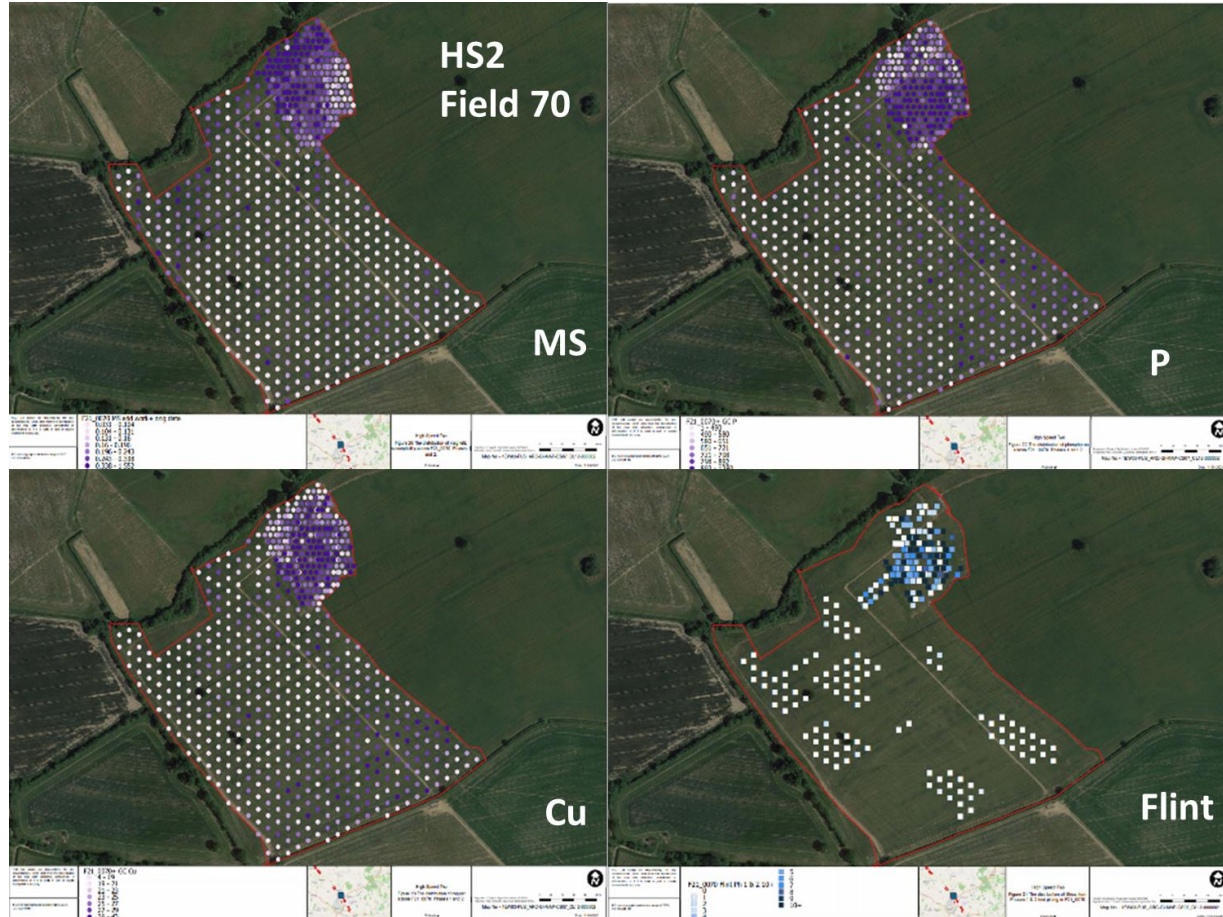


# Interpetive Lidar and Multispectral Survey



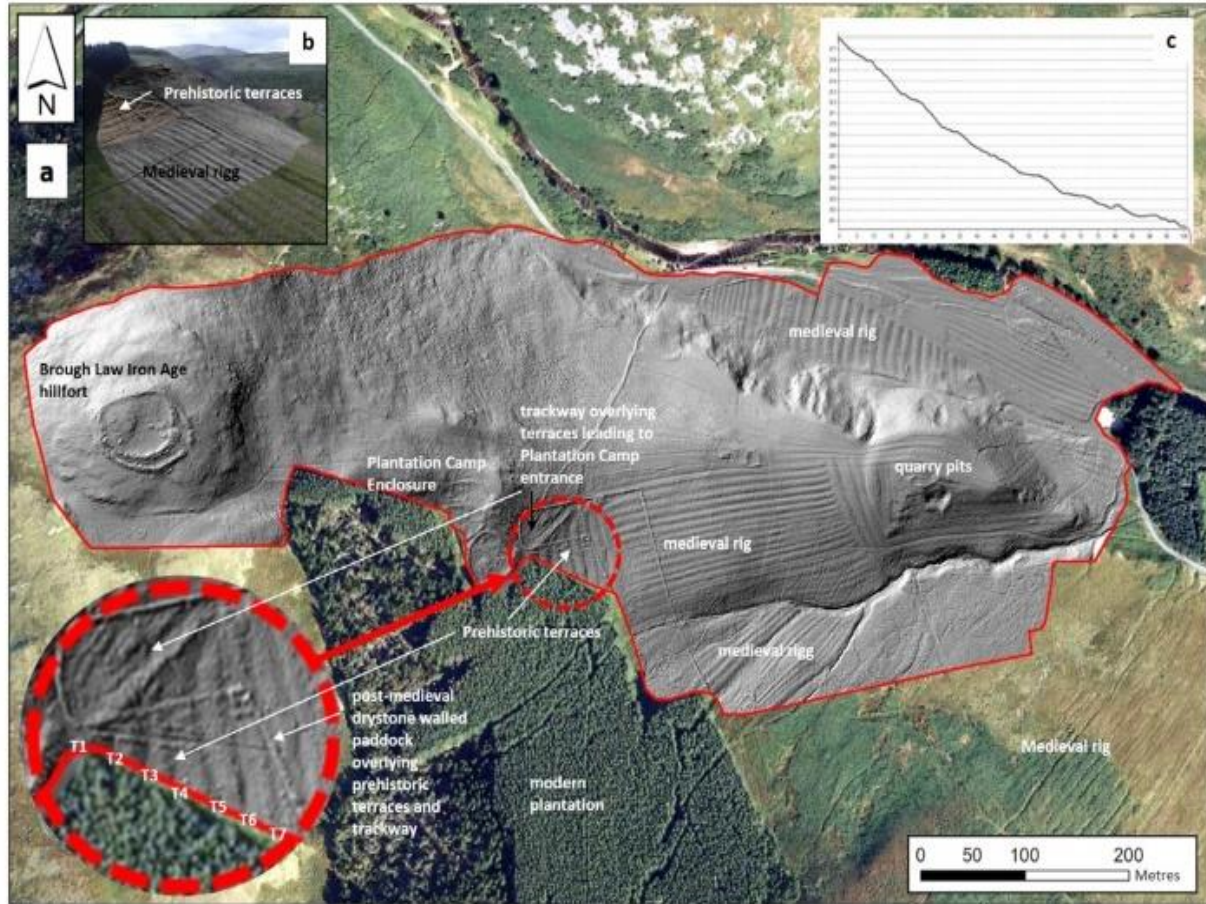


# Geochemistry and Magnetic Susceptibility





# Portable OSL





# Maximising Social Value

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- 'Living History' (experimental archaeology) on site as part of open days *etc.*
- Use of digital 'reconstructions' and video and disseminate via social media
- Improved use of volunteer and local community input
- Popular as well as academic publications
- School visits and involvement
- Minerals industry to recognise what it achieves, both internally and externally

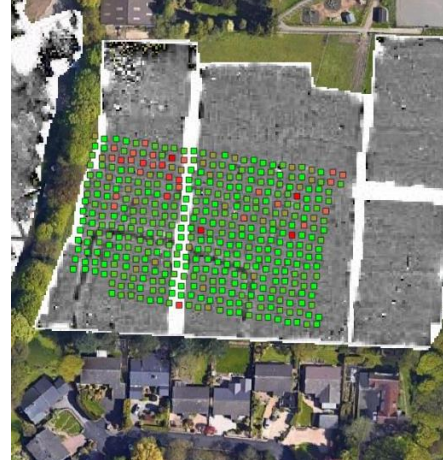




# Innovation Benefits.....

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- Improved identification of archaeology and this allows targeting of what is significant
- More of work can be done throughout the year and in difficult terrain
- Better, faster and usually cheaper than high % trenching
- Reduces carbon footprint
- Buy once, use many times
- Maximisation and recognition of social value created by minerals industry via archaeological works





# Thankyou

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