

## Amazon's Dead Ends: Frontier-making the Centre

*"But the enchanted island of O'Brasil is not  
always visible, as those rocks are, nor these rocks  
have always those apparitions."*

O'Flaherty (1846: 70)

**Abstract:** The spatiality of frontier-making goes beyond the more immediate relocation from 'core' to 'periphery', entailing a deep relational interaction between old and new areas. The article discusses the interdependence between centre and frontier and suggests that this happens through the 'law of scarcity-abundance'. This 'law' synthesizes the general tendency to deal with mounting scarcity in central areas through the pledge of abundance at the frontier, although in practice new rounds of scarcity emerge in both areas due to the internal dynamics of capitalism (notably, the exploitation of society and the rest of nature). This means that the evolution of capitalist relations of production and reproduction is also, and fundamentally, based on accumulation through frontier-making. This conceptual framework is then applied to Brazil, a country largely shaped by territorial conquest and the expansion of internal economic frontiers. The State of Mato Grosso, in the southern tract of the Amazon, has been at the forefront of frontier-making for many centuries, recently accelerated by the spiralling growth of neoliberalized agribusiness. Mato Grosso may have now reached the centre of the national political and economic landscape because of the crucial importance of agribusiness exports, nonetheless it remains a frontier space where abundance and scarcity continue to jointly materialize. Frontier-making never ended in Mato Grosso, but remains a persistent necessity, much more than a simple contingency.

**Keywords:** agribusiness; soybean; Mato Grosso; development; political-economy; scarcity

**Running head:** Amazon agricultural frontiers

MANUSCRIPT

**REALITIES IN THE MAKING**

There is little doubt that we live a world characterized by mounting dilemmas and fierce controversies. New problems accumulate and old ones deepen while there is limited room for comprehensive, long-term solutions. Instead of addressing the distortions and inequalities associated with mainstream social, political and economic institutions, public policies and private initiatives are often diverted towards the production of new spatial configurations. This movement, away from where the trouble originated, seems to suggest that central areas have become saturated with themselves, prompting the dislocation and reterritorialization of people and enterprises. Attempts to evade and transfer national or location-specific dilemmas to other socio-economic settings seem to be a hallmark of capitalism's unsettling powers and inherent contradictions. Since the European Renaissance, frontier-making has been a favourite response, to poverty, unemployment, land and housing deficits, resource exhaustion, environmental degradation, market saturation and political persecution. The mitigation of socio-economic tensions and the search for novel money-making opportunities in newly opened spatial frontiers have been crucial for the affirmation of capitalist modernity and the functioning of the modern world. Watts (1992: 116-117) considers frontiers as "particular sorts of spaces" that represent "the first wave of modernity to break on the shores of an uncharted heartland" with "their own territorial form of law and (dis)order".

All this means that capitalism is also, and fundamentally, based on 'accumulation by frontier-making', a concept which needs to be properly theorized and adequately investigated beyond simplistic geographical conceptualizations. The spatiality of frontier-making goes beyond the more immediate relocation from 'core' to 'periphery', entailing a relational interaction and joint processes of exploitation, realignment and reinforcement in both old and new areas. At the frontier, enclosure, extraction and production are recreated and integrated into wider politico-economic arrangements, which are themselves transformed through the emergence of new

spatial frontiers. In the end, the incorporation of new territories only temporarily alleviates tensions, and without challenging existing relations of production and reproduction. Problems are naturalized, fragmented and depoliticized, new accumulation mechanisms are activated and reinforced, while those who have been most seriously affected by socio-economic developments are compelled to move or risk being blamed for their own difficulties. The lack of opportunity for some groups and individuals triggers the imagination (of a different reality and a possible better life) but without any guarantee of success (there are none).

Our goal here is to theorize frontier-making and associate it with the politics of scale, that is, the shared experience of capitalist relations of production and reproduction occurring at distinct, but interconnected, scales of socio-ecological interaction. “Scale is not necessarily a preordained hierarchical framework for ordering the world – local, regional, national and global. It is instead a contingent outcome of the tensions that exist between structural forces and the practices of human agents” (Marston, 2000: 220). The politics of scale is directly implicated in the production of space given that scale is constituted and reconstituted through relations of production, reproduction and consumption interwoven with space. The uneven development of the socio-economic forces of capitalism is essentially multiscale and unfolds through the dynamic political economy of old and new regions (Agnew, 2000). Consequently, daily life and class-based differences at the local scale are permeated, and help to shape or transgress wider economic and politico-ideological constructs. Likewise, the “reproduction of the household enterprise is dependent simultaneously on the economic relations of production and on the political relations necessary to protect those relations” (Smith, 1989: 24).

In this article we will also revisit what has happened in the Brazilian Amazon, a region notoriously associated with the expansion of internal and external economic frontiers. The symbolism of frontier-making in the Amazon has pervaded the social and scientific imaginary. More recently, the expression ‘agricultural frontier’ has also become prevalent and is extensively

used by academics and scientists.<sup>1</sup> Yet, the ongoing encroachment of export-driven agribusiness into the Amazon region is only the most recent chapter in a long history of the pursuit of new economic frontiers in Brazil. In order to understand the long-term drivers of frontier-making it is essential to consider that the opening of new production areas is not the leftover or the excess of national development, but that it has been central to cultural, political and social change throughout the country. Socio-economic inequalities and socio-ecological exploitation have also been managed through the proliferation of frontiers and the prospect 'of something better elsewhere' (when 'here' is no longer enough). In that way, the responsibility for problems is shifted back to those exploited and marginalized in the core areas, implying that it would be their own fault if they refused to embark on the journey to a more promising reality at the frontier. Contemporary agricultural frontiers in the Amazon re-enact, once again, the dreams of modernity and prosperity that for generations attracted migrants to the Brazilian west (Ioris, 2017a).

To demonstrate the contested politics of scale behind frontier-making in the Amazon we will particularly focus on agribusiness activity in the State of Mato Grosso, in the southern tracts of the Brazilian Amazon. Mato Grosso has been at the forefront of economic and political frontier-making for many centuries, but the process has accelerated in the last few decades due to the spiralling growth of soybean-based agribusiness. This experience vividly illustrates the paradoxes and extravagances associated with frontier-making; Mato Grosso now accounts for around 10% of global soybean production, but the state is an enormous food desert that, like most economic frontiers, still depends for its supply of food on the core, 'consolidated' economic areas in the south and southeast of the country. In addition, the intense economic activity and commodity exports in the Amazon have further moved Brazil towards the periphery

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<sup>1</sup> For instance, a quick Scopus search for 'agricultural frontier' on 12 Sep 2017 came up with a total of 436 publications, with more than half (230) related to Brazil and the Amazon.

of market-based globalization and reinforced the old pattern of extractivism and socio-ecological waste (often disguised by calls for efficiency and narratives of sustainable development along the lines of ecological modernization).

Our interpretation is informed by empirical work conducted between 2013 and 2016 that involved various data collection campaigns and regular visits to different locations in the north of Mato Grosso at the Upper Teles Pires river basin, which is the main soybean production area in Brazil today. Even more revealing, in terms of frontier-making, is that the Upper Teles Pires is situated exactly at the transition between forest and savannah ecosystems. Following Foweraker (1981), our interviews, contacts and observations are ‘absorbed’ into the text and incorporated into the wider analysis without resorting to direct quotations. The study takes on board the recommendation of Pred and Watts (1992: 2) to consider the “various historical configurations and reconfigurations of capitalism in an effort to understand how difference, connectedness and structure are produced and reproduced within some sort of contradictory global system, within a totality of fragments.” Furthermore, the challenging complexity of the Mato Grosso agribusiness frontier is considered as not only a socio-spatial construction, but also a true analytical tool and a basis for proposing new investigations (Pacheco de Oliveira, 2016).

The most innovative contribution of our investigation is to offer a meta-theoretical framework and an associated reflection on the specific frontier-making experience in order to reconceptualize the wider Amazonian politico-economic trajectory. To achieve that goal, the text is divided into two main parts. In the first, after this brief introduction, a theoretical and interpretative perspective is presented, which goes beyond traditional accounts of frontier-making in order to emphasize socio-spatial interconnections and interlocked scarcity and abundance (consolidated under the ‘law of scarcity-abundance’). In the second part, the evolution of the agribusiness frontier in in Mato Grosso and, indirectly, in the rest of the Amazon is critically examined, making reference to the roots of the sustained processes of violence, exclusion and hierarchization that have characterized the long history and contested

geography of frontier-making in the region. The case study is followed by overall conclusions and implications for future studies.

### **CENTRED FRONTIERS AND THE LAW OF SCARCITY-ABUNDANCE**

The emergence of new spatial frontiers remains a ubiquitous process in the contemporary world, considering that the decline of frontier-making is still an unfulfilled aspect of globalization and a post-modernist fantasy (i.e. the proclamation of a borderless world, instantly connected and horizontally networked). Novel spatial settings, distinguished by their own patterns of economic production and socio-ecological organization, continue to appear, with significant repercussions for national and global societies. One main consequence is that the ontological complexity of frontiers persists as a real challenge for social scientists. Imamura (2015) appropriately recommends that the analysis should begin with an inquiry outside academia to observe how the word 'frontier' is used in ordinary speech before it is scrutinized by academics. In the United States in particular, the public imaginary is influenced by Frederick J. Turner's persuasive argument about settlement frontiers, basically the claim that spatial frontiers provided the elemental conditions for freedom and social opportunities in North America (Billington, 1963). However, as in the case of Turner's, most interpretations seem to miss the multiscale political, social and economic ramifications of frontier-making. Scholars have typically described various types of frontier – political, agricultural, resource, commodity, etc. – but have failed to properly take into consideration the range of interests, social differences and political disputes that help to shape frontier spatiality. For example, Demangeon (1932: 636) bluntly considers it “an exceptional fortune” [*une fortune exceptionnelle*] for a country to have pioneering frontiers and Webb (1952) argues that Western European civilization was the fortunate result of the opening up of world economic frontiers, which started with Columbus and continued until the 20th century, but it is rare to find studies that effectively connect local, lived activities with wider politico-economic scales.

On that regard, Hennessy (1978: 12) rightly observes that frontiers “have encouraged dichotomies, as they invite Manichean schemes of thought” about developed and underdeveloped regions around the world and the associated division between advanced and primitive societies. For instance, development economists, such as Di Tella (1982), identify frontiers as stocks of untouched resources and sources of wealth waiting to become economically viable (as in the case of ‘virgin’ land incorporated by the expansion of Germany, Spain, Russia and Portugal). Findlay and Lundahl (2016) likewise explain frontier-making in relation to capital investment in land use and in the mobilization of labour to satisfy the demands of manufacturing in core areas; according to this conceptual model, the frontier is extended and agricultural production increases following initial investments in manufacturing, thus creating a virtuous circle that can lead to the general expansion of the economy. In the bargain, Alston et al. (1999) emphasize the importance of defining rights to private land to promote market transactions and investments, which will gradually replace the first adventurers with more entrepreneurial farmers. Rationalizations of economic frontiers such as these have been criticized for being naïve, proselytizing expressions of environmental determinism and because they ignore the actual actors, historical differences and circumstances involved in frontier-making (Mikesell, 1960). That is, although each frontier location is different, their unstable and mismatched patterns are taken for granted and seem to justify common disdain for their internal configuration. The main consequence of such economic and institutionalist reductionisms – which broadly follow Locke’s philosophy of private property – is the naturalization of the exploitative and hierarchical basis of frontier-making. They ignore the fact that the ‘empty spaces’ of the American continent, as well as those in Africa, Russia, Oceania, etc., were targeted for the opening of new frontiers – in areas considered *terra nullius* – on the basis of deliberate disregard for the native inhabitants and their socio-ecological conditions (Richards, 2006).

Contrary to most accounts, frontier-making does not happen merely because of the opportunities available in remote new areas, nor does the centre depend on the frontier for its

continued existence. The relevance of frontier-making derives primarily from the fact that capitalism is not only crisis-ridden but also crisis-dependent – considering that recurrent crises serve to induce changes designed to defend or restore profits – and new spatial frontiers play a fundamental role in the mitigation and reorganization of politico-economic structures. Frontiers not only have location advantages and constitute favourable investment areas but they are also where old and new socio-spatial features coalesce, resulting in the revitalization of social and economic patterns of the (relatively consolidated) centre. Regarding the internal tensions of capitalism and its crisis-dependency, O'Connor (1998) suggests that the basic antagonism between the forces and relations of production (originally described by Marx) needs to be complemented with a 'second contradiction' between relations and conditions of production. The second contradiction thesis is one of the main reference points of political ecology and ecosocialism in the critical literature available today. However, it is possible to append a third layer to the twofold contradictions of capitalism described by O'Connor, which is the clash between, on the one hand, the homogenization of lifestyles, consumption and social attitudes and, on the other, mounting inequalities, politico-economic hierarchies and context-specific problems. In other words, there is a widening gap between the appearance of equality and the crude experience of inequality. This 'third contradiction of capitalism' is profoundly geographical in nature, insofar as exploitation and capital accumulation depend on the imposition of socio-spatial and ideological homogeneity.

It is this third contradiction in particular that frontier-making helps to mitigate through the restitution of geographical differences that invigorate capitalist relations (without ever addressing the central irrationality and wastefulness of capitalism). Capitalist development is not only uneven, but capitalist relations are also essentially expansionist and expand in different directions, into different places and practices, to avoid having to confront their own contradictions. The expansionist drive of capital is nothing other than the manifestation of its capacity to creatively reconstruct the world in its own image whilst avoiding serious challenges to

its internal logic (basically, the extraction of surplus value and the commodification of labour and nature). Frontier-making is an integral component of capital's intrinsic struggle to suspend socio-spatial dilemmas (including financial cycles, market crashes and socio-ecological exhaustion – see Solimano, 2017), while privatization, exploitation and accumulation can be expanded to new areas. This stabilizing basis of frontier-making goes beyond what Luxemburg (1951: 362) considers the insufficiencies of core capitalist areas and the need to spread out to new regions where excessive surplus value can be transformed into productive capital (described as the exploitation of “territories where the white man cannot work”). In actual fact, frontiers are primarily required because the capitalist centre has become saturated with itself, fraught with uncertainties about its actual legitimacy vis-à-vis its widespread impacts, hesitant about how to cope with past legacies and constantly emerging challenges (migration, urban chaos, food insecurity, social breakdown, to name a few), and consequently needs escape mechanisms to dislocate contradictions to other areas. On the other hand, Luxemburg rightly questioned the idea of rigid distinctions (suggested at the time by people like Kautsky to dismiss the idea that the Soviet revolution could be replicated in Germany) between Western Europe and ‘backward’ Russia by comparing the complex capitalist regions with the exploitation of Russian agrarian society through a form of capitalism emanating from Western Europe.

To fully grasp the peculiar geographical features of frontier-making, it is necessary to ‘subvert’ any artificial separation between (comparatively consolidated) central areas and (relatively undeveloped) frontiers. It is particularly mistaken to describe frontiers as young areas destined to replicate the politico-economic system of the centre, which, as warned by Massey (2006), constitutes a reduction of geography to history or space to time. Instead of such linear, sequential conceptualization of the association between centre and frontier, Massey argues that spatial connectedness needs to be considered more seriously, in particular the understanding that space is the outcome of relations and practices, that it is basically a multiplicity and a constellation of ongoing trajectories. The unique features of centre and frontier must be

correctly appreciated, as spatial identities and socio-cultural subjectivities are relational and co-constituted through engagement. Based on this, it is possible to infer that frontier activities are distinctive but also predicted in the contradictions and achievements of the centre, just as the centre needs to expand into new frontiers in order to maintain its particularism. Both the frontier and the centre are singular spatial settings but belong to wider processes of space production and its related contestation. Frontier-making is a transient suspension of mounting trends and circumstances consolidated in central areas, while also reinstating (in the frontier) similar relations and patterns to those responsible for mounting socio-ecological problems, economic collapse and inequality in the centre.

The main claim so far is that the frontier is not merely an expansion or projection of the centre, but that centre and frontier are permanently connected and interdependent. It means that new frontiers may be seen as a departure from the centre, but in effect they are reproducing it. Frontier-making is a systemic process that entails a spatial separation but only through organic interdependencies between so-called 'centre' and 'periphery' (in the Spinozian sense, the frontier is *in* the centre, as much as the centre is *in* the frontier). The frontier ultimately results from the centre being saturated with mounting tensions and multiple contradictions, thus frontier-making plays a role in the reduction of socio-ecological problems and the revitalization of economic growth and development. We could therefore redefine *frontier-making as a range of interconnected processes of socio-ecological disruption and spatial reorganization affecting regions increasingly under the sphere of influence of, and primarily established to attend, national and international capitalist centres.* This definition allows us to go beyond a focus merely on the newly incorporated areas and systematically consider interdependencies and continuities. The basic feature of frontier-making is the movement of occupation, transformation and landscape discipline in the new zones of appropriation, but tightly connected with the process of internal restructuring in central areas (Moore, 2015). Frontier-making may have an appearance of chance and chaos, but in practice it is highly instrumental for the reaffirmation of the 'old' centre through the production of 'new'

relations (that are, in effect, projections of the relations established at the centre). Frontier-making therefore has important parallels with the ambiguous manner in which Thomas More described *Utopia*, a new world that at first sight seems to be the opposite of England but which in practice replicates, in subtle and distorted ways, its many problems.

This first observation leads us to a second crucial postulation: the interconnections between centre and frontier are primarily manifested through the promise of abundance and, paradoxically, the multiplication of scarcity. The interlocking of abundance and scarcity takes place in both central and frontier spaces. Capitalist scarcities, as well as abundances, are human made and produced through historically determined relations, pressures, demands and technologies. Landed property in particular is necessarily relational, violent and political, because land is an economic asset and a source of revenue held against others. At the frontier, the private property of land and resources is established through the imposition, via multiple social and political mediations, of a rational, legitimate institution upon what was considered an anomic, savage and unlawful pre-frontier reality. “The frontier, which appears as a neutral boundary, serves as a condition of possibility for property’s violence” (Bromley, 2003: 135), considering that “violence, law and bureaucracy work in complementary fashion to mediate the struggle for land on the frontier” (Foweraker, 1981: 25). Crucially, because these interconnected spatial settings are gradually inserted into the capitalist logic of accumulation, there are fundamental synergies between selective abundance and widespread scarcity in both the centre and the frontier. No capitalist frontier is ontologically given or pre-determined from the outset, but it is possible to anticipate that its unique multifaceted socio-spatial developments will be influenced by abundance and scarcity in the homeland and that it will be marked by the production of new scarcities and abundances at the frontier. These trends are evidently consequences of class-based relations and labour exploitation, which cannot be dissociated from the exploitation of the rest of nature. As examined by Marx, the subordination of nature to capital requires the control and

exploitation of labour and this double process of exploitation through capitalist relations connects everyday life with wider, more long-term socio-economic structures.

The classical example is the colonization of the Americas, which from the 16th century involved the disruption of the culture and livelihoods of the Amerindians and the appropriation of land by migrant settlers. Frontier-making in the American continent was essentially a 'boom and bust' economy, where, after intense exploitation, resources were depleted (even if only partially) and new frontiers were needed. Particularly the poorest and most marginalized segments of metropolitan society were encouraged, or forced, to migrate to the European colonies under the promise of accessible abundance (land, resources, social opportunities), but the majority of those who migrated would only experience harshness and fresh manifestations of scarcity. Frontier-making primarily benefited the bourgeoisie and the political establishment, but to some extent also helped workers in core economic areas, although at the cost of the exploitation of people and resources in the newly incorporated areas (see Bukharin, 1929). The experience in the West Indies was paradigmatic, with the decimation of the indigenous population by violence and diseases, and the increasing cultivation of land for sugarcane and cattle (Richards, 2006). The removal of 'anti-capitalist tendencies' at the frontier was facilitated by governmental control of land prices and limited access to private property, which compelled immigrants to work long hours for low wages, exploited by the wealthier, capitalist farmers. In the 19th century, imperialism expanded frontier-making scarcities in the form of land expropriation and displacement in Asia, Africa and Oceania. After the Second World War, international development was maximized by the Green Revolution and associated with the commodification of even larger tracts of land. Finally, with the advance of agro-neoliberalism in the last quarter of the 20th century, the intensification of investment in land and agriculture has led to systematic land grabbing.

Therefore, the tendency towards social and economic scarcity in one location is, to a certain extent, compensated – as a counter-tendency of the capitalist system (Mészáros, 1995) –

by the material and symbolic construction of abundance at the frontier. During more than five centuries of European colonial and imperialist history, the seizure and accumulation of land evolved according to the history and geography of capitalism, and agri-food and natural resource systems were likewise restructured in accordance with the need to renew the accumulation of capital following the incorporation of new economic areas (Dixon, 2014). This happened through a powerful politics of scale in which the interaction between local, national and international dynamics was operationalized according to the privileges of a small elite while the majority of the population lived with scarcity. The exhaustion of primitive accumulation in Western Europe led to the colonization of new frontiers (as in North America), but capitalists strived to contain the relative liberties of economic migrants and had to resort to the “power of the mother country” and “use force to clear out of the way the modes of production and appropriation which rest on the personal labour of the independent producer” (Marx, 1976: 931). It is important to realize that manifestations of scarcity and abundance take place at different moments in the centre and the frontier. There is a time gap, and when scarcity starts to increase in the centre there is the prospect of abundance at the frontier. It can be seen that scarcity is never a single process caused by the shortage of means or resources; it is a social relation that unevenly and cyclically alternately affects groups and locations (Ioris, 2016). Certain economic features become scarce, which creates the preconditions for the production of abundance elsewhere. Through the instrumentalization of scarcity and abundance many of the worrying tensions that emerge in consolidated areas can be partly released with the movement of (surplus) labour and overaccumulated capital to the frontier.

It is possible to summarize the interplay between (promised) abundance and (widespread) scarcity that underpins frontier-making as the *law of scarcity-abundance* (LSA). The LSA is a non-reductionist synthesis of the escalation of problems in politico-economic core areas in association with promises of a solution through frontier-making. It is important to note that this is a ‘law’ in the sociological, non-positivistic sense, that is, the consolidation of social

institutions and politico-economic tendencies that result from long-term processes of conflict and cooperation in the history and geography of capitalism. More importantly (I must thank an anonymous referee for their helpful assistance here), the LSA is not an argument in favour of economic determinism or a teleological model of geographical change, but rather a constructivist explanation that takes into account the complex relationship between culture and political economy. The LSA helps to clarify that, while frontier-making has the appearance of a centrifugal process (a movement away from the centre), it is in effect mainly a centripetal force, that is, the frontier is instrumental in reinforcing and reinstating the centre. Frontiers happen because of the deferment of scarcity in core areas through the imagined space of abundance projected elsewhere; nonetheless, this promise is normally frustrated and only materialized selectively and at great social and ecological cost. Moore (2015: 87) points out that the “great secret and the great accomplishment of capitalist civilization has been to not pay its bills. Frontiers made that possible”. Frontier abundances – as pronounced by Turner (1920), these were at the edge of ‘free land’ in the American west – derive from the fact that these are considered zones beyond the customary rule of law, therefore lawless and up for grabs. At the frontier, authority is still open to challenge, there are combinations of order and chaos, with the state unable or unwilling to exercise more effective control (Watts, 2018).

The various forms of violence that characterize frontier-making are rationalized by religious, civilizational or economic discourses that characterize the frontier as a space of inclusion and shared gain (Elliot, 2016). “In the interest of the so-called wealth of the nation, he [the political economist, “sycophant of capital”] seeks for artificial means to ensure the poverty of the people. Here his apologetic armour crumbles off, piece by piece, like rotten touchwood” (Marx, 1976: 932). On the other hand, the perverse and conservative dynamics of the frontier can trigger novel forms of reaction that challenge institutions as soon as they become slightly consolidated. Frontiers are functional for capitalism, but also expose its micro and macro internal fissures, which can lead to smaller or larger forms of resistance. Frontiers are not only

places of scarcity, but also sites of potential (Li, 2014). An ontological inspection of the frontier reveals a mosaic of disruption and reconstruction, cross-scale interconnections and multiple repercussions of the transposition of values and practices, and collective action based on acute individualism. The frontier is ultimately history through geography and geography with a forward-looking past, as it always brings the old back through the exercise of an uncertain and tentative future. Instead of respecting the role of the subject, the construction of capitalist frontier shatters the possibilities of autonomy both in core and frontier areas. The periphery is the other, the civilizational alter-ego of the centre. That makes any frontier inherently complex and politicized, far from egalitarian. The ‘chaos’ of the frontier is, in this sense, the offspring of development and of economic problems in the core areas that cannot be easily controlled, let alone harmonized. In the next section, the contested geography of Mato Grosso will illustrate these controversies.

### **THE AMAZON’S MAIN AGRIBUSINESS FRONTIER: MATO GROSSO**

The two main claims presented above – the permanent interdependence between centre and frontier, as well as the law of scarcity-abundance (LSA) – will help us now to examine the general trends of frontier-making in the Amazon, from colonial times to the ongoing advance of neoliberalized agribusiness. These two conceptual lenses will be particularly useful in addressing the specificities of the agricultural frontier in Mato Grosso, in the southern section of the Brazilian Amazon, which is shaped by modernization, commodity exports and global integration demands. The geographical changes in the State of Mato Grosso clearly illustrate the mitigation of socio-economic problems in ‘core’ national areas and, in addition, the asymmetry of opportunities associated with frontier locations. The ‘conquest’ of Mato Grosso by agribusiness in the last half-century has been a process of accumulation through frontier-making that in the end has served primarily to reinforce a highly centralized and exclusionary national society. The appropriation and transformation of Mato Grosso into a perennial economic frontier – still

unfolding and even accelerating today – reveals a great deal about the unfairness of Brazilian capitalist modernity and how this is projected across different spatial scales. As explained in more detail below, Mato Grosso is a triple frontier, as it has historically been situated at the margins of Amazonian development, of the Brazilian economy and of the Portuguese empire. These three interlaced frontiers have essentially evolved through the recurrent production of scarcity and (selective) abundance.

The roots of frontier-making in the Amazon are to be found not only in Brazilian history, but also in the foundations of Portuguese society. Whereas Brazil was initially only a small piece of a much broader commercial and colonial machine, Portugal was itself a nation marked by opposition to the neighbouring Spanish kingdom and by the search for new economic frontiers (Bastos, 1998). Santos (1993) even argues that the Portuguese have an ‘identity of the frontier’ which was sociologically translated into a predisposition towards maritime navigation and global trade. Portugal had already pioneered the route to India around Africa when it decided to claim possession of its South American territory granted by the pope in 1494 under the terms of the Tordesillas Treaty. From the time of the first letter written in 1500 by Caminha, secretary of Cabral’s conquering fleet, to the Portuguese King, the new colony was characterized by vast resources and an enormous agricultural potential. In practice, nonetheless, the occupation of Brazil was fraught with violence, ecological degradation, the exploitation of slaves and free workers, as well as constant efforts to suppress foreign attacks and local insurgences. To start with, there was a perennial shortage of workers due to the high cost of African slaves and the recurrent difficulty of enslaving the natives (particularly because of their vulnerability to alien diseases such as malaria and smallpox). More significantly, despite the immensity of the colony there were persistent complaints about insufficient land and the struggle of poor migrants for survival. Structural land scarcity was obviously caused by the elitist and exclusionary basis of colonial institutions. In the words of Alencastro (2001: 41), “land and labour [in Brazil] did not come up as independent factors, but as two variables that stem from

the driving-forces of commercial capitalism". These were clear manifestations of the LSA, in the sense that impoverished, landless people were led to migrate from Portugal to the colony only to again be deprived of land and to become entangled in the wider processes of colonial exploitation, abject slavery and a hierarchical society.

The growing scarcity of land along the Atlantic coast, together with the prospect of finding precious stones and other riches, was an incentive to explore the vast interior of South America. However, enlarging the colonial Brazilian economy presupposed the transgression of the political border established by Tordesillas. For the Portuguese, most of the land where treasures could be found was beyond reach and could only be accessed through regular incursions into what was formally Spanish territory. "Indeed, one of the most striking features of South American history has been the success of Brazilian expansion at the expense of its Spanish-speaking neighbours" (Hennessy, 1978: 107). One of the most remarkable consequences of such coordinated, though 'illegal', expeditions into the continent was the appropriation and conversion of the majority of the Amazon into a single Portuguese province. The Amazon, a separate administrative unit since the 17th century, never existed before the Portuguese invasion and its systematic clashes with the other four competing European powers (not only Spain, but also England, France and Holland). Ultimately, Portugal maintained logistical and military supremacy over the Amazon River Basin, given that the only practicable and easy means of access to Amazonia lay on the Portuguese side of the continent (Prado Jr., 1967). Ever since, frontier-making has been a perennial phenomenon in the Amazon, directly associated with cyclical commodity booms. "In Amazonia, frontiers have not only been opened and closed but reopened and reclosed again and again" (Little, 2001: 3). The process has predictably followed the overall logic of perceived abundance that recreates material scarcity due to pillage, wastage and socioecological disruption (Heckenberger, 2005). It depended on the violent assault and cultural obliteration of the native population and the miserable impoverishment of the survivors (Hemming, 1987). From the perspective of the indigenous population, the advance of the

frontier represented absolute scarcity, that is, the denial of the very possibility of social existence and, for the majority, of physical survival.

The history of what is now Mato Grosso started in the beginning of the 18th century, with the increasing presence of Brazilians and Portuguese involved in the extraction of diamonds and gold in what was officially Spanish territory. The foundation of the first settlements gradually displaced the activity of Spanish missionaries and weakened the influence of Asunción and Santa Cruz de la Sierra (Lucidio, 2013). New political borders were agreed later in the century by a series of international treaties that granted Portugal the possession of much larger tracts of land, approximately the size of contemporary Brazilian territory. After national independence in 1822, the Brazilian government promoted fierce policies of national unity and containment of the numerous rebellions. The Regency period (1831-1840) was particularly turbulent and there was real prospect of territorial fragmentation because of accumulated socio-economic tensions and a strong sense of political contempt among regional elites. It was a long and painful road to national unification, in which scarcity and abundance were managed by able political leaders on behalf, primarily, of land and slave owners. One key feature of nation-building, according to Santos (1993), was that Brazil internalized centre and periphery in order to keep the territory united. It was an astute plan that involved the consolidation of international political borders and the subordinate integration of national economic frontiers. Although “Mato Grosso never became a center of more than secondary importance” (Prado Jr., 1967: 78), its relative significance increased with the outbreak of a large-scale war (1864-1870) that followed the invasion of Brazilian territory by Paraguayan troops. After the war, Mato Grosso was again reduced to a mineral and agricultural periphery, with some incipient farming activity and only marginally involved in the ‘rubber boom’ that dominated the Amazon economy at the turn of the 20th century (Wilcox, 2017).

Despite some infrastructure and operational improvements, the economic situation of Mato Grosso remained a cause of significant embarrassment during the first decades of the 20th

century. While the south and southeast of Brazil were gradually becoming more urban and industrialized, in Mato Grosso there were only meagre signs of agricultural intensification and economic growth. The process of frontier-making had operated more or less unabated for several centuries based on the prospect of abundant minerals, land and resources, which corresponded to short-lived periods of prosperity quickly succeeded by the more enduring condition of isolation and renewed forms of scarcity. Mato Grosso was at the periphery of a peripheral country that was at the time highly dependent on the export of coffee and a few other primary commodities. The main economic frontiers at that point were located in the west of the State of São Paulo, which offered the best socio-economic prospects for the poorer segments of society. With a limited domestic market and scant capital investment, one of the only options available for the majority of the population was internal migration, although this necessarily represented the “sacrifice of certain zones in favour of others” (Sodré, 1964: 313). Furtado (2006) demonstrates the concurrence of scarcity and abundance underpinning the national economy of the time. After the stock market crash in 1929, the price of the main Brazilian commodity (coffee) suffered a serious deterioration, although production continued to increase (peaking in 1933); excess coffee production was caused by a stagnant market and the country was forced to adopt radical anticyclical policies, including the physical destruction of stocks. Additional economic strategies started to focus on import substitution industrialization, emphasis on the domestic market and greater economic integration of the different parts of the country.

In the 1930s, through resolute interventions by the federal government, the Centre-West region was targeted to become a main development frontier. The ‘March towards the West’ was a government programme launched in 1938 in a context of national mobilization and economic expansion promoted by the authoritarian Vargas administration (1937-1945). The March involved exploratory surveys, road construction, agricultural colonization and various economic incentives. The intention was to integrate and modernize the Centre-West, but the ultimate long-

term goal was to prepare the terrain for the future economic incorporation of the Amazon. Mato Grosso, located both in the Centre-West and in the Amazon, then became the Holy Grail of land speculation, fuelled by the easy, almost cost-free, concession of public land to private petitioners (Moreno, 2007). In the post-World War II period alone the government of Mato Grosso indiscriminately titled around 4.2 million hectares of public land (Garfield, 2001, in Jepson, 2006). In the 1950s and 1960s, while Mato Grosso's vast territory was being partitioned among farmers and speculators, central economic areas in the eastern states were marked by escalating social conflicts and calls for labour reform and agrarian legislation. It was a situation of mounting scarcity felt by the majority of the population which contrasted with the concentration of wealth resulting from industrialization and other developmentalist policies. Instead of seeking inclusive and democratic solutions to these fundamental challenges, the long Brazilian tradition of political shortcuts prevailed once again. In 1964, a military coup, expected and supported by the United States, instituted a long dictatorship (21 years) that worked in favour of hyper-conservative modernization along the lines of state gigantism and technocratic developmentalism.

To satisfy public opinion, the generals even legislated on agrarian matters – notably, the 1964 Rural Land Statute – although this was a bureaucratic, anti-reform response that did not address structural problems. Their main agrarian strategy was actually the reinforcement of frontier-making in Mato Grosso and the rest of the Amazon. A vast agricultural frontier was established in the 1970s by the military government, which basically reinstated the same ideological orientation adopted in previous decades under the March towards the West (Velho, 2009). Instead of food production or rural development goals, what actually happened was the formation of a 'frontier of landed property' in state owned areas. It was a process loaded with ideological and political claims, according to the long-established logic of promising abundance to overcome scarcity. Such massive internal migration closely observed the LSA, given that impoverished groups in the south and northeast were compelled to move to colonization

projects in the newly opened frontiers, only to struggle with new rounds of scarcity and, in many cases, were forced to migrate again further inland. The Amazon was particularly targeted for the relocation of ‘troublemakers’, that is, landless groups who were demanding, within the limits of a brutal military dictatorship, land for workers and peasants. Especially in the southernmost State of Rio Grande do Sul, farming areas established by the migration, more than a hundred years earlier, of peasant families from Italy, Germany and other European countries were suffering from acute land scarcity caused by the unequal agrarian structure, aggravated since the 1950s by the advance of agribusiness in the context of the Green Revolution. Many impoverished families were hurriedly transferred to the Amazon and, as a rule, found it very difficult to settle, produce and survive because of various economic and social adversities, which soon led to the abandonment and concentration of land. Relevant here is the observation by Sato (2000) that frontiers are actually in-between spaces that are occupied by different groups of in-between people.

In parallel with colonization schemes involving peasant families, private individuals and companies could acquire land from public authorities in order to secure property rights and then claim public subsidies and related benefits. If land along the Transamazon Highway in the State of Pará was the priority frontier for settling peasants in public colonization projects, Mato Grosso was the main arena for entrepreneurial resettlement.<sup>2</sup> Application for land titles was massively tainted by corruption and happened without even the most basic attention to circumstances on the ground, topographic features, local settlements or even other documents issued for the same area (Ioris, 2017b). Land allocation typically involved the mere drawing of lines on a highly imprecise and crude map by government officials working hundreds of kilometres away from the area. The result was that the expansion of private property had very

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<sup>2</sup> The focus on larger properties in Mato Grosso (under the 1974-1979 government of General Geisel) came a few years after the largely unsuccessful resettlement of peasants to small-scale properties in Pará (during the 1969-1974 administration of General Medici).

limited agricultural results, but it was nonetheless legitimized by the sheer abundance of land and, more importantly, generous government assistance and rural credit (Schwantes, 1989). As in other countries, the new farmers were more like speculators with no interest in working the land as a personal enterprise or in building up a long-term tenant estate, instead purchasing large sections of unimproved land, intending to sell after land values had risen sufficiently to make their sale remunerative (Bogue and Bogue, 1957). In total, the production of Mato Grosso's agricultural frontier involved more than 100 resettlement projects and incorporated around four million hectares between 1970 and 1990 (Jepson, 2006). Particularly in the Upper Teles Pires river basin in the centre-north of Mato Grosso, land settlement was encouraged by the construction of a federal road, the BR-163, by the Brazilian army (Bernardes et al., 2016). Later, after intense timber extraction, this region became the main national centre for soybean production (see below).<sup>3</sup>

Mato Grosso's land allocation experience deviated somewhat from the classical frontier-making model described in the literature, which hypothesizes the initial arrival of the first pioneers, typically subsistence farmers and adventurers with little to lose, who are then gradually replaced by more commercial farmers and private companies, leading to various degrees of tensions between the different groups. In Mato Grosso, there was no spontaneous transition from 'farming' to an 'agricultural sector' (as dealt with by Bernstein, 2010); what actually happened was the writing off of the socio-ecological circumstances and the imposition, through top-down state action, of exogenous practices and bureaucratic goals informed by values and

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<sup>3</sup> Interestingly, the Upper Teles Pires is a frontier within the wider frontier, as it is situated at the uncertain boundaries between savannah [*cerrado*] and the Amazon rainforest (the former has lower legal protection compared with forested ecosystems). The fuzzy frontier of the forest has been used by the farming community as an important excuse to clear more land and claim their 'environmental prerogatives' (some even call it their 'green passport'); a typical narrative is exemplified in this interview with a municipal authority: "we protect the forest because we mainly cultivate land previously occupied by the savannah".

priorities decided elsewhere. The aggressive mobilization of land and resources to create a large-scale agricultural region was triggered by the political and ideological vision of the federal state (especially after the 1964 military coup) on behalf of a conservative vision of modernity. The government championed national development and integration plans (financed largely from multilateral loans fuelled by petrodollars) that triggered internal migration of farmers and fostered new rounds of primitive accumulation by private companies entitled to receive generous subsidies once they started operating in the Amazon. This is related to the claim by Hung (2014) that frontiers are based on simultaneous dualities (e.g. inclusion/exclusion, periphery/connection, modernity/primitiveness) that constitute essential dilemmas through which the state can 'tailor' different meanings to meet contingent market demands.

Rather than bringing development to an area considered destitute (as hypothesized by Bauer, 1991), frontier-making in Mato Grosso was speculative and aimed to mitigate the scarcity of land and limited social opportunities elsewhere in the country. As result, there were serious doubts about how resilient this agricultural frontier would be without sustained and generous state assistance. Because of the gradual exhaustion of the frontier-making model introduced in the 1970s, which was highly dependent on public funds and direct state intervention, some authors concluded that it had become a decadent frontier and even anticipated the retreat of capitalism from the Amazon (Cleary, 1993). The frontier-making model introduced by the Brazilian military proved to be too costly, scandalously inefficient and obsolete, which became evident after the end of the dictatorial regime in 1985 and the subsequent fiscal crisis. Nonetheless, after a turbulent period of adjustments, and to the surprise of many, the agricultural frontier re-emerged and flourished from the late 1990s onwards, under a favourable convergence of agrarian reorganization (i.e. further land concentration), global market opportunities (the commodity boom in the 2000s) and macroeconomic liberalization policies (centred on monetary stability, global trade, financial speculation and deindustrialization). This corroborated the claim

by Pichón (1997) that land use at the frontier of agricultural development and colonisation is always complicated and tends to be adaptive to new circumstances.

In the last two decades, Mato Grosso has transformed into one of the main agribusiness production hotspots in the planet, particularly fuelled by the strong demand for soybean from Asian markets. While the Brazilian economy has rapidly deindustrialized and the public deficit soared, Mato Grosso's agribusiness is one of the few economic sectors in the country able to demonstrate high levels of efficiency and significant contributions to trade surplus. Soybean exports have been particularly important because they provide foreign currency, which helps to stabilize the national economy and reduce the public deficit. The agricultural frontier, originally opened by Vargas and expanded by the military, has been reinvented as 'corporate Amazonia' today under the sphere of influence of land investors, private banks and transnational corporations (not only the big international names, Cargill, Bunge, ADM and Dreyfus, but also impacted by new Brazilian TNCs, such as Amaggi, BRF, Marfrig and JBS). Mato Grosso is now, for the first time in its history, praised as an example of economic success and entrepreneurial efficiency. If one listens inattentively to the narrative of production efficiency and economic triumph –repeated daily by political leaders and echoed through the mass media – one would probably come to the conclusion that Mato Grosso now occupies the centre of gravity in the Brazilian economy and political landscape. However, the acclaimed victory of Mato Grosso's agribusiness is actually an "interlocked concept" that preserves the perverse basis of frontier-making. Despite its crucial economic role and the growing influence of regional political elites, Mato Grosso never stopped being a frontier. More than that: frontier-making never ended in Mato Grosso, but remains a perennial necessity, much more than a simple contingency.

Regardless of discursive and symbolic constructions, the current state of affairs in Mato Grosso organically depends on new and more sophisticated rounds of frontier-making. First of all, the defensive rhetoric repeatedly employed by agribusiness leaders and their political and academic allies – for instance, the common claim that 'Mato Grosso is the Brazil that is doing

well' [*o Brasil que dá certo*] – is in itself an indication that relations are not yet settled, but that the region is still undergoing a process of socio-spatial consolidation. Second, Mato Grosso's export-oriented agribusiness remains firmly subordinate to financial, technological and political centres that determine what and how commodities should be produced and commercialized. Third, because of growing market demands and mounting socio-ecological degradation, as well as the rising price of rural land, the agribusiness sector is constantly in search of new production frontiers deeper inside the Amazon region. Fourth, Mato Grosso is an economic frontier in which abundance and scarcity are organically connected and follow each other. Neoliberalized agribusiness, since the late 1990s, has revived the promise of abundance, but even more rapidly restricted socio-economic opportunities. According to the state and national statistics, 44% of the population lives in a situation of social vulnerability and 18% below the poverty line (Circuito Mato Grosso, 2016). Agribusiness accounts for around a third of state GDP, but social inequality and the quality of public services have been seriously affected by widespread corruption, which affects almost the whole political system and has led to the imprisonment of many corrupt authority figures, including a former state governor (El País, 2017). One of the most tragic results is the growing urban periphery, with abject levels of poverty, which is also a problem in the towns and villages in the main agribusiness areas. Increasing land prices over the last two decades have limited the possibility for smaller farmers to acquire their own property, creating incentives for intrastate migration and for further deforestation and associated environmental degradation (Ioris, 2016).

The specific conditions for agribusiness expansion in Mato Grosso ultimately reproduced the monopoly of land-holding – a dwindling number of increasingly wealthier landowners – that characterized previous rounds of frontier-making. This situation of selective abundance and shared scarcity is further reinforced at the local scale of farms and production units. Frontier-making involves a dialectic between unique socio-spatial experiences and strong homogenization pressures. There is growing homogenization of production, given that almost all farms use the

same technological package (GMO soybeans, large machinery, digital technology, agro-chemicals, etc.)<sup>4</sup>, which has resulted in biodiversity erosion, water pollution and soil degradation. These socio-ecological impacts are all manifestations of growing scarcity. In addition, technological uniformity corresponds to a politico-ideological homogenization, as it is not easy to find public spaces to question and criticize regional development trends (even in the local universities). The associations that represent the agribusiness sector (e.g. FAMATO and Aprosoja) are centralized organizations with a façade of public participation but subservient to the politicians and large-scale farmers who virtually control the public sector of Mato Grosso. One notable example of the scarcity of alternative thinking is the appropriation of environmental regulation by the agribusiness sector, along the lines of ecological modernization (Baletti, 2014, describes it as the ‘greening’ of soybean production via environmental governance). In this way, the agricultural frontier not only encroaches upon ecosystems, but also gradually appropriates the practice and rationale of environmental law, obviously focusing on market-based solutions (e.g. carbon trade, compensatory measures for past degradation in a location different than the one impacted, deforestation amnesties, etc.).

In the end, agribusiness, particularly the neoliberalized version that now prevails in Mato Grosso, has never undermined or reduced the importance of capitalist frontier-making. On the contrary, frontier-making continues to serve the stronger interests of the Mato Grosso elite (such an elite is itself the product of frontier-making) and the hegemonic demands of core political and economic centres elsewhere in the country (Brasília and São Paulo, above all). A supposed post-frontier stage, as announced by some scholars, has not materialized in the region, as frontier-making remains predicated upon the need to compensate for national and local tensions. Just like diamonds, rubber and cattle in the past, the soybean-based economy of Mato Grosso persistently

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<sup>4</sup> Mechanization, digital equipment and other related technologies help to control labour (a perennial problem in agriculture) and facilitate capital investment in farming.

faces many challenges (aggravated by serious ecological degradation and global warming), but without fundamental politico-economic transformations, new cycles of frontier-making are likely to continue to ensue. In that context, the national state – as the key neoliberal player (Ioris, 2012) – maintains a leading role in frontier-making, both through the facilitation of processes of land grabbing, utility privatization and agriculture financialization, and through the flexibilization of social and environmental regulation.<sup>5</sup> Neoliberalism, as a class-based attempt to reorganize production and re-enact exploitation, proves to be an institutional and moral frontier of capitalism and, at the same time, encourages the production of new spatial frontiers.

## **CONCLUSIONS**

Frontier-making has been an integral component of the evolution and renovation of capitalism, not merely because of the conquest of territories and resources, but because of the strategic interactions between old and new areas. The advance of capitalist relations of production and reproduction continues to rely today on accumulation by frontier-making, as illustrated by the persistent formation and constant reinforcement of socio-spatial frontiers in the Global South. The main reason is that the process of frontier-making simultaneously connects and transforms both the core and periphery circuits of capital. Marx and Engels (1970: 88) even argued that settlement frontiers, as in the case of North America, served to accelerate the progress of capitalism as the settlers bring “advanced forms of intercourse” that they were not able to establish in the old (European) countries, which is a phenomenon that will eventually impact the original areas from where the settlers departed. There is, therefore, a totality of relations that underpins capitalist frontier-making and that connects unique socio-spatial circumstances with the wider complexity of capitalist processes of production, reproduction and

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<sup>5</sup> In Gramscian terms, the interpretation of frontier-making needs to be firmly situated in the political ecology of the state (Ioris, 2014) in order to understand the multiple ramifications of the power asymmetries that have helped to shape the frontier, including this movement from ‘nature as resource’ to ‘nature as business opportunity’.

legitimization. Frontier-making persistently happens because of the overflow of class-based disputes in geographically ‘consolidated’ areas and the specific opportunities to establish novel socio-economic mechanisms at the frontier. The unique space of each frontier is what Pred and Watts (1992) describe as ‘multiple modernities’ consistent with ‘multiple capitalisms’. In addition, Li (2014) perceptively points out that capitalism is not simply a totalizing system that incorporates everybody, and that the adoption of capitalist forces in frontier regions is not an inevitable phenomenon, but full of conjunctures (i.e. subject to various conditions).

Capitalist frontier-making was historically initiated as part of the European expansion around the world and over time it became a fundamental pillar of Brazilian political, social and economic organization. Following the law of scarcity-abundance – which encapsulates the overall tendency to deal with mounting scarcity in central areas through the promise of abundance at the frontier – families and groups have, for many generations, departed from areas fraught with (human made) scarcity, attracted by the promises of abundance and a better life elsewhere in the country, as in the case of Mato Grosso (located in the southern section of the Amazon biome, at the transition between savannah and forested ecosystems, and renowned for its abundance of land, water and biodiversity). According to the intertwined pledges of abundance and the more regular delivery of multiple scarcities, the expansion of Mato Grosso’s economic frontier has deliberately been used to help regulate long-term, unresolved socio-economic contradictions in the national economic centres. In that way, the perverse configuration of Brazilian society, especially and prominently characterized by acute inequalities and abject gulfs between poor and rich groups, was reinforced by the recurrent instrumentalization of frontier-making. Frontier-making in Mato Grosso also contributed to the spatialization of class struggle at different, nested scales of interaction: from local disputes over land and resources, to nation building and global flows of commodities and geopolitical concerns.

Frontier-making was not only important during colonial and early independence periods; the modernization of Brazil unremittingly depended on the perennial production of new frontiers. It remained a crucial escape mechanism needed to alleviate mounting socio-economic and socio-ecological tensions. As a consequence, Mato Grosso was converted into a triple frontier – at the periphery of Portugal, Brazil and the Amazon region – and today it still functions as a technological, ethical and political frontier, despite the fact that it currently contributes much more significantly to the national economy via the export of agribusiness commodities. The process of frontier-making was never interrupted or weakened, even now when Mato Grosso occupies a prominent position in the national politico-economic arena. Mato Grosso continues to be a zone of experimentation, migration and reconstitution, where identities and allegiances are still shifting and the democratic rule of law has not yet materialized. The frontier was always promoted by the national state but the same state never had much interest in guaranteeing a socially and spatially inclusive institutional order to resolve land-related conflicts. Formal laws are diluted and largely replaced by other codes marked by pragmatism and etched by the balance of power between different social groups. For all these reasons, frontier-making in Mato Grosso is both a concrete experience and also a metaphor for the uncertainties created by the geography of capitalism in Brazil and the constant need to provide (albeit circumstantial and transient) responses to the problems accumulated in core and newly produced spatial areas.

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