

Climate Change as *Pachakuti*: Response to “Lessons for Ecomusicology from the Upper Snake River Tribes Foundation” for the E-Seminar of the *Ecomusicology Review*

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I am honored to write a response to Marshall & DeAngeli’s timely essay “Lessons for Ecomusicology from the Upper Snake River Tribes Foundation” for the *Ecomusicology Review* E-Seminar. As I share much of the interest in integrating more Indigenous perspectives into the (all too) Western academic field of ecomusicology, I consider the essay an urgent follow up on previous intentions to rethink ecomusicology in more relational terms. In their essay, the authors draw on Indigenous ecological philosophy and critically examine a scientific ecology-based youth educational program on climate change in the context of Native American peoples of the Upper Snake River Tribes. During my research on Indigenous music and climate change in the Bolivian Andes, I was also confronted with some analytical limitations of ecomusicological frameworks. This has led me to draw on Latin American decoloniality theory in combination with South American ontological anthropology including perspectivist approaches and political ontology. Our points of departure are seemingly different, but I believe that we share a common denominator: we are interested in strengthening Indigenous perspectives within ecomusicology.

Regarding their essay, however, I found something disorienting. The more fundamental problem does not seem to be about epistemological differences between Indigenous (interdependence) and scientific (compartmentalization) knowledge perspectives on the climate change of the “one-world world” (Blaser & de la Cadena 2018, 3). Rather it is about ontological differences between distinct climate change worlds and realities: between different ontological frameworks as axiomatic systems of what exists and why. Among others, Marshall & DiAngeli cite Viveiros de Castro (1998), Seeger (2016), and Ochoa Gautier (2016) without delving deeper into the implications of those ontological questions raised in these works (which is understandable given the useful brevity of their essay). I do believe that concepts such as “kin-centricity” and “relational tipping point” can be as groundbreaking as cosmological perspectivism. We must only situate them in the ontological realm, where they belong.

My aim in this brief response is to unfold this claim in two parts: First, I will show within the essay where epistemological problems could have been solved through raising ontological questions. In this context, I will discuss ecomusicology as a manifestation of modern sciences. Second, I will give an example of an ontology-driven approach about Indigenous music and

climate change, drawing on my research among highland Indigenous peoples in the Bolivian Andes.

I agree that the crisis postulate in the context of Indigenous climate change realities is problematic. We need to think our climate present, and especially the future, in a different way: through the past. This is also expressed with the Aymara saying *qhip nayra uñtasa nayraqatar saraña*, or “looking behind and in front we are walking towards the future-past.” Here, spatiotemporal relations are very different. Past-present-future appear as a continuum from the Aymara viewpoint, indicating how Aymara Andeans understand change and continuity through spiraling circles. Indigenous analysis of climate change injustices linked to histories of colonialism can tell us how to approach and understand coupled social and environmental changes in different ways. The authors point this out very well.

But I find something incongruent in “Lessons for Ecomusicology” when it comes to analyzing Indigenous climate change realities within Indigenous spatiotemporal conceptions: those ontological dimensions in which climate change is negotiated and understood. Although the authors advocate for foregrounding structures of social inequalities, they still make an assumption from the scientific perspective about what climate change is, namely that it is the contemporary global physical one-world phenomenon we are dealing with in linear time. We hear about how climate change must be interpreted from Indigenous perspectives, but we do not hear anything about how Indigenous peoples conceptualize a changing climate within materially conditioned and ontologically framed lifeworlds. I find this to be a structure of cognitive inequality within the ontological realm.

The authors rightly argue that most ecological threats and current environmental problems cannot be solved by technical and objective natural scientific knowledge. I am convinced that most ecomusicologists would fundamentally agree with this. That is why ecomusicology and other environmental arts, humanities, and social sciences exist in the first place: to confront the predominance of natural scientific approaches to environmental and sustainability problems. (The same goes for human ecology, which is part of my own academic background.) The ecosystem analogy might seem contradictory in this regard, but music ecology and music sustainability have primarily developed in Applied Ethnomusicology rather than Ecomusicology, have they not? And haven't ecomusicologists started critically scrutinizing these concepts from ecomusicological angles? Whatever the answers to these questions, the

more critical issue in relation to Indigenous climate change realities is the general primacy of scientific knowledge and methodologies, i.e. particular universalism and the implicated coloniality of knowledge (as exposed by Latin American decoloniality scholars). We agree that there cannot be climate justice without social justice (as Marshall & DiAngeli point out). But we also need to take into consideration “cognitive justice” (de Sousa Santos 2007).

The epistemological dimension is only one side of the coin. Knowledge practices, including music-making, are always embedded in cosmological worlds in which they make sense. Again: there is an ontological dimension of Indigenous climate change realities, which Marshall & DiAngeli do not address. It is this ontological dimension, however, that stands to explain the difficulties in bringing together knowledge systems in the USRT program. Indigenous peoples and scientists do not talk about the same thing, which produces equivocations in the sense of Viveiros de Castro (2004) and potential ontological conflicts in the sense of Blaser (2013). An example Marshall & DiAngeli provide is Hells Canyon, which scientists understand “technically” and Native Americans “as this cultural thing” (7). But what about “climate,” wouldn’t that have the same distinction?

Ecomusicology, as any other manifestation of modern science, rests on a naturalist conception of the world, the dichotomy of nature and culture. Even in more relational sciences such as modern ecology (which informs ecomusicology), we find an analytical divide between “abiotic” and “biotic” components of ecosystems. Native or sentient ecologies, such as in Descola (1997) or Anderson (2000), show that this distinction is not accurate when it comes to Indigenous viewpoints. In the sentient ecology of the Andes, for example, mountains have agentive powers and spirit. Are these “abiotic” or “biotic” components of the Andean environment? (They are probably both.) Therefore, we urgently need Indigenous sciences and universities (or rather pluriversities) with different ontological grounds. If we only “Indigenize” Euro-Western academia, Indigenous perspectives only risk ending up being one alternative cultural perception of a reified and objectively knowable nature; in other words, they are moved into the ontological structures of modernity. Towards the end of their essay, when the discussion turns to relationality, Marshall & DiAngeli seem to suggest two things, which they do not state explicitly: first, that Indigenous concepts are more accurate for analyzing Indigenous realities and that such concepts should therefore replace modern scientific ones; and second, that the naturalist conception of the world seems to be responsible for all man-made environmental problems and that it should be overcome (or at least sidestepped).

If the problem is the use of foreign analytical concepts to understand Indigenous worlds, then spaces need to be carved out for Indigenous peoples to develop their own concepts for analyzing — with epistemological *and* ontological self-determination and sovereignty — those social and environmental changes that affect them. If we want to overcome modern (scientific) naturalism, then relationality must be thought of as an ontological position, not as an epistemological one (as perhaps indirectly suggested by the authors, who also draw on Titon’s relational epistemology in this context). The consequences are not negligible: if relationality were understood as an epistemological position, it would only occupy a different cultural perception of the one-world nature. This would reconstitute naturalism and multiculturalism. Is this what Marshall & DiAngeli want? I do not think so, because otherwise why would they refer to perspectivist anthropology? Moreover, why would they advocate to regard ecological relations as part of social relations rather than vice versa? Especially with this latter idea, Marshall & DiAngeli come very close to how Descola described Amazonian Achua peoples: their animism makes them live *In the Society of Nature* (1994). It also resembles what I wrote about the perspective of an Andean *amawt’a*, a wiseman, who regards our human culture as part of “the culture of nature” (Hachmeyer, forthcoming). (Indigenous ecological philosophy is actually not about “ecology” in the modern sense, right? Is ecology here also an analogy for something else?) From my reading, I think that Marshall & DiAngeli point towards an ontological standpoint without really engaging it. But what would an ontologically driven approach to Indigenous music and climate change look like, and what are the implications of such an approach?

In this second part, I offer a brief example of such an ontological approach from my own research in the Bolivian Andes. In fact, there is an interesting parallel to begin with. In 2014, I came to the Bolivian Andes also as an intern of a local NGO, where I conducted field research for my master’s thesis in Human Ecology. Similar to DeAngeli, I started to collaborate on alternative educational programs with several Indigenous peoples of the Bolivian highlands and lowlands. We covered several topics such as territorial management, communitarian economies, and diverse environmental issues including water supply, waste disposal, pollution, and climate change. The difference to DeAngeli’s story was, perhaps, that the team I accompanied consisted of Indigenous educators, who used specific Indigenous teaching methods that symmetrically integrated scientific and Indigenous knowledge systems. Thus, dethroning scientific knowledge was everyday reality within a very practical decolonizing

perspective. This was also visible in the context of the NGO's climate change policies, which linked local lifeworlds to Indigenous modes and strategies of assessment and adaptation. But did this prevent us from ontological equivocations? No.

The director of the NGO was a Quechua Indigenous intellectual, who did not cease to point out, from a critical climate justice perspective, that developed core countries within the capitalist world system are in climate debt with periphery countries from the global south. He was, of course, absolutely right, even though Bolivia has relatively high per capita greenhouse gas emissions due to deforestation. But still, the kind of Aymara, Quechua, or Kallawaya subsistence farmers, who use firewood for cooking and reside in thatched adobe houses, have historically little to do with global warming and contemporary anthropogenic climate change. Interestingly, I find in him similar characteristics to the Indigenous leaders cited in "Lessons for Ecomusicology," particularly when Marshall & DiAngeli argue that Indigenous peoples "experience climate change differently: not as a dramatic 'tipping point,' but as yet another long-term and systematic manifestation of colonialism" (4). My NGO director often mentioned ideas of relationality and how Andeans understand their environmental relations as social and spiritual kin relations ("mountains are our grandparents; the earth is our mother"). But when workshop participants, for example in the Kallawaya region in northern La Paz Department (where I later continued my fieldwork), started to talk about different underlying causes of their changing local climate, I realized that we were not talking about the same thing (a parallel to Marshall & DiAngeli's example of Hells Canyon). There was a broad consensus that climate change exists, for example with severe droughts and variations in annual precipitation patterns. But Indigenous people not only "experience climate change differently" (Marshall & DiAngeli, 4, explaining Whyte); they had an altogether different explanation of what climate change is and why it happens. Among many others (for example, pollution caused by plastic waste; cf. Bold 2019), one argument for the changing climate, especially mentioned by elderly people, was the loss of cultural practices including more traditional forms of music-making. How do we understand this?

If we accept that we must depart from Indigenous perspectives on what music is, then we must also depart from Indigenous notions on what climate is. When Indigenous Andeans talk about "nature," they usually talk about the subjective agentive spirits behind natural formations and phenomena, such as the earth, mountains, rivers, lakes, sun, moon, winds, rains, rocks, etc.; different male and female guardian spirits that guard and guide life on earth (the most famous

one is probably *pachamama*). To whom do Andeans refer when they talk about “climate”? They refer to those guardian spirits that are responsible for weather.

In Quechua or Aymara languages there is no generic word for climate. The word *pacha*, usually loosely translated as cosmos, has, however, a temporal, spatial, and meteorological dimension. The following examples are in Aymara:

(1) *Temporal dimension*: A specific moment in time is called *pacha*. Specific annual seasons are called *pacha* (as in *sarta pacha*, *illa pacha*, *chakan pacha*, *lakan pacha*, etc.). Different historical and past mythical epochs are referred to as *pacha* (as in *nayra pacha*, *chullpa pacha*, etc.). The temporal dimension is complex as it requires us to think of current and future events as repetitions of the past (*kuti*). Cyclicity is the key term here.

(2) *Spatial dimension*: The spatial dimension is linked to different layers of a shared and common multiverse, which are inhabited by different human and non-human living beings (as in *alax pacha*, *chika pacha*, *aka pacha*, *manghi pacha*, *amay pacha*, etc.). The central concept is reciprocity (*ayni*), which is grounded in relationality. It is constant ontological tension on which the world’s existence is founded. Here, relationality is not primarily played out between different beings (inter-relations) but rather within (intra-relations). Every apparently separate entity is only a relation by itself and a fractal within a continuous emergence of life.

(3) *Meteorological dimension*: The dry and rainy seasons of the year are called *awti pacha* and *jayllu pacha*, respectively. Within these seasons there are subdivisions, such as *juphi pacha* (moment/time/season of frost) and *lupilapaq pacha* (moment/time/season of the burning sun) during the dry season. These meteorological dimensions of *pacha* used to have a very clear and marked meteorological succession, with certain weather patterns linked to agricultural works (that is plowing requires a different *pacha* than sowing, weeding, or harvest).

To understand a changing climate in the Bolivian Andes, we must combine the meteorological dimension with the spatial and temporal dimensions. In other words, we must understand meteorological changes in the ontological realms of relationality and cyclicity. Now, where does music-making come in? Indigenous Andeans used to play different musical instruments and genres according to different *pachas*. If we suggest, as William Kay Archer (1964) did, that “we expect a music to be shaped by climate” (29), then Indigenous Andeans would respond

that they rather expect climate to be shaped by their music. They related specific transformations of *pacha* to their ritual and musical practices. There are numerous musical ethnographies about specific musical seasonalities in rural communities in the Bolivian Andes. Frank Solomon (1997), for example, has called this phenomenon “musical construction of time” (93). Time is only but one dimension of *pacha*; a musical construction of *pacha* always further implies space and weather/climate. The distinction between weather (short-term meteorological events) and climate (averaged meteorological events over time) is a modern distinction. Indigenous Andeans do not see these as separated and usually refer to the meteorological *pacha* as a “physical-symbolic complex” (Rivière 1997, 34), in which one can read the functioning of relationality and cyclicity. Within that physical-symbolic complex, adverse weather events are often being related to non-reciprocal human behavior. Indigenous Andeans therefore used to organize annual rituals related to crop growth, fertility, and weather in order to guarantee, via offerings to powerful guardian spirits, an uninterrupted succession of *pachas* throughout the year, thus providing the basis for life.

Let me come back now to what elderly people in the Kallawayá region claimed to be the underlying cause for severe droughts and variations in rain fall: the decomposition of cultural practices, including traditional forms of music-making. Perhaps, given the above explanation of some Andean cosmology, I hope it is not difficult to understand these propositions. But rather than arguing that people have not understood well “climate change,” we must delve deeper into those ontological structures of Indigenous peoples in which their arguments do make sense, particularly as propositions of an ontologically different “climate change.” What we call “cultural” practices are, from an Indigenous Andean viewpoint, cosmological practices that try to maintain balance in a world of constant tensions. In fact, the whole complex of agrarian rituality and musical seasonality is getting lost in many rural parts of the Bolivian Andes. We call this “cultural change.” But from an Indigenous Andean viewpoint, the “culture-nature” separation does not exist in that sense. We could perhaps better argue that the Kallawayá region experiences a shift from animism to naturalism, or an intrusion of modernity (as an ontological structure), which implies an ontological shift away from reciprocity and cyclicity as modes of relation — that is, it implies a *relational tipping point* as the loosening of the ontological tensions on which the world’s existence is founded. We can and should link this to histories of colonization, to modernity, to capitalism and globalization, and so on. But we are now situated on a very different plain, acknowledging epistemological *and* ontological self-determination and sovereignty.

Many environmental scholars, activists, and philosophers regard the ontological framework of modernity as the fundamental root cause of contemporary environmental problems. Even some ecomusicologists claim that the problem is a dominant anthropocentric culture (Allen, 2011; see also Allen 2018; Allen & Titon 2020). Indigenous peoples' knowledges and cosmologies, on the other hand, often foreground what environmental philosophers call ecocentrism (although I would prefer *cosmocentrism* in Indigenous contexts). But the concept of "culture" presupposes its own ontological status, whereas we need to question the entire ontological framework in which it makes sense. In that regard, climate change initiated an ontological reconfiguration of the world, putting an end to the modern myths of progress and mastery over nature.

I totally agree with Marshall & DiAngeli that shifting our mindset from preventing a catastrophe in the future to addressing an ongoing dystopian reality in the present is urgently necessary. Nevertheless, I believe that it is very important to ask how Indigenous peoples conceptualize our common climate future, and the common future of our planet, particularly in relation to ideas of non-anthropocentrism. I will end my response with an ethnographic vignette linked to a famous Andean origin myth.

On one occasion, I was herding goats and sheep with my host in Niñocorin, a valley community in the Kallawaya region. My host is an elder and a Kallawaya *yachaj* (wiseman and traditional healer), a very critical Indigenous thinker and an expert in traditional music. When he heard a specific whistle of a *chiwanku*, the Andean thrush, he explained that it usually announces a suitable time of sowing maize. This exemplifies how Andeans use sonic bioindicators that function as signs in an acoustemological sense. This year, however, the Kallawaya region experienced a severe drought, where early sowing was impossible. A delayed sowing decreases the time window for a proper growing cycle and increases the possibility of failed harvests. Suddenly, my host said that the bird itself seemed to be confused by all these climate changes going on, while adding that he hoped that climate will finally change once and for all. In this moment, I could not really follow up on his argument. I was dumbstruck. While Euro-Westerners increase efforts to mitigate climate change, my host hoped that it will finish up soon. Here again, another reality is making itself visible in which time is cyclic.

The cyclic concept with constant repetitions of the past is referred to as *kuti* in Andean Indigenous languages. *Kutis* happen on different scales and in different beings within varying

intervals. There are *kutis* for humans, animals, and plants, different lifespans implying reproduction, as life always continues and repeats. The moon phases are seen as *kutis* as well. Day and night cycles are *kutis*. The cosmos itself has *kutis*, which are referred to as *pachakuti*. These are the annual changes between dry and rainy season on a lower scale, but also entire world turnings or reversals on a larger cosmological scale. It seems that my host was suggesting that we are right now experiencing such a cosmological *pachakuti*, a climatic reversal of the world. In fact, these cosmological reversals usually happen within larger intervals of hundreds or thousands of years. If we are experiencing again a *pachakuti*, this would mean that the world is about to bring itself back into a new equilibrium due to the unbalance that has been produced over centuries and millennia.

If we delve deeper into the ancestral history of the Andes, many *pachakutis* have already occurred. The last one has brought forth our world, where we, the contemporary humans, are now living. Before that happened, ancestral beings called *chullpas* lived in a constant dawn-like world, another *pacha*. When the current sun was born, its tremendous heat has immediately burned up the *chullpas*, giving birth to us, new kinds of humans that mythical stories refer to as “people of the sun” (*inti jaqi*). In fact, we have survived this cataclysm, which is why we are living in our particular *pacha* now. The *chullpas*, however, who were used to darkness, have not. In different versions of this origin myth, the *chullpas* were depicted as not very friendly or harmonious beings. They did not maintain a respectful relationship with earth. They stole and took what they wanted. Inequality was severe during the times of the *chullpas* and honest, vulnerable people suffered. Against this background, one wonders whether this ancient Andean origin myth can tell us some truth about our distant or not-so-distant future. Will new humans be born out of the burning sun?

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