Future Observatory Journal

ISSUE N°2
More than Human — Nov. 2024

Worlding

A Future Observatory
Forecast

This forecast shares a vision for the future of design as attentive, collaborative and nurturing to our more-than-human world. It presents four propositions for designers to re-think and rebuild our relationship with more-than-humans.

Image courtesy of Vorja Sanchez

Detail from Apollo et Daphne.
Painting by René-Antoine Houasse

Introduction

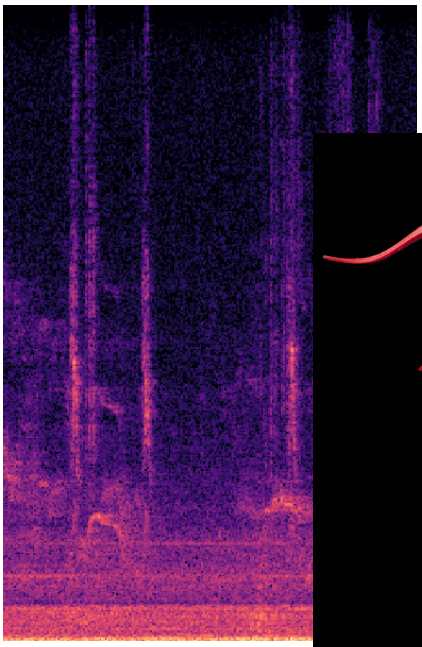
Humans tend to see the world as theirs for the taking, no matter the cost to other species and environments.

Designing for our planetary flourishing demands a shift to worlding, which Donna Haraway describes as the act of making worlds together.

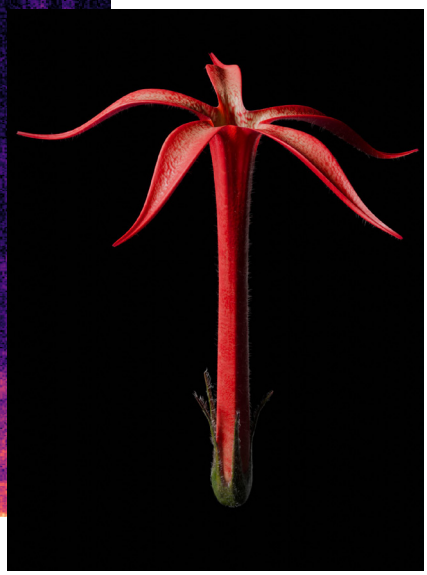
From a design perspective, worlding takes a reparative and attentive approach to imagining worlds that reconnect the human to the entangled web of more-than-human life.

By creating with more-than-humans, rather than at their expense, worlding gives agency to non-humans in our shared world.

This forecast presents designers with four propositions to reimagine our models of practice – and even ourselves – as part of a more-than-human assembly.

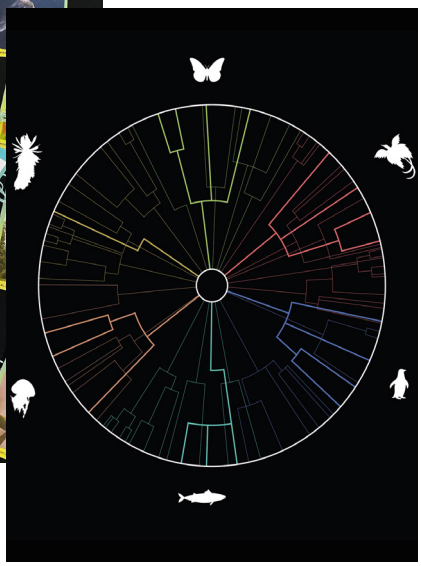


Sonorous Landscapes. Image courtesy of Rupert Griffith



Olfactive Evolution, Eliza Collin. Image courtesy of Alex Pannier

Delegate cards for the Roding Interspecies Council. Image courtesy of Moral Imaginations



Turning the Ecological Gears. Image courtesy of Sophie Falkeis

Proposition 1
Reports from Nature

Environmental agents, such as waterbodies, plants and animals are on the frontlines of climate collapse, sensing and recording the shifts in our environment.

How can these more-than-human agents inform human's understanding of climate collapse?

Alexis Pauline Gumbs, Undrowned: Black Feminist Lessons from Marine Mammals

'How can we listen across species, across extinction, across harm?'

Through scent, light, sound, migration and extinction, species communicate the nuanced, localised effects of planetary change.

By collecting this sensory data, designers are tuning in to nature's reports on the future of the planet.

Case studies

Sonorous Landscapes
Future Observatory researchers at Lancaster University are capturing environmental data – light, sound, temperature and humidity – from urban forests and gardens in Slough to measure their biodiversity and influence local rewilding initiatives.(1)

Turning the Ecological Gears
Designer Sophie Falkeis gathers data on the changing movements of penguins, birds, prawns, butterflies and jellyfish. By mapping these migrational shifts, a feedback loop emerges, from species to scientists, on the socio-ecological impact of global warming.(2)

Olfactive Evolution
Working with scientists and perfumers, Future Observatory resident Eliza Collin explores how flowers change their fragrance under climate stress. Charting the scent of jasmine under normal and drought conditions, their change in smell is a signal of climate distress. (3)

While designers have started listening to the sensory lifeworlds of plants, animals and atmospheres to help humans steward ecosystems of the future, new kinds of institutions are inviting the more-than-human world into conversation.

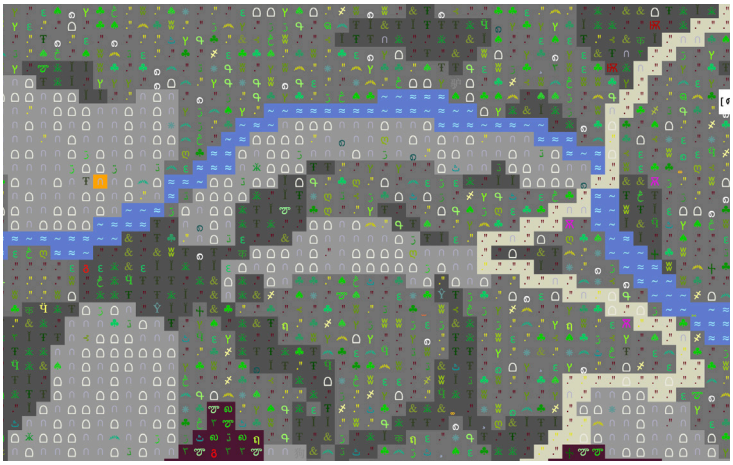
Interspecies Influencers
Schools, museums and even governmental departments have invited different species into their decision-making process. Initiatives like Zoöp, Organisms Democracy and Interspecies Council are allowing nonhuman neighbours to have a say in programming, planning and policy decisions.(4)

A Future Scenario by Daisy Hildyard

The first more-than-human embassy was established by multi-species accord. The assembly meets on an estuary, where the river mouth speaks to humans, and the people, who have occupied this place for thousands of years, know the voice of every bird. Crabs, microbes, pelicans and seatrout, have, over eons, created this space together. Ambassadors acquire interspecies communication skills from transdisciplinary nests and schools. The tides negotiate, back and forth.

(1) https://sonorouslandscapes.site/
(2) https://sophiefalkeis.com/turning-the-ecological-gears
(3) https://futureobservatory.org/programme/exhibitions/design-researchers-in-residence-solar
(4) https://nieuweinstituut.nl/projects/zoop/zoop-nieuwe-instituut, https://organismendemokratie.org/en/about/ and https://tinyurl.com/k8ehswja

Image courtesy of Robida



Permaculture Network project website

Proposition 2
Planted Practices

Taking this situated approach to design is a form of resistance to 'design as usual'.

Rather than growth as proliferation, this shift in practice nurtures lively local entanglements and supports an environment's lifeworld.

Sonia Sobrino Ralston, Uncommon Knowledge: Practices and Protocols for Environmental Information

'The natural intelligence of plants and ecological systems [allows us to think of the] planet as its own computational system. Becoming attuned to its timescales, components, and local contexts [reveals] the environment as an informational resource to be collectively stewarded.'

By staying put, designers notice the relationships between species, integrate themselves into the local ecology and create new social webs.

Case studies

Growing a Permaculture Network
Exploring the ecology of Sakiya, Palestine, Permaculture Network is an online digital project that illustrates and imagines conversations between neighbouring plants, animals, soil, water, weather and other human and non-human agents. The site works as an expanded organic community intranet.(5)

Coding in situ
Robida Collective's website translates their mountainous village of Topolò, Italy into digital form. The website's design and navigation reflects the local topology, and includes residents' diary entries and stewarding activities.(6)

Building Feral Webs
AWS's (Austin Wade Smith) website is powered and influenced by elements in its local ecology. Tide times, moon phases, sunlight, seasons and whether they are home determine the user's access to the website, embedding them in the more-than-human world.(7)

A Future Scenario by Daisy Hildyard

The second internet is sited on the rapids, where the river tumbles steeply from one terrace to another. i2 also runs along migratory pathways; through mycelial networks; oceanic currents; and weather fronts linked up via satellite. It draws nutrients through the soil and extends coverage across vast biofilms. Connections 'sleep' in accordance with seasonal and diurnal rhythms that are sensitive to body and situation. At the winter solstice (local to the hemisphere) there is a period during which all users rest.

(5) https://root.schloss-post.com/
(6) https://robidacollective.com/
(7) http://feral.earth/

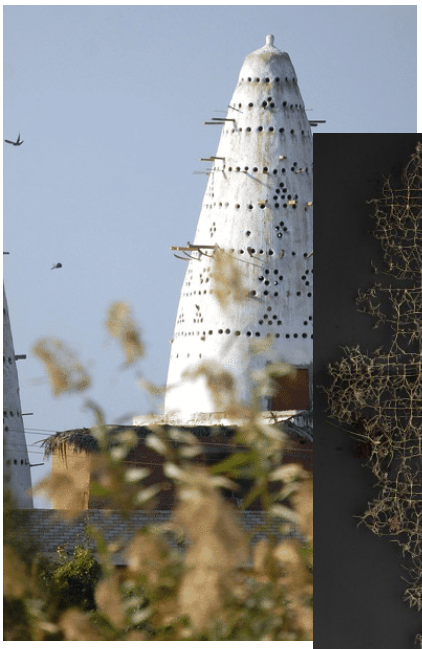
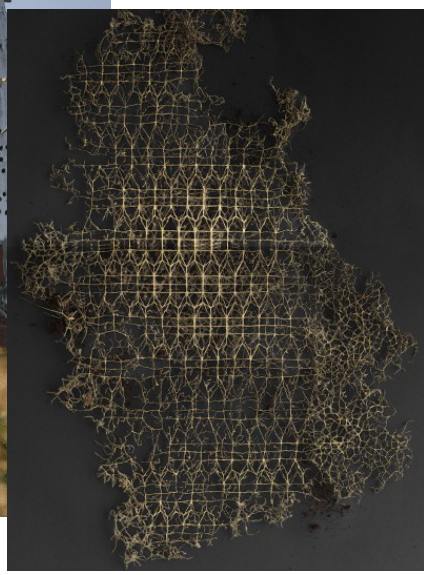
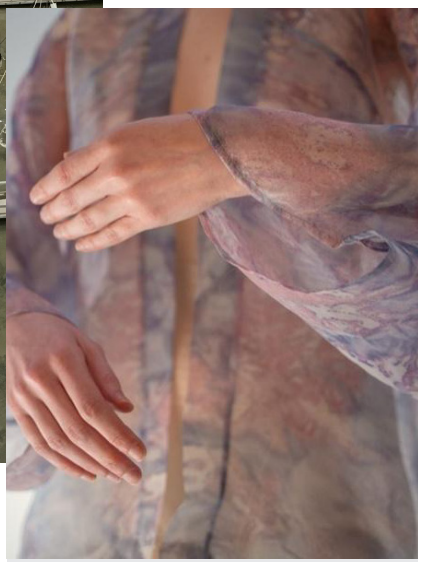


Image courtesy of Beginner's Luck



Exercises in Root System Domestication. Image courtesy of Diana Scherer

Living Breakwaters. Image courtesy of SCAPE



Assemblage 001, The Faber Futures x Ginkgo Residency 2017. Image courtesy of IMMATTERS Studio

Proposition 3
Multispecies Marketplace

Tawny owls, tree ferns, cactus coral, mycelial bacteria: all have different needs and design instincts to those of humans.

Instead of centring products, services and systems around humans, practitioners are expanding the arena for ideas and design innovation to cater across species.

A multispecies marketplace is emerging with non-humans as agents, co-designers, teachers and partners, rather than clients, users and resources.

How can the multispecies marketplace prioritise the welfare and flourishing of other species?

Through practices of care, the multispecies marketplace becomes a site for attentive collaboration. By making with the natural world, design takes on new forms, timelines and hierarchies.

Case Studies

Avian architectures
Designers like Studio Ossidiana and Feral Partnerships are imagining cities for designed all inhabitants. Architectures rehome displaced owls, the dovecote becomes a dwelling for urban pigeons and bird palaces invite local birds to feast, rest and play.(8)

Marine mending
Architects like Kate Orff are developing living breakwaters and oyster-tectures, rather than hard infrastructures, to naturally protect the coast from erosion, restore marine habitats and improve water quality.(9)

Microbial economy
The first biodesign marketplace, Normal Phenomena of Life, sells products including a jacket dyed by microbes, a lamp made from a biobased cement and artworks printed with algae-based ink.(10)

A Future Scenario by Daisy Hildyard

After the collapse of international financial systems, stock market technologies were repurposed to monitor global liveliness. Species fluctuations tick across screens on the old trading floors (bird of paradise --- nomad jellyfish --- constable butterfly); losses cascade from each new eradication. The survival of the fragile, monitored through a range of sensing mechanisms relayed from algal blooms, river mouths and climate fronts, has become the standard through which new growth is measured: stable and respected as a solid gold bar.

(8) https://www.studio-ossidiana.com/the-birds-palace and https://feral-partnerships.com/
(9) https://www.scapestudio.com/projects/oyster-tecture/
(10) https://normalphenomena.life/

Image by Merlin Tuttle

Pollinator Pathmaker. Image by Alexandra Daisy Ginsberg

Proposition 4
Being Otherwise

What's it like to be a bat, a microbe or a pinecone?

To design beyond human needs, designers are expanding their sensibilities to consider other planetary points of view.

Thinking through the perspective of living agents – like mycelium or bees – the smell, look and feel of the world changes.

Taking on the more-than-human perspective explodes the ordered structure of humans' sense-making. It invites messy logics, wild connections and reparative attentions to take root.

Elvia Wilk, Toward a Theory of the New Weird

'Whose utopia, whose dystopia? If the human is not the protagonist, who is? A utopia for mosquitos may not be the same as mine, but from the perspective of the planetary ecosystems it may be far preferable.'

Case studies

Being forest
In the Eyes of the Animal by Marshmallow Laser Feast uses VR to transform participants into forest species: a mosquito, a dragonfly, a frog and an owl. By adopting their visual and sensory perspectives, humans explore how these animals perceive and interact with their environments.(12)

Being mycelium
Let's Become Fungal!, a book by Yasmine Ostendorf-Rodríguez, explores how mycelium's behaviour can inspire a restructuring of human values, systems and design processes by learning from their de-centralised, collaborative forms.(13)

Being pollinator
The project Pollinator Pathmaker by Alexandra Daisy Ginsberg reimagines garden design from the perspective of bees and other pollinators. She developed an algorithm to calculate the planting design of gardens, selecting and arranging plants that suit the preferences of the pollinating visitors. (14)

Being city
The Alluvials, a video game by Alice Bucknell, is set in a water-scarce near-future Los Angeles. It gives players the ecosystem's experience of drought by going through the game as the L.A. River, a Joshua Tree moth, wildfire and the ghost of a mountain lion.(15)

A Future Scenario by Daisy Hildyard

After GAME OVER, the game resets. Back at the beginning, there is a hidden level. Inside the hidden level is a new world. The landscape looks familiar, but the scenery and non-playable characters: rivers and moths; vipers and apple seeds; meteorites and algae, have come to life.

Your new challenge is infinitely complex and cannot be paused. Your leaves transpire; your dusty grey wings lift the night; your scales draw you toward warm prey; your networks invest the earth with life. As you move within this altered world, spreading over biofilm, flowing into an estuary or networking the rainforest, the game implants its alien awareness of the space that is environing your body as it looks at this screen, inside this room, on this planet, right now.

(12) https://marshmallowlaserfeast.com/project/in-the-eyes-of-the-animal/
(13) https://valiz.nl/en/publications/let-s-become-fungal
(14) https://pollinator.art/about/living-artworks

Research Notes

The term more-than-human has come under critique as extractive of indigenous thinking. Recently a number of indigenous scholars have written work on more-than-human methodologies and ethics and consent in more-than-human methodologies and ethics and consent in more-than-human research citing their land as a co-author or identifying it as a storyteller.

The philosopher Michael Marder expands on ideas of situated practices and thinking through other species in his essay 'Resist like a Plant!' and in conversation with Robida Radio about plant thinking and mystical ecologies.

Ecologist Avery P. Hill began our thinking on the migration and adaptation of plant species due to climate change and how urban environments can serve as future habitat for species under threat for MOLD magazine.

In a recent text commissioned by the More Than Human Life (MOTH) Project for their compendium on an 'Ecology of Law, Thought and Narrative for Earthly Flourishing' David Abram writes about the origin of the phrase 'More-than-Human' (p. 313-319).

Death by Landscape by Elvia Wilk is a primer for anyone wondering: what kind of stories are being written that help us rethink our human-centric perspective of Earth?

Author Daisy Hildyard discusses the entangled, dissolving boundaries of all living things in her books Emergency and The Second Body.

In Undrowned: Black Feminist Lessons from Marine Mammals, author Alexis Pauline Gumbs writes as a "marine mammal apprentice", taking guidance from aquatic relations, possibilities, and practices and passing the teachings onto readers.

Designers and researchers Benjamin Earl and Kirsten Spruit have reflected on their planted practice in pieces on Code as Correspondence and Coding in Situ.

Some alternative education programs that will entangle you in more-than-human discussions and principles include Floating ~~University~~ in Berlin, the Institute for Post-natural Studies online and in Madrid, and the Academy of Margins summer school hosted by Robida in Topolò, Italy.

AWS details the beginnings of their feral computing project in Queer Servers and Feral Webs and discusses how to make the more-than human-world legible within legal, economic, technical and political systems in an interview with Willa Köerner for are.na.

In The Colony Makes the World, Claire Evans reminds us how nature is often the blueprint for technological systems.

Chapter 3 of Alenda Y. Chang's Playing Nature: Ecology in Video Games explores games where players can become-animal and experience ecological weather outcomes in games.

LAS Art Foundation has published Interspecies Futures: A Primer, a book documenting the more-than-human turn through art, design and theory.

In their forthcoming book Thinking Through Soil, landscape architects Seth Denizen and Montserrat Bonvehi Rosich illustrate the social, political, geological and biological relationships to be unearthed and untangled beneath our feet.

Contributors

Abby Rose, founder of Farmerama podcast.

Alenda Y. Chang, associate professor in film and media studies at UC Santa Barbara.

Alice Bucknell, artist, writer and educator.

Avery P. Hill, postdoctoral researcher in the Center for Biodiversity and Community Science at the California Academy of Sciences.

AWS (Austin Wade Smith), artist and executive director of the Regen Foundation.

Benjamin Earl, designer and researcher.

Elvia Wilk, writer and editor. Author of Oval (2019) and Death by Landscape (2022).

Gabriel Alonso and **Yuri Tuma**, co-founders of the Institute for Postnatural Studies.

Jessie Beier, assistant professor in art education at Concordia University.

Katie Lawson, curator, writer, PhD researcher in art and visual culture at Western University.

LinYee Yuan, founder of MOLD magazine and Field Meridians.

Mali Weil, artist and independent researcher. Founder of the School of Interspecies Diplomacies and Werewolfish Studies.

Michael Marder, Ikerbasque Research Professor of Philosophy at the University of the Basque Country, UPV/EHU, Vitoria-Gasteiz.

Nick Dunn and **Rupert Griffiths**, researchers at University of Lancaster

Phoebe Tickell, founder and CEO of Moral Imaginations.

Radha D'Souza, professor of international law, development and conflict studies at the University of Westminster and co-founder of the Court for Intergenerational Climate Crimes.

Robida Collective, editorial and radio project.

Seth Denizen, landscape architect, geographer and co-author of Thinking through Soil (2024).

Shannon Mattern, associate professor in the School of Media Studies at The New School in New York.

Sophie Chao, DECRA Fellow and Lecturer (US: Assistant Professor) at the University of Sydney.

Sophie Dyer and **Sasha Engelmann**, co-leaders of open-weather.

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