PLANETARY DEMOCRACY: TOWARDS RADICAL INCLUSIVITY

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I. The Need for Planetary Democracy

The planet must be taken into account when democracy is defined, practiced, and evaluated. Democracies interact with planetary forces, from (induced) seismicity to (anthropogenic) space weather, and are often mediated by technologies ranging from hardware sensors to machine learning algorithms. Pandemics, extreme weather, or forest fires fostered by human activity increasingly shift democratic practice from action to reaction. We do not simply live on a planet, we are a part of it. Our democracies, however, do not reflect this.

Taking Abraham Lincoln's famous definition of democracy in the Gettysburg Address (1863) as a *government of, by and for the people* as a starting point, one only has to add three words to this definition to move democracy towards radical inclusivity: *and the planet*.

What does that mean? In the case of the oldest existing nation-state democracy, when Lincoln formulated this definition, "the people" meant white male property owners. It was only in 1920 that the 19th Amendment to the US Constitution granted women the right to vote, and it took until 1965 for the Voting Rights Act to do away with discriminatory practices

that had kept Black people from voting. Each stage of inclusion, which has taken place in similar but different forms around the globe, contributed to a democratization of democracies. When those who had lacked agency and were seen primarily as a resource for labor or reproduction were included, they reshaped democracies and redistributed power, and, as a result, opened up new opportunities for a better quality of life for many.

It is not just the exclusion of various humans that is a democratic failure — so too might be the exclusion of non-humans. A simple change of words can reveal this. Sir James Grant, member of parliament for Whitehaven, spoke on May 5, 1913 in the Parliament of the United Kingdom:

> *"[M]en have the vote and the power at the present moment; I say for Heaven's sake let us keep it. We are controlled and worried enough by women at the present time, and I have heard no reason given why we should alter the present state of affairs."* (Grant, 1913)

Throughout the history of democracy, it is easy to find similar views about marginalized groups, ranging from children to migrants to people with disabilities. To illustrate the purpose of radical inclusivity towards the planet advocated for in this intervention, one can change two words of the statement above:

> *"*Humans *have the vote and the power at the present moment; I say for Heaven's sake let us keep it. We are controlled and worried enough by the* planet *at the present time, and I have heard no reason given why we should alter the present state of affairs."*

If we do not invent novel forms of democracy that include the more-than-human, then anthropocentric, epistemic, and thus political oppression will prevail. A truly planetary account of democracy is therefore a radically inclusive one that keeps the Earth habitable. It has to extend towards the inclusion of (in)active matter, flora and fauna, and artificial intelligence. Thus, it must combine the "all-affected principle", i.e., all those affected by a decision should be involved in its making, with an "all-effect principle" that encompasses all the planetary agencies that effect democracies.

A planetary democracy has to take the more-than-human world into account by recognizing the interconnectedness of humans and non-humans. For example, in New Zealand, Mount Taranaki, the Whanganui River, and the Te Urewera rainforest have all recently become legal entities with spokespersons representing their interests, an initiative that was initiated by the indigenous Māori (Geddis and Ruru, 2020). Such environmental personhood also exists for the Ganges River in India, which has its own "right to life," for part of the Amazon rainforest, which was declared a legal person in Columbia, and for the saltwater lagoon Mar Menor in Spain. Ecuador has even enshrined the "Rights of Nature" in its constitution, as an inalienable right of ecosystems to exist and flourish. Similar to designating environmental personhood, the European Parliament convened a Commission to investigate the possibility of conferring electronic personhood on autonomous robots that "make autonomous decisions or otherwise interact with third parties independently" (European Parliament, 2017).

However, a planetary democracy goes beyond the realization of non-human personhood through human proxy representation. Here, the "by" in Lincoln's Gettysburg definition is not realized since the non-human does not itself participate. The same holds true for academic and artistic proposals to represent non-humans. To take the "by" seriously in such proposals, micro-level interpretations of the possibly political activities non-humans engage in are required — but this calls for listening practices that exceed the capabilities of human senses (Mejer, 2019). This can be achieved, however, through the potential of sensors, machine learning, and semiotics that allow humans to understand, for example, communication between bats that is otherwise indecipherable to human ears, or electronic impulses sent by mycological organisms that are thought to be comparable to human language (Adamatzky, 2022; Chaverri et al., 2018; Romero et al., 2021).

The precondition to take the "by" seriously and to directly include the non-human is likely to be met within the next few years as our knowledge of non-human communication and collective decision-making increases.

Sperm whales, for example, are a species with advanced brain structures, mental skills, group behaviors, and distinct clicking sounds for communication. The Cetacean Translation Initiative (CETI, www.projectceti.org) uses robots to capture large amounts of these sounds, which machine learning algorithms analyze to identify sperm whale communication patterns and, potentially, to one day be able to communicate with them (Andreas et al., 2022). Researchers are not only conducting comparable studies on the consciousness and communicative systems of other non-human animals — such as the naked mole-rat (Barker, 2021) — they are also examining the means through which flora communicate via the Mycorrhizal networks of forests, or the ways in which (in)active matter arranges itself in and through volcanos (Calvo et al., 2021; Simard, 2021). What is more, it is becoming apparent that non-human life forms engage in interspecies dialogue with each other. Plants can perceive and discern the sounds of specific insects, which allows them to tell the harmful from the harmless; for instance, flower heads fill their nectaries within minutes if bees fly into their proximity. The world echoes with the planet's sounds, which human ears cannot hear — but technologies can (Bakker, 2022). Additionally, collective decision-making does not rely only on features mostly ascribed to neurotypical humans. Large groups of red deer rest while chewing their food, and the herd decides to leave a resting place when more than half of the adults have gotten up; they use their legs to signal their choice. Many other species use their bodies to drive collective decision-making processes forward, including buffalos, pigeons, and honeybees (Bridle, 2022).

Even more, new technologies can be used, from inner Earth to interplanetary space, to identify signs and meanings of vast more-than-human agencies across Earth's spheres, such as hurricanes. It might not always be possible to communicate with these entities, yet it is feasible to establish functional relationships with (in)active matter, such as magnetism and gravity, or the phenomenon of vibration. Take gravitation's agency, ranging from effects on our bodies to our settlements as an example. Recent theories even suggest that human bodies may grow hypersensitive to gravitational forces due to stress factors, such as weight gain or irregular sleeping patterns, with potential impacts on their gastrointestinal health (Wapner,

2023). In addition to affecting human bodies, the moon's gravitational pull causes oceanic waters to shift in tidal patterns, which has shaped human societies and their settlements significantly and continues to do so (Coughenour et al., 2009). These planetary forces are barely present in today's politics and are not up for compromises or common agreements, but rather act in the form of cause–effect. Similarly, the exchange with artificial intelligence, as it is applied in seemingly autonomous robots and in the wider technosphere, effects democracies, thereby necessitating careful consideration of direct participation in a planetary democracy.

The establishment of planetary democracy will require extensive democratic experimentation, the likes of which are demonstrated by pioneering initiatives, such as the Embassy of the North Sea (www.embassyofthenorthsea.com) or the Terrao forest that owns itself (https://terrao.org). We must identify which institutions — and not necessarily those centered around a parliament — and which processes, designed to also include non-humans unable to communicate verbally, need to be invented. Therefore, humans should enter into exchange with (in)active matter, flora and fauna, and artificial intelligence. We must also analyze whether, for the integrity of ecoregions, bioregions, and biogeographic realms, their collective yet differentiated "will" can be identified, as is already done with the aggregation of political will at the level of states, countries, or supranational organizations that might be reconfigured based on Anthromes. Experimentation in this direction can use the insights gathered from, for example, the Destination Earth (DestinE) initiative of the European Union, which aims to build a digital twin of the Earth to observe, model, and forecast the interplay between natural events and human activities.

Despite the acknowledgement of non-human agency, a planetary democracy has to retain human responsibility. Humans control the inclusion and exclusion of knowledges and ways of being: even a more-than-human political institution and respective processes would have to be established by humans. Accordingly, potential barriers to a planetary democracy have to be considered, including anthropocentric path dependencies on mental, institutional, and material infrastructures. During the period of experimentation with planetary approaches to democracy, uncertain situations with multiple and diverse forms of more-than-human

agencies are likely to pose challenges. In particular, humans might fear being equated with the non-human and losing control over the planet — a control we never actually had.

III. Possible Implications of Planetary Democracy

The realization of a planetary democracy can have at least three effects. First, a planetary democracy can democratize democracies, enabling recognition of their proactive agency in shaping the future. It is hardly surprising that, to date, democracies barely recognize the bi-directionality of planet–human relations. When the constitutions of most Western democracies were written, the Enlightenment paradigm painted a picture of society being freed from earthly rhythms and the chains of nature. This supposed de-coupling from nature ultimately became a planet-wide problem, as humans have massively expanded their influence on the Earth's systems since the Great Acceleration, namely the simultaneous rise of socioeconomic human activity and its impact on the Earth's systems (Steffen et al., 2015). During the Anthropocene, human societies have acquired planetary forces, and creative leeway to change the planet has emerged, yet institutions that might democratize this leeway have been and still are missing. As a consequence, democracies are now being confronted not only with various planetary feedbacks, such as wildfires, but also with movements whose claims range from regressive "Great-Again" "retrotopias" of a romanticized fossil fuel-based past to technocratic calls for a climate emergency (vvv and Meisch, 2022). A planetary democracy aims to capture and democratize creative leeway, thus eroding the basis for these movements. Avenues towards a planetary democracy begin to form, for example, when movements propagate an intersectional environmentalism in which the struggle for civil rights and the struggle for the planet converge (www.intersectionalenvironmentalist.com).

Second, a planetary democracy is more likely to ensure that this planet remains habitable. A planetary account of democracy can reconnect societies with the planet and advance the recognition of their interdependence and responsibility towards the more-than-human. It thus fosters respect for the diversity and integrity of (in)active matter, flora and fauna and, most

recently, a technosphere. This approach of keeping the planet habitable in a radically inclusive manner, grounded in an understanding of the interconnectedness of all beings and elements within the larger cosmos, has been identified as "cosmovivialism": "[C]osmovivir may be a proposal for a partially connected commons achieved without canceling out the uncommonalities among worlds because the latter are the condition of possibility of the for¬mer: a commons across worlds whose interest in common is uncommon to each other" (de la Cadena, 2015, pp. 285–86).

Third, a planetary account of democracy can help to leave behind (inter)nationalism by including the non-human in world politics (Pereira et al., 2020; Pedersen, 2020). Nation-states and the international system are not natural or fixed entities. They are historical and contingent constructions that have only emerged as the dominant political order within the last centuries — and not all countries are nation-states and some nations have no state. By creating novel political planetary entities, such as ecoregions, bioregions, and biogeographic realms, in addition to or even as a long-term replacement for nation-states, democracies can emerge in line with the earthly multitudes necessary to cope with and flourish within the multiplicity of an ever-changing planet (Clark and Szerszynski, 2020). To "think like a planet" is thus also an act of freeing humankind from the chains of an anthropocentric and nation-state centered world view.

Just as planetary scientists propose formulas approximating the state of the universe, social scientists and humanities scholars must propose and justify institutions that approximate the state of societies within this universe as part of planet Earth. The time to do so is now.

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