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ODD EXTINCTION

AN INTERFACE BETWEEN PERFORMING ARTS AND ACTIVISM

“It is not enough to change the world. That is all we have ever done. That happens even without us. We also have to interpret this change. And precisely in order to change it. So that the world will not go on changing without us. And so that it is not changed in the end into a world without us.” (Anders, 1981)

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Table of Contents

OVERVIEW.....	5
More than human humanities	6
Where does the trouble start?	7
On universal and particular identities	9
Superhuman and the new singularity	10
IM/POSSIBLE FUTURES AND THE LOGIC OF THE VOID	13
Colonialism: erasure and the void.....	15
Ghosts, in/determinacy, virtual particles, and the void	17
EXTINCTION IN PERFORMING ARTS AS A POLITICAL PRACTICE	20
BIBLIOGRAPHY.....	23

Abstract

This paper shed lights from decolonial studies, Quantum Field Theory and the Performing Arts. I call into question the very definition of the Anthropocene and the relationship between humanity and the environment towards a metaphysical level of extinction. In an attempt to break down a traditional understanding of the 'void' through the relational aspects of performance and politics, my research question is elaborated as follows: How can the performing arts apply the deconstruction of time, space, matter and the void, offered by Quantum Field Theory, as dramaturgical strategies to address the climate crisis?

Resumo

Este artigo se baseia em estudos decoloniais, da Teoria Quântica de Campo e das Artes Cênicas. Eu questiono a própria definição do Antropoceno e a relação entre a humanidade e o meio ambiente em direção a um nível metafísico de extinção. Numa tentativa de quebrar uma compreensão tradicional do "vazio" através dos aspectos relacionais da performance e da política, minha pergunta de pesquisa é elaborada da seguinte forma: Como as artes cênicas podem aplicar a desconstrução do tempo, espaço, matéria e o vazio, oferecida pela Teoria Quântica do Campo, como estratégias dramáticas para enfrentar a crise climática?

Overview

In this paper, I will put into question an observed tendency in Western thinking, to universalize humankind and societies under an absolute state of time, space and matter, with the focus on a particular understanding of the void. In doing so, the very idea of extinction is projected into a time that is neither here nor now. Moreover, a neutral consequence is assumed among humanity, erasing differences between narratives and justifying colonial traits based on a Western idea of empty spaces. As the quantum physicist and philosopher Karen Barad argues:

“To place the apocalypse before us, to think that it lies only in our imagination, that we are haunted by its possibility still unrealized, is to reiterate not only a very particular telling of time and history, but a particularly privileged “we,” complicit in regimes of erasure.”ⁱ

The misleading aspect of this neutral perspective takes place when it is assumed to have a certain privileged ‘we’ as a standard model in which the ‘others’ should relate to. In the case of extinction, it comes to account when it is placed on an imaginary future, including all human beings at once instead of acknowledging the ongoing differential states and dynamics in our contemporary society (e.g., the extinction of indigenous people, languages, and cultures as a result of colonization and the empowerment of capitalist systems). My perspective is that the ongoing dynamics in society can be recognized in and confronted by the field of performing arts (and vice-versa). Thus, the search for homogeneity is rather problematic. This characteristic potentiates the neutrality of performative states and narrative constructions, which can dangerously ignore differences between performers (ethnicity, technical background, cultures, etc.), as well as in relation to places where the performance happens.

I will develop this argument through the lenses of Quantum Field theory, supported by Post humanist and decolonial studies, and its attempt to break a traditional understanding of the ‘void’. I will call into question the very definition of the Anthropocene and the relationship between humanity and the environment towards a metaphysical level of extinction and its colonial influences. What are the implications underlined in the discourse of neutrality? How can we emancipate the individual from the universal? When does performing arts become political? My research question is elaborated as follows: How can the performing arts apply the deconstruction of time, space, matter, and the void, offered by Quantum Field Theory, as dramaturgical strategies to address the climate crisis?

More than human humanities

Here-now, 2021, the interference of human beings on planet earth is a recurrent subject when related to topics such as climate change, pollution, waste, plastic production, atomic industry, deforestation, geographical occupation, colonization, to name a few. Adding to these factors, we are currently facing a pandemic crisis (SARS-CoV-2). These elements are placed under the Western umbrella of capitalism, colonization and patriarchy, shaping the understanding of history, affecting patterns and behaviors among species, as well as within societies. However, its effects can potentially lead to extreme consequences, such as extinction.

Concerning the pandemic crisis, the columnist of 'The Guardian' Owen Jones wrote at the beginning of 2020 that "[w]hile coronavirus is understandably treated as an imminent danger, the climate crisis is still presented as an abstraction."ⁱⁱ He is concerned by the fact that, unlike a global pandemic, climate change consequences are not easy to visualize, it is easily mistaken as particular cases, and often projected as a future consequence. Nevertheless, even when wildfires spread across cities, cyclone damages are irreversible, or floods illustrate extreme weather changes, there is no political conversation about climate issues. He associates Pandemics with climate crisis too, arguing that the result of migration of species to higher altitudes, due to weather changes, potentially put them in contact with diseases for which they have little immunity.ⁱⁱⁱ

Human-induced climatic, biological, and geological transformations of our planet are the elements that give the name of an era called the Anthropocene. However, Cecília Åsberg in the article 'Feminist posthumanities in the Anthropocene: Forays into the postnatural' argues that by assuming this definition we are, instead, putting apart human beings and nature, whereas for her, nature can no longer be disconnected from humans, culture, or technology.^{iv} Åsberg defends a world where there is no position of mastery, there is "no 'advanced' civilization to master the wild Others, and no universal humanism to be practiced across the diversity of our species communalities: there are only sociable yet postnatural natures and power relations that matter for who gets to live, play, suffer, or die in the short or long run."^v

According to Åsberg, the neutral approach of a 'universal humanism' erases differences between economic power among humans (which creates an idea of advanced and non or less-advanced civilizations), as well as it ignores the scales of environmental impact, and the relationship between technology, humans and other animals - result of a dichotomous separation of nature and culture.^{vi} Therefore, she defends the necessity of a 'more-than-human humanities', which in her words,

entangles the “relationships with nature and the environment, with science and technology, and with vulnerable embodiments of both human and nonhuman kinds.”^{vii}

On the other hand, Donna J. Haraway refers to an epoch which she calls ‘Chthulucene’. In her words, it is a “timeplace for learning to stay with the trouble of living and dying in response-ability on a damaged earth.”^{viii} Further than Åsberg's attempt to deconstruct the Anthropocene, Haraway claims for a name that can represent the “dynamic ongoing synchronic forces and powers of which people are a part.”^{ix}

It is true that the humans’ interferences in nature have a global impact (with clear examples of undersea cables, oceanic plastic continents, seep pollutants into bodies of water, soil, and flesh), nevertheless Haraway highlights that its response-ability and consequences are often felt by minority groups, under a system of power differentials^x, which she points out as a result of colonization and Eurocentric humanism.^{xi} These power differentials are often associated to binaries positions, which constructs a place for a ‘more’, or, ‘less’ human in relation to others (e.g. ‘more-than-human’, ‘other-than-human’, ‘inhuman’, and ‘human-as-humus’,^{xii} ‘human-machine’, ‘human-animal’, ‘human-physical world’^{xiii}).

Indeed, the consequences are the development of a subset of violent hierarchies, creating dichotomies such as the ‘wild-civilized’, ‘universal man – women’, ‘humans – natives, queers, animals, and other Earth Others at large’.^{xiv xv} Hence, there is no neutrality of humankind while it does matter, as Haraway once put, “which stories tell stories, which concepts think concepts...it matters which figures figure figures, which systems systematize systems.”^{xvi} And, for the sake of this research, adding to Haraway’s quote, it matters which extinction extinct extinctions. Haraway demands ‘response-ability’, the ability to respond, to keep here and now, in order to engage with unexpected others, yet, acknowledging an ongoing state of our contemporary society, to keep the trouble, to question social structures and its power relations.

Where does the trouble start?

We are currently approaching what many have referred to as the sixth mass extinction, also known as the Anthropocene extinction.^{xvii} While species extinction is certainly a fact of life, it has been argued that species are dying faster than the normal rate. Species are currently threatened because of capitalist overproduction and colonialism, led by anthropogenic climate change, habitat destruction, and the introduction of foreign species into their balanced ecosystems.^{xviii} As it will be argued in this

paper, the trouble starts when human beings see themselves apart from the environment, as well as when the perception of time, space and matter are put apart from each other.

In *“Encountering the “Ecopolis”:* Foucault’s *Epimeleia Heautou and Environmental Relations*” Petra Hroch addresses an interesting term, the ‘ecopolis’. She sees polis as a political sphere in which she includes not only human subjects and the human-made spaces, but also non-human subjects and spaces. Her political perspective puts the environment and Humankind together, arguing that both are part of a pluralistic and sustainable polis.^{xix} It doesn’t mean that to care about the environment represents another way of imposing human orders, but rather she recognizes one’s role concerning the political sphere, and the inter-connectedness with the existence of various others.^{xx}

When putting apart the Human species from the environment, we split not only the understanding of being but also that of time and space. By doing that, we assume a homogeneity, or rather an absolute state of things. Two examples of how time and space are being understood in its homogeneity are the ‘Doomsday clock’ and the ‘Peace Watch Tower’. The first is a symbolic clock, synchronized moments before midnight depending on how close the world is to global catastrophe.^{xxi} At first synchronized to the prospect of nuclear apocalypse, and later including climate change as a significant threat to the survival of our planet. More than time, the clock synchronizes global politics and technological progress.

The second example is the ‘Peace Watch Tower’ from Hiroshima Peace Memorial Museum, a digital clock synchronized to peace instead of war, and every time there is a nuclear test, it resets back to zero.^{xxii} But still, either when time is getting closer to midnight or resetting back to zero, by calling it a ‘global catastrophe’ we assume homogeneity of the circumstances all around our planet. Therefore, to re-understand the circumstances one must also trouble^{xxiii} the understanding of time and space itself.

There is a certain abstraction when universalizing perceived realities. This problem is acknowledged by Donna Haraway when she argues that it might be true that we are fighting for change, but it might not affect everybody at the same time, or in the same way, it is indeed not for everybody’s benefit. As she points, the “evidence for rapid anthropogenic climate change, shows that 7-11 billion human beings make demands that cannot be borne without immense damage to human and nonhuman beings across the earth.” It is often the case that in the name of ecojustice, we seek for some other ‘not us’ to blame for the ongoing destruction, like Capitalism, Imperialism, Neoliberalism,

Modernization, etc. Haraway defends a demand for taking 'response-ability to engage with unexpected others.'^{xxiv}

“Staying with the troubles does not require such a relationship to times called the future. In fact, staying with the trouble requires learning to be truly present, not as a vanishing pivot between awful or Edenic pasts and apocalyptic or salvific futures, but as mortal critters^{xxv} entwined in myriad unfinished configurations of places, times, matters, meanings.”^{xxvi}

What does it take to stay with the trouble? How to embody change in our diverse realities, and acknowledge diverse perceptions? In Germany, a recent protest is taking place under the umbrella of the activist group Extinction Rebellion using the hashtag #rebellionofOne. This action consists of people blocking the traffic alone in the name of climate despair. The protesters sat down alone in the middle of the street and persevered there until they were removed by the police. Carrying signs around their necks they manifest their fears with messages such as: "I am afraid of more pandemics because of the climate crisis" or "I am afraid that the livelihoods of my children and grandchildren will be destroyed because of the climate crisis". The point they raise is that we alone have a responsibility to future generations and to learn that more species are becoming extinct and the climate crisis has already and will have fatal consequences to all of us. As one participant desperately quotes: "If it takes putting my body on the street to draw attention to this, I am horrified enough to do it."^{xxvii}

As the example above, the use of the body as a way to perform a manifest, to embody it, is a way to understand the inter-connectedness of macro and micro contexts and the influence one has on another; as well as the entanglements of past present, and future through the idea of here and now; and last but not least, the relationship between self and others.

On universal and particular identities

In a lecture delivered at KW Institute for Contemporary art in Berlin, Slavoj Žižek problematizes the dialectical relationship between universal and particular. He points out the common way of thinking in which particular elements are struggling among each other, while universality would be the space of this struggle. For him, the first antagonism is not between particular moments within universality, but between universality and its particular forms. Thus, his question is: “What if universality is a name of a certain antagonism and particular forms are attempts to...deal with this antagonism?” In this way, the multiplicity of individual forms is conceived as a series of attempts to resolve tension which will, in turn, define the universal. Following his thoughts, universality can only be defined retroactively.^{xxviii}

Émilie Dionne in "The politics of becoming: breaking the identity ground of cyborgs/posthumans and humans" argues that individual identities, are "always dynamic and constructed both in the mingling of bodies and mind, the embodiment of context/environment, as well as through interactions with other actants and environments." In this way, she points out the misleading direction of understanding identity as the synthesis of one's past, rather than a trajectory.^{xxix} Adding Žižek's lenses on Dionne's text, there is no universal understanding of particular identities once it is constantly an attempt to resolve tension through interactions with others, the self, and the environment. Therefore, one might conclude that identity can only be defined retroactively.

In the same way as Žižek, Dionne seeks for a distance between the subject and the universal. She questions the totalized and essentialized understanding of identities when set as metaphors of nature myths, e.g., when the definition of woman is merging with the combination of nature as mother, goddess, or virgin, which for her, far from autonomizing the 'subject', confines it to a specific place, with specific functions.^{xxx} In this example, the universalized essence of a woman defines what every particular woman should be. She proposes to explore what exists outside of these systems; she is interested in what could emerge from different assemblages.

There is a fine line where the "universal" is washed out of subjectivity, standing instead for the absence of identities. So is the definition of a future that is pre-established for everyone in the same way (read, future and non-future). This path manifests itself ambiguously, according to a traditional understanding of time, space and matter as absolute states. This easily induces a political position of totality, where the distance between particular and universal is neutralized, erased, creating a mere illusion of equality between its particular forms.

Superhuman and the new singularity

Structural hegemony is one of the biggest political concerns regarding evolution, therefore, to extinction. When thinking about super-heroes' stories, one can rapidly be nostalgic about the expectation that at one day we all could potentially get superpowers. Or, that maybe one day we will be safe thanks to a human that differs from us in many levels - from strategic thinking to brutal force. In any case, the comparison between 'us' is far from being fair. Both ideas are enough to think about what kind of privileges positions in societies these super-humans would have. The laws that are valid for most of the population, would be slightly (or, rather completely) different for these few 'people' belonging to the new class.

Here I want to play with the words superhuman and post-humanism putting together the perspective of Cecília Åsberg and with the Israeli historian Yuval Noah Harari. Åsberg reflects on posthumanism arguing that rather than representing an end of the humanities, she calls for their inclusivity and, nevertheless, the end of normative forms of andro- or anthropo- or Eurocentric chauvinisms.^{xxxii} It does indeed commit to the ongoing deconstruction of humanism itself.^{xxxii}

Following Donna J. Haraway's ideas, Åsberg argues that posthumanism doesn't signal only transformations (in a progressivist sense), but rather a change that might have always been there, implying all "the pre-, in-, a-, less than, or more than human, since these denominations co-constitute each other, relationally."^{xxxiii} Åsberg defends an ongoingness state of post-humanity, marked by the refusal to make the distinction between 'human' and 'nonhuman', what she would define as, borrowing Karen Barad's term, 'posthumanist performativity'.^{xxxiv}

The unpredictability of its performativity is also a topic approached by Yuval Noah Harari, in which he includes "fundamental transformations in human consciousness and identity... [which] will call the very term 'human' into question."^{xxxv} In his book "Sapiens: A brief history of Humankind", Harari shows us that Artificial intelligence is already a deep part of Humankind. It is no longer living with robots, but rather living intra-connected with them. He proclaims the end of natural selection, replaced by intelligent design either through biological engineering, cyborg engineering, or the engineering of inorganic life.^{xxxvi}

What is astonishing in his analysis is that in a few decades the biological alterations might not only stay with physiology, immune system, and life expectancy - as we are used to - but also intellectual and emotional capacities too.^{xxxvii} Harari argues that it is unlikely to believe that the research of producing superhumans can be held for long, which includes the possibility of prolonging life indefinitely, conquering incurable diseases, and upgrading our cognitive and emotional abilities.^{xxxviii} Yet, the dilemma of developing high-tech biological alterations is constructed under our limited understanding of ethics and politics, as he points:

"Most science-fiction plots describe a world in which Sapiens – identical to us {assuming that the one reading is a Sapien too} – enjoy superior technology...The ethical and political dilemmas central to these plots are taken from our own world, and they merely recreate our emotional and social tensions against a futuristic backdrop. Yet the real potential of future technologies is to change Homo sapiens itself, including our emotions and desires...Physicists define the Big Bang as a singularity. It is a point at which all the known laws of nature did not exist. Time too did not exist. It is thus meaningless to say that anything existed 'before' the Big Bang. We may be fast approaching a new singularity, when all the

concepts that give meaning to our world, me you, men, women, love and hate – will become irrelevant. Anything happening beyond that point is meaningless to us.”^{xxxix}

It does sound familiar, compared to the superhero stories and science fiction we are used to. The dilemma Harari sees is described by the ethics and politics of hegemonic performativities. He adds to that an interesting question: “[w]hat might happen once medicine becomes preoccupied with enhancing human abilities? Would all humans be entitled to such enhanced abilities, or would there be a new superhuman elite?”^{xl} If the latter would be true, what would the new structures of hierarchy look like? How would extinction be shaped under these new circumstances?

I want to close this session sharing a concern with Harari in which the question for the future is not ‘what do we want to become?’, but rather, ‘what do we want to want?’^{xli} The ongoingness of posthumanities sheds light with a disconcerting feeling of not belonging to the future, extinguishing our understanding of what ‘humans’ are, falling then, into the unknowingness of a new singularity.

Im/possible^{xlii} futures and the logic of the void

In a lecture in 2016, the historian Yuval Noah Harari commented that talking about the future is not about prophecies, because in this case, it wouldn't matter if it becomes true or not, because we can't do anything about it. Rather, he thinks that it is much more interesting "to write about different possibilities, and if you don't like some of these possibilities, then [you should] do something about it...[in order] to prevent the worst possibilities from being realized."^{xliii} According to Harari, justice is made when we shift the perspective, instead of asking 'why are we here?' or searching for meanings for our existence, we should be trying to understand 'how are we here' and how do we want to continue being here.

How far away is the future? It is rather interesting to use a spatial measure to resemble a (traditionally understood as) timely question. How far away is the future? How many kilometers? Could someone be 'there' already while I am still 'here'? To dive into the journey, I will invite the reader to get as confused as I am during this research, while troubling the indeterminant dynamics of time, space, and matter. Through the (challenging) lenses of the quantum physicist and philosopher Karen Barad, in the following lines, I will raise a sense of responsibility towards a non-neutral discourse of Extinction. I will draw on a decolonial approach of the future and a re-understanding of the set of im/possibilities of the void and its hauntological virtualities.

Approaching the future as fixed and inevitable can be misleading. Hancock and Bezold in their article "Possible futures, preferable futures" (1994) argue that such a way of thinking inevitably results in apathy and feeling of impotence and lack of control.^{xliv} They suggest four ways to think about the future: The possible future (what may happen), the plausible future (what could happen), the probable future (what will likely happen), and the preferable future (what we want to have happened). The perspectives they suggested offer the control and the responsibility one might have within societies, individually and collectively.^{xlv}

In the book "Ghosts of my life: writings on depression, hauntology and lost futures", Mark Fisher presents us with a dilemma: "There's no time here, not any more". What calls my attention is not the idea of a time that might not exist, but rather it doesn't exist 'any more'. When referring to 'time' Fisher borrows a definition from Franco 'Bifo' Berardi on which time is not directional, but rather a 'psychological perception' emerged in the cultural situation of modern civilization. Hence, it is shaped by different social-economic-political systems.^{xlvi}

Fisher is concerned about a present that hasn't started yet. He states that "[w]e remain trapped in the 20th century due to finitude and exhaustion of the new."^{xlvi} In his view, culture lost the ability to articulate the present, or even further, there is not even a present to be articulated.^{xlviii} At first, he dissociates time and space, so, there is no time 'here', secondly, he claims for a discontinuity once time is 'not any more'.

Either in 1994 when Hancock and Bezold are elaborating on individual and collective responsibilities to create the future, or in 2014 when Mark Fisher places time as a perception of social-economic-political systems, what is put into question is not only the notion of temporality, but rather, the entanglements of past present future, as well as the relation between the micro and macro (individual-collective, human-environment), time and space, time and being, and politics and ethics. Hence, I will bring together different perspectives of approaching the future, to trouble its linearity, to shake it into its (multiple) political potentials. First, let's understand what is there to be troubled.

"Troubling time/s and ecologies of nothingness: re-turning, re-membering, and facing the incalculable," and "After the end of the world: Entangled nuclear colonialism, matters of force, and the material force of justice" are two important papers where Karen Barad brings into account the political potential of troubling the traditional understand of time, space, and matter. In order to do that, she suggests a shift of the traditional understanding of the void.

In Newtonian physics, nature stands by two elements, atoms and the void. Void is mere nothingness, and matter is immutable and can be mapped in space and time. In this traditional view, space and time are seen as an absolute state and, as Barad points out, its "universal fixed homogeneous coordinates that have their existence independently of all matter, and of each other."^{xlix} Nevertheless, according to Quantum Field Theory, matter is understood in its in/determinate dynamics of the nothingness of the void, as Barad argues "nothingness...is a flush with the dynamism of the in/determinacy of time-being, the play of the non/presence of non/existence"^l

By placing together 'time being', Barad claims a multiplicity of histories and the situatedness of time itself.^{li} She troubles the unilinear nature of time - the fact that only one moment exists at a time^{lii}- by acknowledging different contexts and political-onto epistemological-ethical implications, highlighting the consequences of the logic in which 'void' stands for 'empty' or 'nothingness', which in her words, is a "way of offering justification for claims of ownership in the "discovery" of "virgin" territory – the particular notion that "untended," "uncultivated," "uncivilized" spaces are *empty* rather than

plentiful, has been a well-worn tool used in the service of colonialism, racism, capitalism, militarism, imperialism, nationalism, and scientism.”^{liii}

Barad argues that there is a false sense of globalism which imposes a homogeneity of times and spaces ignoring the uneven distribution of nuclear power and climate crisis’ resources and precarity. For her, this phenomenon diversifies the question of responsibility and it distracts attention from the ongoingness realities of war.^{liv} She problematizes Western civilization when linking history with time, opposed to some indigenous cultures that link history with space.^{lv} For her, the former format is a direct link to progress as a threat to the future biology of the planet, as in the time of capitalism, colonialism, and militarism.

Colonialism: erasure and the void

“Land occupation, as a mode of empire building, has been and continues to be tied to a logic of the void. Namely, justification for occupying land is often given on the basis of colonialist practices of traveling to ‘new’ lands and ‘discovering’ all matter of ‘voids’: for example, claims of population voids (for instance, lands allegedly unpopulated before the arrival of the settlers), land devoid of property ownership, territorial sovereignty, development, civilisation, or inhabitants with specific labor relations to specific parcels of land... [w]atever the specific nature of the alleged absence, a particular understanding of the notion of the *void* defines the colonialist practices of *avoidance* and *erasure*.”^{lvi}

The logic of the void is, as Karen Barad points out, ‘the colonialist practice of avoidance and erasure’ which holds its danger on the political oppression and violence. Barad reminds us of all atomic bomb experiments that are happening on ‘empty’ lands, ignoring the environment already present there (beings and non-beings) and the populations that surround the areas. A sad example of erasure is the military settle colonizers and ethnic cleansing of Israel over Palestine, forcing thousands of Palestinians to become refugees, and more than that, a potential extinction to culture, languages, and more.

In, “*When Languages Die: The Extinction Of The World's Languages: And The Erosion Of Human Knowledge*” K. David Harrison raises an important awareness of how Euro-colonialism is one responsible for the loss of indigenous people, barring with them heritages of culture and language.^{lvii} The erasure of history results in what he calls ‘cultural amnesia’.^{lviii} He points that the death of language usually begins with political or social discrimination, forcing its speakers to abandon it in favor of ‘bigger’ or ‘more dominant’ languages.^{lix} Language has been shaped over time to serve

particular needs and populations in their environment, therefore its potential extinction disrupts the transfer of traditional knowledge across generations.^{lx}

On “Reinventando a imaginação sociológica para rebeldias competentes” inspired by many writings of the Portuguese sociologist Boaventura de Sousa Santos, João Arriscado Nunes problematizes what he calls the ‘condition for objective Knowledge.’ For him, this condition happens when Eurocentric history is taken as a start point of knowledge, as a neutral perspective, silenced and reinforced by social sciences (led by Capitalism, colonialism, and patriarchy), which in turn, produces colonial hegemonies - comforted by a universalized stand point, with a danger consequence of making minorities invisible.^{lxi}

For Nunes, associating social changes with ecological devastation and the extinction of the so-called ‘less-than-humans’, are marked not by regulations and emancipation, but rather by appropriation and violence.^{lxii} The consequence of defining societies or groups by its deprivation in relation to ‘developed’ others, or when social sciences (the ‘anthropologists’) happens to speak for the ‘native’, is the deny of histories that mark the experiences and struggles of these people, extracting the agency and pushes ‘native’ to a position of ‘Other.’^{lxiii}

Nunes sees a need for de-canonization of social sciences, epistemological concepts, Eurocentric normative politics, to amplify the understanding of the present, the re-interpretation of the past to keep the future open against the end of history within a neoliberal order.^{lxiv} His arguments comes closer to what Donna J. Haraway calls the ‘politics of sublime indifference’, when relating neutrality with equality on the discourse of Humankind, which rather ignores the inequality of burdens imposed on earth by structural hegemony - and its consequences for humans and nonhumans.

The indifference Haraway referred to derives from both the logic of the void and the erasure of histories, assuming instead, ‘neutral’ as being synonym for American-Eurocentrism. As examples, let’s take the resistance of white liberals in the U.S with #BlackLivesMatter^{lxv} insisting that #AllLivesMatter is more instructive. Or, the general political approach towards environmental justice and climate change which, as Haraway points, often masks an attempt to make kin “while not seeing both past and ongoing colonial and other policies for extermination.”^{lxvi} Haraway would propose the urge to respect historical contexts, diverse kinships, which “should not be generalized or appropriated in interest of a too-quick common humanity.” Thus, she defends a position of ‘non-neutrality’.^{lxvii}

There is nothing neutral in history, people have been categorized, divided, and ordered in and through hierarchies. Within this discourse lies what Karen Barad would call an attempt of 'renormalization'. It subtracts all infinity of possibilities to include all human beings, pre-supposing that there is 'common neutral essence' of existence (the emphasis is put to highlight what is in trouble in my argument).^{lxviii} Here is where I claim for the extinction of Neutrality, where it does matter which story tells stories, and for that, one can no longer be (and was never) neutral.

A redefinition or new understanding of the term would support the awareness of the term 'neutral' and its misleading definition. There's danger in signifying neutrality, that is not impartial by any means as it contradicts itself and perpetuates Euro-American centric narratives that destroy for its own comfort while it also provokes its own death.

Ghosts, in/determinacy, virtual particles, and the void

"If it – learning to live – remains to be done, it can happen only between life and death. Neither in life nor in death alone. What happens between the two, and between all the 'two's' one likes, such as between life and death, can only maintain itself with some ghosts..."^{lxix}

Following Derrida's thought, death no longer counterpoints life, but life counterpoints itself with its ghostly relations. He puts into question the very idea of the 'self'. What remains between life and death is not a dichotomous pathway, but its ghostly relations between its im/possibilities, in other words, it is the superposed entanglements of all possibilities and all impossibilities.

To unfold the concept of im/possibilities, Karen Barad would argue that there is no fixed essence for the measuring of matter once the conditions of its 'possibilities' are at the same time the conditions for its impossibilities. Rather than 'being', mattering is about 'becoming' determinate by matter and meaning.^{lxx} Barad reminds us of Schrödinger's cat. A thought experiment in which a hypothetical cat is locked in a "Rube Goldberg-style machine, coupling a radioactive atom to a Geiger counter to a hammer to a bottle of poison to the fate of the cat."^{lxxi} Its state may be considered simultaneously alive and dead until observed. Barad describes the set of possibilities as following:

"... it is not the case that the cat is either alive or dead and that we simply do not know which; nor that the cat is both alive and dead simultaneously (this possibility is logically excluded since 'alive' and 'dead' are understood to be mutually exclusive states); nor that the cat is partly alive and partly dead (presumably 'dead' and 'alive' are understood to be all or nothing states of affair); nor that the cat is in a definitive state of being not alive and not dead (in which case it presumably wouldn't qualify as a (once) living being)."^{lxxii}

What Barad summarizes above is a state of in/determinacy. In opposition to ‘unknowingness’, she describes in/determinacy as a “dynamism that entails its own undoing from within.”^{lxxiii} In/determinacy is a state that does not travel in a metaphysics of presence, threatening the idea of continuity, in her words, it is a state of ‘virtuality’, or, as the state of the cat, a ‘ghostly non/existence’^{lxxiv}. For her, this state troubles the opposition between living and dying, without ignoring their material differences, but acknowledging all possibilities of coexistence.^{lxxv}

According to Karen Barad, “matter is always caught up with the in/determinate dynamism of the nothingness.”^{lxxvi} It is exactly within this dynamism that matter exists in relation to its virtuality, in an ongoing experiment with all possible and impossible intra-actions with its ‘virtual particles’, which in her words is “the quanta of the in/determinate play of nothingness.”^{lxxvii}

Intra-action^{lxxviii}, as Barad points, consists in an “infinite set of possibilities, or infinite sum of histories, entails a particle touching itself, and then that touch touching itself, and transforming, and touching other particles that make up the vacuum, and so on, ad infinitum.”^{lxxix} It is precisely in the moment of ‘returning’, a touch of the self and the touch of others, that troubles the ruling conceptions of space, time, matter, causality, and nothingness.^{lxxx} That is to say that an infinite number of possibilities exist, and in the moment of self-intra-actions represents the encounter with the infinite alterity of the self.

Therefore, Barad calls into question not only the very nature of the self, but also space and time, once neither of them could be homogeneous, nor unilinear, hence, never empty.^{lxxxi} She suggests that the responsibility to unfix the line between ‘self’ and ‘other’, ‘past’ ‘present’ and ‘future’, ‘here’ and ‘now’, ‘cause’ and ‘effect’, is taken by not seen them as the intertwining of separate entities but rather to put them in relation to each other,^{lxxxii} in her words:

“...the constitution of an ‘Other’, entails an indebtedness to the ‘Other’, who is irreducibly and materially bound to, threaded through, the ‘self’ – a diffraction/dispersion of identity. ‘Otherness’ is an entangled relation of difference (*différance*). Ethicality entails noncoincidence with oneself.”^{lxxxiii}

These ethics of relations entails possibilities for reworking effects of the past and the future. Nevertheless, Reconfiguring the past doesn’t mean it can be changed or repaired - it is not the reconstruction of narratives. Once we don’t take the past as given, we recreate possibilities towards the responsibility to build a better future. Rather than seeing the interconnectedness of all beings as one, Barad suggests a specific relation of the ongoing differentiating of the world, a relation of obligation enfolded traces of othering.

In Barad's view, there is a colonized aspect in which the constructed idea of continuity splits nature and culture, giving Humankind the knowledge and control over everything else.^{lxxxiv} She proposes a shift through looking at a ghostly sense of 'dis/continuity' - a 'dis/jointedness of time and space', 'entanglements of here and there, now and then'.^{lxxxv}

It is in the superposition of matter and its virtuality that Mark Fisher comes closer to Barad's theories, radically undoing classical notions of identity.^{lxxxvi} He defends the 'agency of the virtual', as an act without physically existing, thus, he sees a need for a radical abolition of identity itself.^{lxxxvii} Fisher draws on Derrida's concept of hauntology, opening up its understanding into two different directions. The first refers to what is '*no longer*' happening, but *remains* effective as virtuality, whereas the second refers to that which has '*not yet*' happened, nevertheless it is *already* effective in the virtual. Virtuality then comes to threaten the present state of things.^{lxxxviii}

Once the present state of things is threatened, what is at stake is not the sense that something is no longer belonging to the world as we know, but that it is not yet visible on the futures we are trained to expect, therefore, it needs to be sacrificed.^{lxxxix} As a revolutionary process of the abolition of identity, sacrificing the self doesn't mean that the self should no longer exist, but rather that is not yet present in the constructions within concepts we know.^{xc} Sarcastically enough, Fisher points to the joyful aspects of rupturing existing identities as anchors to meanings, once the prevalent perspective of futures is drawn on (not a surprise) white, male, and/or heterosexual lenses.^{xc1}

Extinction in Performing arts as a political practice

The importance of decolonizing Extinction within Performing arts is to raise a response-ability for different possibilities to envision futures, and to create an awareness of the audience to prevent the worst possibilities from being realized. In which circumstances is it necessary to speak of performing arts as political? In the following, I will trace a contemporary picture of performing arts and politics, combining with an idea of justice and responsibility towards the term neutrality and extinction.

Bojana Kunst in the paper "The troubles with temporality" argues that when questioning the politics of performance, one also pushes the limits of thinking about politics itself.^{xcii} Kunst divides the temporal aspect of the performance from its materiality, resulting in an abstract and immaterial political potential. The political strength of the performance is closely related to the temporality of the present - which in her view, it is understood as a micro political rearrangement of different forces.

A particular problem she points is the consequences of generalization of the performance's temporal gesture and the universalization of the performance's political strength, which puts performance, or rather narrows it, to a macro political context.^{xciii} Kunst argues that the macro aspects of performance should exist as a result of the multiplicity of micropolitical aspects and not the other way around.

As reviewed along this paper, through Quantum Field Theory, we can reach beyond the understanding of micro as individuals, and macro as environment and the void, but rather including all infinite im/possibilities within its virtualities and indeterminate states of intra-actions. Nevertheless, the discourse of extinction is a threat in the traditional approach of both time and being - something that stops to exist (in time and space) and stops to be (matter and meaning).

Bojana's understanding of performance's temporal potential as a micropolitical scope is a subversive act.^{xciv} The potential exchange between the subject and the performance highlights its performativity exactly in the moment of its entanglements with the environment. What she calls 'performance gesture' is not only related to the geopolitical context, but rather to the contingency of different gestures in a particular temporal moment.^{xcv} In this way, performance must be understood within its dimensions of intra-actions of time, space, and subjectivity. She adds that:

"[p]erformance today is fighting against a chain of ghostly apprehensions that often transform the performance as a material practice into the continuous abstraction of procedures, dividing it from its spatial, situational, and micropolitical dynamic, and abstracting it from its contradictory and always partial embodiment."^{xcvi}

How can we emancipate the politics of performance, to be understood within a global scale? For Kunst, that would be from “abstracting the performance from the singular conjunction of micropolitical forces,”^{xcvii} in other words, letting go from its materiality and temporal rupture. When performance becomes a political act of emancipation it threatens the fundamentals of emancipatory achievements. Kunst argues that our society is continuously deprived of its substance, therefore “an act of undoing is at work and the Event...is retroactively denied.”^{xcviii} Kunst’s understanding of performance brings its principles towards a constant active(ism) of ongoingness.

André Lepecki, in the introduction of his book “Dance: documents of contemporary art,” relate to the ongoingness of performance by arguing that together with the performative moment we are “figuring out how to move in this contemporaneity; and of understanding how, by moving (even if still) one may create a new choreography for the social.”^{xcix} By moving, social aspects are revealed, thus, as long as choreo-political questions remain relevant, dance will be a crucial system for critical thought within the aesthetic regime of contemporary art.^c

Under what he calls ‘political-aesthetic projects’, more than a metaphor for politics, one might understand it as activation of political practices through what he names as ‘social body’ and the ‘choreography for the social’.^{ci} For Lepecki and Kunst, the exchange among society and art highlights the ongoingness state of performance and its political dynamics.

The reproduction of aesthetics as a representation of society is at the same time a critical reflection of the present, a political understanding of the past, and a political projection of the future. Lepecki’s term ‘choreography for the social’, not only has the role of raising awareness and approaching questions about contemporary situations but indeed holds a value between individual and collective.

Contemporaneity, for Lepecki, is an understanding of the present as a way though to understand the past, with a danger of distancing Humankind out of guilt of its own actions, exposing how society distorts morals within a system of oppression and hegemony. What Lepecki acknowledges as an understanding of contemporaneity, is what Karen Barad would suggest exactly as a ‘noncontemporaneity’ of the present, as an attempt to make justice, to bring to the present the responsibility of revisiting the past and to assume the indeterminacy of its ongoing narratives:

“...The past is never closed, never finished once and for all, but there is no taking back, setting time aright, putting the world back on its axis. There is no erasure [of past violences] finally. The trace of all reconfigurings are written into the [iterative] enfolded materialisations of what was/is/to-come. Time can’t be fixed. To address the past (and the future), to speak with ghosts, is not to entertain or

reconstruct some narrative of the way it was, but to respond, to be responsible, to take responsibility for that which we inherit (from the past and the future), for the entangled relationalities of inheritance that 'we' are, to acknowledge and be responsive to the noncontemporaneity of the present, to put oneself at risk, to risk oneself (which is never one or self), to open oneself up to indeterminacy in moving towards what is to come. ...Only in this ongoing responsibility to the entangled other...is there the possibility of justice-to-come."^{cii} - Karen Barad (emphasis by the author)

In theater, it is common to address the so-called 'neutral mask', or 'neutral state'. Throughout the history of theater and performing arts, there is a hierarchy onto the techniques and aesthetics expected onstage. My suggestion is that performing arts entangles social-political struggles under the society it exists in. Therefore, neutrality as a state invokes Barad's concern of renormalization in which settle the idea of the subtraction of infinities, read also, an attempt to control diversities and possibilities.^{ciii}

Justice, as Karen Barad suggests, is an "embodied practice of tracing the entanglements of violent histories...[i]n the face of colonial practices of erasure and a-void-ance..."^{civ} For her, colonialism finds its justification in terms of the void, and the consequent a-void-ance of responsibility.^{cv} Indeed, each individual, as Barad argues, is "made up of all possible histories of virtual intra-actions with all others...there is no such thing as a discrete individual with its own roster of properties."^{cvi} By arguing that, she troubles the core of Western dependency on individualism, and capitalist modes of production and exploitation,^{cvi} and in fact, it constitutively excludes the 'other' which is always, as Quantum field theory suggests, already within.^{cviii}

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NOTES

ⁱ (Barad, *After the end of the world: Entangled nuclear colonialism, matters of force, and the material force of justice*, 2020, p. 103)

ⁱⁱ (Jones, 2020)

ⁱⁱⁱ (Jones, 2020)

^{iv} (Åsberg, 2018, p. 186)

^v (Åsberg, 2018, p. 197)

^{vi} (Åsberg, 2018, p. 187)

^{vii} (Åsberg, 2018, p. 192)

^{viii} (Haraway, 2016, p. 2)

^{ix} (Haraway, 2016, p. 101)

^x (Åsberg, 2018, p. 186)

^{xi} (Åsberg, 2018, p. 189)

^{xii} (Haraway, 2016, p. 101)

^{xiii} (Åsberg, 2018, p. 190)

^{xiv} (Åsberg, 2018, p. 193)

^{xv} The scalar perspective is also well discussed by João Arriscado Nunes on his analysis of Boaventura de Sousa Santos, putting universality into conflict, understanding different forms of hegemonic globalization raised on an ‘interscalar’ perspective. Nunes argues that understanding the scalar relationship between distinct dynamics and forms of globalization, and identifying its process of hegemony, would allow us to create emancipatory alternatives. (Nunes, 2019, pp. 340-344)

^{xvi} (Haraway, 2016, p. 101)

^{xvii} Scientists refer to the current time as the Anthropocene period, meaning the period of humanity. They warn that, because of human activities the Earth might be on the verge of—or already in—a sixth mass extinction. The big question is that if Humankind is passing through a mass extinction, what and how will new forms of life replace us? (Geographic)

^{xviii} (Greshko, 2019)

^{xix} (Hroch, 2010, pp. 1-2)

^{xx} (Hroch, 2010, p. 6)

^{xxi} Created by the Bulletin of the Atomic Scientists [Doomsday Clock - Bulletin of the Atomic Scientists \(thebulletin.org\)](https://thebulletin.org)

^{xxii} (Barad, *Troubling Time/s and Ecologies of Nothingness: Re-turning, Re-membering, and Facing the Incalculable*, 2017, p. 59)

^{xxiii} Here I will borrow the definition of trouble given by Donna Haraway, as follows: “*Trouble* ... derives from a thirteenth-century French verb meaning “to stir up,” “to make cloudy,” “to disturb.” ... The task is to become capable, with each other in all of our bumptious kinds, of response ... [our] task is to make kin in lines of inventive connection as a practice of learning to live and die well with each other in a thick present... In urgent times, many of us are tempted to address trouble in terms of making an imagined future safe, of stopping something from happening that loom in the future, of cleaning away the present and the past in order to make futures for coming generations.” (Haraway, 2016, p. 1)

^{xxiv} (Haraway, 2016, pp. 208-9)

^{xxv} Haraway mentions that the use of the term ‘critters’ refers to microbes, plants, animals, humans and nonhumans, and sometimes even to machines.

^{xxvi} (Haraway, 2016, p. 1)

^{xxvii} Information took from the Instagram account of @xrberlin from a post made on 15.05.2021 (free translation)

^{xxviii} (Žižek, Lecture delivered at KW Institute for Contemporary Art, Berlin (Germany) on December 16th 2011., 2011)

^{xxix} (Dionne, 2018, p. 7)

^{xxx} (Dionne, 2018, p. 9)

^{xxxi} (Åsberg, 2018, p. 196)

^{xxxii} (Åsberg, 2018, p. 189)

^{xxxiii} (Åsberg, 2018, p. 190)

^{xxxiv} (Åsberg, 2018, p. 190)

^{xxxv} (Harari, *Sapiens: A brief history of Humankind*, 2015, p. 463)

^{xxxvi} (Harari, *Sapiens: A brief history of Humankind*, 2015, p. 448)

^{xxxvii} (Harari, *Sapiens: A brief history of Humankind*, 2015, p. 452)

^{xxxviii} (Harari, *Sapiens: A brief history of Humankind*, 2015, pp. 452-3)

^{xxxix} (Harari, *Sapiens: A brief history of Humankind*, 2015, pp. 460-1)

^{xl} (Harari, *Sapiens: A brief history of Humankind*, 2015, p. 460)

^{xli} (Harari, *Sapiens: A brief history of Humankind*, 2015, p. 464)

^{xlii} Karen Barad once explained her using of ‘/’ (as an example of im/possibilities), by which she means more than just both (possibilities and impossibilities) but rather that there is a superposition that represents an indeterminacy between the two. In this paper I will use it in the same way, differentiating from her terms by using quotation marks.

^{xliii} (Harari, Recorded lecture on the Royal Institution Youtube Channel, entitled 'The future of Humanity, with Yuval Noah Harari', 2016)

^{xliv} (Hancock & Bezold, 1994)

^{xlv} (Hancock & Bezold, 1994)

^{xlvi} (Fisher, 2014, p. 13)

^{xlvii} (Fisher, 2014, p. 13)

^{xlviii} (Fisher, 2014, pp. 14-16)

^{lix} (Barad, *After the end of the world: Entangled nuclear colonialism, matters of force, and the material force of justice*, 2020, pp. 90-91)

^l (Barad, *After the end of the world: Entangled nuclear colonialism, matters of force, and the material force of justice*, 2020, p. 91)

^{li} (Barad, *Troubling Time/s and Ecologies of Nothingness: Re-turning, Re-membering, and Facing the Incalculable*, 2017, pp. 60-62)

^{lii} (Barad, *Troubling Time/s and Ecologies of Nothingness: Re-turning, Re-membering, and Facing the Incalculable*, 2017, p. 57)

^{liii} (Barad, *After the end of the world: Entangled nuclear colonialism, matters of force, and the material force of justice*, 2020, p. 92)

^{liv} (Barad, *Troubling Time/s and Ecologies of Nothingness: Re-turning, Re-membering, and Facing the Incalculable*, 2017, p. 58)

^{lv} Barad refers here to Daniel R. Wildcat. (Barad, *Troubling Time/s and Ecologies of Nothingness: Re-turning, Re-membering, and Facing the Incalculable*, 2017, p. 60)

^{lvi} (Barad, *Troubling Time/s and Ecologies of Nothingness: Re-turning, Re-membering, and Facing the Incalculable*, 2017, p. 76)

^{lvii} For Harrison, "...it is hard to define exactly what the term 'indigenous' means, people who have inhabited a particular land since before recorded history and have a strong ecological engagement with that land may be considered indigenous. There is clearly a link between language diversity and the presence of indigenous people." (Harrison, 2007, p. 11)

^{lviii} (Harrison, 2007, p. 20)

^{lix} (Harrison, 2007, pp. 5-8)

^{lx} (Harrison, 2007, p. 16)

^{lxi} (Nunes, 2019, p. 342)

^{lxii} (Nunes, 2019, p. 344)

^{lxiii} (Nunes, 2019, p. 343)

^{lxiv} (Nunes, 2019, p. 345)

^{lxv} The #BlackLivesMatter represents the awakening of African American and allied against police murders of Black people and other outrages.

^{lxvi} (Haraway, 2016, p. 207)

^{lxvii} (Haraway, 2016, p. 4)

^{lxviii} (Barad, *After the end of the world: Entangled nuclear colonialism, matters of force, and the material force of justice*, 2020, p. 95)

^{lxix} (Derrida, 1994, p. xviii)

^{lxx} (Barad, *Quantum entanglements and hauntological relations of inheritance: Dis/continuities, SpaceTime enfoldings, and justice-to-come*, 2010, p. 254)

^{lxxi} (Barad, *Quantum entanglements and hauntological relations of inheritance: Dis/continuities, SpaceTime enfoldings, and justice-to-come*, 2010, p. 251)

^{lxxii} (Barad, *Quantum entanglements and hauntological relations of inheritance: Dis/continuities, SpaceTime enfoldings, and justice-to-come*, 2010, p. 251)

^{lxxiii} (Barad, *Troubling Time/s and Ecologies of Nothingness: Re-turning, Re-membering, and Facing the Incalculable*, 2017, p. 62)

^{lxxiv} (Barad, *Troubling Time/s and Ecologies of Nothingness: Re-turning, Re-membering, and Facing the Incalculable*, 2017, p. 78)

^{lxxv} (Barad, *Troubling Time/s and Ecologies of Nothingness: Re-turning, Re-membering, and Facing the Incalculable*, 2017, p. 78)

^{lxxvi} (Barad, *After the end of the world: Entangled nuclear colonialism, matters of force, and the material force of justice*, 2020, p. 91)

^{lxxvii} (Barad, *After the end of the world: Entangled nuclear colonialism, matters of force, and the material force of justice*, 2020, p. 91)

^{lxxviii} Karen Barad recognizes that distinct entities, agencies, events emerge from/through their intra-action. They are only distinct in a relational sense to their mutual entanglement. For Barad, intra-action reworks the traditional notion of causality. (Barad, *Quantum entanglements and hauntological relations of inheritance: Dis/continuities, SpaceTime enfoldings, and justice-to-come*, 2010, p. 267)

^{lxxix} (Barad, *After the end of the world: Entangled nuclear colonialism, matters of force, and the material force of justice*, 2020, p. 93) also in (Barad, *Troubling Time/s and Ecologies of Nothingness: Re-turning, Re-membering, and Facing the Incalculable*, 2017, p. 82)

^{lxxx} (Barad, *Troubling Time/s and Ecologies of Nothingness: Re-turning, Re-membering, and Facing the Incalculable*, 2017, p. 81)

^{lxxxi} (Barad, *After the end of the world: Entangled nuclear colonialism, matters of force, and the material force of justice*, 2020, p. 94) also in (Barad, *Troubling Time/s and Ecologies of Nothingness: Re-turning, Re-membering, and Facing the Incalculable*, 2017, p. 82)

^{lxxxii} (Barad, *Quantum entanglements and hauntological relations of inheritance: Dis/continuities, SpaceTime enfoldings, and justice-to-come*, 2010, pp. 264-6)

^{lxxxiii} (Barad, Quantum entanglements and hauntological relations of inheritance: Dis/continuities, SpaceTime enfoldings, and justice-to-come, 2010, p. 265)

^{lxxxiv} (Barad, Quantum entanglements and hauntological relations of inheritance: Dis/continuities, SpaceTime enfoldings, and justice-to-come, 2010, p. 249)

^{lxxxv} (Barad, Quantum entanglements and hauntological relations of inheritance: Dis/continuities, SpaceTime enfoldings, and justice-to-come, 2010, p. 240)

^{lxxxvi} (Barad, Quantum entanglements and hauntological relations of inheritance: Dis/continuities, SpaceTime enfoldings, and justice-to-come, 2010, p. 251)

^{lxxxvii} (Fisher, 2014, p. 18)

^{lxxxviii} (Fisher, 2014, p. 18)

^{lxxxix} (Fisher, 2014, p. 21)

^{xc} (Fisher, 2014, p. 21)

^{xcⁱ} (Fisher, 2014, p. 21)

^{xcⁱⁱ} (Kunst, 2015, p. 1)

^{xcⁱⁱⁱ} (Kunst, 2015, p. 2)

^{xc^{iv}} (Kunst, 2015, p. 3)

^{xc^v} (Kunst, 2015, p. 8)

^{xc^{vi}} (Kunst, 2015, p. 6)

^{xc^{vii}} (Kunst, 2015, p. 3)

^{xc^{viii}} (Kunst, 2015, p. 7)

^{xc^{ix}} (Lepecki, 2012, p. 22)

^c (Lepecki, 2012, p. 21)

^{ci} (Lepecki, 2012, p. 22)

^{cⁱⁱ} (Barad, After the end of the world: Entangled nuclear colonialism, matters of force, and the material force of justice, 2020, p. 105) and (Barad, Quantum entanglements and hauntological relations of inheritance: Dis/continuities, SpaceTime enfoldings, and justice-to-come, 2010, pp. 264-265)

^{cⁱⁱⁱ} (Barad, After the end of the world: Entangled nuclear colonialism, matters of force, and the material force of justice, 2020, p. 95)

^{c^{iv}} (Barad, After the end of the world: Entangled nuclear colonialism, matters of force, and the material force of justice, 2020, p. 104)

^{c^v} (Barad, After the end of the world: Entangled nuclear colonialism, matters of force, and the material force of justice, 2020, p. 106)

^{cvi} (Barad, *After the end of the world: Entangled nuclear colonialism, matters of force, and the material force of justice*, 2020, p. 107)

^{cvii} (Barad, *After the end of the world: Entangled nuclear colonialism, matters of force, and the material force of justice*, 2020, p. 107)

^{cviii} (Barad, *After the end of the world: Entangled nuclear colonialism, matters of force, and the material force of justice*, 2020, p. 108)