

# Technology and Nature

Analysing Jonas and Heidegger through Hayao Miyazaki's  
*Nausicaä of the Valley of the Wind*

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This article will examine how the work of Hayao Miyazaki echoes the ideas of Martin Heidegger (1977) and Hans Jonas (1984) on our relationship with technology and nature. Following Heidegger's example (1977, 339-341), I will investigate how art has an ability to guide us to a deeper understanding of both nature and technology, by focussing on how such influential films cross age and cultural barriers and demonstrate an effective framework for how we should interact with nature and technology.

Both Heidegger and Jonas point to significant distinctions between ancient and modern technology (Heidegger 1977; Jonas 1984). Their arguments, albeit presented differently, point to the dangers of exploiting nature thoughtlessly in the pursuit of advancing our technological societies, and they provide some ethical and metaphysical considerations to improve our approach to nature and to technology. Studio Ghibli co-founder Hayao Miyazaki provides his audiences with a highly aesthetic audiovisual experience, which engages them in moral debates about nature and technology. Miyazaki creates complex characters, following the psychological processes involved in the ethical decisions which they must face; he foregrounds the influence of antagonists whose charisma and relatability make them easy to empathise with and complicate their roles as villains.

Although the actions of these villains are motivated by good intentions, they often lack the foresight or compassion that the hero protagonists possess. As a result, the latter better embody Jonas's principles for the new code of ethics (Jonas 1984, 10-12), and they act as a guide

to the people they lead in the fictional universes he creates, and to the viewers themselves, who are implicated in the preservation of nature in reality.

The archetype of a hero who takes on a moral responsibility and is forced to leave his home on a quest for salvation or knowledge allows Miyazaki's characters to exist within traditional plot styles. Despite the clearly dated and fictional settings, this gives them a timeless quality. Traditionally, the hero embodies the values and objectives of a given society, but they also seem to have a special connection to divinity that allows them to overcome the pitfalls that would make the unenlightened man stray from the just path. In the case of Miyazaki's heroes, this divine assistance often comes from nature itself, and what separates them from other characters is that they are receptive to and care for nature as much as humanity, and that they are receptive and open to the essence of technology, of nature, and also of humanity. Driven by this receptivity and care, they thus hear and respond to the call of DESTINING, and the revealing of nature through science that they pursue thus becomes a result of their decisions, and not simply of fate (Heidegger 1977, 321-324; 331-332; 329).

Much like Heidegger (1977), Miyazaki does not view technology as applied science, but considers that it is through the developments of science that we can further our technologies, and that, in turn, technological advancement urges on further study. This co-dependent relationship between science and technology is best portrayed in the Ghibli film *Nausicaä of the Valley of the Wind*, in a context where scientific advancements had led to nuclear technology destroying the world during the Seven Days of Fire (Miyazaki 1984). Nausicaä, the protagonist, incarnates the principles that Jonas (1984, 10-12) had established for his sustainable theory of ethics, while her observant and receptive personality allows her to open herself to the essence of nature and technology (Heidegger 1977, 311). Her prowess with the bug charm and glider stems from a non-aggressive attitude that allows her to share a special connection with nature, even when it takes the form of an enraged ohmu worm. Unlike the other characters, Nausicaä does not set-upon nature, but observes it as it brings itself into unconcealment.

Nausicaä's search for knowledge follows Heidegger's maxim to not view nature as an object of inquisition (1977). Her aim is to observe nature's workings, and not to calculate them. By gathering the seeds and the uncontaminated soil and water, and watching as nature brings-forth from itself (*en heautoi*), nature itself reveals to her the truth (*aletheia*) (Heidegger 1977, 319). In her post-apocalyptic world, she seeks to understand what is making the jungle toxic, and to do so she keeps a secret laboratory, where she grows plants in clean soil and with clean water from deep underneath the castle. Through her research, she finds that the soil in the Toxic Jungle is contaminated, and that this is the cause of the poisonous fungal spores.

Jonas (1984, 6-10) argues that considerations of the future must factor into any new ethical framework. Man has a duty to seek out knowledge, and to refrain from acting prior to understanding the possible repercussions of his actions (Heidegger 1977; Jonas 1984). Our duty and responsibility towards nature should not solely be inspired by its instrumental value for our survival, but its inherent value should be considered as an end in itself, worthy of protection on that basis (Heidegger 1977, 321-324; Jonas 1984, 8). This is what Nausicaä had sought to do before her experiments were interrupted by the invasion, and her resolve to understand why the soil had been poisoned whilst preventing further harm to either man or nature remained until the very end, at the risk of her own life.

Nausicaä runs straight into danger in the battle between the Tolmekians and the ohmu; she insists on accompanying the injured baby worm as he is placed in front of an angry stampede. She is willing to risk her life to ensure the preservation of both man and nature. The ohmus' ability to revive her is an indication of nature's power over man, but it is also a token of nature's temperament. When respected and cared for, nature is fruitful; when exploited and turned into standing reserve, nature becomes barren (Heidegger 1977, 324). Nausicaä's actions thus follow Jonas's (1984) imperative to give up present commodities, and to risk our present lives for the sake of an as yet in-existent future life. He makes it clear that the latter should be done willingly, and not forced upon persons by their leaders at the cost of the rendering instrumental of present life (Jonas 1984, 15-17). This is

in stark contrast to the inquisition led by the Tolmekians, who capture and attempt to revive a Giant Warrior embryo so as to use it to burn down the Toxic Jungle.

The Tolmekians represent an ethics which abides by the principle of the DOUBLE-EFFECT (Aquinas 2015, 2.2: 64.7), dominant at a time when ethics was neutral towards actions involving the non-human, and excluded the latter from consideration. The essence of Man was seen as constant, and his influence on the exterior world was considered limited (Jonas 1984, 2-4). For these reasons, ethics was chiefly concerned with the plight of Man, and with the present and immediate influence of human actions. The morality this ethics promoted was seen as readily accessible to any man of good will, and later negative effects were not considered the direct results of well-intended acts (Aquinas 2015, 751-753). The serenity and light and earthy tones in the underground lab symbolise the *poiesis* of bringing-forth into unconcealment, while the dark and gruesome imagery in Officer Kurotowa's lab echoes a challenging-forth which sets upon nature and attempts to command it.

The validity of prior ethical systems, according to Jonas (1984, 17-18), is brought into question due to their inadequacy to deal with the demands of the present. They lack the foresight and wide-reaching responsibility required for a holistic future-oriented ethical framework, something with which these films' heroes are in tune. The Tolmekians' setting-upon extends beyond nature to humanity. People are seen as weapons, tools, or human shields; standing-reserves, who can be ordered to set upon nature and to challenge it forth in a "gathering together of the setting-upon that sets upon man" which Heidegger (1977, 324-326) calls *Ge-stell*, or ENFRAMING. The Tolmekians' actions are also neglectful of future generations; willing to burn down the jungle and the valley, they give no consideration to the harm that this would cause in the long term.

The Tolmekian abuse of weapons of mass destruction (WMDs) like the Giant Warrior, and the sacrifice of humans to further their gain, is excused by their Princess as a means towards a greater end, an unintended effect of their aim to stop the poison from exterminating humanity. Their decision to destroy the Toxic Jungle could it-

self end up bringing about this extinction, but the Princess refuses to acknowledge the importance of preserving nature, and focusses rather on what seems the quicker and easier way of saving humanity. Her rash decision to prematurely awaken the Giant Warrior is a result of her instinct to save herself at any cost, and results in the increased level of violence and the further angering of the ohmu worms, who consequently stampede on even after their injured baby has been returned.

The Pejites represent what Jonas (1984, 15-17) calls UTOPIAN ETHICS,<sup>1</sup> led by the concept of progress to see the past as a step towards the present, and the present as a step towards the future (Jonas 1984, 16-17). While this ethics is future oriented in comparison to prior forms of ethics, its aim might ultimately be unattainable, and the sacrifices undertaken to achieve it undesirable (Jonas 1984, 17). The Pejites destroy their own city and its population to kill enemy soldiers, and they torture a baby ohmu worm in order to attract an angry stampede to the valley where the WMD is being developed at the cost of many lives. They represent utopian ethics because, although fully aware of the harmful actions they are committing, they blindly adhere to the belief that it will lead to a brighter future. Such ethics sacrifices too much of the present with no firm guarantee of a better future (Jonas 1984, 17-18); uncertainty about the future should not be neglected or stifled by uninformed decisions, but compensated for by responsible restraint, and the avoidance of the sacrifice of the present without a structured framework for the securing of life in the future (Jonas 1984, 21-22).

It is worth noting that this film was inspired by the poisoning of Minamata Bay with mercury wastewater in the 1950s and 60s (Cavallaro 2006; Harada 1995; Mandala Project 1997). The illness the characters develop from the spores is an allusion to the 'Minamata disease,' which also caused paralysis and death (Harada 1995; Mandala Project 1997). Despite taking place in a highly-fictionalised setting, *Nausicaä* reminds us that we are already facing the consequences of our neglect

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1 In utopian ethics, the future is valued at the cost of the present, as the lives already being lived are no more than instruments or sacrifices towards the ultimate goal of utopia, despite the fact that those who make it actual might not be alive to see it materialise (Jonas 1984, 17).

of the environment, and it by placing it in a post-apocalyptic wasteland, Miyazaki warns us to act before it is too late (Cavallaro 2006).

As the *poesis* of nature is a means of revelation through bringing-forth itself (Heidegger 1977, 317), the jungle reveals to the princess the unpolluted area underneath the toxic jungle, where the water and soil are purified by the trees above (Miyazaki 1984). This subterranean area is in fact a graveyard for the jungle that existed before, but it is also the only place where new life may flourish. While this confirms her experiments, it gives her a newfound urgency to stop the Tolmekians from burning down the jungle, lest they destroy their only chance of purifying their environment.

Jonas (1984, 23) notes that fear, whilst effective, is ultimately inadequate to instil the genuine moral values required for ethics to take root. Work such as that of Miyazaki may prove to be an effective way of disseminating a new ethical framework. The use of animation allows for a narrative distance that cinema or literature cannot attain, making possibly frightening topics such as extinction or weapons of mass destruction easier for younger viewers. It also shows us the horror of what could befall the Earth if we are careless, yet it offers hope by displaying the attitudes which one must adopt to prevent destruction and violence.

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