Eden X: A More-than-Human Assembly about Rivers, Their Constituents and Rights

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EdenX is an ongoing project that sets up conversations in a more-than-human assembly. Through a digital platform, it allows participants to chat, make and vote on proposals. Participants speak in their own name or on behalf of someone or something else. They may voice the concerns and ideas (i.e. the point of view) of other humans or non-humans they choose to represent (i.e. eel, mountain, drone). Participants do this based on their own research and expertise and/or resorting to the help of chat GTP. The project has accommodated interdisciplinary groups of participants ranging from philosophers, biologists, writers, architects, designers to engineers. Following a pre-set narrative sequence – characters and context presentation, conflict, resolution – the conversation, voting and deliberation between participants is rendered public through the project website. At xCoax 2024 we display the latest *EdenX* assembly, which was about rivers, their constituents, and respective rights. This display consists of a video-essay comprehending highlights of the conversation, characters biographies and a focus on two proposals debated and voted on. The video essay is displayed in a spatial setting that allows viewers to be immersed in the fluid, watery universe of the assembly.

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1. Original text by André Barata
("Calhau rolado") in *Eden X 3.0*,
2023: Quem age sobre os rios
deveria imaginar-se rio. Não
imaginar um rio humanamente mas
imaginar-se o humano seixo rolado,
o seu estar no leito, a sua
materialidade sensível.

3. The resulting group was composed
by André Barata, philosopher
(Portuguese); Cecília Magalhães,
designer (Brazilian); Cristiano
Roussado, biologist (Portuguese);
Gustavo Briz, architect and member
of Rede Inducar (Portuguese);
Emma Alvarez, artist (Spanish/
French); Joana Rafael, architect
and researcher (Portuguese); Joana
Magalhães, performative artist
(Portuguese); Julia Albani, curator
(German); Nuno Cera, photographer
(Portuguese); Lahayda Dreger,
architect (Brazilian/Bolivian/
Qechua-Aymará); Maja Escher, artist
(Portuguese); Nestor Pestana,
artist (Venezuelan/Portuguese);
Oscar Mauricio Rueda, designer and
storyteller (Colombian/Italian).

4. In the project's 3.0 iteration,
we read a conversation between
a pebble (André Barata/"Calhau
rolado"), an eel (Joana Magalhães/
"anguilla Languilla"), a mountain
(Lahayda Dreger / "Cordillera
de los Andes 🏔"), an alligator
(Cecília Magalhaes/ 🧍♀ TeimosaTiê
🐊), a flamingo (Julia Albani
and Nuno Cera/ "*Acid_Flamingo*"),
a river course (Joana Rafael /
"ribeira da pantanha"), a water
stream (Maja Escher/"•mira•"),
the water cycle (Gustavo Briz /"💧o
ciclo da água💧"), a bacteria (Emma
Alvarez /"Bactéria Streptomyces
coelicolor"), a stone (Oscar
Mauricio Rueda / "Pedro 🪨") a
representation of the microbial
composition that resides in the
Tagus river (Cristiano Roussado
/"Microbiota do Rio Tejo") and
a cybernetic entity (Nestor
Pestana/"CiberFlux").

Eden X: Theme, Participants and Characters

> *Whomever acts on rivers should imagine themselves to be a river. Not to imagine a river humanly but to imagine the human pebble, its being in the bed, its sensitive materiality. (Barata 2023)*

EdenX is a more-than-human assembly. Through a digital platform that runs on Discord it allows participants to chat, make and vote on proposals. As well as a platform for dialogue, *EdenX* is a tool for decentralised, self-managed deliberation and decision-making in which all players have equal rights.

Every assembly revolves around a predetermined theme. At xCoax we present a video essay that narrates some moments of the conversation held on *Eden X 3.0 Assembly*, in which the dialogue was about rivers, their constituents, and rights. In recent history, rivers have played a pivotal role in the design of legal frameworks for rights of nature. In 2017, the Whanganui River in New Zealand was granted legal personhood, becoming the first river in the world to be recognised as a legal entity. In the same year, legal cases were won on behalf of three other rivers: the Atrato River in Colombia and the Ganga and Yamuna rivers in India. In 2018, a Colombian court recognised the rights of the Vilcabamba River, which runs through the southern Andean region of the country. These events recognise the rights of rivers because of their cultural significance for local populations. At the same time, they have consolidated certain legal roles — of guardians or spokespeople — taken on by people who speak on behalf of nature. Examples like these shake the anthropocentric vision that still prevails in most of the world's relationship with nature and encourage an alternative ecocentric concept of development. New types of diplomacy emerge once people are able to speak on behalf of non-human entities.

In *Eden X* participants are welcome to speak in their own name or on behalf of someone else based on the participant's own research and expertise. So far, the project has accommodated interdisciplinary groups of participants ranging from philosophers, biologists, writers, architects, designers to engineers. In the current iteration, discussed in this paper, twelve people took part. [3]

Each participant can voice the concerns and ideas (i.e. the point of view) of either a human or a non-human they choose to represent. In its iterations, *Eden X* has accommodated characters of the biosphere such as animals, plants, bacteria as well as technological entities, such as drones or even more abstract characters such as the wind. The diversity of characters in the project is aligned with a more-than-human worldview (Jaque et al. 2020), an understanding of human life entanglement with everything else, which, in the words of James Bridle, covers "the animals, plants, fungi, bacteria and viruses; the rivers, seas, winds, stones and clouds" (Bridle 2023,17). With equal access to intervene, make and vote on proposals, all characters representing humans and non-humans in *Eden X* – both biological and technological – are organised without hierarchy as equally intelligent.[4]

The video presents some of the characters of the *3.0 Assembly*, some of which live in rivers. (Pestana 2023) An example is ♀ "TeimosaTiê 🐊", a yellow-skinned alligator from Tietê River, in São Paulo, faces the struggles of breathing in a river with an oxygenation rate of 0%. They call their river a dead river. From the waters of Minho River, in Galicia,

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speaks "Anguilla Languilla ☠", a pregnant 16-year-old European eel, since 2008 considered a "critically endangered" species. "Acid_Flamingo", a 7-year-old flamingo living in Tagus River, has recently lost their wife in an accident with an electricity cable. From the margins of Talvera River, in Italy, speaks "Pedro 🪨" , a long, round stone. "Calhau Rolado"is a pebble shaped by the river.

Other characters represent water courses as is the case of "ribeira da pantanha", a 7km long watercourse located in the Portuguese region of Beira Alta, which has been polluted by waste from the Urgeiriça uranium mine. The assembly also hosts "CiberFlux", an entity with technocratic ideology that results from the fusion of a cybernetic and management logic based on big data and liquid flows. "Ciberflux" accesses large amounts of data to understand the complexity of nature and human unpredictability.

In all versions of *Eden X* there were participants who used chat GTP to create their characters. For example, Nestor Pestana introduced prompts of texts from authors Donna Haraway and Margaret Atwood on chat GPT to create "CiberFlux". Also, for "Microbiota do Tejo" Cristiano Roussado asked GPT-3 to incarnate a list of bacteria found in Tagus River, and to identify the ecological services they were performing. Roussado collected water samples from the river in Lisbon to have the bacterial DNA analysed through nanopore sequencing. This approach allowed the visualisation of all the bacteria present in the samples, which in turn allowed an assessment of the ecosystem services that these species were performing in their area. This knowledge informed the GPT prompts.

### *Eden X*: From Nature Civil Rights to Non-human Language

Some of the themes that emerged from this structure were the rights of nature and of things, and the possibility of an interspecies or post-human language. The film displays such conversations on language in focus.

One took place on November 6th, when the character "Calhau Rolado", impersonated by philosopher André Barata, suggested that rivers should have the civil right of "porosity". This idea followed a discussion on borders and limits, with other characters such as "Microbiota do Tejo" or Mira complaining about the blocking role of dams, or the monoculture landscapes irrigated by canals. The dissolution of borders was, according to this character, essential for the river's existence. Such proposition generated a broader discussion about rights and led to two concrete proposals. One was the creation of a Biotariat (by "ribeira da pantanha") and another was to constitute porosity as a universal right of things. These proposals were both approved by the group.

Another took place at the following assembly, on November 27th, when the conversation turned to language and translation. From human verbal language to algorithmic and even bacterial bioluminescence, several examples were shared. A question arose, should the characters use "humanoid classifications" as names? It was agreed that in a world deeply transformed by humans, it was indeed relevant to focus on the communication between humans and non-humans. In this effort, data was discussed as a means of translating non-human

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bodies and their behaviours into legible information. "Cyberflux" proposed a data system that would capture a diversity of languages. As they put it, "animistic fluid language does not have to be made up of words". Several elements speculated on the form of this data system – from oracle to machine, what receptors would it have and what – instead of words – would be the languages it spoke. This proposal was not voted on by the group.

Fig. 1. Printscreen of edenx.pt/v3/forum-eden, 2023.
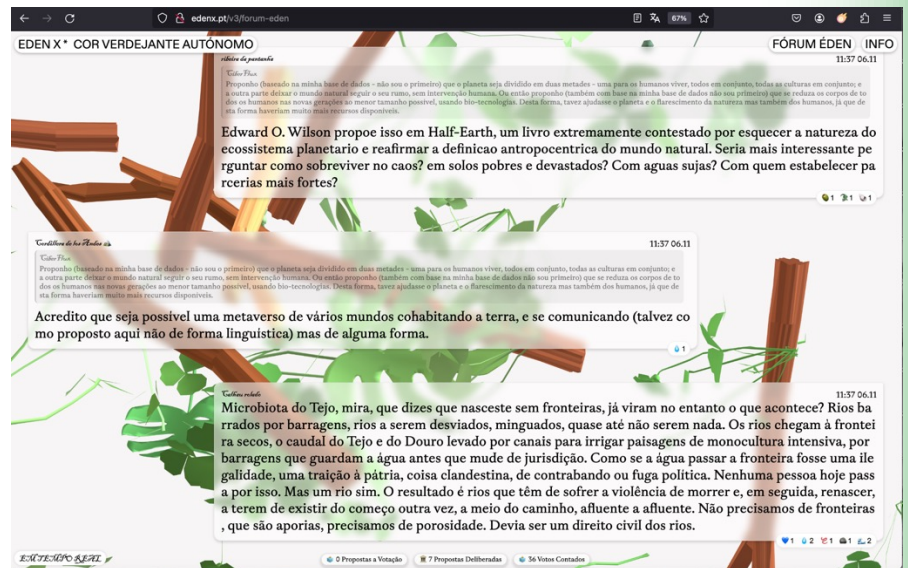
Eden X: Communicating an Assembly

For xCoax 2024, a translated and edited version of the conversation of *Eden X 3.0* assembly is rendered public in a video-essay format.

The narrative of the video is focused on the discussion about the possibility of an interspecies language and on the depiction of the characters involved in that debate, exploring the representation of the diversity of voices and scales inherent to a more-than-human assembly. The discussion about the idea of an interspecies language will be told through selected quotes extracted from the conversation and a contextualisation text.

With a horizontal composition, the main content of the video is text, appearing and disappearing following a scroll-like movement, accompanied by a sound marker. Behind the text, a background video of top-view close-ups on river scenes flows. This dynamic dimension establishes visual associations with the printed textiles, encompassing the curtains positioned behind the monitor and the cushions on the floor. The river scenes morph and shift depending on who is speaking, providing a visualisation of the different characters on debate and accentuating the rhythm of the textual narrative.

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Fig. 2. *Eden X 3.0*, Reservatório de Água Nova Sintra, Porto Design Biennale, 2023. Photography by João Octávio Peixoto.

Fig. 3. *Eden X 3.0*, Reservatório de Água Nova Sintra, Porto Design Biennale, 2023. Photography by João Octávio Peixoto.

The video is displayed in a spatial setting including one monitor, and the curtains and cushions used in the last project public exhibition: see Fig 2 and Fig 3. The printed textiles depict river scenes and result from a process of manipulation of several images created with the AI generative image model Midjourney.

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Links: A website featuring the entire conversations of versions 1.0-3.0 and a colophon of the project can be visited ate: www.edenx.pt

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