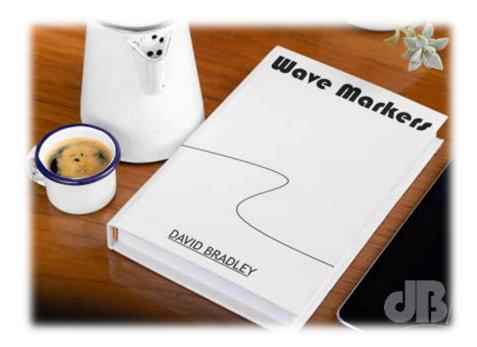
## **Wave Markers by David Bradley**



## **Remediators of the Anthropocene**

Elouise Sparrowhawk, Dr Sprawk to her students, was proud of her surname. To her imagination, it told of an ancient ancestry, of woodlands and fens, of wildlife and nature, of a time long before now. It told of woodcutters and woodturners of fenland farmers and drovers. It hinted at a long-forgotten time when things were, to put it bluntly, better. Dr Sprawk hankered after those times. Perhaps it was an unrequited nostalgia for events that never happened, places that were not as they seem, and people who never walked this earth.

Whatever the nature of past reality, Elouise knew that in her laboratory there had been an opportunity to remediate the present. Whoever was to blame for the here and now mattered not to those living the nightmare today. It was Arvane, Arvane Tempor, who first spotted the changes. It was a chance discovery, a contaminant in a reaction flask. The serendipity was not lost on the team although no one who lived through the plastic age would ever have dreamt a solution might be found in this chemistry. They could not have imagined that polythene, the scourge of the Anthropocene, would, with a few almost trivial molecular tweaks, become the panacea.

Tempor was almost done with his Master's and was on the verge of writing-up, but one last experiment was needed just for completeness. He had been fastidious throughout, dotting every "i", crossing every "t". His lab-books were meticulous, not for him their digital descendants. He bathed in the ethereal smell the pages absorbed that would take decades to fade. However, this time, it was late. It was a seemingly unimportant experiment. He rushed a little. Contamination happens.

Identifying the contaminant and what went wrong, or as it turns out, right, later would only be possible because of Tempor's more usual diligence.

Molecular modification followed by chemical correction somehow generated a structure so reactive and so porous that it could literally draw breath. That porosity give it the space, or more technically, the surface. Lay it all out flat, Tempor would tell his colleagues, and a single ounce would cover 400 tennis courts. That fact alone was astonishing, four times the area available for absorption of any previous material. But those earlier molecular sponges mopped up useful gases, such as oxygen and hydrogen, for various applications, high-speed reactions, safe storage. This was different. Not so much a useful gas, as a gas of which we could do with a lot less in the air we breathe.

Giving a porous plastic coating to hundreds of tennis courts was not the aim, of course. Once Tempor and Dr Sprawk had figured out the ins and outs of their new material, they were then intent on finding ways to pack it ever tighter into the machine, the remediators.

A lot of raw material was needed to pack the 1000 feet spiral columns that would line Sprawk's towers. But, there was a lot of it to be had, much of it lying dormant in deep mounds on the outskirts of the old cities. The relative ease with which the plastic could be mined from those countless landfills of the twentieth century made sourcing the feedstock incredibly efficient and ironically enough, almost carbon neutral. Moreover, after all these years in the ground even the plastic bags that would last for centuries had degraded to a suitable form ripe for processing into the green strands for Sparrowhawk's columns.

The vast woven myriad within the towers would need nothing more than water and sunlight to do their job. The drains below would catch their sickly sweet rain and this could be tapped and trapped, vitrified and buried again. Carbon, locked away for aeons just as its precursors had been in the liquid black gold on which society so wantonly imbibed in those long-lost days.

Thousands of towers were built across the wide tropical belts. They looked out over broken seas from abandoned coastlines. Pharos ruling the waves, Tempor would joke. Many more were incorporated into telecommunications towers across towns and cities. Old industrial sites were reinvigorated with vast arrays of towers in their brown fields. Depleted farmland was turned over to planting acres of towers where no green shoots had grown for years. Location was largely irrelevant to the swirling atmosphere, but sunlight and water were key ingredients so the polar north and the desert margins were precluded from this work for their lack of one or the other.

Exactly how many towers were needed was a moot point. They ran with such high efficiency that wherever they were built they drew their hot breath deeply. The analysts tapped their meters, assuming some kind of malfunction, but as the data accumulated, so evidence of remediation sprang up far and wide. The sceptics tapped their thermometers but could not ignore something of a soothing chill in the air.

Ice was crystallising once more at the poles. The fringes of the equatorial deserts moistened subtly. Tiny islands poked algal crowns from beneath the waves and quickly dried, terrestrials arrived to feast on the marine and the wind planted the seeds it couriered from distant dry lands so that shoots would show and plants would bloom digging deep with anything but hesitant roots.

Elsewhere, the new fenlands began to dry, the marsh gas to dissipate. Who would have thought, plastic - the ultimate friend of the earth?

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It was, as the cliché goes, all too good to be true. The accumulated waste plastic of decades of ecological mistreatment finding new employment in solving the world's ills? There was always going to be a problem. But, it was not a technical problem. The towers were working amazingly well. No, the problem was inevitably a sociological one. While the rational had admitted many years before that more than a century of atmospheric abuse was destroying the planet, a growing band of irrationalists saw the whole concept as a hoax.

What if it were a hoax created by a rogue nation, some distant centre of power in a faraway land, with its beady eye on our riches. A malicious state watching our way of life with envy and plotting to end it out of sheer spite. The tinpot dictators, the irrationalists imagined, had faked it all, and so they donned their foil hats and spread their conspiracy theories. The towers, they mused in every word typed into their smart phones, were being built to monitor and control the citizens of the free world at the behest of our governments. Our governments working for those rogue states and unwittingly handing over our rights. It was, they imagined, only a matter of time before we were all under the control of anonymous bureaucrats in the East. Elections were being rigged, we were being fed endless fake news, our new overlords were not the puppetmasters, they were the puppets Something had to be done.

And, so it began. With hastily assembled protests and badly worded placards, with self-contradictory sloganeering and endless media trolling. It also began with badges and baseball bats but also with sledgehammers and semi-automatic weapons. Statues were toppled, seats of power invaded, and all in the meanwhile, towers everywhere were undermined and toppled. All that plastic waste, all that potential, all that carbon.

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Creeping close to the border, the wraith carried herself like a cat. Black. Hidden. Ready to pursue. Ready to pray.

Never seen, never heard. But, there were rumours. There were always rumours of wraiths with bloodied tooth and claw. Of fen tigers. The fen folk knew them, they had caught a glimpse, felt a chill in the heart, a sideways glance that revealed nothing but shadows. Tides ride high. Tides turn. The moon is always a friend but not on those nights.

A weaver, as may have been Madelief's trade in a bygone age, might recognise an analogy with the movement of the raptor as it hurried and harried its way to its roost across the reed bed wary of the moving shadows beyond despite its avian rank. Back and forth, ever onwards, emerging from the sunset and quartering into the twilight to find a patch in which to bed down for the night. Soon, another appears and another, all male, flying low, just above the treeline. Slender wings encompass the terrain.

The last drovers came through this place back from the towns and cities, the ones that did not imagine fortunes to be made tramping streets paved with gold. The returners would not stray. They

would follow the marshy weft and huddle together in collective silence. The warped chatter of their sales pitches as long forgotten on their return journey as the geese they took to market from the fenland isles. Suspicious and wary of the willowy bursts of light from the marshes, the drovers blamed ill winds that swarmed over the fens for their grief. Not so Madelief.

She knew all too well, the insidious agent of the fevers, of the ague. Not the will o' the wisp, but an equally intangible and tiny parasite. It was no chance that shuttering windows against those ill winds offered some protection. But, the sultry summer nights of those years meant any cooling breeze was welcome, ill or otherwise, and shutters stayed ajar. The ague was rife. Many a man of the lowlands lost an upland wife, or two...or more if the old stories are to be believed.

More dead from that bad air than from any other killer through the acres of history. They would bind the wrists with rags soused in rose water and herbs, they would apply poultices of saltpetre and charcoal, imagined medicine that always failed. Cinchona bark helped some of the rich and feverish, a tonic of crushed juniper berries and aqua vita. The drovers and the farmhands and their wives went without and suffered the chills and the sweats terminally while will o' the wisp would talk in hushed tones of the many dead.

Madalief watched from atop a crumbling embankment as a fox hunting on the fen below leapt suddenly into the air. It arched its back and as its brush quivered, gravity took hold and its forepaws pounded the damp earth and the creature scurrying, soon to be carrion.

The wind was soft and poured a mist over the land to set on the fen, shifting ambiguously as if in time with a far-distant tide. Ignorant of that ethereal endeavour, the fox moved on, ever hopeful of sensing the subtlest beating of a rodent heart or catching the fiery breath of a Devil's coach horse.

Madelief imagined that it was her lowland ancestors who had taught the people here how to drain the vast marshlands all those years ago. The drains that crisscrossed the acres with their incendiary gases and their feverish ague. Ancestors that helped erect windpumps at strategic intervals between the inland island settlements whose inhabitants traversed their world only by coracle and causeway in times gone by. The V-shaped veins took the rains away to the north, pumped with the lie of the land.

Across the fen, a barn owl fretted over the encroaching mist and headed silently away from the tide to its nocturnal roost, hungry. Its face mirrored the full moon that spanned the horizon veiled by mist. There would be no hunting in this lowly light.

Madelief ploughed on, a solitary walker, espying an occasional otter or a grass snake taking to the water. They would sidle across the ripples for a moment or two before disappearing from sight. They could take routes so strange that water will flow uphill to the sea from here on out. The sea that refuses no river.

She shuddered as if with an oncoming fever at the thought of catching her death and strode on. She ignored the skulking black shape. It was merely mist-enshrouded shadows dancing to the devil's tune in her imagination. She had a place to be, she had a message to deliver.

With each stride, the pulse of the tide pulled her on. On, towards what? A settlement, a homestead. She had a name scribbled in charcoal on the bare relief of a sliver of silver bark grappled hastily from

crumbling tree. Refuge was that name. Somewhere safe to stay. Somewhere dry. Somewhere she could unfurl her message to the future.

Madelief had walked for miles along the muddy crests of those V-shaped veins, heading inland away from the tides. Her message was all pervasive but might soon fill her belly, it would be plain and simple. And, deliver it she must with one who might still care, to those who could engineer once more a new solution to an age-old problem and maybe this time, this time, save themselves from the fear. The full moon to come would give new land to the tides, her message might not turn them but would offer hope nevertheless.

A small flock of ibis, spooked by nothing more than an ill wind, took flight from the water's edge where the birds had been feeding on ruddy coloured crustaceans for weeks this winter. The iridescence of their feathers dashed against the crystal sky and reflected in shattered glass as they passed over. Their ancient home had been for millennia the waterholes of distant lands but pastures and waterholes in northern climes had drawn their curiosity and their appetite over several decades as the tides turned.

The ibis were now shoulder to feathered shoulder with the egrets and others that had once preferred those near-equatorial habitats but found harbour in the watery inlets. Riding the waves with the incomers to these lands, came the more insidious carriers. The whispered tales of the marshes long, long forgotten, these bearers on an ill wind brought their passengers to blow hot and cold on the likes of Madelief as they had done on her ancestors.

It's only water. Tears or tide. Nobody cared. Madelief was not personally to blame, although she cried. Not personally to blame just as none of the others were to blame, and yet in the Rising Years, everyone felt that they could not make a single sacrifice to reverse the effects of decades of ill winds.

It was all hot air. It was inevitable, you cannot deny what is undeniable. She turned to the south, wending her way across the remains of pathways and bridges just as a berry-pecking redwing might wend its way from remnant hedgerow to solitary bramble. She snatched at what she could to sustain her but the pickings were few and far between these days. Still, there was water.

Madelief sniffed hard and coughed, open-mouthed almost French kissing the worn fabric covering her shoulder. No shoulder to cry on. It was nothing more than a habit formed at a time when an exhalation could herald another's last breath.

Madelief was a cause unto herself, she thought of her message, the one entwined in each and every fibre of her being. The ink is translucent, the script obscure, but the word is clear in her head. The future was in the past and soon she must rebuild it. Reclaiming, draining, watching. Her ancestors may well have brought their women down to the lowlands, now Madelief must be there to nurture and nurse a new generation. That was the hope. That was the future.

Now, where she fancied she could see a distant windmill through the mist, on a rise, it was not to be. There were no sails on this windmill, nothing at which a fanciful traveller might tilt. This windmill, surrounded by water, was strangely a far more ecclesiastical affair, an ancient structure, reaching up, cutting the sky from its aquatic surroundings. A glassy spire pointing accusingly at an angry God that once offered his people plague. That once offered his people famine and flood. A shard.

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## **WAVE MARKERS**

by

## **DAVID BRADLEY**

a

Post-apocalyptic, post-pandemic fenland gothic

in the

**ECO-LIT genre** 

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