European modernisation ruptured those bonds. It transformed places into territories that require authorisation by states through grants of citizenship for people to live and work. My point is, whatever the law may say about property and labour markets, the reality of life has reaffirmed over and over again through crises after crises that have riddled capitalist modernity, that it is not possible to reproduce the conditions necessary for human life when the relationship between nature and people is ruptured, or when it becomes an abusive relationship.

My point is that nature and people can never become commodities like shoes or shirts. People can work nature, grow cotton or make leather, and sell the shirts and shoes as products of their labour and engagement with nature. But when nature and labour begin to be bought and sold in their own right, as has happened since 'the original sin', both are destroyed. This is what we are witnessing today on a global scale.

You are a visual artist with deep commitment to social and global justice. I have seen and actively participated in some of your projects, for example in *New World Summit – Utrecht* (2016) and *New World Embassy: Rojava* (2016). What was it in *What's Wrong With Rights?* that triggered your artistic and visual imaginary? The book is an academic engagement with law, a subject that many will consider dry and difficult. How did you identify artistic potential in the ideas that the book develops?

Introduction to the Court for Intergenerational Climate Crimes (CICC)

A conversation between Radha D'Souza & Jonas Staal

The Court for Intergenerational Climate Crimes (CICC) is a project initiated by Radha D'Souza and Jonas Staal, produced in collaboration with Framer Framed. The exhibition launches September 4th 2021 at Framer Framed and features a large-scale tribunal installation. From the 28th-31st of October, the CICC will stage four cases against multinational corporations and the Dutch state. The contributions in this section are from the judges who will be overseeing the proceedings in the court.

Your book What's Wrong With Rights is the starting point for our collaboration on the *Court for Intergenerational Climate* Crimes (CICC). You analyse how the liberal discourse on rights translates to the human rights regime. Rather than strengthening the principle of the right to selfdetermination, the human rights regime individuates rights as a property, to the point of corporations being able to acquire personhood as well. You also describe how the human rights regime comes with mechanisms of coercion through international election monitoring and World Bank indebtment, undermining other forms of societal organisation and lifeforms that defend the need to redistribute rights instead. In that light, you warn that social movements should be careful of playing into the narrative of the human rights regime, as this risks strengthening the powers that they aim to overcome. Could you say something more about what a redistribution of rights would entail in the context of intergenerational climate justice? And could you elaborate on what you have described as 'nature as a relation' that demands that we do not limit rights to human individuals alone, but acknowledge our interdependency with non-human and other-than-human comrades as well?

Radha D'Souza:

In the book I write about land and nature being a relationship to challenge certain ideas first spawned during the European Enlightenment. Feudal societies everywhere were land-centric societies. Even though peasants and serfs were exploited, they were tied to nature, community and place. The European Enlightenment transformed land and nature into property, and people into 'labour force'. The separation of nature and people, often forcibly, transformed both into commodities – living nature and people became 'things' that could be bought and sold in property and labour 'markets'. I call this forcible rupture of the relationship between nature and people and their eviction from places 'the original sin' of capitalism.

JS:

When people ask me about your book and what it means to redistribute rights not as individual property, but as a collective endeavour, I always summarise it as follows: when the rights of a river are harmed, the rights of all humans, animals and plants that live in interdependency with that river are harmed as well. Thus, you shatter the illusion that rights can be individualised: rights are interdependent, and intergenerational, meaning that our actions in the present will be inherited by unborn comradely humans, animals and plant life of the future. Rights cannot be individuated but can also not be bound by the time in which we live, but concern both ancestors and successors.

For me, this understanding of nature-as-relation that you bring about, is essential in conceptualising new forms of emancipatory institutions that can enact principles of social justice, and I was excited about the idea that we could translate some of your theoretical models into spatial morphologies. An idea always has a form. It offers a chance to not only study an idea, but inhabit it, embody it, and to make it actionable in different ways. This is how I saw our dialogue resulting in the CICC: an alternative, more-than-human tribunal to prosecute climate crimes of the past, present and future, in defence of an interdependent ecology of comradeship and a redistribution of rights - against what you termed the 'original sin of capitalism'.

As a result, the space of the court that you and I have worked on, has become a kind of ecology in its own right – but one that does not deny the violation brought about by racial capitalism. Half of our court will be occupied by humans, the other half by images of extinct plants and animals, perished from the advent of colonialism – what you have described as the actual beginning of the climate catastrophe – as well as ammonite fossils: literally the fossils in fossil fuel. The fossils created by millions of years of earth work in the form of disintegrated bodies of animals and plants that are now

burned to accelerate the present and make an inhabitable future impossible. They stand as non-human witnesses in our court, as comradely ancestors, and as evidence of violated ties in our shared ecology.

But what does it mean for you, as a writer, a thinker, activist and lawyer to engage with the field of art?

RDS:

Your question touches a raw nerve in me as a writer, thinker, activist and lawyer. The most important precondition for a thinker is the freedom to think. Liberal rights to freedom of speech, expression and conscience throttle the very freedom to think that the right promises. Let me explain.

Most of the time, people go about their everyday lives engaging in activities to provide for their families and cement social bonds - festivals and rituals for example. However, every society throughout human civilisation has always had, and must have. some members of their communities who think about the future of the communities and the conditions necessary for its reproduction as a social unit, which of course includes their relationship to their natural environment. For this reason, indigenous communities valued their shamans and elders, feudal communities produced their gurus and itinerant preachers outside the formal institutions of religion. Women played a big part in thinking about futures of natures and communities, and ancient civilisations assigned a special place for them in society. These men and women foresaw dangers and acted like antennas and sensors to warn about existential threats. This social role of thinkers is magnified during times of crisis. Unlike animals, human beings do not have an instinctive sense of social danger and collective self-preservation. Human beings must cultivate that intuition through practice and knowledge. Thinkers and teachers play a big role in safeguarding conditions for life by acting as social antennas and sensors. Liberalism takes away the capacities of thinkers

to act like social antennas and sensors of their communities to warn them about impending dangers to their survival.

Liberalism does this first and foremost by

making thinking a paid professional occupation – and an individualist one at that. Thinkers are alienated from the world they think about. In a paid job, intellectuals are expected to think about the survival of the institutions that pay them, which is not the same thing as survival of natures and communities. When scholars speak about dangers to natures and communities, about the disastrous consequences of carbon emissions for example, they are expected by the institutions that employ them to do so in a way that leads to its certification, trading and carbon markets, so that corporations and states can survive first by emitting carbon, but also profit from the solutions. Secondly, liberalism dismisses ontological questions by which I mean the big questions about our life-world, such as: what is the meaning of life, what is its purpose, what is human destiny, ethics and aesthetics? In liberal philosophy these are worthless questions because they do not directly yield marketable results. Instead, liberalism privileges statistical reasoning necessary to administer large organisations, empiricism that limits thinking to what is visible on the surface, and atomism necessary for turning relations into 'things'. Knowledge becomes compartmentalised into disciplinary silos such that we reduce the majesty of the universe into a small sliver of it. We lose perspectives on life as a result because we have no way of putting production, consumption and exchange into the wider context of human destiny and purpose. Knowledge becomes 'knowledge production' and a marketable commodity in service of the markets.

Merchants have always existed in all civilisations as people who facilitated exchange of goods and services. European Enlightenment, for the first time, makes the merchant's view of the world and the merchant's purpose the human world view and purpose. What does all this have to do with your

question about what it means as a thinker to engage with the field of art? In one word it means freedom, the freedom to think.

Today, art is the only small island left that gives the space for thinkers to think. Of course, art is also hugely commodified and there is a global art market out there. Yet, at a time when universities are closing down philosophy departments, when philosophers are called upon to produce practically 'useful' knowledge, when the rupture with nature has alienated so many, that even many radical thinkers are often unable to join the dots, radical art offers the space from where new thinking can emerge about the big existential questions of our times.

You said that, for you, ideas always have form. Equally, we can say form shapes ideas. Human beings are a concept-dependent species. They need concepts to navigate their way around the world – when they see fire, they should be able to imagine what it will do to them if they touch it. Nature is an infinite source of forms, and for this reason it becomes an inexhaustible source of concepts and ideas. Nature exists as forms, and those forms in nature have shaped human concepts and enabled human beings to negotiate the world since times immemorial. In yoga for example, the idea that standing like a palm tree (tada-padmasana) strengthens your spinal cord, derives from a very scientific idea about the importance of posture for spinal strength, as well as from the very visual image of a palm tree. First, it invites you to imagine your back to be straight like a palm tree, and then it asks you to imitate it in daily exercises to keep your spine and therefore body healthy. All exercises in yoga mimic postures of animals and trees.

When our relation to nature is ruptured, as liberalism does, we lose our capacities to develop concepts and ideas from the infinite treasure trove of forms that nature provides. Here too art enables us to expand our imaginaries by visualising the fate of so many species and so much of nature that has become extinct because of our destruc-

tive social institutions. A depiction of the devastation caused by deforestation driven by states and corporations acting as accomplices could help us to imagine apocalyptic destruction of planet Earth. It could help us envisage the consequences of continuing to believe that states and corporations can be right bearing persons like you and me, and that they can be, both, the cause of our destruction and our saviours at the same time.

The CICC project is attempting to expand people's imaginaries. To show how our legal systems which actualise philosophical and political liberalism, something my book delves into, creates these modern-day monsters called legal persons – like corporations and states – which are the focus of the CICC project. These legal persons work to reproduce the conditions of existence for corporations and states in ways that make it impossible for human beings to reproduce the conditions for their existence and for nature to regenerate. States and corporations say their survival is essential for the survival of life. The CICC project aims to show exactly the opposite is true – that states and corporations are not 'people' but legally established social structures that threaten the survival of all life forms and have already made extinction a reality for many species, including human communities.

Your art has always highlighted social movements and struggles. Historically, art has been an important mobiliser of social change. Do you see a movement of artists emerging in the same way from the intergenerational climate crisis that we are witnessing? What would the stylistic features of the art forms look like? Can it challenge the dystopic art movements inspired by pessimism that we are seeing in so many places today?

JS

For me, the way you describe art relates to the radical imaginary. The institutions of art, its infrastructures and financialisation, as you mentioned, are primarily tasked with reproducing legitimacy of the existing political and economic order. Artists are companies and artworks are stocks – its most substantial impact is, as artist Hito Steyerl observed, 'to make capitalism beautiful'. But the imaginary is not limited to the commodification of art, it belongs to everyone, and relates to our capability to imagine the world otherwise. And to change the world, we have to imagine change first. In that sense, artistic imagination is an essential component of any process of political transformation.

Of course, imagination cannot stand in and of itself. As artists dedicated to emancipatory politics, we re-imagine the world not as a task in and of itself, but to construct reality differently. To ensure a redistribution of wealth, to ensure common ownership, to dismantle the primacy of private property, to establish equal access to healthcare, education and culture. To achieve this, we have to be more than artists, but also organisers and propagators, agitators and mobilisers, and, most of all, comrades in social movements and emancipatory political organisations.

From the work of Forensic Architecture dealing with the weaponisation of the climate in perpetuating war crimes, to the agitational performative protests under the slogan 'We are nature defending itself' by the Laboratory for Insurrectionary Imagination, and the food and seed activism of Zayaan Khan, I certainly see artists and cultural workers organising to confront the political and economic forces that drive the climate catastrophe. But more importantly, I see that they don't do this under the guise of the 'autonomist artist', but as part of a relational alliance with progressive lawyers, activists and emancipatory political leaders. Just as you make clear that we should reject the individuation of rights in order not to reproduce liberal fallacy, so should we equally not individuate the imagination, and the work to transform imagination into political reality.

This for me is essential, to understand artistic imagination, to understand radical imagination, as common and relational. To cut it from our larger struggle, to isolate

it, is to reproduce the separation that you describe between humans and nature. It means to commodify the imagination as something that can be held, traded, priced, owned. Ideas have forms, and forms shape the practice and furthering of ideas – this is at the core of an interdependent emancipatory artistic and cultural practice that breaks with the idea of the sovereign artist. The artistic and cultural heritage I work from is inherited from the new forms of art and culture that contributed to, and became possible through, new forms of politics. from the Soviet revolution to Thomas Sankara's eco-socialism, from the Sandinista's to the social ecology furthered by the Rojava Revolution.

That brings me to a hard question to answer. You and I, through your research in What's Wrong With Rights?, have conceptualised a visual morphology of an alternative climate tribunal. One that acts upon your proposition for a redistribution of rights, by proposing a space where we enact interdependent and intergenerational rights for our human, non-human, other-than-human, and more-than-human comradely ancestors. for the human, non-human, other-thanhuman, and more-than-human comrades living – surviving – our violated present, and for the unborn human, non-human. other-than-human and more-than human comrades yet to come. We have imagined this, but how will we bring it into practice? How do you envision, at this stage, the legal framework and procedures for the prosecution of intergenerational climate crimes in the CICC? Can we contribute to bridging the space between artistic and legal imagination, to shape political reality?

RDS:

The essence of your question is about the relationship of theory and practice. The relationship between knowing and acting is one of the big mysteries of life in my view. What impels us to act or do something? Liberalism has normalised the idea that knowledge will automatically lead to rational action for change, and that rights facilitate the passage from rational

knowledge to rational action. Is this true, however? There is a large body of scientific knowledge that has been warning us for many decades now that the way we exploit nature is having disastrous effects on our lives, and an equally large body of knowledge that tells us wars and corporate looting of the Third World conducted by military-industrial complexes are the main causes of the migration crisis that is occurring on a global scale. If knowledge and reason, mediated by rights, lead to actions for change, we would all be out on the streets to end all wars, all corporate looting and abuse of environment, and the politicians would readily bow to popular will and end abuse of natures and peoples, as they are supposed to do in theory. That is not happening, and it is not because we do not know what is wrong. This is where the attribution of personhood to states and corporations and their relations become so central - as the CICC project hopes to show.

The important thing to bear in mind is that change could happen and happen suddenly. Revolutions in history have always been unexpected events, they have always come as a surprise. Who thought the Bolsheviks would win? Or the French peasants would put the aristocrats under the guillotine, or that the Chinese would succeed in the Long March? Often these changes are sudden. Radical change happens when there is a constellation of conditions. The mighty Soviet Union suddenly and quickly imploded, as did the British Empire. George Floyd was by no means the first African American to be murdered by the police. Why did his murder ignite such global reaction? For twenty-five years people of Bristol in the UK had campaigned for removing the statue of the slave owner Colson, then one day on an impulse, with no planning whatsoever, they threw his statue into the river in a totally spontaneous way. How did that happen?

Institutions implode under the weight of their own contradictions. This is also true for states and corporations. The real question for political action is this: when the institutions implode, are we ready to seize the moment and change the world? For example, capitalism's collapse in the early twentieth century led to two world wars, and opened up spaces for political actions in unexpected ways. The fascists, and different schools of liberals, intervened to restore and rebuild capitalism. The socialists and anti-colonialists also seized the moment to push their own agendas for liberation. They had been preparing for a long time so that when the institutions of markets, states. and civil society imploded, they had their own agendas ready at hand, and they could tailor their interventions to gain maximum advantage for themselves. They did succeed in doing that, at least partially. We can and must continue to take inspiration from our histories, study closely why and how revolutionary change occurs, continue to expand our knowledge of the world, how it works, how it exploits and oppresses, and continue to reimagine a different kind of world, continue to dream of freedom and prepare to seize the moment when it comes. States and corporations, the institutional pillars of contemporary societies, are already caught up in so many internal contradictions of their own making - global/national, economic/political, ideological/practical and much else. They could implode unexpectedly. By helping people to reimagine a different kind of world, we are preparing for that moment, so that we can seize it as others have done in the past.

The well-spring of action is our 'inner world', call it emotional, psychological, spiritual, ethical, aesthetical whatever. Our 'inner world' is formed by our social world over extended time-space conjunctures. Liberalism negates this very deep well-spring such that we are no longer able to comprehend our sources of inspiration and action. Like the nature-labour dualism with which we started this conversation. the body-mind dualism is also foundational to liberal thought. It took the European Enlightenment thinkers a long time through successive movements in philosophy, theology and science to establish the bodymind or mind-matter dualism.

Like with the forced displacement of people from land that alienated them from nature, the body-mind dualism introduces a schizophrenic relationship between our biological existence, food, clothing, shelter and such, our social existence, friends, family, solidarity, community and such, and our 'inner life'. Having thus separated nature from people and people from their 'inner lives', liberalism seeks to reconnect the three through 'free will', which is also a fundamental concept. 'Free will' is premised on reason which operates in the domain of the mind. Collective action cannot come from atomised minds, however. That is why radical art and literature, that is, art and literature that is not commodified, is so essential to restore our 'inner self' which is the well-spring for action. There cannot be transformative change without knowledge that speaks to our reason. At the same time there cannot be transformative action if that knowledge is not accompanied by art, literature and music that can speak to our hearts, our ethics and aesthetics.

The CICC project deconstructs legal frameworks and procedures and shows how they are based on the ontological falsehood that state and corporations are 'persons'. The project exposes how the law creates these golems and breathes life into them, and how the extended lives of states and corporations as legal persons allows them to commit crimes that are intergenerational. By deconstructing and exposing the state-corporation relationships and their complicity in intergenerational climate crimes, the CICC project will, I hope, contribute to bridging the gap not only between artistic and legal imaginations, but also help to connect our minds to our 'inner self' so that we are able to act to shape political and social realities.

- 1 D'Souza, Radha. What's Wrong With Rights? Social Movements, Law and Liberal Imaginations. London: Pluto Press, 2018.
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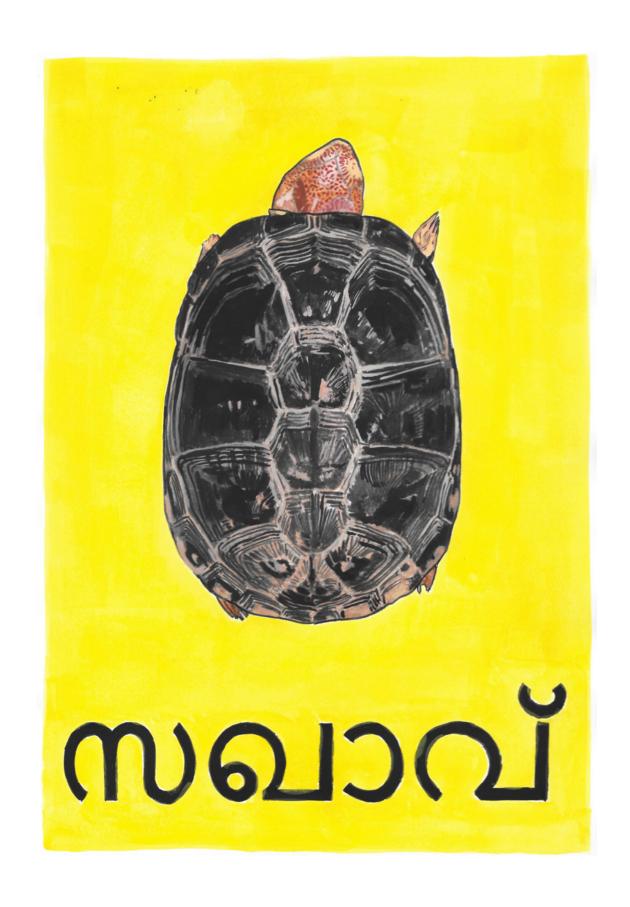












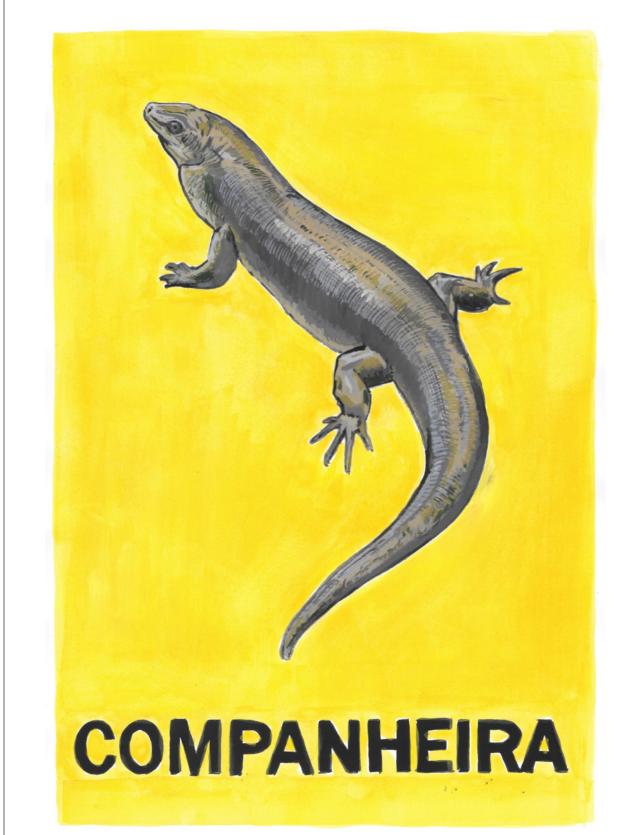






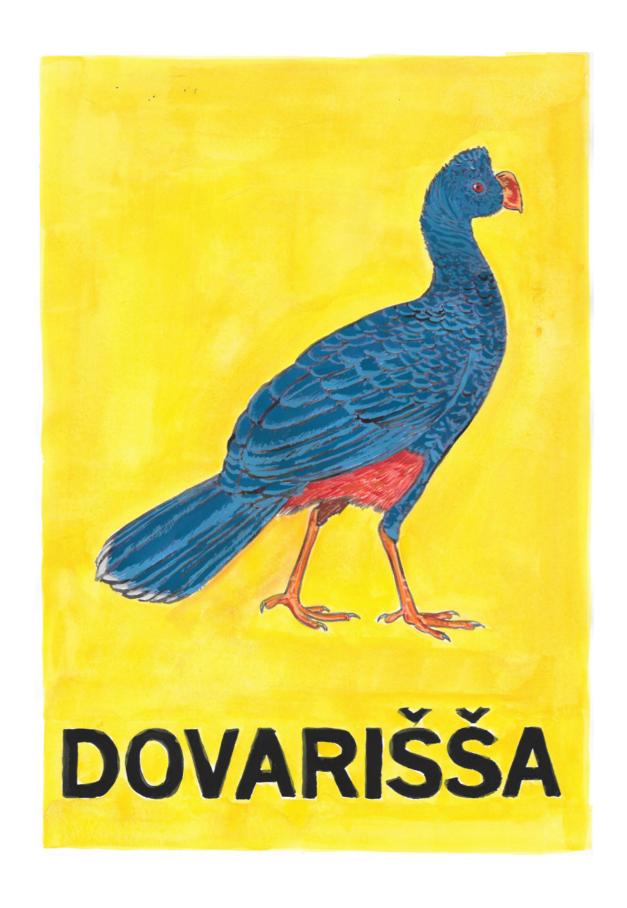


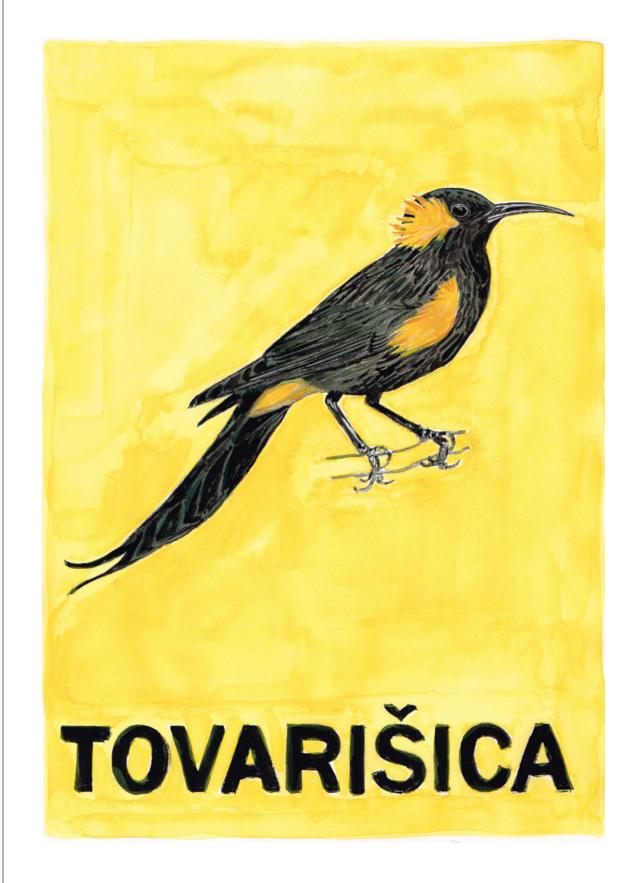
TOWARZYSZKA













Returning to the Creation

Sharon H. Venne

North-west of Fort McMurray, the site of the largest tar sands open-pit mining operation in Canada, there exists the largest beaver dam in the world. It is more than a kilometer in length. By some estimates, it has taken more than forty years and several generations of beaver families to construct this dam - a dam that is visible from space. It was the international space station who first reported the structure. The question: what are multiple generations of beavers doing?

Let us go back a bit in the short history of tar sands. The tar sands are located in the area of north-eastern Alberta. The oil was known to Indigenous Peoples long before the arrival of the Crown's subjects. For the most part, the Crown's subjects did not bother the heavy oil. It is difficult to extract. However, they worked on various processes to extract the oil from the sand. The main difficulty is the use of large amounts of clean water. 'Oil sands surface mining uses three to four barrels of new water to produce one barrel of bitumen.'¹ The industry relies on fresh water. The Creation relies on fresh drinking water. Industry is heavily focused on their needs but not focused on the needs of the Creation.

When I first learnt about the beaver dam and its location — northwest of the tar sands mining operations - I was able to meet with an older Dene person who travelled on the land. I gave him some tobacco and a small gift and asked: 'what are those beavers doing?' He looked at me — then responded: 'keeping back clean water for the rest of the Creation.' The beavers have been building their dam for more than forty years — the tar sands have been in production for more than forty years. The beavers know that all the Creation needs clean water. The beavers took on the responsibility to provide the clean water for their relatives.

In the non-Indigenous world, this might be hard to comprehend. Let me break it down. We are all related – not just the humans but all of Creation. When we offer our thanks for our lives and all the gifts that our mother has offered to us – we include

'Water is used in oil sands extraction to help separate extra-heavy crude oil, also known as bitumen, from the sand, clay and water that make up the oil sands. Water is also consumed in hydrogen production, where steam reacts with natural gas to produce hydrogen, which is then used in upgrading processes to convert bitumen into synthetic crude oil (SCO).' See: Government of Canada. 'Oil Sands: Water Management. A strategic resource for Canada, North America and the global market' Government of Canada. 7 July 2016 https://www.nrcan.gc.ca/energy/publications/18750.

everything. Our mother – Mother Earth – is our first mother. Our second mother is our human mother. The obligations to take care of everything goes both ways. We have to ensure that the Earth is protected so all can survive.

Nearly 3 billion birds have disappeared from Great Turtle Island since 1970.² 'A new study found that there has been a 29% decline in bird populations over the last 48 years. The scientists point to agriculture practices, pesticides, and habitat loss as the primary culprits for these declines.' These lands are being poisoned and destroyed to make money without any consideration for the needs of the Creation. Each bird has its own instructions and role. As they are destroyed, who does their work? If we are all related, who is responsible? The Queen's subjects know why the birds are disappearing, but they do nothing to stop it. Is it a shrug of shoulders and carry on? It is hard to understand.

In the 1970's, there was a large infestation of army worms that came through our territory. They eat all the leaves except the willow leaves. In the middle of the summer, there are whole stands of trees with no leaves. No place for the birds to hide with their young. Nothing to eat. In talking to my grandmother – she was in her eighties with a good long memory, I asked: 'what did the old people do when these worms ate all the leaves off the trees?' She responded: 'well, a long time ago there were lots of birds who used to eat up all those worms to stop this kind of damage, but now the birds are gone.' This was her comment in the 1970's, what would she say now? She would weep as I weep when I read that nearly 3 billion birds have disappeared and gone back to the Creation.

A long time ago, an old man told me a story. He asked me if I knew why the buffalo had disappeared. I ventured an answer. They were overhunted. He said: 'No. That is not right. What happened was that the buffalo was killed, and their spirit was not respected. No thanks were given for their gifts. When they were killed, their spirit was not returned to this place. We must honour their spirits.' Our Peoples still do ceremonies to honour and respect the buffalo spirit so that one day, they might return to our Peoples.

There was a special stone known in Cree as *pahpamiyhaw asiniy* that is tied to our relationship with the buffalo. Before the hunters went to gather buffalo, they stopped at the stone and made offerings for a good hunt. The Christian missionaries did not like the way the Indigenous Peoples followed their original instructions. To show respect for the spirit of the buffalo. In 1866 a missionary took the stone and moved it to eastern Canada. Indigenous Peoples were told that if the stone was moved, the buffalo would go away, and people would starve. The missionary knew the story but wanted to impose his faith on the Indigenous Peoples. The stone has not been returned to its place. It

- When the visitors arrived from across the big waters, they renamed our island 'America'. This is our Great Turtle Island, our homeland and our Creation. Our history and knowledge stretch across time and space. We are still living on the back of the Giant Turtle.
- 3 Woodward, Aylin. 'North America has lost nearly 3 billion birds in the last 50 years - another sign that we're in the middle of a 6th mass extinction' Business Insider. 19 September 2019 .

is in a museum in Edmonton, Alberta. The museum says that they cannot determine its owners, so they keep the stone in their custody. The museum does not get the point that no one owns the stone – the stone owns itself and needs to return to its original resting spot.

Buffaloes are important to the environment. When they travel across the lands, they change it. In their practice of rolling in the earth, they create hollows. Into these hollows, water gathers. Then, frogs, birds and other small animals have access to clean water. The environment is changed by their movements. They fertilize the land. The buffalo also brought a secure food source to the Indigenous Nations. The loss of the herd of buffalo plunges peoples into starvation, not only physically but spiritually. It is hard to recover from such a shock. Regardless, the ceremonies for the buffalo to return to us continue.

The buffalo have been gone from our territories for a hundred years. They do not roam across the lands, making hollows for the water. We need them to return. The ceremonies continue. As Indigenous Peoples, we do not measure time in hours and days. Our view of the Creation is that there is no beginning and no end. There are things to be done while we are visiting Great Turtle Island.

I heard an old man – he was more than a hundred years old and had a strong mind along with a good gait – who said to us one day: 'someday soon, I will return to the Creation. When I return, I will be able to report that we took care of the gifts given to us. When I arrived here, the gifts were already here for me. And all my life, I tried my best to care for those gifts and was always thankful for those gifts. If you can remember that this is a daily obligation, then things will be okay. You will be able to return to the Creation with a good heart and mind.'

What are intergenerational climate crimes? Those people who forget that these gifts are here for all of the Creation. The human is only one part of the Creation. For too many years the human has considered themselves the most important being, when in fact, they are the most destructive and least important. The human is destroying itself. As our old people tell us: all the Creation was made before the human. If the human disappeared tomorrow, the Creation would continue, but if the Creation disappeared tomorrow, the human could not survive. You cannot drink oil and eat gold. Intergenerational climate crimes are the destruction of our mother without any thought to the future. Our obligations are to remember the crimes committed and try to repair our relationships with all the Creation.

Conversations on Energy with Ghosts from the Netherworld

Nicholas Hildyard

Globally, just 67 people – fewer than the number of people that would fit into a London double-decker bus – control as much wealth as the bottom half of the world's adult population. Such extremes of wealth are a product of thousands of everyday acts of exploitation of humans and non-humans. In her book, *Capitalism: A Ghost Story*, Indian novelist and activist Arundhati Roy writes with a clarity born of justified anger about the gross inequalities of wealth and power that characterize modern India, and indeed the rest of the world, noting even the merely relatively-rich who make up the new middle class of India:

[...] live side by side with spirits of the netherworld, the poltergeists of dead rivers, dry wells, bald mountains, and denuded forests; the ghosts of 250,000 debt-ridden farmers who have killed themselves, and the 800 million who have been impoverished and dispossessed to make way for us.¹

I would like to invite those ghosts to join our discussions on energy in a thought experiment. What might these ghosts, these spirits of the netherworld, ask of us when considering talk of energy transitions? And how would we answer them? Where would they encourage us to delve further if their memories are to be honoured and the wrongs done to them righted?

I am confident that they would give three cheers for the efforts of activists to move away from fossil fuels and to embrace less destructive forms of energy generation. Coal, oil and gas exploration and use will have blighted many of their lives; and it is their living contemporaries who were first to make the call to 'leave the oil in the soil, the coal in the hole and the gas under the grass'.²

But I am doubtful that they would want to begin the discussion here. I think they would first want to share their experiences of oppression and to try to understand the entangled roles that energy, industrial agriculture, wealth and power, discrimination, racism, imperialism and capital play in that oppression. They would be disappointed, even shocked, by how issues of political and economic power have been largely written out of the discussion on so called 'energy transitions' in favour of a largely

- Roy, Arundhati. Capitalism: A Ghost Story. London: Verso, 2014.
- Bassey, Nnimmo Bassey. 'I Will Not Dance To Your Beat.' Capitalism Nature Socialism, Vol. 21, No. 3 (2010). DOI: 10.1080/ 10455752.2010.507510
- Bunyard, Peter. 'The Coal-Equivalent Mentality.' The Ecologist, Vol. 8, No. 2 (1978).

- As the South African trade union COSATU puts it:
 'Our concern is not about the flow of electrons between the turbine and the switch in somebody's house. Our concern is primarily about the framework of democratic and accountable resource allocation.' COSATU, Policy Framework on Climate Change: Adopted by the COSATU Central Executive Committee, August 2011.
- 5 Lohmann, Larry, Nicholas Hildyard, Sarah Sexton. 'Energy Alternatives: Surveying the Territory.' The Corner House. 20 May 2013 https://www.thecornerhouse.org.uk/resource/energy-alternatives>.

depoliticised, technocratic debate over how many windmills, solar collectors, wave machines or biogas plants need to be built to replace the kilowatts currently generated by coal, oil and gas. Or what might be called the 'coal-equivalent mentality'. They would remind us that energy is more than just an issue of electrons; and climate change is more than just a question of molecules. It hink the ghosts of the netherworld would insist that both are primarily political processes, in which labour issues, issues of ownership, democracy, accountability and accumulation are central.

The ghosts would look at the maps in which continents are assigned circles of different sizes according to their potential to supply terawatthours, and ask: 'Whose energy alternative?' Make no mistake, there are innumerable alternatives out there: the difficulty is in choosing between them. Who is served by 'dissolving land, wind, ocean surfaces and currents, gravity, trees, grass, Shakespeare's "great globe itself" into uniform units of thermodynamic work'?⁵

I am confident too that they would have much to say about the narrowing down of energy policy to an issue of machine choice – wind or solar, nuclear or biomass and so on. And I think they would ask hard questions about the assumption, common in many circles, that the so called 'greening technology' will, of itself, transform society for the better.

I think they would bridle at the way that reducing energy to an issue of technology choice empties it of political content. I think they would reject framing the issues in terms of clean vs dirty energy and ask: 'why have race, class and gender been written out of the story? Aren't they important in understanding why some communities get polluting energy and others do not? Or in understanding the dynamics of biofuel-related land grabs or shale oil and gas exploration?'

And why the focus only on the means of generating electricity? What about the uses to which energy is put? What is so clean about a solar-powered drone or an off-grid solar system that powers electricity to a mine? I think they would also look at the envisioned 'Eco city' in Kenya – a 'silicon savannah' complete with 'technopark', 'artificial river' and financial service blocks designed to attract multinational firms looking for a low-cost and high-quality outsourcing destination – and put their head in their hands.

I think they would want to know: 'Where are the mines, steel mills, cement factories, just-in-time delivery systems, derivative trading floors, factories, water pipelines and low-cost workers that keeps all this going? Why are they hidden from view? And where are the ghosts who have been displaced from their land to make way for this?'

And I am sure the ghosts of Chernobyl, of uranium mining and of the Green Revolution would ask: 'How it is possible, in 2021, for you still to place such childlike trust in technology? How can you still cling to the belief – so widely discredited historically – that technology is a force that is somehow autonomous from society and politics?' I think they would insist that we refuse to be bamboozled by fetishistic attempts to disso-

ciate technology from politics, and machines from the social relations of exchange through which their raw materials are extracted, appropriated, transformed and redistributed.

I think that our ghosts would have much to say, too, about the proposed financing of any 'energy transition'. They would bristle when they hear the World Bank and others talk of the need to encourage greater private financing of energy and other infrastructures in order to provide the trillions of dollars that are said to be needed to fund a transition. And I am sure that they would counter talk of new energy markets being key to achieving energy security by insisting on discussing the *insecurities* that markets bring to *their* lives.

And I think they would conclude, rightly, that the direction of travel is not only towards increased inequality but also profoundly undemocratic, elitist and unstable. Undemocratic because a handful of fund managers now increasingly determine what gets financed and what does not. Elitist because the facilities that would most benefit the poor do not get built. And unstable because infrastructure-as-asset class is a bubble that is set to burst.

I think the ghosts would want to remind us, again and again, that under regimes of accumulation, there can never be enough energy – and that whatever gains are made through so-called 'efficiency' will quickly be swallowed up through the expansion of production and consumption. And I think they would want to direct our conversation towards notions of enoughness, frugality and how we might organize our lives differently. I think they would urge us to take seriously the historical role of coal, oil and gas in the development of industrial capitalism. To understand that for capital, energy is primarily about thermodynamic work, about powering machines; and that, for industrial elites, the choice of energy systems has always been inextricably linked to harnessing that thermodynamic work to maximising profit through the control of labour, be it through labour saving devices, the speeding up of exchange through faster transport systems, or the shifting of factories to areas of cheapest labour.

I think the ghosts of the netherworld would remind us that it was not price that persuaded early cotton mill owners in the UK to switch from water to coal as a source of the 'energy' for their mills: it was the opportunities opened up for squeezing labour by bringing coal-fired steam engines to towns, where it was easier to procure labour 'trained to industrious habits'. And that, if China is now the world's largest carbon emitter, it is not because consumers have been going into shops to demand Chinese-made goods but because manufacturers have moved to China to exploit cheap labour. They would say to us that energy and climate are labour issues – and that ignoring this can only hinder the transition away from fossil fuels. I think that our ghosts would warn those of us who still have the luxury of regarding the status quo as an option: the days of having your cake and eating ours have to end.

So, the ghosts would plead with us: 'think not just of energy alternatives but of alternatives *to* energy as it is currently conceived. Of building a

Lohmann, Larry, Nicholas Hildyard. 'Energy, Work and Finance.' *The Corner House*. 31 March 2014, http://www.thecorner-house.org.uk/resource/energy-work-and-finance

- Esteva, Gustavo. 'Aid-No thanks! If any one wants to do you any good, run away.' Presentation to 'Giornata di dialogo tra movimenti', Florence, Italy, 8 April 2013.
- McDermott, J.F.M. 'Producing labor-power. Sci. Soc., Vol. 71, No. 3 (2007): p. 299–321.

new relationship with nature, not as something outside of society but as something that society makes and is made by society.'

But how? I hear the ghosts of the netherworlds say to me, 'there is no end to history, we, the ghosts, are still here. You think we are unseen and unheard, but we are everywhere, all around you.' I hear them say, 'if you are hoping for some blueprint or rule book for achieving an energy transition, you will be disappointed. No such masterplan or rule book exists. There is no road map for getting from here to there because here and there are processes, not places.'

They tell me, 'be warned, the direction of travel will largely be determined by the relative organising power of different social movements, including the organising power of capital.'

The starting point for most people is not an 'energy transition' in the abstract. It is their electricity being cut off because they can no longer afford to pay the bills; bulldozers tearing up forest commons; legal notices informing them that their land has been expropriated; long hours, paltry pay and overwork in free trade zone factories; or the dismantling of long-fought-for public healthcare and educational services. In a word, the ghosts say, the starting point for most people is 'injustice' and that injustice is not some tick-the-human-rights-box exercise.

Transition is about activism that emphasises mutual learning and unlearning, an understanding of each other's histories and political context, the building of relationships of care and trust, and respectful dialogue. It is through these processes of mutual recognition and discovery a new shared sense of 'We' can be developed, and it is this shared 'We' that make class. It is an activism that would recognise (and not be flummoxed by) Mexican activist Gustavo Esteva's contention that friendship is the 'political tool of the moment'. This is an activism rooted in the actual everyday struggles of people the world over to understand their oppression and to find ways around the obstacles that prevent them from creating the world they want.

Perhaps, too, the ghosts would gently encourage new approaches to activism. To ask us to consider whether rebuilding past institutions of working-class culture might not be anachronistic. Originally built outside of 'polite society', and with no expectation that polite society would ever do more than stand in the way of labour, the partial absorption of the working class into polite society over recent years may leave such institutions less fit as responses today.⁸ Now that the post-war compromise between labour and capital is itself being dismantled under neoliberalism, my bet is that the ghosts would look to emerging forms of organising *outside* of polite society (although never entirely 'outside' of capital as a social order – it is doubtful that such a space exists) for clues to how to move forward.

But of one thing I am sure: the process of supporting them and journeying with them is unlikely to start with discussions about how many kilowatts a windmill produces. As Indonesia activist Hendro Sangkoyo observes, it is more likely to start with the mutual recognition of oppressions. With the simple question: 'why are you crying?'

From the 'ballad of the Dust Bowl' to the vicious circle of the industrial agri-food system

Ramón Vera-Herrera (GRAIN)

- Hylton, Wil S. 'Broken heartland: The looming collapse of agriculture on the Great Plains.' Harper's magazine, (July 2012): p. 25. See also 'Homestead Acts.' Wikipedia, Wikimedia Foundation, 7 April 2021 <https://en.wikipedia.oru/wiki/Homestead Acts.
- This was provided by newer laws as the Kinkaid Act of 1904 and the Enlarged Homestead Act. See .; Also see, Edwards, Richard Changing perceptions of Homesteading As a policy of Public Domain osal.' Great Plains rterly, vol. 29, no. 3, 2009, pp. 179–202. JSTOR, <www.jstor. org/stable/23534019>.; Edlefsen, David. 'How the West was claimed: The general Alloment Act'. Prepared for Western Polit ical Science Association ence San Francisco CA, 31 March 2018 CA, 31 March 2018 http:// www.wpsanet.org/papers/ docs/WPSA_HtWwC.pdf>.; 'Kinkaid Act.' *Wikipedia*, The Wikipedia Foundation, 17 March 2021 https:// en.wikipedia.org/wiki/ Kinkaid Act>.
- Faced with labels such as 'intergenerational climate crimes' or the notions or concepts of 'climate justice', with all the nuances and complexities involved, one becomes prudent in launching oneself into the arms of any of these fad and fashion terms, although at some point they may serve their original purpose of conveying meaning and light to the threads of problems and grievances they are supposed to stand for. The immediate consideration that comes to mind is the historical dimension of relations and interactions that configure present-day actions that directly affect territories, regions or settings and of course their local climate but also, actions that may affect directly and bluntly the general conditions of the overall climate of this planet, in the present day and for future generations.

The story of the calamities that came over the so-called Great Plains in the United States due to the overdevelopment set by the same kind of industrial food models that can be blamed for the climate crisis of today, is indeed shocking. As the tale goes, in the 1800s people were granted 160 acres of land to begin to exploit the prairies and by 1930 'the agricultural boom in the region had already begun to stretch the limits of sustainability. Groundwater dried up. Drought set in. And under a billowing prairie wind, the shallow roots of annual crops proved incapable of holding the topsoil in place: with massive dust storms darkening the horizon, the migratory exodus began.'¹

The testimonies extracted from many sources say that government officials went so far as to promise up to 260 hectares of

land to common people, ranchers and companies during the first thirty years of the twentieth century.² Being rainfed lands dependent on the humidity of the rain to fulfil their cultivation cycles, they were soon drained of much of their superficial underground water. By the beginning of the twentieth century the newcomers had put these lands to the extreme by their monoculture methods, almost completely mechanised with tractors, threshing machines and harvesters that since 1837 began to proliferate in the fields, thanks to John Deere.³ With the reduced supply of wheat and other agricultural raw materials and the rise in prices, the area open to cultivation doubled between 1925 and 1930. This extreme reconversion, from vast pastures to extensive mechanised monocultures, displaced the native grasses that kept the soil in place and allowed only for the minimum humidity required for production. 4 Together with the intense droughts that began to occur from the summer of 1930, these conditions provoked a phenomenon known worldwide as the Dust Bowl: storms of swirling loose earth that literally stripped the organic matter from the soil, making existence unliveable for the region's peasantry. The phenomenon was so intense, extensive and prolonged that the horizon turned black in every direction. Families began to flee their fields, spurred on by hunger, lack of water, misery, lung and gastrointestinal diseases, and thus embarked on the exile of roughly 2.5 million people in search of material conditions for existence. With these events began the contemporary cycle of migrant labour.

So, this did not begin with the braceros from Mexico to the United States but with its own populations, who fled in terror only to find themselves in conditions of poverty, oppression and exploitation like those narrated by John Steinbeck in *The Grapes* of Wrath, which fills our eyes with the precariousness, starvation wages and paramilitary guards that migrant farmworkers like those that populate northern Mexico and the southern United States would have to suffer years later. The history of current iniquity towards migrants from Mexico and Central America began with populations in the United States expanding to the west, predating the conquered territories; began with the disproportionate nature of its own industrialisation and with the iniquity in the treatment employers gave to their own day-labourers (people and communities who years before had led a productive life as wheat and maize planters, sheep and cow breeders, on lands that the United States snatched away through blood, fire and murder from the original peoples of North America).

Today, the Ogallala aquifer, the largest groundwater body in the United States, is more or less depleted. Once running some 404 thousand square kilometres underneath these same devastated lands, it was used without any concern whatsoever to irrigate enormous wheat and maize crops from the 1940s until the beginning of the 21st century. Now, paradoxically, the people of the region are urging for peasant solutions and productive

- John Deere was a blacksmith who developed the first commercially successful, self-scouring steel plow in 1837 and founded the company that still bears his name. See John Deere https://www.deere.com/en/our-company/history/>.
- 4 'Dust Bowl'. Wikipedia, Wikimedia Foundation, 3 May 2021 https://en.wikipedia.org/wiki/
 Dust Bowl>:; Amadeo, Kimberley. 'The Dust Bowl, Its Causes, Impact, With a Timeline and Map.' The Balance. 3 September 2020 https://www.thebalance.com/what-was-the-dust-bowl-causes-and-ef-fects-3305689; 'The Dust Bowl.' National Drought Mitigation Center. University of Nebraska https://drought.unl.edu/dustbowl/ Home.aspx>.
- m-<u>5</u> Hylton 2012: p. 25-3 (see note 1)
 - 6 Harvey, Fiona. 'Dust bowl conditions of 1930s US now more than twice as likely to reoccur.' The Guardian. May 18, 2020 https://www.theguardian.com/environment/2020/may/18/us-dust-bowl-conditions-likely-to-reoccurgreat-plains-.
 - GRAIN. 'The great climate robbery.' GRAIN. 7 December 2015 https://www.grain.org/en/arti-cle/5354-the-great-climate-robbery.

autonomy, solutions that now are called 'alternatives'. They are also urging everyone who can listen to them to help them revive these groundwater bodies that are on the verge of drying up.⁵ This story, that could be titled the *Ballad of the Dust Bowl*, has had enormous repercussions on the climate of vast extensions of land, but also on its total transformation by the wiping out of all the tribes and peoples in the prairies and of millions of buffaloes; of the ways people had of taking care of their territory; of the bankruptcy of many thousands of families and even the overexploitation by way of pumps of the once massive Ogallala aquifer. The present-day population cannot cope with all these climate and environmental transformations. These are historical accounts of how the present-day climate crimes were forged step by step, and we can envisage their future effects.⁶

Another dimension in this depiction is the relational (and therefore multi-time) metabolic threads or strands of related events that unchain effects expanding in many dimensions. Let's consider the narrative stemming from the work done by GRAIN to understand the effects of the global industrial agriculture food system in its performance cycle of grabbing/dispossession/ devastation. We may call it the vicious circle of the agro-industry, followed step by step as it destroys, devastates, dispossesses and disables all kinds of life cycles to reach the voracious reproduction of capital.⁷ It starts with land grabbing; establishing a change in land use, usually the deforestation of vast tracts of forest; imposing methods of industrial agriculture with registered, certified patented hybrid or genetic modified (GM) seeds that require mega-chemical disinfection and fertilisation to work, and so imposing technological packages of seeds and agrichemicals. Add to the formula a continuous mechanisation (and now digital automation) and the whole previous process provokes a pervasive pollution but also around 30% of all gasses with greenhouse effects (GHG). The metabolic process does not end here. If we add transportation, washing, packing, stowage, storage (even international transport and refrigeration), this amounts at least 15% more GHG, until it gets through distribution to street markets, supermarkets, grocery stores, convenience stores, restaurants and canteens. Waste adds another 2-4% of GHG. But the whole flux of events provokes (as seen in the Dust Bowl story) the eviction of the dwellers of a region, the fragmentation of communities and the entrance of extractivist projects with their violence and further devastation. In parallel, disabling all peasant strategies and wisdom that maintained the commons, produces further alienation and uprooting. The growth of cities and the wild urbanisation unleashed, triggers more ambition for land to be grabbed, thus beginning the cycle again.

The complexity of this metabolic vicious circle—the actually existing cluster of ongoing events— may or may not be defined as 'climate crimes', or events 'subject to climate justice', but does raise the need to analyse and dissect every side of this cluster

if we are to encompass all its interwoven reactions. We need to understand that the vicious circle exists due to the relation between corporations, governments and international 'regulating' organisms: a relation built on collusion. The structural reforms of the 1980s transformed the international law structure to one where economic interests subjugated the national legal systems. This is 'deviation of power': a relation that 'creates space for corporations while preventing the population from achieving justice through legal or institutional channels. [...] State bodies are impenetrable, the legal issues are mired in confusion, and public policies, constitutional reforms and laws are confected to abrogate collective rights, infringe on the commons and weaken the social pact.'8 The Permanent Peoples Tribunal, in its sessions in Mexico (2011-2014) expressed this general concern which hasn't been resolved:

Neoliberal law provides a framework for wealth accumulation and the concentration of economic and political power required to meet the challenge of eliminating the 'losers'. Moreover, neoliberal law is based on the architecture of impunity constructed in favour of multinational companies and capital. Inequality and asymmetry are integral to this process. The Mexican government has intervened to facilitate the transformation and forced elimination, via economic means, of masses of urban and rural populations deemed 'unnecessary' or 'superfluous'. Mexican governments have used the power of the State to accelerate this elimination through direct acts of dispossession of the means of production or via interventions distorting the subsistence economy.⁹

We cannot separate a climate crime from all its other effects: all the cycles of its destructive actions extremifies the general conditions for survival on this planet at the global, regional and local scale while disabling people in order to turn them fragile enough to make them work, under any condition, for others. After all, the behaviour of all these 'climate rogues' is not concerned at all with the climate effects of their crimes. We then need to embrace complexity, and a radical stance to really confront these systemic crimes. As the team of bilaterals.org puts it:

the militancy of more critical strands of climate justice struggles (particularly the inspirational collective leadership of Indigenous Peoples' resistance based in anti-colonial politics and worldviews) offers real hope for possibilities beyond pragmatic liberal reformism to solve the climate crisis. [...] Despite ongoing repression and criminalisation of social movements, the political disruption and distraction caused by right-wing populists and neoliberal centrists across the world opens up space to be bold about what we are fighting for. We need radical political imagination. Let's not settle for less! 10

- gRAIN. 'Structural reforms free trade agreements and the war on subsistence.'

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 https://www.grain.org/en/article/5130-structural-reforms-free-trade-agreements-and-the-war-on-subsistence. See also

 Universal Declaration of the Rights of Peoples,

 adopted in Algiers, 4 July
 1976 http://permanent-peoplestribunal.org/cartade-argel/?lang=es
- 10 bilaterals.org 'Trade politics in flux: what social movement responses?'
 June 2017 https://www.bilaterals.org/?trade-politics-in-flux-what-social

A Vaccine Against Intellectual Hubris?

Rasigan Maharajh

A metabolic rift has developed between contemporary human society and the natural world. Is it at all possible to rebuild social metabolism and restore the vitality of life on Earth?

The natural world, science tells us, is much, much older. It is currently estimated that approximately 7.9 billion people populate a terrestrial planet (Earth) which circumnavigates the barycentre between a 'yellow dwarf' G-type main-sequence star (Sun) and a giant gas planet (Jupiter) on an annual cycle of 365.2425 days. Earth is estimated to be 4.54 billion years old and is part of a solar system that is just 460 million years older (4.6 billion years).

Human beings (Homo sapiens) are not the only or even the most populous life-form on the planet and they are neither omnipresent, nor omniscient. Rather, humanity represents the last extant incarnation of a species of hominids who split from other great apes (primates) approximately 13-11 million years ago and who underwent significant evolutionary changes ever since then. Human beings are a sub-group of Animals and share living on Earth with at least five other Linnean kingdoms (Bacteria, Chromista, Fungi, Plantae, and Protozoa). Seen against the backdrop of nature's majesty, we humans are a miniscule species.

Anatomically, modern human beings are believed to have emerged in Africa just ~150,000 years ago and dispersed across the planet about ~60,000 years ago. Assuming a global genetic isopoint, we can calculate that more than 108 billion members of our species have been born since the assumption of our current species-being form. Based on our definition of a generation, we can further estimate the number of ancestors that have preceded all of us that are alive today. This empirical vantage point, albeit imagined and supplemented by qualified estimations, nevertheless provides us with an important reminder about our very brief existence in the history of the planet, the rapid pace at which we have generated planetary impacts, and our precarity relative to emergent ecological catastrophes.

In our brief cosmological existence, humanity has expanded massively in size, scale, complexity, and material impacts on the biophysical, planetary

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- 2 Childe, Vere Gordon. Man Makes Himself. London: Coronet Books. 2003.

- 9 Plumptre, Andrew J. et al. 'Where Might We Find Ecologically Intact Communities?' Frontiers in Forests and Global Change, vol. 4 (2021) https://doi.org/10.3389/ffgc.2021.626635.
- 4 IPCC. Climate Change 2007: Synthesis Report. Contribution of Working Groups I, II and III to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change [Core Writing Team, Pachauri, R.K and Reisinger, A. (eds.)]. Geneva: IPPC, 2007: p. 104
- processes that have served to enable and sustain life. The human species has evolved essentially through genetic adaptations, intra-species cooperation, inter-species competition, and revolutionary social transitions over a span of the last two-hundred millennia. Social, economic, political, and environmental transformations have resulted from the expansion of our cognitive capacities, our accumulation of information, and our translation thereof into useful knowledge which we have transmitted between people and across generations.

Whilst our emergence was intrinsically correlated with biogeographic realms, our subsequent evolution is the collective result of transitioning variously through Palaeolithic, Neolithic, Urban and Industrial Epochs of human and social development. All of these social, economic, and political transitions emerge from the accumulation of information and its reproduction across generations as knowledge. New regimes or modes of organising have arisen from these developments by engaging with physical environments and utilising continuously improving technologies. In the 2,021st year of our Common Era, we must acknowledge that approximately 97% of the land on Earth no longer qualifies as ecologically intact and shows evidence of human interference, whilst 'only 2.8% of the terrestrial surface of the planet is represented [...] with low human footprint, no known species loss and no species known to be reduced below functional densities'.³

Environmental degradation, atmospheric emissions, and water pollution have accelerated exponentially whilst the mass extinction of biodiversity. global warming, and climate change ravage Earth. The UN's Intergovernmental Panel on Climate Change states that it is highly probable that human activities over the past 250 years have warmed our planet and that human-produced greenhouse gases such as carbon dioxide, methane and nitrous oxide have caused much of the observed increase in Earth's temperatures over the past 50 years. 4 Whilst all these facts are now common knowledge, a major ongoing question still remains about how did we, within the short span of our existence as a species-being and the mere five centuries of the contemporary mode of production, manage to bring about such widespread changes which now threaten our own survival? Current changes to the climate and potentially irreversible climate change imply the loss of productive land, extreme weather conditions, rising sea waters, massive dislocation of people, desertification, and serious economic and social upheaval. Other resource shortages like fresh water, forests, agricultural land, and biodiversity are being severely impacted. Depletion of oil and gas reserves directly impacts the lives of the billions of people of the world and the fragile biosphere. This situation is compounded by the continued extraction of non-renewable resources and the dominance of unsustainable production, distribution, and consumption patterns. The mineral endowments of the planet developed over billions of years, yet their rate of extraction has accelerated with advances in science and technology seeking to maintain and extend 'comparative advantages' betwixt national entities.

The net effect is that the stocks of planetary resources are being depleted faster than nature can replenish them and without intergenerational

concern. What happened to our capacities for accumulation of information and its reproduction across generations as knowledge? Why do we continue with our current developmental trajectory and its resource-intensity even when it is proving to be self-endangering and hastening existential precarity?

The last 500 years has witnessed the emergence of a social system called Capitalism, its embedding as a resource-guzzling Leviathan over at least 250 years, and in the last 50 years, the abject failure of the capitalist system to extricate itself from its resource addiction.

In the past 50-75 years, human societies have been segregated into 195 political units called nation-states that are recognised on the basis of formal legal criteria like possessing a permanent population, a defined territory, a government and the capacity to enter into diplomatic relations with other countries. It is easy to forget that the state, as Friedrich Engels points out, 'has not existed from all eternity. There have been societies that did without it, that had no idea of the state and state power'. Engels argues that the emergence of state formations is related to economic development based on division of societies into classes, and that when these class antagonisms have sufficiently advanced our productive capabilities, the iniquitous relations underpinning them would be liquidated along with any further necessity for a state.

Corporations have expanded in size and scale to such an extent that the top 200 corporations have created a global economic apartheid in which a small super-rich class corner the wealth and resources of the world while the rest struggle to survive. These corporations, and not ordinary working people, are the guzzlers of natural resources and exploiters of human labour around the world. What are these corporations, however?

Corporations are 'both a method of property tenure and a means of organising economic life'. They are a legal construct, a legal fiction. As the Transnational Institute notes, '[i]t is not something created by God or by Nature, but rather a legally created and enforced set of relations designed to raise capital for industrialism's large projects. Its main function is to separate the owners of an enterprise from the enterprise itself'. Returning to Engels, if the state is contingent on class divisions, and if corporations are legal constructs for shielding the owners of property, then we can begin to discern the relationship between contemporary states and corporations, the greedy demand of corporations for natural resources and super exploited labour, and the insatiable need of states to increase their powers to create and maintain the global economic apartheid.

Intergenerational climate crimes must be appreciated within the long-run evolutionary history of our species-being and the human society in which interests of the dominant global capital, both financial and industrial, are effectively aligned with those of the state. 'Now commonly known as 'state capture', this alignment has been enabled by the 'revolving door' through which political figures move into business and back into politics and vice versa, by business lobbying, by business funding of political

- Engels, Friedrich. 'The Origin of the Family, Private Property, and the State' in Marx-Engels Selected Works. Moscow: Progress Publishers. 1986
- Berle, Adolf D. and Gardner C. Means. The Modern Corporation and Private Property. New York: The MacMillian Company, 1933.
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A Vaccine Against Intellectual Hubris?

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Lawrence, Peter, Leo Zeilig. 'The State: The Executive Committee of Global Capitalism?' Review of African Political Economy, vol. 45, no. 156 (2018): p. 181-185. parties at election time, and, as a consequence of privatisations and subcontracting of public services, by an increasingly systemic relationship between capital and the state'. §

As a species-being, humanity must ascend beyond the national consciousness which is ultimately counterfactual to the realisation of a better life for all within planetary boundaries. This requires renewed intergenerational engagements and collective commitments to the pursuit of a just transition beyond Capitalism itself. Critical to such progressive advances will be the reconciliation of common but differentiated responsibilities, global citizenship, and a major dose of humility. Hubris is at least one important cause for the metabolic rift between the human and natural worlds that has left us without vitality and energy. We urgently require mental and intellectual vaccines against further anthropocentric hubris, which serves to maintain the metabolic rift as a mechanism for the further accumulation of profits whilst relegating people and other living things to further immiseration if not extinction.

Pages 49-64: Radha D'Souza & Jonas Staal, Court for Intergenerational Climate Crimes: Comrades in Extinction, 2020-2021. Gouache on paper, 21 x 29,7 cm

In order of appearance: Blue Antelope - Sumerian Catarina Pupfish - English Cape Verde Giant Skink - Syriac Cambarellus chihuahuae - Udmurt Sooty Cravfish - Chechen Sevchelles Mud Turtle - Malavalam Dark Flying Fox - Greek Southern Gastric Brooding Frog - Hindi Laysan Honeycreeper - Coptic Orthomorpha crinita - Polish Tonga Ground Skink - Portuguese Mount Glorious Torrent Frog - Kajtak Socorro Isopod - Hungarian Alagoas Curassow - Votic Bishops Oo - Slovene Longnose Stubfood Toad - Pulaar

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