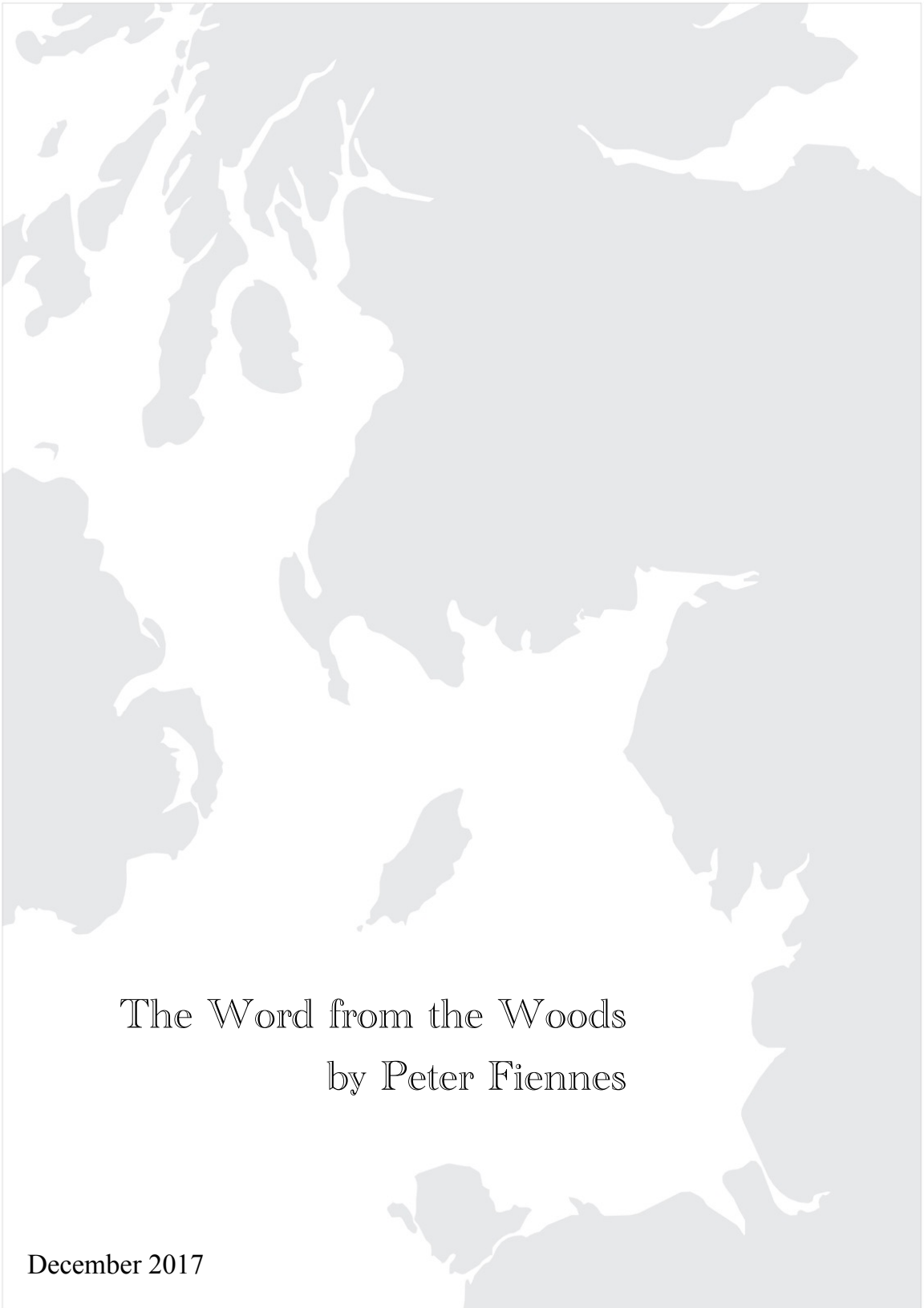
these ISLANDS



The Word from the Woods

by Peter Fiennes

December 2017

The Word from the Woods

So far as the natural world is concerned, there is nothing so artificial – so irrelevant – as a line on a map. Nature will flow where it can, and the only borders that matter are those that impede the free movement of living organisms. Mountains, oceans, deserts – nature's own barriers – are the most obvious examples, but there are also plenty thrown up by the busy workings of humanity: motorways, cities, dams, chemically assisted farmland, and grasslands patrolled by voracious, sapling-stripping sheep.

The guiding principle of present-day conservationists is to think and work at a landscape level. The idea is to create 'corridors' linking areas of wild nature (in Britain these are most often the surviving scraps of ancient native woodland). Hedgerows, rivers, scrub, moors and heath are all opportunities for wildlife and plants to travel and spread. Sometimes these 'corridors' do not even have to be connected, but might in reality be isolated 'stepping stones' of copses, ponds or large trees, rather than one continuously linked sanctuary. The important thing is that they are there, enabling the flow and exchange of genes, making sure that species don't become isolated and that every ecosystem remains or becomes as richly diverse as possible.

These islands enclose any number of unique habitats. The threats they face often come from beyond the sea, propelled by globalisation. Imported diseases such as ash dieback are having a disastrous impact on native flora and fauna; climate change is bringing alarming new challenges. But although there are obvious differences between the various parts of these islands (just compare what's left of the Great Caledonian Forest to the beech woods of the Chilterns), their natural history is proof of how much we share.

In what follows, I have tried to tell a history of Britain's woods and trees that puts them at the centre of their own story: one that doesn't impose our own, human perspective. To do this, I have written a history in which every word corresponds to the passing of two years, regardless of anything that we might consider essential. In other words, I have tried to emphasise events that affected the woods, and not *us*.

I assumed that Britain became an island in 5,000 BCE, and because at the time of writing the year is 2017, this history is exactly 3,508 words long. It's not an infallible system, but the first word of this history starts in the year 5,000 BCE and you will find, if you check, that the 2,521st word takes you to the arrival of the Romans, carrying their rabbits and sweet chestnut trees; and the 3,033rd word ushers in William the Conqueror and the most famous date in British history. Events escalate after that – and although I wanted to place the woods centre stage, in the end this story became all about us.

A SHORT HISTORY OF BRITAIN'S WOODS IN 3,508 WORDS

There's a final rush to beat the rising seas. The last tree to reach dry land in the newly minted British Isles is quite possibly the box. There are, perhaps, twenty-six species of tree now marooned on these islands. Juniper was here early, and has already spread to the far north of Scotland, followed by the silver birch and the Scots pine. There are alder trees along the rivers, lakes and streams. In the south of the country the most common tree has become the small-leaved lime, basking in the warmer climate, but there are also great stretches of oak, ash, hazel and elm. There are beech and hornbeam settled in the south-west. Further north, the oak is dominant, but the hazel is also here in numbers, its nuts spread by red squirrels and birds. The pine and the birch are retreating ever northwards, only surviving further south in the scraps and edges of the broadleaved forest as the shade deepens over the young land. The first oak reaches the Firth of Forth. Rowan and willow, aspen, poplar and the late-arriving hawthorn make their way north and west. Human hunter-gatherers follow through the glades and make temporary clearings in the woods; perhaps they favour and spread the hazel, wild pear, the crab apple and the cherry; there are brown bears, lynxes, wolves, deer, bison, elks and boars in the forest; beavers dam the rivers and fell the trees. This is the wildwood, a place of constant change, a kingdom of trees. A yew berry passes through the gut of a jay and is excreted by the side of a stream in Fortingall, Perthshire, the start of its milliennia-long life journey.

Humans have discovered arable farming, animal husbandry and pottery, or it has arrived from Europe. There are pigs in the woods and cattle on the fringes. There's a 'Neolithic Revolution' underway and land is being cleared, very slowly, but the tree cover is expanding. There might be ten thousand humans in Britain, there might be a hundred thousand, no one knows. They are almost certainly outnumbered by wolves. The maple and ash are thriving on the calcareous hills; black poplar and holly have followed the birch to almost every part of the land. Wheat is being planted in the south of England. Trees are spreading up the mountains, mostly juniper, rowan, holly and birch, although there are tracts of bare ground at the higher levels. Wild aurochs browse in the forest, tearing at the saplings. The aspen trembles in the cold north-western isles. An elder tree flowers and fruits in the far south-west and the first elm tree has reached Scotland.

Some of the humans have stopped roaming and are perfecting the art of farming. They still hunt, but they come home. More wheat is planted. The juniper has colonised the last mountain, growing at six hundred metres on the slopes of Beinn Eighe. Blackthorn and bird cherry blossom drift through the woodlands in the springtime. The forests are dense with fallen trees and the only paths are made by elks, aurochs and bison crashing through the undergrowth and browsing on the leaves, or by the predators that follow them: wolf, lynx and human. It is a shifting patchwork of deep wood and some more open areas, kept clear by deer and, at the

fringes, by humans. More of the trees are being felled and they are now stopped from creeping back into the fields by grazing domesticated animals and diligent farmers. The elm tree starts its long retreat, weakened by a changing climate, possibly by disease, its leaves stripped by humans for their animals' winter fodder. The small-leaved lime reaches its furthest point north, somewhere in the Lake District.

Humans have laid a track of oak planks, supported by elm, ash and lime posts, through the marshes of Somerset. Some woods are being coppiced and managed for the first time. There are villages with wooden buildings, temples and tombs. In the north, where the climate is still notably colder, the Scots pine is dominant, with rowan, birch and heather growing between the trees. Wild boar, rooting and truffling in the forests, create glades for wildflowers and the insects that feed on them. The trees rot where they fall, providing crumbly nourishment for millions of beetles and the predator woodland birds. Nightingales sing in the clearings. The human population is growing, agriculture is becoming more sophisticated and the grassland is spreading, and while most people still choose to live along the coast and the more open habitats by the sides of the rivers, they are also forging deeper into the woods. They chip away at the edges of the wildwood, make clearings where they can, but they avoid its depths.

There are colonies of walrus on the seashore and vast schools of grey whale in the teeming seas. Pelicans squabble with puffins. The great auk builds its nests among the distant rocks, although humans have found that its flesh makes a tasty meal and its down the softest of beds. Oak, birch, juniper and pine fill every last crevice of the coastline, while the glades and the fields widen gradually behind them. Perhaps we can now say that humans have replaced climate change as the main factor affecting the woodlands of Britain; in other parts of the world you could even say that humans are starting to affect the world's climate for the first time, as they torch their forests. The woods of Britain are too wet to burn. Sometime around now we arrive at 'Peak Forest': the trees are everywhere, but the tide is turning. People must also be just about everywhere – or is it wolves? – because the European bison becomes extinct in Britain. In Scotland, the trees are being cleared, but are converting to moorland. And in the far damp north-west the peat bogs are slowly spreading.

The use of coppicing in woodland is intensifying. People are managing the trees, making sure they have enough of the right species and plenty of timber of the right size for their needs. Long, regular-shaped poles are being used for homes and fences, for boats, buildings and fires; and huge timber piles are used to transport bluestones from Wales to Stonehenge in Wiltshire – you couldn't do this through dense forest. The leaves and bark of the lime and the elm are being stripped for food. In fact, the elm is in full retreat, some of the gaps in the forest being filled by hazel and ash, but much more of it filled by people and their animals and farms. It is the beginning of the end of the wildwood. There are more and wider clearings for agriculture, and the

moors are spreading that once were forest; there are significant breaks in the tree cover – deer and sheep keep it that way. A red squirrel can no longer bound through the treetops from coast to coast, if it ever could. But the woods are still vast and abundant in most parts of the country and they are dense with wildlife. Most of the indigenous large mammals – aurochs, wolves, bears and elks – still thrive. Freed from the summer shade, there is a blooming of flowers in the new glades, meadows and fields. It is good news for the honeybees. The beech tree and the hornbeam have spread from their south-west homeland and are creeping slowly east and north. The hazel is faltering, unable to pollinate in the shade of the larger trees.

We have reached the Bronze Age. New technologies, such as the metal plough and axe, are speeding up the transformation of the landscape. Trees can be chopped down more quickly, their roots grubbed out, and the return of saplings prevented. The human population is growing – as is the number of sheep. Wolves are retreating deeper into the woods and mountains. Wood is now being used as fuel for industry, for the smelting of metals and the firing of kilns. In any case, the woods are (as ever) in their own state of flux; oak, lime and ash trees are abundant in the south; pine and birch still dominate the north. Nets with poles are cast across the rivers and the number of wooden boats multiplies.

Trees are useful to humans, but they are also worshipped. There are holy trees and priests and sacred groves in the forests, where animals and humans are sacrificed. Perhaps trees are seen as links with other worlds, their roots reaching down to the underworld, their branches stretching high to commune with the sun and moon deities. Nature is bountiful and the supply of trees must seem eternal and without limit; at least, we do not think they are being coppiced for reasons of conservation, but convenience. A huge oak tree is buried in its entirety, upside down, near what is now Holme-next-the-Sea in Norfolk. And somewhere in the wildwood the last auroch, Europe's massive, indigenous wild ox, comes to a lonely end.

People use dogs to hunt in the woods, but the best hunting is in the glades and clearings. This is where the roe deer gather, as well as the dwindling populations of elk. Beavers are still creating dams for pools and disrupting rivers by felling trees, but they are also being hunted for their fur. The wild is in retreat. There is an accelerated contraction of the wildwood and the open grasslands are spreading deeper inland. Wood pasture and pollarded trees are further changing the landscape, but the greatest change is the intensification of agriculture. The new technologies have disrupted the human relationship with nature: there is no part of these islands that is not now, or could not be, exploited by humankind. The human population is expanding, but it is well fed by land and sea. To keep growing, though, it needs more land. There is trade in wooden boats with mainland Europe. Around about now, as a rough estimate, about fifty per cent of Britain is still covered in woodland, much of it thick with tangled undergrowth and inaccessible to people. Tin mines are being

opened in Cornwall and there is a pressing local need for timber, to make the pit props and feed the forges.

The main hills in England and Wales are being cleared of tree cover, ditches are being dug and wooden ramparts erected. The demand for timber is growing: it is plentiful, although the Scots pine, such a useful straight tree for constructing buildings and boats, has almost entirely disappeared from England. It is also the only British tree to burn easily in the damp climate, and it cannot sucker or coppice, which makes it easier to eradicate. The beech tree is starting to dominate some southern woodlands, creeping into small clearings before overshadowing its competitors. This is good news for pigs, which feast noisily on the delicious nuts. Humans and their animals are roaming deeper into the woods, the paths and clearings are being widened, the undergrowth is thinning. It is a land of grasses and moors, separating a patchwork of small and great woods. There are now substantial population centres across the British Isles, especially in the south and west, and there are hundreds of hill forts. Grassland flowers are flourishing – speedwell, buttercup, orchid and gentian – now that there is so much less competition from the trees. The elm is no longer one of the dominant British trees, but it will return. The elk, on the other hand, will not: it has been hunted to extinction, as has the last British walrus. The woods are quieter, and so, too, is the shoreline.

The climate is changing and becoming wetter, forcing many people from the hills. Ever bigger farms are developed for livestock in the lowlands, boosting demand for timber and land. The best land – where the lime trees once sunk their roots and grew in such abundance – is now almost entirely cleared and taken up with agriculture. Humans are fighting each other with increasingly sophisticated bronze weaponry, and it's possible there was a major invasion (or migration) into southern Britain at this time. The country is certainly more crowded. Places where the soil is too poor for a primitive plough to have much effect (the clay of Kent and Sussex) or where the land is hard to reach (the mountains of Wales and the north) remain heavily forested. Dartmoor, which was once a forest, and then farmland, is becoming a moor. The human population continues to grow; it is the other large, undomesticated land mammals that should have cause for concern.

There is another dramatic technological leap forward and humanity enters the Iron Age. As well as advanced weapons and sharper axe blades, this brings the iron plough into Britain's woods and fields. The heaviest clay is no longer off limits. Roots are grubbed up more rapidly and without the need to keep changing the blades. Vast new areas are now under cultivation and the small-leaved lime almost entirely disappears from England, ravaged by humans and the changing climate. Industry is spreading (tin and copper mines, the production of iron) and the first coins are being minted. The demand for trees and timber – for fuel, buildings and fodder – grows greater; and the management of woods (with coppicing and even fencing to repel

deer or livestock) is now a widespread necessity. The human population of Britain stands at about one million.

The first towns are being built, encircled with wooden walls and using large quantities of timber for their construction. There are wooden buildings, wagons, fences, pathways, boats, tools, beds and barrels; while the new wooden lathes are being used to turn out the spokes and hubs for wheels, buckets, handles and bowls. Above all, wood is a fuel, keeping people warm in the winter and filling the blazing furnaces of their industries. It is the Iron Age, but it is a world of wood. All around Britain, the forests are falling. Trade between the peoples of Britain and Europe is complex and vigorous; there is a need for strong timber for boats, which are also used for fishing. At about this time, the last British grey whale is hunted to extinction. Back in the woods, the Druids tend their sacred groves and pick mistletoe in the moonlight. The yew and the oak are worshipped for their power and longevity. As the woods fall, a number of other plant species benefit. Primroses, bluebells and foxgloves bloom in the clearings as the woodcutters follow their cycle of coppicing. The sheep browse happily in the pasture underneath the pollarded trees. The wolves are far away.

The peoples of the Mediterranean, who have already deforested their own hillsides and dug out their ore, have heard of Britain, with its wild blue tribes, tin mines, slaves and plentiful forests. They send an expedition and they land on the south coast. Briefly. They see a thickly wooded land and unfriendly natives. On the eve of the Roman invasion, Britain has perhaps thirty to forty per cent tree cover, but in parts of the country it is much more. Ninety years after their first visit, the Romans are back to stay. They do not transform the landscape, but they intensify its use. The sacred groves of Anglesey are destroyed, the Druids killed. London is founded. Many forests are cut down, making sure the natives have nowhere to hide. Hadrian's Wall is built across the north; the Scottish woods and people are left to their own devices. New towns are built, needing unprecedented quantities of timber. The sweet chestnut arrives. So does the small Mediterranean rabbit, a keen consumer of saplings. There is a boom in iron smelting in the south and east. Charcoal is burnt and more woods are tightly managed. New farms spread across the land and the plough does overtime. The sweet chestnut is planted in Kent and Sussex. It is no good in this climate as a nut, but it is exceptionally useful for coppicing. There are towns; and there is countryside. And then there are the woods and wilds, much of it now confined to the far north and Wales. The Romans start to leave Britain. The ash and the beech are thriving; the hornbeam is settling into its hinterland around London.

The Romans have gone, although people are still working in the fields and woods and many villas and farms remain occupied; there is just a general drift of decay, into which the Angles, Saxons and other Germanic invaders arrive. Darkness falls on the land and Arthur rides through the wildwood. The last lynx is killed. The towns empty

of people and the trees return. The woods are expanding, although this doesn't last long; the Saxons are keen and proficient farmers and have many uses for wood. What remains of the wildwood is left largely intact and used for hunting. About twenty-five per cent of the land is under the cover of trees, much of it as thick as it ever was. The Saxons tighten their grip across England. Every inch of this new land now has an 'owner', even its woods. As the fighting dies down, the land is worked more intensively. Only the woods of Wales and Scotland seem to fare better, or at least they are left relatively undisturbed. The iron-smelting industry eradicates the Forest of Arden. The towns expand, but this is a rural society and the open fields are kept free from invasive trees. Vikings from Scandinavia arrive looking for land and timber for their ships. It is a time of fighting and the woods flourish. The wolves, though, are still hunted intensively.

King Alfred builds England's first navy, using the native oak trees. An idea is born that English oak is better than any other and the species begins to be favoured by foresters. Some time around now, Britain's last brown bear dies. The population of humans is growing again, boosted by another wave of land being brought into agricultural production. There are perhaps 1.5 million people living in Britain, most of them working the land. They are healthy and prosperous, living in a wooded agricultural land with a few scattered towns and many sheep. The Normans arrive. Rufus dies in the New Forest. The kings assert their ownership of the forests of Britain and Ireland. Big European rabbits have arrived. There is frantic building activity: towns, roads and castles. Coppicing spreads and wood banks keep the forests free from livestock and deer. The last wild boar is hunted and killed. There is fifteen per cent woodland in Britain – just above modern times. The Weald and Chilterns have seventy per cent cover. The woods are full of people and their pigs, claiming pannage.

Wood pasture increases. The sycamore arrives in Britain and spreads with vigorous ease. The woods are being felled. More heaths and moors are created on land with poor soil, the hungry livestock preventing the return of trees. Sheep numbers are soaring. There are now nearly five million people living in Britain. Then Black Death strikes. The population falls to 2.6 million. The woods return, briefly, but the amount of wooded land in Britain is just seven per cent. The walnut tree arrives. The human population continues to fall. There is land to spare, although many forests are the preserve of the king and his hunting parties. People are leaving the lord to his manor and setting up on their own. The spruce is brought to Britain.

There is a huge increase in iron smelting, leading to the deaths of tens of thousands of oak trees. Plane tree arrives. Last beaver killed. Market economy. Industry thriving in the woods. Landed gentry making fortunes selling timber. A bigger navy needed. Arrival of fir trees, horse chestnut, false acacia and the first tree plantations. First Acts of Enclosure, keeping people out of the forests. The larch arrives and is deemed to be

the perfect plantation tree. Boom time in the iron-smelting industry; more coppicing; more forests felled. Last wolf killed.

The navy expands rapidly, needing timber. English oak is favoured. More timber imported. Great expansion in farming – woods grubbed up and corralled into smaller areas. Landscape gardeners move trees and uproot woods. Larch and sheep proliferate. More farms. Human population now six million. James Watt patents a steam engine with a continuous rotary motion ('nature can be conquered, if we can but find her weak side'). Coalfields. Wood no longer primary industrial fuel, but consumed for railways, mines, building. Drift and then flight to cities.

It's boom time for agriculture. Over one-quarter of Britain's remaining ancient woodlands are destroyed. Sheep, wheat, orchards. Slump in agriculture. Woods return, but not the same. South Wales woodlands destroyed. Cities. More plantations than ancient woods. Forestry Commission. The Oak Change. Woodland cover under six per cent. The Locust Years and destruction of over half of last ancient woods. Conifers. Motorways. Woodland Trust. Dutch Elm Disease. Deer. Ecology movements. Storm. World warming. Acid rain. Ash dieback. Conifers felled. Human population sixty million. Beavers return. Floods.

Peter Fiennes is the author of 'Oak and Ash and Thorn: the Ancient Woods and New Forests of Britain' (Oneworld Publications 2017), from which this extract is taken.