



The role of Culture-cultivation Mediation in the Amazonian energy transition: reflections on wild and digital technologies

The role of Culture-cultivation Mediation in the Amazonian energy transition: reflections on wild and digital technologies.

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Summary: 1. Introduction: The *Just* Energy Transition 2. Method. 2.1 Apiwtxa and the Juruá Valley 3. Wild Thinking 4. Results 5. Final Considerations 6. Bibliography.

Summary: The forest communities living in the Amazon region are highly vulnerable on a cultural and socio-environmental level as a result of the expansion of deforestation drivers that are converting the forest into monoculture economic activities and the criminal factions that dominate the drug trafficking routes from the forests in Peru to Brazil. The source of energy in the Amazon region is a disputed issue. On the one hand, energy projects linked to biomass, solar energy and hydroelectric dams are advancing to generate renewable energy, but on the other hand, energy generation in the Amazon region still comes mostly from fossil fuels, such as diesel. Every transition process implies mediation, that is, a network of institutions working towards this transition that comes from the territory itself and is implicated in the processes and demands that are built and co-created, and every mediation generates impacts. That said, this article asks: what is the role of mediation in the Just Energy Transition? The hypothesis is that the local culture-cultivation networks themselves are anchored in the ancestral relationships maintained by the Forest Peoples in the region of the headwaters of the Moa, Juruá, Amônia, Curuçá and Ituí Rivers through ancestral connections maintained by the rivers, streams and varadouros and have ways of mediating the Energy Transition and its impact according to the innovative solutions they test, share, without forgetting the tension they create for the cultivation of ancestral practice and the cultivation of tradition. Therefore, the aim of this article will be to analyze this Culture-Cultivation Mediation, focusing on the case of the Fronteiras Institute's mediation.

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during the planning and implementation of solar panels and digital inclusion in Apiwtxa Village. The method is participant observation and ethnography and hermeneutic mobilization of concepts of wild thought based on the practices and concerns in the installation of solar panels and digital inclusion in the Apiwtxa village located within the Kampa Indigenous Land of the Amônia River. We will see that the initiative is part of a larger movement in the region of the Juruá Basin and the Amônia River. To support the case study, between September 2020 and September 2023, we reviewed news, dossiers, institute booklets on the installation of solar panels, FUNAI's database and various publications on mediation projects and energy transition initiatives in the Juruá Valley region, as well as preliminary or conclusive documents, reports carried out during the period, and ethnography of varadouro technologies and other communication technologies between indigenous and non-indigenous actors to historically contextualize the transition process itself. The article highlights the characteristics of culture-cultivation mediation that reinforce the impacts and potential concerns of the project (still in progress) and concludes by partially demonstrating how Culture-Cultivation Mediation is a constitutive part of the reflected access to the just energy transition and the digital inclusion of isolated communities and indigenous communities in the Juruá Valley region of the Amazon and serves as a repertoire for understanding the risks and difficulties that funders of just energy transition projects must take into account when planning and evaluating these projects.

Keywords: Just Energy Transition; solar panels; Amazonia; Apiwtxa; Juruá Valley.

Abstract: The forest communities living in the Amazon region are facing significant vulnerability in cultural and socio-environmental aspects due to the expansion of practices linked to deforestation, leading to the conversion of the forest into pasture for cattle, and the criminal factions that control drug trafficking routes from the forests in Peru to Brazil. Energy sources in the Amazon region are a contested issue. While there are projects advancing biomass, solar energy, and hydroelectric power for renewable energy generation, the majority of energy production in the Amazon still relies on fossil fuels, such as diesel. The transition process involves mediation, a network of institutions working towards this transition that emerges from the territory itself and is implicated in the constructed and co-created processes and demands, and every mediation generates impacts. With that said, this article raises the question: What is the role of Mediation in Just Energy Transition? The hypothesis suggests that the local networks of culture-cultivation are rooted in ancestral relationships maintained by the Forest Peoples in the headwaters of the Moa, Juruá, Amônia, Curuçá, and Ituí Rivers through ancestral connections maintained by rivers, streams, and paths called "varadouros technology". These networks have ways of mediating the Energy Transition and its impact according to the innovative solutions they test and share, without forgetting the tension they create for the cultivation of ancestral practice and tradition. Therefore, the objective of this article is to analyze this Culture-Cultivation Mediation, focusing on the case of the mediation carried out by the Fronteiras Institute during the planning and implementation of solar panels and digital inclusion in the Apiwtxa Village. The method is participant observation and ethnography and hermeneutic mobilizations of concepts from wild thought based on practices and concerns in the installation of solar panels and digital inclusion in the Apiwtxa Village located within the Kampa Indigenous Land of the Amônia River. We will see that this project is part of a larger movement in the Juruá and Amônia River Basin region. To support the case study, news, dossiers, institute brochures on solar panel installation, FUNAI's database, and various publications on mediation projects and energy transition initiatives in the Juruá Valley region were reviewed between September 2020 and September 2023, as well as documents, reports, preliminary or conclusive, carried out within the period. Additionally, ethnography of varadouro

technologies and other communication technologies between indigenous and non-indigenous actors was conducted to historically contextualize the transition process. The article highlights the characteristics of culture-cultivation mediation that reinforces the impacts and potential concerns of the project (still ongoing) and concludes by partially demonstrating how Culture-Cultivation Mediation is a constitutive part of reflective access to just energy transition and digital inclusion for isolated communities and indigenous communities in the Juruá Valley region of the Amazon. It serves as a repertoire for understanding the risks and difficulties that financiers of just energy transition projects must consider when planning and evaluating these projects.

Keywords: Just Energy Transition; solar panels; Amazon; Apiwtxa; Juruá Valley.

1. Introduction: The *Just* Energy Transition

Global warming is a phenomenon assessed by the scientific community as being caused by the accelerated growth of greenhouse gas (GHG) emissions released by the burning of fossil fuels such as oil and oil products. The most recent warning was that high temperatures could reach 3 degrees Celsius above the temperature during the pre-industrial ⁴. periodThe world's energy matrix is mainly made up of non-renewable energy sources, such as oil and oil products, which currently account for around 29.5% of the total ⁵, energy supplycoal is in second place with around 27% and natural gas 23.6%. Renewable sources from solar, wind and geothermal energy, for example, account for only 2.7% of the world's energy matrix. Renewable sources from hydropower account for around 2.5% and biomass for 9.5%, so that together renewable sources account for just 15% of the world's energy matrix. With these figures, it's no surprise that the just energy transition is a central issue in the global debate. Although these figures demonstrate the problem we face, Brazil is far from the world's reality in numerical terms.

Compared to European countries, Brazil relies on a relatively clean energy matrix (although there are disputes⁶) for the production of electricity and has considerably increased its investments in other clean energies such as solar and wind⁷. While in 2021, the global proportion was 14.7% renewable and 85.3% non-renewable, the Brazilian proportion was 44.8% renewable and 55.2% non-renewable⁸.

⁴ Source: United Nations Environment Program Annual Emissions Gap Report 2023

⁵Source: EPE, Energy Matrix 2021.

Accessed on 25.01.2024 <https://www.epe.gov.br/pt/abcdenergia/matriz-energetica-e-eletrica> All data was taken from the 2021 Report.

⁶ Many studies in Brazil point to the high production of methane derived from the decomposition of dead matter from flooded forests in the production of large hydroelectric reservoirs (FEARNSIDE, 2015; SESSIN- DILASCIO et al., 2021).

⁷ Source: Metrôpoles. Accessed on 30.01.2023 <https://www.metropoles.com/negocios/energia-eolica-e-solar-surpass-25-of-electricity-in-brazil-for-the-1st-time>

⁸ Source: EPE, Energy Matrix 2021.

When we look at the use of renewable and non-renewable sources for electricity consumption, the Brazilian ratio is even more advantageous in the political scenario, since Brazil uses 84.8% renewable sources for electricity generation and only 15.2% non-renewable sources⁹. Therefore, when we talk about a just energy transition, the world focuses on the *transition* while we should focus on the *just* way in which this energy transition should take place.

In the words of António Guterres, UN Secretary General, "*Renewable energy is the only reliable way for the world to avoid a climate catastrophe*"⁽¹⁰⁾. No wonder the European Commission has defined Just Transition mechanisms as *leaving no one behind* in its 55 million euro incentive plan between 2021 and 2027 to ensure a climate-neutral economy¹¹. The Just Transition Fund has become the first pillar for the mechanisms.

Unlike European countries, Brazil's biggest greenhouse gas emissions are linked to changes in land use. These are deforestation and burning practices that are historically linked to the colonial model of Ibero-Brazilian land occupation and use, which includes land grabbing and the development of monoculture activities (e.g. sugar cane, cattle, soy, corn, etc.) (SESSIN-DILASCIO et al., 2022). Forest areas initially considered as "empty spaces" by colonizers (BORTOLI, 2020).

Paradoxically, Brazil's clean energy matrix derived from hydroelectric power production built on indigenous ancestral territories such as the Volta Grande do Xingu, the four hydroelectric dams that dammed the Teles Pires River, the Madeira River hydroelectric dam, is the same one that makes room for other uses still based on the extractive and predatory "forest-eating" economy (KOPENAWA; ALBERT, 2019; KRENAK, 2015, 2018, 2020), driving the same colonizing impacts responsible for Brazil's high emissions. Contradictorily, it is these indigenous and traditional communities that protect and maintain the standing forest, highly dependent on polluting energy matrices to maintain their daily activities (e.g. boats, fridges and even televisions), powered by fossil fuels, in the face of the lack of commitment by federal governments in allocating infrastructure to connect these communities to the National Interconnected System (SIN).

⁹ Source: EPE, Energy Matrix 2021.

¹⁰ Source: UN News 14.01.2024

<https://news.un.org/pt/story/2023/01/1808107>

Accessed on 23.01.2024.

¹¹ Source: EU Commission News

Accessed on 25.01.2023 https://commission.europa.eu/strategy-and-policy/priorities-2019-2024/european-green-deal/finance-and-green-deal/just-transition-mechanism_en

The installation of decentralized solar power plant systems is a strategy that is being adopted to serve communities that are relatively far from the SIN's distribution centers, such as the case study presented in this article. These systems are often linked to digital inclusion through the installation of mobile internet stations (e.g. Starlink).

At the same time, the Energy Transition movement is "waking up" market sectors eager to promote quick fixes, opening up space for transition initiatives that do not consider the impact of these technologies on local cultures in the Global South.

It is therefore urgent to think about principles and practices for a Just Energy Transition (JET). Not only in terms of reducing fossil fuel emissions by improving more sustainable energy production technologies, but also in terms of understanding how complex socio-ecological systems operate, especially in the Amazon (BUSCHBACHER, 2014).

These new technologies have increased the possibilities for EWT, but have raised concerns for grassroots organizations and communities about their effects on the culture and ways of life of these communities. What would be the effects of 24/7 power availability in an indigenous village? What are the impacts on culture, community arrangements and the transmission of traditional knowledge and practices, given constant access to electricity? How can the negative impacts that have already been identified be mitigated? What grounded strategies in indigenous territories could be tested to mitigate the expected negative impacts on culture? How can we prevent the same disconnection that "Western" societies have experienced between man and nature from being transferred to the peoples of the forest, in the current context of Climate Catastrophe?

When we talk about a Just Energy Transition for the Amazon, the decolonial component must be taken into account, especially when considering intervention processes in the ancestral territories of forest peoples. As David Kopenawa and Bruce Albert said, "our fathers and grandfathers couldn't make the whites hear their words about the forest, because they didn't know the language" (KOPENAWA; ALBERT, 2019). What new words will the forest need to produce in this new reality of energy transition?

2. Methods

The article focuses on the dialectical development of the concept of "culture-cultivation mediation" during the process of incorporating solar electricity into the daily life of the Apiwtxa community. The idea of the embodiment of Western innovation in the process

of energy transition, is presented in dialogue with Viveiros de Castro's "The Inconstancy of the Savage Soul" (2002), Cesar Gordon's "Savage Economy" (2006), Manoela Carneiro da Cunha's "Culture with Quotation Marks" (2018) and Krenak's understanding of decoloniality (KRENAK, 2015, 2018, 2020, 2022), Kopenawa (KOPENAWA; ALBERT, 2019) and Nego Bispo (SANTOS, 2023), as well as Viveiros de Castro's notion of kinship (2002 and 2009), dialogues with Marilyn Strathern's notion (1992 and 2015) and the notion of *sympoiesis* proposed by Donna Haraway (2016), grounded in the energy transition practices of the Juruá Valley.

In order to understand the panorama of energy transition movements and analyze the situation, a survey was carried out of articles, studies, news items, booklets and dossiers on the Amazon and, more specifically, on projects to install solar panels as a means of energy transition in the Legal ¹².Amazon

Participant observation was also used. PB is a research technique marked by intense social interactions between the researcher and the subjects in order to collect data in a systematized way (BOGDAN & TAYLOR, 1975), as well as ethnographic notes from field diaries and open-ended interviews, which form a set of empirical data about a reality. In addition to being a method, participant observation, combined with ethnography and open-ended interviews, is an ethical principle in humanities research. It is a commitment to the factual description of phenomena (DINIZ, 2008). For this article, we used dossiers, preliminary reports, conversations and ethnographic notes from Instituto Fronteiras, as the actor-author of the work. It was also possible to see that there are countless initiatives in the Amazon that aim to install a new wild knowledge by producing reports on experiments in the field of agroforestry.

1.1 Apiwxta and the Juruá Valley

¹² The most complete report found that gives a holistic view of what has been produced in the Amazon to date and what "secrets", in the author's words, the Amazon reveals and why it should be the center of attention when it comes to solving the problem of global warming is by Antônio Nobre and is entitled "The climate future of the Amazon". It can be accessed at <http://www.ccst.inpe.br/wp-content/uploads/2014/11/Futuro-Climatico-da-Amazonia.pdf> and brings together the state of the art of recent publications on the Amazon. There are incentive bills such as PL4248/2020 and numerous news items that reveal this movement, such as: <https://energiasroraia.com.br/projeto-quer-levar-energia-solar-para-almost-a-million-people-in-the-amazon-by-2023/>; <https://www.uol.com.br/ecoa/colunas/noticias-da-floresta/2023/03/14/como-a-energia-solar-esta-transformando-comunidades-isoladas-da-amazonia.htm>; <https://www.portalsolar.com.br/noticias/mercado/projetos/projeto-leva-energia-solar-para-mais-de-4-mil-familias-da-amazonia>; <https://epbr.com.br/mais-luz-para-amazonia-os-paineis-solares-as-baterias-e-o-que-vem-depois/>; <https://www.osetoreletrico.com.br/sistema-solar-fotovoltaico-na-amazonia/>; (Accessed on 30.01.2024)

The state of Acre, on the border between Brazil and Peru, does not correspond to the Brazilian reality either. In statistical terms, the main source of energy in this federal unit comes from diesel oil (EPE, 2021)¹³, in other words, it comes from a non-renewable source. In 2022, the state of Acre consumed the equivalent of 1212 GWh of electricity (EPE, 2021)¹⁴. The sector that consumes the most electricity, according to the same source, is the residential sector (566GWh), almost twice as much as the commercial sector (312GWh) and almost three times as much as the public sector (116GWh). In other words, the community is located in a state which, unlike the average, has its basic source of energy coming from the main causes of global warming and the largest consumption is to sustain the homes of the people of Acre.

The case study we are going to present is located in this state, and more specifically, in an Indigenous Territory, which has its own legal status, and which, in order to be the object of any kind of intervention or project, must be recognized by those interested in it as being subject to the rules to which this territory is subject, such as following the proper authorization procedures of FUNAI (National Indian Foundation), which is located in the region of Cruzeiro do Sul. We won't go into detail here, as there is a lot of ethnography on the subject, but it is important to point out that in recent years FUNAI has been given a new meaning by the indigenous people themselves. We should now point out that the source of energy in the Kampa do Rio Amônia Indigenous Territory, where the Apiwtxa community is located, is no different from the state of Acre and energy comes mainly from non-renewable sources, mostly petroleum derivatives such as diesel oil.

Therefore, in terms of a just energy transition, the indigenous territories present in the state of Acre, because they mostly use non-renewable energy, are targets for global attention in order to achieve the millennium goals, mitigate the effects of the climate crisis and focus on the *transition of energy sources*. In indigenous territory, whether or not it is isolated or protected, there are often immense challenges for an energy transition. From the point of view of urban centers and large capitals, where solar panels are currently produced, the territory is distant, there are difficulties in logistical execution, which must take into account the idiosyncrasies for the safe transport of the panels from the production site.

¹³ The Ministry of Mines and Energy's 2021 Electricity Statistics Yearbook. Available on the EPE website:
https://www.epe.gov.br/sites-pt/publicacoes-dados-abertos/publicacoes/PublicacoesArquivos/publicacao-160/topico-168/Anu%C3%A1rio_2021.pdf (Accessed on 26.01.2024)

¹⁴ Also available on the EPE website:
<https://dashboard.epe.gov.br/apps/anuario/>
(Accessed 25.01.2024)

to the territory. In addition, decisions regarding transportation and logistics also have an impact on the biome and should be reflected on the possible options for renewable sources that best dialogue with the indigenous way of life and the territory's capacity to receive new technologies.

For the reasons described by Antônio Nobre (2014), as we shall see, indigenous territories are located at the center of the world. In other words, from the point of view of the importance of the biome for slowing down global warming, the indigenous territories in the Amazon occupy the center and are the places that produce new technologies far away, living on the periphery. This is a subtle factor, but it also interferes with how we understand the Amazon and how we ensure that the concern for *fairness* is inherent in the energy transition itself.

In very general terms, a just energy transition, as mentioned above, is one that plans and imposes a change in the energy source that respects the rights and ways of life of the populations, and therefore now understands that any intervention can be incorporated by the community itself, without, however, guaranteeing added value through its transmission alone. It will depend on many human factors, and how the production of kinship will take place so that there is not only transmission, but also transition and added value to traditional technologies.

The Apiwtxa village is located in the Juruá River and Amônia River Basin, in the Kampa do Rio Amônia Indigenous Land and its main technology is the existence of varadouros. The varadouros are paths through the Amazon rainforest itself, through the streams and, above all, through the abundant *rivers*, which are used for transportation, communication, logistics, monitoring the forest, ritual and spiritual practices, obtaining products for subsistence and eventual outflow of products for trade or cultural and spiritual strengthening, as well as all the activities that involve the traditional way of life of the indigenous peoples. The crossing is mainly made by boat, so diesel oil is used both in the boat engines and to produce electricity through some generators in the villages. For reasons of economic, political and natural resources, the energy generated is intermittent. The process of climate warming has had a major influence on the scarcity of water.¹⁵ It is through these generators that electricity and internet could be had, very sporadically and very dependent on the weather.

3. Wild Thought

¹⁵To find out more, there is an indigenous Sumaúma radio station available on the podcast tools that has reports from the Forest Peoples themselves and their scientists on the decreases in rainfall.

The questions posed in the *Introduction* to this work are not easy to resolve. Especially when the effort made here is aware of the possibility of this text being addressed to more than one epistemic community. When we start to think about the implications of the entry of an *a priori* external technology into indigenous social technology, it is almost impossible to avoid the *natural* misunderstanding that will result from reading the article. That is, if the reader is part of an epistemic community commonly referred to as "Western", the warnings are even more serious: firstly, we have to deconstruct the presumed image of the entry of a technology as resolutely threatening to the original, primary, or even traditional technology. In other words, we must avoid the tendency of colonial thinking to see the entry of a new technology into an indigenous society as a process of *westernization* of that society. Secondly, the recurring tendency to essentialize what is understood as *traditional* in the traditional practices of indigenous societies must also be deconstructed.

In this sense, it is very important to bring up some of the findings of Cesar Gordon's *Savage Economy* on the Kayapó indigenous society, more specifically the Xikrin-Mebêngôkre, in their relationship with non-indigenous people. His ethnographic study helps us to reflect on the core concerns of culture-cultivation mediation in the case of the installation of solar panels, and we'll see why shortly. In it, the author discusses the entry of merchandise, and the process of capturing capitalist technology - money, considered at first to be "white" technology because it was not yet produced within the community, and the assumption and re-signification throughout history of the incorporation of these signifiers (merchandise, money) by Xikrin-Mebêngôkre society (GORDON, 2006). It is important, above all, because it reveals how this "entry" is not made from outside the traditional culture, even though this is a widely circulated view in the national and international media, when it is thought to raise some kind of concern about the potential changes that can be instilled in this type of community.

On the contrary, the process of incorporation is traditional, at first, and new technologies are glutinized from within (GORDON, 2006). It is possible and possible to gauge how this meaning is given. This also doesn't mean that there is no change or violent imposition on the previous way of life. What matters is precisely that *previous* way of life as opposed to an essentialist *traditional* one. Traditional Ashaninka culture, like the Xikrin-Mebêngôkre and other Amerindian communities in the Amazon, is not *an* immutable, permanent culture, or one that is adjacent (and indifferent) to the historical processes, desires and changes of the community itself. As Viveiros de Castro would say

about the Amerindian communities of the Northwest Amazon are not at all essentialist in *The inconstancy of the savage soul*:

Moreover, the question has an essential a posteriori quality. The possibility of a hitherto insignificant being revealing itself as a prosopomorphic agent capable of affecting human affairs is always open; personal experience, one's own or that of others, is more decisive than any substantive cosmological dogma. (...) if there is a virtually universal notion in Amerindian thought, it is that of an original state of undifferentiation between humans and animals. (CASTRO, 2002, p.353 and 354)

The process of incorporation of goods by the Xikrin-Mebêngôkre people evolved beyond simple cultural reproduction, since it was initially possible to see that this incorporation was subject to indigenous technologies that were deeply rooted in the culture. Subsequent, more complex challenges demanded new forms of what the author calls "indigenization" of the new technology, in other words, an appropriation that admitted meaning and sense in Xikrin existence and that was sustainable. (GORDON, 2006)

This set of shared solutions to give sustainability and significance to the savage process of incorporating an element that is a priori external, but which is incorporated as *a posteriori à priori*, to use "Western" terms as having a meaning in itself right from the start, is very strongly related to the capacity that Amazonian Amerindian societies have for kinship.

Kinship is a hotly contested notion in terms of anthropological, archaeological and sociological theories. There is still a great deal of work being done on new speculations that will collaborate together in this network of ideas on kinship. Although this is not the focus of this work, it is impossible to avoid some notions in order to get a little closer to understanding what it means to mediate intervention projects in indigenous communities in the Amazon. More centrally, the production of kinship is recurrent in Amerindian cultures (STRATHERN, 1992, 2015; CASTRO, 2002 and 2009; DESCOLA, 2013). And part the change over time in the incorporation of goods (new technologies) into the Xikrin-Mebêngôkre community has produced changes in the previous kinship mode of production (GORDON, 2006).

Gordon makes a fundamental point about any introduction of an external element, and here we will use the term new technologies in comparison, into communities: it is not necessarily enough for a technology to be transmitted from outside the community in order to create and add value/significance to that community; it is necessary to consider these new technologies, firstly, as not useful in themselves, as if they had intrinsic value: good, positive or advantageous.

Secondly, they need to be exposed to indigenization, to a ritual transformation based on a sense of *otherness*:

the fact that the Xikrin system today operates in interaction with a mode of 'otherness' that is constituted and presented in a very particular way, in which state and mercantile institutions predominate, based on the production of objects, on an industrial scale. In short, the main movement of this work is to insert the objectified production of whites, especially merchandise and money, into a Xikrin political and symbolic economy in transformation, without disregarding the fact that the transformation is, in turn, inflected by the very incorporation of this production. (Gordon, 2006, p.39)

In other words, you have to see how the other sees you. This implies that all mediation is and will be, as we shall see, about exposing yourself to seeing how the other sees you, showing how the other sees you and is seen by you. Putting oneself in question also takes into account, and this is our consideration here, the different epistemic communities, which also requires a kind of mutation of words and narratives in order to achieve meanings that are close, common or "related" to each other. Gordon then proves that the mode of incorporation of the commodity, of money, *"are constituted by the same machine for manufacturing people and value, as they constitute it"*. (GORDON, 2006, p. 43 and chapter 10)

The notion of kinship, to begin with, implies a broadening of the notion of *nature* in relation to what the Western epistemic community has sedimented, and paradoxically, essentialized, radically separating it and opposing it to the world of culture. There is a consensus today in recent ethnography about the extended understanding that the peoples of the forest have in relation to *nature*, and this extended sense is not exclusive to the Amerindian peoples of the Amazon:

There can be no doubt that the Amerindians of Amazonia possess a remarkable empirical understanding of the complex interrelations between the organisms within their environment and that they use that knowledge in their survival strategies. Nor can there be any doubt that they make use of social relations, in particular kinship, to define a whole range of interrelations between nonhuman organisms. However, it seems unlikely that these characteristics stem from their adaptation to a particular ecosystem that, thanks to its intrinsic properties, somehow provides an analogical model that makes it possible to work out how the world is organized.(...) In short, the characteristics of the northern forest are the exact opposite of those of the Amazonian forest, for the former "specialized" ecosystem includes few species, each of which is, however, represented by a great number of individuals. Yet despite the ostensible homogeneity of their ecological environment-and also despite their impotence in the face of the famines regularly engendered by such a harsh climate-the subarctic peoples do not appear to regard their environment as a domain of reality that is clearly distinct from the principles and values that govern human social life. In the Far North, as in South America, nature is not opposed to culture but is an extension of it and enriches it in a cosmos in which everything is organized according to the criteria of human beings. (DESCOLA, 2013, ch.1, p.18)

It was already possible to see how the Amazon still carries images in the international community that have nothing to do with the thinking produced by those who live there. The understanding still prevails that it is possible to "tame" nature, to control it and to throw

a collective effort to prevent global warming, with the presumption that we understand what the forest, the climate drama and human actions in the forest are all about. However, the intensity of the interdependence of forest peoples for the survival and multiplication of the forest is still little publicized in the official spheres, and as a real factor of power (State, Media, Military, Church, etc.). In this way, the Amazon, as well as other forest biomes, is unknown. And what do we do when we are faced with an unknown way of life, which we may even need to incorporate into our way of life? If we consider that many of us are *deforested*, to use Eliane Brum's term (2021), not just because we burn forests, but because we can't access what they are worth to us and we need to go through a process of Amazonization, of making kinship, of establishing an expanded relationship with nature, but how do we make kinship with the unknown?

The metaphor of the arachnid *pimoida cthulhu* with its "*tentacular thinking*" proposed by Donna Haraway helps us to speculate and reflect on this decision-making that is at the heart of possible culture-culture mediations. She suggests entangling the threads to form a network, to think collectively, share narratives and make kinship with the unknown, as well as not turning away from the problems, but staying with the problems (HARAWAY, 2016). And if we have to share narratives (above all by incorporating wild scientific thought and not only that) and make kinship with the unknown, it is therefore remediable that in order to mediate it is necessary to occupy (or above all vacate) spaces in order to create the conditions for making kinship with the Forest.

In a way, the Amazon is still, as a community of human and non-human beings entangled in the kinship relations that exist between the beings of the forest, its vegetation, its animals, and the humans who live there, a figure unknown to the international community, as it is to many national epistemic communities. Communities still based on "monoculture-predator thinking" that burns extensively, that exploits and extracts value instead of acting to give it value, instead of wild thinking, in kinship *with* that which is concerned with the incorporation of new technologies and how they can and should add value. Communities with monoculture and predatory thinking practice, above all, what Haraway calls "autopoiesis", as opposed to the practice of wild thinking, which is *sympoiesis*. Haraway says of this notion, which is more complex and better suited to the notions of kinship produced by indigenous peoples' way of life:

After I used the term *sympoiesis* in a grasp for something other than the lures of autopoiesis, Katie King told me about M. Beth Dempster's Master of

Environmental Studies thesis written in 1998, in which she suggested the term *sympoiesis* for 'collectively-produced systems that do not have self-defined spatial or temporal boundaries. Information and control are distributed among components. The systems are evolutionary and have the potential for surprising change'. (...) I think this point is important for thinking about rehabilitation (making livable again) and sustainability amid the porous tissues and open edges of damaged but still ongoing living worlds, like the planet earth and its denizens in current times being called the Anthropocene.(HARAWAY, 2016,p.33)

The interpretation of the notion of *sympoiesis*, proposed by Lynn Margules and reinforced by Haraway, allows us to invert a very present logic linked to the notion of competition as exclusively constitutive of the evolution and survival of species, in supremacy over the notion of cooperation that necessarily exists, and also constitutes, the evolution and survival of human and non-human beings. The aim, therefore, is to focus on systems produced in cooperation and draw attention to new cooperation networks capable of regenerating ecosystems, cultures and sociabilities. Achieving a new community that is engaged in the relationship with the forest also requires reflection and a change of perspective on how relationships between human and non-human animals have preserved and produced biomes. It was common to hear indigenous communities from the Juruá Valley say that they "plant" the Amazon. This is also related to what Gordon observes at the *core of* the Xikrin-Mebêngôkre's savage thinking.

"Planting the forest" reveals the *sympoiesis* in the human-nature relationship, which differs from the conception of human versus nature competition engendered by the thought of economic growth based on the predatory exploitation of natural resources. In other words, the forest peoples escape from the Western understanding of nature conservation - objectification - to the embodiment of the interspecific and grounded relationship: they "plant" the forest. In other words, human conditions have been established in a network and kinship with non-human conditions for the extension of the forest. The forest as a result of grounded interspecific kinship relations and ancestry, supported by the Amerindian worldview.

In the same way, when their way of life is under threat, so are the networked stages of forest cultivation. This is why *Amazonizing oneself*, a verb mediated by Eliane Brum (2021) that conjugates the diverse interests of forest peoples, is to actively engage in this project of understanding the Amazon, in cooperation, together and with the forest peoples. Therefore, mediating in the Amazon goes beyond the use of social psychology tools, it involves grounding the embodied experience, the cosmological and holistic reflection of wild thought, with *Amazonizing oneself*, with what is produced and in-embodied within the Forest. If we think according to the opposite notion to *sympoiesis*, we will continue to reproduce in ourselves the understanding that the Amazon is "strong" even

but what we do to threaten it, while thinking from the point of view of *sympoiesis* is thinking about how fragile the Amazon is and how dependent it is on *Culture-Cultivation Mediation*.

And here I emphasize the shared solution produced collectively that has no "*self defined spatial or temporal boundaries*" and the potential for surprising change in the evolution of systems. The proposal now is to understand the demands of the Apiwtxa community's energy transition case, made possible thanks to the cooperation of several private non-profit institutions, by dialoguing with this fine wild literature that supports the possibility of understanding a *culture-cultivation mediation* carried out there.

4. Results

The movement towards energy transition in the Amazon, especially the replacement of diesel generators with clean energy sources, is not recent. It includes public policy initiatives such as the Light in the Countryside Program (2000), the Light for All Program (2003), and More Light for the Amazon (2020). The programmatic nature of these policies implies a need for extensive relationships and networks to ensure their effectiveness in these territories, which is rarely seen in practice. They are usually programs designed from a perspective that justifies the projects as essential to the economic growth of these regions, but they rarely incorporate questions or criticisms of the energy model based on the construction of large hydroelectric dams, even though this is a controversial solution in terms of the impacts they cause on rivers, forests and their peoples.

In the Juruá Valley region, there are also other energy transition initiatives being carried out on indigenous lands and conservation units¹⁶. With regard to official public policies, there is still no constant concern with how to implement public policies that are appropriate to local practices and ways of life. There is no visible mediation, nor is there any appropriation by the state of the research produced by the forest peoples with the mode of intervention to be adopted in each initiative. This means that bringing electricity (bringing light) to the Amazon ends up being seen by governments uncritically as positive policies, full of advantages, and no disadvantages or risks. There is little debate about the role of the interests of the companies involved with the competing technologies for the solutions adopted, as well as their relationship with the communities impacted. Bringing

¹⁶ This is the case of the project that won the Solar & Storage Live Awards in 2022 in the Vila Restauração community of the Alto Juruá Extractive Reserve, which combines solar panels with biodiesel generators. Source: <https://www.uol.com.br/ecoa/colunas/noticias-da-floresta/2023/03/14/como-a-energia-solar-esta-transformando-comunidades-isoladas-da-amazonia.htm?cmpid=copiaecola> (Accessed 26.01.2024)

Although there are intervention projects of this kind, the narratives surrounding the projects are different, depending on the networks formed by companies to promote these initiatives in different territories.

continuity of colonial thinking, progress, civilization, or in today's words "growth" and "development" as synonyms.

In the media, it was recurrent to find two predominant and conflicting narratives, especially those that are located far from the Forest, in the financial and political centers of south-central Brazil, mainly São Paulo, Rio de Janeiro and Brasília: on the one hand, a conservationist narrative widely used by environmentalists and based on a naive idea of protecting the Forest untouched and free from anthropic influences. This essentialist thesis has not been updated and still appears in many media outlets (BRUM, 2021). On the other hand, there is an equally naive narrative of an industrial-developmental nature with nationalist aspects, which sees the international interests of the countries and companies involved in these agendas as shady and ideologically contrary to what would be the sovereign national interest. Many of the infrastructure projects recently promoted by governments and with significant impacts on a forest seen as a virgin space to be occupied and exploited are based on this vision, especially the exploitation of natural gas, oil, roads and hydroelectric dams.

None of these narratives come from what the forest tells us, which can be seen from recent archaeological studies (NEVES, 2022). Nor do they come from the savage thinking produced by their own communities. Thinking that only manifests itself in the alternative media, in other words, that doesn't exist because of public concessions to private capital, which has a monopoly in Brazil, but because of the collective movements spread across the Amazon. These are movements that suffer from a lack of scale and that compete unequally with the mainstream media, but which are growing, such as indigenous radio stations, indigenous media, with their use of social networks and podcast platforms, as well as reports and scientific dissemination produced more organically by these groups. The report "The climate future of the Amazon" by Antônio Donato Nobre (2014) elucidates the main conclusions of years of study on the Amazon and helps us to see how neither of the two main official narratives, in themselves, hold up separately, it also helps us to know the main reasons why concern for the Amazon rainforest should not only be surrounded locally, or nationally, but *internationally*, perhaps taking on an even broader meaning here than the western epistemic community might imagine.

The "technology of the forest", he says in the report, is irreplaceable (NOBRE, 2014). This is also the *core of* the reflection, as we can read, and this "green ocean" that we call the Amazon Rainforest has at least five great "secrets" to

to maintain life on the planet in such a way that it is in the national interest, as much as it is in the international and planetary interest, including protecting the interests of future generations, to understand the forest and the positive consequences that its permanence, and the constant "planting" by human and non-human beings of the forest, imply for the recovery of the temperature and the regulation of life on Earth. Among these secrets, Nobre highlights the forest's ability to keep the air humid, the formation of abundant rainfall in clean air, the resilience of the forest, which survives climatic cataclysms and sustains a beneficial hydrological cycle, the export of aerial rivers of vapor that carry water for rain in distant regions during the summer, and the ability to attenuate atmospheric violence and large-scale lateral acceleration of winds in the lower atmosphere (NOBRE, 2014).

Among the demands made by the Apiwtxa community to the Instituto Fronteiras, in the mediation with possible and potential investor partners in the Just Energy Transition in 2021, there was a repetition of requests by the community, a great effort not to lose focus of the needs of the village in its relationship as an indigenous territory located on the borders of the Forest. The priorities were: **a. to expand the capacity to reforest the territory degraded by livestock activities, burning and the misuse of agricultural techniques; b. to expand the capacity to monitor the territory, and to defend it since it is also a border region where there are intense invasions and illegal activities such as drug trafficking; c. to expand the digital inclusion capacity necessary for monitoring and reforestation activities**¹⁷.

The varadouros technology allows the Apiwtxa community to protect and monitor their territory, which is often invaded by illegal practices, as it is located close to Brazil's border region. It also allows the technology to observe and monitor the flow of water, the existence of floods, the limits of the forest and the points of greatest fragility. When this information is shared with the community, it allows them to build strategic plans, practices and actions in and around the border regions to regenerate the forest and its practices. Literally, it is a social technology to know the forest paths, corridors, varadouros, its most and least vulnerable points and also to be able to develop strategies for extending protected areas, just as we said that it is common to hear the indigenous population say "we planted the Amazon, we helped plant this forest". This is because their way of life, their technologies that are grounded in the forest, whether it's the varadouros

¹⁷ All the demands were taken from the Preliminary Report produced and made available by Instituto Fronteiras.

are closely connected to the cultivation of the plants, fruits, trees and medicines of the forest and how the threat to the forest is a direct threat to the *indigenous body*.

For Amerindian societies, predatory practices are not only predatory because they are illegal. Legal illegality is sufficient as a definition for Western societies, but not for indigenous populations. This is because many predatory practices produced by Western societies are not considered illegal, even if they result in severe impacts on forest crops. The state, still under colonial vestiges, restricts the understanding of legality and illegality, stripping traditional peoples of their ancestral rights. This is why indigenous people will often say that they are at war when their territories are impacted by burning, logging, the invasion of trafficking activities, major infrastructure works defined by the state. This is because their ancestral technologies are repeatedly strangled by the predatory practices of Western society. The role of Instituto Fronteiras, as the partner institution responsible for the project, was to reflect on and understand how to act with integrity in a process that would certainly transform the reality of that community by replacing or extending technology, especially digital technology. How can we create a process that goes beyond replacing one technology with another and incorporates, "savages" digital technology into the technology of the varadouros? (Figure 1). How to mediate in order to guarantee not a replacement, but a deepening of existing technologies and their incorporation by the Ashaninka's own wild economy processes. Ensuring that community leaders are aware of the new technology so that it doesn't replace their way of life, but gives it a new meaning. How, finally, to "anthrophagize" digital technology, making it more of a wild technology?



Figure 1: Territorial monitoring and protection using the varadouros technology.

Territorial monitoring, in fact, was one of the main factors behind the need to incorporate the new technology for the Apiwtxa community. The possibility of 24/7 internet access promises to make it easier to get in touch with wide-ranging protection networks, especially to deepen interaction with the environmental and military agencies responsible for monitoring environmental crimes and protecting the territory from illegalities.

There was also the intention to: **a.** *obtain renewable energy to expand agroforestry production projects, storage of local products (e.g. fruit pulp, game, seeds, etc.), monitoring of the territory, reforestation and digital inclusion;* **b.** *expand the spiritual healing capacity of their communities, those living nearby and also international communities. Expanding the capacity for spiritual healing for their communities, those living nearby and also international communities that feed off the collective learning that takes place there and is distributed and shared;* **c.** *Avoiding long journeys to guarantee access to basic resources and rights (e.g. social security benefits in line with the digitalization of state bureaucratic procedures; access to bank accounts, meetings with partners, online medical consultations, among others).*

Reforestation and agroforestry food production not only expand the Forest's circular economy, but are also closely connected to ritualistic capacity, indigenous health and the ability to heal and develop spiritual practices. Food that comes from the forest has a spirit, it's alive, whereas industrialized food doesn't have a spirit. This factor directly interferes with community relations.

The main bottlenecks and difficulties reported in the field: *1. the need for a logistical strategy for travel; 2. the need for a logistical strategy for setting up the infrastructure and maintaining it; 3. the need to liaise with multiple players; 4. the financial resources of the venture; 5. calculating risks and training people.*

The logistical design capacity (Figure 2) is highly dependent on: a. the climatic conditions of the region; b. the manual labor force of the community and those involved (there is no crane, no tractors or appropriate trucks). c. the political conditions of the local actors; d. guaranteeing the legal arrangements, e. guaranteeing the financial resources of the venture, f. guaranteeing the logistics and transportation of the equipment, g. maintaining adequate training for project maintenance.



Figure 2: Efforts to transport and install solar energy systems.

The international demand, as mentioned above, is to promote a just energy transition, but while on the one hand there are many funds, incentives and international law that promote this path as indispensable to achieving the millennium goals, on the other hand, national legislation is complex, especially when it involves projects in protected areas or indigenous areas, which have their own legal status. In addition, information on financial resources is scattered around the world, and the way in which resources are made available and transfers are carried out according to certain specific requirements is not directly suited to the characteristics and respect for the ways in which indigenous communities organize their way of life. An example of this, which is widespread throughout the world, is the prioritization of written narrative communication to the detriment of oral communication, which is typical of indigenous communities. Even with the advance of technology, social networks and the possibility of making more and more use of orality for communication, there is an overwhelming predominance of written communication and control. Calls for tenders, projects, exchanges, narratives, especially reports and tests are mainly written. Even though we already have mechanisms and

sufficient technologies to implement new designs for calls for proposals, projects, exchanges, meetings, formal image reports and favoring oral narratives.

Therefore, the ability to access financial resources is deeply dependent on institutional mediation, which takes into account conjunctural political analysis, intercultural translations and mediations,¹⁸ and the repertoire of narratives to be mediated with a view to broadening cosmopolitical agreements. This is the ultimate goal of the original and traditional peoples and communities of this Basin. In addition, institutes and organizations such as Instituto Fronteiras are often responsible for guaranteeing the final written products, such as reports, of this intercultural translation.

And this is the main demand of the indigenous communities of the Juruá Valley and Amônia River region: to expand cosmopolitical agreements, i.e. not only the arrangements that traditionally guarantee the standing Forest, and the traditional practices of the communities and native peoples, but also agreements for the future, a future that is first and foremost an ancestral ¹⁹. future Ensuring that the next generations of communities are also able to expand the Forest, accumulate Forest and the capacity to maintain as many future generations as possible, since, in the Amazon, everyone is nature.

Pragmatically, there is investment and open calls for projects, but the road from the money to the territory is arduous, it depends on many institutional openings, on the reputation of the entities raising the funds, on a good narrative (i.e. knowing how to say what the funder wants to hear without creating an expectation that goes against respect for the values of the communities) and a high capacity for planning and execution, once again, which recognizes and does not disrespect the values and cosmogonic visions of the territory. What's more, this path also presupposes incorporating the potential that already exists, realizing the gaps in procedural listening and rearranging the participation, co-construction and collaboration of the multiple actors that are involved when the objectives are complex and common at the same time. The multiplicity of actors not only stems from the multiplicity of needs and arrangements for an ambitious undertaking, but also from the multiplicity of epistemic communities that are involved whenever we talk about the Just Energy Transition in a region like the Amazon and the intricacies that all translations involve. and transcription implies (Figure 3).

¹⁸ One major caveat to the use of the term *intercultural*. Here we assume a dialog for the international scientific epistemic community, which takes it for granted that there is one Nature and several cultures. For didactic purposes, anthropophagically, we accept the term, although Amerindian perspectivism, as Eduardo Viveiros de Castro (2009, 2013) has shown, rejects this meaning.

¹⁹ Words by Krenak, a Brazilian indigenous leader.



Figure 3: Off-grid solar energy system ^{installed}²⁰.

It's not easy, nor is it possible, to explain the Amazon:

The Amazon is not a place where we go carrying our bodies, the sum of bacteria, cells and subjectivities that we are. It's not like that. The Amazon jumps into us like an anaconda, strangles the backbone of our thoughts and blends us into the marrow of the planet. We don't know what I am anymore. People keep calling us by our names, we answer, apparently with our identities intact - but what we are, we no longer know. What we have become has no name. Not because it doesn't have one, but because we don't know its language. (BRUM, 2022, p.10)

We make this parenthesis because the exuberance of images about the Amazon tends to colonize non-indigenous thinking with ideas about it that are far removed from what it actually is and implies. For those who live it, embody it, there is no exaltation of its exoticism, it is natural as it is. And this should be borne in mind when continuing this article. Although the Amazon cannot be explained, it is not difficult to understand either, because it is fundamental to its survival. Part of itself.

Finally, it's worth considering an aside, which was made at the end on purpose: when we talk about *Mediation*, part of the "Western" scientific epistemic community can unwittingly create a series of possible images that immediately colonize our thinking as well. Many preconceived and assumed notions outline the field of applied social sciences. One of them leads us to the notion of *a mediator* as an *individual*, a self-assured, reputable subject, or *an institution* (also well-assured and reputable) that has at least the following qualities: independence, isonomy, impartiality, common sense and neutrality, principles from the field of law that regulate the performance of mediators.

²⁰<https://www.youtube.com/watch?v=YluSl5nvsAI>

a judge. This-individual or this-institution that places itself in the *midst of* other people or institutions supposedly *in a relationship* (= *in tension*) and provides it with *the space (and power)* without which there would be no dialog.

It is the place of privileged distance, independence, impartiality and neutrality that the mediating entity carries in order to have legitimacy to "mediate" relationships and resolve conflicts arising from these relationships. And it is precisely this image that hides *the recognition of traditional and age-old practices and mediations in the Amazon territory by human and non-human beings, indigenous and non-indigenous people who live in the Forest*, and which can confuse and presuppose a dependency on Culture-Cultivation Mediation. On the part of those "on the ground"²¹, in the territory, Culture-Cultivation Mediation is yet another possible mediation to strengthen culture, as the term itself denotes, and cultivate the forest, because it understands that without the culture of the peoples, there is no survival of either the Forest or all beings. This creation of conditions and space for possible dialog to mediate the problems and conflicts that impact this Forest, who best has the knowledge and practice to keep it standing, is known for the recurring mistakes of mediating institutions eager to plan and intervene, "neutral and impartial" from a distance, in the Amazon. This is also a call to vacate the land and give the people a place to speak.

The activities, the livelihoods of the people of the Amazon (28.1 million people²²), those who live in and on the forest cannot be seen as if they were completely dissociated from the forest. The Ashaninka will tell you all the time that it's not like that, "we plant the Amazon". And if they stop planting it, it will become a desert, like so many tropical forest biomes in other territories of the Global South. And this *planting of the Amazon*, which has already been mentioned several times in this article, shows that in savage thinking there is the unveiling of a set of practices and a set of knowledges that produce kinship without which no forest will survive. These networks and relationships are fragile and under threat, and it is up to political economy to look at the interactions between indigenous and non-indigenous people in order to maintain *justice* in the plans to achieve an Energy Transition.

5. Final considerations

The solar system technology is produced outside the Apiwtxa community, so it is an external element, made, for the time being, by the *wirakotxa*, a term used by the *Apiwtxa*.

²¹ "The ground" is a term frequently used by the communities and by the Fronteiras participants, it has multiple meanings, but as a common denominator it holds a concern for those who are affected today, and now. ²² Accessed on 27.01.2024 <https://amazonia2030.org.br/fatos-da-amazonia-2021/>

Ashaninka from Apiwtxa to refer to non-indigenous whites - but completely capable of having its own sense/significance due to the incorporation of the community, as can be seen in the wild economy regarding the entry of merchandise and money into the Xikrin-Mebêngôkre community analyzed by Cesar Gordon. Electricity, a priori, is nothing new in this community, particularly Apiwtxa, but the 24/7 availability of electricity and the internet is.

Adding value to the input of this technology, therefore, depends on factors that go beyond the simple transmission of technology, as we have seen. It depends above all on the incorporation that the community can (or cannot) make and the kinship relations it establishes with its allies in the field of the project for the survival and expansion of the Forest. The Culture-Cultivation Mediation that exists there implies giving relevance to the essential aspects with which the Forest and its peoples mediate their own problems, giving value to the risks and concerns inherent in intervention with the aim of altering and changing something in the Indigenous Territory. The contact between the ancestral world of traditional peoples and communities and the technologies of the "modern" world raises questions about the scale of the changes brought about by digital inclusion, where there was none, and by the implications of 24-hour energy.

the energy transition on their cultural bases.

These are the following concerns within Culture-Cultivation Mediation: the impact of the stimuli to consumer culture that will be enhanced by the change brought about by the availability of electricity and the internet in communities that previously had little access to these platforms; the tendency towards homogenization of cultures that could start to reproduce and incorporate, encouraged by algorithms, signs of this mass culture; disconnecting forest sociabilities and co-management norms based on reciprocity and stimulated by the consumption of social networks;

It is always good to remember that the United Nations Declaration, in its Article 8, recognizes that "*1. Indigenous peoples and individuals have the right not to suffer forcible assimilation or the destruction of their culture*"²³. And Article 11 recognizes that:

1. Indigenous peoples have the right to practice and revitalize their cultural traditions and customs. This includes the right to maintain, protect and develop past, present and future manifestations of their cultures, such as archaeological and historical sites, utensils, designs, ceremonies, technologies, visual and interpretive arts and literatures.

²³ Available on the United Nations website:
https://www.acnur.org/fileadmin/Documentos/portugues/BDL/Declaracao_das_Nacoes_Unidas_sobre_o_s_Rights_of_Indigenous_Peoples.pdf
(Accessed on 27.01.2024)

The energy from the installation of the panels is essential for 24-hour internet access, and neither electricity nor internet access is new to Apiwxta Village, although it used to happen sporadically and with great difficulty. But it's not just up to the people of the village to control how access is given. It is they who have the right to access the information that comes from outside, and to make the information they produce available in real time. *In particular, this respects Article 16 of the same Declaration: "1. Indigenous peoples have the right to establish their own information media in their own languages and to have access to all other non-indigenous information media without discrimination".*

Regarding the influence of the expansion of agribusiness, cattle and monoculture plantations on these communities in the Amazon. We are aware that the disputes over the fate of the Amazon do not end with the expansion of the frontiers of deforestation and the exploitation of natural resources, but are, above all, disputes over worldviews in which cultural elements exert great influence. It is fearful that the decision-making process on investments that can generate structural socio-cultural transformations in the Amazon, such as the installation of electricity and internet access, will be reduced to the desire formally expressed by the benefiting communities without any effort to strengthen the identities rooted in the forest as a living territory.

We live in a time that is not at all modern, where there is genocide, living with forest fires, environmental disasters that project an exponential increase in climate refugees, and a profuse apathy in adults in the face of the number of challenges we face. It's worth reading Haraway when he says:

What is it to surrender the capacity to think? These times called the Anthropocene are times of multispecies, including human, urgency: of great mass death and extinction; of onrushing disasters, whose unpredictable specificities are foolishly taken as unknowability itself; of refusing to be present in and to onrushing catastrophe in time; of unprecedented looking away. (HARAWAY, 2016)

It is therefore essential to look the problem in the face and stay with it, i.e. neither to become cynical by revealing impotence as an individual feeling in the face of the enormity of the urgencies, nor to become eager to come up with immediate solutions by disregarding people's mediation practices, their necessary recognition as forest guardians and not solely responsible, and trying to replace the fragile with the extinct. Our reflection depends on it.

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