The Brecks from Above: Re-mapping the archaeology of the Brecks by Sophie Tremlett, Historic Environment Service, Norfolk County Council. Sat. 4th January 2017. 2.30pm at the Town Close Auditorium, Castle Museum, Norwich.

'Brecks from Above' is an aerial mapping project, part of the English Heritage initiative, The National Mapping Program to discover new sites, provide an accurate record of their location and form, plus an understanding not for archaeological excavations at present but to protect them from damage either by farming, forestry, roads or housing projects. 100,000 recent and historical photos, many taken by Derek Edwards of 695 sites, plus specialist archaeological photos from the Gressenhall Library and from Historic England have been accessed. It combines with *'Revealing the Landscape'* a new survey of the main forested areas, led by the Forestry Commission. This uses LiDAR, a form of scanning which is able to penetrate woodland more than other forms of remote sensing or ground survey. LiDAR involves flying over the landscape and sending down laser pulses – the time taken for a laser pulse to be reflected back builds up a picture of the relative height of the land and vegetation below. It provides a detailed relief of ground features, revealing the extent and survival of sites.

Sophie Tremlett explained how the Brecklands is a distinctive environment with a unique range of sites. The poor soil has resulted in temporary fields or 'Brecks', often lightly ploughed creating short-lived arable farming and forestry areas which later reverted back to heathland. This has helped to preserve many sites but also damaged the archaeology of others. Thetford forest is thought to have had a relatively benign effect on surviving ground features, even protecting earthworks from the damage that farming and development causes.

In March 2014 the Heritage Lottery Fund (HLF) confirmed the award of nearly £1.5million to the Breaking New Ground Landscape Partnership, enabling a £2.2m scheme to deliver a range of exciting Heritage and Landscape Projects in the heart of the Brecks. This has concentrated on mapping 75 sq.km. of an area between Thetford and Brandon where central area of forest feeds into heathland at the margins. It has revealed unknown, unexcavated sites. However, there are common misconceptions and inaccuracies in such a landscape making it difficult to distinguish geology from archaeology. For instance at Thorp Gt.Heath north of Thetford, numerous ice age depressions are not man-made. Also pattern ground effect of vegetation, caused by the ice-age effect of chalk thrust up through the ground, can make it difficult to pick out the archaeology.



'Patterned ground' at Weeting, Norfolk photographed on 5 July 2013 (NMR 27774/8) © Historic England Archive

Using numerous aerial photos, Sophie explained that early features are not Palaeolithic or Mesolithic but mainly **Neolithic** like Grimes Graves where additional features - pits, shafts and galleries – have been identified. **Bronze Age** ring ditches and barrows have been confirmed at Weeting Rising and plantations to the W and N of Weeting show a funerary landscape of cemeteries and mounds including two additional barrow mounds. **Iron Age** remains are evident at Brandon and Thetford and there is a **Roman** settlement at Hockwold where post holes of timber buildings provide extensive new evidence of substantial settlement. A **Mediaeval** site at East Weeting is surrounded by a moat with enclosure platforms, fish ponds but the exact dating is complicated. **Rabbit Warrens** - boundaries, mounds, artificial enclosures - can be seen at Weeting and Thetford. Munford earthworks is a new discovery, plus there is a **Post-mediaeval** enclosure at West Tofts.



Aerial view of the Neolithic flint mines at Grime's Graves, taken on 7 October 2004. © Historic England Archive

On the aerial photos, numerous marks showing ridges and furrows are the result of continuous ploughing resulting from agricultural expansion 17th-19th centuries but this ceased in the 1880s due to Agricultural Depression and much of the land reverted back to heath and plantation. Other photos show linear gulleys or shallow trenches on the heaths as at Brome Hall but it is not clear what these are or how they were caused. Signs of land improvement - water meadows - can be seen at Lynford and Stanford. Flint Mining continued up to the 1950s at Brandon with mining pits and knapping works. The Brecks Military History Project has looked at Elvedon where WWI tank development took place and at Weeting Hall buildings. The camps show quite a history of pill boxes, trenches, pits and craters. RAF Banham has signs of cold war activity.

The Mapping Program has plans for another Landscape Project – Brecks Stage 2 – an additional 94 sq.km. survey around Northwold, Didlington and King's Forest. Also there is the Broads Aerial Perspective to look at water mills, marshes, etc., using volunteers to start in 2019.

See: www.breakingnewground.org.uk/our-projects/a-future-for-all/the-brecks-from-above/