

6 Rooted in Other Worlds

Vanessa Lemm



What can we learn from plants and the way they are rooted in Earth and planetary life about the nature of the human being and its place in the world? This contribution seeks to connect two recent developments in the humanities and social sciences—a “plant turn” and a “planetary turn”—and bring both to bear on the question of how we should inhabit this planet now that our own actions are making it uninhabitable for so many members of the community of life. I ask what plant life can teach us about how to bridge worlds and reconnect humans to Earth and planetary life by focusing on images of rootedness in other worlds in Plato and Dostoevsky.

The Planetary Turn

Until recently, many assumed that, for human purposes, the Earth was an inert background: always there, meaningless, the backdrop for our human drama. But we now know that this is not the case. Rather, this backdrop is a complex Earth-system that makes our lives possible and that our capitalist, industrial civilisation is in the process of destabilising.

In a recent book, the postcolonial historian Dipesh Chakrabarty, one of the world’s leading experts on the history of climate change, distinguished between “global” and the “planetary” perspectives (Chakrabarty). Whereas the term “global,” as in “globalization,” refers to “a story of how we created this world, how we converted this planet into a spherical human domain” in which technology, empire, and capitalism run their course, for Chakrabarty the same term “global” in the expression “global warming” refers to an entirely different history, a planetary history. This history highlights a much older dimension of existence that does not include the human species. It is a history of life on Earth in which the Earth-system is the main actor and needs to respond creatively to changed external circumstances—for instance, when the very slight change in the Earth’s inclination towards the sun led, through a complex process, to a change in the atmosphere as new oxygen levels eliminated previous life forms

based on nitrogen and led to life forms that thrive on oxygen and to our current atmospheric composition.

The planetary perspective is relevant for plant studies insofar as plants, that is, organisms capable of photosynthesis, were the key players in this transformation of the atmosphere. This transformation has been termed the Great Oxygenation Event or Oxygen Catastrophe and led to the spread of aerobic forms of life and the extinction of non-aerobic forms. Thus, plant life not only is one of the oldest forms of life (over 350 million years old) in comparison to *homo sapiens* (approximately 300,000 years old), but also shows, as plant biologist Monica Gagliano put it, that “plants are perhaps the most fundamental form of life, providing sustenance, and thus enabling the existence of all animals, including humans” (Gagliano et al. vii). Plants represent about 99% of the Earth’s biomass, and it is thanks to them that the Earth produces an atmosphere that makes life possible for the vast majority of species.

From an anthropocentric perspective, human life and the circumstances in which we find ourselves are both subject to human design: we have the capacity to design these circumstances as an enveloping medium that closes us off from the meaninglessness of sheer existence, while at the same time protecting and comforting us, like a warm house in the middle of a cold winter (e.g. Sloterdijk). In contrast, the point of contemporary plant studies is precisely to break through our artificial environments and to connect us to unknown earthly and aerial worlds, such as the plant’s unique position in the world, that hold together earth and sky. Plants live two kinds of lives. An earthly life, with their roots deeply immersed in the soil, underground, chthonic, nocturnal. And an aerial life, turned towards our star, immersed in its sunlight, visible and interacting with other species. This is why the Italian philosopher Emmanuele Coccia argues that plant life “is the most intense, radical, and paradigmatic form of being in the world” and that, therefore, we need to interrogate plants if we want to understand the meaning of human existence and its dependence on environmental constraints that are not simply at its disposal and that cannot be custom designed or re-engineered (Coccia 5).

Perhaps it is because we are so dependent on plants for our planetary existence that they bear the brunt of our drive to find security within artificial worlds of our own making. It is not only the clearing of land to make space for urban dwelling, for animal husbandry, and for mining. It is not only that the industrialisation of agriculture requires massive use of pesticides that poison our daily lives without our being aware of it. Plants also bear the brunt of most

genetic manipulation and engineering. The patents of 90% of genetically modified crops grown in the United States are owned by a handful of powerful seed and pesticide manufacturers (Nealon). Precisely because human life is so plant-like, there is something particularly uncanny about the genetic modifications of plants in so far as these modifications suggest the ease with which we are in the process of transitioning to a so-called “trans-human” future in which genetically enhanced human life will itself be patented, and possibly owned by the equivalents of Bayer, the former Monsanto (Robin; Holmes).

Plants as Cosmic Mediators

In order to resist an anthropocentric ecology that sunders an irrational Earth from our meaningful world, plant philosopher Michael Marder speaks of “the environmental sagacity” of plants that stand in relation to their environment both as radically context-dependent and open systems thanks to “a series of internal communicative networks (e.g. biochemical and hormonal channels, or synaptic cell-cell communication) and external communication pathways that connect it to its environment” (Marder 1370; Lemm). Plants are inseparable from their environment, and, vice versa, their environment is inseparable from them to the point that one can no longer distinguish between an inside and an outside. Completely immersed in their environment, the lives of plants are fully enmeshed with the life of others. Plants are radically non-identitary, always exposed and open to the other and always also growing in communities with others (e.g. Lemm).

This insight into the lives of plants has important ethical implications because our Western political and legal traditions teach that our security ultimately depends on distinguishing ourselves from what surrounds us by erecting borders between those who are our friends and those who are our enemies, borders between what is mine and what is thine (Lindahl). Conversely, what we may learn from the life of plants is what it means to be human on a planet that must be necessarily shared with other forms of life and what it takes to coexist with and co-depend on other forms of life.

New ways of communicating with non-human forms of life are required for us to reconnect with the Earth and the cosmos, including plants. This would mean cultivating new forms of respect and care for human and non-human life. We need to reject the Aristotelian hierarchy of the souls and learn from plants how to communicate with our environment. This insight has led scholars in plant biology to ask the question of whether a plant language exists. According

to Gagliano, plants invite us to “a speaking without words, a listening without hearing, that humankind must learn to cultivate for the sake of the future we wish to share with each other and with other beings” (Gagliano et al. xx).

What appears remarkable about plants is their “double nature,” that is, their capacity to gather and hold together both the earth and the starry heavens, in the form of sunlight, and thus to participate in fashioning the atmosphere for life on this planet. These characteristics of plant life have led Coccia to speak of plants as “cosmic mediators” (Coccia 81). From an Earth-system science perspective, plant life can also teach us that we need to be mindful not only of the atmospheric conditions of life on Earth, but also of the astral dimensions of life, which nowadays are studied by astrobiology. The findings of astrobiologists are bringing about a renaissance of an ancient belief, namely, that life on Earth may have come from the stars and that we ourselves are made up of the same stuff as stars (Cumont; Hokari).

So, if plant life suggests the need to be in communication with non-human worlds, then we must be open to the possibility of what Nietzsche calls a “star friendship” (Nietzsche, *Gay Science*, aphorism 279, 523-4). In the Western philosophical tradition, the idea that the secret of human nature is hidden in the stars finds probably its most prominent source in Plato, who himself absorbed and reworked the science and the myths received from older African and Asian cultures. In *Timaeus*, Plato defines the human being as a celestial plant whose roots are in heaven, in the stars. Plato imagines the human being as rooted upwards in the divine cosmos.

We should think of the most authoritative part of our soul as a guardian spirit given to each of us by God and living in the summit of the body; this spirit can properly be said to lift us from the earth towards our home in heaven, as if we were a heavenly (and not earthbound) plant. For where the soul first grew into being, from there our divine part attaches us by the head to heavens, like a plant by its roots, and keeps our body upright (Plato, *Timaeus* 88).

The notion that our rootedness in other worlds distinguishes us and underpins our capacity for intellectual transcendence was not uncommon among the ancient Greeks. For the ancient Greeks, philosophy was, above all, cosmology because they thought that it is in the perfect, circular movement of the starry vault, the supra-terrestrial dimension of the cosmos, that we find orientation and moral guidance. Therefore, philosophers with a Platonic

orientation were typically depicted as gazing upwards into the heavens in contrast to Aristotelians, whose philosophical perspective was oriented downwards, towards the exploration of material forms of life, such as plants and animals. The upward gaze is of course a pitfall that the Greeks were well aware of. According to Plato's anecdote of the Greek sage and astronomer Thales, he left his house to look at the stars and fell into a ditch, causing his slave to burst out in laughter (Plato, *Theaetetus* 174a; Blumenberg 14-21, 46-53). The message here is clear: no matter how deep and far we think, we should keep our feet well planted on the earth because we are not only celestial beings, but also earthlings.

Now, there is also another version of Thales's story. In this version, Thales intentionally went into the earth and dug a well in order to observe more clearly the night skies. He did so because he wanted to understand and predict the weather; he was developing the science of meteorology; with this knowledge, he speculated on the grain market and became very wealthy. The study of the cosmos has always had a speculative side to it, speculative in a philosophical and mathematical sense, but also speculative in an economic sense. Today this speculative drive behind the exploration of space seems to animate individuals like Elon Musk who are on a "transhumanist" mission to abandon the Earth and transform *homo sapiens* into a "multi-planet species and true spacefaring civilization," viewing planets and stars from the perspective of their inexhaustibly extractivist potential (Sheetz). But who owns the heavens? Nowadays, there is a race to space to be outsourced to astropreneurs, with space becoming the final frontier that is for sale to the wealthy few (Gorman).

The problem with looking at the stars from Plato's perspective, according to French ecological thinker Bruno Latour, is that we project onto space a mathematical geometry that gives us the illusion that we can formulate and so anticipate the trajectories of everything under and beyond the sun (Latour). The danger of such celestial visions is that they make us lose sight of the contingencies of our earthly atmosphere, of the unpredictable and far messier and more fragile systems of feedback cycles and loops that characterise the Earth. But do we have to choose between earth and heavens? What can the dual nature of plants tell us about how to be doubly rooted, above and below?

Rooted in Two Worlds

I would like to close with a literary image drawn from Fyodor Dostoevsky's masterpiece, *The Brothers Karamazov*. This image is paradigmatic of a different sense of rootedness, a rootedness in other worlds that draws us back to the Earth

and our responsibility for it. The image is from “Conversations and Exhortations of Father Zossima” and is about Alyosha, one of the three Karamazov brothers, who decides to become a monk and adopts Father Zossima’s teaching that the root of all love emerges from our living bond with other worlds: “We have been given a precious mystic sense of our living bond with the other world, with the higher heavenly world, and the roots of our thoughts and feelings are not here but in other worlds” (245). For Zossima, our displacement on Earth is due to our rootedness in other worlds. On this point, Zossima stands in the Platonic tradition of orientating ourselves towards the cosmos, but for Zossima, our position is not due to reason as abstract from lived experience but due to a “living bond with other worlds”:

On earth, indeed, we are, as it were, astray ... Much on earth is hidden from us, but to make up for that we have been given a precious mystic sense of our living bond with the other world, with the higher heavenly world, and the roots of our thoughts and feelings are not here but in other worlds. That is why the philosophers say that we cannot apprehend the reality of things on earth (245).

Unlike Plato, Zossima acknowledges the limits of human knowledge. Whereas Plato seeks to overcome these limits through the human being’s capacity for transcendence, Zossima believes that only our living bond with other worlds can make life on Earth worth living. Plato’s humanism is centred on the human being’s rational capacity to know other worlds that transcend the world of lived experience. Instead, Zossima’s spiritual existentialism is based on the idea that to realise our human nature means to connect with these other worlds. We need to be like plants, orientated towards both Earthly and planetary life, immanent and transcendent. And also like plants, we need to turn ourselves inside out, expose, offer, and give ourselves to the other. Adopting the model of the life of the plant requires an externalisation based on the acceptance that our role in this world depends on something other than human for our lives to be meaningful and worth living. This otherness is expressed through the image of the divine seed, which withholds the secret of our existence. For Zossima, our happiness on Earth depends on our capacity to receive this gift (seed) and realise that it is through our connection and relationship with others that our lives take on meaning:

God took seeds from different worlds and sowed them on this earth, and His garden grew up and everything came up that could come up, but what grows lives and is alive only through the feeling of its contact with other mysterious worlds. If that feeling grows weak or is destroyed in you, the heavenly growth will die away in you. Then you will be indifferent to life and even grow to hate it. That's what I think (245).

In contrast to Plato, who understands our divine origin in other worlds as symbolic for our capacity for knowledge, as a centre of gravity pulling us upwards and away from the Earth, Zossima inverts Plato's celestial plant and reconnects us with life on earth: "Love the animals, love the plants, love everything. If you love everything, you will perceive the divine mystery in things. Once you perceive it, you will begin to comprehend it better every day. And you will come at last to love the whole world with an all-embracing love" (244).

For Zossima, not reason and knowledge, but love and compassion are the nature of the human being. However, rather than belonging to us, this nature is a gift we received from other worlds, a gift that comes with a calling, the responsibility of care for the Earth. According to Zossima, our role in the world is all about responding to our relationship with others. Like a plant, we are called to be cosmic mediators, building bridges between worlds and acknowledging our dependency on other forms of life, human and non-human. Love and care for the Earth allows us to see that everything is in everything and that everything belongs to everything. As such, our rootedness in other worlds does not make us strangers to the Earth, as in Plato. Instead, it predestines us to be open to alterity, to multiple worlds and perspectives. The responsibility of love and care for the Earth obliges us to question the mindless extrapolation from the Earth.

Where does Zossima's teaching about human nature and our place in the world leave us? Today, in the face of climate change and environmental catastrophes, love and responsibility of and for the Earth is perhaps needed more than ever. Especially, to challenge those who are on the "transhumanist" mission of abandoning this earth. Instead, what we need is attention to the many worlds that are found here on earth, in a multi-species and symbiotic sense of coexistence and inter-relatedness between living beings and living matter. This is needed far more than setting out to "colonise" other planets. Interestingly, Zossima's teaching resonates with Gayatri Spivak's postcolonial approach to

planetary thinking (Spivak). Echoing French poststructuralist philosophers, she avers: “To be human is to be intended toward the other.” And like Zossima, she conceives the openness to the other through the figure of the gift, which we refer to by the name of “mother,” “nature,” “god,” “earth,” and so forth. Spivak invites us to imagine ourselves, like Zossima, as “planetary subjects rather than global agents, planetary creatures rather than global entities” and insists that to overcome the current predicament “[w]e must persistently educate ourselves into this peculiar mindset” (1223).

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