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Reading the Uplands

An integrated approach to land use beyond sparing and sharing.

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ABSTRACT

The future of Britain's uplands is being argued as a choice: rewild the hills, farm them, or fence them off for conservation. This paper argues that the choice is false and the question itself is the problem.

Drawing on the science of upland soils and ecological succession, on the history of these cultural landscapes, and on Wilderculture's WILD approach to integrated landscape design, it makes the case that the best use of upland land cannot be set from the centre or settled by a single principle. It has to be read — from the ground, and from the people who hold it — place by place, and then aligned, bioregion by bioregion.

> **Note on scope.** This is a focused thematic paper on upland land use and the WILD approach. It complements — and does not replace — the Wilderculture White Paper (v16), which sets out the full bioregional methodology. Where the methodology is needed here, this paper references it rather than restating it.

1

THE ARGUMENT

The wrong question

Spend time among the people who manage Britain's uplands and you will find the same argument running through almost every conversation about their future. One camp holds that the hills have been grazed to exhaustion and should be handed back to nature — destocked, allowed to scrub over, rewilded. Another holds that upland farming is a living culture and a working food system that has shaped these landscapes for millennia, and that to displace it is both an economic and a cultural loss. A third, the conservation establishment, works to hold the line on designated habitats and priority species, often within rules that sit awkwardly with both farming and rewilding. The three positions have hardened into camps, and the camps into a contest over who should prevail.

That contest is a local expression of a much larger and longer debate. In conservation science it has run for two decades under the heading of land sparing versus land sharing — whether biodiversity is better served by intensifying production on the smallest possible footprint and sparing the rest for nature, or by farming more extensively and sharing the land with wildlife throughout (Green et al., 2005; Phalan et al., 2011). In food and land-use policy the same argument surfaced in Henry Dimbleby's National Food Strategy (2021) as the "three-compartment model" — broadly, high-yield farming, lower-yield nature-friendly farming, and land released for nature — and most recently in the Land Use Framework for England (Defra, 2026), whose guiding principles of multifunctionality and "right use, right place" are an explicit attempt to move past the binary.

The policy direction is already turning toward integration. The House of Lords Land Use in England Committee went further, warning that any compartment model should be treated as a locally-driven continuum rather than a specification with rigid boundaries. This paper shares that instinct and follows it to its conclusion. The problem is not which side of the sparing–sharing line to stand on. The problem is the line itself, and the assumption beneath it: that the question can be answered in the abstract, from a desk, by a single principle applied at national scale. It cannot.

> THE CLAIM
>
> **The problem is the line itself** — and the assumption beneath it: that the question can be answered in the abstract, from a desk, by a single principle applied at national scale.

2

THE ARGUMENT

Why the binary fails

The binary fails for two reasons — one ecological, one about the nature of the land itself.

The first is that a landscape is a single working system, and a fence is not a boundary that nature recognises. Water, sediment, nutrients, seed, pollinators and the wider mobile fauna all move across whatever lines are drawn on a map. A scheme that intensifies production on one parcel — with the fertiliser, biocide and drainage that "sustainable intensification" in practice tends to mean — and spares an adjacent parcel for nature does not produce two clean outcomes. It produces one compromised system with a nature reserve sitting downstream of the runoff. The evidence that intensification actually delivers land sparing on the ground is, in any case, thin: the spared land is seldom protected, and efficiency gains drive further expansion at least as often as they prevent it (Chatham House, 2022). Treating a catchment as a set of compartments to be optimised one by one misreads what a catchment is.

The second reason matters more in the uplands than almost anywhere, and it is widely misread. The case for sparing the high ground for nature rests on a quiet premise: that the uplands are marginal, low-value and more or less useless for production, so little is lost by giving them over. But the uplands are not useless. They are degraded — and the distinction is the whole point. Land that is poor because it is naturally infertile is one thing. Land that is poor because it has been simplified and run down from a far more productive state is another, because what has been lost can, in principle, be rebuilt. The UK uplands are overwhelmingly the second case. To see why, and to understand what can and cannot be done about it, we have to look down, at the soil.

> *The uplands are not useless. They are degraded — and the distinction is the whole point.*
>
> SECTION 2 · WHY THE BINARY FAILS

3

THE SCIENCE

How the land falls: soil, succession and lock-in

Beneath the argument about what the uplands are for sits a physical fact that rarely enters the debate: the soils themselves have changed, and mostly for the worse. A temperate upland soil is not a fixed inheritance. On broadly similar parent rock it can develop in two very different directions, and which way it goes depends largely on what grows on it.

Under deep-rooted broadleaved woodland and a varied, well-grazed sward, a soil tends toward a brown earth with mull humus: biologically active, worked through by earthworms, cycling minerals in a near-neutral loop. The roots and their mycorrhizal fungi reach down into the subsoil and the weathering rock and draw base cations — calcium, magnesium, potassium — up into the living system, and trees commit a large share of the carbon they fix, on the order of a fifth to a third, to feeding that below-ground partnership (Van Breemen et al., 2000; Quirk et al., 2012). Those bases are then returned at the surface as soft, base-rich litter and mixed back into the mineral soil by earthworms. Mining the rock is only half of it; the return loop is what actually makes a brown earth (Miles, 1985).

Take the trees and the deep roots away, graze hard and continuously, and the loop breaks. Short fibrous swards do not mine the rock, little base-rich litter is returned, and earthworm populations fall. On the high-rainfall, steep, base-poor ground that characterises much of the British uplands, leaching then runs unopposed. The soil acidifies, a raw acid mor humus accumulates, iron and aluminium are stripped from the upper horizons and laid down below as a podzol, often capped by an iron pan that blocks drainage. Heather itself, long taken for the natural clothing of the hills, both drives and marks this acidifying trajectory — and where grazing has been heaviest even heather has given way to mat-grass and rush, declining across the great majority of British upland sites over two centuries and most severely where stocking was highest (Stevenson and Thompson, 1993).

The hard part is that this degraded state does not simply reverse when the pressure is lifted. It is self-reinforcing, and it shows what ecologists call hysteresis: the path back is not the path in. Dimbleby's long experiment at Silpho Moor is the cautionary case — three decades after birch returned to a podzol, the iron pan still held, the surface stayed strongly acid, and the deep-burrowing earthworm needed to rebuild a brown earth had not recolonised, because the low pH, the absence of calcium and the impeded drainage were all against it (Dimbleby, 1962). Recovery is possible but conditional: where the substrate still carries some base and drains freely, returning broadleaves can pull a soil back toward mull over decades (Miles, 1985; James Hutton Institute trials). Where it cannot, the ground stays locked.

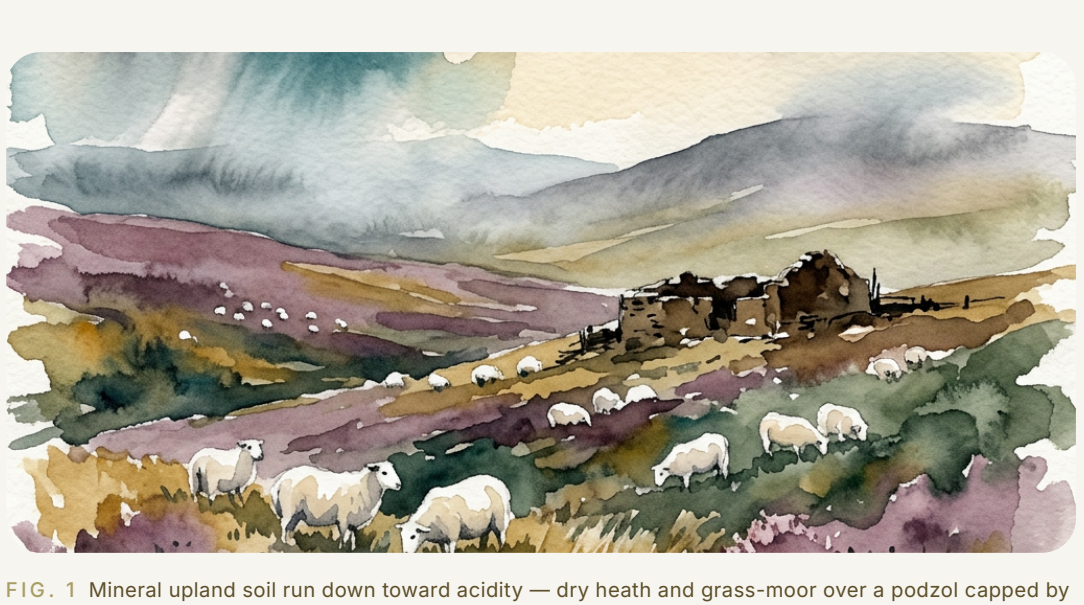


FIG. 1 Mineral upland soil run down toward acidity — dry heath and grass-moor over a podzol capped by an iron pan. Watercolour, atmospheric treatment.

It is worth being precise about peat here, because the point is easily misused. Deep blanket bog is not a degraded soil; it is very largely a climate-formed system, much of it older than the clearances, and it should be protected as the carbon and water store it is. The degradation described above is the story of mineral upland soils run down toward acidity — dry heath, grass-moor, thin and eroding ground — not of intact deep peat. The two must not be confused.

> TWO GATES HOLD A DEGRADED UPLAND IN PLACE
>
> An **establishment gate**, where continuous grazing and burning prevent any woody return, and a **soil gate**, where the iron pan, the lost base and the waterlogging resist recovery even when the trees do come back. Both matter.

4

THE SCIENCE

Why resting alone is not enough

If the degraded state is self-reinforcing, an uncomfortable conclusion follows for the simplest version of rewilding — the one that says remove the stock, stand back, and let nature heal. Sometimes, on kinder ground, it does. But a locked upland soil does not behave like a compressed spring that returns to shape once the weight is lifted. It behaves like a system that has settled into a lower, stable equilibrium and is held there by its own feedbacks: the acid soil favours the vegetation that keeps it acid, the missing trees cannot seed back through the grazing and the wind, the iron pan keeps the ground wet. This is the well-described behaviour of systems with alternative stable states, where a shift driven past a threshold is not undone merely by easing the original pressure (Scheffer et al., 2001; Suding et al., 2004).

There is a further reason passive recovery underperforms in these landscapes specifically. The simplification of the uplands was not caused by one thing. It came from the removal of woodland, the loss of the large herbivores and the predators that once moved them, centuries of burning and continuous grazing, drainage, and atmospheric acidification, all acting together. Restoring a single missing driver — bringing back a predator, or simply taking the sheep off — cannot be expected to reverse a shift that many drivers produced, because too many other locks remain engaged.

This is why the contrast with celebrated lowland rewilding can mislead. Where rewilding has produced fast and spectacular recovery, it has often done so on forgiving ground — deep, fertile, base-rich soils where the soil gate was never closed, even where the going is heavy clay rather than free-draining loam. Acid granite and quartzite under high rainfall on a steep slope is a far harder starting point, and the very conditions that make the uplands tip fastest into the locked state also make them slowest to climb out of it unaided.

> *The uplands are not where human management matters least, to be relinquished because they are marginal; they are where skilled intervention matters most, because the system is least able to recover on its own.*
>
> SECTION 4 · WHY RESTING ALONE IS NOT ENOUGH

None of this is an argument against wildness. It is an argument about how wildness is reached from a degraded baseline. For most of these landscapes' history a wilder system did the work — woodland, large herbivores, and the predators that kept them moving and the young trees coming — and that system built the fertility we have since spent. We cannot summon it back by absence alone, and we have removed too many of its parts for it to reassemble itself quickly.

The missing processes therefore have to be supplied: by active management that stands in for them, with animals moved across the ground the way predators once moved them and woodland helped back onto land that can no longer seed itself, or by restoring the agents themselves where that is possible, from beaver to free-roaming herbivores. The distinction that matters is not managed versus wild but restored process versus abandoned system — and good rewilding supplies process rather than simply withdrawing.

> THE DISTINCTION THAT MATTERS
>
> Not **managed versus wild**, but **restored process versus abandoned system**. Good rewilding supplies process rather than simply withdrawing.

5

THE WILD APPROACH

The three zones

If a degraded upland will neither farm nor rest its way back to health, what does the alternative look like on the ground? It looks like reading a landscape as a successional system and deciding, for each part of it, where on that trajectory the ground should sit and how it should be held there. Wilderculture's WILD approach names three broad positions along that trajectory — three zones — not as fixed categories stamped onto a map, but as a shared language for the choices a landscape actually offers.

It helps to picture the full succession an Atlantic upland can move through: from bare or degraded ground, through pioneer vegetation and grassland, into grazed wood-pasture, then scrub, then closing woodland, and on toward something like closed temperate rainforest. The point most often lost is that the productive open and half-open stages are not a degradation of the wild state; in a functioning system they were part of it, held open by large herbivores rather than by fences and subsidy.

ZONE 01

Protect & Restore

For ground that already holds something rare or irreplaceable — a species-rich remnant, a flush, a fragment of old woodland — where the task is to safeguard and repair it on its own terms.

ZONE 02

Regenerate

For ground so long farmed that the honest course is to farm it well — held productive and deep-rooted by regenerative grazing that builds soil rather than mining it, while producing real food.

ZONE 03

Bioregionally Wilder

For ground best allowed to climb the succession toward closing woodland and self-willed process, with herbivores present only lightly, so it can knit into the larger fabric of the bioregion.

Two cautions keep this honest. The zones are not "productive" against "unproductive" land: Regenerate and Bioregionally Wilder are two routes toward the same restored function — one holding the system open and productive by design, the other letting it climb — and over time their fertility and their value converge. And function is not the same thing as biodiversity. A zone can be highly productive, cycling water and fixing carbon and growing food, without being the most species-rich; the richest ground is often the lightly-disturbed, lower-intensity mosaic rather than the heaviest-growing sward.

6

THE WILD APPROACH

Reading the place: the WILD approach

If the best use of upland land cannot be settled by a single principle handed down from above, it has to be worked out from below — and the questions become how, and by whom.

Start with the fact the debate usually steps around: almost all of this land is privately owned and privately managed. Unless we mean to take the uplands into public ownership, or to dictate from the centre what every farmer and estate must do with their acres, the decisions that shape these landscapes will go on being made holding by holding, by the people who hold them. Far from being an obstacle to good land use, this is its precondition — and, read rightly, its best safeguard.

Top-down direction has not served these hills well. It is central prescription, more than anything, that has swung them from one orthodoxy to the next: drain the ground, then re-wet it; plant the conifers, then fell them; raise the headage payments until the hill is overstocked, then withdraw them until it is abandoned. Each swing arrived as settled wisdom, and each left the land to carry the cost of the last.

> *A degraded landscape is not the failure of one bad policy; it is the wake left by a succession of confident ones.*
>
> SECTION 6 · READING THE PLACE

That reading has a shape, and giving it a disciplined one is the work we call WILD: Wilderculture's integrated way of reading a landscape and deciding what belongs where. It proceeds in an order that matters, because the usual order — fix the ecological target first and fit the people around it — is exactly what has failed.

It begins with the people. What do those who live and work this place want from it, and from their lives on it? How much do they want to farm, and how hard? Which animals, which plants, which views, which way of living do they care about, and what do they hope to leave behind them? A plan that does not start here will not hold, because it will be someone else's plan, set down inside a life and a business that have their own logic and their own pressures.

It turns next to the ground itself: the geology and the soils, the water and the way it moves, the old tracks and walls and buildings, the limits the place imposes and the openings it offers. This is where the rare and the irreplaceable are found and named — the ground for Protect and Restore — and where the long-modified land is identified, the fields drained and limed and ploughed past the point of pretending otherwise, which is the honest ground to farm well, to Regenerate. It is where the real productive ceiling of the place is read rather than wished.

And it comes, finally, to the hard arithmetic of a living. Given what the land can actually do, and what the household actually needs, what economy can stand here — one resting as far as possible on the place's own sunlight and soil, on food and fibre and genuine ecological value, rather than on subsidy and the paper promises that shift with each new government? Only when those three readings are laid one over another do the three zones resolve.

The wild is not left out of this. It is given its proper voice through what we call Rooting to Place: the patient reading of where a place has come from, the stages it has moved through, and what it would tend toward if it were simply allowed to succeed without interference. That is the truest answer to what the land itself "wants" — the trajectory it is already on, the wildness it is reaching for. But it sits at the table as one voice among several, the land's own tendency set beside the lives and livelihoods of the people who hold it, rather than overruling them.

Do this on a single holding and you have one honest plan, particular to that place. Do it across every holding in a valley — each with its own people, its own ground, its own economy — and something emerges that no map drawn from a desk could design: a patchwork of genuinely different decisions, and with it a diversity of habitat, enterprise and management stitched right through the landscape. It is grown rather than imposed — the way a diverse system always is, from many local responses to local conditions.

There is one further turn, and it is what stops a thousand private decisions from simply cancelling one another out. As neighbours begin to work together — a valley, a community, a whole region — their separate readings can be woven into a shared bioregional plan: a living account of the place's elemental conditions, its cultural and ecological history, and the direction it is travelling, held in common and independent of any single farm or funder. Each holding's own plan can then be set against it, so that private choices also answer to what the wider region needs, and to what is singular about its nature, its culture and its past.

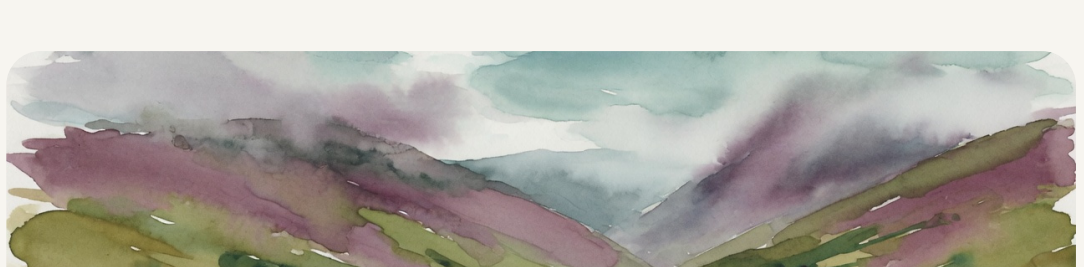
> WHERE IT ALL COMES INTO LINE
>
> This is where private interest, the wild, and the common good finally come into line — **not by command from above, but by many local readings that have learned to listen to one another**, and to the place they share. It is what the Land Use Framework's "right use, right place" calls for but does not itself supply.

7

IN PRACTICE

Reading an Atlantic hill farm

The argument can be made concrete on a single piece of ground. On the Atlantic west coast of Scotland, Wilderculture has recently been reading a hill farm and its neighbour through exactly the sequence set out above, and the place shows both why the reading matters and what it yields.



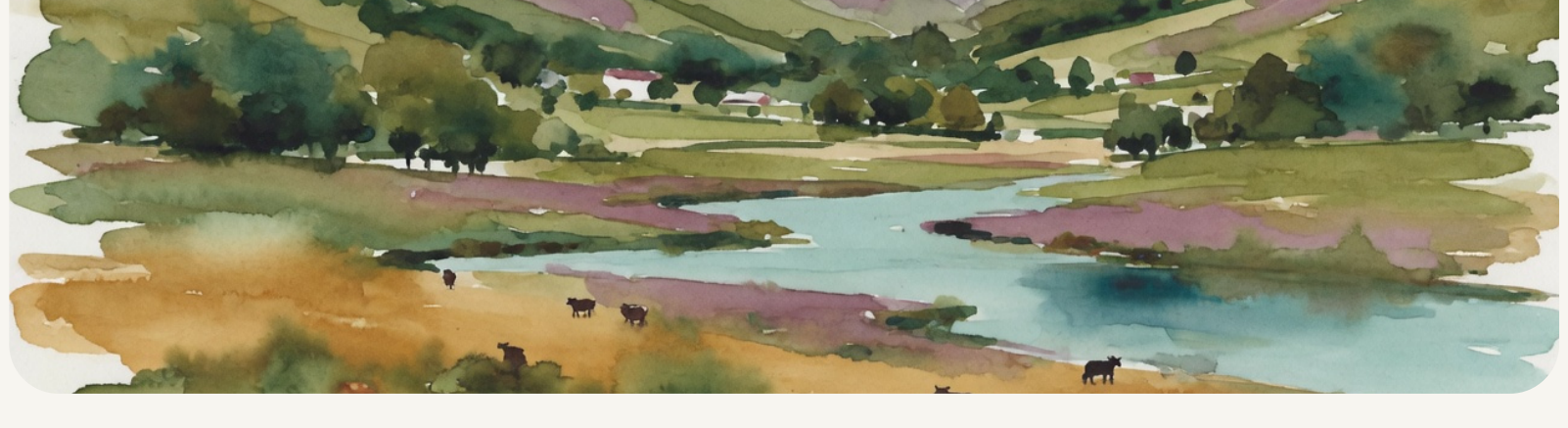


FIG. 2 The Craignish peninsula — a single watershed draining to one sea loch, its slopes climbing from in-bye grassland toward Atlantic rainforest. Watercolour, storm light.

The first thing the reading establishes is the substrate, and at Craignish it overturns the lazy assumption that a wet west-coast hill is poor ground. The bedrock is a carbonate-bearing phyllite — a metasediment that weathers to release more base than the hard, leached rock under much of the Highlands — cut through by intrusions of metagabbro, a basic rock whose weathering feeds noticeably richer, greener ground in stripes an experienced eye can pick out across the hill. The soils that develop on it are not exhausted. They are suppressed: better, in the in-bye, than a century of intensive silage management would lead you to expect, because the underlying mineral fertility has been masked by that management rather than spent by it.

> *Suppressed, not exhausted. Degraded is not the same as barren — made visible in a phrase that fits the ground exactly.*
>
> SECTION 7 · CRAIGNISH

The second thing the reading establishes is the trajectory. Under 1,800 to 2,400 millimetres of rain a year, the climax across almost all of this ground is closed Atlantic temperate rainforest — and the proof sits offshore. Two small wooded islands offshore, ungrazed and free of invasive pressure, already carry the bryophyte and lichen flora of that rainforest: evidence of what the slopes opposite would become, not an aspiration about them. Between bare ground and that climax runs a sequence of stages, and the most valuable of them for a working farm is neither the open grassland nor the closed wood but the stage between — a dynamic open-canopy mosaic of grazed glades, scattered trees and scrub, held open by light cattle grazing rather than by fences.

The third thing the reading establishes is which of these states will hold, and how. Some are locked hard: the deep blanket bog on the high ground, and the mature rainforest where it survives, are held by their own internal feedbacks and should simply be protected. Some are locked moderately: the bracken and purple moor-grass that dominate the degraded slopes are held by their own feedbacks too, but on this base-richer ground sustained cattle pressure can shift them, slowly, over years rather than decades. And some are not self-holding at all: the productive grassland and the open mosaic persist only while the grazing that makes them continues.

From those three readings the three zones settle almost of their own accord. The rainforest fragments and the rare ground are Protect and Restore. The base-rich grassland and the open mosaic, farmed well with cattle, are Regenerate. The wetter western slopes, cleared of rhododendron and relieved of deer pressure, are let go to climb toward rainforest again — Bioregionally Wilder. And the cattle do much of the sorting themselves: distributed across the hill at the right density, they seek out the productive ground and largely leave the bog and the wet heath alone, so the mosaic emerges from their preference rather than from a map of fenced compartments.

What the reading does not do is begin with any of this. It begins with the people — what the steward wants from this place and from a life lived on it — because the balance of the three zones is a question about a household and a future as much as about a soil. Read each holding on its own terms, and align them to the shared life of the peninsula, and the result is what the argument has promised throughout: a diversity of land use grown from the ground and the people, rather than stamped onto them from above.

8

IMPLICATIONS

What this asks of funders, partners and policy

The implications of this argument are practical, and they cut against several habits of current funding and policy.

First, land-use decisions in the uplands should be made place by place, read from the ground, rather than allocated by national formula or settled by a single principle. The Land Use Framework's instinct toward "right use, right place" and multifunctionality is the correct one; what it lacks, and what no map drawn at national scale can supply, is the means of deciding what the right use of a particular place actually is. Policy should enable and resource that reading, not pre-empt it.

Second, those decisions must be soil- and succession-literate. A designation, a habitat target or a land-cover map describes where a landscape is; it does not reveal where the soil has come from, how far it has fallen, or what it could become. The binding constraint on good upland land use is not, in the end, money for outcomes; it is the capacity to read places well — and that capacity is scarce, slow to grow, and badly undervalued.

Third, the kind of work that is funded must change. Because much of the most important upland restoration is active rather than passive — the supplying of a lost process — it sits awkwardly in funding categories built around either protecting a habitat or simply removing pressure. Restoration that rebuilds a soil, re-establishes woodland or reinstates a herbivore dynamic needs patient, multi-year support that current schemes rarely offer, and it should be recognised as restoration in its own right.

Fourth, and structural: where communities and funders want their investment to add up to more than a scatter of unconnected projects, the alignment is best held by a persistent, commonly-owned bioregional plan — a base map of a place's conditions, history and direction that outlives any single scheme, and onto which funded projects are layered as they come and go. Funding the layers without holding the base is how a landscape ends up quietly redefined by whichever funder is largest at the time. The base map keeps the place, and local judgement, in charge.

> TAKEN TOGETHER
>
> Away from prescription delivered from the centre, and toward **patient support for many local readings** — aligned where it matters, and left diverse where it does not. That is harder to administer than a national target. It is also the only approach that fits how living landscapes, and the communities within them, actually work.

9

IN CLOSING

The land and the communities rooted in it declined together.

The uplands do not need a winner among farming, rewilding and conservation. They need reading — of the ground, and of the people who hold it. Read honestly, most upland holdings turn out to have room for all three: land worth protecting, land worth farming well, and land worth letting go toward the wild, in proportions no two places will share and that no one could set from a distance.

This is slower than choosing a side and harder than applying a rule. It asks more of the people who manage these landscapes, and more of those who fund and govern them. But it matches the thing itself: a living system, shaped over millennia by people and animals and weather together, that will only recover the way it was made — locally, patiently, and as one whole.

They will return together, or not at all.

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