

The background of the entire image is a close-up photograph of several cross-sections of oak wood. The wood grain is clearly visible, showing concentric growth rings. A semi-transparent green rectangular overlay covers the central portion of the image, providing a background for the text.

Oak Earth

(The view from a one-legged stool)

Paul Evans



© Maria Nunzia @Varvera

Oak Earth (the view from a one-legged stool)

Foreword

Summer in Ruskinland: walking “some small piece of English ground,” as the Victorian visionary John Ruskin called his few acres of the Wyre Forest near Bewdley, Worcestershire where he established a utopian community based on his principles of beauty, peace and fruitfulness, writer Paul Evans and artist Maria Nunzia find Ruskinland grows from a much older Wyre woods community – the oak-earth: soils, debris and roots where geological, ecological and social histories become a mysterious, subterranean medium of existence on which we and the woods depend and through which pulse the rhythms of life and death.

*The greatest thing a human soul ever does in this world is to see something...
To see clearly is poetry, prophesy, and religion, - all in one.*

John Ruskin.



© Maria Nunzia @Varvera

A Wyre Forest wood collier stands in a photograph from the late 19th century holding an axe. He grips the axe-head behind the cheek of the blade on the eye of the haft, the heel of which rests on his boot. His grip is the exchange between a man (and the bloodlines of axe-men) and the wood (crossing the grain of history through trees). This axe holds the memory of every strike - from the fully swung thwack to the choked grip chop – that shudders from the bite of iron into oak and sends a shockwave through time, across my own shoulders into a woodland echo that puts birds to flight.

Before it swings again, a standing axe will ward away witches, divert lightning, secure a son. The axe must not touch earth, soil will sap its strength, dull the bit - the steel edge sharpened to a heathen glitter against his chapel black. The man stands before a heap of staves, each an arm's length, meticulously roofing a dome like a nest of bones covering seven tons of cord-wood (four-inch thick lengths) stacked upright in layers around a central flue. The dome will be thatched in bracken, grass and turves cut from the clearing then dressed in soil like a tumulus before it is lit within by coals dropped down the flue and plugged with sod; the clamp will smoulder at over a thousand degrees Fahrenheit for three days and nights in an airless, occult fire - an earthburn for charcoal.

He stands before his work for a photograph in the awkward stillness of a summer afternoon. Without the photograph, the wood collier is another forgotten name on a gravestone, but now his ghostly image haunts the architecture of the forest in the memory of trees. Oak tree architecture is that of a many-celled plant of block construction – stick, beam, plank – all the board feet (each 144 cubic inches) is grown behind the meristem, its apical growth rising into the air through the

perception of gravity and light as a branching shoot. Another drives into the ground by gravitational direction as a branching root.

The absorbing and feeding leaves and rootlets are temporary; renewed at the growing tips, they diverge, connected by the older stems and roots where absorption and lengthening have stopped but secondary thickening develops them into the supporting infrastructure and conducting channels, protected by bark. The tree is organised by the direction of its growing tips, lignification (the making of timber from inner tissues), the upward flow of water in the sapwood (lignified xylem), the downward passage of food in the phloem, and the continued growth of the cambium growing layer. It is kept alive, in spite of its increasing load of dead wood (which becomes hollowed out by fungi over time), by the activity of this skin of living cells and the symbiotic relationships with fungi underground. Each cell in the architecture of each bole and canopy on the stump and root-plate below is a living repository of memory, a place.



© Maria Nunzia @Varvera



© Maria Nunzia @Varvera

Ruskin says the glory of architecture lies *in that deep sense of voicefulness, of stern watching, of mysterious sympathy* that we feel for buildings in decay or lost. The charcoal making bonfire built with prehistoric technology burns to transform one architecture into another. In its ruin, the charcoal burner's fire will be doused and the timber, carbonised, will be taken away to fuel an even hotter fire for furnaces smelting iron, firing clay, making glass or gunpowder. What remains of the earthburn is its earth. Most rocks under Wyre are made from the weatherings of ancient earths – petrified muds and sands that now lack potassium and calcium making acidic soils, good for heather, bracken and oaks. Tough leaves and toxins to protect against browsing and attack from microbes inhibit decay, reducing nutrient release into soil, as does leaching in winter rains and the history of collecting and burning for charcoal so much standing and fallen timber.

Over time this creates thin podzols and acid brown earths through much of the forest, a heathy, heathen soil that gives the architecture of oak timbers shake – stress fracture cracking that makes it commercially inferior. Wyre’s industrial history has made a poor dirt. Although such high temperatures during the earthburn carbonises much of the organic matter, not all the mineral soil has been sterilised, some life-forms survive, others quickly recolonise.

In its horizons, the layers of soil a spit deep or more travel back in time through black, rust and grey coloured bands like rings of Saturn turning through seasons and down-wash and root zones and disintegrating rock. All this matter holds memory, of all that lived and died here, all that was built and ruined and weathered through time. Such memory is held in the earth to be voiced, to be watched, to be loved.



© Maria Nunzia @Varvera



Something amber flickers just beyond the gaze in air so hot and humid it steams with oxygen and the volatile isoprene and monoterpene vapours of climate chemistry from trees along a woodland ride. The orange light becomes two, spinning around each other only a yard above the grass, knotting and unknotting in the air. These are male pearl-bordered fritillary butterflies, *Boloria euphrosyne*, in a spiralling dog-fight over territory. They are little Gnostic spirits that follow the axe, liberated by the light opened by coppicing, fighting for the inheritance of an open ride full of sunshine cutting through oak woods and meadowed with wildflowers grown since the last time timber was hauled out. After each skirmish the fritillaries separate, flying low in opposite directions, occasionally stopping to feed on bugle flowers or resting for a moment. Only then is it possible to see the black patterns like charcoal drawings on their orange wings. The undersides of the wings, when they flex at rest, reveal pearly, futurist compositions of reflective panels. What do butterflies see of each other's displays of light and shade? Their flight distorts their profiles in the eyes of birds to make them difficult to identify as a single creature and instead they appear as an indeterminate number of variously coloured, reflective flying particles. Butterflies sing to each other largely through chemistry and the wings of fritillaries have scent glands that release controlled amounts of sexual stimulants or identifiers in long hydrocarbon chains into the air.

They have no need of our obsession with the words and notions that have largely overtaken the kind of communication Aldous Huxley called the non-verbal arts of being directly aware of the given facts of our existence. We are deceived by language, its bright flutterings distract us from seeing that we only exist through our relationships with others. Our words fail them.



© Maria Nunzia @Varvera

Through their antennae, the pearl-bordered fritillaries are directly aware of the molecular details of theirs. Someone watching from the shadows will see butterflies but not the braiding of invisible pheromone ribbons along the ride, their splicing of tiny amounts of sex-signalling molecules with those of the females they hope to find amongst the violets on which to lay eggs and feed caterpillars. At any moment, they can be plucked from the air by birds and so the crazy butterfly dance of random flight is an expression of their trust in their own bodies – the orange, black and pearl wings to attract a mate and distract a predator – a trust in destiny that dares everything. Someone looking past the dancing dots down the ride, over bugle flowers and the brilliantly blue, tiny blooms of milkwort as well as yellow cinquefoil, green field speedwell and white heath bedstraw, will see a place there are no words for.

There, work and melancholy stitch the wood collier to the past; matter is dappled; a thumb sticks out of his sleeve over the axe and points to the earth wherein he now lies. His beard is white and if he were to remove his hat his hair would fly away like thistledown taking his head with it – all those axe-wielding thoughts drifting into the watching, waiting hereafter...



© Maria Nunzia @Varvera

The clearing is a chain by a chain, twenty-two yards square, (with a dog on the end of the chain) surrounded by oaks grown from stumps cut by the wood collier a hundred years ago. This is a pitstead, a platform made by generations of charcoal burners. Apart from the axe and billhook, the most important tool in the old charcoal industry is a one-legged stool. Ruskin said, *Remember that the most beautiful things in the world are the most useless*. The stool's one and only leg is jammed into the oak-earth: an earth that gives life to oak trees and to which dead oak trees return; an earth that grows violets from which pearl bordered fritillaries fly; an earth for burying secrets and making kilns for charcoal. The stool, like a big wooden drawing pin, is not designed for comfort but for watchfulness. Once alight, the earthburn must be watched for three days and nights. If the clamp slumps or ruptures letting air in, the oxygen will accelerate the burning and turn the wood and all that hard work to ash. Avoiding such a disaster requires vigilance: holes in the clamp must be smothered with earth, flames doused with buckets of water and the colour of the smoke monitored to confirm the condition of the charcoal; when it changes from peachy grey to pale blue the process, like a papal conclave, is complete and the clamp can be dismantled to harvest the charcoal. Sleeping on the job could ruin everything, so the stool requires a conscious balancing act for the watcher to remain upright; nodding off means being dumped on the ground.

So, whose precarious arse occupies the stool, whose eyes watch over the buried fire day and night? Whose shadow, fighting sleep, stalks the glade like the king awaiting his assassin, the stag, the boar, the wolf his final challenger? All these are ghosts now, conjured from this ground they flicker and evaporate in the trees. The sitter-on-the-one-legged-stool is alone in the woods, looking over the smouldering heap, drawing trees.

This drawing from the mind's eye follows Ruskin's advice, *Don't look at them, watch them*. So, the outcast, solitary watcher, student of the movement of shadow, sound and smoke, draws oak trees out of the ground and into the sky by watching for three days and nights. An oak is three hundred and twenty-eight thousand, five hundred days and nights: three hundred years of growth, three hundred years of maturity, three hundred years of death, they say. To divine oak-age, measure the trunk's girth: circumference divided by pi times growth factor three. Listen to the oak-architecture sing with the voices of soughing leaves and thunder. Recalling the lightning strike that put fire into its timber, rub two oak sticks together to release it in a spark that lights the dried fungus kindling a need-fire to feed the sacred Midsummer Fire. The flame is hungry for a ritual tithe, one tenth of the harvest: a burning solstice oak log, an oak-spirit, a wooden effigy in the bone-fire, a butterfly, a bird put to flight, a toadstool, an axe-man, a watcher, offerings reduced to charcoal and raked into the earth.



© Maria Nunzia @Varvera



© Maria Nunzia @Varvera

In the service of this ancient fire, the watcher slips from consciousness, slumps off the wobble stool onto the ground. For a moment, a face crumples into the maze of streets walked by ants, trafficking from nest to hunting grounds in treetops, each following scent trails through a map of memory, to find aphids to milk for honeydew, moth caterpillars to bring back like retrievers with pheasants, pine needles or twigs to build or repair a nest mound, a swarm building as delicately perfect a construction as the wood collier's clamp. And the listener hears ginger carder bees vibrate the bugle flowers, and the high tensile steps of daddy longlegs – the impossible fragility of a spiderish harvestman hunting in leaves and the crane fly with glassy wings and deciduous legs, that can't even eat and after mating on the wing lives only a few beautifully useless days.

Ultrasounding, the unconscious ear listens to the knuckle-crack of roots and the subterranean metropolis of soil-life: trillions of microbes propelled by cilia like boats rowed by galley slaves through earth's dark; the squelch and slurp of worms in their burrows sucking leaves into the underworld. Down there, tides turn through the pulsing cytoplasm of hyphae, fungus fibres that form the mycelium: a kind of neurological circuitry between the earth and its oaks. These questing, hunting fungal-beings surround and infiltrate food material; hyphae cell walls contain chitin, the stuff of beetle bodies and fingernails, strong and flexible enough to cleave through soil, delicate enough to penetrate tree roots and trade minerals for carbohydrates in oak tree cells, sensitive enough to transmit and broadcast chemical information through the interconnected community of the forest.



© Maria Nunzia @Varvera



© Maria Nunzia @Varvera

Unlike trees, fungus enzymes break down complex molecules into smaller compounds to be absorbed into the hyphae which grow rapidly as proteins and other materials are synthesised and channelled through its streaming cytoplasm between the soil and tree roots. Rot and decay, outside and inside trees, is essential for maintaining inorganic nutrients necessary for oaks and other plant growth. Without fungi and microbes, these elements would be tied up in organic matter and not returned to the soil, as it was 350 million years ago in the Carboniferous forests when trees become coal. The evolution of fungi that feed on lignin changed all that; now fungi can give trees life (symbionts), kill them (parasites), and decay them (saprophytes), returning oaks to the soil that a jay planted an acorn in. This summer, those fungi are surviving the heat and drought through the mycelium's ability to travel and bridge gaps between little pockets of moisture in the soil. Come autumn rains, like a spectral materialisation, the mycelium will produce the sexual architecture of sporocarps: epigeous towers, domes plates and one-legged (toad) stools above ground and hypogeous brain-like truffle masses below, to release their spore capsules, each carrying the payload of a punctuation mark in the future story.

Face in the dirt, the lookout's imagination is drawn by hyphae through the soil into oak roots that circle the clearing. The roots fuse together so that xylem flows from tree to tree; the fungal circuitry underground connects to the syndicate of trees that make the woodland above. Even when trees fall or are cut down, their lattice of roots can distribute food and water like an aid agency delivering disaster relief to trees that can no longer photosynthesise from other trees that can and they resprout from the coppice stool. This ring of fused roots is drawn tighter and tighter; the useless lookout has unconsciously become part of what is created by the clairvoyance of seeing. In this unpracticed art, the watcher's cells, only ten percent of which are human, have aligned like iron filings in a magnetic field that pulses through the clearing.



© Maria Nunzia @Varvera

Watching is an art, watching makes art. *All Art is Praise*, says Ruskin but it's unclear to what dark presence in the woods the watcher gives devotion. The jolt of waking, fearful of losing control of the burn, goads the body upright again to see red embers float across the glade.

But the embers are not burning sparks from a neglected fire, they are emissaries from the saproxylic realm, the world of dead wood. They are cardinal beetles.

Pyrochora coccinea (the scarlet, fire-coloured beetle) lives the first three years of its life as a horn-ended, centipede-like larva sidling under the loose bark of fallen or standing dead and dying timber. It feeds on bark beetle larvae, fungal hyphae and xylem. It pupates during the third winter and emerges the following May - June with bright, cardinal-scarlet wing cases and thorax, black legs and a black head with saw-blade antennae. The cardinals cross from the rotten heart of Saproxylica, emissaries of that dark presence in the trees, and fly into the forest's flowery closes to hunt the winged folk of sunbeams and nectar.



© Maria Nunzia @Varvera

The watcher, backside returning to the one-legged stool, resumes a vigilance hitched to the forest's nervous system: drawing the firey beetles through the air and with them birds that have taken flight from the ringing echo of axe against oak. These arboreal sprites, whose song-ways through gaps between trunk and branch weave the oak poles together like split hazel. They are birds with the eye-stripe that marks a seer: *trogodyte*, cave-dweller wren; *phylloscopus*, leaf-watcher chiffchaff; *certhia*, small, tree-dweller, treecreeper. These birds move like synapses through the forest mind.

And we walk here, too: upright, bipedal, myopic, down the sunlit rides, shadows running ahead like dogs, we carry the burden of our beliefs between spiralling butterflies, over raw, insatiable soil churned up by a forwarder, crossing shining brooks through fern and tree-shade, numbering oak trunks stacked for the sawmill, listening to regrowth vivid with birdsong, breathing the invisible smoke from leaves, giving names and watching the oak-earth cover a hidden fire, into which we shall return.



© Maria Nunzia @Varvera



© Maria Nunzia @Varvera



© Maria Nunzia @Varvera

A note of thanks

In a collaboration of projects celebrating the Ruskin bicentenary, Oak Earth was Commissioned as part of the 'Ruskin in Wyre' project at Ruskin Land, in the Wyre Forest, funded by the HLF and Guild of St George, and delivered by the Guild and the Wyre Community Land Trust. The chapbook was printed by Ruskin in Manchester, funded by Manchester Metropolitan University and the Guild of St George. Thanks to inspiration from John Ruskin, the natural history of the Wyre Forest Study Group, Bewdley Museum, Tim Selman and people at Ruskinland and to all the oaks and other plants, animals, fungi, microbes and ghosts of the Wyre Forest's oak-earth.

Bibliography.

- Ruskin, J. (2004) *On Art and Life*, London, Penguin.
- Rosenberg, J.D. (1964) *The Genius of John Ruskin: selections from his writings*, University of Virginia Press.
- Wood, P. (ed.) (1990) *The Tree*, London, David & Charles.
- Frazer, J.G. (1929) *The Golden Bough, a study in magic and religion*, London, Macmillan.
- Huxley, A. (1971) *The Doors of Perception and Heaven and Hell*, London, Penguin.
- Snyder, G. (1980) *The Real Work: interviews and talks 1964-1979*, San Francisco, New Directions.
- Westwood, B. Shirley, P. Winnall, R. Green, H. (eds.) (2015) *The Nature of Wyre*, Newbury, Pisces.

Paul Evans is a writer, broadcaster and Senior Lecturer in the Manchester Writing School at Manchester Metropolitan University. He is interested in natural history, literature and conservation and is best known for his country diaries for *The Guardian*. Maria Nunzia is an artist and photographer interested in everyday, commonplace, accidental encounters with Nature. She provides online images for Paul's *Guardian* country diaries and line drawings for their books. Together, they act as advocates for Nature, bringing overlooked wildlife into focus as a way of revealing how it matters in a time of crisis and celebrating a dark wonder for a hidden and vulnerable world.

Text copyright, Paul Evans, 2018.

Image copyright, Maria Nunzia @Varvera, 2018

ISBN: 978-1-9162882-1-8

Published by: Manchester Metropolitan University / Guild of Saint George



