

Part I — Setting the stage

Chapter 1: Introduction

Agroecology is a much more rewarding (recompensado) way of life in terms of... well-being, of living well, you know? I already left the countryside one time, to live in the city, but I didn't manage to adapt to the routine, to the structure. So I want to live in the countryside, to live well.

— Ariane, agroecology student and Landless activist
from the Northeast Region of Brazil

We stand now where two roads diverge. But unlike the roads in Robert Frost's familiar poem, they are not equally fair. The road we have long been traveling is deceptively easy, a smooth superhighway on which we progress with great speed, but at its end lies disaster. The other fork of the road—the one 'less traveled by'—offers our last, our only chance to reach a destination that assures the preservation of our earth. The choice, after all, is ours to make.

— Rachel Carson, *Silent Spring*

People are by far the most difficult thing to understand within agroecology.

— Reinaldo, agroecology student and Landless activist
from Western Brazil

1.1 Overture

April 2018. I am sitting in the shade with Amadeus,¹ a farmer in his early fifties, close to the house he shares with his wife Lidia, their twin sons, and his older brother Isaac. They live in a southern Brazilian land reform settlement called Terra Prometida. They are members of the Rural Landless Workers' movement (MST), reputedly one of Latin America's largest social movements, and practitioners of the type of agriculture the MST advocates for: agroecology. Over on the other side

¹ Interviewed 06/04/2018 in L_, Brazil. All research participants' names were changed for privacy reasons.

of the house, one hectare of land is covered in agroflorestra, or agroforest. The lush area is planted with symmetrical rows of banana trees, eucalyptus and citrus, along with tuber species, native grasses and medicinal herbs. A yellow-flowered bush called cotalaria is said to attract wild bees and help fixate nitrogen in the soil, just like the mamona bush, whose root system is additionally believed to keep top soil from becoming compacted. The area is teeming with colorful hummingbirds, roadside hawks, and uru birds. Between the rows of trees, the soil is covered with straw and organized in neatly raised beds, planted with rows of vegetables, legumes, and tubers. The only fertilizers used here are composted manure and homemade mixes.

The family tends a wide variety of fruit trees, honeybees, and a few pigs and chickens. They also occasionally catch fish in the nearby river. The household produces most of what they consume. They generally only buy salt, oil, rice, pasta, coffee and mate tea, along with the occasional treat. Their small farm has received certification through Rede Ecovida, a decentralized grassroots network of farmers and organizers created in 1998 that covers all three of Brazil's southern states. Significantly, the certification obtained this way is participatory, meaning it involves cooperatives, associations, universities, and local NGOs. Its control mechanisms are based on regular visits by peers rather than mediated by markets. Most of their produce is sold directly to customers and to government social programs through the settlement's cooperative, which both brothers are members of. Lidia, who spent most of her life in a city working as a dentist's receptionist, tells me she is in charge of most housework and participates in educational organizing in the settlement, but doesn't do much farming. Emboldened by their success, the brothers are experimenting on a much larger area a few kilometers away, where they intend to plant organic grains between the rows of trees, which will have adequate space to accommodate a small tractor during harvest. In a Catholic-turned-secular way, this family firmly believes agroecology is humanity's future and salvation.

A tall, quiet man with piercing blue eyes, Amadeus looks emaciated and tired. Something about his demeanor expresses less than optimal health. He explains that he has only been living in the settlement for four years. Beforehand, he worked for decades as an employee in con-

ventional monocultures, mostly tobacco and coffee, elsewhere. “I had to spray pesticides almost daily,” he recalls heavily.

I didn’t know anything about the impacts. At the time, I thought this was all agriculture was. They never told us to cover up. I was often doing the work without even a shirt on. In the case of coffee, we had to spray the top of bushes manually, so a lot of product would fall back on us.²

After experiencing declining health for a time, one day, Amadeus had nearly died of acute pesticides poisoning. Thereafter, the family had stayed in the city for some time, but it was hard to survive on Lidia’s salary alone, and his health continued to deteriorate. They knew Isaac was an MST member, living in a community where people practiced pesticide-free agriculture. About a year later, they moved in with him. Amadeus, meanwhile, became a vegetarian and drank juices made from raw honey, lemon and leafy greens every day. He said that agroecology saved his life. “In the city, I’d be dead already, or at least I would be bed-ridden and incapable to work. Here, I am recovering.”

1.2 Context

Rachel Carson never went to Brazil. If she had traveled there in 1962, when *Silent Spring* was published and alerted millions to the dangers of industrial pesticides, she would have known the country at a moment of political possibility soon to be crushed. Brazil, one of the world’s most unequal countries in terms of both land access and income distribution (Carter 2015, 7),³ has often been represented as one possessing an “agrarian vocation,” best put to economic use by large-scale monoculture for export-oriented production (Linhares and Silva 1981), and the possibility of a progressive land reform has systematically been hampered. In 1964, a sordid twenty-one year military dictatorship, with its ideals of “conservative modernization,” set it on the path of increased indus-

² Interviewed 06/04/2018 in L_, Brazil.

³ See also Alvaredo et al. 2018, a report coordinated by prominent economists including Thomas Piketty who analyzed the state of global inequality and used Brazil as a case study.

trialization, mass urbanization and rural exodus, and rapid ecological deterioration of its hinterlands and forests (Fearnside 2017; Pádua 2017) without substantial reform to the system of land tenure.⁴ Another central element of Brazil's dictatorship era was the mass transition to industrialized agriculture. Once believed to be an ultimate marker of progress, this kind of farming promised to promote food security and human welfare in post-War Europe and North America. Later, during the so-called Green Revolution, it brought promises of modernization, "development" (Escobar 2012) and a technocratic solution to hunger (Joly and Cornilleau 2014) to countries such as Mexico (Wright 2010), India (Patel 2013), Brazil (Silva 2015), and beyond.

4 The debate over whether or not Brazil's extremely concentrated land ownership structure could and should be broken up by the modern state, and the belief that a far left takeover of the state to enact this policy was being plotted, was central in the 1964 military coup against president João Goulart. This system, the *latifúndio*, was inherited from centuries of colonial rule sustained by slave labor, followed by the institution of the market as the sole way to access land ownership by the 1850 Land Law, *de facto* excluding large swaths of the population from access to fundiary property. Goulart had promised to start a land reform to break Brazil's *latifúndio* in the name of justice and to create an internal market for the growing industrial sector (Goulart 1964). Internally, American imperialism and the national *latifúndio* had increasingly been understood as obstacles to development, and the Cuban revolution of 1958 had set a precedent for national liberation of the socialist kind in Latin America. In the 1960s, the action of the Communist-party supported Peasant Leagues (*Ligas Camponesas*), which had organized in northeastern Brazil for agrarian reform and rural workers' rights in the mid-1940s and late 1950s, had intensified. Only thirteen days after Goulart's land reform promise, a coalition supported by the industrial bourgeoisie, the *latifúndio* and the military class organized a coup, which, backed up by the US and foreign interests present in Brazil, started a bloody and repressive military dictatorship. One of the military regime's goal was to foster economic development by developing industry and large-scale modern agribusiness, preserving the interests of the foreign capital present in the country. The regime aimed to integrate the landless population to the market while containing a communist uprising through different measures. In 1964, the Land statute (*Estatuto da terra*), the first law of its kind since the 1850 land law, created INCRA, the government agency for colonization and agrarian reform, and the creation of a public assistance service to help smallholders establish themselves without having to rely on self-organization. In parallel, the regime organized the violent repression of dissidents and alleged communists, often through torture and executions (Dreifuss 1981; Branford and Rocha 2002; Wright and Wolford 2003; Schwarcz and Starling 2015).

More than five decades later, human and non-human Brazilians have been systematically poisoned by this agricultural model⁵—the product of aggressive pro-agribusiness policies that have turned the country into the world’s top consumer of pesticides per capita, according to a 2015 report by the Brazilian Association of Collective Health (Carneiro et al. 2015), citing data from ANVISA, Brazil’s sanitary control and public health agency. In 2016, glyphosate-intensive soybeans and soymeal were the country’s top export, accounting for over 10% of Brazilian foreign sales.⁶ Meanwhile, according to new data released by FIOCRUZ⁷ and Brazil’s health ministry, cases of acute poisonings⁸ due to occupational hazard, pesticides drift from airplane spraying and suicide attempts doubled over the 2007–2017 period, to a whopping 4,003 confirmed cases in 2017 alone (Souza and Camporez 2018). Studies have also found significant damage linked to pesticide contamination of fresh groundwater, the decimation of fish populations (with among other species, the carp and the rainbow trout), toxicity to many avian species such as several species of doves, the burrowing owl and the rufous-collared sparrow (Almeida et al. 2010), and a drastic reduction of pollinating insects (Carneiro et al. 2015, 133–135). The southern state of Paraná, whose exotifying celebration made by Claude Lévi-Strauss in *Tristes Tropiques* advises imaginary European campers to respect what he calls a “virgin and solemn landscape, which, for millions of centuries, seems to have preserved intact the appearance of the Carboniferous” (Lévi-Strauss 1955, 175), has witnessed the majority of acute poisoning

5 See geographer Larissa Mies Bombardi’s magistral 2017 atlas of agrochemicals in Brazil study published at the University of São Paulo.

6 Other major exports were unrefined sugar, iron ore and crude oil, showing the extent of Brazil’s dependency on primary exports to world markets. Data from the MIT’s Observatory of Economic Complexity: <https://atlas.media.mit.edu/pt/profile/country/bra/> (last accessed 04/05/2020).

7 FIOCRUZ is Brazil’s top research institution for public health, medicine, and history of science and medicine.

8 Perhaps just as concerning, 2011 research commissioned by public authorities found that 28% of foods contaminated by pesticide residues were contaminated by products unauthorized for the specific crops on which they were found (Carneiro et al. 2015, 56). It is important to specify here that many of the people whose job involves spraying pesticides do not possess the literacy skills necessary to read labels and instructions of use correctly, and have inadequate access to protection equipment and knowledge of toxicity risks (Carneiro et al. 2015, 137).

cases nationwide. The state registered 3,723 cases over the 2007–2014 period (Bombardi 2017, 128), or 33.53 cases per 100,000 inhabitants (Bombardi 2017, 138) including the highest national figures of poisonings of children under the age of 14 (Bombardi 2017, 183). It also tops the nation in the number of attempted suicides via agrochemical ingestion (Bombardi 2017, 175).⁹ In short, Paraná has a serious poison problem.¹⁰

Meanwhile, in 2019, Brazil still suffers from tremendous social inequality. Yet, the country has a vibrant social movement scene, which flourished in the wake of the transition to democracy that started in the last years of the military dictatorship. In that period, the left wing of the Catholic Church in southern Brazil fostered the organization of a wide array of unions, social movements and the Workers' Party (PT).¹¹ The latter, which came to power in 2002 with the election of charismatic Luiz Inacio "Lula" da Silva, governed the country for 14 years, until the 2016 impeachment of Lula's successor Dilma Rousseff, which many observers in Brazil and abroad believe was a politically-motivated institutional coup.¹² The PT's rise and fall oversaw the reduction of extreme poverty, a period of sustained economic growth and democratization of higher education through neodevelopmentalist policies. At the same time, its resolutely neoliberal and commodity prices-dependent mac-

9 Paraná also has the second largest number of farms using agrochemicals (Bombardi 2017, 71), with an average state consumption of 112,955 ton per year (Bombardi 2017, 84) – by far the highest consumption in the south of Brazil.

10 See also Knight 1998.

11 By the end of the 1970s, although the military regime was still officially controlling the political stage, it was already in crisis and increasingly had to make concessions to its opponents, such as the 1978 lift on public political protest. Inserted into the broader Latin American phenomenon of Liberation Theology, a way of interpreting the Bible in favor of economic justice (Boff and Boff 2001; Burdick 2004), the left wing branch of the Catholic church contributed to create, through the Pastoral land commission (CPT), religious legitimacy for rebellion against economic inequality and political repression. The Base ecclesiastical communities (CEBs), a network of local Bible reading groups encouraging poor rural people to organize and demand political and economic rights, organized throughout southern Brazil and offered poor rural workers revolutionary readings of religious texts, for instance creating parallels between the Old Testament's promised land and search for land for poor families (see Carter 2015).

12 For instance, a 2016 Organisation of American States' Inter-American Commission on Human Rights press release expressed concern over the impeachment process, citing "irregularities, arbitrariness and lack of due process" (See 02/09/2016 press release, last accesses on 04/05/2020, here: http://www.oas.org/en/iachr/media_center/Preleases/2016/126.asp).

roeconomic policy, coupled with a lack of structural tax reform,¹³ led to an increase in total inequality (Alvaredo et al. 2018) and did little to weaken the deeply-rooted power of Brazil's oligarchic lobbies.¹⁴ It actually seemed to embolden them, as the 2018 legislative elections' forceful empowerment of the established evangelist, weapons, and agribusiness congressional caucuses suggests (these caucuses are colloquially termed "Bible, Bullets, and Beef").

In the early 1980s, the transition to democracy's incubation of left-wing organizations also saw the emergence of the MST,¹⁵ first in the south of Brazil, then as a nationwide movement,¹⁶ with an estimated 1.5 million people associated with it as militants or living in spaces affiliated with it in some way (Wright and Wolford 2003).

Whether the MST is (or *still* is) a social movement could be considered a subject of debate (Navarro 2010) as the MST is far from a spontaneous movement, has existed under its current identity for over 30 years, has used several institutional partnerships to advance its objectives (Meek 2014; Pahnke 2014, 2018; Tarlau 2014, 2019), uses visible protest only as one tactic among many, and is led by a well-organized central leadership whose legitimacy for staying in power within the movement is somewhat unclear and self-perpetuating. In this work, I refer to and theorize the MST as a social movement, following the relative consensus that exists in relevant social sciences literatures (Ondetti 2008; Hammond and Rossi 2013; Wolford 2010a; Tarlau 2017; Pahnke

13 For detailed analysis of the consequences of this missed occasion to enact serious tax reform by a top economist, see Carvalho (2018).

14 For a well-researched non-academic book about the far-reaching power of these lobbies in recent Brazilian politics and economics, see Cuadros (2016).

15 Following the first mass land occupations lead in the southernmost state of Brazil by landless people in the late 1970s (Branford and Rocha 2002; Wright and Wolford 2003), the MST was officially founded in Cascavél, Paraná, in 1984. The young activists present at the founding event declared their struggle as going beyond land rights to encompass a "transformation" of Brazilian society—a socialist one. The newborn organization, influenced by Marxist-Leninist political theory, sought to organize itself according to the principles of democratic centralism, such as collective decision-making, the practice of critique and self-critique in collective activities, discipline and permanent study, principles it still upholds today (see Marques 2018), although its regional realities, internal dynamics and relations to the broader political structures have been profoundly transformed since those founding events.

16 For a detailed history of the MST, see Ondetti 2008; see also Robles and Veltmeyer 2015.

2018). I do so for two main reasons. The first one is that I want to respect the terminology my research participants used: virtually everyone I ever met in MST-affiliated spaces referred to the organization as a “movimento social”, social movement.

The second reason is that the MST is actually a good fit for more open-ended academic definitions of social movements. For instance, Tilly (1999, 257) defines a social movement as “a sustained challenge to power holders in the name of a population living under the jurisdiction of those power holders by means of repeated public displays of that population’s worthiness, unity, numbers, and commitment.” Although the Brazilian federal state is not the MST’s only interlocutor anymore and the extent to which the MST represents those it says to represents is debatable (see Martins 2002; Wolford 2010a), I find this is a good way to describe, if not “the reality” of the MST (which is different in different places, at different scales and in the eyes of different individuals, see Wolford 2010a), at least the public image it pursues and a good way to represent its endurance in different national political contexts as well as its remarkably coherent identity (see Flynn 2010). All of this may suggest that evolution in social movement definitions, rather than defining the MST out of social movement-hood, is warranted.

A definition I problematize and do not use in this dissertation, however, is the the categorization of the MST—and La Via Campesina more generally—as “peasant” movements (Desmarais 2007; Altieri and Toledo 2010; Martinez-Torres and Rosset 2014; Robles and Veltmeyer 2015; Fernandes and Stédile 1999; Carter 2002; Fernandes 2000; Harnecker 2002; Mészáros 2013; Petras and Veltmeyer 2001, 2005; Rubbo 2013). The category of “peasant” has been heavily mobilized by rural social movement leaders around the world as a strategic collective identity rooting their activism in opposition to the commodification of staple foods, land and seeds, and to strengthen the definition of small-scale agriculture as a way of life and not simply an economic activity. A theoretical discussion on historical, anthropological and sociological definitions of the peasantry is outside the scope of this introduction. However the reader should be aware that rank-and-file members, militants and leaders of La Via Campesina movements vary enormously in socio-economic conditions, motivations, market integration, relations to the land