But there, on the window panes,
who painted the leaves?
Do you mock the dreamer
who saw flowers in winter?

Franz Schubert, *Winter Journey* (after Wilhelm Müller)

**Introduction: Who owns nature?**

**A river belongs to itself**

The Whanganui River rises in the Tongariro volcanic massif of New Zealand’s northern main island and winds through the dense greenery of sparsely populated landscapes to its mouth in the Pacific Ocean. Apart from being a popular destination for locals from the surrounding cities, the river is known far beyond the country’s borders for one thing in particular: the river has rights of its own, including property rights. Its indigenous inhabitants, the Māori iwi, waged a decades-long legal battle with the New Zealand government over who owns the river. In the Maori worldview,
the river is also called Te Awa Tupua (“River as Ancestor”) and is reverenced as a sanctuary, since it is the place where the ancestors dwell. The Whanganui River is sacred to humans and therefore cannot belong to them; it defies the property rights that humans exercise over inanimate things. The government, on the other hand, insisted that a river could not stand outside the state’s legal system with its corresponding property rights that regulate the use, management, and exploitation of the river’s resources. Who gets to use the water? Who owns the revenues from river tourism and fishing? Who is allowed to trade fruits and wood from the adjacent forests? Without a property regime, such disputes could not be settled peacefully in court.

The dispute was resolved with the passing of the Te Awa Tupua (Whanganui River Claims Settlement) Act 2017, No. 7. Through this document, the Whanganui River is granted its own rights. Article 14 (1) states that “Te Awa Tupua is a legal person and has all the rights, powers, duties, and liabilities of a legal person.”\(^1\) The river is recognized as having rights of its own and is considered a legal subject that can go to court and claim its rights through its representatives (the Te Pou Tupua Office). Property rights, hitherto reserved for people, are thus transferred to the river: the river belongs to itself.\(^2\) It is neither a propertyless good that belongs to no one nor an owned thing that people have at their disposal. The Whanganui River has property rights to its fish and plants, to its water and soil. It thus exemplifies the idea of nature as a legal subject with property rights to natural goods.

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\(^2\) Why such a river, which belongs to itself, is fundamentally different from John Locke’s concept of self-ownership, for example, will be explained in detail later.
Such ecological rights have set a precedent and are no longer an isolated case. Nature has now been granted its own rights in almost two hundred cases worldwide. In addition to New Zealand, they are recognized in the USA, Ecuador, Colombia, Bolivia, Uganda, Spain, and other countries. Ecological rights are no longer a pipe dream, but have become a real legal practice reaching parliaments, governments, and courts of law. This idea of ecological rights, or rights of nature, clearly represents a fundamental paradigm shift in the understanding of law: rights that were previously reserved for humans are now granted to a non-human entity. It is therefore worth putting them to the test, as will be done in this book.

The growing interest in ecological rights emerges from the ecological crises of the present and the inability to deal with them in a peaceful, adequate, and sustainable manner. In this context, the rights of nature are undergoing a transformation, evolving from a local measure of environmental protection to a global strategy for achieving ecological sustainability. Initially, they served to protect the habitats of local residents that were being destroyed by the agriculture, livestock, forestry, and timber industries, as well as mining and illegal resource extraction. Nowadays, they are expected to protect not only individual biotopes, but the ecosphere as a whole from overexploitation, pollution, and destruction. If the initial aim was to prevent landfills, groundwater contamination, and deforestation, the aim now is to protect nature as a whole from being abused as a warehouse of raw materials, a source of exploitation, a garbage dump. Global ecological crises clearly require global countermeasures. The establishment of ecological property rights promises just that in regards to four global ecological crises: global warming, species extinction, resource depletion, and global pollution.

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3 For the rights of nature I also use the terms ecological rights, nature’s rights, or natural rights. The latter, in the plural, is not to be confused with natural right in the singular, as found in the teachings of scholars such as Pufendorf and Grotius.
We have known for half a century now that the combustion of fossil fuels causes man-made *global warming*. Climate-damaging emissions of greenhouse gases such as carbon dioxide, methane, and nitrous oxide have led temperatures to rise by an average of 1.2 degrees Celsius since industrialization in the nineteenth century. In order to limit sea level rise, desertification, droughts, floods, crop failures, health hazards, and social impacts such as migration, resource conflicts, and inequalities, global warming would have to stop at 1.5 degrees and societies would have to become climate neutral.\(^4\) This goal was approved in the 2015 Paris Agreement and is still theoretically achievable. But to get on the right path toward decarbonization, infrastructure would need to be rapidly redesigned and investment cycles realigned. The continuing rise in global emissions does not bode well for success in this regard. Moreover, due to lagging effects of the climate system, changes in behavior will also have a delayed impact: even if greenhouse gas emissions stopped today, temperatures would continue to rise by at least half a degree. Time is therefore incredibly short, and this forces us to explore new paths.

The window of opportunity to halt *species extinction* is also very small. After all, 150 animal and plant species disappear forever from our planet every day, and with them, numerous ecosystem services that humans need for their well-being and survival. Without bees there would be no plant pollination, without forests and moorland there would be no natural binding of carbon dioxide, and so on.\(^5\) There are also tipping points when it comes to species extinction, after which entire ecosystems, such as the Amazon rainforest or the Mediterranean Sea, can no longer maintain their stability. Already today, the loss of species on 60 percent of the Earth’s surface is leading to


a collapse of ecosystems.\textsuperscript{6} Biodiversity loss also deprives people of their livelihoods, making a fundamental change of course urgently necessary.

*Resource depletion* has also continued to increase, despite persistent warnings. The fact is that if global resource consumption were to remain at its current level, it would take 1.6 Earths to sustainably cover it. Extrapolated to the world’s population, the economic and consumption patterns of the Global North alone would require the land area of more than three Earths. This overuse is at the expense of other countries and future generations. But even at present, the hunger for resources can hardly be satisfied. Fertile land, freshwater, and forests are being used more than they can regenerate; non-renewable raw materials such as construction sand, copper, and phosphate, which is used as fertilizer, are becoming scarcer and will run out before the end of this century.

An equally pressing need for action comes from *global pollution*, especially plastic waste. Not only are there huge plastic whirlpools floating in the oceans, such as the Great Pacific Garbage Patch, seventy kilos of plastic on average are stored on every square kilometer of the ocean floor today.\textsuperscript{7} Plastic dust can be found in the air practically everywhere, both within metropolises and on the high plateaus of Tibet or the peaks of the Pyrenees.\textsuperscript{8} In France alone, two thousand tons of microplastic trickle down every year. Plastic pieces fragmented by wind, weather, waves, and light cover the planet like an invisible blanket. About six grams of microplastics enter our bodies each week through various pathways, equivalent to the amount of plastic in a credit card. Microplastics are blamed for cancer, respiratory diseases, and infertility in animals and humans. This plastic

\textsuperscript{6} Matthias Glaubrecht, *Das Ende der Evolution: Der Mensch und die Vernichtung der Arten*, Munich 2019, p. 34.

\textsuperscript{7} Which is located in the area of the North Pacific Gyre and gathers about 1.8 trillion plastic particles in an area of about 1.6 million km\textsuperscript{2} (which is the size of France, Spain, and Germany combined).

fallout is just one example of many contaminations of nature, ranging from the air and environmental pollution of early industrialization to today’s global use of polluting pesticides.

There is no single measure that can effectively and promptly tackle these ecological crises. Rather, various measures need to be carried out with a coordinated division of labor. For this reason, David Boyd, United Nations Special Rapporteur on Human Rights and the Environment, recommends “three steps to accelerate progress towards a sustainable future: teaching ecological literacy, promoting the right to live in a healthy and sustainable environment, and recognizing the rights of Nature.”\(^9\) The latter, nature’s own rights, are at the heart of this book, but they are not in competition with traditional environmental rights, such as the right to a healthy and sustainable environment recognized by the UN General Assembly in July 2022. Rather, they are seen as an important and innovative complement to them. Their central contribution, I will show, is that they are able to implement environmental sustainability much more effectively than any other measures. When nature is given its own rights, sustainability is no longer negotiable. In other words, nature can only be effectively protected if it stands on an equal footing with its users as a legal subject. With its own rights, equality of arms is established.

The discussion about the meaning and limits of ecological rights has only just begun. But one thing is already becoming clear: compared to the global network of property rights, contract rights, and corporate rights, the rare success cases of nature’s rights being recognized seem like a drop in the bucket. There can be no talk of a success story, because the rights of nature currently recognized are no more than a promising beginning. The development has been hampered by the impression that these rights are incompatible with the modern conception of rights. The idea that a non-human entity could be the owner of rights and that a river, for example, could belong to

itself seems difficult to reconcile with the basic certainties of prevailing legal concepts, at least in the Global North. In my view, this assumed incompatibility is the main cause for the sluggish pace of legal developments. In order to help the rights of nature achieve a breakthrough, it must therefore first be shown that they are fully compatible with applicable law. The most important task that needs to be solved in order to promote ecological progress in law is to explain why rights of nature are perfectly compatible with modern legal systems. The idea that a river like the Whanganui belongs to itself must be made intelligible under the presuppositions of modern law.

In this book, therefore, I will show how rights of nature can be developed from the existing law of contemporary ownership societies. My thesis is that rights of nature are already inherent in modern legal orders as an unfulfilled potential. Thus, modern legal orders are compatible with the idea of nature’s rights because this idea arises from the legal orders themselves. To make this plausible, a change of perspective is needed. Instead of taking the existing rights of nature legislation in Ecuador, Colombia, and New Zealand as a blueprint, I will focus on legal systems that see themselves as incompatible with them. It is not the successful cases of previously established rights of nature that will be examined, but the legal systems that lack them, to show that they themselves are inscribed with rights of nature. Meanwhile, a great deal of research has contributed to a better understanding of the practice of ecological rights of nature in the Global South and other countries with significant indigenous populations. In addition, I aim to correct a misunderstanding about modern legal systems. Namely, it is a mistake to assume that rights of nature are alien to them. Rather, the idea of ecological rights can be derived from them.

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10 The objection that previous practices and theories of nature’s rights remain misunderstood therefore misses the point of developing nature’s rights instead from existing legal systems that are considered incompatible with them.
This approach is motivated by the belief that rights of nature will only gain a foothold in the property orders of the Global North if such rights arise out of these orders as a logical consequence. The previous sphere of action for a global sustainability strategy can therefore only be expanded by further developing the concept of ecological rights. This further development goes hand in hand with the proven practice of ecological rights in countries of the Global South and other countries with significant indigenous populations. Both approaches complement each other and only succeed in combination. Previous research on the struggle for (and exercise of) codified rights of nature in Ecuador, Colombia, or New Zealand must be expanded to include studies on how rights of nature can be developed from the logic of existing legal systems in the Global North.

The existing rights of nature in countries primarily in the Global South are an expression of a universal legal idea. These rights refer to the same nature, which concerns all inhabitants of the planet equally. If nature deserves rights, these rights must apply worldwide. Universal validity, however, is not achieved by imposing a norm on foreign legal cultures. Rather, the universalism of ecological rights derives from different contexts in each case. Up to now, rights of nature in the Global South and other countries with significant indigenous populations have been tied to specific contexts: to Latin American cultures of Pachamama, to Maori views of nature, to religious myths of unity and creation, to ideas of harmony. These modes of justification fulfill their purpose in each concrete local case, but cannot be transferred to the legal cultures of the Global North, which follow other logics of validity. Every social formation has context-specific points of departure for the creation of ecological rights, which must be respected if the project is to succeed. That is why rights of nature only stand a chance in societies of the Global North if they develop from their own foundations.
If rights of nature are to arise from the legal cultures of the Global North, the question arises as to where they will be situated. Which legal conceptions from the Global North can link up with the idea of ecological rights? The self-understanding of secular legal cultures, which revolve around property rights, civil liberties, and human dignity, have little to offer at first glance; indeed, the very idea of rights of nature triggers an almost instinctively defensive reaction. Since the idea of nature having its own rights seems to contradict our common conceptions of rights in almost every respect, it is often regarded as a backwoods belief in nature or even as mere hot air. The following objections are typically raised in secular societies: rights serve to protect individual and collective interests, but because nature, unlike humans, has no interests, it has no rights. Whoever has rights also has duties, but nature cannot act, which is why it has no duties and thus no rights. Freedom forms the normative core of our most important rights, but since nature is not free, having its own rights is wishful thinking without any normative basis. Rights protect claims and vulnerabilities, but that which feels no pain, has no needs, and lacks self-awareness—such as rivers, animal species (as distinct from individual animals), and landscapes—cannot be a bearer of rights.

In order to dispel reservations of this kind, people often point out that many things that once seemed inconceivable—governments without a king, the self-determination of non-European peoples, women’s suffrage, the prohibition of slavery, morality beyond the church—are now a self-evident reality and viewed as a form of progress compared to earlier conditions. So why shouldn’t rights of nature also belong to the realm of the possible? The comparison between human rights and rights of nature reminds us that rights have always had to be fought for against the resistance of traditional worldviews. Nevertheless, this rejoinder should not be overused, and even if it can partially alleviate some concerns and misgivings, it cannot refute the above objections.
From my point of view, doubts will only be dispelled when the idea of ecological rights is derived from established legal concepts themselves. Rights of nature can only serve as part of a global strategy for ecological sustainability against prevailing ownership societies when they can be seen to develop out of the very rationality of those societies themselves.

This is the main aim of this book: to provide a *normative reconstruction of inherent ecological rights*. Ecological rights will be defended by reconstructing them from the normative foundations of modern ownership societies, thereby providing them with a legal foundation. Existing property rights owe their validity to the same conditions under which ecological rights also warrant validity. In other words, our present ownership societies are based on normative foundations which equally justify rights of nature. This puts property and the question of “who owns nature?” at the center of climate and environmental policy.

The Whanganui River that I mentioned at the outset has natural rights that can be translated into the rationality of secular ownership societies. It embodies a pattern of ecological sustainability that could also be applied in societies of the Global North. Its case exemplifies what it means for a river to own its natural goods. A river is entitled to rights because certain natural goods belong to it, and property must always be protected from destruction by others. Whenever people use natural goods, they are using property that does not belong to them, which must not be damaged; they are therefore obliged to treat it with care. Ecological obligations apply to a river because the goods used belong to it and this property deserves to be protected; its water, its banks, and its fish can only be used under the condition of ecological sustainability. In order to protect nature’s property, companies may therefore be prevented—with force if necessary—from overfishing it, contaminating it with pollutants, clearing adjacent forests, abusing it as a waste dump, or mining massive amounts of sand.
Dialectics of Nature

Recognizing the rights of nature takes up and expands upon the Enlightenment project of modernity, allowing it to incorporate ecological principles. From the very beginning, humanity’s fear of nature was a major driving force behind the progression of enlightenment, science, and emancipation. The forces of nature, natural cycles, and natural wonders appeared to people as forces of fate on whose whims their survival depended. To be able to escape from them and to have one’s personal survival largely in one’s own hands meant an increase in freedom that no one wanted to give up, and this is still the case today. Emancipation from nature means gaining control over one’s own life and its social reproduction. Modernity’s promise of freedom remains unfulfilled without this progressive emancipation from nature.

In the age of global warming, species extinction, resource depletion, and global pollution, however, this new freedom turns into its opposite. The emancipation from nature’s fate turns into a loss of ecological control, meaning that the question of survival returns with a vengeance. This relapse into powerlessness in the face of a menacing nature reveals two misunderstandings that we have of human freedom. On the one hand, it painfully reminds us of our dependence on a nature that is not only intact but also limited. The idea of a progressive independence from the forces of nature was based on the false belief that nature was an inexhaustible source of abundance providing humanity with an unlimited supply of goods, resources, and services.\footnote{11}{This connection between emancipation and the notion of a supposedly unrestricted nature is traced in terms of the history of ideas in: Pierre Charbonnier, Affluence and Freedom: An Environmental History of Ideas, Cambridge, 2021.} With man-made ecological
crises, however, societies are confronted with planetary limits, making people aware of the finiteness of a life-giving nature.\textsuperscript{12}

On the other hand, the idea that people can free themselves from nature by ruling over it has proven to be an illusion. Whenever emancipation is achieved through the domination of nature, it turns into its opposite: into powerlessness in the face of nature. “Any attempt to break the compulsion of nature by breaking nature only succumbs more deeply to that compulsion.”\textsuperscript{13} For René Descartes—one of the founders of the modern paradigm of domination over nature—human beings, by virtue of their reason, become “masters and possessors of nature” (\textit{maîtres et possesseurs de la nature}).\textsuperscript{14} More precisely, domination over nature is exercised in four ways: through technology, nature is tamed, controlled, and imitated; through science, nature’s forces and processes are made recognizable, calculable, and predictable; in the economy, nature is exploited as a supposedly free resource and profit; and law makes nature disposable as property.

It is precisely this last form of domination that acts as an accelerant for ecological crises. With the help of property rights, nature is transformed into a controllable thing over which its owners have free reign. This material domination is exercised as the right to use natural goods like any other thing. Property rights entitle the free use and consumption of natural goods. They give legitimacy and legality to accessing natural goods. Property rights make natural goods disposable in the first place and create the prerequisite for natural goods being economically exploited, fed into economic processes, and traded as commodities. This establishes an extractive relation with nature and opens the door to ecological crises that turn the process of emancipation into its opposite.

\textsuperscript{13} Max Horkheimer and Theodor W. Adorno, \textit{Dialectic of Enlightenment}, p. 9.
\textsuperscript{14} René Descartes, \textit{Discourse on Method}, oxford, p. 51.
No theory depicts this dialectic of nature better than Max Horkheimer and Theodor W. Adorno’s *Dialectic of Enlightenment*.\(^5\) “Just as myths already entail enlightenment, with every step enlightenment entangles itself more deeply in mythology,” they write.\(^6\) Enlightenment turns into its opposite: the more human beings try to control nature, the more it slips away from them. This dynamic of inversion also characterizes the relation between property and nature: nature turns against human beings in the form of ecological crises unleashed by property rights over it. Natural goods are put at disposal with the help of property rights, and this very power of disposal leads to an ultimately uncontrollable nature rising up against humans and threatening their self-preservation.

The inversion of the power of property into an ecological loss of control is one side of the dialectic. The other side consists in the fact that myth already carries out enlightenment, since it acknowledges the indisposability of nature. Nature is recognized as a power over which one cannot dispose. It thus also evades property’s power of disposal. This insight into the indisposability of nature is the part of enlightenment that myth already accomplishes. It is the truth content of myth, which has to be saved.

However, this truth content cannot be revived in the modern age by remythologizing nature. Romanticization, enchantment, and the transfiguration of nature cannot redeem it. Nature’s indisposability cannot be simply acknowledged by creating myths, inventing narratives, and worshipping sanctities. In mythical ideas, the indisposability of nature appears as the originality, purity, virginity, integrity, inviolability, primal power, or wildness of nature; this is explained by

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\(^5\) This may come as a surprise, since critical theory is not generally known as a theory of sustainability. However, critical theory’s forgetfulness of nature only emerged after Adorno, for whom the concept of nature had an indispensable meaning that ranged from the *Dialectic of Enlightenment* to natural beauty and the materialism of his late work. In this respect, the theory of sustainable property rights can be understood as an attempt to recover critical theory for the task of reflecting on socio-ecological transformation.

the fact that nature is the utterly other in relation to spirit, culture, freedom, and human power. As this other, nature is rendered incompatible with freedom, withdrawing from it. Such conceptions of nature squander the freedom gained by the Enlightenment and fall back into myth.

The unredeemed truth content of myth, on the other hand, can only be salvaged through conceptual cognition. As Adorno writes, “concepts alone can achieve what the concept prevents.”

At first, the concept of property instrumentalizes nature into a mere object at one’s disposal. At the same time, only with the help of this very concept is it possible to do justice to the indisposability of nature. This dialectic of nature, which I adopt in this book, represents the theoretical alternative to the conservative restoration of myth. Indisposability should not be revived in preconceptual form—not through the aesthetic sense of natural beauty, nor by merging with nature, nor by believing in an animate nature. Instead, Enlightenment thought should be developed further towards the idea of ecological rights.

The dialectic of nature leads us to a situation in which nature is withdrawn from the power of property precisely by having property rights extended to it. In the concept of property itself, a lever is found to break the material domination over nature. Property rights are cured of their blindness to nature only by virtue of an enlightened concept of property.

In this dialectical perspective, the indisposability of nature is not taken as something given. In myth, however, it appears as that which remains when nature eludes emancipation and resists rationalization. As a remainder, indisposability is mythologized into something given: it takes on a life of its own as an enchanting primal force, an inviolable originality, untouched purity, pristine

wilderness, and authentic liveliness. These forms of indispos...
Fighting property with its own weapons

When it comes to climate, species, and environmental protection, property is the proverbial elephant in the room. While existing property rights are a major cause of the world’s ecological crises, they are rarely addressed. They are the gateway to climate change, overexploitation, pollution, and biodiversity loss that must be closed as a first step. Property rights have authorized the use and consumption of natural resources in the same way as other consumer goods; as long as there are no laws against it, owners can treat raw materials, soils, or forests in the same way as their clothes, furniture, and toothbrushes. Environmental rights are supposed to tame the power of property, and yet such rights lack teeth when compared to property rights, which usually trump sustainability goals. Ecological measures are watered down or nipped in the bud because owners invoke their vested rights, which protect them from far-reaching regulation. Environmental protections ricochet off the deeply entrenched idea of property as a fundamental right essential for survival. When things get serious, sacrosanct property always outweighs sustainability.

This imbalance is the main reason for the sobering ineffectiveness and toothlessness of all efforts so far to protect nature. In my view, sustainable scenarios and planning efforts are only promising if they are at least put on an equal footing with property rights. Sustainability must have the same status as the fundamental right to property. The rights of nature must be on a par with property rights.

Property rights, on this account, do not have to be weakened or even abolished to increase nature conservation. On the contrary—and only seemingly paradoxically—ecological sustainability is strengthened by expanding property rights and transferring them to nature. Property in nature is limited by transferring property to nature in order to save nature from property itself. The only way to fight property is with its own weapons.
This move may come as a surprise, since property, freedom, and the use of nature are all part of the self-conception of societies responsible for contemporary ecological crises. And now they are supposed to serve as the basis for robust sustainability and build a bulwark against ecological crisis? This seems like squaring the circle. At first glance, it may indeed seem counterintuitive to save nature from property by giving it property. Nevertheless, ecological sustainability, I suggest, derives from the same rationality of existing property rights that initially contradicts it. As I will show, property rights with respect to natural goods are subject to ecological sustainability and can therefore only be defended as sustainable property rights. Property rights do not weaken ecological sustainability, but strengthen it, because a norm of sustainability is already inscribed in them. Property and sustainability are not contradictory but can be brought together in the form of sustainable property. Because nature owns its goods, and because nature’s property, like any other property, deserves protection, such property stands under the protection of sustainability. The property rights of nature thus entail a global strategy of ecological sustainability.

With the proposal of sustainable property rights, I would like to give new impetus to the idea of ecological rights. Rights of nature can be justified and institutionalized as sustainable property rights. In ecological debates, however, the idea of property is still alienating. Property is seen as a threat rather than a solution, a wolf sent to guard the sheep. In such defensive behavior, we could say that the fear of nature that once drove the Enlightenment turns into a fear of property. Property rights, however, do not weaken ecological sustainability per se; on the contrary, they can strengthen it. This may sound counter-intuitive to resistant ears. But there are good arguments in favor of sustainable property, which I will present below. This cannot succeed however without an initial reinterpretation of property, for ecological sustainability is indeed unattainable through
existing property rights. It is not the overcoming of property, but an alternative conception of property that leads out of the ecological crises. That is why property must be reassessed and its inner ecological norm revealed. Sustainable property rights above all give ecological politics a force that it has so far lacked against existing property rights.

The path to a sustainable society

Our relation to nature, of course, is not exhausted in legal relations, and certainly not in property relations. Nature is also seen as worthy of protection in conceptions of the natural world as something sacred, beautiful, or sublime. We can admire nature, marvel at it, surrender to its beauty, draw inspiration from it, shudder before its grandeur, appreciate it as a source of our well-being, encounter it with awe, feel humbled by its immensity, praise its healing powers, be gripped by its sublimity, empathize with a landscape, find joy in nature, recognize it as mysterious and enigmatic, or perceive in its existence an inescapable residue of metaphysics. The phenomenological diversity of our interactions with nature reflects the many guises in which nature is experienced, perceived, valued, or felt by us as something intrinsically worthy of protection. Undoubtedly, such experiences with nature also foster relationships of care that can be used for an ethics of nature.

But it is equally certain that wonder, awe, humility, and well-being are no match for the systematic demands of society. On the basis of our experience with nature alone, climate, species, and environmental protection cannot be enforced against economic interests, state powers, and property rights. In order to stand up to them, we first require the legal form that allows ecological sustainability to be enforced against companies, governments, or individuals. Most importantly, sustainable structural change is needed in those societies that cause climate change, biodiversity loss, toxic fallouts, overexploitation, and depletion. Without structural change in their consumption
patterns, modes of production, and forms of trade, nothing can be done against the global ecological crises. With the makeshift repairs and crisis management of current environmental policy, societies are left trying to frantically reel in ecological crises, whose pace is set by the systemic imperatives of economics, politics, and law. Only with a transformation towards sustainable societies can ecological crises be powerfully countered. This socio-ecological transformation occurs primarily through the introduction of sustainable property rights.

Ecology is more than just ecology when it is anchored in property structures. The ecologizing or ‘greening’ of property rights is how a social formation is comprehensively changed—ecologically, economically, and socially. It leads to questions about the restructuring of economy and society and in this respect pushes beyond a monothematic focus on environmental protection. Social structures thus also transform via the ecological detour.

The greening of property rights that I advocate in this book releases a surplus in two directions. On the one hand, it triggers a socio-ecological transformation which in turn changes economic and social conditions. The ecological transformation of the economy and society leads to changes in consumer behavior, in the mode of production, in labor relations, and in social relations. On the other hand, sustainable property rights provide an occasion to rethink property comprehensively, not only with respect to natural goods. By institutionalizing the rights of nature in the form of sustainable property rights, the socio-ecological transformation proceeds along the lines of a structural change in property. This structural change also affects property rights beyond the ecosphere and, as already indicated, involves a fundamental reassessment of what we understand by property.

Sustainable property rights are the path by which existing production and consumption relations can be pushed toward a sustainable social structure. They are not the goal, but the path
of change. Existing societies are changed through sustainable property rights, but not for their purpose. Of course, property rights of nature do not represent an ideal society that we ultimately desire to achieve, such as a domination-free relation with nature, a perfected realm of freedom, and moneyless solidarity-based economies. Property rights, even sustainable ones, are not ends in themselves, desirable for their own sake. The juridification of the relation to nature—especially the extension of property rights to nature—is certainly not an ideal conception of society and of our experience of nature.

The approach of sustainable property rights developed in this book is based methodologically on a transformation theory of society that is guided neither by ideals nor utopias, but by that which exists. Rights of nature provide an alternative to the existing situation; however, their point of reference is not the ideal end objective, but the real starting point of transformation. Such a transformative theory of society borrows from Hegel’s philosophy, according to which societies do not develop according to their ideals, but by resolving their contradictions. Complex modern societies generate contradictions—like those between property and ecology. Social contradictions cannot be smashed with a coup de main (propertyless natural relations) or by prettying them up (“green growth”). Rather, they are resolved through innovative institutions (sustainable property rights) and altered social structures (socio-ecological transformation). Societies accomplish a process of emancipation only by resolving their contradictions.

Sustainable property rights represent a double negation: the negation of a crisis-ridden social

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20 See Hegel: The negation is necessarily “the nothing of that from which it results. However, only when taken as the nothing of that from which it emerges is the nothing in fact the true result; thus it is itself a determinate nothing and it has a content . . . By contrast, while the result is grasped as it is in truth, as determinate negation, a new form has thereby immediately arisen, and in the negation, the transition is made whereby the progression through the complete series of shapes comes about on its own accord.” Georg Wilhelm Friedrich Hegel, Phenomenology of Spirit, p. 53 (Pinkard).

21 This idea is elaborated by Rahel Jaeggi in relation to the concept of progress in: Fortschritt und Regression, Berlin 2023.
structure. In order to develop an alternative to the status quo, I do not design social ideals but rather introduce new property rights that resolve an existing contradiction. Sustainable property rights address the causes of current ecological crises. They are intended to overcome crises, not to realize a utopia of how we ideally want to live. The current state of crisis is considered solely in terms of its own logic and not in anticipation of its ideal counter-image. Sustainable property rights are derived from the same logic that validates existing property rights. They are by no means fantasies of a romantic nature, but rather the result of a theory of transformation whose starting and end point is solely and exclusively social reality.

Transformation theories neither limit themselves to the critique of social contradictions nor envision a society free of contradictions. Rather, they aim at sublating contradictions. They go beyond mere criticism precisely because they make concrete proposals on how a particular contradiction—for example, between property and sustainability, or economy and ecology—can be sublated. Transformation theories differ from both negativism, which is limited to pure critique, and normativism, which is guided by moral wishes. In this respect, the theory of sustainable property rights occupies an intermediate position between critique and utopia. It is not exhausted in the critique of capitalism. Just pointing at the abyss we are facing is not enough. We also need the bridge that crosses it. The best critique is still the one that shows how things can be better. One must also therefore demonstrate alternatives to that which is. Sustainable property rights are one such alternative which describe how existing property systems can be transformed in order to escape the ecological crises. Although the majority of people know that global warming is

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homemade and threatens their long-term survival, they do little about it.\textsuperscript{23} In my view, the main reason for this inaction is the lack of concrete alternatives. Without options, paralysis grows. Mere criticism with no positive counter-proposal thus fatally cements the status quo.

This book proposes a non-utopian alternative to our extractive relationship with nature through the concept of sustainable property rights. Thinking about utopias often leads to inaction. Ideas about the land of redemption beyond the abyss are useless if one does not know the next steps to get there. Social fantasies of propertyless societies leave one helpless and at a loss as to how to get out of the existing property system. Such fantasies overreach, confusing the goal with the path. Theoretical work should therefore not design a utopia but build a viable bridge that leads safely over the abyss. For utopias, a ban on images applies. Not, however, for the transformation that shows a way out of the ecological crises. As I said before, sustainable property rights are the path, not the goal. They are the bridge that leads out of the ecological crises into a sustainable future.

\textbf{The structure of the book}

The widespread idea of a sacred, beautiful, and sublime nature expresses an almost irresistible intuition: that nature is intrinsically worthy of protection and preservation. Human beings do not have the right to destroy nature: not only would people cause themselves harm by doing so, but nature itself deserves protection. This intuition runs through the cultures of our world in different forms like a structural similarity. Whether in the Latin American culture of the Pachamama, the indigenous nature religions of Africa and North America, the Asian and European aesthetics of

\textsuperscript{23} This knowledge is recognized even by climate skeptics: Bjørn Lomborg, \textit{False Alarm: How Climate Change Panic Costs Us Trillions, Hurts the Poor, and Fails to Fix the Planet}, New York 2020.
natural beauty and the sublime, or the creation narratives of the world’s religions—nature is constantly presented as a value in itself deserving appreciation, care, and respect. Each expresses the same intuition: nature demands respect from human beings; meaning people have a duty to preserve, nurture, and protect nature.

My aim in this book is to turn this intuition into an argument. The goal is to formulate robust arguments for sustainable property rights. This is the only way that the idea of nature’s rights can withstand the scrutiny of verifiable knowledge. And only then will it be freed from the suspicion of esotericism. The structure of the book is based on the reconstruction of three arguments. In Part I, “The Nature of Property,” I introduce the argument for liminal property. In Part II, entitled “The Property of Nature,” the property-based argument for rights of nature is explained. And in Part III, “Sustainable Property,” the property-based argument for ecological sustainability is elaborated.

I begin Part I with an attempt at clarification. In order to justify why nature owns its resources, the understanding of ownership must first be clarified as much as possible. This does not require a fully elaborated new theory of property, but it does require at least a few elements of such a theory. First, I develop an alternative to the standard theory of property in things with the opposed idea of property in goods, according to which property has three structural features: first, property is a world relation; second, freedom constitutes the normative content of property rights; and third, property is characterized by liminality. Property rights thus have their own inherent limits. They are regulated from the outside by barriers and from the inside by limits already inherent in their normative core.

Liminal property now concretizes itself in relation to natural goods as sustainable property. The theoretical basis for rights of nature is established in Part I with this notion of liminal property.
According to the *argument for liminal property*, the ownership of natural goods is inscribed with an ecological norm that obliges the sustainable use of nature.

Part II discusses why nature is entitled to property rights. Because nature owns its resources, it deserves codified property rights and therefore the status of a legal subject. Accordingly, nature’s legal subjectivity derives from its claim to ownership. Instead of establishing nature’s rights by recourse to a value of nature, they are derived from the same logic that makes existing property rights valid. If humans possess property rights, then there is no reason to withhold them from nature. Accordingly, for the justification of ecological rights, it is only necessary to apply what is already recognized in existing legal practice; their justification is not a metaphysical conjuring trick.

The *argument for the rights of nature* is based on a value theory of property. According to it, value creation entitles ownership of the values created. This rule applies to existing property rights, but it also applies—and this needs to be shown—to nature’s ecosystem services. Natural goods (by this I always mean ecosystems as well as plant and animal species) provide so-called ecosystem services such as the pollination of plants, filtering of water, regulation of erosion, stabilization of the weather, formation of humus, provision of transport routes for moisture as well as medicinal substances, energy sources, building materials, and the like. The argument for nature’s rights applies value theory to ecosystem services: if value creation entitles ownership, and if ecosystem services contribute to value creation, then nature is entitled ownership of its resources; thus, nature deserves property rights.

*The argument for ecological sustainability* developed in Part III builds on the idea of the rights of nature explained in Part II. Here, I elaborate on the obligations of ecological sustainability that arise from the rights of nature.
Property protection is central to all of this. Property rights exercise a protective function. They protect what is owned from being damaged, defaced, or even destroyed by others. This protection also applies to the property rights of nature. Nature’s property rights impose an obligation not to jeopardize the preservation of natural goods. Users are, positively speaking, obliged to sustainability. The use of natural goods always involves the use of other people’s property—which belongs to nature. Due to the protection of property, users are therefore obliged to use natural goods sustainably. Ownership of natural goods is thus only justified under the condition of ecological sustainability. Property rights thus include sustainability obligations and are therefore limited from the outset by an inherent ecological norm. The rights of nature consequently take the form of sustainable property rights.

I conclude the book in an appendix with reflections on an overarching structural change of property initiated by the greening of property rights. The introduction of sustainable property rights sets the course for a fundamental transformation that goes far beyond ecology and touches other areas of society as well. Indeed, they provide an opportunity to rethink property as a whole.