

Spectacular heritage to see on RSPB sites



Leiston Abbey, Minsmere, Suffolk



Military targets, Rainham Marshes, Essex



* Mousa Broch, Mousa, Shetland



* Ring of Brodgar, Brodgar, Orkney



* Dwarfie Stone, Hoy, Orkney

See it for yourself

There are thousands of archaeological sites and features on our reserves, many of them Scheduled Ancient Monuments. There are Bronze Age barrows in Arne, Dorset, 17th century duck decoys at Old Hall Marshes, Essex, WWII radar installations at Dunnet Head, Caithness and a 19th century gold mine in Coed Garth Gell, Gwynedd. We even have an Iron Age hill fort at our Headquarters at The Lodge, Bedfordshire. These are some of the most impressive sites that can be visited:

- Leiston Abbey, RSPB Minsmere, Suffolk**
The chapel of the original Leiston Abbey, built in 1182. The Abbey was demolished, except for the chapel, and relocated in 1363.
- Military targets, RSPB Rainham Marshes, Essex**
Before it was a glorious nature reserve, Rainham was a military firing range. We've left many of the features, including the target pictured, as they are part of the site's character.
- * **Ring of Brodgar, Brodgar, Orkney**
One of the biggest and best stone circles in Britain. It is at least 4,000 years old.
- * **Dwarfie Stone, Hoy, Orkney**
Possibly the only Neolithic rock-cut tomb in Britain. A huge lump of sandstone, hollowed out more than 5,000 years ago.
- * **Mousa Broch, Mousa, Shetland**
The best preserved Iron Age broch (tower) in the world. It is over 2,000 years old. Storm petrels nest inside the walls, making this Britain's biggest bird box!
- * Monuments managed by Historic Scotland.

For more information on these sites, and other RSPB nature reserves with archaeological interest, please visit: www.rspb.org.uk/reserves

"This looks so medieval," Robin says, as if he's been there, and maybe, in a way, he has.



On the trail of heritage
Without Robin to interpret the landscape, I would have missed all this, but Broadwater Warren's story will soon be available to everyone. Working with local archaeologist Chris Butler, RSPB staff are putting together a heritage trail. And Lyn Palmer of East Sussex Council's Historic Environment Awareness Project is using the annotated LiDAR maps to create toolkits, which anyone will be able to download and use as a guide to discover the rich history of this and other sites. Already, the RSPB has helped Lyn test out these toolkits on nearby Tudeley Woods, where the LiDAR has found the remains of old charcoal workings. And it's to Tudeley that Robin and I head next, in the company of Mat Allen, Assistant Reserve Warden.

Keeping traditions alive
Tudeley is a place where you can really see "living history." Here they still practise the ancient management technique of hazel and sweet chestnut coppicing. The thicket of straight spindly branches that shoots up from the ground-level tree trunks is entirely man-made, but great wildlife habitat. "They used to cut the branches like this to make charcoal for smelting iron," Mat says. "But we still do it because it's perfect for all kinds of nesting birds – blackcaps, garden warblers, the occasional nightingale."

Graham Madge, Andy Hay (rspb-images.com), Andy Naeffle (RSPB)

Mat takes us to an area of hazel that has just been coppiced, the thin branches laying in piles on the bare ground. "This looks so medieval," Robin says, as if he's been there, and maybe, in a way, he has. Hundreds of years ago, this wood was coppiced on an industrial scale by families of charcoal burners that lived in and from the forest. Their skin and clothes were black from charcoal soot. They filled the forest with their smoke, keeping three burners on the go at all times, working through the night to keep the fire burning in just the right way to produce charcoal for smelting iron. The stream that runs through Tudeley is known as "Devil's Gill" because fires would burn along its length through the night.

Young archaeologists
Recently, a group of local children from the North Downs Young Archaeologist's Club came to the site to discover these ancient practices for themselves. They used Lyn's LiDAR maps to identify archaeological features and old charcoal platforms – places where scraping away the surface mud with your boot reveals the still-black earth beneath. The group also helped to make charcoal in an iron burner. Mat takes us there. I remark on the strong smell of charcoal. "It's like a great whisky," Mat says, inhaling a big whiff. With a twig, he scratches a diagram into the mud to show me how

they pile up different-sized twigs and branches inside, sealing everything in so that it burns slow and even. Mat tells this story to everyone who comes along to events at the reserve. It's been the same everywhere we've been today – on the surface, the sites can be enjoyed for their plants and wildlife, but there is a deeper pleasure to be had from understanding their historical context. **Staying faithful to the past**
Many of the landscapes we value today have evolved through human interaction with nature, going back 6,000 years. And so many of these special places have been lost, but through archaeological study, we can still see man's fingerprint on the landscape. We are rediscovering the living history of these sites, to faithfully restore it for wildlife, and for you.

Adam Marek has worked in the RSPB's editorial team for seven years. Outside work, he is also an award-winning writer of short stories.

Broadwater Warren and Tudeley Woods RSPB nature reserves are part of the High Weald Area of Outstanding Natural Beauty. The LiDAR surveys, heritage and habitat restoration work described were supported by the Weald Forest Ridge Landscape Partnership Scheme www.highweald.org

Preserving our heritage for wildlife and you

Every mound and ditch shows the history of human interaction with nature.

5000 BC

The time of wild woods and hunter-gatherers. In this pre-farming age, humans gathered wild plants and hunted animals, such as the aurochs (a wild cattle extinct long ago in Britain).

500 BC

By the Iron Age, people lived together in enclosed farms and defended hill forts. Much of the woodland had been cleared during the preceding millennia, and grazing by sheep and cattle kept scrub under control, creating the heathland that we value today for wildlife.

1700s–1940s

These wild open spaces have always been used by troops as training grounds – their location outside of towns meant they could fire munitions without danger of hitting civilians. Military action shaped the land, from the raised rifle butts of Napoleonic troops to WWI trenches.

20th century

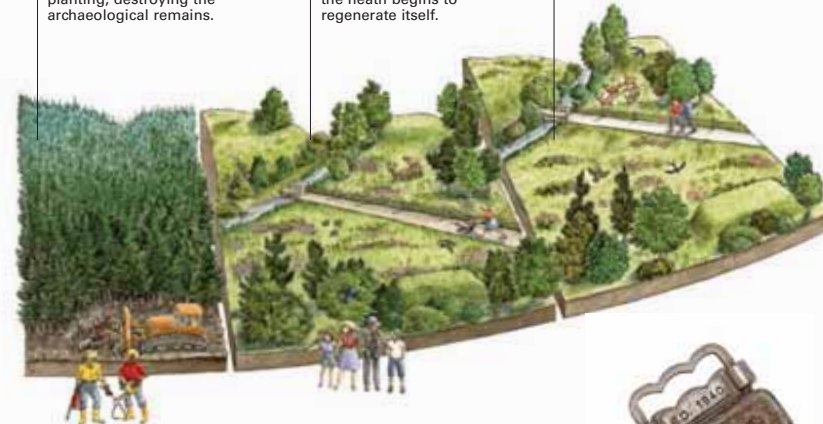
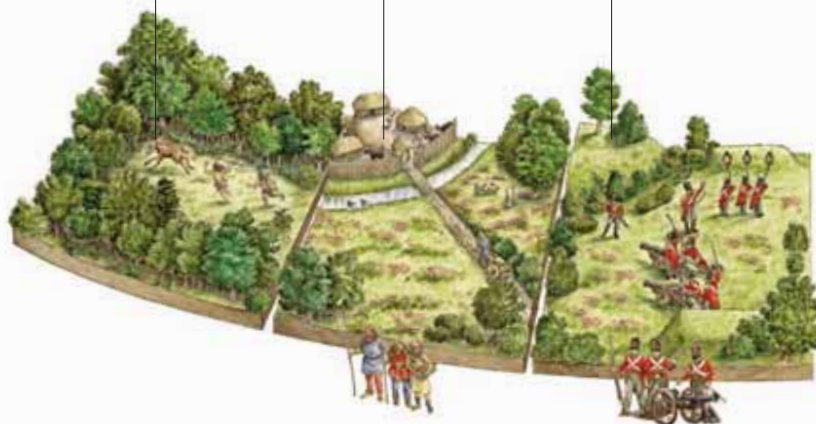
The death of heathland came during the drive to make money from the land. Those wild areas which were not suitable for agriculture were planted over with commercial forest to produce timber. Most of the special heathland wildlife disappeared. In some places, heavy machinery was used to flatten the land for planting, destroying the archaeological remains.

Today

We are putting the land back to the way it was before the forestry plantations, making sure that during our tree-felling operations, we protect historical features. Amazingly, the seeds from the original heathland remain in the ground, and as soon as the trees are cleared and sunlight falls on the ground for the first time, the heath begins to regenerate itself.

Tomorrow

We hope that the heathland wildlife will return. Wildlife such as Dartford warblers, nightjars, woodlarks, heath tiger beetles, natterjack toads, sand lizards and silver-studded blue butterflies is already returning to the sites where we've restored heathland: Arne in Dorset, Farnham Heath in Surrey and The Lodge in Bedfordshire.



Churchill's legacy

In a waterlogged depression, we come across the submerged turret of a Churchill tank. In WWII it was one of our heaviest tanks. Soldiers once learnt how to drive them here. Now, rusty and waterlogged, the tank's edges are ragged where salvagers have cut sections of iron from its body with blowtorches.

"When conscription was introduced," Robin says, "the first trenches that these young men saw were right here. When this was heathland, they learned to dig the trenches and fox holes that they hoped would keep them safe from enemy fire when they went out to the front. Nearly all of these places have now been lost, built on, or flattened for forestry. That makes them rare and important monuments. We have to make sure that when we're removing the pine trees and restoring the heathland, we preserve these features, because they are a part of our history."

"When conscription was introduced, the first trenches that these young men saw were right here."

sure we do it in a way that's in keeping with the site's history. I'm proud to be helping recreate the Bronze Age!"

In the footsteps of ancestors

Robin is on a one-year contract to the RSPB, paid for by English Heritage. His job here is to help the RSPB understand the historical context of its reserves, existing and new, and to help advise on how to design and restore the habitats with sensitivity – ensuring the preservation of sites and monuments for perpetuity.

Robin has his own history with the RSPB. His dad, Kevin Standing, worked for the RSPB for 31 years. Robin remembers his dad bringing him to his office at The Lodge when he was a child. His dad's colleagues called Robin "Young Standing." Robin now works in the office next door.

It was on an RSPB reserve that Robin was to have one of the moments that led to his interest in archaeology. "I was at Dungeness," he says, "bird-ringing with my dad, when I found

an unexploded WWII bomb. Dad's face was a picture when he saw me holding it."

Robin remembers several of these childhood moments of discovery, which forever committed him to this lifestyle – a piece of Roman tile with a bird motif found in the Sandy hills and a clay tobacco pipe found in a stream in Waresley Wood, a place he now explores with his three young children.

He grins with fascination as he tells me about these finds. It's a grin he wears throughout the day, every time we come across archaeological evidence, echoes of the past, which with Robin's help I am hearing for the first time.

"When I say I'm an archaeologist," Robin says, "people always ask why I'm not working in Egypt digging up ancient tombs. The truth is that I love British landscapes, and I want to share them with people. Archaeology is about connecting with people's imaginations, making them look at the landscape in a different way."

Robin was about to hand me one of these very moments.



Living history

Why would the RSPB hire an archaeologist? Adam Marek jumps in a time machine with Robin Standing to find out.



ON A COLD MORNING IN FEBRUARY, a small two-propeller plane finally approaches Kent. The pilot has been waiting weeks for a day such as this, when the conditions are just right – clear sky, still air. His target is in sight: a woodland near Tunbridge Wells. He banks right to circle round – his approach must be made east to west. And then, passing over the wood, he opens fire.

Except nothing in the forest notices. Not a single blue tit is startled. No leaf flutters, because this plane is blasting the forest with lightwaves. Receivers in the plane pick up the time it takes these lightwaves to bounce back, producing a dizzying quantity of data.

Modern archaeology

Two months later, and the data from this LIDAR (Light Detection And Ranging) plane has been digested and analysed and turned from an impenetrable wall of numbers into a highly detailed topographical map of Broadwater Warren – one of the RSPB's latest nature reserves.

I see this map for the first time as Robin Standing, RSPB archaeologist, spreads it out on the bonnet of his Focus in the car park there. Robin is the first archaeologist I have met. I suppose it was naive of me to think that he would be just like

Indiana Jones, but I quickly note that there is no fedora in sight. When I ask Robin what exciting artefacts he has dug up on RSPB reserves, he says "I don't get to do a lot of digging. When you've got thousands of hectares to survey, you need something a bit more sophisticated than a spade."

The wood for the trees

Robin has brought me here to show me the real Broadwater Warren, the one that existed for thousands of years until pine forestry began here in the early 20th century, driving out much of the area's special wildlife and burying the site's history. This history is being revealed for the first time in living memory with the LIDAR maps – maps that will also help guide the RSPB's restoration of this place.

"The thing is," Robin says, "that from the ground, the extent of the remains is hard to discern. The LIDAR sees right through the trees to reveal the land features that have been hidden for decades."

The playground of kings

Once upon a time Broadwater Warren was a rich mosaic of heathland and native woodland, part of the Weald Forest Ridge – a medieval landscape in which nightjars churred on summer evenings and glow-worms filled the rides like neon

punctuation. Royalty on horseback would thunder through the open spaces on hunting forays. It is this legacy that Robin reveals as we set out through the forest, using the LIDAR map as a guide.

We discover evidence of more recent activity: deep depressions, now waterlogged, which were training dug-outs for troops during the wars. A steep-sided mound, just a lump of earth to my eyes, was in fact part of a rifle range, which, covered in targets, was thick and tall enough to swallow bullets.

I ask Robin why the RSPB cares about these archaeological features. He tells me that the British landscape is itself a historical artefact. "When the RSPB takes on a new reserve," he says, "we become the guardians of a landscape that has evolved over thousands of years. British heathland as we know it emerged in the Bronze Age, 3,000 years ago. When we recreate habitats like this, we have a responsibility to make."

Left: submerged turret of Churchill tank at RSPB Broadwater Warren. **Centre:** (left to right) Lyn Palmer of East Sussex Council's Historic Environment Awareness Project; Robin Standing, RSPB archaeologist; Mat Allen, Assistant Warden, Weald Reserves; Sarah Cobell RSPB volunteer.

Right: charcoal burner at RSPB Tudeley Woods.

Top photographs by Adam Marek