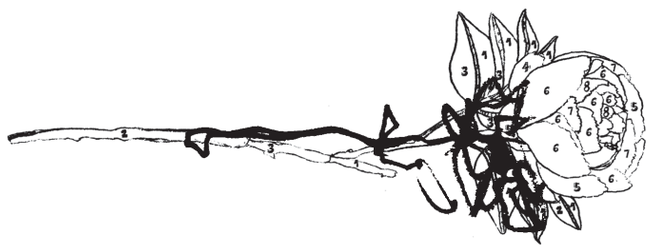
Rewilding

Lessons in Letting Go

by Richard Catty



During a seminar sometime in the '60s, the writer and public speaker Alan Watts professed that "the more you give it away, the more it comes back." Watts, a man fascinated by Eastern religion and man's relationship with nature, was talking about control. He later added, "in giving away control, you've got the kind you always wanted." That is to say, through letting go, one opens themself to more fertile opportunities and potentially fruitful results. The kind of non-grasping, serendipitous mentality Watts often spoke of has its roots in the Zen buddhist belief that humanity, despite our best efforts to prove otherwise, is inseparable from Tao—the natural flow of the universe. In the modern era, where much of the Earth has been parcelled up and allocated inflexible functions such as housing, infrastructure and agriculture; and scientists are imagining ways to replace pollinators killed by excessive pesticide use with robots, it could be argued that the practical applications of such a mindset have been lost. Yet, there is one branch of science where the idea of letting go of control has begun to gain traction—rewilding. A form of restoration ecology, this relatively new science can be distinguished from traditional target based conservation by its experimentalist approach. Its aim is less about achieving a predefined set of results, such as the preservation of a particular species, than creating conditions favourable for nature to freely express itself. That's not to say rewilding is tantamount to letting nature run ragged, nor should it be confused with the worldwide tree planting drive—a result of linear thinking that, while having benefits in terms of carbon offsetting, does not guarantee the development of complex ecosystems. The overall goal of rewilding is to restore or create resilient, functional and biodiverse ecosystems through a dynamic approach that embraces a broad range of methods and outcomes.

One such method is the reintroduction of beavers, locally extinct in many parts of europe. The aquatic mammal helps to reduce flooding downstream by damming upstream, a behaviour which also creates extensive wetland habitats, supporting a huge variety of other animals such as otters, water voles, shrews and many species of frog, bird, insect and fish. Rewilding, by virtue of being nature driven, has the potential to provide long term solutions to prevailing dystopian realities such as the worldwide increase in flooding, mass species loss and widespread soil degradation. There are also advantages in terms of pollination, clean air and public access to wildlife. Along with many other benefits, the aforementioned comprise the spectrum of ecosystem services provided by wild places. According to Dr Joseph Bull, rewilding expert and founding member of Wild Business, UK, "scientists are increasingly seeing nature restoration as a really good way of ensuring the provision of ecosystem services and tackling some of the biggest problems we face, including climate change through the sequestration of carbon."

Whilst the burning of fossil fuels is undoubtedly the main driver of modern global temperature rises, human initiated combustion may have influenced the warming of the planet as far back as the early Pleistocene era, which ended 11,700 years ago. It is theorised that the use of fire for cooking coincided with mass-extinctions of large bodied mammals from hunting and other human activities. As herbivore species began disappear-

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ing, so too did their grazing effect on landscapes, fueling the succession of grasslands into woodland and rainforest, and a warmer climate overall. During this gradual warming, some megafauna were able to evade extinction and adapt to the new climate. Today, the world continues to see an overall decline in and extinctions of remaining organisms, but at a much faster rate than ever before. In many ecosystems, biodiversity is suffering from the loss of cascade effects that larger animals have on the ecology of their environments, and their rapid demise could be accelerating climate change too.

Trophic rewilding, a common type of wildlife restoration, aims to restore biodiversity and vital cascade interactions by reintroducing populations of keystone species—animals upon which the functioning of ecosystems are dependent. This could constitute the reintroduction of large mammals, who through grazing and disturbance effects create opportunities for other species of flora and fauna to thrive. Alternatively, in areas where human activity has led to the extinction of a keystone species, trophic rewilding may introduce an animal that mimics the effects of that species in order to restore ecosystem functionality. Such was the case on the island of Mauritius, where two extinct types of giant tortoise were replaced with a similar-sized species from the Seychelles. The 400+ Aldabra tortoise population has since grazed out invasive plants, allowing those native to the island with tortoise-withstanding adaptations to recover. Keystone species introductions can also come in the form of apex predators. In Yellowstone national park, wolves have made a comeback thanks to rewilding efforts and are now self-managing the previously unsustainable elk population.

Whichever animal is introduced to an area, whether it be predatory wolves, imported tortoise or cattle reverse-bred to mimic the grazing and browsing behaviours of undomesticated ancestors, the overall effect on the ecology of a rewilded area can be huge. Trophic rewilding has the potential to restore ecosystems to their former state, increasing biodiversity and providing ecosystem services as a byproduct. The other main approach to rewilding is known as passive rewilding. It relies on minimalist intervention methods, allowing nature to restore itself from the medley of wildlife already at its disposal. Large scale passive rewilding is currently underway in Virunga national park in Democratic Republic of the Congo, where a newly migrated super-herd of elephants is returning overgrown bush to grassland savanna—a habitat which supports a wider range of animal species. Compared to trophic, there is similar scope for increasing biodiversity and returning functionality with passive rewilding. However, without the natural re-emergence or human re-introduction of a missing keystone species, it is more likely that a brand new ecosystem will emerge, rather than that which previously existed.

Both the approaches to rewilding mentioned differ from traditionalist, targeted conservation efforts, which don't place as much emphasis on the effects of their methods and outcomes on the overall ecology of an ecosystem. Success tends to be measured against a predetermined, fixed result rather than the overall pro-

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liferation of wildlife—the continually moving target at which rewilding aims its arrow. The introduction of English Longhorn cattle at Knepp farm, the UK's flagship rewilding project, is a powerful example of the difficult to predict, yet beneficial cascade effects that an introduced keystone species can drive. An old breed of English oxen, the Longhorn has retained much of the characteristics and behaviour of the extinct Aurochs, the wild descendant of domesticated bovines. As well as eating grass, Longhorn are able to browse on shrubs and other hard vegetation, preventing scrub from overgrowing and maintaining ecosystems for smaller creatures. The Longhorn also carry up to 230 types of seed in their gut, helping to distribute plant-life and improve soil health through deposits of their nutrient-rich dung, which attracts more than twenty different species of dung beetle.

Following a few years during which natural vegetation was allowed to proliferate, the longhorn, as well as other introduced species of wild and semi-wild mammals, such as Tammworth pigs, Exmoor ponies and three species of deer, have had a truly transformative effect in the two decades of rewilding at Knepp. Many kinds of plant not seen for decades, have reappeared and a huge array of bird, mammal, butterfly, bee and other insect species; some incredibly rare in the UK, have since made Knepp their home or migratory stop-over. There is so much wildlife at Knepp that the project even offers safari packages. It is a clear demonstration of how, once the initial measures are in place, whether that be the cessation of intensive human land management or the introduction of a new or lost species, nature has the chance to abound of its own accord.

As soon as nature has gained a foothold, it is vital that humans not only treasure wild spaces, but trust them in their capacity to self manage. Perhaps as critical to the proverbial handing over of the reins is the collective realisation that the achievements of rewilded places are, in fact, our own. For human intelligence and creativity are expressed through the same palette of biological processes with which unfettered nature paints its most magnificent self-portraits.

Despite its undeniable beauty and benefits, not everybody shows the same enthusiasm for wild nature. Rewilding has become politicised and polarised, not only because of its radical approach, but the varying benefits and drawbacks it poses for a range of stakeholder groups: wild and rural landscape enthusiasts; owners of unprofitable or marginalised land; farmers and ranchers, many of whom are worried about the encroachment of wilderness and the adverse effects of wild animals; ethics watchdogs, concerned by controversial plans to revive extinct animals, such as the wooly mammoth; and animal rights campaigners, to name but a few. Particularly poignant for the last group was the 2018 winter dieback of deer, horses and cattle at the pioneering Dutch rewilding site, Oostvaardersplassen, during which activists protested against wild animals being allowed to starve through the especially harsh winter.

Of course, this doesn't mean that all animal rights activists are blind to the benefits of self-willed nature. Despite the common perception that there is unity of opinion within specific stakeholder groups, every individual has their own personal reasons for opposing or advocating different aspects of rewilding. As Dr Chris Sandom, Wild Business co-founder, reflected: "Opinion is divided, even amongst farmers, who are often seen as a fairly homogenous group." However, overall public support is starting to sway according to Sandom: "Take UK beaver reintroductions: despite the previous victories of a very vocal opposition, it's now happening on a large scale, because beavers have gained an 76% approval rating." The swing in UK public opinion is largely thanks to governmental support, including contingency for those adversely affected by upstream flooding, and the broad media coverage of beaver benefits. It is a perfect example of how successful nature restoration efforts rely on the appropriate framing and subsequent backing of the public.

Arguably as important as the services we receive from wild spaces, such as flood protection, are nature's proven benefits for mental health. This poses a significant challenge for rewilding: how to expand nature access in urban as well as rural communities. "I would love to be living in a place that allows me to have amazing wildlife experiences everyday: big mammals, wild landscapes, where people are integrated," imagined Dr Sandom in response to this challenge. He added: "For certain demographics, wild nature is becoming easier to reach and there are some fantastic opportunities for safaris and glamping. But nature needs to be available to all. That means bringing some wilder nature into communities and up to our back doors." Individuals also have a role to play, according to Dr Bull: "We should be much more effective at sharing human spaces with nature. I recently put up a garden fence and left a gap at the bottom. Within a week my kids got to see a hedgehog for the first time. If lots of people create space where they can, then wildlife will use that space." Aside from creating space, there are plenty of actions the average person can take to invite nature back into their lives: spreading wildflower seed over derelict land, composting food waste and distributing it across depleted soils; or turning to one's intuition and experimenting with natural process restoration. "Rewilding is about people becoming part of nature rather than trying to control it" Dr Sandom stressed. For there is no way of maintaining established systems of control without cataclysmic species lost. Or as Alan Watts plainly put it: "You better give it away, because there's no way of holding onto it." *RC*