Thinking about Romanticism means emotion, thinking about Enlightenment means almost completely the opposite: reason. Was the way people thought about nature in those respective periods indeed this distinct? In this article Heikki Mikkeli writes about the view on nature in the period of the Enlightenment and Romanticism.

Enlightenment and Romanticism: opposing views of nature?

Conventional environmental histories tend to see the Enlightenment and Romanticism as epitomising opposite views on nature. While the Enlightenment stands for reason, Romantic writers lean on emotions. The Enlightenment period is considered the aftermath of mechanical philosophy where the human mind has power over natural creatures. In contrast, during the Romantic period, man and other living beings were held to inhabit the same organic nature which human beings were only partially able to comprehend.

But the picture is in fact far more diverse and complicated, when we talk of Western man’s relationship towards nature in the eighteenth and early nineteenth centuries. Many Enlightenment thinkers were critical of the achievements of early modern science, nor did all the Romantic writers deny the worth of rational science. They merely made important distinctions between various ways of approaching nature.

This article will elaborate on the intellectual history of man’s relation

to nature in the Enlightenment and Romanticism, detailing the changing ideas on natural philosophy and natural science. Jean-Jacques Rousseau is often held up as the foremost proponent of a primitive idea of turning ‘back to nature’. I will argue with this line of interpretation and will also present the relationship between town and country in a larger context. I will investigate the changing ideas of ideal gardens and landscapes and will also tackle the question of whether Romantic nature writers can be fashioned as forerunners of today’s ecological thinking.

Man and natural beings in early modern Europe

In order to grasp the full meaning of the changing approaches of Enlightenment research on nature, we should perhaps first take a glance at early modern ideas on nature, advocated most famously by Francis Bacon (1561–1626) and René Descartes (1596–1650).

Francis Bacon is the icon of the new attitude in the early seventeenth century towards nature and science. He is linked with the phrase ‘knowledge is power’, which makes him the champion of man’s power over nature. Bacon in fact becomes the man who gives human beings power to use natural knowledge for their own purposes. In his view, to call the creatures by their real names, as Adam did, is to know them; to know the creatures is to wield power over them; and to wield power over them is to remove humans from their ‘infantile’ place in post-lapsarian society and to return them to their original position of superiority. To Bacon, power means exploitation, which further is the very proof of humanity.

Such an interpretation has been increasingly questioned in the last decades. Feminist scholars, such as Evelyn Fox Keller and Carolyn Merchant, find Bacon a patriarchal thinker: nature – a feminine element – is handed over to men to be disciplined. Bacon, who first set out the method of empirical sciences, famously observed that only ‘by digging further and further into the mine of natural knowledge’ could the human race extend ‘the narrow limits of man’s dominion over the universe’ to their

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2 Erica Fudge, “Calling creatures by their true names: Bacon, the new science and the beast in man”, At the Borders of the Human. Beasts, Bodies and Natural Philosophy in the Early Modern Period, Erica Fudge, Ruth Gilbert and Susan Wiseman eds. (Houndmills, 2002) 91–109, here 92.

‘promised bounds’. The Baconian programme of dominion over nature was subsequently adopted by the Royal Society (of London for Improving Natural Knowledge), who regarded themselves as putting into practice Baconian prescriptions for the study of nature. Robert Hooke (1635–1703) therefore declared that:

‘the Footsteps of Nature are to be trac’d, not only in her ordinary course, but when she seems to be put to her shifts, to make many doublings and turnings, and to use some kind of art in indeavouring to avoid our discovery.’

In a similar manner, the experimentalism of Robert Boyle (1627–1691) was described by the mathematician John Wallis (1616–1703) as follows:

‘In the hunt for true philosophy… you pursue nature as if by iron and fire… you follow to the most hidden secret recesses, and penetrate as if to its visceral parts, that it is really a wonder if the prey does not give itself up to you. In any investigation you harass nature as if it is tied to a rack, harshly, or even cruelly I would say, by torture and more torture, that ultimately leads to all the secrets being confessed.’

The second proponent of early modern science, René Descartes, is usually seen as the first to distinguish body and soul from one other. The Cartesian view of mechanical philosophy gradually became prevalent; the whole natural world was understood in terms of mechanical philosophy now that the laws of nature were under inspection. This approach also influenced man's attitude towards other living beings. As ‘beast-machines’, animals could be understood as living beings without any soul at all. Moreover, they could be regarded as creatures with no sensations. They could therefore not feel any pain, for example. Animals may have sensations, but not conscious sensations; they may have passions, but not conscious passions. This way of

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reasoning allowed many of the early modern experimentalists to perform painful experiments on animals, including vivisection.\(^8\) Perhaps the utmost manifestation of such an attitude was Nicholas Malebranche’s description of animal soul:

> “Thus, in animals, there is neither intelligence nor souls as ordinarily meant. They eat without pleasure, cry without pain, grow without knowing it; they desire nothing, fear nothing, know nothing; and if they act in a manner that demonstrates intelligence, it is because God, having made them in order to preserve them, made their bodies in such a way that they mechanically avoid what is capable of destroying them.”\(^9\)

The history of the relationship between man and other living beings in the early modern period, however, is not merely a narrative of man-made cruelties. In contrast to the Cartesians, there were people who were genuinely fond of animals and could not see them suffer. For example, the English philosopher Jeremy Bentham (1748–1832) saw no reason why man should have the right to torment animals. Comparing the status of animals in England with that of human slaves in other countries, he fought for animal rights just as for the abolition of slavery. To Bentham, there was no ‘insuperable line’ between man and animal, because the conventional criteria of the faculty of reason and of discourse were inadequate. In his opinion, a full-grown horse or a dog is far more rational and easy to communicate with than a human baby. Therefore, for him ‘the question is not, Can they reason? nor, Can they talk? but, Can they suffer?’\(^10\)

Even if some scientists treated animals in a less respectable way, many ordinary people were fond of various kinds of living creatures. Animals were all around them, both in towns and in the countryside. For example, sheep could be seen in the city streets and parks, and the efforts of English municipal authorities to prevent the inhabitants from keeping pigs or

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milking their cows in the street proved largely ineffective. The favourite among all animals was the dog, ubiquitous in sixteenth- and seventeenth-century England. By this time, pets seem to have established themselves as a fixture of middle-class English households. Especially in the towns, where animals were less likely to be functional necessities and where an increasing number of people could afford to support creatures which lacked any productive value. Pets differed from other animals in at least three ways: a pet was allowed in the house; it was often given an individual personal name; and a pet was never eaten.\footnote{Keith Thomas, \textit{Man and the Natural World. Changing Attitudes in England 1500–1800} (Harmondsworth, 1983), 110–115.}

From natural philosophy to science – and back to philosophy?

The Enlightenment period grew increasingly dubious about mechanical philosophy. Speculative natural philosophy was usually distinguished from empirical natural science. The whole of the early modern period can therefore be considered a shift from speculative natural philosophy to a more empirical natural history. However, this development included many of ‘the Enlightenment thinkers’ as well, which has often gone unnoticed. For example, Jean-Jacques Rousseau was an eager collector of flowers. The Enlightenment witnessed a repertoire of learned practices which permitted the participation of a significantly larger group of people than has been assumed before. Such practices aimed at a scientific project, which resulted in a worldwide registration, description and classification of flora, fauna and minerals. It involved innumerable actors in collecting, naming and describing mainly local natural objects. As a whole, the communicative dimension of exchanging specimens
and scientific literature interconnected people from renowned scholars to anonymous amateurs.\textsuperscript{12}

The scholars indeed had a renewed interest in nature. In antiquity, Aristotle among others had already made some classifications on the natural world in his treatise \textit{History of Animals}. In the eighteenth century, classifications became enormously popular, especially those established by Swedish botanist Carl von Linné (Linnaeus, 1707–1778) and French naturalist Georges Louis Leclerc de Buffon (1707–1788). In his monumental \textit{Histoire naturelle} (in 36 volumes; 1749–1788), Buffon created a new, secular conception of natural history. His articles described nature’s wonders and his essays uncovered its order. He considered that the living world, like the physical world, followed natural laws that investigation could discover. Buffon, in fact, believed in an all-pervasive design in nature, but did not regard this design as the work of a personal christian God. He instead reified nature to a generative power responsible for the harmony, balance and fullness of creation.\textsuperscript{13} In this respect, Buffon clearly differed from Carl

An allegory of natural history, end-piece to Buffon’s \textit{Histoire naturelle} (1749–67).


von Linné, as we can see in this passage by Linné:

‘Anyone contemplating the masterpieces of nature, can well notice, how all creatures are ultimately linked to each other in two main purposes: in the glory of God, which is the utmost and highest aim; and in the happiness of man. For if we lay aside everything else and direct our gaze to the world that is nearest to our senses, and concentrate on the elements and natural creatures: minerals, plants, and animals, we shall first notice the wisdom and skill that tells us the excellence of the almighty Creator. Every mountain is proof of His power, all plants testify to His foresight; indeed all nature is filled with His glory. In addition we may perceive an order, a connection, and a chain that is formed of the being and preservation of all creatures. No single creature exists only for its own sake, but they all must also serve another creature, like a link in a chain. Therefore, if one single creature would be missing, the whole order would be shaken.’

To Linné, nature remained the creation of God, and humans could worship their creator by examining the marvels of the natural world. The naming and ordering of the products of creation therefore linked the study of nature with the worship of God. The conception of order reflected Linné’s vision of creation as a balanced and harmonious system. Classification, he thought, could reflect that harmony.

The passage also reveals another interesting feature in Linné’s natural science. Here is a clear formulation of the idea of a ‘great chain of being’, as Arthur O. Lovejoy has named it. According to this principle, harmony is prevailing in nature where all living beings are organised in a hierarchical chain from the lowest species up to the highest creature – man himself – on earth. The chain must be perfect. There must not be any missing links. Any action that would result in the disappearance of a species from earth is forbidden, because the missing link would also break the great chain of being.

It has been claimed as well that the whole period of Romanticism was critical of all forms of natural science. It is true that Romantic natural science appears to involve rejecting mechanical metaphors in favour of organic ones. For most of the Romantics, mechanistic natural philosophy was the culmination of the analytic approach responsible for our fall from

grace with nature. But ‘Romanticism’ refers mainly to a time period and not just to a single state of mind.\textsuperscript{16} While Romantic writers primarily had an aesthetic attitude towards nature, some of them indeed criticised the scientific enterprise. For example, the English poet William Wordsworth (1770–1850) expressed his deep contempt for a natural scientist who could grub about and pick flowers even from his mother’s grave.\textsuperscript{17} Not all Romantics shared this contempt for science, however. Their attitude was rarely one of outright rejection.

In fact, according to early nineteenth century German philosophers, such as Friedrich von Schelling (1775–1854) and Georg Wilhelm Friedrich Hegel (1770–1831), natural philosophy did not compete with empirical natural science, because natural philosophy (\textit{Naturphilosophie}) was theoretical and speculative physics. It was not an empirical natural science or a research methodology as such.\textsuperscript{18} Because their aims, materials and methods were different, natural philosophy and natural sciences could flourish side by side. This is not to deny that many Romantic writers did criticise the Baconian attitude towards exploitation. For example, the German writer Johann Wolfgang von Goethe (1749–1832) noted in one of his \textit{Maxims and Reflections} that ‘Nature will reveal nothing under torture.’\textsuperscript{19} In his lyrical essay entitled Nature, Goethe elaborated on the theme:

‘Nature! We are surrounded and embraced by her – powerless to leave her and powerless to enter her more deeply… She brings forth ever-new forms: what is there, never was; what was, never will return. All is new and forever old. We live within her, and are strangers to her. She speaks perpetually with us, and does not betray her secret. We work on her constantly, and yet have no power over her.’\textsuperscript{20}

In Goethe’s meaning, we can live in nature’s embrace, yet we can never know her fully; we may leave our mark on her, but we can never truly master her.

\textsuperscript{16} David Knight, "Romanticism and the sciences", in \textit{Romanticism and the Sciences}, Andrew Cunningham and Nicholas Jardine eds., (Cambridge, 1990), 13–24.
\textsuperscript{17} Matti Lauerma, "Ihmisen suhde luontoon valistuksen ja romantiikan kautena", in \textit{Ihminen ja luonto}, Auvo Kostiainen ed., (Turku, 1983), 147-165, there 164.
\textsuperscript{20} Goethe, (1988), 3.
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In a way, we are nature’s subjects, not her sovereign; her processes are eternal, yet her forms are ever new. We struggle in a spider’s net woven by nature, but are never able to release ourselves and be independent of nature. Here, the perceived wholeness and dynamism of the natural world is no longer configured as a mechanical assemblage, but rather as a living organism.  

Jean-Jacques Rousseau’s presumed primitivism

One of the most persistent myths of the Enlightenment period is the idea of man’s return to nature. While the philosopher Jean-Jacques Rousseau (1712–1778) is supposed to have made the claim of man’s return to a primeval state of nature, he did not in fact promote a primitive way of life among the beasts, far from civilisation. As the philosopher Arthur O. Lovejoy pointed out already in the 1940s, Rousseau was not an admirer of primitivism or barbarity, but rather emphasised an alternative, more natural way of life. This entailed building new institutions in harmony with nature and far from the vanity of Parisian salons. Rousseau himself was eager to underline the meaning of societal institutions in human life, which is abundantly clear in his final remarks in the *Discourse on the Origin of Inequality*, first published in 1755:

‘What, then? Must Societies be destroyed, thine and mine annihilated, and men return to live in the forests with the Bears? A conclusion in the style of my adversaries, which I would rather anticipate than leave them the shame of drawing it. O you, to whom the celestial voice has not made itself heard, and who recognize no other destination for your species than to end this short life in peace; you who are able to leave behind in the Cities your fatal acquisitions, your restless minds, your corrupt hearts, and your unbridled desires; resume your ancient and first innocence since it is in your power to do so; go into the woods to lose the sight and memory of your contemporaries’ crimes, and do not fear that you are debasing your species when you renounce its enlightenment in order to renounce its vices.  

Rousseau could not fathom himself among these innocent human beings. He was already part of the group ‘whose passions have forever destroyed their original simplicity’. People like Rousseau ‘can no longer subsist on grass and acorns, nor do without Laws or Chiefs’. In short, Rousseau cannot be made into a proponent of the idea of a return to a primitive state. While he serves a good amount of irony to those who still think it possible to make their way back to the nature, Rousseau would like to see a more natural society in character. The human being is perhaps not naturally capable of social actions, but he or she can develop to be socially acceptable and thus fulfill his potential capabilities.

Town and country; gardens and landscape

In the intellectual history of Europe, it seems tempting to contrast the country and the city and to assume a radical opposition between them. The countryside is sometimes considered to be ‘more natural’, or even divine, while the towns are man-made and therefore products of human culture. The distinction often had a moral overtone; towns were regarded as places of filth, corruption and degeneration, whereas the countryside symbolized cleanliness, purity and a more natural way of living. As historian Roy Porter has noted, this distinction is a grotesque oversimplification of the relationship between town and country:

‘Man has made the country no less than he has made the town, and from this it follows that the historical relations between town and country are contingent, expressions in part of changing images of the urban and the pastoral – images that must themselves, in turn, be seen as expressions of the complex interplay of economic forms and political domination. Highly urbanized societies with aristocratic élites often cultivate myths of pastoral; by contrast, agrarian societies may prize civic values.’

Roy Porter’s reference to the pastoral is well suited to early modern Europe. In the Renaissance, the classical topos of Arcadia was revitalised. These

pastoral stories embraced the former kingdom of shepherds (pastor in Latin) as an ideal society thought to have existed in Arcadia in classical Greece. The meaning of these pastorals was indeed to emphasise the unspoiled pure nature and peace against the dirty and noisy city life. During the seventeenth century, the ideal landscape was rural, but not completely wild, because only human cultivation made nature admirable.

The attitude towards towns began to change in Europe during the seventeenth century. In England, the growth of London led to cultural approaches where the ‘clean’ and ‘idyllic’ countryside was considered the opposite of ‘dirty’ and ‘nervous’ life in the cities. The cities were indeed polluted, not least because of coal burning and because the burning gases caused a dense fog, known as the smog in the early twentieth century, over the city. Even the contemporaries were aware of the pollution, as we can see in John Evelyn's book *Fumifugium; or the inconvenience of the aer and smoak of London dissipated* (1661), where he conceived the idea of a garden city. One way of dealing with the problem of pollution was to build parks and in various ways to bring the countryside into town (rus in urbe). With increasing mastery over the environment, trees were no longer considered symbols of barbarism or mere commodities but part of the aesthetic landscape of aristocratic life.

The changing relationship between town and country also had an impact on language. At the end of the sixteenth century, English words such as ‘country people’ and ‘country house’ appeared as opposites of town dwellers and city houses. ‘Countryside’ was originally a Scottish term to indicate a specific locality, but in the course of the nineteenth century it turned into a general term to describe not only the rural areas but the whole rural life and economy.30

The ideal shape and nature of gardens changed in Europe in the early modern period. In the sixteenth and seventeenth centuries, the ideal among the nobility was to build a formal garden, which typified an architectural use of shapes and constructions. Geometrically shaped garden terraces and parterres were embroidered with statues, urns, terraces and mounds.31 In the eighteenth century, the so-called landscape garden gradually gained ground. This, too, was a cultivated area, but kept in a more natural shape. Instead of man-made fountains, the more naturally shaped ponds became fashionable. The wild and intact nature had in fact never been the ideal European landscape. Even in the classical period, the untouched forests were felt to be somewhat frightening places where only beasts and demons lived. The ideal landscape was the pastoral idyll of shepherds tending their flocks nearby the country house. The ideal Arcadian landscape was a natural variety of shady little forests and sunny meadows; the human touch of cultivation was always present and visible.

In the eighteenth century, this began to change. During Romanticism, the ‘intact nature’ grew into a positive element in human minds. In 1701, Joseph Addison, editor of the English journal Spectator, travelled over the Alps, writing to his friend:

‘I am just now arriv’d at Geneva by a very troublesome Journey over the Alpes, where I have bin for some days shivering among the Eternal Snows. My head is still Giddy with mountains and precipices, and you can’t imagine how much I am pleas’d with the sight of a Plain.’32

30 Raymond Williams, Keywords. A Vocabulary of Culture and Society (London, 1988), 81–82 (word ‘country’).
32 Cited in D.G. Charlton, New Images of the Natural in France (Cambridge, 1984), 45.
The attitudes were clearly different in the latter part of the century. For example, Jean-Jacques Rousseau's *Confessions* talk of a trip to the Alps in 1770:

‘It is already understood what I mean by a fine country; never can a flat one, though ever so beautiful, appear such in my eyes: I must have torrents, fir trees, black woods, mountains to climb or descend, and rugged roads with precipices on either side to alarm me. I experienced this pleasure in its utmost extent as I approached Chambery, not far from a mountain which is called Pas de l’Echelle.’

The idea of a mental landscape has now taken its place next to the real one. For the Romantics landscape was not only the nature surrounding us, but almost as much a state of mind which people wanted to imagine. As Simon Schama has noted, landscape’s scenery is built up as much from strata of memory as from layers of rock. Nature became a realisation of one’s own feelings as well as a refreshing place outside the smoky and stressing life in the city. High mountains, stormy seas and murky forests began to attract people who were bored of the classical and repeated patterns of a cultural landscape. It was now time for untamed feelings, represented in roaming waves or in the gloominess of mountains. However, even in Rousseau’s time, no-one really wanted to trade permanently the benefits of modern life for the charms of existence in rude nature. As William Wordsworth conceded: ‘Cataracts and mountains are good occasional society, but they will not do for constant companions.’

**Living in harmony with(in) nature**

The most famous nineteenth-century American writer on nature, Henry David Thoreau (1817–1862), wrote in his *Journal* on 30 August 1856:

‘It is vain to dream a wildness distant from ourselves. There is none such. It is the bog in our brains and bowels, the primitive vigor of Nature in us, that inspires that dream.’

Thoreau’s attitude towards nature is fundamentally ecological; it was concerned with relation, interdependence and holism. Following the ideas

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of Linné, Thoreau held that man was always part of nature’s ecology and could not be separated from it. Thoreau’s celebrated book *Walden* (1854) is based on the diary notes taken during two years of living in solitude in Walden Pond in Massachusetts in a small cottage that he had made himself.

It is a common misunderstanding, however, to consider Thoreau the first modern ecological writer. His European forefather wrote in a similar manner over fifty years before, and Thoreau knew his writings well. Gilbert White (1720–1793) was a parson-naturalist who lived most of his life in Selborne, a tranquil village less than fifty miles southwest of London. He was born there and after his studies he moved back there in 1751 to live a simple life, performing the parochial offices of St. Mary’s. In the year of the French Revolution, White published a book entitled *The Natural History of Selborne* (1789), which was not an immediate best seller, but during the following century it became one of the best-loved books in the English language. By the mid-twentieth century, it had appeared in more than a hundred editions.37

The book consists of letters White wrote to his friends with observations on the nature of Selborne. In his reviews of the plants and animals of his local area, White was able to identify a number of previously unidentified species, such as the harvest mouse and the large noctule bat. It was more important, however, that White provided an insight into the web of interdependence that sustained the life of Selborne, understood as a relatively harmonious community of humans and other creatures dwelling together over time in a particular place. We may therefore reason that the recognition of the interrelatedness of all elements in what we would term a ‘bioregional ecosystem’ today also informed Romantic biology and geography.38 Indeed, it can be said that the *Natural History* is one of the earliest contributions to field ecology in English science. White writes:

‘The most insignificant insects and reptiles are of much more consequence, and have much more influence in the economy of nature, than the incurious are aware of; and are mighty in their effect, from their minuteness, which renders them less an object of attention; and from their numbers and fecundity. Earthworms, though in appearance a small and despicable

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link in the chain of nature, yet, if lost would make a lamentable chasm…
Nature is such an economist, that the most incongruous animals can avail
themselves of each other!”

Once more we find here the idea of ‘the great chain of being’, which was a
typical view of nature in early modern Europe. Gilbert White saw himself as
part of that chain, but no longer in a manner that would somehow separate
him from other creatures. Perhaps he also realised that some day he would
nourish the earthworms himself.

Conclusion

In conclusion, the relationship between man and nature in the Enlightenment
period and among Romantic writers was not that different. We should
perhaps speak of a different emphasis on various issues concerning nature
than of a great contrast. The Enlightenment thinkers were obviously more
eager to emphasise reason, and the Romantic writers did put more stress
on emotional attitudes. However, many of the Enlightenment authors,
such as Jean-Jacques Rousseau, had an emotional relationship towards
nature as well. Moreover, the Romantic period did not discard the scientific
approach towards nature, even if some poets and other writers considered it
insufficient as such. We may conclude that in the late eighteenth and early
nineteenth centuries a new holistic and ‘proto-ecological’ attitude towards
nature was formed in Europe; an attitude that still prevails in the minds
of most Western human beings. And yet, we should not exaggerate the
similarity of Romantic ideas on nature and those of the early twenty-first
century. Most people today head to nature for physical relaxation rather
than for the spiritual euphoria that was sought two hundred years ago.

39 Gilbert White, Natural History of Selborne (Harmondsworth, 1789), 216.