Chapter 10

Ruderal Heritage

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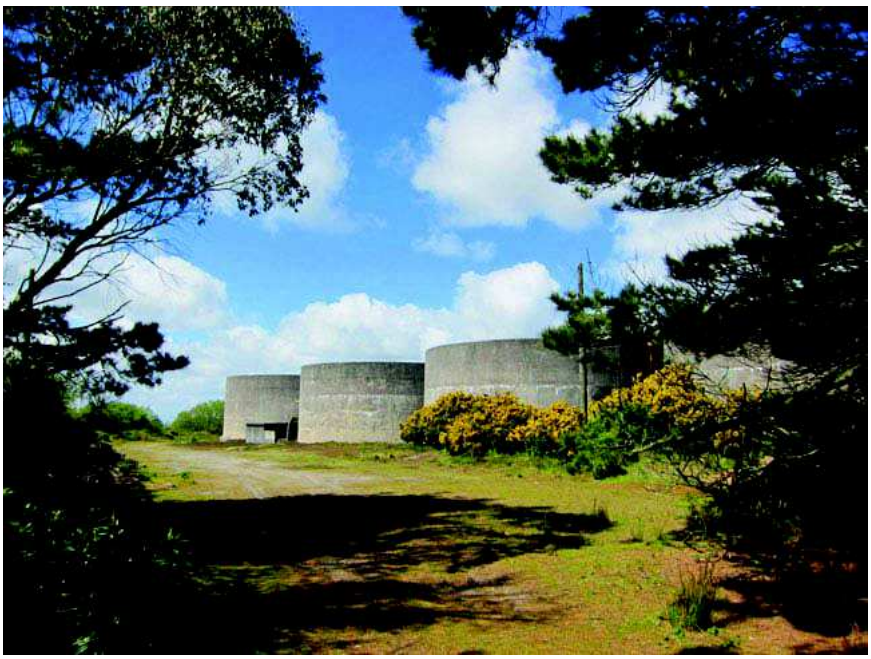
All change

It is now clear that we live in a world increasingly defined by the rapid and unpredictable transformation of social, ecological and geophysical systems. While transformation, as such, is nothing new, the speed and the scale of the changes we, and other species, are experiencing, is unusual (if not entirely unprecedented). The relevance of the concept of 'heritage' in this moment is not immediately obvious – given its association with conservative and preservative instincts, and its fixation on the past as its point of reference and locus of value. In critical heritage studies, however, the wider recognition of inevitable transformative change has been paralleled by the emergence of new theoretical approaches, which understand heritage as a socially-embedded, future-oriented process through which the past is brought into the present to shape novel environments and practices. In this recent work, heritage significance is framed as an emergent, relational property – not an intrinsic quality linked to the preservation of certain material states (Harrison 2013; Pétursdóttir and Olsen 2014; DeSilvey 2017; Harrison et al. 2020). These alternative approaches see change and transformation as an integral element of heritage, with the potential to generate new connections between people, the past and the future. They also recognize that with our human imprint now penetrating deep into global ecologies and geologies, the distinction between nature and culture – and natural and cultural heritage – is an artefact of a world we no longer inhabit (Harrison 2015).

For the past several years, I have been working at this interface with a team of researchers,[1] seeking to understand how the practice of heritage-making is sustained (or enhanced) in relation to materials and landscapes caught up in active transformative processes. In the places we studied, the making of future heritage is not about conserving objects or artefacts as stable entities but about maintaining continuity with the past through processes of change and innovation. In our research, we sought to understand how transformations that could be interpreted as loss on one register could also provide opportunities for the emergence of other relational configurations and trajectories. These places provide a glimpse of how we might find our way in what I will describe as a 'ruderal' future, where disturbance is the norm, and where our strategies for survival will depend on making alliances with more-than-human agents and entities. In the following section I introduce each of the three landscapes we explored (all undergoing transformation at a scale and a velocity more pronounced than the background condition of change characteristic of comparable landscapes) before returning to discussion of the concept of the ruderal in the context of heritage practice.

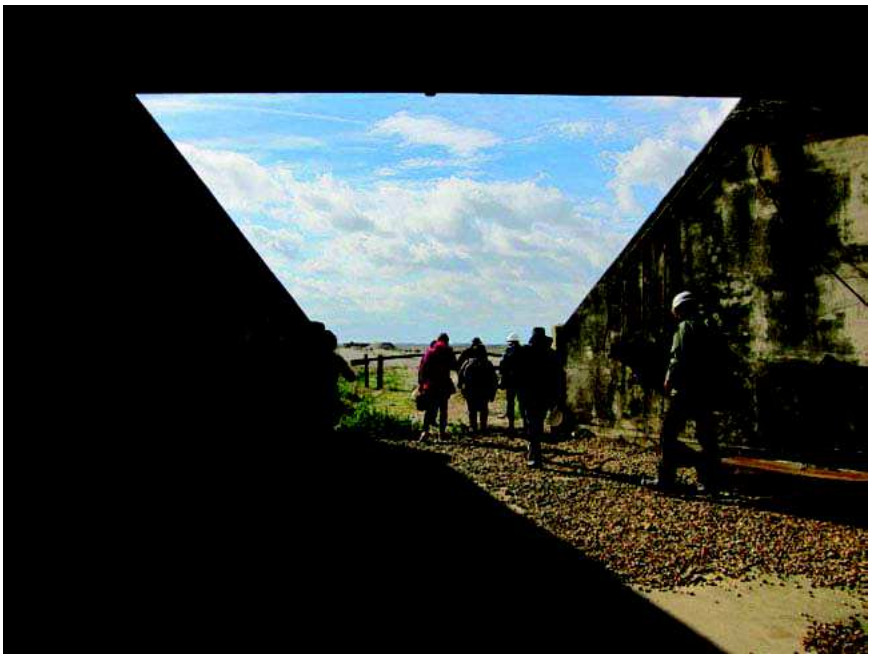
Sites and synergies

In mid-Cornwall's china clay country, north of the town of St. Austell, more than two centuries of industrial extraction, on an increasingly large scale, have produced a patchwork, punctured landscape mosaic. Imerys, a multi-national company based in France, continues to extract deposits of kaolin (decomposed granite) in massive open pits, reliant on heavy machinery and a substantial processing infrastructure of pipes, roads, plants, tunnels, tracks and tanks. Other areas are now 'post-operational' and held in limbo, awaiting redevelopment or reuse. In the meantime, these post-operational spaces undergo renaturalization, either intentionally (through replanting of heathland and forest) or passively (through the emergence of rogue plantations of rhododendron and other ostensibly 'invasive' species). Around the edges and in isolated pockets, elements of the industry are conserved and presented as artefacts of industrial heritage, as at the Wheal Martyn Clay Works



north of the town of St. Austell. Many more structures and infrastructures are left to their own devices: the landscape is scattered with redundant rail lines, pyramidal waste tips, disused industrial buildings and massive concrete settling tanks. No one really knows what to do with these remainders, although some of them have accrued value and are celebrated as icons of local heritage. 'Preservation' of such features is problematic, however, and regional heritage bodies, which recognize the continual change brought about by evolving industrial process *as* the heritage of this landscape, have struggled to find a clear way forward (Kirkham 2014).

Several hundred miles away, on the east coast of England, Orford Ness is a 15km-long spit composed of loose stone, or 'shingle'. The Ministry of Defence (MoD) occupied the site for most of the twentieth century, for use as an airfield and then for classified research into bomb ballistics, aerial warfare and atomic weapons testing. In 1993 the National Trust acquired the former MoD property on the Ness (citing the nature conservation value of the vegetated shingle habitat) and applied a policy of 'continued ruination' to selected structures associated with the tenure of the Atomic Weapons Research Establishment (AWRE) (DeSilvey 2017). This unusual cultural heritage management philosophy is set against a backdrop of rapid coastal change. Processes of erosion and longshore drift continually rearrange the coastline, and in recent years the Coastal and Intertidal Zone Archaeological Network (CITiZAN) has worked to record archaeological features as they are undermined and erased. Our research explored the dynamic and fluid nature of this place and tried to understand how this quality is celebrated by local managers and creative practitioners (Bartolini and DeSilvey 2020a). But we also discovered nodes of attempted durability and fixity that work against this embrace of change, including a high-profile attempt by a private owner to protect the historic Orford Ness lighthouse, adjacent to the National Trust property, from inevitable erosion. Some of the MoD structures were listed decades ago, but the AWRE facility was only designated as a Scheduled Monument in 2014. Historic England holds that the new designation does not trigger a presumption of protection, but accept they have no control over how other people interpret the significance of such designations.



In the Côa Valley, in north-east Portugal, a concentration of prehistoric rock art animal figures shares a landscape with a rewilding pilot, led by a local organization, Associação Transumância e Natureza (ATN), and supported by Rewilding Europe. Here, the landscape is changing rapidly and has been for decades as the region's population gradually declines: the villages have hollowed out and fallen into partial ruin; the olive groves and arable fields are untended and overgrown. ATN sees the widespread land abandonment as an opportunity, and wants to return semi-wild horses and back-bred cattle (and, eventually, ibex and other large herbivore species) to the landscape, to allow their grazing to transform the landscape into something that resembles (but does not replicate) what it was in the past, 20,000 years ago, when representations of horses and other animals were carved into the stone along the river (DeSilvey 2019). In the long term, the hope is that the introduced animals will once again become prey in an expanded range for existing predator species, such as lynx and wolves. But this transformation is uneven and gradual. The introduced animals still need care and management; traditional practices of animal husbandry intersect with the rewilding initiative in curious ways; ruined houses are restored to accommodate eco-tourists (DeSilvey and Bartolini 2018; Bartolini and DeSilvey 2019). The "new natural heritage" (Jepson and Schepers 2016: 2) produced by rewilding catalyzes landscape reengagement and reconnection, but the depopulation trend continues.

Ruderal thinking

In these open and uncertain landscapes, the people who are responsible for steering them into the future must continually accommodate and negotiate ambiguity, instability and emergent processes. One concept that we have found useful when thinking about these places is that of the 'ruderal.' A word with its roots in the Latin word for 'rubble', ruderal is an ecological term used to describe opportunistic plant species adapted to take root in disturbed environments. In my old Webster's Dictionary, the first definition assigns a clear disruptive agent: a ruderal plant is found 'growing where the natural vegetational cover has been disturbed by man' [*sic*]. The second definition offers a more passive and indirect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causation: 'a weedy and commonly introduced plant growing where the vegetational cover has been interrupted'. In this second sense, the driver of disturbance is not specified. This ambiguity echoes a refrain in public debate around the concept of the Anthropocene; disturbance is evident, but there is a persistent desire in some quarters to identify the causal agent as something or someone other than us, to shift blame onto epic Earth processes or some equally indifferent inhuman force (Clark 2011). The concept of the 'ruderal' contains within it both sets of possible meanings, and in this sense it collapses any functional distinction between 'natural' and 'cultural' environments. It may apply to plants that colonize environments scoured by fire or by flood, but it can also describe an adaptive response to conditions produced through processes of industrial extraction and construction, war and other forms of human wasting.

In both inflections of the term, disruption creates the conditions of possibility for the emergence of new (plant) communities, made up of individual interlopers often described as 'weeds' or 'invasive species', aggressive and indiscriminate. But the term also contains associations of renewal, in that the advance guard of ruderal species stabilizes soils and supports the emergence of conditions that allow other less aggressive species to succeed them. Central to the concept of the ruderal, however, is a recognition that the ecosystems that emerge in the wake of disturbance are novel and non-analogue – they have never existed before. The reference to the 'interrupted' may suggest a break in successive progression, but in the places where ruderal process holds sway, there is no clear path back to a historical baseline ecological state (Jackson and Hobbs 2009). As such, ruderal thinking aligns with the awareness in heritage studies that we cannot restore an imagined, authentic version of the 'the past': we can only borrow scraps from the available past to assemble a viable future, and in this sense disturbance can be seen as the opportunity for the emergence of alternative trajectories and novel narrative configurations.

The term 'ruderal' has caught the imagination of a handful of scholars outside ecology, who are drawn, as Sarah Cowles observes, to the way in which "ruderal species perform ecological, metaphoric and cultural work" (2017: 1). Bettina Stoetzer, in her research on the unruly edges of

the city of Berlin, uses the ruderal as a tool for "rethinking cultural migration, human-nonhuman relations and unintended ecologies" (Stoetzer 2018: 308). She writes,

> [A] ruderal analytic shifts attention to heterogeneous and unexpected life amid rubble. Ruderal ecologies grow in the inhospitable environments created by war and exclusion; they emerge by chance and entail illegal border crossings... the perspective of ruderal ecologies accounts for the ways in which biological life, cultural identifications and strategies of survival are never authentic or pure but always situated within histories of disturbance (ibid).

Other scholars do not use the term directly but are pushing their thinking into sympathetic territory. Stephanie Wakefield has written about the cultural relevance of the ecological concept of the 'back loop', which asserts that systems do not remain in a steady state, but experience continual phases of collapse and unravelling, followed by creative phases of 'release and reconfiguration' (Wakefield 2018). "In the release phase," she writes, "energies and elements previously captured in the conservation stage are set free" (2018: 79). It is possible to extend this thinking to heritage contexts, to explore how 'energies and elements' that had been stabilized through conservation can be released through processes of decay and disintegration, and through embrace of weedy natural-cultural combinations (DeSilvey 2017). In a recent essay on 'auto-wilding', Anna Tsing writes, "So many of us are Anthropocene weeds. Weeds are creatures of disturbance; we make use of opportunities, climb over others and form collaborations with those who allow us to proliferate. The key task is to figure out which kinds of weediness allow landscapes of more-than-human liveability" (2017: 17).

Ruderal heritage research, then, is orientated to ongoing instances of both destruction and renewal, and focused on the opportunities that emerge from inhabiting disturbed substrates and sensibilities. In exploration of this theme at our three case study sites, I draw out the ecological and cultural resonance of ruderal thinking by attending to stories of specific species and situations. Through these stories, I explore how a

focus on heritage transformation, rather than preservation, unravels the boundary between categories of natural and cultural heritage management and opens out opportunities to salvage meaning from apparent loss and disintegration.

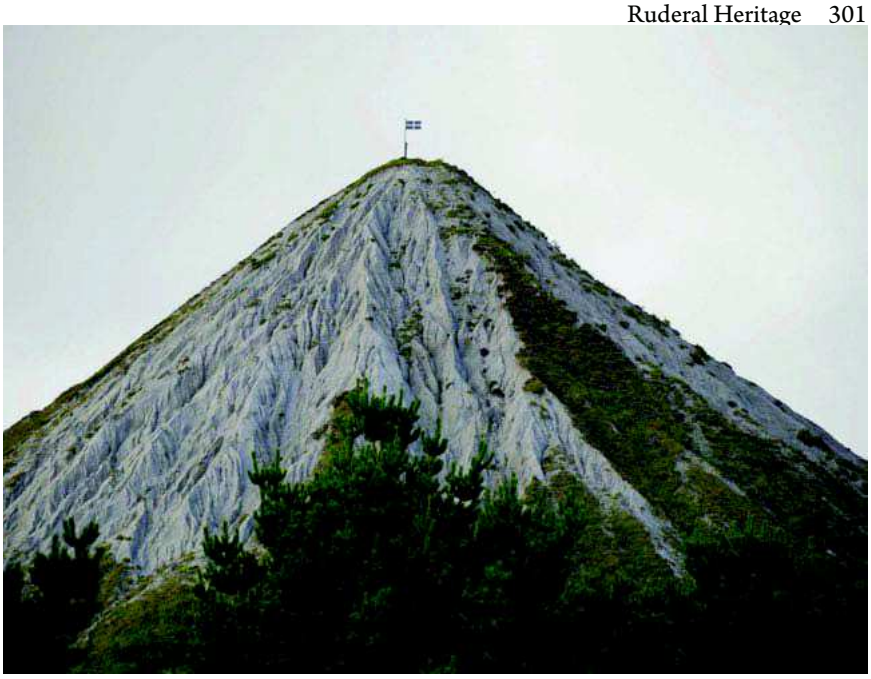
Of moss and mountains

In the clay country, past disturbance by industrial excavation has created pockets of dense and diverse plant life, most noticeably where landscapes have been allowed to revegetate on their own over decades. At Lansalson Pit, part of the complex of redundant clay workings that became the Wheal Martyn Clay Works, the banks surrounding the blue-green pool are crowded with common ruderal species – buddleia, bramble, bracken – but also more exotic rhododendrons, escaped from local gardens. These pioneer plants, adapted to colonize nutrient-poor exposed soils, have an ambivalent status, oscillating between saviour and scourge. In one sense, they stabilize the scarred landscape, and act as a literal ecological place-holder until more formal plans for remediation and redevelopment emerge. But certain species, such as the rhododendron, are recast as alien invasives, threatening to destabilize remnant indigenous ecosystems.

While the species mentioned above are ubiquitous and unescapable in the clay country, the region is also home to several ruderal species that are valued for their rarity, and carefully monitored and managed. One bryophyte (moss) species unique to Cornwall, the Western rustwort (*Marsupella profunda*), colonizes unshaded or lightly shaded clay and granitic rocks, and appears to have evolved to prefer the open, exposed conditions created by ongoing industrial activity in the clay country. In the 1990s the moss was identified at several sites in and around both dormant and active pits, and some of these sites were subsequently protected with SSSI and SAC designations. Because the necessary disturbance was absent, however, the moss became shaded by encroaching gorse and bramble. The plants are now largely extinct in the designated areas, and the species has been categorized as 'Vulnerable' on the International Union for Conservation of Nature (IUCN) Red List (Hodgetts 2011). Natural England has identified 'refuge' sites for species

translocation, and entered into a collaboration with Imerys to help replicate the heavy industrial activity that will maintain the unique ecological conditions required to maintain viable populations (Callaghan 2014).[2] In this paradoxical instance of ruderal heritage in action, the conservation of natural heritage is only possible through the "periodic large-scale disturbance" brought about by extractive intervention (2014: 7).

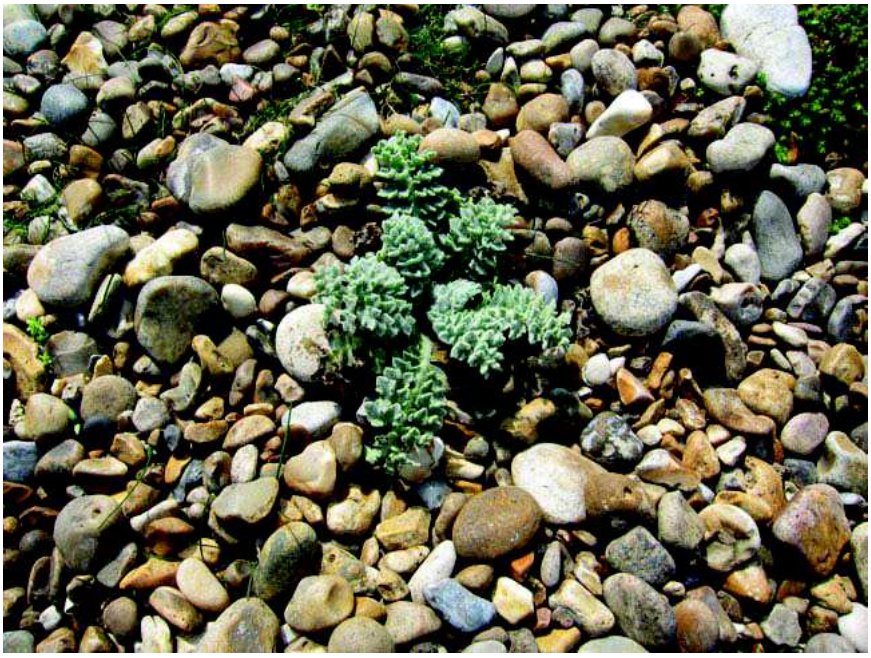
The largest recorded population of Western rustwort occurs in the area surrounding the West Carclaze Sky Tip (also known as Great Treverbyn Sky Tip), where a social analogue of ruderal process has played out over the last several years. After its initial deposit as a waste by-product of clay extraction, the artificial sand-mountain was left to its own devices for sixty years, gradually accruing significance to local people. In 2014 a perceived threat that a proposed redevelopment scheme would level the tip led local residents to submit a listing application to English Heritage. As one observer commented, change (or the spectre of change) 'drew out value' and forced people to articulate their desire to save the feature as part of their heritage – disturbance, in this instance, elevated significance. Despite recognition of its status as an 'iconic local landmark', English Heritage judged that the tip did not have a sufficiently 'high level of historic importance' to merit designation (English Heritage 2014). The Sky Tip is now integrated into the marketing of the West Carclaze Garden Village development, however, as a value-added piece of local history, which will be retained as "the centre feature" of China Clay Heritage Park, and be allowed to "naturally weather and erode... producing its dramatic sculptural shapes". The promotional materials for the new scheme promise: "Our plans are to let nature take its course and allow it to evolve as the centrepiece of an extensive recreational and wildlife habitat, which will bring pleasure and enjoyment to residents and visitors alike" (Eco-Bos 2018). The Sky Tip provides an example of ad hoc management of a hybrid natural/cultural heritage feature, where the developers, through a process of conflict and negotiation, have agreed to accommodate inherent instability – although their commitment to this agreement in principle has not yet been tested in practice (Bartolini and DeSilvey 2020b).



Poppies and police towers

On Orford Ness, we have been working with partners to understand how heritage is made (and unmade) in this unstable environment, where disturbance – by bomb-testing and wave-action alike – is the historical norm. The Ness harbours many ruderal species, as the mobile shingle and the ruined structures provide the exposed substrates needed for their establishment and survival. Some more common species are considered to be invasive weeds or innocuous interlopers, while others, like the yellow-horned poppy (*Glaucium flavum*), are deemed to be 'native' and thus worthy of conservation, whether they are growing on the shingle ridges or in the concrete foundations of a derelict building (DeSilvey 2017). The management challenges here, however, are not dissimilar to those posed by the management of the clay country moss. I photographed a yellow-horned poppy on the raised beach south of the lighthouse in March 2012, and then six years later came upon a poppy uprooted by a recent storm in more or less the same location, its roots exposed and the plant toppling down the beach crest. The toppled poppy could be seen as evidence of the destruction caused by accelerated, anthropogenic climate change, sea-level rise and increasing storm intensity. But the poppy thrives on disruption, and its seeds are adapted to take root in newly accreted shingle ridges. Once it has established, however, it is vulnerable to trampling by careless walkers – though the warnings of unexploded ordnance tend to keep people on the marked paths at Orford Ness.

We can find a loose cultural analogue to the poppy in a derelict wooden police tower, which used to stand a few hundred yards south of the Orford Ness lighthouse. The tower was built in 1956 as an observation post for the AWRE security police, located inside a defensive perimeter fence. In a 2009 National Trust survey the tower was still secure, but by 2012 its foundation was very close to the beach crest. By the time of the first CITiZAN survey in 2015, it was gone; in 2016 the survey team measured and recorded the foundation slab where it had tumbled down the beach, reduced to broken blocks of rubble. I returned to the site with CITiZAN in March 2018, and all that was left was a fragment of concrete jutting out of the steep beach face, and a few smaller fragments scattered down the beach. The mood



of the survey team was not mournful, but curious, forensic: the loss of this feature, in a sense, justified the labour spent surveying, measuring, documenting and recording. It also became clear that only three years after the collapse of the tower, people no longer agreed on exactly where it had stood. One of the National Trust employees claimed the feature recorded by CITiZAN was not the police tower base, but another eroding concrete foundation. We discussed the tower over breakfast in the Orford Ness bunkhouse, looking at old maps and photos, comparing and considering. One of the CITIZAN staff shared a 1951 image she had found of a similar tower located north of the lighthouse and posited that the tower in question was not built in 1956 but was relocated from the other site. Uncertainty, in this instance, created openings for dialogue and deliberation; history frayed and had to be woven back together. A lively dialogue about the past in place was generated out of disruption and erosion of evidence, in a collaborative process arguably more productive and generative than a passive encounter with the static tower as a piece of 'heritage'. Here, we found a heritage practice that was not trying to hold back change, but was working with it, and finding opportunities for engagement and (re) connection.

Fire and friction

In the Côa, management of ruderality is central to both the rewilding effort and to wider landscape concerns, which come into focus in relation to particular practices. In this rugged and exposed landscape, local shepherds and farmers have a well-established tradition of seasonal burning; they have used fire for centuries as a management tool to maintain the vegetation in a state of early succession, and encourage new growth of forage-friendly plant species. As farming practices have been gradually withdrawn from the landscape, however, pioneer species such as broom have begun to grow in greater densities, and fires have become more intense and destructive (occasionally threatening the remnant cork and olive trees, which can withstand moderate wildfires but may be killed by high-intensity blazes). On our first visit to the area in 2015, ATN staff told us about the local perception of the unworked landscape

as 'unclean' and dirty, and their concern about fire-setting by one of the shepherds in a local village. A few years prior they had taken the shepherd to court for violating the new restrictions on fire in the reserve (Leuvenick 2013: 20).

As part of the rewilding of the area, ATN aims to disrupt the cycle of burning and the continual reversion to first-stage succession to allow woody tree species to become established, and to eventually recreate a semi-forested landscape mosaic. The grazing and browsing of the reintroduced horses and cattle are intended to keep the ruderal species in check and make the landscape less vulnerable to damaging fires, as other species gradually move in and the system 'gains resilience'.[3] Following years of conflict and disruption, local residents are now becoming more accepting of ATN's strategy, as they witness the effect of the new management practices. One couple with property in a local village remarked on the frequent fires in the past, and their perception that in the years following the release of the horses, fires within the Faia Brava reserve had become very rare. In this landscape, fire is both an expression of intangible cultural heritage and a contested ecological agent, managed by conflicting interests. But the conflict and disturbance have catalyzed a tentative transition into a future state in which the entanglement of natural and cultural heritage becomes the basis for a new, shared understanding of landscape dynamics.

Last words

I hope these brief landscape forays have shown how ruderal thinking can offer a productive conceptual tool for a critical heritage practice oriented to latency and release, instability and emergence. In such an orientation, memory and materiality are unhitched from the pursuit of permanence to instead work through change and disturbance; in the process new attachments are formed, and old ones are reimagined. The trick is to look out for the seeds waiting to germinate in the rubble. As poet Gary Snyder reminds us, "manzinita seeds will only open/after a fire passes through/ or once passed through a bear" (Snyder 1974: 19).

Notes

1. This chapter is based on research carried out as part of 'Heritage Futures', an Arts and Humanities Research Council (AHRC) 'Care for the Future: Thinking Forward through the Past' Theme Large Grant (AH/M004376/1), awarded to researchers at University College London, University of Exeter, University of York and Linnaeus University (Sweden). I am grateful to Nadia Bartolini, Heritage Futures Transformation theme Research Associate, and Antony Lyons, Senior Creative Fellow on the Heritage Futures project, who shared fieldwork experiences in the UK and Portugal and who informed this work through ongoing intellectual and creative collaborations. Additional thanks are owed to our project partners and the individuals who participated in our research and generously offered their insights and expertise. Material developed for this chapter also appears in the co-authored volume, *Heritage Futures: Comparative Approaches to Natural and Cultural Heritage Practices*, written by R. Harrison, C. DeSilvey, C. Holtorf, S. Macdonald, N. Bartolini, E. Breithoff, H. Fredheim, A. Lyons, S. May, J. Morgan and S. Penrose (with contributions by A. Högberg and G. Wollentz), UCL Press, 2020. Chapters by N. Bartolini and A. Lyons in that volume provide more indepth analysis of the three sites introduced in this chapter. See further information at www.heritage-futures.org

2. I am grateful to David Hazlehurst, Natural England, for sharing the story of the Western rustwort in our conversation on June 4, 2015 in Penryn, Cornwall.

3. Personal communication with ATN coordinator, December 12, 2017.

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