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THE BIO-NECROPOLITICS OF ENVIRONMENTAL INJUSTICES IN BRAZIL[1]

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ABSTRACT

In this study we discuss environmental injustices as an algorithm of the microphysics of powers. To this end, we aim at developing the concepts of biopower, indicating a conceptual insufficiency for interpreting the peripheries of capitalism, in such a way the notions of necropolitics will be addressed to discuss the perspective of "bare lives". Thus, using

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phenomenology panoramas and the hypothetical-deductive method, we will discuss whether environmental injustices can be understood as a technology that promotes the death of "uninteresting" communities to systemic demands.

Keywords: biopolitics; biopower; environmental justice; necropolitics; vulnerability.

A BIO-NECROPOLÍTICA DAS INJUSTIÇAS AMBIENTAIS NO BRASIL

RESUMO

O presente artigo trata de discutir as injustiças ambientais como algoritmo da microfísica dos poderes. Para tanto, o trabalho tem por objetivo desenvolver os conceitos acerca do biopoder, indicando uma insuficiência conceitual para interpretação das periferias do capitalismo, pelo que serão invocadas as noções de necropolítica para discutir a perspectiva de "vidas nuas". Assim, recorrendo aos panoramas da fenomenologia e ao método hipotético-dedutivo, ponderar-se-á se as injustiças ambientais podem ser entendidas como uma tecnologia de promoção da morte de comunidades "desinteressantes" às demandas sistêmicas.

Palavras-chave: *biopoder; biopolítica; necropolítica; justiça ambiental; vulnerabilidade.*

INTRODUCTION

Biopower has been deciphered and studied by Michel Foucault as an instrument for regulating populations, instituted on the maxim "to make live and let die". Vulnerabilities are created and consolidated from the institutional control over the masses, which consequently results in the segregation of communities due to the idea of protecting the well-being of a general society. Biopower – exercised from biopolitics – is, therefore, a microphysics of power that integrates the very fabric of society. At this point, Foucault breaks with the Marxist logic according to which a macrophysics of power exists. That is, for Foucault, power is not centralized in the figure of the State but is developed in society itself.

Nevertheless, the Foucauldian reason is limited to European perspectives and it is insufficient to explain the realities of the peripheries of capitalism. This is because in countries at the global South – especially those where the memory of colonialism is preserved – there is the institution of a "naked life", which falls upon the "worthless individual", one who is disposable. Thus, the maxim in these States is "to make live and let die", which Mbembe denominated as necropolitics (or thanatopolitics). In other words, there is a more direct panorama regarding the extermination of certain communities – such as Black people, LGBTs, and the poor.

Thereupon, we question: can environmental injustices on the peripheries of capitalism be understood as a technology for promoting the death of "uninteresting" communities to systemic demands?

To this end, we aim at demonstrating the concepts and applications of biopolitics and necropolitics not only concerning the global reality, but especially the Latin American and Brazilian ones, showing that poverty is the agglutinating element of other vulnerabilities – which, in a practical way, makes these vulnerable communities the recipients of bio-necropolitics.

Given this context, our investigation is justified when considering that the production of vulnerabilities results in the extermination of individuals and sectors of society, which accentuates the barbarism associated with the political-economic system.

Hence, based on the hypothetical-deductive method and phenomenological interpretations on the (micro)physics of powers, we shall provide an overview of the creation of social vulnerabilities that become environmental vulnerabilities – with the creation of sacrifice zones, which consist in unsafe environmental spaces, where the risk of extermination of their residents is taken and promoted.

To do so, Foucault and Mbembe will be used as theoretical milestones for the understanding of contemporary dynamics of environmental injustices, considering the importance of their works, such as *The birth of Biopolitics*, *Microphysics of Power*, and *Necropolitics*.

The first chapter discusses considerations about the twist between disciplinary power and biopower, highlighting aspects that integrate microphysics of power in the control of the masses as well as the insufficiency of biopolitics to explain the realities of the periphery of capitalism. In the second chapter we present necropolitics as a concept that allows us to understand the institution of "bare lives" and the direct extermination of these bodies, with the consolidation of a dynamics according to which individuals who do not meet the systemic expectations should be left to die. In the third chapter, we question whether social vulnerabilities can be understood as driving forces of environmental vulnerabilities. Finally, the fourth chapter we discuss social injustices from the necropolitical point of view.

1 MICROPHYSICS OF POWER AND BIOPOLITICS

Michel Foucault was the most notable scholar who researched the microphysics of powers. Born in France, the philosopher focused on studies about power – relating it to multiple vulnerabilities and creating a context according to which there is a network of control and actions for controlling and guiding actions.

In *Discipline and Punish* (2010), Foucault developed concepts about the genealogy of power, drawing parallels and establishing relations between knowledge and power – from the Nietzschian perspective. Hence, the French philosopher broke with the Marxist perception of power as a macrophysics – which would be essentially present in class and State relationships – to formulate a reasoning based on a microphysics of power, that is, highlighting that "power is diluted in all sectors of society in the form of relationships" (DINIZ, OLIVEIRA, 2014, p. 143, our translation).

In this sense, we note that power does not emanate from a central pole (the State), but is constructed within the peripheries, being constantly present in the realities and in all dimensions of life. It is from the understanding of the "molecular level of the exercise of power" (MACHADO, 2009, p. 169, our translation) that we perceive the structure of powers within institutions – such as military barracks, hospitals, and schools, for example. Power is part of all relationships, in such a way it is impossible to be

immune to it – it is the social intertwinement. Thus, there are no spaces lacking power since it is exercised by all and subject to all within an organization that establishes roles and postures.

The displacement of the perspective of a power that emanates from the absolutist State to the power that exists in the social environment has enabled the acknowledgment of a power that exists and is consolidated with the bourgeoisie – already in the early years of capitalism, namely, the disciplinary power. Such power arises precisely to ensure systemic maintenance, considering that repression makes it unfeasible to prolong systems and regimes due to instigating revolutions. In this sense, the disciplinary power is concerned with producing docile bodies, based on technologies that lead human beings to adapt to institutional norms to become useful subjects (FOUCAULT, 1979, p. 36).

The method of mechanics of power (or political anatomy) is from where disciplinary power becomes responsible for guiding and determining gestures, movements, and the general behavior of individuals – disintegrating the naturalness of actions towards an adequate reintegration into the disciplinary environment. A coercive atmosphere capable of manufacturing docile individuals is thus constructed – in the process that Foucault (2010, p. 193) called "production of machine-bodies".

Initially, the main power device presented by Foucault (2010, p. 47) was panopticism, which consists in growing the constant sense of observation and control. Thus, the very bodies of the docility process are self-controlled by the feeling produced by the gaze – or by the possibility of the gaze – of those who exercise power. Brute force is therefore unnecessary, considering that individuals regulate themselves under the possibility of being observed. The body is conditioned to adopt the expected postures without the need for the direct and real application of forms of violence.

The change in the focus of power, still in the eighteenth century, led Foucault to realize that disciplinary power has declined in order to strengthen a new power mechanism – which was called Biopower. At this moment, there is greater interest in the taming of the masses, rather than in the individual body alone. Therefore, strategies were thought out to ensure the possibility of conducting and limiting the life of human beings.

Interests in collective phenomena will initially lead to the central concern about the health of communities. It is noteworthy that this requires a police-related policy based on surveillance to ensure or remedy everything that may pose a threat to the population. Hence, there is "the development

of a medicine whose main function will now be public hygiene, with institutions to coordinate medical care, centralize power, and normalize knowledge. […] campaigns to teach hygiene and to medicalize the population" (FOUCAULT, 1999, p. 291). Therefore, biopower – applied through biopolitics – can make live or let die (FOUCAULT, 2010, p. 195).

Thus, if in the disciplinary power the modeling of the individual body took place by the surveillance and adequacy of individual behaviors, the second half of the eighteenth century would be marked – from the Foucauldian perspective – by the incorporation of discipline into a new control system: the biopower. There is no need to address the complete annulment of instruments of power, but rather the integration of strategies: whereas disciplinary power is concerned with guiding the human-body, biopower is concerned with conducting the human-society.

This change in the recipient of the exercise of power can be explained by the very change of government modes. If once the State was the key and monopolizing instance, from the eighteenth century onward the scope of power becomes decentralized. The establishment of a "minimum government" (Foucault, 2008, p. 40, our translation) has accentuated the dynamics of dilution of control in the fabric of society, due to the paradigm Foucault called liberalism – which consists in a "type of a relation between the governors and the governed much more than a technique of governors with regard to the governed" (FOUCAULT, 2008, p. 42).

To this end, biopower is concerned with all biological processes, quantifying them and promoting their combination. That is why statistics and demographics are given so much importance in the modern world; they enable the production of knowledge useful to ensure the observation and subsequent control of the population.

According to the analysis of Furtado and Camilo (2016, p. 39), biopower is a condition for the very existence of capitalism, since its survival is ensured by the absence of a tyranny that, eventually, would result in revolution. At the same time, biopolitics induces behaviors based on "the imperative of competition, efficacy, and self-performance" (FURTADO; CAMILO, 2016, p. 40, our translation). We can thus argue that biopower is responsible for meeting the demands of the system, producing interesting individuals to the yearnings of production and consumption, especially allowing for the death of deviant patterns as a method for promoting the well-being of those who are fit to the systemic priority (DANNER, 2010, p. 153).

Agamben (2002) gave important considerations – which could be deemed as considerations for complementing the Foucauldian body of work – about the totalitarian States of the twentieth century, suggesting that they were prime examples of the management of biopolitics. Hence, "it is only because the politics of our time has become entirely biopolitical that it could be constituted of a portion previously unknown as totalitarian politics" (AGAMBEN, 2002, p. 126, our translation). Moreover, we must note that Giorgio Agamben disagrees with Michel Foucault's consideration that one can establish the birth of biopolitics, since it had been present since before the eighteenth century.

Nevertheless, these disagreements between both authors are not relevant to our investigation, and we shall focus on what Agamben (2002, p. 127) called "naked life", which refers to the trivialization of certain lives. That is, some bodies simply live in the world, "devoid of any political qualification" (HACHEM, 2011, p. 350, our translation). Naked life is precisely what will legitimize the "let die" that crowns biopolitics.

Agamben's (2002) perspective serves as a prelude to an even more distant interpretation of Foucault's biopolitics. If, in the French analysis of the scope and recipients of power, biopower discreetly works "to make die and *let* die", in the Italian analysis the manifestation of power would lead to the direct promotion of death itself.

Thus, although the naked life is included in society and is falsely accepted – in an "inclusive exclusion" (AGAMBEN, 2002, p. 90) –, one realizes that the direct extermination of these bodies is an allowed and even expected reality, according to Agamben's arguments. These are not worthless individuals, but individuals who must follow the strict order of extermination, as if they have been marked to be eliminated. Within this context, we consider that Agamben's perspective of the concepts of biopolitics approximates such term to what would later be deemed as thanatopolitics, or necropolitics, by Mbembe.

2 THANATOPOLITICS (OR NECROPOLITICS): LOOKING AT THE PERIPHERIES OF CAPITALISM

This new (or complementary) perspective of microphysics of power in society was initially presented for understanding the control of bodies in "non-European" countries, since the dynamics of control and extermination of individuals occurs in a pronounced and advancing way (LIMA,

2018, p. 31, our translation). Accordingly, we will reflect on necropolitics to present an overview of lives that become killable and that deviate from the maxim of "to let die" to fall into the "to make die" pattern.

In other words, necropolitics does not overcome the notions of biopolitics presented by Foucault or Agamben, but rather complements colonial and slavery realities. Ergo, in the realities of the peripheries of capitalism, the disposable quality of individuals is greater, in such a way we can conclude that the imposition of death on these bodies would also be different, to the extent that "worthlessness" makes it necessary to accelerate the process of discarding bodies. Thus, we may say that in these countries there shall be a displacement from the axis "to make live and let die" to "to make live and make die".

This death policy takes place in countless ways, all of them somehow subtle and legitimized by the rooted notion that the death of these bodies – deemed as useless – is a measure to ensure the survival of those who are somewhat valuable in society.

At this point, we must recognize Foucault's limitations regarding the analysis of the periphery of capitalism. On this issue, Losurdo (2011, p. 229, our translation) has already stressed that "Foucault does not devote any attention to the history of colonial peoples or those descending from these peoples", Thus, the reflection on biopower and biopolitics would have little use for the final and conclusive findings of the issue of environmental injustice in Brazil and Latin America.

Nevertheless, we cannot absolutely agree with Losurdo's criticism (2011, p. 229). On the contrary, the perspective we adopt in this study is that the logic of powers developed by Michel Foucault supports all reasoning about the genesis of environmental injustices, but it was not developed in time for comprising findings about the new moments of society and capitalism – in such a way it is incomplete, but not outgrown.

Likewise, Pessanha and Nascimento (2018, p. 173, our translation) corroborate that "although the categories of biopower and biopolitics are useful, they are insufficient to think about the experience of our country". That is because, according to the authors, the development of biopolitics in the countries on which Foucault based his research was marked by a decrease in the plight that still affected by the population of the Southern axis of the planet.

According to the Foucauldian thought, the demand in the beginning and in the middle of capitalism made the creation of docile bodies a

necessity in the face of politics – which were also useful in the production process. We could say there is a historical parallelism: on the one hand, the disciplinary society, and on the other, the class society (BIDET, 2014, p. 87).

Hence, capitalism sought to insert the vulnerable body into the "machinery of power that explores it, breaks it down and rearranges it" (FOUCAULT, 2009, p. 138). It is noteworthy that the result should consist in individuals capable of producing goods – what is achieved through military barracks, prisons, schools, among other institutions based on discipline. At this point of capitalism – which required the productive force –, the interest was in the body in its full life and activity, in such a way that "disciplinary power is not a power of death, but a power of life, whose purpose is not to kill but to operate the imposition of life" (HILÁRIO, 2016, p. 199, our translation).

From the 1970s, the turning points of capitalism and the development of political and economic crises changed the behavior of powers within society that did not necessarily remain as repressive – but which focused on other interests. Governments took on much of the initiatives for controlling actions, which resulted in the production of life and collectivities, "a biopolitics of the population" (HILÁRIO, 2016, p. 201, our translation).

Therefore, from the moment the bodies become expendable according to the capitalist logic of production – since the system has found its own new means for its survival –, power relations have changed (LEGRAND, 2004, p. 33, our translation). Mbembe denominates this moment as thanatopolitics – or necropolitics. Then, based on this issue, we may state that thanatopolitics is responsible for ensuring – in a systemic and institutional way – the "material destruction of human bodies and populations deemed as disposable and superfluous" (MBEMBE, 2012, p. 135). Ergo, if once these vulnerable bodies have been useful to capitalism – and the very construction of vulnerabilities consisted in a means for the system maintenance –, now these bodies are expendable, since they can be replaced by machines, for example.

This is what Ogilvie (2012, p. 16) calls *l'homme jetable,*[5] "whose workforce is no longer necessary for the mode of reproduction of capital in its current phase" (HILÁRIO, 2016, p. 205, our translation), so that "they become carriers of a changeable life" (HILÁRIO, 2016, our translations). These bodies lose value (AGAMBEN, 2010, p. 98) since they are

5 The superfluous man.

disconnected from the systemic circuit of supply of labor and workforce.

Zoè is created, namely the "naked life", i.e., a scenario in which certain bodies lack protection and become worthless, within a condition of "no-life" and "no-existence". Thus, these vulnerable individuals are subjected to realities of exception and denial of dignity. And it is precisely the institution of "naked life" that will mark the transition from biopolitics to thanatopolitics: the feasibility of a "to make die" that affects vulnerable peoples in the society.

3 ENVIRONMENTAL INJUSTICES

According to the concepts presented so far, it is noteworthy that vulnerability is directly related to the risk to which certain humans are exposed to. Whether by inciting personal and individual behaviors, or by the place reserved to them in the social environment, the institutional-systemic disposition for promoting the extermination of these vulnerable peoples is evident.

We can thus argue that social and environmental risks are distributed – like wealth – depending on the social classes and positions of individuals. At this point, it is worth mentioning that risks are globalized, i.e., they pose a threat to everyone (BECK, 1992, p. 15). Nevertheless, we must mention that both the proportions of distribution of these risks and the response and mitigation capacity are different.

This is because, although there is risk for everyone – in a kind of deconstruction of the systemic logic of classes –, it is noteworthy that those who have financial resources can adopt practices and measures that overcome or amortize the effects of possible damages. And the State, one of the dimensions that shapes vulnerabilities, is the institution that will establish the proportions for the distribution of such risks (BECK, 2008, p. 27). "The State, therefore, plays a central role at a time when risks are mostly global" (MENDES, 2018, p. 466, our translation).

Based on Beck's reflections (1992), Curran (2013, p. 36) will established an overview, stating that the distribution of the aforementioned risks is more related to specific realities linked to social inequality than to an idea of the globalization of risks – considering that the capacity of response to risks moves the very vulnerability away (making risk an unlikely possibility). On the other hand, those who do not have the capacity or possibility to efficiently respond to risks are subdued, in such a way that both risk and

inequality of classes are inseparable concepts for the reflection (CURRAN, 2018, p. 38, our translation).

Thus, when intertwining the perspectives of vulnerabilities and risks, we verify that the criteria of both concepts shall define the individuals who will be negatively affected by the concretization of risk into damage. Therefore, when the vulnerabilities of a given individual or group of individuals are defined, the parameters between normality and the "normalization of insecurity" are defined (MENDES, 2018, p. 469, our translation).

Vulnerabilities exist and their degrees vary because, in addition to having a greater exposure to biophysical risks, marginalization trends make their [vulnerable people's] response capacities precarious (CUTTER, 2009, p. 22). There is a permanent emergency, i.e., the existence of a daily frailty that is latent, jeopardizing the very existence of these individuals who, once taken to peripheries, assume the burden of constant risk – as a consequence of social vulnerability.

From the perspective we are outlining, these vulnerabilities will precisely impact the denial of social spaces and wealth that, as we shall see, are responsible for favoring the withdrawal of "undesirable" individuals from life itself – the extermination of communities, as well illustrated by the ultimate object of the physics of powers that follows social segregation.

At this point, we can state that environmental vulnerabilities that affect socially vulnerable people fall within the spectrum of a vulnerability that is also social (socio-environmental), which concerns individuals exposed to misfortunes of the exploitation of nature (KLOCK, CAMBI, 2010, p. 53) – making these people more susceptible to natural disasters. That is because these individuals are unprepared to deal with the effects of hurricanes, earthquakes, tsunamis, and other natural events. Moreover, social vulnerabilities themselves, supported by the dynamics of power in the fabric of society, contribute to the development of policies that strengthen these vulnerabilities even more.

These individuals – who are also the poorest due to the necropolitical exclusion from work – are the first ones and the most oppressed by waste, garbage, and ventures that pose risk. It should be noted that the very dynamics of the logistics of dumps, landfills, mining wastes, and chemicals industries are designed for being installed in poor neighborhoods – away from the wealthy people. Likewise, "if there is a water crisis, the poorest neighborhoods will be the first chosen for reducing the use of the resource. Hence the environmental racism" (ABREU, 2018, p. 119, our translation).

Besides, we must highlight that vulnerabilities have no borders, in such a way they are inserted in the context of globalization – which is an irreversible outcome for the world (BAUMAN, 2013, p. 97). This is worsened as risks are created – and consolidated in concrete effects –, risks of planetary scale such as the climate collapse that, despite affecting all humanity, punishes poorest peoples the most – e.g., Latin American, African, and Asian communities.

It is worth noting that the vulnerability of the environment – subjected to the action of humans, who degrade its condition – is also the human vulnerability. This statement is corroborated due to the effects, generated by postures of the *homo sapiens,* on the lives of individuals themselves: the construction of a binomial between the progress of the world and the destruction of humanity.

3.1 Movement for Environmental Justice in the United States of America (USA)

Accordingly, the movements for Environmental Justice arise, seeking to ensure decent living conditions for individuals who are not benefited from the political and economic system. We emphasize that this must occur by claims related to the exposure of people and housings to hazardous materials, availability of basic sanitation, guarantee to drinking water, and allocation of toxic waste in areas without the presence of human beings. According to Acselrad (2002, p. 51), these movements were the ones that gained more strength from the 1990s, with the aim of creating an innovative cycle of social structuring.

Baggio (2014, p. 107) states that the term "Environmental Justice" was definitively consolidated in 1982, when African Americans from Afton – State of North Carolina, USA – got together against the installation of a toxic landfill, which would pose risk to the community. For the purposes of illustrating the mobilization, about 500 people were arrested, which demonstrates the systemic resistance against the movement for environmental justice (BULLARD, 2005, p. 97).

> At the time, the movement drew attention to the fact that, in North American society, there was an unequal distribution of environmental risks, affecting Black communities in a more critical way; therefore, the expression "environmental racism" was created. […] In 1983, a study was conducted by the *U.S. General Accounting Office*, indicating a 75% rate of landfills formed by toxic waste, which

[…] were predominantly located in African-American communities, although these accounted for only 20% of the population of the region (BAGGIO, 2014, p. 106, our translation).

Environmental injustice is thus understood as institutionalized discrimination. In other words, it regards the existence of environmental public policies[6] that affect Black people and poor individuals more directly[7]. We can easily perceive this reality in the North American society since racial discrimination consists in a significant historical algorithm regarding the development of social conflicts, with strong implications for the issue of economic inequality.

This is due to the destabilization of works and reduction in job offers that came with the advent of the twentieth century. "The poor sectors of the native urban Black population in the USA […] became the typical example of this 'subclass', a body of citizens practically excluded from the official society, who are not part of it" (HOBSBAWM, 2007, p. 333, our translation).

This is confirmed, for instance, when analyzing the case of the city of Houston, in Texas, USA. This city concentrates the largest community of African Americans in the South of the country, and they cluster on the outskirts of the city, precisely the place where landfills and junkyards are located (BAGGIO, 2014, p. 109). "The Houston suburb […] is formed by true dumping grounds, i.e., territories intended for disposing of all sorts of wastes and objects that are no longer welcome in the urban center" (BAGGIO, 2014, p. 109, our translation).

The issue of environmental (in)justice – which in the USA also occurs as environmental racism – allows us to conceive the notions of a "geography of difference". This idea was developed by David Harvey (2007, p. 14) when describing that the creation of these scenarios, in which peripheries are occupied by Black people and also by spaces for the disposal of goods, is responsible for stigmatizing Black individuals. This is due to an association of the skin color and ethnicity of these people with pollution, impurity, and degradation issues.

Hence the notion that the suburb – inhabited by Black people – is a place for disposal of materials and people. Therefore, "racism is a powerful factor in the selective distribution of people in their physical environment;

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6 For further details on the relationship between public policies and the objectives of sustainable development, in their multiple dimensions, see: GOMES; FERREIRA, 2018, p. 155-178.

7 In an equivalent sense: CALGARO; PEREIRA, 2017, p. 297 and GOMES; PINTO, 2020, p. 582-608.

it influences land-use, housing patterns, and infrastructure development" (BULLARD, 2004, p. 52).

The movement for environmental justice was only expanded in the USA beyond racial matters from the 1990s onward, thus comprising other excluded groups. From the National People of Color Environmental Leadership Summit it was established the need for ensuring respect for the self-determination of peoples, diversity and culture as well as the importance of the insertion of all individuals into institutional decision-making processes as a form of emancipation. It is worth highlighting that this has favored the strengthening of women, LGBTs, and other vulnerable groups within the movement for Environmental Justice, including in leaderships (FIGUEROA; MILLS, 2000, p. 432).

Globally, movements for Environmental Justice have grown significantly from the United Nations Conference on Environment and Development, in 1992. Henceforth, the principles of environmental justice have been translated into Portuguese and Spanish, which enabled a wider scope of the fight (BULLARD, 2004, p. 52), in addition to developing important topics for the area such as biopiracy, self-determination of native peoples, and environmental refugees.

3.2 Environmental injustices in Brazil and Latin America

In Latin America, there are distinct findings about environmental injustice, since there is a historical and cultural legacy closely linked to the slavery issue and the relativization of human rights – whether by the colonial period or by dictatorships established over the years. We can say that Latin America is subdued in the face of the global cultural hegemony, which characterizes injustices.

Nevertheless, it is uncontroversial that the development of European civilizing standards in Latin America took place from the logic of exploitation and domination, which is the very *raison d'être* of the coloniality of power. It is, therefore, the establishment of a classification of colonized individuals as inferior people and susceptible to the breach of the human dignity contract (QUIJANO, 2009, p. 83).

Colonial domination was responsible for characterizing and outlining disadvantaged people and conferring them the status of "the other". Hence, those who distinguish from the "European we" end up unfeasible by a power that exercises control and establishes standards for its subordinates (DUSSEL, 2005, p. 33).

The constitution of power by the dyad to exploit-dominate reinforces racial perspectives – which also strengthens the very dynamics of powers (QUIJANO, 2009, p. 86). The application of biopolitical notions of the colonial relationship confirms that an overview of behaviors and actions is outlined from considerations based on the conditions and characteristics of phenotypes, whether geographical, political, sexual, or economic.

It is the very dynamics of the strengthening of capitalism that grants Europeans an identity linked to the concept of the ability to be colonizers. That is because, in Latin America, by dominating the "other", the extraction of the raw material, the conversion of the "other" into workforce, and the consequent maintenance of the welfare of the system are promoted (QUIJANO, 2002, p. 87).

The very domination of the colonizer is responsible for imprisoning the struggles of the outsiders in a cycle of frailties, since collective-related notions are weakened – which makes probable resistances unfeasible. "Subjection and discrimination broaden human and environmental vulnerabilities, with the formation of categories of 'smaller' people and corroborating nature only as an 'infinite' source of environmental resources" (ABREU, 2018, p. 135, our translation).

Those who dominate separate the dominated from systems and decision-making processes in the political and social environment, which promotes the maintenance of statuses and accentuates vulnerabilities due to the "lack of political and economic power" (ABREU, 2018, p. 135, our translation). The unequal division of power between individuals is precisely what conditions the emergence and continuity of environmental injustice.

Thus, in the colonial reality, Latin America suffers from several factors that strengthen the logic of segregation of the environment and environmental benefits. "Poverty, low education rates, absence of protective public policies, low income, and criminality are factors that maximize the environmental racism" (ABREU; BUSSINGUER, 2013, p. 241, our translation).

Hence, the bio-necrotic movement is evidenced when the process of colonization of Latin America takes place, since racial criteria were adopted for establishing power between colonizers and those colonized. Therefore, we consider that a hierarchy between communities was created, which legitimized the intervention of one over the other, as we can illustrate by c Foucault (2005, p. 305), in the sense that "racism makes

it possible to establish a relationship between my life and the death of the other that is not a military or warlike relationship of confrontation, but a biological-type relationship." Racism, in this sense, legitimizes the exercise of biopower on the part of the colonizing State, which removes the idea of sustainability[8].

We may say that the establishment of the physics of powers in the colonial and postcolonial Latin America took place by the most visible algorithm – the people's skin color –, contributing to a significant differentiation between Europeans and "the others". This inevitably led to a difficulty of Latin countries in escaping from the stigma of the colonial periphery and to develop themselves (QUIJANO, 2009, p. 92) – which broadens the racial issue, consolidating a whole set of vulnerable people who are targets of environmental racism, based on poverty of individuals and countries.

In Brazil, however, the analysis of environmental racism differs from other analyses, since it retains a more socioeconomic nature. Unlike the United States of America, where the racial issue is extremely considerable, the Brazilian environmental injustice is consolidated and justified in the denial of income – which afflicts Indigenous and Black people, but also – and mainly – women and LGBTs, regardless of the skin color. In Brazil, the poor – in general – suffer from the denial of resources, quality, and environmental safety (ABREU, 2018, p. 137).

4 NECROPOLITICS AS AN INSTRUMENT FOR ANALYZING ENVIRONMENTAL INJUSTICES

In this scenario of racism and environmental injustices, necropolitics gains meaning for the unequal distribution of risks as a way to cause death. The mere presence of the increased risk of death for certain individuals is enough to institute a state of permanent violence, "a world of violence […] in which the sovereign is he who is, as if death were not" (MBEMBE, 2011, p. 137). At this point, the state of exception of death production is normalized, and becomes a state of naturalness.

Necropolitics is consubstantiated in environmental issues through numerous scenarios. The very production of poverty – through the non-incorporation of vulnerable people in capital and the creation of excessive population masses – and the rise in real estate values in the best spots of the

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8 To deepen the political and legal dimension of sustainability as a way of ensuring fundamental intergenerational rights, see: GOMES; FERREIRA, 2017, p. 93-111.

cities (SILVA, 2003, p. 15) are responsible for leading the "killable" bodies to peripheries and environmental risk areas.

In Brazilian municipalities, we verify that areas rated by the Civil Defense as risk areas are occupied by populations consisting, on average, of more than 75% (seventy-five percent) of Black people. In the State of Minas Gerais, this average is higher, 77% (seventy-seven percent), and in some cities the averages exceed 70% (seventy percent) (BARRETO, 2010, p. 23). This is corroborated, for example, by the population and ethnic survey conducted by the Civil Defense of Juiz de Fora, in the state of Minas Gerais – the research was based on a self-reported form on racial characteristics:

Table 1 – Population and ethnic survey on physical risk areas in Juiz de Fora – MG, Brazil. May/June 2010

Neighborhoods	Number of residents	Black/mixed-race people (%)
Bela Aurora	532	89.1
Bonfim	826	75.7
Borboleta	199	78.4
Borboleta	236	42.1
Carlos Chagas	190	67.2
Cidade do Sol	155	45.2
Cruzeiro do Sul	463	83.1
Dom Bosco	1745	72.1
Dom Bosco	1499	91.9
Esplanada	569	60.8
Estrada União	88	86.1
Fazenda do Yugo (Boto)	398	61.6
Fazenda do Yugo (Grota)	241	69.2
Filgueiras	353	84.7
Granjas Bethânia	90	80.6
Granjas Bethânia	593	82.5
Jardim Casa Blanca	523	73.5
Jardim da Lua	1592	74.3
Jardim de Alá	450	74.6

Continuação

Jóquei Clube	1172	47.5
Ladeira	541	50.3
Linhares	1319	79.9
Marumbi	1581	48.2
Marumbi	856	44.8
Milho Branco	101	81.8
N S de Lourdes	877	62.5
Olavo Costa	4074	74.1
Parque Guarani	1099	63.4
Parque Guaruá	1408	83.5
Parque Independência	300	83.3
Santa Cecília	1476	100
Santa Cruz	898	41.7
Santa Efigênia	295	64.1
Santa Luzia	1173	42.1
Santa Rita	3019	76.5
Santa Rita	2233	76.7
Santos Anjos	100	63.2
São Bernardo	94	100
São Geraldo	176	73.7
Três Moinhos	768	64.4
Vila Alpina	1309	56.3
Vila São Damião	375	92.7
TOTAL	**35986**	**70.5**

Source: Civil Defense of Juiz de Fora – MG, Brazil (2010)[9].

Based on this table, we observe that of the 42 (forty-two) neighborhoods in risk areas of the city of Juiz de Fora, only 7 had a profile of Mixed-race/Black inhabitants of less than 50% (fifty percent). In other words, 83.4% of the neighborhoods inserted in physical risk areas are mostly Black – which refers to the explicit tendency towards "nonwhite" individuals being "jammed" into these sacrifice zones, the result from a

death policy.

At the national level, the concentration of Mixed-race/Black people is also higher in the poorest and underdeveloped regions of the country, which demonstrates the systemic movement of noninclusion of these bodies in the production logic. Not coincidentally, these are also the most environmentally vulnerable regions (RABELO, 2016, p. 1090), mainly due to the water crisis experienced in Northeastern Brazil.

This is the reality that we can verify in the racial map of Brazil, built by the Post Advertising Technology Agency (PATA, 2019). Said map demonstrates a predominance of white people in the southeast and south of the country, which are regions with a greater concentration of wealth and environmental security. In the other hand, there is a predominance of Mixed-race/Black people in the northeast and north of the country, which are regions with a lower concentration of wealth and greater environmental insecurities[10].

In this sense, we observe that human vulnerabilities also result in environmental vulnerabilities. This is because these individuals are not incorporated into the system, in such a way they become poor people – unable to sustain standards of dignity within the reality of the capital.

The path traced to barbarism – and consolidated by poverty – leads these individuals to the epicenter of the thanatopolitics, so that they become targets of a direct and indirect extermination logic, since they are nothing more than an excessive mass in the face of the needs of the system. Hence, they are taken to areas of environmental risk – which are also the poorest places – in such a way the exposure to the great danger is enough to generate the elimination of the bodies.

If not due to high crime rates, genocide on the part of public security agents, hunger, or disease, these bodies shall be eliminated by collapses, floods, landslides, fires, industrial accidents, and dam collapses. Ergo, these are killable bodies inserted in sacrifice zones – places where the Public Authority, the Economic Power, and the systemic logic take the greatest risks, considering that damages resulting from possible accidents and catastrophes will be of little value.

Notwithstanding, the poverty environment established there has little to add to the utilitarian logic of the capital, since it is useless to the production of wealth according to the supply of raw material – a worthless nature as an environment for transformation. Likewise, the individuals

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10   For a better view, see: PATA, 2009.

living there add little value – or none – from the perspective of capitalism: they are "non-beings", the "others". Therefore, since capital is genocidal, bodies of Black people, women, and LGBTs are devastated, bodies which share a common feature: poverty.

At this point, the discussion about racism, *machismo*, sexism, and other forms of discrimination is mistaken for and merges with issues of environmental injustice. This is because the death and extermination of these bodies may occur, at first, by the condition that follows existence – "being Black", "being-woman", "being-LGBT" –, but thanatopolitics is only consolidated when these bodies are also poor bodies.

In other words, poverty denudes vulnerable bodies and delivers them to death as a feast made of flesh and blood. And, not coincidentally, these naked bodies are those that historically suffer from oppressions of a society constructed on the paradigm of a "predator man", which strengthens all prejudice and discrimination based on the logic of domination of the strongest over the weakest, the richest over the poorest, man over nature.

The essence of capital in crisis has highlighted the whole trace of barbarity in humanity as a way of survival of the standards of this era. Enslavable individuals – who are useful for producing systemic and personal values – have lost their value in the usefulness they used to hold and are now prone to extermination. Technologies and methods for these deaths are wide as well as the meat that can be consumed. The politics of death is current: hence, the sacrifice is consummated.

FINAL CONSIDERATIONS

The main objective of the study, as previously mentioned, was to present and indicate environmental injustices as an algorithm of the power of bio-necropolitics. We intended to demonstrate that social vulnerabilities also become environmental vulnerabilities according to the microphysics of powers, established from the eighteenth century onwards. To this end, it was paramount to develop the concept of disciplinary power and its transition and incorporation into biopower, highlighting that concepts formulated by Foucault are insufficient for the analysis of the issue of power and environmental injustices in the periphery of capitalism.

Thus, we also addressed concepts of necropolitics, in such a way we verified a change in the ultimate key idea of control over the bodies. If in biopolitics it is intended to "make live and let die", in necropolitics, on the

other hand, what is intended is to "make live and make die". It is precisely at this point that environmental injustices were presented as an algorithm for facilitating this "death policy".

All in all, we can conclude that the unequal distribution of wealth and the availability of the best and safest environmental spaces create sacrifice zones, where it is possible to verify a greater systemic disposition for the extermination of certain individuals. In this sense, the creation of social vulnerabilities – such as weaknesses due to skin color and ethnicity – also become environmental vulnerabilities, which legitimizes and facilitates the withdrawal of these bodies from life, resulting in the well-being and security of society (the very biopolitical foundation).

Finally, we corroborated this matter by demonstrating that in Brazil, at national and municipal level, the unequal distribution of environmental benefits ends up inserting Black bodies into risk areas or in those with lower quality and greater environmental insecurity, in such a way these individuals are constantly submitted to a perspective of imminent extermination. We could observe this in the Table, by the racial mapping of neighborhoods inserted in the Civil Defense records as risk areas: and these populations are mostly composed of Black people. We state that environmental injustices accentuate vulnerabilities of human beings and contribute – as instruments – to the strengthening of a bio-necropolitical logic, based on the control of bodies and extermination of communities.

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