MORE-THAN-HUMAN DESIGN IN PRACTICE

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ISBN: 9781032741192 (hbk)
ISBN: 9781032741208 (pbk)
ISBN: 9781003467731 (ebk)

First published 2025

INTRODUCTION

DOI: 10.4324/9781003467731-1

The funder of the Open Access version of this chapter is the Research Council of Finland.

Routledge
Taylor & Francis Group
LONDON AND NEW YORK

INTRODUCTION

Editors' Introduction

The topic of sustainability needs no motivation. It is widely recognised that several human activities are causing global warming, pollution, deforestation, ocean acidification, ozone layer depletion, loss of biodiversity and species extinction. In many cases, the way we have designed everyday objects, products, services, systems and technologies is strongly contributing to this unsustainability. There is thus a need to radically re-imagine how we design. Given this need, an increased interest has emerged across several disciplines to widen the perspective of Western material-oriented thinking beyond solely human-oriented considerations and needs (Akama et al., 2020; Bastian, 2017; Clarke et al., 2018; Coulton & Lindley, 2019; Foth & Caldwell, 2018; Giaccardi & Redström, 2020; Heitlinger et al., 2018; Laurien et al., 2020; Poikolainen Rosén et al., 2022; Veselova, 2023; Wakkary, 2021). This design approach has become referred to as "more-than-human design", and it entails designing for the interdependent relationships between humans, technologies and other organisms (such as animals, plants and microbes). This focus on interdependence forefronts that many organisms, including humans, benefit from considering design spaces as holistic and relational and implies that designers need to expand who or what counts as a user or stakeholder, who is included in design processes, and what is considered as design or designable. This perspective is both radical and generative and requires that design practice, methods and theories are augmented, hybridised and remade.

In this book, we – design researchers, interaction designers, architects, textile designers, interior designers, artists and educators – address more-than-human design as a response to this need to design otherwise.

Several aspects of more-than-human design are more or less established: the central worldview grounded in posthuman ethics; the framing of all organisms in the environment as stakeholders in design, and an awareness of the agency that exists in human relationships with organic matter and technologies. However, it is less established how to practise more-than-human design (method) and what concrete implications this approach has for the form and function of design (Nicenboim et al., 2024). Given this gap, we want to give the reader analytical and methodological tools that may help them approach design spaces and research problems from more-than-human perspectives.

DOI: 10.4324/9781003467731-1

Beyond these conceptual research gaps, this book has a more situated and practical origin. It started as a conversation between Anton Poikolainen Rosén who has written a thesis on more-than-human design in urban farming communities and Antti Salovaara, a senior Human-Computer Interaction and design researcher. Antti was curious about more-than-human design, saw its need, and had many students interested in working with these issues. However, he lacked resources that provided a comprehensive overview of the emergent, messy and growing field of more-than-human design in practice. We hope this book can be one such resource while we also recognise that a book on more-than-human design in practice can never be complete or fully comprehensive as the field must continue to evolve. We also hope to emphasise a critical dialogue between more-than-human design and more established design research approaches. We thus invited Marie Louise Juul Søndergaard and Andrea Botero as co-editors to diversify the perspectives of the editorial team. Marie Louise has a background in feminist approaches and theory in design. Andrea has a background in participatory design and feminist technoscience coupled with a curious attitude towards understanding what – if anything – might come out of stringing together the more-than-human with design. All four of us work in Nordic universities, and this reflects the final configuration of themes and authors that ended up being part of the collection, as our invitation and awareness of the topics reached nearby regions, despite efforts to enlarge it. Most chapter authors work in European universities, although some work in North American universities and places like China, Chile, Mexico and Israel feature in some of the examples and author backgrounds.

Notes on Theory, Critical Perspectives and Format

It is not easy to write an introduction to an emergent, contradictory, diverse and multiple field like more-than-human design that resists definition and categorisation – when these attempts risk being reductionist and overtly universalising. Yet, several recurring concepts are being used and mobilised by those engaging in more-than-human design practices that the reader may benefit from being familiar with before diving into the chapters of this book. To point at these concepts openly, while being relevant to practice, we have selected two formats for the introduction. These include a lexicon for more-than-human in practice – inspired by other such attempts in more-than-human design research (Lindley et al., 2023) – and a manifesto for more-than-human design – inspired by other similar manifestos (Haraway, 1984; Höök, 2018; Rams, 2014). We hope the lexicon can concretise key ideas and concerns of more-than-human and point to further critical readings, rather than providing overtly fixed definitions. The manifesto complements the lexicon, by framing in a more open-ended yet assertive way what more-than-human designing could be.

The experimentation on formats for expressing more-than-human knowledge continues throughout this book's chapters. As established by Abram (1997) – one of the first scholars who popularised the term more-than-human – our language often distances us from what we colloquially signify as "nature". To tackle such issues, there is a need to maintain a stance of critical anthropomorphism (Morton et al., 1990) where we recognise that we can only understand the world from our human position, yet this human position implies that we can imagine things otherwise, that we can, for example, recognise shared sameness with other entities in the world or imagine what it is like to be another being – even if we can never fully know. This implies that we must work actively to include the perspectives and presence of other species, organisms and entities in the book. We do this, for example, by including images to make the presence of the more-than-human more pronounced. Some chapters even experiment with the format of the

text itself, exploring more poetic ways of layouts of a text for example to emphasise and express the liquid flow of water.

Another trouble that this book needs to stay with continuously is the diverse meanings of "more-than-human". Some strands of more-than-human design have focused on autonomous, dynamic and evolving computational things (Coulton & Lindley, 2019; Giaccardi & Redström, 2020; Wakkary, 2021), while others have focused on design for and with the interdependencies of organisms (such as animals, plants and microbes) (Akama et al., 2020; Clarke et al., 2018; Nijs et al., 2020). As Noorani and Brigstocke (Noorani & Brigstocke, 2018) argue, more-than-human design is:

> a research paradigm that is in principle applicable to almost anything. This is because it insists that human social worlds are always 'more-than-human' social worlds, in the sense that they are composed of relations between humans, non-human life, and lively materials.

We find this a very apt definition, while also recognizing that a focus on "almost anything" easily becomes unclear or shallow – it is thus important to maintain specificity, situatedness and criticality while recognizing the world as entangled and relational – this is something we hope to forefront through the selection and juxtaposition of the chapters in the book.

The Structure of the Book: Introducing the Chapters

This book showcases practical design outcomes of more-than-human thinking, offers methods for designing with the more-than-human world, and highlights the diversity of more-than-human design practice. We believe that it is important to showcase these examples since more-than-human design is still an emerging way of practising design no matter if you are a seasoned design researcher or a first-year student. We present this work in two parts: "Focus Areas" and "Methods and Pedagogy".

Although more-than-human design recognises the world as an interdependent system, it is important to acknowledge the specific character of entities, species, individuals etc. within this system. The first part thus introduces *focus areas* in more-than-human design: animals, plants, the human body as more-than-human, microbes, winds, soils, rocks, water and artificial intelligence. These examples are not all-encompassing – nevertheless, they have been carefully selected to show the breadth of more-than-human design in practice. They illustrate shared ontologies, positions and methods – as well as differences and conflicting perspectives.

The second part – "Methods and Pedagogy" – discusses a variety of *methods and approaches*, firstly for *understanding design spaces as more-than-human*, secondly for *creating more-than-human design and imagining alternative futures* and thirdly *pedagogical examples*.

The first two chapters in this part discuss methods, frames, thought figures and sensibilities that can be used to understand and empathise with the more-than-human world from a situated first-person perspective, i.e., how you as a designer can understand and relate to the more-than-human world. This includes more empirically oriented methods of perceiving, attuning, observing, measuring and *being with* the more-than-human world. It also includes methods that aim to emphasise and imagine how it might be to be more-than-human. The next chapter discusses methods for compiling the insights derived from such methods to more systemic understandings of design challenges and design spaces. Here the authors outline various approaches to systems thinking from a more-than-human perspective and give examples of methods for systems analysis that more-than-human designers can use.

After discussing methods for understanding design spaces as more-than-human, the next set of chapters focus on creating more-than-human designs and imagining alternative futures. These chapters exemplify the complexities and challenges of design intervention while offering methods that facilitate this. Here three chapters address the temporality of more-than-human design, including visions of a more sustainable future, reparations of wrongdoings in the past, and the presence of multiple temporalties in the now. These chapters offer complementing perspectives, involving for example anticipating the systemic consequences of a design intervention over time or imagining the future as radically different.

The book as a whole provides pedagogical material and teaching features. However, the final two chapters explicitly discuss pedagogical lessons learned from including more-than-human perspectives and exercises in university courses. The first of these chapters focuses on how to teach more-than-human values by for example exploring what must be unlearned to change our perspectives and attitudes toward more-than-human worlds. The second chapter focuses on how to step out of the classroom and into the worlds of other species by discussing several shifts that design pedagogy can make in practice.

In sum, this book provides a collection of concrete examples and actionable methods that are underpinned by emerging and conflicting philosophies and worldviews of more-than-human design.

A Lexicon for More-Than-Human Design in Practice

This lexicon intends to support the reader in understanding the chapters of this book – not to be all-encompassing for what more-than-human design is or could become. We thus aim for a schematic introduction, laying grounds for the following chapters that provide a more in-depth discussion and problematisation of the concepts.

Posthumanism

Much – but not all – work within more-than-human design is rooted in posthumanism (Abram, 1997; Barad, 2003, 2007; Bogost, 2012; Braidotti, 2019; Forlano, 2017; Haraway, 2016; Hayles, 1999). This field is critical of the Western enlightenment ideal of the distinct, rational and dominant human individual, and seeks to understand the human subject and its relationship with the world in a new, non-anthropocentric light. In posthuman epistemologies, knowledge is situated, embodied and partial, meaning that it is pluralistic rather than universal. This implies that there are many differences within posthumanism. However, posthuman thinkers have in common that they undermine traditional boundaries and dualities such as nature/culture, mind/body, or human/technology – and recognize the significance of the non-human contribution to our lifeworld.

More-Than-Human

In design research, the term more-than-human has come to signify the broad orientation of designing with the relationships humans have to the rest of the world including other beings and lively matter and technologies. The term "more-than-human" was popularised by philosopher David Abram (1997) in his book "The Spell of the Sensuous: Perception and Language in a More-than-Human World". This book bridges the philosophical tradition of phenomenology with environmental and ecological issues. Although the idea of the more-than-human was theorised and popularised by Abram, this kind of thinking originates in Indigenous ontologies that view

humans and 'nature' as an inseparable whole (Escobar, 2018). The idea of the more-than-human is thus far from new but is marginalised in – and marginalised by – contemporary Western society. Nevertheless, scholars are beginning to acknowledge, recognise and take seriously the diversity of more-than-human Indigenous ontologies (Akama, 2015) and their sustainability benefits (Brant, 2021; Latulippe & Klenk, 2020; Vásquez-Fernández & Ahenakew pii tai poo taa, 2020).

There are many ways of using the term more-than-human. Its current popularity stems from a need to replace the word "nature" with a term that explicitly recognises that humans are not separate from nature. In this book, we use the word "more-than-human" to signify a shared relationality as made sense of by humans. In other words, "more-than-human" is not a substantive that can be used interchangeably with words such as "species", "organism", "technology" or "non-human". You cannot be "a more-than-human". Instead, the term makes the most sense in relationships with other words, to signify a momentary focus on phenomena, while recognising its interconnectedness to all other phenomena that exist in the world. We may for example say "more-than-human world" to signify what in other contexts is called "nature" or "environment"; or "more-than-human entities" to signify specific phenomena within this world. One should thus take caution to not use the term more-than-human to obscure phenomena. We should always aim to be explicit and precise with what we mean. To paraphrase a common expression, we may call a spade a more-than-human spade, to explicitly recognize that we are mutually affecting each other.

Non-human and Other-than-human

Everything that is not human is non-human. However, it is problematic to define something as what it is not, as discussed in feminist theory regarding terms such as "non-male" and "non-white", which in their effort to highlight discrimination instead risk rendering invisible or "making other" in a nonconstructive way (Haraway, 2016). Nevertheless, there are cases where a term such as "non-human" may help us in a particular kind of analysis where a momentary separation and recognition of difference supports sensemaking – and although there are big differences between species, families and orders, it is often more practical to refer to the diversity of life with a more general term. For this, some prefer the term "other-than-human", since other organisms are truly "other" in terms of cognitive capacities, senses, shapes, DNA, needs, driving forces, etc. Not less, not more – other. It is only as "the other" that we may approach other beings and relate to them on their terms. As Haraway (2016) suggests, we might still make kin with other beings. Similar to the term "more-than-human" the terms "non-human" and "other-than-human" make most sense when used in combination with other words. For example, when using the expression "non-human animals" to remind us that humans are also animals.

Relationality and Entanglement

More-than-human design frames *systemic relations* as the focus of design. This is often phrased as an entanglement of a vast set of relationships that are interacting, often in ways that are hard to overview. In such entanglements human-made systems are seen as extensions of ecological systems (Metcalfe, 2015). We are "of nature", and so are the things we make. This inseparability is sometimes referred to as *natureculture* (Haraway, 2016). A relational perspective further forefronts interdependence & reciprocity, recognizing how interacting entities in a system affect each other mutually (but not always equally). Philosophically, these ideas of relationality and interdependence are often grounded in *Object Oriented Ontology* (Harman, 2018) which rejects the privileging of human existence over the existence of nonhuman objects,

and *Actor-Network-Theory* (Latour, 1996) which emphasises how everything in the social and natural worlds exists in constantly shifting networks of relationships. In design research, concepts such as *entanglement design* (Frauenberger, 2019) have been proposed as explicit design approaches recognising systemic relationality.

Care Ethics

Many more-than-human design approaches go further than merely recognizing interdependent relationality. They see this interdependence as a foundation for building an "ethics of care" (Puig de la Bellacasa, 2011). This ethics, characterized as virtue or practice rather than a distinct theory, posits that the fundamental aspects of human relationships and dependencies to other humans and the rest of the more-than-human world hold moral significance. Care ethics aims to nurture and sustain relationships by prioritizing the well-being of both caregivers and care recipients within a complex web of social connections, including those with the more-than-human world. Care is grounded in the motivation to support those who are reliant and vulnerable, drawing inspiration from personal experiences of receiving care as well as aspirational self-concepts.

Decentering

The idea of decentering is prominent in several more-than-human design approaches where explicit efforts are made to not put the human on the centre stage (Forlano, 2016; Nicenboim et al., 2023). This idea is an aspect of *non-anthropocentrism* or the *"non-human turn"* (DiSalvo & Lukens, 2011). Similar terms are *life-centred design* (Borthwick et al., 2022) and *multispecies design* (Metcalfe, 2015) which are used to signify a focus on the well-being of all life on the planet. In many ways, these terms can be used interchangeably with the term more-than-human design, as they all signify a shift from solely focusing on human needs, to a more holistic understanding of ecologies.

Situated, Embodied and Partial Knowledge

More-than-human design recognizes knowledge as situated, embodied and partial, meaning that it is pluralistic rather than universal. Such situated knowledge is embedded in, and thus affected by, the concrete historical, cultural, linguistic and value context of the knowing person (Haraway, 1988). On an epistemological level, the notion of situated knowledge is an effort to think outside the duality of objectivity-relativism that may be both ineffective and harmful for more-than-human purposes, since it risks enforcing for example overtly dualistic thinking, and perspectives of the already established and powerful. The production of situated knowledge strives for a more adequate, richer, better account of a world to navigate it effectively and engage critically with both our own and others' tendencies towards domination and the inherent disparities in privilege and oppression that characterize all social positions.

Pluriversal Design

Pluriversal design is a reaction to the idea of universal design (Noel, 2020). The critique of universal design is that it is often suited to a particular being (a white, Western, heterosexual cisgender man) while other ways of being are marginalised by this "universal" position. The idea of pluriversal design is to instead recognise and nurture differences by allowing for parallel existing

worlds capable of moving along each other, including the worlds of other species, indeed sometimes causing friction, but not the total extinction that a universalising position risk causing.

Agency and Intra-action

There are diverse ideas of what agency is. In most dictionaries, agency is described both as *action or intervention producing a particular effect* and *a thing or person that acts to produce a particular result* (Stevenson, 2010). A common colloquial formulation is that phenomena "have" agency. However, you can only have agency in relation to something to which you are producing a particular "effect" or "result". This means that agency is a relational and multidirectional phenomenon where entities affect each other mutually, but not always to an equal extent. Analysing power and domination involves identifying where this relationship is unbalanced, and figuring out how the agency of the disadvantaged party can be strengthened. More-than-human design explores how such ideas of balancing agency through social justice can be expanded beyond what has historically been included in "social" (i.e., relationships between humans). Relatedly, *intra-action* is a term coined by Barad (2007) used to replace 'interaction' to understand bodies that participate in action with each other. Intra-action understands agency as not an inherent property of an individual or human to be exercised, but as a dynamism of forces (Barad, 2007) – both social and physical.

Given this understanding of agency as a dynamism of forces, categorising notions of agency is a risky endeavour. Nevertheless, for more-than-human design in practice, it can make sense to discuss how agency is characterised in certain situations.

Agency and Materials

Some perspectives on more-than-human design are beginning to recognise matter as lively and vibrant (Bennett, 2010). This implies that matter is not seen as fully "passive" but as being able to "talk back". A ceramist cannot command clay to behave in just any way but must understand, and work with its material properties. From this perspective, craft and design is a skill of sharing control with materials, of creating scaffolds in which they are shaped in desired, but not fully controllable ways. Other examples of material agency are weather phenomena that tangibly shape our everyday experiences and more global climate conditions (see for example the chapters "5 Designing with Bodies of Water in the Hydrocene" and "6 Weathering with Storms and Grounds as a More-than-Human Design Practice- Encountering Winds, Soils and Rocks").

Agency and Technologies

Technologies are a special form of matter that has been arranged in such a way that their leverage on the world is strengthened. More-than-human design thus recognises the active role technologies take in shaping the world and our experiences of it. This includes the increased autonomy of technological networks, for example through Artificial Intelligence (AI). As noted by Giaccardi and Redström (2020) "We still experience technologies as things with a clear presence and tangibility – yet, they are just one element within a system of decentralised interactions that makes them very different from what things used to be like". In more-than-human design, we thus also need to recognise the network of algorithms, protocols, databases, etc. that affect the world (see for example the chapters "7 Designing with Planetary Artificial Intelligence" "8 Creative AI as More-than-Human – Design Practices, Aesthetics and Cultural Imaginaries").

Agency and Living Beings

Dictionaries often define life as *the condition that distinguishes animals, plants, fungi, bacteria etc. from inorganic matter, including the capacity for growth, reproduction, functional activity and continual change preceding death* (Stevenson, 2010). Here, the exemplary boundary case is viruses that display several of these characteristics, but for example, cannot reproduce without using the cells of other organisms – with a prominent example of COVID-19 showing their potential for extreme systemic leverage. The agential effects of some living beings tend to be more familiar to us humans, such as animal locomotion, while others are more unfamiliar, such as the seemingly imperceptible chemical communication of plants (see for example chapters "1 Design By-For-With-About-Without Animals: Tactics for Animal Liberation" "2 Being with Plants through Collective Fabulation, Critical Companionship and Cohabitation" "3 Biomenstrual: Designing with the More-than-Human Body" "4 Trying Out Shit!: Experimental Approaches for Relating with Microbes" "9 Multispecies Ethnography in Design Research and Practice").

Sentience

Sentience is the state of having an experience of the world. It is a conscious awareness of stimuli without requiring association or interpretation. Most more-than-human design posits that we humans have a special moral obligation towards sentient beings, as the process of sentience implies the capacity for both suffering and enjoyment (Humphreys, 2020). However, what these moral obligations are is more debated. Scientific knowledge is further continuously developed on which organisms have sentience.

Life-world, Umwelt *and Worlds*

More-than-human design often talks of multiple "worlds". This should not be understood as a rejection of a shared universe – the term is rather used to emphasise the experiential perspective of *life-worlds*, such as how all sentient beings are in the centre of their own experiences, their world. Sometimes *umwelt* (De Roo & Ganzevles, 2023), a German word for environment, is used to denote an organism's unique sensory world. It is an epistemological challenge to access these "worlds" – nevertheless, this does not mean that we should not aim to consider them when designing.

Critical Anthropocentrism

Our human position of perceiving, understanding, knowing and relating to the world is inescapable. Yet, more-than-human design aims to understand how other beings experience the world. This paradox requires a stance of critical anthropocentrism, where we recognise that our capacities as humans are limited, but also that we can use our imagination in combination with our knowledge to approach what it might be like to be another being (Affifi, 2020).

Representatives: Spokesperson, Ombudsmen and Diplomats

An omnipresent issue to continuously address in more-than-human design is how to represent other beings and things in design processes, while we are inherently trapped in our humanness, never fully able to grasp what it is like to be anything other than human. Design research has experimented with several tactics for this. For example, the idea of being a *spokesperson* (Wakkary, 2021) for non-human others by advocating for their position in society; the idea of being an *ombudsman* (Tompuri, 2015) aims for the same while de-emphasizing focus on human

language and the Idea of being a *diplomat* (Peña-Guzmán, 2022) emphasises conflict resolution and also shifts perspective to ask questions such as: how can we as humans represent ourselves in the best way possible towards a species or ecology in focus?

*Co-creation, 'Designing **with**', Emergence and Constituency*

The more-than-human worldview recognizes more–than-human co-creative capacities we can *design with*. Consequently, the role of the designer is reimagined. A designer is not necessarily one person or even a design team, but a coming together of the creative capacities of all kinds of people, organisms, materials and technologies, in what Wakkary (2021) calls *constituencies*.

A More-Than-Human Design Manifesto

Above, we used the format of a lexicon to make the assumptions of more-than-human design more explicit. Another common way in design and the humanities to make a specific worldview clearer is through a manifesto (Haraway, 1984, p. 198; Höök, 2018; Rams, 2014). We offer the following collaboratively written more-than-human design manifesto as an explanation and reminder of underlying principles that guide our diverse work in more-than-human design. The manifesto serves as the tentative and iteratively changing lens through which we can understand more-than-human design. The ambiguous format of a manifesto has been chosen intentionally since it reflects the inherent transitional and open nature of more-than-human design. It is concrete enough to be generative, yet vague enough to invite further explorations. It is open to being wrong and changing accordingly. It is pluralistic rather than dogmatic. The manifesto was initially written by Anton Poikolainen Rosén as part of his thesis work. It was then shared with all the authors of the book and the design+posthumanism network (designandposthumanism.org), who had an opportunity to comment on and edit the manifesto – and sign it if they wanted to stand behind it.

A More-Than-Human Design Manifesto

We cannot separate human needs from those of other organisms in our environment. Many organisms, including humans, benefit from considering design spaces as holistic and relational. More-than-human design focuses on this mutual interdependence.

More-than-human design resists binaries and blurs notions such as nature/culture, self/environment, digital/physical, mind/body, human/technology, and human/non-human.

More-than-human design highlights the sentience, intelligence, and agency of other organisms. This implies that we need to seriously consider the needs of all organisms, their sensory capacities, and their capability for interaction.

We are humble in recognising that we will never fully understand others. More-than-human design recognises that everything is understood from a perspective. We explore how our limited human perspectives can be enriched, strengthened, and augmented in ways that increase our understanding of the more-than-human world.

There are many ways to sense and make sense. Technology can be helpful when we reach the limits of our senses. It can amplify, augment and make perceptible the seemingly imperceptible. Simultaneously, we acknowledge that technology has detrimental impacts on more-than-human worlds. It is important to be aware of the resource use and environmental harm of technologies – and their potential benefits.

We who practice more-than-human design are not a monolithic category but bring to our practice diverse personal and disciplinary backgrounds. Our intersectional positionalities, including privileges, oppressions and lived experiences of race, class, gender, sexuality, and ability shape how we think and practice design.

More-than-human design aims to widen the scope of action through the creative development of methods for noticing, knowing and making the more-than-human world.

More-than-human design works with the co-creative capacities of living entities, lively matters and machines.

We design (into) relational systems, rather than (contributing) single artefacts. We design in ways recognising that we ourselves are relational systems, our bodies being biotopes for more-than-human micro-communities in constant interaction.

More-than-human design recognises the direct and indirect effects of design, over time and across space, for a multitude of species. It is both microscopic and planetary, with impacts beyond.

More-than-human design recognises diverse temporalities: the millennial lifecycle of a boulder, the centennial lifecycle of an oak and the brief lifecycle of a dayfly or a microbe. We work with regenerative systems sustaining themselves but also recognise the linear reality of natural history. Nature is in constant becoming, nothing stays the same. Everything in nature is slowly changing at the pace of biological evolution – but we want to avoid abrupt harmful disturbances and mass extinction. As humans, we must tread lightly to contribute with generative suggestions rather than disturbances. We recognise multiple and complex experiences of time including linear, non-linear and more.

We resist cries for perfection and imaginaries of perfect futures. We consider diverse and conflicting needs and focus on how we make systems resilient for ourselves and other organisms. We "stay with the trouble". We live with tricky questions about justice, acknowledging that the inquiry into more-than-human design is never settled. We are in a constant process of critical reflection and becoming, not always finding answers or solutions.

We recognise that the oppression of human hierarchies and extractive abuses makes all forms of life suffer and that the living world's struggles with human patterns of domination are aligned in politics, if not the impacts experienced. This brings the suffering and abuse of humans into the frame of more-than-human design.

This is only the first part of the manifesto. The second part is inscribed in leaves and rocks, and all the more-than-human world. We need to go out and notice these inscriptions. What can we see, hear, smell, feel and taste? What might be beyond our senses? By being spokespersons, ombudsmen and diplomats, we advocate for what we notice and more – for all that is still, and might forever be, beyond our human ability to notice, understand and grasp.

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