

From public goods to green market shelves: notes on neoliberalism and the commodification of nature

De bens públicos às prateleiras dos mercados verdes: notas sobre o neoliberalismo e a mercantilização da natureza

Rafael Carletti¹

Abstract: In this article, I seek to present some constituent elements of the commodification of nature. More specifically, the idea is to locate the historical-political moment in which such an undertaking became possible. I start from the premise that it was with the institutionalization of neoliberalism as a way of managing and organizing the capitalist system from the 1980s onwards that elements of nature were no longer understood solely as public goods but became commodities endowed with value. Furthermore, I argue that the worsening of climate change and the need to value the externalities generated in the production process contributed to this phenomenon and incorporated them into the market price system. I analyze this issue based on the theoretical-methodological tools of Environmental Sociology, especially concerning the society-nature relationship.

Keywords: Neoliberalism. Valuation. Carbon. Periphery. Crisis.

Resumo: Neste artigo, busco apresentar alguns elementos constitutivos do processo de mercantilização da natureza. De forma mais específica, a ideia é localizar o momento histórico-político em que tal empreendimento se tornou possível. Parto da premissa de que foi com a institucionalização do neoliberalismo como modo de gerir e organizar o sistema capitalista a partir dos anos 1980, que elementos da natureza deixaram de ser entendidos unicamente como bens públicos, tornando-se, eles mesmos, mercadorias dotadas de valor. Além disso, argumento que contribuiu para tal fenômeno o agravamento das mudanças climáticas e a necessidade de valorar as externalidades geradas no processo produtivo para, então, incorporá-las no sistema de preços do mercado. Analiso essa questão a partir do instrumental teórico-metodológico da Sociologia Ambiental, especialmente no que se refere a relação sociedade-natureza.

Palavras-Chave: Neoliberalismo. Valoração. Carbono. Periferia. Crise.

¹ Doutor em Sociologia pela Universidade Federal de São Carlos - UFSCar. Membro do Grupo de Pesquisa Ruralidades, Ambiente e Sociedade - RURAS. ORCID: [0000-0002-5801-139X](https://orcid.org/0000-0002-5801-139X) - E-mail: lemao.rcms@gmail.com



From public goods to green market shelves: notes on neoliberalism and the commodification of nature

Rafael Carletti

Introduction

The institutionalization of neoliberalism as a new civilizational paradigm imposed new challenges and possibilities for the dominant classes after the crisis of the 1970s (Duménil & Lévi, 2007). The consensus created around this ideology guaranteed the perpetuity of the development model based on the capitalist mode of production. It allowed the productive system to remain untouched despite the worsening of the planet's natural conditions. This new stage of capitalism created expectations regarding the resumption of economic growth, increased profit rates, and the continuity of the accumulation process. On the other hand, the new political-economic configuration engendered with the consolidation of neoliberalism brought uncertainty regarding how the environmental agenda could be appropriated by capital (Leff, 2009).

Concerning the ecological dimension, the neoliberal discourse was built on the foundation of neoclassical theory and its primary aspect, Environmental Economics (Martins, 2004). In general, this currently advocates the private appropriation of the planet's natural conditions to internalize them unrestrictedly in the dynamics of the production process (Motta, 2006; May *et al.*, 2010). That is, at the turn of the 1980s, the objective was to create conditions that would enable the transfer of the management of public goods and resources from the state sphere to private economic agents. Such movements sought to meet a fundamental premise of neoliberalism, based on the deregulation of nature command and control mechanisms created by the State and their replacement by economic instruments for managing natural resources (Amazonas, 2009; Martins, 2015).

One of the characteristics of studies dedicated to the neoliberalization of nature is based on an attempt to understand its valuation mechanisms (Gledhill, 2007). In effect, such mechanisms are characterized as a theoretical-methodological construct to attribute value to public goods and resources, aiming to include them in the market price system. The hypothesis I defend in this article is that this occurred during the transition from the welfare state to neoliberalism when human work began to constitute an



From public goods to green market shelves: notes on neoliberalism and the commodification of nature

Rafael Carletti

obstacle to the expanded reproduction of capital. To this end, I use a qualitative methodological procedure, predominantly structured in a literature review.

In addition to this introduction, the article also has four more sections. In the following section, I briefly contextualize neoliberalism, situating the phase of its elaboration and subsequent implementation from a political-historical perspective. In the third section, I discuss aspects related to overcoming the welfare state and how the deregulation of different spheres of social life, including the environment, contributed to the fact that different elements of nature were also commodified. Then, in the fourth section, I seek to specifically address the commodification of environmental issues and the advent of ecological commodities. Finally, in the last section, I present my final considerations and point out possibilities for future discussions within this research topic.

Neoliberalism: brief contextualization

Globalization (of capital) results from two joint movements, closely interconnected but distinct. The first can be characterized as the most extended phase of uninterrupted capital accumulation that capitalism has known since 1914. The second concerns the policies of liberalization, privatization, deregulation, and dismantling of social and democratic achievements that have been implemented since the early 1980s under the impetus of the Thatcher and Reagan governments (Chesnais, 1996, p. 176, *our translation*²).

The second movement Chesnais refers to in the excerpt above concerns the advent of neoliberalism. Even though its theoretical-political formulation has its genesis linked to the end of the 1930s – which I will not deal with here – the 1980s³ are the period in which neoliberal theses were implemented. The ruling classes found neoliberalism, a new way of liberalizing life and the social world, to restore the social conditions necessary for capital accumulation, mainly through restructuring the

² Original: “A mundialização do capital”.

³ In general, and in its initial stage, neoliberalism was adopted or imposed in the so-called National States where the bourgeois democratic regime was in force, especially in Europe, the United States, and Japan. However, it is necessary to highlight the experience lived in Chile, which, in 1973, had its democratically elected president deposed due to a coup d'état that established a military dictatorship, supported, even at that time, by neoliberal theses.



From public goods to green market shelves: notes on neoliberalism and the commodification of nature

Rafael Carletti

productive dynamics. It arose in response to Keynesian policy and the economic crisis of the 1970s, which led to a significant reduction in profit rates in the United States and Europe (Harvey, 2014a).

Until the 1970s, the social welfare policy developed at the end of World War II by John Maynard Keynes, known as Keynesianism, was in force⁴. Characterized by decisive state intervention, this period became possible due to the organic articulation between state action and production management, configuring a long, expansive wave, according to Mandel (1990). This pact allowed for the centralization, concentration, and expansion of capital through state regulation while at the same time enabling the development of productive forces and the increase of productivity through labor. As a result, there was a scenario of almost full employment, an actual increase in workers' income, and the universalization of social security, which positively impacted consumption and family well-being (Anderson, 1995).

This agreement would have prospered between 1945 and 1975, the so-called 30 glorious years experienced by capitalism (Hobsbawm, 1995). However, at the end of the 1960s, Guttman (1998) observed the slowdown of industrial activity in the United States, compromising the profitability of companies in that country. The downturn in the development of productive activity led to a prolonged stagnation in the wages of American workers, who had hitherto been accustomed to real gains in their incomes. This situation led workers to take bank loans to maintain their consumption and pay off their financial commitments (Guttman, 1998).

This scenario was also repeated in Europe, which watched as the suggested balance between capital and labor gradually eroded. By the end of the 1960s, it was no longer in the owners' interest to reinvest what little surplus and idle capital had been invested in the productive sector due to its stagnation. In this way, considerable fractions of the capital from the industrial sector were transferred to the financial sector to multiply the returns more rapidly. In addition to removing capital from circulation from the production circuit, this mechanism significantly promoted the fusion between

⁴ The welfare state prevailed predominantly in Central European countries and in the United States.



From public goods to green market shelves: notes on neoliberalism and the commodification of nature

Rafael Carletti

financial and industrial capital, which began to self-finance the productive sector in crisis (Duménil & Lévy, 2002).

This initiative put the work issue in check, revealing it to be expendable as a privileged way of generating value. Implicit in this movement was the deliberate discarding of wage workers and, consequently, the withdrawal of the centrality of manual production as the predominant labor force. Because of this, in the early 1970s, both Europe and the United States lived with high unemployment rates, as well as high inflation rates. Pihon (1998) points out that the world's leading economies have moved from a state of growth and stability to a worrying stagflation situation, drastically interfering in the ruling classes' income, profits, and accumulation.

Low profits, low dividend distributions, and low interest rates combined with high inflation rates were the picture drawn during the first phase of the structural crisis of the 1970s (Duménil & Lévi, 2007). The economic crises are inherent to the development process of capitalism, and in the face of the schemes of expanded reproduction of capital, their emergence is an ever-present tendency (Mota, 1995). As this author rightly argues, crises express an imbalance between production and consumption, compromising the realization of capital, that is, the transformation of surplus value into profit, a process that can only be accomplished by selling the commodities produced. When more commodities are made – or offered – than the quantity necessary for a given demand, the accumulation process is affected since stocks of surplus value do not ensure the ultimate end of capital (Mota, 2009).

The most emblematic expressions of crises are the reduction of commercial operations, accumulation of stockpiled goods, reduction or stoppage of production, bankruptcies, fall in prices and wages, disproportionate growth of unemployment, and generalized impoverishment of workers (Mota, 2009). Far from being natural, crises reveal the contradictions of the capitalist mode of production, among them its fundamental contradiction, namely, socialized production and the private appropriation of wealth. Crises also reproduce and create other contradictions, such as those between:



From public goods to green market shelves: notes on neoliberalism and the commodification of nature

Rafael Carletti

- 1) the rationality of production in each enterprise and the irrationality of output as a whole and of capitalist markets;
- 2) the maximization of the profits of each business corporation and its refractions in competition, causing the tendency of the rate of profits to fall;
- 3) the growth of commodity production and the stagnation or reduction of consumption capacity (Mota, 2009, p. 36, *our translation*⁵).

Notwithstanding unemployment and inflation, this period was also marked by instability in price policy. As Grespan (2021) argues, stability in pricing policy is a predominant factor in the capitalist economy, as it signals to the owner that there is particular security in the market so that he can make his investments. On the other hand, capitalists observe high inflation rates as an unfavorable signal coming from the market, which will require the state to take unpopular measures that affect the economic system, such as raising interest rates. Consequently, this will be reflected in the fall in the rate of profit and will gradually compromise the process of capital accumulation.

To regulate monetary policy, it was inevitable that the U.S. and European central banks would raise interest rates considerably. According to Duménil and Lévy (2002), this operation triggered the second phase of the structural crisis of the 1970s, known worldwide as the oil crisis. Since U.S. and European banks were the leading lenders of domestic and industrial-scale loans, the interest rate hike signaled an opportunity for record gains for this sector. Thus, according to Harvey (2014b), the oil crisis was a collusion between banks and oil-producing countries to try to increase the price of a barrel to expand the volume of petrodollars between U.S. banks and Euromarkets (Chesnais, 1998).

This attempt proved frustrating and contributed to a crisis of overaccumulation in the central economies. That is because, at this point – in the late 1970s – financial capital was already superimposed on productive capital, so the primary surplus of capital was concentrated in the banking sectors. In addition, as already mentioned, during this period, there was a considerable number of mergers between companies, industries, and banks, which generated an even greater concentration of fixed capital in these new conglomerates. Because it had nowhere to take place and without having in view

⁵ Original: “Crise Contemporânea e as Transformações na Produção Capitalista”.



From public goods to green market shelves: notes on neoliberalism and the commodification of nature

Rafael Carletti

profitable outlets that could host the surplus produced, the financialization process was responsible for the worsening of the situation experienced by North Americans and Europeans (Foster, 2008; Guttman, 2008; Lapavitsas, 2013; Dowbor, 2017).

Under the imperatives of finance capital, the new protagonist of Political Economy at the end of the 1970s, the reform of the State and the redefinition of accumulation strategies began. With labor—and, therefore, the social relations of production—as the central point from which it was sought to restore the dynamics that would allow the resumption of profit rates and the process of accumulation to be re-established, a series of measures were taken to end the pact established in the last 30 years.

Confronted with the decline of their income and wealth, the ruling classes politically modified the course of capitalism. Beginning in the mid-1980s, they were able to impose tight controls on wage cost growth and expand, surprisingly, their own "siphon" of profits. They restored their position dramatically, even before the emergence of the new upward trend in the rate of profit (Duménil & Lévy, 2002, p. 57).

In this context, the relations between the State, society, and the market were redefined, determining measures of economic adjustment and social reforms and counter-reforms, which would continue to guarantee capitalist accumulation following the particularities of each country. The State, in turn, redefines its legal and institutional mechanisms for regulating material production and workforce management, instituting renewed forms of intervention related to social protection systems, labor, and union legislation, as well as those directly linked to economic policy. In practice, this translated into economic adjustment measures and the retraction of public social protection policies (Mota, 2009).

As Dardot and Laval (2016) pointed out, under the auspices of Margaret Thatcher and Ronald Reagan, the foundations of the world economy are being redefined through productive restructuring and changes in the world of work. Among the main movements resulting from this reorganization, the following can be highlighted:

a) the restructuring of capital, with asset mergers, the intimate relationship between industrial and financial capital, in addition to the formation of global



From public goods to green market shelves: notes on neoliberalism and the commodification of nature

Rafael Carletti

oligopolies through processes of concentration and centralization of capital (Harvey, 2004, p.106);

b) the transformations in the world of work, which both present changes in the international division of labor and redefine the organization of collective work, reducing the boundary between the processes of "real and formal subsumption" of labor to capital and composing the new morphology of work with the end of the Fordist era (Antunes & Pochman, 2007, p. 203, *our translation*⁶).

c) the reconfiguration of the state apparatus and the ideologies and practices that give new contours to capitalist sociability, redefining ideopolitical mechanisms necessary for forming new and more efficient hegemonic consensuses (Duménil & Lévy, 2016, p. 98, *our translation*⁷).

The withdrawal of the world of work as a central theme of the production of wealth under capitalism has had repercussions on changes in several areas of the social world. In geopolitical terms, the international division of labor has been realigned, while at the same time, the historical relationship of subordination between the center and the periphery has been reconfigured. Concerning Political Economy, the labor relations established during the welfare state were deregulated to develop a regime of flexible accumulation. Ecologically, a new form of commodity production and the emergence of new commodities were created since labor, as a mediator of the transformation of nature into instituted commodities of value, lost its centrality (Chesnais & Serfati, 2003).

Nature as a new way of generating wealth

Although it has not had the same prominence as the world of work as a target of neoliberal reforms, the repositioning of nature in neoliberalism also occurs in response to the welfare state. As McCarthy & Prudham (2004) point out, the increase in environmental protection was one of the most outstanding achievements of the Keynesian period, as a legacy of classical liberalism and later adapted to state interventionism. However, the proliferation of environmental laws, regulations, and norms in the advanced capitalist countries resulted in an increasing restriction of the raw materials necessary for the accumulation process, becoming, along with labor

⁶ Original: "A desconstrução do trabalho e a explosão do desemprego estrutural e da pobreza no Brasil".

⁷ Original: "A mundialização do capital".



From public goods to green market shelves: notes on neoliberalism and the commodification of nature

Rafael Carletti

protection and social security, the target of harsh attacks at the end of the *Welferian* period (Löwy, 2009).

According to Smith (2007), the environmental preservation policies that emerged in the 1960s and 1970s were an achievement of the environmental movement. To a large extent, they emerged as a form of rebuke by exposing that the development process that led to the economic growth celebrated in that period was highly aggressive to the environment. According to this author, the environmental regulations and legislation that followed, after the exposure of the alarming levels of exploitation to which natural resources were subjected, sought to impose legal limits on the disproportionate use of such resources. However, by highlighting and isolating environmental destruction as an integral result of capitalist patterns of production and consumption, natural resources, supported by environmental legislation, have been made to assume the status of scarce goods, which has led to the development of entirely new markets for ecological goods (Swyngedouw, 2009).

Robertson (2004) locates this period, in which the practices of state interventionism were still in force, as the moment when nature became a frontier of accumulation. For example, he cites the case of wetlands in temperate climate regions that, due to their importance as coolers and suppliers of moisture in the driest periods of the year, are now legally protected. By implementing laws aimed at mitigating the loss of such environments at various scales, the State ended up having its socio-ecological value recognized. In addition, it helped highlight the benefits obtained from preserving wetlands and the danger of their disappearance in the face of urban development and the advance of the agricultural frontier.

However, as new environmental legislation increasingly required and incorporated wetland conservation, a market for wetland credits quickly emerged. In this case, the commodity produced is, in the most immediate sense, the restored or conserved wetland, and its value lies precisely in the fact that it cannot be "productively consumed." As Robertson (2004) points out, this process produces a new economic scarcity called mitigable wetlands, where they did not exist before. Surplus value is



From public goods to green market shelves: notes on neoliberalism and the commodification of nature

Rafael Carletti

harvested from the dead labor dormant during the site's previous destruction or restoration work. Whatever their physical or ecological characteristics, the central use value of restored wetlands is their ability to accumulate exchange value under the new conditions of scarcity created. The case of wetlands, explained by Robertson (2004), helps us to understand the ecological contradictions posed by the development of capitalism.

James O'Connor (1991) best dealt with the aspects of the environmental crisis from the perspective of the critique of Political Economy. This author was one of the first to draw attention to the fact that the so-called ecological crisis manifests yet another contradiction intrinsic to the capitalist mode of production. O'Connor (1991) argues that the ongoing environmental degradation stems from the increasingly growing process of commodification of nature, also understood by other authors as the greening of capital (Monerat, 2021). In short, environmental degradation is a contradiction for O'Connor (1991), as it results from the immanently expansive process of the capitalist system, which generates natural barriers to the expansion, accumulation, and valorization of capital.

O'Connor (1991) scrutinized this problem by elaborating the thesis of the second contradiction of capital. As he explains, the second contradiction refers to the relationship of capitalist production with the external conditions, that is, those outside the market, and representing the production processes' social and environmental costs. By externalizing their costs, some capitals place themselves in an advantageous situation concerning others, which, in the first instance, guarantees the highest rates of profit to the former. However, over time and due to the competitive nature of capitalism, other producers are in charge of expanding their production over larger and larger portions of natural resources, generating externalities – that is, degradation.

According to O'Connor (1991), the contradiction lies precisely in externalizing costs that initially confer advantages to the different capitals but soon become obstacles to the expansion and valorization of capital itself. From the critical point of view of Political Economy, the environmental or ecological crisis is not related to the hype made



From public goods to green market shelves: notes on neoliberalism and the commodification of nature

Rafael Carletti

by various fields dedicated to studying environmental issues, especially those linked to climate science and policy. The crisis, as O'Connor (1991) points out, refers to the obstacle of the accumulation process caused by the very dynamics of the capitalist system by using, in an excessive, expansive, and unlimited way, the natural resources necessary for realizing capital.

In general terms, the more progress is made on the planet's natural conditions, the more the possibilities of access to the remaining natural resources are blocked through legislation or overexploitation. The scarcer the means of production necessary for the capitalist system's reproduction, the greater the exchange value will be attributed to a given resource, even if no human labor time is spent. The solution to this contradiction is inserting the residues of production – externalities – and scarce means of production into the market price system. In this regard, Monerat (2022) argues that this is an environmental crisis of capital, in opposition to hegemonic and common sense currents that treat this issue vulgarly as an environmental or ecological crisis.

Valuing nature and producing ecological commodities

Although the principles of this mechanism can still be traced to the welfare state, it became possible and expanded with the advent of neoliberalism. Even if the State continued to legislate after implementing the neoliberal ideology that emerged in the 1980s, its intrinsic characteristics would be the engine of the new way of generating wealth from nature. Thus, the power to regulate policies centered in the hands of the State during the Keynesian era went through a process of deregulation, transferring the power to choose the best place to allocate resources to the market sphere. Thus, in addition to other neoliberal premises, such as commodification and privatization, new markets have emerged with nature as their primary asset (Carletti, 2023).

To this end, the fundamental strategy of this new framework was to invest in value aspects of nature that were previously unquantifiable. As Smith (2007) points out, while the traditional commodification of nature usually involved harvesting and using values as raw material for capitalist production – wood for tables, resins for energy, iron



From public goods to green market shelves: notes on neoliberalism and the commodification of nature

Rafael Carletti

ore for carriages, grain for bread – this new generation of ecological *commodities* is different. As a result of what Heynen and Robbins (2006) call the enclosure of the natural world, the market systems that emerged in the early 1980s have extended over fish, water, trees, landscapes, and even the air. Consequently, one of the fundamental aspects of the market, which is the social construction of the price of a product, is strengthened (Kosoy & Corbera, 2010).

The carbon market, perhaps nature's most important private trading mechanism, marks the emergence of ecological *commodities* (Brunnengräber, 2007). In a joint effort between climate scientists and climate change policy, the scientific consensus produced by IPCC experts has identified carbon – or CO₂ – as the main gas emitted into the atmosphere contributing to the worsening of global warming. Since then, every effort has been made to mitigate the effects of climate change based on carbon storage or sequestration. Due to the socio-ecological importance acquired in the face of the possibility of facing the main socio-environmental issue of our time, the carbon molecule quickly became a product with market value.

That is because, like other natural components to which some value has been attributed, the carbon emitted cannot be consumed productively as a resource intended for production. In addition, policies involving mechanisms – such as the Kyoto Protocol – for sequestration, storage, and REDD+ emission reduction programs require large, forested areas to capture satisfactory amounts of this polluting gas. One of the ways to make this possible, especially in the countries of the South, is through the creation of so-called protected areas or Conservation Units, whose preservation of their ecosystems can ensure that carbon remains stored in their forests. Like the wetlands discussed by Robertson (2004), this is also a way, through the neoliberal state, to make a resource-scarce and thus increase its exchange value.

Like all products on the market, the price of carbon is directly related to its scarcity. This means that the more threatened an area capable of sequestering large quantities of this gas is, the higher the value it will be traded at. For instance, in areas of the Amazon that are under strong pressure from the expansion of the agricultural



From public goods to green market shelves: notes on neoliberalism and the commodification of nature

Rafael Carletti

frontier, where large areas of forests are at risk of being converted into pastures for livestock or soybean cultivation, the volume of credits traded tends to be quite high. On the other hand, in areas of the Amazon that are considered remote, where the threat of degradation of natural components is not imminent, the number of credits traded tends to be considerably low.

This scenario made explicit the role of the periphery under the neoliberal governance of the environment (Foster & Clark, 2004). For these authors, the South will continue to subsidize, this time through ecological commodities, the reproduction of capital, and guarantee the accumulation process due to its natural reserves. As these authors argue, the hierarchical division that separates the center and periphery has served, in several historical moments, to legitimize a world system based on domination, subordination, and dependence of a few rich nations over many others considered poor. In environmental terms, the repositioning of these two poles based on neoliberalism has only ratified who will continue to benefit from natural resources and who will continue to provide them to the detriment of these benefits.

In another work, Foster (2005) had already drawn attention to the asymmetries in the constitution of central economies and the formation of the system's periphery. The author focuses his analysis on the second moment regarding the primitive accumulation of capital, which triggered the dynamics of accumulation characterized between the end of the eighteenth century and the beginning of the nineteenth century. The difference, compared with the primitive accumulation observed in the fifteenth and sixteenth centuries, concerns its imperialist characteristics since it developed in the colonial domains. This process took place through the implementation of tropical monocultures, especially sugarcane and coffee plantations. In addition,

The discovery of gold and silver in America, the extermination, enslavement, and burial in mines of the native population of that continent, the beginnings of the conquest and plunder of India, and the conversion of Africa into a reserve for the commercial hunting of black skins all characterize the dawn of the age of capitalist production. These idyllic procedures are the central moments of primitive accumulation (Foster, 2005, p. 178, *our translation*⁸).

⁸ Original: "A ecologia de Marx: materialismo e natureza".



From public goods to green market shelves: notes on neoliberalism and the commodification of nature

Rafael Carletti

In a previous work, Foster and Magdoff (1998) also identify an ecological contradiction posed by the development of nascent agro-industrial capitalism. The authors refer to the problem Marx reported and the German chemist Justus von Liebig discovered regarding the loss of nutrients in soils where agriculture was already practiced on an industrial scale. Following Liebig's clues, Marx turned to the process that made the development of capitalism possible, which had one of its consequences: the apartment promotion between the countryside and the city. As Foster & Magdoff (1998) reported, Liebig identified that agricultural production exported to cities carried a considerable amount of nutrients in the soil, which did not return to their origin after consumption in urban centers.

Over time, the land was progressively mined until its relative exhaustion restricted profitability. A critical contradiction was posed for the agro-industrial capitalism of the time, which saw its agricultural production increase in the same proportion as the source of this production was exhausted in nutritional terms. This contradiction is one that the economic powers resolved through political expansion into new territories and the economic appropriation of the natural resources necessary to correct this metabolic failure (Foster, 1999). This situation translated into the initiative of industrial capital to seek and develop new forms of exploitation that had hitherto been beyond the reach of the law of value, notably in Latin American countries endowed with large quantities of natural fertilizers, such as guano and nitrate (Galeano, 2010).

Neoliberalism has updated the way capitalists resolve ecological contradictions secularly in two aspects. First, unlike what happened in the 19th century, in which losses or waste generated in the production process were not accounted for, from the 1980s onwards, they began to enter the economic calculation, especially as negative externalities. According to Carletti (2023), the premise of the market, taken to its ultimate consequences by neoliberalism, forged the idea that everything can be commodified, from historically undesirable waste to the functioning of the system to



From public goods to green market shelves: notes on neoliberalism and the commodification of nature

Rafael Carletti

components of the natural world that have been secularly abstracted from the financial system, such as the molecule carbon, for example.

Because of this, the second aspect concerns the instrumentalization of nature as an accumulation strategy (Smith, 2007). If, in the 18th and 19th centuries, land was the means of production par excellence through which goods were produced and which allowed the realization of capital, with neoliberalism, the natural conditions of the planet have themselves become commodities endowed with exchange value and capable of being inserted into the accumulation circuit. Deepening the elements that made primitive accumulation possible, this new phase is characterized by accumulation through dispossession⁹ (Harvey, 2014b), where processes such as the expropriation of communal lands, spoliation of resources, and the privatization of public assets and their consequent transfer to the private sector, set the tone for this new phase of environmentalized capitalism.

Final considerations

This work was anchored in the theoretical perspective brought by the approaches made by Castree (2006; 2008a; 2008b), which are dedicated to understanding neoliberalism as a process. These studies recognize the main features that help to describe it, such as commodification, privatization, deregulation, and the unrestricted liberalization of social life based on market premises. However, despite their definition on a political-ideological level, these studies are interested in what goes on “behind the scenes” of the neoliberal political agenda and what makes its implementation possible. By understanding it as a process, these approaches to neoliberalism look at the actors,

⁹ According to Harvey, the primitive accumulation described by Marx involved taking land, enclosing it, and expelling a resident population to create a landless proletariat. As this process of accumulation never ceased and continues to this day, Harvey believes it is wrong to continue naming it primitive accumulation and then redesignating it as accumulation through dispossession or dispossession. According to the author, for capital accumulation to continue occurring today, new methods of expansion are necessary for its expanded reproduction, such as commodification and privatization of land, the violent expulsion of peasant populations, and the conversion of various forms of rights of property – common, collective and State – into exclusive rights of private property. These new forms of spoliation can be compared to the processes of biopiracy and commodification of natural resources.



From public goods to green market shelves: notes on neoliberalism and the commodification of nature

Rafael Carletti

the institutions, the contact networks established between them, and how the different agencies correlate in search of the same purpose (Parr, 2015).

By supporting this approach, my objective with this work was to present to the reader how the process took place to transform common-use natural resources into commodities with exchange value. Therefore, it was necessary to locate a specific period in which this process began to differentiate it from the previous period, especially concerning how nature was instrumentalized in these different moments. In other words, when dealing with how aspects of nature were appropriated, thought about, and transformed into a new source of wealth production throughout the implementation of neoliberalism, it was necessary to “describe” how these same elements were seen when subjected to other conceptions related to appropriation and its form of management, notably those under the guarantee of the State and focused on the public interest.

The main argument revolves around developing practices, mechanisms, and strategies that attribute value to the elements of nature. Thought of as a political project, neoliberalism is never uniformly implemented. On the contrary, it results from a solid ideological commitment by different sectors to the neoliberal conception, the dissemination of this conception through different discursive representations, the introduction of institutional practices aligned with neoliberal principles, and the dissemination of the idea of good governance (Ciplet & Roberts, 2017). Such premises constitute the neoliberal *modus operandi*, which established the primacy of the market as a privileged sphere of social life and penetrated the environmental field, traditionally regulated by State structures (Fletcher & Büscher, 2017).

It was only possible, however, through the displacement of the antagonism between the world of work and capital during the glorious years. The attack on the welfare state and the labor guarantees achieved in those years weakened the main confrontation against capital and removed the workforce's centrality with the social production of wealth. This movement opened the possibility for the capital reproduction process to expand across new frontiers of accumulation, previously blocked by the political-legal framework built by the State. Valuing nature and transforming public



From public goods to green market shelves: notes on neoliberalism and the commodification of nature

Rafael Carletti

goods into private property has become a political challenge for the ideologues of neoliberalism and an economic imperative for its dominant classes.

References

Amazonas, Mauricio de Carvalho. Valor ambiental em uma perspectiva heterodoxa institucional-ecológica. **Economia e Sociedade**, n. 1, p. 183-212, 2009.

Anderson, Perry. Balanço do neoliberalismo. *In*: Sader, Emir & Gentili, Pablo (Orgs.) **Pós-neoliberalismo: as políticas sociais e o Estado democrático**. Rio de Janeiro: Paz e Terra, 1995. p. 9-23.

Antunes, Ricardo & Pochman, Márcio. A desconstrução do trabalho e a explosão do desemprego estrutural e da pobreza no Brasil. *In*: Cimdamore, Alberto & Cattani, Antonio David. (Orgs.). **Produção de pobreza e desigualdade na América Latina**. Porto Alegre: Tomo Editorial/Clacso, 2007. p. 195-210.

Brunnengräber, Achim. The political economy of the Kyoto protocol. **Socialist Register**, n. 43, p. 213-230, 2009.

Carletti, Rafael. **Colonialismo, instrumentalização da pobreza e mercantilização dos recursos naturais da Amazônia**. Tese (Doutorado em Sociologia), São Carlos: Universidade Federal de São Carlos – UFSCar, 2023.

Castree, Noel. From neoliberalism to neoliberalisation: consolations, confusions, and necessary illusions. **Environment and Planning**, n. 38, p. 1-6, 2006.

Castree, Noel. Neoliberalising nature: the logics of deregulation and reregulation. **Environment and Planning**, n. 1, p. 131–152, 2008a.

Castree, Noel. Neoliberalising nature: processes, effects, and evaluations. **Environment and Planning**, n. 40, p. 153-173, 2008b.

Chesnais, François. **A mundialização do capital**. São Paulo: Xamã, 1996.

Chesnais, François. Introdução geral. *In*: Chesnais, François. **A mundialização financeira: gênese, custos e riscos**. São Paulo: Xamã, 1998. p. 11-34.

Chesnais, François. Orígenes comunes de la crisis económica y la crisis ecológica. **Revista Praia Vermelha**, n. 19, p. 13-20, 2009.



From public goods to green market shelves: notes on neoliberalism and the commodification of nature

Rafael Carletti

Chesnais, François; Serfati, Claude. Ecologia e condições físicas de reprodução social: alguns fios condutores marxistas. **Crítica Marxista**, n. 16, p. 1-40, 2003.

Ciplet, David & Roberts, Timmons. Climate change and the transition to neoliberal environmental governance. **Global Environmental Change**, n. 46, p. 148-156, 2017.

Dardot, Pierre & Laval, Christian. **A nova razão do mundo**: ensaio sobre a sociedade neoliberal. São Paulo: Boitempo, 2016.

Duménil, Gerard & Lévy, Dominique. The nature and contradictions of neoliberalism. **Socialist Register**, n. 38, p. 43-71, 2002.

Duménil, Gerard & Lévy, Dominique. Neoliberalismo – Neo-imperialismo. **Economia e Sociedade**, n. 1, p. 1-19, 2007.

Duménil, Gerard & Lévy, Dominique. **The Crisis of Neoliberalism**. Boston: Harvard University Press, 2016.

Dowbor, Ladislau. **A era do capital improdutivo**: nova arquitetura do poder-dominação financeira, sequestro da democracia e destruição do planeta. São Paulo: Outras Palavras/Autonomia Literária, 2017.

Fletcher, Robert & Büscher, Bram. The PES Conceit: revisiting the relationship between payments for environmental services and neoliberal conservation. **Ecological Economics**, n. 132, p. 224-231, 2017.

Foster, John Bellamy & Magdoff, Fred. Liebig, Marx, and the depletion of soil fertility: relevance for today's agriculture. **Monthly Review**, n. 50, p. 32-45, 1998.

Foster, John Bellamy. Marx's Theory of Metabolic Rift: classical foundations for environmental sociology. **American Journal of Sociology**, n. 105, p. 366-405, 1999.

Foster, John Bellamy & Clark, Bryan. Ecological Imperialism. **Socialist Register**, n. 40. p. 186-201, 2004.

Foster, John Bellamy. **A ecologia de Marx**: materialismo e natureza. Rio de Janeiro: Civilização Brasileira, 2005.

Foster, John Bellamy. The Financialization of Capital and the Crisis. **Monthly Review**, p. 1-15, 2008.

Galeano, Eduardo. **As veias abertas da América Latina**. São Paulo: L&PM, 2010.



From public goods to green market shelves: notes on neoliberalism and the commodification of nature

Rafael Carletti

Gledhill, John. Neoliberalism. *In*: Nugent, David; Vincent, Joan. **A companion to the anthropology of politics**. Oxford: Blackwell Publishing, 2007. p. 332-348.

Grespan, Jorge. **Marx: uma introdução**. São Paulo: Boitempo, 2021.

Guttman, Robert. As mutações do capital financeiro. *In*: Chesnais, François. **A mundialização financeira: gênese, custos e riscos**. São Paulo: Xamã, 1998. p. 61-96.

Guttman, Robert. A Primer on Finance-Led Capitalism and Its Crisis. **Revue de la régulation, Capitalisme, Institutions, Pouvoirs**, n. 3, p. 1-19, 2008.

Harvey, David. The New Imperialism: accumulation by dispossession. **Socialist Register**, p. 63-87. 2004.

Harvey, David. **O neoliberalismo: história e implicações**. 5ed. São Paulo: Edições Loyola, 2014a.

Harvey, David. **O novo imperialismo**. 8ed. São Paulo: Edições Loyola, 2014b.

Heynen, Nik; Robbins, Paul. The neoliberalization of nature: governance, privatization, enclosure, and valuation. **Capitalism Nature Socialism**, n. 16, p. 5-8, 2006.

Hobsbawm, Eric. **A era dos extremos**. O breve século XX. São Paulo: Companhia das Letras, 1995.

Kosoy, Nicolás & Corbera, Esteve. Payments for ecosystem services as commodity fetishism. **Ecological Economics**, n. 69, p. 1228-1236, 2010.

Lapavistas, Costas. The financialization of capitalism: 'Profiting without producing'. **City**, n. 17, p. 792-805, 2013.

Leff, Enrique. **Ecologia, capital e cultura: a territorialização da racionalidade ambiental**. Petrópolis: Vozes, 2009.

Löwy, Michel. Eco-socialism and democratic planning. **Socialist Register**, n. 43, p. 294-309, 2009.

Mandel, Ernest. **A crise do capital: os fatos e sua interpretação marxista**. São Paulo/Campinas: Ensaio/UNICAMP, 1990.

Martins, Rodrigo Constante. **A construção social do valor econômico da água: Estudo sociológico sobre agricultura, ruralidade e valoração ambiental no Estado de São Paulo**.



From public goods to green market shelves: notes on neoliberalism and the commodification of nature

Rafael Carletti

Tese (Doutorado em Ciências da Engenharia Ambiental). São Carlos: Universidade de São Paulo – USP, 2004.

Martins, Rodrigo Constante. A classificação disciplinar no mercado dos enunciados ambientais. **Revista Brasileira de Ciências Sociais**, n. 87, p. 97-114. 2015.

May, Peter; Lustosa, Marília C. & Vinha, Valéria. **Economia do meio ambiente: teoria e prática**. Rio de Janeiro: Campus, 2010.

McCarthy, James; Prudham, Scott. Neoliberal nature and the nature of neoliberalism. **Geoforum**, n. 35, p. 275–283, 2004.

Monerat, Júlio César Pereira. Bioeconomia e financeirização dos riscos ambientais: formas capitalistas de enfrentamento da crise ambiental: a crítica. **Germinal**, n. 13, p. 174-204, 2021.

Monerat, Júlio César Pereira. A crise ambiental e a ecologização do capital em uma leitura marxista: valor, renda e crise. **Cadernos CEMARX**, n. 15, p. 1-20, 2022.

Mota, Ana Elizabete. **Cultura da crise e seguridade social: um estudo sobre as tendências da previdência e da assistência nos anos 80 e 90**. São Paulo: Cortez, 1995.

Mota, Ana Elizabete. **Crise Contemporânea e as Transformações na Produção Capitalista**. Brasília: CFESS/ABEPSS, 2009.

Motta, Ronaldo Serôa da. **Economia Ambiental**. Rio de Janeiro: FGV, 2006.

O'Connor, James. Capitalism, Nature, Socialism: a theoretical introduction. **Capitalism Nature Socialism**, n. 2, 1991.

Parr, Anthony. The Wrath of Capital: Neoliberalism and Climate Change Politics – Reflections. **Geoforum**, n. 62, p. 70-72, 2015.

Pihon, David. Desequilíbrios mundiais e instabilidade financeira: a responsabilidade das políticas liberais. Um ponto de vista Keynesiano. *In*: Chesnais, François. **A mundialização financeira: gênese, custos e riscos**. São Paulo: Xamã, 1998. p. 97-140.

Robertson, Morgan. The neoliberalization of ecosystem services: wetland banking and problems in environmental governance. **Geoforum**, n. 35, p. 361–373, 2004.

Smith, Neil. Nature as accumulation strategy. **Socialist Register**, n. 43, p. 16-36, 2007.

Swyngedouw, Erik. Water, money, and power. **Socialist Register**, n. 43, p. 195-212, 2009.