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“Enlightenment Is a Shared Enterprise”: Tree Ecosystems and the Legacy of Modernity in Richard Powers’s *The Overstory*

ABSTRACT

In Richard Powers’s Pulitzer Prize-winning *The Overstory* (2018) the theme of the novel is the forest ecosystem, with a special emphasis placed on trees, upon whose developmental model the processes of (organic and industrial) growth are scrutinized in this novel. This article examines tree-human assemblages in detail to see how they exchange their material agency and how they relate to the e/Enlightenment project. The essay also explores Powers’s novel to examine how Buddhist values of spiritual enlightenment are contextualized within European Enlightenment and how decentred humanity finds its place among other non-human beings. Apart from fictitious characters from *The Overstory*, the article draws upon the research of real-life scientists who inspired the creation of Powers’s protagonists: Prof. Simard and Dr. Beresford-Kroeger, along with the work of anthropologist Anna Tsing. In addition, eco-solutions concerning the tree ecosystem (i.e. bio-planning and the seed banks) coming from the scientific field and the field of literature (Powers) are examined to see if today’s progressive ideas can function in the world of the—still, to a large extent, “regressive”—structures of modernity’s legacy. I conclude by arguing that the novel shows that the Enlightenment project is not compatible with the well-being and long-term survival of both humans and non-human beings.

Keywords: contemporary American environmental fiction, Richard Powers, ecology, modernity, Enlightenment, tree ecosystem, Buddhism.

"Trees stand at the heart of ecology, and they must come to stand at the heart of human politics." (Powers 568)

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In his novel *The Overstory*, Richard Powers aptly observes that "Enlightenment is a shared enterprise" (504), meaning that one cannot achieve it by detachment and that pursuing this state has multiple textual and symbolic layers. Richard S. Cohen in *Beyond Enlightenment: Buddhism, Religion, Modernity* draws attention to the numerous possible interpretations of what he defines as "e/Enlightenment" (15), ranging from Sanskrit understanding, sagacity, and release, through the religious and political Reformation-grounded doctrine of redemption and deliverance to end with what is most commonly associated with the Western Enlightenment Project ("modernity, rationalism, science, secular emancipation" [15]). Bruno Latour in *We Have Never Been Modern* comes to the conclusion that "[y]es, we are indeed the heirs of the Enlightenment, whose asymmetrical rationality is just not broad enough for us" (142). What is more, Latour provocatively claims that "[m]odernity has never begun. There has never been a modern world," and what may seem modern is nothing more than "a retrospective sentiment . . . a rereading of our history" (*We Have Never Been Modern* 47). Modernity has never launched because the split between the realms of humanity and the external world is, as Harman puts it, "groundless in the first place" (58). In the Preface to *Dialectic of Enlightenment* (1944–47), Horkheimer and Adorno rightly observe that "[i]f enlightenment does not assimilate reflection on this regressive moment, it seals its own fate" (xvi). However, when applied uncritically, caught in its own rationale, the legacy of Enlightenment will never enable "deindustrializing our relationship with the land, seas, and domestic animals; granting the biosphere unexploited and contiguous large-scale geographies" (Crist 29). In practice, modernity prefers constant re-branding instead of self-critical scrutiny. Its updated, current face is *ecomodernism*, which assumes proudly that "[a]s the world gets richer and more tech-savvy, it dematerializes, decarbonizes, and densifies, sparing land and species. As people get richer and better educated, they care more about the environment" (Pinker). From this ethnocentric perspective, applicable only to developed countries, ecomodernism defines environmental actions via paradox, as even more aggressive industrialization. In the light of such demagogues, one might wonder whether the values of modernity can be, and above all, should be, repurposeable at all.

If one takes into account the interaction between people and the Earth, doubt arises as to whether one can truly identify environmental awareness as an expression of Enlightenment as put into scrutiny by Christophe Bonneuil in "Narratives of the Anthropocene." Hornborg, for example,

questions our ability to “use the very same Reason that gave us modern technology” to criticize “the bankruptcy . . . of capitalist modernity” (63). This “Reason,” as Braidotti observes in *The Posthuman*, has not been attributed to all and everyone in the same way, and for centuries, it served as a ground for various systemic exclusions and discriminations. Critics of the Age of Humans believe that modernity developed on the basis of what they view as the wrong factual and ethical assumptions of anthropocentrism. Perceiving the close connection between modernity, progress and the Anthropocene, Boller argues that “the notion of progress and hence traditional, i.e. linear, temporality play an integral role in conceptions of the Anthropocene and its connected narratives” (17). Similarly, in “Narratives of the Anthropocene,” Christophe Bonneuil enumerates such moral fallacies with a clear-cut precision and without understatement:

Indeed, the stories that the elites of industrial modernity have told themselves—about nature as external and purposeless, about the world as resource, about human exemptionalism, about progress and freedom as an escape from nature’s determinations and limits, about technology as quasi-autonomous prime mover—have served as the cultural origins and conditions of the Anthropocene. (17)

“Can we live inside this regime of the human and still exceed it?” ponders the prominent American anthropologist Anna Tsing (19), noticing that our stand in the Anthropocene seems to be at best problematic. Hamilton, Bonneuil and Gemenne after Steffen argue that the term has evolved by adding to its scope a scientific “shared complex systems perspective on the Earth” (2) and a broader understanding of how the Age of Humans affects the ecosystem and how it alters the entire natural world (3). Disputable as its span or definition might be, the Anthropocene remains a fact, “[e]very cubic metre of air and water, and every hectare of land, now has a human imprint,” and nonhuman animals living in their natural (“wild”) habitat constitute at most 3 percent of the population (Hamilton after Smil 34). Taking this into consideration, it becomes possible for ecology to do without “asymmetrical rationality” and to become, as Morton advocates, “ecology without nature,” or rather Nature without “accumulation by extinction” (McBrien 134). Most scientists agree that the Anthropocene marks the era of the fusion of the social and the natural; as a result, “our future has become entangled with that of the earth’s geological evolution [but] then, contrary to the modernist faith, it can no longer be maintained that humans make their own history” (Hamilton 35). As Tsing (168) persuasively argues in her writing, people are not the sole makers of history

although they wish to claim the authorship and the primacy of the human “overstory.” She adds that history “is the record of many trajectories of world making, human and not human” (Tsing 168).

Powers’s Pulitzer-winning novel *The Overstory* (2018) focuses its attention on such trajectories, also called “assemblages” (inspired by Deleuze and deeply informed by New Materialisms) by posthuman theorists (i.e. Haraway, Bennett, Tsing and others), which can be defined as points of material, as well as symbolic exchange with fungi, trees, bacteria, and other organisms, etc. What makes these assemblages different from other human-tree couplings is their shared material foundations. In the vein of New Materialisms and Vitalism (argued by Braidotti), active matter interacts with all living and non-living entities; hence, for instance, when in a forest, human “contact with nature” is not merely symbolic. Acknowledging her indebtedness to Deleuze and Guattari, Bennett argues that the “vital materialist must admit that different materialities, composed of different sets of protobodies, will express different powers . . . There was never a time when human agency was anything other than an interfolding network of humanity and nonhumanity” (31). In the case of *The Overstory*, one needs to re-examine traditional concepts of “interactions” or “intersections” or even of non-human personhood. Due to exchanging materialities, humans and trees form a structure of Bennettian assemblages. During the Redwood protest that lasts almost two years, for example, seven main characters periodically live on the top of/with the trees, creating with them what Bennett would call “a material cluster of charged parts that have . . . affiliated, remaining in sufficient proximity and coordination to produce distinctive effects” (24). So high above the ground, protestors have to learn to move in a different way, sleep on the branches, and even carry out their physiological needs from a height. Their perspective from the tree-top literally alters them. They become one with other living beings there: birds, insects, microbes and fungi. Powers relates aforementioned assemblages of diverse materialities in detail: “[T]he stink of pores and rotting plants, of mosses creeping over all things, soil being made, even here, so many stories above the Earth” (405). In other words, people in *The Overstory* form “living, throbbing confederations” with trees (Bennett 23) in which “no one materiality or type has sufficient competence to determine consistently the trajectory or impact of the group. The effects generated by assemblage are, rather, emergent properties” (Bennett 24). These assemblages do not result from humans’ genetic similarities to trees, as argued by Dr. Westerford, or her husband’s argument about “nearly identical molecules, chlorophyll and hemoglobin” (Powers 180); rather, they arise out of a new structure that combines human materialities with those of the forest ecosystem,

which produces new and unpredictable effects. Above all, assemblages, as stressed by Bennett, draw attention to “limitations in human-centred theories” (24); indeed, when one locates oneself on par with “countless invisible creatures burrowing beneath the soil, crawling under the bark, crouching in the branches,” as protestors in *The Overstory* do, then human materiality becomes a small part of the particles that “the giant trees breathe in” (Powers 319).

Powers seems to argue that human civilization needs to develop in sync with other beings, not regardless or against them. *The Overstory* is organized around metaphors of growth, drawing on scientific fields, mostly biology (i.e. Simard and Beresford-Kroeger) and anthropology (Tsing). These metaphors, deeply intertwined with e/Enlightenment, appear to be potent in both environmental thought and in modernity. Powers’s novel clearly suggests that the future of civilization depends on eco-solutions.

Structurally, *The Overstory*’s chapters are named after tree parts, and the plot develops with several textual “understories” (i.e. “[t]he understory is shot through with saplings” [Powers 301]). In *The Overstory*, nonhuman characters (i.e. trees) become the subjects rather than the objects of the narrative. According to Tsing, when in the forest, a human loses the illusion of his or her own mission, assuming that the growth of the tree ecosystem needs people. Uninterrupted, it can go on without humans, so do forest understories. The best that one can do is to let go of control:

To walk attentively through a forest, even a damaged one, is to be caught by the abundance of life: ancient and new, underfoot and reaching into the light. But how does one tell the life of the forest? . . . How can I show landscape as the protagonist of an adventure in which humans are only one kind of participant? (Tsing 155)

Indeed, in Powers’s novel, humans are participants as much as trees, and their mutual physical contact changes reality, leading to irreversible consequences for both parties because “they contribute to the overlapping tracks and traces that we grasp as history,” as Tsing puts it (168). Powers’s novel produces textual seeds: aforementioned “[a]ssemblages, coalescence, change, and dissolve: this *is* the story” (Tsing 158). The textual world of *The Overstory* is saturated with what Jane Bennett calls in her book “vibrant matter”: the agentic matter common to microorganisms, plants, rocks and people. Again, as Tsing observes,

[m]aking worlds is not limited to humans . . . Without the ability to make workable living arrangements, species would die out. In the process, each organism changes everyone’s world. Bacteria made our

oxygen atmosphere, and plants help maintain it. Plants live on land because fungi made soil by digesting rocks. As these examples suggest, world-making projects can overlap, allowing room for more than one species. (Tsing 22)

The tree ecosystem depicted in *The Overstory* involves all living and non-living entities from the smallest, a few-celled organisms, to species that form complex structures, the gravity of their contribution to life on the Earth not depending upon their size or a place in the human-made taxonomy.

Powers's human-tree assemblages analyzed in this article embrace plants and characters from different types of "soil," natural and social backgrounds, various generations, classes, and walks of life. Many of them come from immigrant families; some struggle with systemic and professional injustices, racism and other forms of prejudice, others live with social or physical disabilities. Nicholas Hoel is a third-generation descendant of immigrants from Norway whose life is entangled with the Hoel Chestnut, planted by his great-grandfather. After her father's suicide, induced partly by the withering tree, Mimi Ma (whose ancestors come from Shanghai, Persia, and Greece) is left with a mulberry that witnessed and prompted her father's death. Neelay Mehta, paralyzed in his childhood after the fall from the tree, runs his IT company *Sempervirens*, named after the Oregon *sequoia sempervirens*. The agitated young Mehta climbed the tree after standing up to the teacher who appropriated his notebook with coding ideas. Ironically, he was petrified that "[t]his disrespect of white people will cripple his father" (Powers 127) because for his Indian parent the very thought that his son "could talk back to an American authority and live" (128) was unimaginable. Adam Appich, a scholar in psychology, on the verge of the autistic spectrum, in his early years used to observe the nonhuman lives of insects and other beings on the maple. Dr. Patricia Westerford, a biologist and dendrologist, regardless of the critique of the conservative academic milieu, carries on her innovative research on plant communication. Ray Brinkman (married to Dorothy, an amateur actress, an environmental activist and co-organizer of the protest to save Old Sequoias), an intellectual property lawyer, wishes to advocate "a moral authority that lies beyond the human" (297). Brinkman intends to secure legal protection for other than human beings, including trees and other plants (315). Douglas Pavlicek, a veteran dedicated to reforestation, feels indebted to trees because during his military mission in Thailand (on the way to Vietnam), he survived only due to landing on upward-facing banyan tree roots. Last but not least, after her near-death experience, Olivia Vandergriff claims to understand the language of plants.

As shown above, *The Overstory* is a multi-plot narrative that explores human-tree material assemblages where “[p]eople and trees are in this together” (425). Such an assemblage requires methods that Dr. Westerford applies in her studies and Tsing defines as “the learning practices,” namely, “our combined forms of mindfulness, myths and tales, livelihood practices, archives, scientific reports, and experiments” (Tsing 159). In *The Overstory*, such practices are performed not only by researchers but also by ordinary people. Over the generations, the Hoel family developed a tradition of photographing their chestnut, documenting the tree’s development and its entanglement with their family history:

The generations of grudge, courage, forbearance, and surprise generosity: everything a human being might call the *story* happens outside his photos’ frame. Inside the frame, through hundreds of revolving seasons, there is only that solo tree, its fissured bark spiralling upward into the early middle age, growing at the speed of wood. (19)

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Powers has fashioned the optics of his novel so as to convey a perspective “outside the frame” of the human-centred standpoint. Dr. Westerford claims: “*People aren’t the apex species they think they are. Other creatures—bigger, smaller, slower, faster, older, younger, more powerful—call the shots . . . Without them, nothing*” (356). Moreover, Powers’s book makes vivid that people tend to solely notice “things that look like us” (143), ignoring all other forms of life and their contribution: “*Creating the soil. Cycling water. Trading in nutrients. Making weather. Building atmosphere. Feeding and curing and sheltering more kinds of creatures than people know how to count*” (4). Humans participate in the exchange of the matter with living and non-livings forms. The aforementioned exchange between trees and other beings permeates Dr. Westerford’s entire research and her whole academic career. After publishing her post-doctoral findings on tree communication, Patricia Westerford’s research methods are questioned in conservative academic circles. It is not until many decades later that her pioneering inquiries are corroborated by other scientists and Dr. Westerford is rehabilitated, ironically becoming a celebrity expert on future eco-solutions (547).

The character of Patricia Westerford was inspired by two female scientists: Professor Suzanne W. Simard, a professor at the University of British Columbia’s Department of Forest and Conservation Sciences, and Dr. Diane Beresford-Kroeger, a botanist formerly with the University of Ottawa (Berry). In *The Hidden Life of Trees*, the German forester Peter Wohlleben popularized Simard’s ideas on tree communication via scent, chemical compounds and sound waves (13) and on tree co-operation

via the underground forest system of connected roots (11). Ironically, Simard's and Wohlleben's ecological awareness developed over the years against the grain of their "modern" background: Simard's family was involved in the lumber business, while Wohlleben as an inexperienced forester "knew about as much about the hidden life of trees as a butcher knows about the emotional life of animals" (xiii). It took him some time to realize that the "modern forestry industry produces lumber" (xiii) instead of protecting trees. Both of these researchers were at some stage implicated in industrialized processes, which made it possible for them to comprehend how these processes work and to criticize them more effectively on the academic level.

In *The Overstory*, such a critique is provided by Dr. Westerford in her speech that draws on Simard's research. Westerford recalls her struggle with allegedly scientifically unquestionable and unalterable preconceived notions and so-called "common sense," which operate as major weapons of the Enlightenment: "We found out that trees communicate, over the air and through their roots. Common sense hooted us down. We found out that trees take care of each other. Collective science dismissed the idea" (Powers 566). Drawing upon Simard's findings, Powers's novel makes at least four fundamental claims. First, the forest ecosystem is cognizant: "[B]rains down there . . . Root plasticity, solving problems and making decisions. Fungal synapses . . . Link enough trees together, and a forest grows *aware*" (566–67). Second, forests are able to alter the chemical composition of their underground layers and the leaves in reaction to external factors, e.g., people (530). Third, as an ecosystem, an extensive forest is more complicated than an undersized gathering of individual plants and beings: "Not fragments. Large forests live and breathe. They develop complex behaviors" (353). And finally, the ecosystem forms a multifaceted kinship: "*The biochemical behavior of individual trees may make sense only when we see them as members of a community*" (158). Powers's ideas about the social organization of the forest ecosystem—"no separate trees in a forest" (598)—remind one of the Actor-Network Theory (ANT), described by Latour in *Reassembling the Social*, that is a form of mediated "*traceable associations*" (108) which in *The Overstory* could be compared to tree communication enhanced by facilitators (i.e. fungi), expanding connections in many directions, by engaging more and more participants.

In other words, the forest depicted in *The Overstory* is a system linked "together underground by countless thousands of miles of living fungal threads" (Powers 178). In *Microcosmos*, Margulis and Sagan maintain that the evolution of life happened not by elimination or competition but as "[l]ife forms multiplied and complexified by co-opting others, not just by killing them" (29). Similarly, in *The Global Forest*, Beresford-Kroeger

argues that the forest ecosystem is “kept in place by fungi, algae, lichens, bacteria, viruses, and bacteriophages . . . The atmosphere links the forests into the heavens and the great oceans” (48–49). In *Finding the Mother Tree*, Simard argues for the need to recognize the agency of all beings, not only people: “I believe this kind of transformative thinking is what will save us,” she concludes.

Simard and Beresford-Kroeger’s scientific findings, synthesized by Powers in the character of Dr. Westerford, lead to the conclusion that the Anthropocene signifies a regression and is harmful to humans and nonhumans alike, as it tends to upset the equilibrium of the entire ecosystem. The idea of human/natural equilibrium suggests that the disappearance of any species damages other species as well. In *To Speak for the Trees*, Beresford-Kroeger predicts the end of biodiversity if clear-cutting continues unabated as it has until today (148). Her response to the question of eco-solutions is “bioplanning,” which she views as “the blueprint for all connectivity of life in nature” (*To Speak for the Trees* 149) and defends as follows: “A bioplan . . . will walk organic farming one step further to increase the biodiversity of native species of plants and animals” (*The Global Forest* 20). From this small scale, she comes up with “the global bioplan . . . to rebuild the natural world that will envelope the entire planet” (*To Speak for the Trees* 151). Well-motivated as it might be, an all-purpose and indeed quite abstract “bioplan” lacks specifics in the form of a detailed stage-description of how to implement it. Quite unexpectedly, Beresford-Kroeger’s *The Global Forest* encourages a perception of trees as financial assets. She advises: “The trees can be the cash crop for the farmer in a bioplan, whether his farm will be large or small” (*The Global Forest* 20). With the notion of monetizing the value of trees, Beresford-Kroeger enters high-risk territory, linking the world of business with ecological sustainability: “Within North America’s forests there are trees of extraordinary value. But nobody has had the thought to grow them as a financial cushion for sustainable living” (19). In this way, modern conceptualizing of environmental thought seems to be reducing the tree ecosystem to its financial dimension. With such arguments in mind, instead of challenging the tenets of Enlightenment, Beresford-Kroeger has ended up being caught in its very rhetoric. With regard to eco-solutions, Powers’s Dr. Westerford comes up with the idea of creating a Seed Bank (called the Global Seedbed Germination Vault, based upon the co-operation of four universities) for the forthcoming generations during the so-called “second growth” (Powers 408, 622), when the Earth’s biosphere will be reborn after its nearly complete collapse.

Before that happens, Powers’s characters still live in “the Age of Wood. Cheapest priceless stuff that ever has been” (231). *The Overstory*

plays upon the concept of growth with a double meaning: as an industrial expansion and an organic development. “Our civilization is snorting like a steer on growth hormones” (259), Douglas observes. This simile seems to imply that the current development gives the impression of being artificially and unethically inflated. In its escalation, rapid civilizational growth appears to resemble more a metastatic tumour than an evolutionary motion. Powers’s Dr. Westerford comments bitterly on the carcinomatous tendency in present-day human civilization: “The only thing that we know how to do is grow. Grow harder; grow faster. More than last year. Growth, all the way up to the cliff and over. No other possibility” (380). Over the years, the rhetoric of advancement has always been a part not only of the American Dream but has dominated Western thought, as Tsing admits: “[M]ost of us were raised on dreams of modernisation” (20). Tsing enumerates the undeniable benefits of such transformations (i.e. “political causes” and “justice”) till the point where, as she puts it, such thinking “stopped making sense” (24–25). Referring to the Redwood trees, pro-ecological protesters exclaim: “You’re cutting down the last American old growth” (Powers 305). The statement denotes that the clear-cutting of old trees kills growth (in both senses of the word) instead of enhancing it. The enhancement of growth means living in linkages with other beings. That is why environmentalists maintain: “NO TO THE SUICIDE ECONOMY YES TO REAL GROWTH” (430). Their slogan is supposed to advocate that “real growth” (vegetation), unlike its cost-effective counterpart (economy), deserves more and not less attention. At the centre of this claim lies the notion of life as opposed to self-extinction. One of the tree protectors, Olivia, argues that “[e]xponential growth inside a finite system, leads to collapse. But people don’t see it” (401). Ironically, the rhetoric of growth is resorted to as well by the defenders of the forest industry in Oregon (“This state supports timber: timber supports this state” [357]). With increasing commercial demand, the need for wood is thrice as much as it used to be in the previous generation (402), and its adherents assert: “You can’t stop growth! People need wood” (380). Paradoxically, in line with that, what the wood industry does is precisely stopping the growth of the trees. The subsequent statement follows the same polysemy: “Trees fall with spectacular crashes. But planting is silent and growth is invisible” (112). Powers (in the words of Dr. Westerford) argues rightly that trees grown on plantations do not exhibit the same capacities as those in the forest ecosystem: they do not live long enough to develop the extended fungi structures and there are not enough diverse creatures engaged in such creations (355). Organic growth obviously can be measured (even if not observed by the human eye) but its slowness does not meet the interest of economic indexes. Moreover, re-planting is not only silent but

also, in the case of industrial forestry, a pointless form of tree preservation. Such plantations are treated like battery farms for animals: single trees are planted at the artificially human-calculated distance without taking the ecosystem into consideration.

The alternative in Powers's novel is supported by Ray Brinkman who argues that many beings should have their personhood recognized, specifically advocating for plants' rights. Professor Van Dijk in his conversation with Appich observes that "[w]e're living at a time when claims are being made for a moral authority that lies beyond the human" (297). "Plant rights? Plant personhood?" (297), Adam wonders. With the above in mind, the lawyer intends to give legitimization and legal protection to other-than-human beings—"give rights to everything alive" (315)—questioning the ability to speak as a condition *sine qua non* for having a legal standing: "*It is no answer to say that streams and forests cannot have a standing because streams and forests cannot speak. Corporations cannot speak, either, nor can states, estates, infants, incompetents, municipalities, or universities. Lawyers speak for them*" (313).

With regard to the tree ecosystem, plant rights could make mass clearing of old trees much more problematic. At the heart of *The Overstory* lies what Tsing calls the difference between "disturbance" and "ruin." The perpetrators and beneficiaries of cutting the old Redwood trees attempt to portray their actions as "disturbance," that is, as "short-term damage [that] may be followed by exuberant regrowth," which to some extent might even "renew ecologies" (Tsing 160). However, as a matter of fact, felling the old Redwood trees of Oregon cannot be seen as anything but irreversible ruin. Pavlicek describes the forest after clear-cutting as follows: "A stumpy desolation spreads in front of him. . . the thinnest artery of pretend life, a scrim hiding a bomb crater" (Powers 109). The maimed landscape brings back his war physical and psychological injuries. Motivated by altruism, Douglas volunteers to "[stick] seedlings in the ground, trying to roll back progress just a tiny bit" (255). Powers uses the expression "roll back progress" to reverse advancement in the sense of stopping the continuous damage. Sadly, Douglas's good intentions cause more harm than good since, due to his actions, the logging companies improve their media image and increase timber trade: "Every time you stick one in the ground, it lets them raise the annual allowable cut" (232). Pavlicek is confronted with the truth observed earlier by Wohlleben, that "[n]ational forest's job is to get the cut out, cheap" (109). Taking everything into account, Douglas's actions towards the future of the planet turn out to be a backsliding: "[P]utting in babies so they can kill grandfathers" (232).

Apart from Pavlicek, other characters in *The Overstory* also question their belief in the values of modernity. The Hoel family, once proud of their

chestnut tree, leased their land to multinational corporations. This way, “[t]he Iowa earth has been brought to its rationalized end” (25). Rationality is one of the most favoured concepts of Enlightenment that is supposed to “rationalize” any human abuses. Regardless of that or maybe because of that, the inheritor of the Hoel estate, Nicholas, gets involved in tree-protecting activism. Similarly, Neelay who developed apps written for fun and free-sharing into a serious business—“[p]lay becomes the engine of human growth” (345)—started to have doubts about his company’s rationale. The video-game-producing company set up by Neelay is “a brand-new industry with an unlimited growth curve” (239). Neelay’s associates explain it to him: “[P]eople want to grow. Expand their empires . . . There’s no other way to run a world” (514). In fact, the aforementioned observation remains true with regard to Neelay’s flagship product under the telling name, *Mastery*: a computer game perfectly encapsulating the Anthropocene mentality about creating the world only in order to conquer it. His strategy works perfectly until it “just stop[s] making sense”: an “unlimited growth curve” in *Mastery* means being able to “[m]ine mountains, cut down woods, lay sheet metal across meadows, put up stupid castles and warehouses . . . build shit until the place fills up . . . make another continent or introduce new weapons” (470). This strategy leads to no outcome: “There’s no endgame, just a stagnant pyramiding scheme. Endless, pointless prosperity” (512). In the pursuit for another extended version, what was lost is that “always going somewhere” sooner or later will become pointless (515). Seeking meaningful development, Neelay takes steps that are seen by his board members as regressive, which costs him losing the control of his own company.

As argued before, Powers in *The Overstory* plays with several layers of e/Enlightenment meanings, drawing upon the legacy of historical Western philosophical thought (*Aufklärung*) and the Buddhist highest form of being. The Enlightenment and the Buddhist objective operate upon similar-sounding but not only tantamount notions. In *Beyond Enlightenment: Buddhism, Religion, Modernity*, Richard S. Cohen (1) explains that the name Buddha comes from Sanskrit (*budh*, *bodhi*), and, to a large extent, the dispute over the right interpretation (the English preference of the word “enlightened” over the “awakened”) depends upon the decision of the first English translation (Neumann), later popularized by Max Müller (3). Cohen claims that Müller’s first choice was far from accidental: “Kant defined Enlightenment, Müller preached Kant, Müller translated “buddha” as “the enlightened” (8). Cohen later generalizes this observation with reference to Buddhism in the West: “For scholars, enlightenment is an Enlightenment phenomenon” (9). This assumption became possible because Enlightenment at its outset was perceived as an amalgam of

“simultaneous, coequal, perfection of rationality, of religiosity, of morality, of humanity” (Cohen 15). Following this logic, European Enlightenment appropriated Buddhist destination even though the notions have quite dissimilar foundations. Dale S. Wright in his study *What is Buddhist Enlightenment* quotes Buddha's words from *The Large Sutra on Large Wisdom*: “Enlightenment is attained neither through a path nor a nonpath. Just enlightenment is the path and the path is enlightenment” (10).

The aforementioned path is a multi-staged process and a goal in itself and Powers's characters embark on it or disembark at different points in their lives. None of them fully manages to reach this stage and be released from their worldly passions and obsessions. On entering the United States, Sin Hsui, the father of Mimi Ma, wishing to render enlightenment in his basic English vocabulary and make it understandable to “this American woman official,” explains: “‘The True Thing mean: human beings, so small. And life, so very big’” (Powers 36). Comparably to the earliest translators of Buddha's words, Sin Hsui conveys enlightenment in a manner relatable to the Western world. This simple ungrammatical sentence captures well the paradox of the (post)Anthropocene: giving up the fantasies of humans as the centre of the (modern) world and as the most essential species on Earth. Sin Hsui's daughter inherits the ancient scroll depicting “[a]depts who have passed through the four stages of Enlightenment and now live in pure, knowing joy” (33), which she keeps in her office and takes with her after being fired, and therefore freed from the corporate mentality. The four stages of the Buddhist enlightenment are Sotāpanna (Stream Enterer), Sakādagami (Once Returner), Anāgāmi (Never Returner) and Arahant, which means Fully Enlightened (“Freeing Oneself from Suffering”). A Stream Enterer when leaving behind the Western *Aufklärung*, may become a Never Returner to the world of modernity values and their drives (i.e. Pavlicek) or Once Returner (i.e. Adam Appich who resumed his academic career and the life he had before). In *The Overstory*, becoming Arahant results from questioning the European Enlightenment project.

The third area of enlightenment in Powers's novel is connected with technology and its idiom. The possibly ironic usage of IT jargon is employed in a popular 21st-century mass-marketed “Enlightenment” series for coders (i.e. *JavaScript Enlightenment*, *HTML Enlightenment*, etc.). This blatant reference to the project of modernity is supposed to underscore the rational dimension of coding but also elevate this activity to a nearly spiritual world-creating dimension. Coding as a god-like activity of the Genesis seems to be close to Neelay's vision in *The Overstory*. However, after issuing *Mastery* 8, Neelay does not wish to replicate the same pattern of domination over the world in the ninth edition of his successful product. He admits: “*Mastery* is broken. A magic, money-printing

franchise needs to rethought” (513). The world-game intends to involve the active participation of the players; they would re-create life on Earth, get to know its mechanisms and comprehend its natural cycles, “growing *the world*, instead of yourself” (517). Following this idea, Neelay creates a code enabling people to question their *Mastery* with regard to the natural world and to learn about their assemblages. His business associates are sceptical about his idea: “Not more plants boss. You can’t make a game out of plants. Unless you give them bazookas” (515). Nonetheless, Neelay’s intended game is supposed to teach players “how to look” at the Earth’s multiplicity, how to understand other-than-human inhabitants. In the past, Neelay thought of evolution in terms of its development from its biological roots, through cultural constructs all the way to “another digital generation” (134). This time around, however, his game aims to fuse the evolutionary stages at all levels simultaneously: “New theories, new offspring, and more evolving species, all of them sharing a single goal: to find out how big life is, how connected, and what it would take for people to unsuicide. The Earth has become again the deepest, finest game, and the learners just its latest players” (600):

And the learners begin to turn all this data into sense.

They split and replicate, these master algorithms that Neelay lofts into the air. They’re just starting out, like simplest cells back in the Earth’s morning. But they’ve learned, in a few short decades, what it took molecules a billion years to learn to do. (608)

Just like in the case of *e/Enlightenment*, *The Overstory* employs both biological and digital idioms, fusing natural and technological discourses: Neelay believes that technology can mediate environmental thought to younger generation. His own company has an organic structure: “collective ecosystem—*Sempervirens*” (246) and his programing involves “branching” (119). For digitally-minded young people, the idiom of technology might help to understand ecological concepts better. When Neelay looks at the tree, he imagines “*the code that made this gigantic thing*” (246). Following the vein of translating nature via technology, Simard emphasizes that “forest was like the Internet too—the World Wide Web. But instead of computers linked by wires or radio waves, these trees were connected by mycorrhizal fungi.” Overall, the eco-strategies suggested by Simard and Powers’s Neelay seem to be close to the thought of N. Katherine Hayles elaborated in *How We Became Posthuman*, in which computer science and nature are not set in opposition but co-exist in a symbiotic interaction.

Neelay's Artificial Intelligence will evolve into different species, at the same time transforming data into sensual experiences by the means of algorithms: "[N]ew species, exchanging discoveries, as living code has exchanged itself from the beginning . . . They begin to link up, to fuse together, to merge their cells and form small communities" (Powers 614). The coder wants these species to become intermediaries between human and nonhuman worlds, being able "to translate between any human language and the language of green things" (617). In this way, the understanding of growth could be "mediated" to all beings so that they might grasp their differences. Out of all the eco-solutions presented in this article such as bio-planning or a seed bank, the idea of the digital simulation of "growing the world" seems most likely to succeed with regard to younger generations. It appears to have the widest, global range and it could allow to exercise several scenarios, showing that ecological solutions can be win-win options. On the other hand, it would be hard to come up with a tribute to technological advancement that is more "modern" in spirit than Artificial Intelligence and coded algorithms saving the planet.

For Patricia Westerford, enlightenment signifies writing a book entitled *Forest Salvation*: a "solitary act of sitting over the page and waiting for her hand to move may be as close as she'll ever get to the enlightenment of plants" (277). "The enlightenment of plants" cannot be achieved without stopping what protesters in *The Overstory* (all but Neelay and Patricia) describe as "harming trees." The question arises by what methods this goal can be achieved or what means can be justified. The narrative shows how the demonstration evolved from eco-activism into random bloodshed. There is a non-accidental semblance between the derivations of "the word *radical* . . . *Radix*. *Wrad*. *Root*. The plant's, the planet's brain" (410). The initially non-violent protest is carried out via social and traditional media campaigns using pro-ecological banners, chaining oneself to trees, blocking roads, doing sit-ins, and occupying the treetops. Gradually it escalates into trespassing and setting fire to tree-cutting machines. The protesters rationalize this escalation by arguing that in order to facilitate the clear-cutting of old trees, the US government turns a blind eye to the logging companies' deliberate arson practices. Literally fighting fire with fire, the tree protectors begin to set fire to loggers' equipment. In one such explosion, Olivia becomes mortally wounded but, fearing self-exposure, Adam refuses to help her. Many years later, Appich wonders: "Can an impending catastrophe justify small, pointed violence?" (539). This line of thinking shows clearly that from idealistic defenders of the old sequoias, the protestors imperceptibly turned into accidental but calculated perpetrators of violence. In a way,

they lost their innocence, like the protagonists of *Easy Rider* who “blew it,” failing to live up to their ideals. Buddhist enlightenment does not seem possible because Western Enlightenment (i.e. violent solutions) will always overpower its assumptions.

While he is not justifying eco-violence, the Anthropocene as described by Powers can be seen as an era that provides legal protection to humans at the expense of the lives of other beings. The law is seen as an instrument of securing the humanity’s economic growth. In other words, the law has been made by humans to protect humans. Powers argues: “The law must let every acre of living earth be turned into tarmac, if such is the desire of people” (588). In this vein, Hamilton in his article “Human Destiny in the Anthropocene” stresses that contemporary law’s existence depends upon “pretending that the Anthropocene is something for scientists alone to worry about” (37). In *The Overstory*, Adam Appich receives an unimaginable sentence of 140 years. In prison, he gets assaulted “senseless many times, not for being a terrorist, but . . . [f]or being a traitor to the race” (Powers 615). During the protest, environmentalists try in vain to refute the accusations of hating their own species and being regressive, but regardless of their intentions the narrative ends with trees being destroyed day after day: “Wilderness is gone. Forest has succumbed to chemically sustained silviculture. Four billion years of evolution, and that’s where the matter will end. Politically, practically, emotionally, intellectually: Humans are all that count, the final word. You cannot shut down human hunger. You cannot even slow it” (598).

In conclusion, Powers’s novel portrays characters aware that forests are living, communicating and organized beings, and that excessive tree-cutting can and should be regarded as “mass murder” (538). The tree ecosystem in *The Overstory* seems to be located at the very centre of the Anthropocene interest. Using wood as building material is inseparably intertwined with the ideals of modernity, whose foundations were laid with timber. In the examined novel, Powers draws upon multiple interpretations of what Cohen defines as e/Enlightenment: from the European project to the Buddhist concept and the IT appropriation of the notion. The present article has explored whether “enlightened” eco-solutions can be applied without “regressive” modern bias. When examining Powers’s *The Overstory* and studying the forest ecosystems and tree-human assemblages it becomes clear that the Enlightenment does not, and perhaps cannot, mean the well-being of both humans and nonhumans alike.

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