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CLAIRE LAGIER

Constructing legitimacy?

**Agroecology within and beyond the Brazilian
Landless Workers' Movement (MST)**

Claire Lagier

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Workers' Movement (MST)

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Constructing legitimacy?

Agroecology within and beyond the Brazilian
Landless Workers' Movement (MST)

by
Claire Lagier

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List of acronyms

ABA	Associação Brasileira de Agroecologia
ANA	Articulação Nacional de Agroecologia
ANC	Articulación Nacional Campesina
ANVISA	Agência Nacional de Vigilância Sanitária
ASA	Articulação do Semi-Arido
AS-PTA	Assessoria e Serviços a Projetos em Agricultura Alternativa
ATER	Assistência Técnica e Extensão Rural
CEB	Comunidade Eclesiástica de Base
CLOC-LVC	Coordinadora Latinoamericana de Organizaciones del Campo – La Via Campesina
CONAB	Compania Nacional de Abastecimento
CONAMURI	Coordinadora Nacional de Organizaciones de Mujeres Trabajadoras Rurales e Indígenas
CONAPROCH	Consejo Nacional de Productores de Chile
CPP	Coordenação Político-Pedagógica
CPRA	Centro Paranaense de Referência em Agroecologia
DK	Dialogue of Knowledges in Encounter of Cultures
EMBRAPA	Empresa Brasileira de Pesquisa Agropécuaria
ENHANCE	Environmental Humanities for a Concerned Europe
ERS	Ecological Resistance School (*this is a pseudonym)
EU	European Union
IFPR	Instituto Federal do Paraná
INCRA	Instituto Nacional de Colonização e Reforma Agrária
LEVANTE	Levante Popular da Juventude
LVC	La Via Campesina
MAB	Movimento dos Atigindos por Barragens
MAPA	Ministério da Agricultura, Pecuária e Abastecimento
MEC	Ministério da Educação
MMC	Movimento das Mulheres Camponesas
MPA	Movimento dos Pequenos Agricultores
MST	Movimento dos Trabalhadores Rurais Sem Terra
NGO	Non-governmental Organization
PAA	Programa de Aquisição de Alimentos

PNAE	Programa Nacional de Alimentação Escolar
PJR	Pastoral da Juventude Rural
PRONERA	Programa Nacional de Educação na Reforma Agrária
PT	Partido dos Trabalhadores
RCC	Rachel Carson Center for Environment and Society
SAF	Sistema agroflorestal (agroforestry system)
STS	Science and Technology Studies

Glossary

A base	Rank-and-file social movement members (the “base” of the organization)
Agrofloresta	Agroforest (an area where trees, shrubs, food crops, native vegetation and other plants are planted and managed together in order to enhance soil fertility, water conservation, ecosystem health and food production)
Alternância	Model of education where students alternate periods of presence at training centers and periods in their home community
Canteiro	Raised bed covered in straw for planting vegetables in agroforests
Cata-capim	A small tractor designed to cut up grass and leave the soil covered
Chimarrão	Traditional hot drink made of crushed <i>mate</i> leaves and hot water, consumed alone or passed around in social situations, it is consumed daily in the Southern Cone of Latin America
Dirigente	Within the MST (and many other Brazilian social movements), it refers to an older activist who has a relatively high amount of power and authority within his or her social movement (either regionally, in their state, or nationally)
Etapa	One whole tempo escola phase (generally 3 months, can be less for some courses)

Formação política	Collective political training organized by social movements such as the MST at movement-coordinated training centers, focuses on Marxist theory and other revolutionary writings
Hortas	Vegetable garden areas (can be much larger than what “vegetable gardens” generally refer to in English)
Manejo	Planning, planting and caring for an agroecosystem daily in the context of agroforestry
Militante	An activist who is ideologically committed to his/her movement, has undergone (or is undergoing) formação política, has participated in high-visibility physical protest (marches, sit-ins, land occupations) and has some organizational responsibility within the movement
Mística	A collective opening ritual (to a workday, a meeting, a party or an event of any kind) including speeches, artistic performance (music, theater and/or poetry), references to past struggles and revolutionary figures, and the display of symbolic items representing the political struggle for agrarian reform, food sovereignty, rural dignity, and social justice in general. It has its root in Latin American Liberation Theology and is widely practiced by the MST and many other social movements in Brazil.
Núcleo de base	Basic unit in MST organization. It usually includes 5–10 people (or family units) who are responsible for and held accountable to each other in social movement courses, occupations, protests, activities, and daily organization and communications in land occupations and settlements

Organicidade	The notion that a well-functioning collective depends on collective organization of most areas of daily life in small groups and uninterrupted flow of information between these groups
Tempo comunidade	Time when movements-affiliated students stay in their home community
Tempo escola	Time when movements-affiliated students are present at training centers
Teologia da libertação	Liberation Theology
Semi-árido	Semi-desertic hinterlands of northeastern Brazil

Dedication and acknowledgments

To my mother Marie-Françoise Del Cont (1958–2014)

*To Robert Davidson, biologist at the Montreal biodome
(1958–2016)*

To my dear friend Eleanor Knibbs (1991–2016)

*All three were enlightened beings who nourished my trajectory
in existential ways. All three positively touched hundreds of
lives through teaching, imagination and friendship up to their
untimely deaths — and beyond.*

Tom Jobim famously said that “Brazil is not for beginners,” and it is easy to underestimate how wise this remark is. It took me seven years (half of these spent as a doctoral student) to start feeling that I am not a beginner anymore. Obviously, any errors this thesis might include are mine only. That being said, in my journey towards starting to make sense of incredibly complex (and often perplexing) Brazilian realities, I have been fortunate enough to receive enormous support.

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Summary

This ethnographic research examines the ways that the multiple dimensions of agroecology—broadly defined as community-based ecological agriculture—are legitimized, learned and contested within Brazil's Landless Rural Workers' Movement (MST), a prominent member of the global food sovereignty coalition La Via Campesina. It explores the following questions: 1) Why do farmers affiliated with the MST come to embrace or reject its agroecological mission and ethos? 2) To what extent does agroecological education facilitated by the MST create conditions for young activists to identify with agroecology as a political project and to convince others to join it? 3) How has agroecology's legitimacy been constructed within the MST?

It draws on fieldwork conducted from May 2017 to April 2018, including 84 in-depth semi-directed interviews and participant observation. The setting was one MST-affiliated land reform settlement located in Paraná, Terra Prometida. This settlement is reputed for its agroecological production and hosts a transnational activist school for agroecology, the Ecological Resistance School (ERS). This study shows that even within a 'model' agroecological space, agroecology is highly contested within the MST's rank-and-file bases and has become a source of social polarization. What is more, young food sovereignty activists enrolled in a bachelor of agroecology program at ERS reported complex internal social obstacles, severely undermining their abilities to become effective agents of socioecological change.

The study shows that agroecology's legitimacy within and beyond the MST—including its transnational alliances—has relied heavily on institutionally insecure neo-developmental policies and programs, the semi-autonomy of movement activity within state power spheres under the center-left Workers' Party governments, and centralized internal politics. This has resulted in heightened agroecological legitimacy, which translates into social power within the organization, for those able to leverage resources through MST membership.

Such legitimacy takes us beyond typical accounts of organic farming, as it is grounded in an ethical worldview that transcends mere economic prospects and seeks to politically transform wider society.

It demonstrates intense desires for the conciliation of rural life, agriculture, and ecology among both established farmers as well as young adult students enrolled in movement-mediated agroecological training courses. However, a lack of internal democracy and gender equality threaten rank-and-file members' ability to stay committed to the MST and undermine young activists' abilities to be effective agents of socioecological change. While it would be an overstatement to affirm that this study's findings are easily generalized for the MST as a whole, this research suggests that the organization has thus far been unable to engender sustainable agrarian transitions on a broad scale. Given the simultaneous decline of the Brazilian economy and its affects on progressive social actors from 2013–2018, this study suggests that serious transformation of the MST's tactics, priorities, and internal organization is warranted to strengthen the future of agroecology.

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

and experience of agriculture. LVC federates groups and organizations representing landed smallholders, landless families, land reform beneficiaries, rural day laborers, rural women, poor urban workers willing to “re-ruralize,” agriculturalist and pastoralist indigenous peoples and artisanal fisherfolk, on all continents except Antarctica (Desmarais, 2007), which is why academic analysis should move toward critically examining and problematizing the use of “peasant” identity by rural social movements rather than uncritically espousing it (Martins 2002; Agarwal, 2014; Edelman 2005; Brass, 2000; Bernstein 2014; see also Chapter 6 in this dissertation).¹⁷

1.3 Agroecology in the MST's strategy

Let me now introduce how the MST's strategy articulates with the notion of “agroecology”. The MST's official goal is to organize poor citizens to pressure the federal state into allocating land to agrarian reform settlements for landless families. In order to do so, it uses the constitutional notion of “social function of the land,”¹⁸ high-visibility land occupations, and direct negotiation with federal authorities. In the early years, the MST advocated for production on the model of collective, cooper-

17 For further reading on this topic concerning Brazil, see among others Graziano da Silva, 1980, Souza Martins 2002; Carter, 2015; Linhares and Texeira da Silva, 1981; Linhares and Texeira Silva, 1999; Mattos, 2001; Meek, 2014; Wolford, 2010. For broader debate see also Agarwal, 2014; Edelman 2005; Brass, 2000, 2013; Desmarais, 2007; Van der Ploeg, 2008; Van der Ploeg, 2018; Scott, 1977; Wolf, 1955, Bernstein, 2014; Hobsbawm, 1973; McMichael, 2015.

18 The 1988 Brazilian Constitution establishes that rural properties must fulfill their “social function,” meaning being productive and respecting labor legislation and environmental integrity. Failure to respect these conditions means land can be expropriated to create agrarian reform assentamentos, settlements (see articles 184 to 186 of the 1988 Constitution). This became the legal basis for the MST's most visible land occupation strategy, although as Wolford (2008) notes, it creates a legal paradox because the Brazilian civil code protects the right to private property above all, often throwing opposing land claims into unclear legal ground between different levels of jurisdiction and local power relations. This strategy is based on the identification of “unproductive” land (meaning land being used in unconstitutional ways) that could be expropriated or bought off by the federal state for agrarian reform, and on the occupation of such land by a mass (generally, hundreds) of poor families recruited through churches, informal networks, unions and in the favelas. This strategy is highly controversial in Brazil and often described as “land invasion” by critics, while the visual sea of black tarp huts it creates has become iconic in international media and with left-wing supporters thanks to the photo work of Sebastião Salgado (2007).

ative settlements, using the Green Revolution's technological matrix (Branford and Rocha, 2002; Carter, 2015; Wright and Wolford, 2003; Diniz and Gilbert 2013; Robles and Veltmeyer 2015). Since the late 1990s, however, the MST's leadership has initiated a "green turn" (A. Delgado 2009),¹⁹ advocating for the adoption of "agroecological" methods in settlements (Borges 2007; A. Delgado 2009; Meek 2014; Thivet 2014).

There is a lack of consensus on the definition of agroecology, which is part and parcel with its use as an umbrella term that bridges social movements, public policy, scientists and NGOs. That being said, agroecology broadly emphasizes promotion of soil fertility and ecosystem health, diversified cultures, regionally and culturally embedded markets, quality of life and labor for agriculturalists, and attention to local ecologies, rather than standardization, monoculture, large scale commodity production and heavy use of synthetic inputs (Altieri 1995; Bell and Bellon 2018; Gliessman 2015, 2018). A review (Wezel et al. 2009) is widely cited for the threefold definition of agroecology as a science, a set of practices and a social movement. Others argue that trying to define it chronologically from its first appearances in scientific literature since 1928 and its first documented uses by Russian (Bensin 1928), American (Klages 1928) and German (Tischler 1950) scientists as a means to convey the use of principles from ecology, botany, zoology and plant physiology in agronomy and agricultural land management is politically reductive (Altieri and Nicholls 2012; Giraldo and Rosset 2017).

Indeed, such views have been said to ignore that many so-called "agroecological" practices, while they can be enhanced through scientific and social scientific research in partnership with farmers themselves, are similar to traditional indigenous and peasant practices that were well adapted to specific locales, and that farming techniques in themselves are not transformative of other problematic aspects of the current food system such as credit structures, social and cultural domination of certain groups by others, land access and market access (Mendéz et al. 2015). For many authors and activists, agroecology is

¹⁹ For example, as early as 1993, the *Jornal Sem Terra*, the MST's internal newspaper, was starting to refer to "agroecological" experiments in agrarian reform settlements of the Porto Alegre region and to use environmentally-sensitive vocabulary such as "resource conservation," "soil regeneration" and "ecologically sustainable" (Borges 2007, 5).

necessarily political because agroecosystems are the site of power relations and shaped by public decisions and institutions (Molina 2012). This claim characterizes the positions of academics (and civil society organizations) who are part of a more “political” wing of academic agroecology and discursively support social movements’ agroecological initiatives, as opposed to a more “technical” wing which defines agroecology in more technical, ecological terms without taking a clear political stance (see Lamine 2017; Levidow et al. 2014 for analyses of this rift). Indeed, since the 1970s, partly in response to the Green Revolution and its environmental impacts (see Patel 2009), the term has also carried practical and political meanings, against capitalist and neoliberal transformations in the food system.²⁰

The counter-model these social movements (first and foremost those of La Via Campesina, the global alliance of rural movements that the MST co-founded), researchers and some NGOs and think tanks advocate for is not a set recipe or technological package, but rather refer to a set of broad principles to be adapted to specific local contexts (Bell and Bellon 2018). Indeed, the first principle guiding agroecological analysis, both in scientific ecological terms and in terms of social and cultural systems, is that agroecosystem planning should be made adapting these principles to each local context and prioritizing the autonomy of farmers and national and local food production, which implies redistribution of land and a focus on food production rather than on nonfood commodities. This means landscape use, land use and agroecosystem design need to be adapted to specific climate patterns, soil qualities, topography, hydrography and locally familiar agricultural practices (including the use of specific species and breeds), as well as on-farm needs and the markets farmers want to reach.

Another key principle is enhancing soil health through no-tillage field management, soil cover using different methods, intercropping, green fertilizers and use of composted animal manure and plant biomass as a source of plant productivity and disease management, rather than using

²⁰ This phenomenon has been framed by some critics as being the only true intention of agroecology’s proponents, who have been accused of using a pseudo-scientific language to ideological ends; in the Brazilian context see Navarro (2013).

fertilizers based on nitrogen, phosphorus and potassium harvested outside of the agroecosystem to promote plant growth. In agroecology, the design of agroecosystems also aims to cut wind and conserve water as much as possible, and to limit erosion through systematic soil coverage, strong root systems, integrating trees and hedges in agroecosystems and rainwater collection (Woodgate 2016). A last important principle of agroecological practice, according to top academic agroecologists, is using complementarity between non-human beings (plants, micro-organisms, animals, non-organic soil components) in order to enhance resilience to drought and disease, control the overgrowth of insect populations, bacteria and fungus and promote output productivity, instead of using environmentally impactful, petrochemical fertilizers and pesticides bought from powerful corporate actors (Altieri 1995; Gliessman 2006).

Agroecology obviously has strong political connotations, even for those who normatively disagree; the MST's "Green Turn" thus has to be understood in its political context. In the early 1990s, the MST as an organization had to face three sets of problems within its agricultural ideal, then based on conventional production and collective work: first, opposition to its chosen agricultural matrix from Brazil's emergent environmental movement, which increasingly denounced the impacts of the Green Revolution in Brazil,²¹ (A. Delgado 2009) and within

21 As explained by historian José Augusto Pádua (2012), Brazilian debates about environmental degradation and preservation had largely taken place between intellectuals and scientists since the 18th century, and, aside from limited measures such as the creation of a few national parks and the Forest Code in the 1930s, there had been relatively little extension of these conversations to the general population before the 1960s. A few environmental organizations emerged in Brazil in the 1960s and 1970s, such as the conservationist Fundação brasileira para a conservação da natureza in 1958, Associação Gaúcha de Proteção ao Ambiente Natural in 1972, Movimento arte e pensamento ecológico in 1973 and Associação Paulista de Protecção Natural in 1976. Except for the first, which adopted a classical biocentric approach to conservation and continues its activities today under the name FUNBIO, these groups (sometimes in conversation with the progressive Catholic Church's preoccupations with social justice, see Oliveira 2008) started politicizing environmental issues and framing them in terms of relations between nature and society. At this time, the Cerrado region was already being opened as an agricultural frontier available for "agricultural modernization", and the environmental impacts of large-scale soy cultivation were already noticeable (Matos and Pessôa 2014). This movement, reacting to these changes, started to problematize the use of chemical pesticides in agriculture (Alonso et al. 2005). See Hochstetler and Keck (2007) for a comprehensive, multi-level analysis of Brazil's endogenous environmental movement from the 1970s to the early 2000s.

partner organizations in its newly created alliance, La Via Campesina (Rubbo 2013), both in the context of heightened global environmental awareness around the 1992 Rio Earth Summit; second, an internal crisis caused by the failed attempt from the movement's leadership to impose full cooperativism on all MST settlements (Diniz and Gilbert 2013); third, the high debt and economic hardship small producers looking to “modernize” their practices were facing. On this last point, it is important to note that the 1990s were also marked by the aftermath of the late 1980s' economic crisis. Brazil's external debt was the largest in the world in 1987, and high inflation caused a crisis in public finances, which precipitated the end of interventionist agricultural policy. The neoliberal government of Fernando Henrique Cardoso oversaw the adoption of a new currency (the Real) which marks a phase of monetary policy relying on the valuation of the exchange rate—with more imports and a stagnation in national industry—, meaning the return to a higher reliance on primary goods exports, the liberalizations of markets, end of price guarantees, the end of supporting policies for small-scale production, and the lowering of import taxes on basic food products. This had strengthening effects on the agribusiness sector—increasingly open to international capital—and devastating consequences for family agriculture, which mostly produces food crops and animal products for the domestic market (G. Delgado 2009).

This triple explanation is often brought up by MST leaders to explain the movement's change of strategy. For instance, João Maria,²² a central MST intellectual and pedagogue, told me the following:

[In the 1990s] you see various initiatives emerging in different parts of Brazil that appeared in spite of the movement's official national orientation, at the time in favor of the Green Revolution. At that time, you also see a huge rise in environmentalism and the environmental movement. This movement, which was predominantly urban, is going to have a major impact because they developed a critique of the Green Revolution's impacts and this quickly entered the MST's internal debates. Another political milestone was the 1992 UN Conference in Rio de Janeiro. The

22 Interviewed on 6 June 2017 in L_, Brazil.

MST sent representatives who took back home debates about environmental issues, especially the impact of agriculture on nature and human health. [...] Another important influence is the ties that the MST has with La Via Campesina since its origins, because La Via Campesina includes a diversity of organizations, especially indigenous organizations with really grounded and ancient agricultural traditions based on ecological principles, for example peoples of Mexico, Guatemala or from the Andes. All these influences led the MST, in 2000, in its 16th year of existence and in the period leading up to its 4th National Congress, to undertake a deep reflection about what what going on on the settlements in the wake of the introduction of Green Revolution technologies. Also, there were widespread personal debt issues associated with the purchase of agricultural inputs [in MST settlements]. A lot of settlements were facing health problems [linked to pesticide use]. The idea that the peasantry would modernize itself and reach better income and living conditions thanks to the Green Revolution was losing ground. So during this internal critical assessment, the MST made a choice in favor of agroecology as a collective, national orientation.

Despite this early decision, however, the adoption of agroecology within actual rural communities linked to the MST has been slow, with only a small minority of producers linked to the organization practicing any kind of pesticide-free agriculture (Pahnke 2015; this is also openly admitted by MST leaders in formal and informal conversations). This echoes what I have been able to observe through personal involvement with the MST before and during the early stages of my doctoral research (2013–2016): pesticides-free, diversified agriculture tends to be limited to modest subsections of the farming population in MST-affiliated settlements, even in “model” communities. This is in spite of the resources the MST has invested in communicating agroecology, partnering with other organizations to develop its agroecological capacity, and securing specialized training for its younger generation in recent years.

However, there is a lack of empirical research investigating why this might be, going beyond some MST leaders’ assumptions that resistance to agroecology is to be blamed on individual greed, ignorance and false consciousness. My thesis addresses this research gap.

1.4 Project overview and significance

My principal aim in this project is to further scholarly understandings of how agroecology comes to be (practically and ethically²³) embraced and contested within Brazil's Landless Rural Workers' Movement (MST). I focus my analysis on Terra Prometida, an MST-affiliated land reform settlement located in Paraná state. The settlement, which was created in 2000, is widely cited as a model for its agroecology as it hosts the Liberdade cooperative, the transnational Ecological Resistance School (ERS)²⁴ and the certification of more than half of its resident farm families in a participatory organic certification scheme. My work explores the diverse discourses, imaginaries, and practices associated with the term "agroecology" in this social milieu to examine the extent to which it has gained legitimacy in Terra Prometida, as well as in its urban and continental activist networks.

To carry out this project, I conducted participant observation and 84 in-depth semi-structured interviews. I stayed in Terra Prometida for a total of six months, during four trips between May 2016 and April 2018. This immersive research built on five years of personal and academic engagement with the MST and Brazilian socio-environmental politics.

In order to achieve my main research aim, I fulfilled the following specific objectives:

- Understood the concept of legitimacy as something that can be applied to knowledge and models of agriculture;
- Identified with and within the MST an adequate site to conduct qualitative field research;
- Analyzed the data I gathered to generate new qualitative understandings of agroecological legitimacy.

23 Ethics refers to the branch of philosophy concerned with how humans "ought to live and act" (Curry 2011, 28). The study of value(s), called axiology, lies at the core of ethical thinking, for the value we attribute to an entity (and the reasons why we give it value) greatly determines what can be thought of as right or wrong actions.

24 This is a pseudonym.

Answering the question of agroecology's global viability and capacity to feed the world's population lies far outside the scope of this study. I do not strive to explain whether or not a large-scale transition to organic farming or so-called agroecological practices are what humanity should be collectively working towards. I do however attempt to uncover the values, identities, imaginaries and Bourdieusian "social capital"²⁵ farmers mobilize when they make decisions about farming methods. Indeed, problematizing food systems is central to debates about environmental issues (from climate change to biodiversity conservation, water management and toxic pollution) but also to debates about social justice and the socio-demographic "generation question of agriculture" (White 2012) that seeks to explain why rural youth are losing interest in (and access to) rural life, farming, collective action, and land rights.

Academic research can help foster "sustainable" agriculture by shedding light on the social and structural obstacles holding it back (Buttel 1993); more generally, research on purportedly transformative socio-ecological experiments takes part in the "ontological politics of science" in the sense that it helps bring into existence collective alternatives (Demmer and Hummel 2016). In this manner, my thesis makes an empirical, original contribution to some of the most pressing debates of our times. This is important to those seeking to understand why certain guidelines promoted by social movements, and supposedly elaborated in the best interests of its membership, fail or succeed when implemented "on the ground." Moreover, understanding emergent subjectivities and ethical postures entangled with conscious social experiments such as the MST and agroecology is crucial for 21st century sustainability transitions. For example, why might farmers not adopt ecological farming methods? More generally, how do they relate to changing rural perspectives and ecologies?

The notion of agroecology has gained popularity among NGOs, rural social movements, academic milieus, and increasingly, public institutions and organizations worldwide as an agricultural production model

25 For sociologist Pierre Bourdieu, social capital is one of three types of resources that individuals and social groups use to conserve and increase their position (and thus their material and symbolic benefits) within society's hierarchies, and refers to personal relations and mutual aid networks that actors can mobilize to this end (Bourdieu 1980).

that can constitute a viable alternative to conventional agriculture (Alteri and Nicholls 2017; De Schutter 2010; Food and Agriculture Organization 2018; Loconto et al. 2018). Nevertheless, scientists, academics, and political leaders affirming agroecology's desirability is one thing—but facilitating market access, building institutional capacity, and creating an attractive and viable alternative is an entirely different matter. Aside from the (increasingly rare) brand of subsistence farmers who never adopted “conventional” techniques, the transition towards bio-diverse, petrochemicals-free farming is strikingly limited. The fact remains that the market for organic food remains niche and unaffordable for most consumers, and that the organic movement's institutionalization has brought increasing dependency on conventional sales circuits made up of many intermediaries and large industrial conglomerates, monocultures, and low margins for producers.²⁶ This does not necessarily mean that conventional agriculture is unavoidable or desirable in the long term, but it points to a lack of knowledge about farmers' decision-making processes, and how they negotiate competing worldviews, economic constraints, and political ideologies that sometimes brings personal and local interests into conflict with the interests of rural social movements at larger scales of organizing.

Therefore, I believe that this research has the ability to promote reflection on, and ultimately benefit, the MST as well as other civil society²⁷ organizations struggling for environmental justice in rural Brazil. I conducted fieldwork in compliance with the MST national leadership's internal procedure for approving research projects: the MST's international relations committee sector was aware of my movements, locations, and the purposes and objectives of the project. I have shared insights and fragments of this research in private settings with individual participants. I also intend on publishing focused articles draw-

26 See for example Guthmans' (2014) critical analysis of the organic food movement's evolution in California.

27 Following Abergel (2012, 98), I use the notion of civil society to refer to “the counterforce to neoliberal globalization and [...] a reformist force in the domestic and global arena” which potentially encompasses all nonstate actors (social movements, advocacy groups, associations, companies, cooperatives, NGOs, think tanks) and takes on different forms and relations to state power in different contexts.

ing on the empirical data my research generated in Brazilian journals, and on communicating back my findings to participants in synthetic, accessible Portuguese.

This study contributes to interdisciplinary international discussions about agriculture and agrarian change (Bourdieu 1962; Martins 2002; Edelman 2005; Warner 2006; Perfecto et al. 2009; Molina 2012; Guzman and Woodgate 2012; Agarwal 2014; Thivet 2014; McCune et al. 2017; Lamine 2017), political ecology (Meek 2014, 2015, 2016; Moore 2017), and social movement studies in Latin American contexts (e.g. Alvarez, Dagnino and Escobar 1998; Rubin and Sokoloff-Rubin 2013; Lazar 2015;²⁸ Pahnke et al. 2015; Tarlau 2013, 2014, 2016; Woodgate et al. 2016; Flynn 2010; Gurr 2017). I also engage with some science and technology studies-based understandings of agriculture and food systems (Iles and Wit 2016; Warner 2006; Delgado 2008, 2009, 2010). Specifically, I conceive of this work as part of a relatively recent growing corpus of ethnography-based literature on the internal social workings of the MST (Brenneisen 2002; Caldeira 2009; Delgado 2008, 2009; Flynn 2010, 2013; Pahnke 2014, 2015; Meek 2014, 2015, 2016; Wolford 2003, 2010a, 2010b; DeVore 2015; Moscal 2014, Gurr 2017), which has greatly influenced my thinking and provided nuanced reflection on power and hierarchy within the MST, and how this influences the latter's capacity to adapt to structural changes and foster the social and ecological transformations the movement has set as a goal for itself.

Finally, my thesis comprises an epistemological stance on the emergent interdisciplinary field of environmental humanities²⁹ (EH). The concerns of the EH³⁰ overlap with other interdisciplinary fields, particularly political ecology, environmental studies, and environmental

28 Lazar is an anthropologist of labor unions, not social movements. However, the organizational and subjective processes she describes largely overlap with debates in social movements studies.

29 Under the impetus of the Rachel Carson Center for Environment and Society (RCC), LMU Munich recently created a doctoral program in EH, and this dissertation is one of the first ones to be submitted and defended as part of this program. Therefore, I have the privilege of helping to establish the EH as an institutionally recognized field at the LMU, not only as a doctoral researcher at the RCC, but as a fellow in the EU-funded network ENHANCE.

30 See Emmett and Nye (2017) for an introduction to the environmental humanities.

sciences—based on the assumption that socio-ecological issues are intrinsically transversal and better studied by moving beyond classical disciplinary boundaries, in ways that do not “exclude or background the “non-human” world” (Rose et al. 2012, 1). These perspectives push us away from a technocratic approach to solving environmental problems. Indeed, such challenges have social, political and ethical dimensions. Appropriately, then, such scholarship pushes us far from sociological, unidimensional, falsely neutral conceptions of “the human” as the isolated, rational decision-making individual of behavioral psychology and neoliberal economics (Rose et al. 2012; Neimanis et al. 2015; Holm et al. 2015; Emmett and Nye 2017). As such, the humanities and social sciences have a crucial role to play in promoting constructive solutions, by generating knowledge based on their unique methodological tools, but also in some cases by acting as translators and communicators between scientists, non-profits, governments, artists, filmmakers, media professionals, educators, and the broader public. Lastly, the EH also reflexively elaborates constructive criticism of existing sustainability initiatives alongside other narratives about ecological change and alternative futures (Emmett and Nye 2017). This is important because, as Graeber and Wengrow (2018) write, stories we collectively tell ourselves about pasts and futures “define our sense of political possibility”; they limit and shape what we think possible, feasible and changeable.

The disciplinary and methodological foundations of EH are somewhat fluidly represented. A recent EH “manifesto” (Holm et al. 2015) includes “philosophy, history, religious studies, gender studies, language and literary studies, psychology, and pedagogics”, while the foundational text of the EH’s first dedicated academic journal includes a broader range of the humanities and social sciences, citing inspiration in such research agendas as “environmental history, environmental philosophy, environmental anthropology and sociology, political ecology, posthuman geographies and ecocriticism (among others)” (Rose et al. 2012, 1). My experience both at the RCC and in “the field” are that the insights and methods of empirically-rooted sociology and social anthropology provide us with a powerful toolkit from which to study human behavior, hierarchies, social relations, values, and imaginaries—and ought to be embraced within the EH. Thus far, such grounded meth-

ods have been somewhat sidelined by the approaches of environmental historians and ecocritics. EH scholars have only rarely engaged with empirical (non-literary) studies of social movements seeking to (re)invent emancipatory socio-ecological orders.³¹ This is understandable, as conducting long-term fieldwork is emotionally and physically difficult, and perhaps most importantly, exposes the researcher to uncomfortable truths. That being said, I hope to demonstrate that empirically grounded research, with strong collaborations and contributions of the social sciences—in both project leadership and research design,³² and not just as associated disciplines – is central to EH’s objectives.³³

Before sharing the insights of my study, I would like to shed light on a few of the limitations of my thesis. Like every novice doctoral researcher, my learning process that was not linear. The non-research task-intensive nature and the relatively short time frame of the ENHANCE program (36 months, with 6 unpaid months of write-up) meant that my time in Brazil was more limited than I would have hoped for. I was constantly in motion, shuffling between several locations in Europe and rural Brazil. Given my limited temporal resources, I could not conduct comparative or multi-sited studies, and chose to focus on Terra Prometida. In order to broaden and build on this research project, in the future I would like to investigate other places that pioneered

31 EH scholars have engaged with concepts like environmental justice and food sovereignty, for instance in the case of indigenous movements, but often do so through textual analysis and philosophical musings. An example is Adamson (2011).

32 This is already exemplified by the works of e.g. Haraway (2008), Tsing (2015), Van Dooren, Kirksey and Münster (2016), always linked to multispecies perspectives so far.

33 While it would be unfair to say that the environmental humanities are entirely disconnected from social sciences approaches, the field as I have experienced it at the RCC has relatively few trained social scientists in positions of power. Not a single editor of the journal *Environmental Humanities* is an anthropologist, a sociologist, a political scientist or a psychologist. In my doctoral network, the ENHANCE project, a novel program designed to train twelve environmental humanities scholars, all the managing professors and board members were historians and literary scholars, even as at least four out of the twelve doctoral students used ethnography as a method and five more engage with interviews and participant observation to some extent. At the recent *Environmental Humanities Summit*, an event organized by the Rachel Carson Center in June 2018 which brought together 32 heads of environmental humanities research centers to discuss further directions in research and collaborations, only two were anthropologists and there were no sociologists, political scientists, economists or psychologists.

the methods promoted at Terra Prometida (described in Chapter 4). I would have liked to accompany ERS's students back home, and explore consumption practices of agroecological buyers. Worse still, between 2016 and 2018, political instability in Brazil prevented me from starting fieldwork as early as planned—as slashed public educational budgets led to chaotic schedules and abrupt changes at ERS.

Lastly, and perhaps most importantly, conducting this research within a team investigating the same questions on a larger scale, with a comparative perspective, would make a lot of sense. Although I benefited from the (largely) informal guidance, insights, and generosity of an international network of MST scholars, having more people on the ground would be best suited to investigate a question as important as the “agroecological paradigm” (Caporal, Costabeber and Paulus 2006) and a global alliance of social movements. After all, food systems are complex. They span a wide variety of settings, institutions and possible understandings. No single ethnographer can answer all of her questions. All this leads me to two further remarks. Firstly, there are no “ideal” circumstances from which to conduct ethnographic research. The researcher is always a central agent in the construction of “the field.” In the words of Vered Amit (2000, 17): “To overdetermine fieldwork practices is [...] to undermine the very strength of ethnography, the way in which it deliberately leaves openings for unanticipated discoveries and directions.” Secondly, there are significant opportunities for further research and collaboration, in Brazil and beyond, regarding ecological transitions in agrifood systems and rural social movements. In light of recent developments in environmental politics in Brazil and worldwide, I dearly hope the questions raised by my research will be taken up by others (for example, a multi-sited study spanning various regions of Brazil); and that the reflection it sparks will further inform collective action.

1.5 Argument and organization of the thesis

In this thesis, I suggest that agroecology's legitimacy within the MST has relied heavily on institutionally insecure neo-developmental policies and programs, the semi-autonomy of movement activity within

state power spheres (such as education), and relatively centralized internal politics. This has resulted in heightened agroecological legitimacy, which translates into social power for those able to leverage resources through MST membership. Such legitimacy goes beyond organic farming as conventionally understood, as it is grounded in an ethical worldview that transcends mere economic prospects and seeks to transform wider society. It points to the prevalence of intense desires for the conciliation of rural life, agriculture, and ecology among both established farmers and young adult students enrolled in movement-mediated agroecological training courses. This challenges notions that the rural exodus is inevitable (and desirable) and that there is a lack of alternatives to agrochemical dependent farming.

That being said, the people I got to know face significant challenges. A lack of internal democracy and gender equality threaten rank-and-file members' ability to stay committed to the MST, and undermine young activists' abilities to be effective agents of socioecological change. Given the simultaneous demise of the Brazilian economy, and its affects on progressive social actors from 2013–2018, it seems unlikely that the MST's established approaches will have the required institutional support for agroecological training and extension services in the future. This study suggests that the MST and its allies within La Via Campesina have an uphill struggle ahead of them. I contend that serious reflection is warranted on tactics, priorities, and internal organization to strengthen the future of agroecology.

I have organized this work in three parts. Part I "Setting the stage," introduces the theoretical foundations and topical interests of this thesis, starting with this Introduction. In Chapter 2 "The research project," I further describe my conceptual framework and outline my methodology and ethical considerations.

In Part II, "Living agroecologically?" I focus on what agroecology has come to mean, how it has come to be practiced, and why it has been embraced (or not) within Terra Prometida's settler community. In Chapter 3, "The agroecological rift," I utilize a micro-sociological perspective to highlight the social fracture agroecology has come to mean in Terra Prometida. I contend that early divisions stem from asymmetrical power relations between farmers and those most closely tied to

the MST's leadership. Concretely speaking, this has led to differentiated market access and production strategies, and turned many settlers away from considering agroecology as a viable alternative. I then discuss my findings in light of Brazil's current political situation, and pay attention to implications on the social reproduction of rurality.

In Chapter 4 "Embedding a Sociotechnical Imaginary?" I explore practices and social relations attached to agroforestry in Terra Prometida, which began in 2010 with a series of projects funded by the state oil company Petrobras. Collectively, scientists and members of a non-MST cooperative collaborated to implement agroforestry projects on the plots of volunteer families. I examine the premises and consequences of this for four interlinked categories of actors that I identified as particularly relevant in this process: scientists, settlers, rural women, and urban activists who play intermediary roles in the marketing of agroecological produce. I draw on the concept of the sociotechnical imaginary (Jasanoff and Kim 2009, 2013, 2015) to define the contours of what agroecology has come to mean in this particular milieu, ultimately arguing that the basis for institutionalization of this imaginary is fragile.

In Part III, "Learning agroecology," I explore the everyday life and dreams of youth studying at ERS. To this end, in Chapter 5, "Scaling agroecology 'in,'" I provide background information on Brazilian higher education in order to demonstrate the importance of ERS as a "self-governmental" (Pahnke 2014) institution for rural youth. Then, I explain how movement-specific organizational practices and values shape the students' understanding of their role as activists for agroecology as part of a collective political project. Finally, I highlight important ways that ERS education transforms students' view of what agroecology is. I argue that social movement learning encourages students to see their role in agroecological activism as an ethical posture that links social justice with ecological regeneration.

In Chapter 6, "Ambiguous dialogues" I investigate the specific pedagogical tools employed at ERS and the ways young people told me they tried to introduce agroecological practices back at home. I describe the formidable socioecological challenges the students are tasked with transforming, and critically analyze a set of ERS's professionalization practices, known as "Dialogue of Knowledges in the Encounter of Cul-

tures.” As conceived by movement pedagogues, this is a research-action methodology based on building trust with farming families and understanding their local contexts. With such knowledge, students ought to help farmers identify “contradictions” in agroecosystem management, promote critical consciousness, and build consensus in the agroecological transition. Through concrete examples I demonstrate the unintended consequences of such an approach and its limitations in building practical agroecological legitimacy within the settlement and back at home. This discussion reveals important tensions about the roles of agroecological “technical agents” and “educators” within social movement organizations.

In Chapter 7 “Barriers to Dialogue,” I further describe social obstacles young activists experience in their attempts to build agroecological legitimacy in their networks. I argue that a certain lack of internal democracy and support for these young militants within social movement organizations is an important factor slowing down and limiting their abilities to practically build agroecological alternatives. Gender and generation are crucial parts of this discussion: I argue patriarchal and gerontocratic forces strongly undermine young female militants’ capacity to feel safe, valued, and competent as potential builders of agroecological legitimacy. In Chapter 8, as a general conclusion, I review my main findings and conclusions and suggest avenues for future research.

Chapter 2: The research project

2.1 Introduction

In this chapter, I explain core methodological aspects of my research project in more depth. While the main focus of this dissertation is ethnographic and empirical, and it has no classical theoretical framework, I utilize concepts to interpret and explain my data, in particular the notion of legitimacy. Using the problem and core questions driving my research as a starting point, I define and justify these conceptual elements. I provide additional background and definition-related information from relevant literatures. I include a discussion of methods utilized during field research, and introduce the dataset my research generated. I also position myself on questions of ethics in research, to make my own perspective and non-academic involvement with my topic explicit. This provides important contextual clues regarding the historic conjuncture within which the research took place and justifies my choice in research setting.

2.2 Problem and core research questions

As we have seen briefly in the introduction, in recent decades, agroecology has been normatively proposed by some rural social movements, NGOs and scientists as a viable model for food production and rural livelihoods. Within the food sovereignty framework proposed by La Via Campesina,³⁴ it has gained momentum among international orga-

³⁴ In May 1993, partly in reaction to the Uruguay round of multilateral trade negotiations—which would soon create the World Trade Organization and extend free trade and intellectual property rules to agriculture—a group of rural and Indigenous popular movements from all over the Americas and Europe gathered in Mons (Belgium) and founded La Via Campesina, a “global peasant movement” (Thivet 2015). As we have seen, La Via Campesina has advocated for a version of agroecology which encompasses, but goes beyond, scientific and technical agroecology, because it is openly political, constructs itself as an alternative model and associates ecological farming practices with a radical redistribution of power and wealth in society and the food system (see Choplin 2015).

nizations such as the FAO,³⁵ and, increasingly, national governments.³⁶ Launched in 1996 at the World Food summit in Rome by Via Campesina activists, food sovereignty was defined as:

the right of peoples to healthy and culturally appropriate food produced through sustainable methods and their right to define their own food and agriculture systems. It develops a model of small scale sustainable production benefiting communities and their environment. It puts the aspirations, needs and livelihoods of those who produce, distribute and consume food at the heart of food systems and policies rather than the demands of markets and corporations. Food sovereignty prioritizes local food production and consumption. It gives a country the right to protect its local producers from cheap imports and to control production. It ensures that the rights to use and manage lands, territories, water, seeds, livestock and biodiversity are in the hands of those who produce food and not of the corporate sector. Therefore the implementation of genuine agrarian reform is one of the top priorities of the farmer's movement. (Cited in Agarwal 2014).

This formula has since expanded to involve higher attention to concerns of social position (gender, class, generation and ethnicity) *within* the food sovereignty movement, to privilege 'local and national' scales, and dropped any mention to sustainable development goals (SDGs) to instead claim justice and sovereignty over all natural resources beyond food and land. This resulted in an arguably more paradoxical and vaguer definition that possesses broader and more radical mobilising power, as a political cry for rural peoples', indigenous peoples', small farmers' and peasants' autonomy and dignity, and their recogni-

35 See for example the 2010 call to support agroecological food production by then UN special rapporteur on the right to food (De Schutter 2010); see also growing support of the FAO, in the form of online declarations, centralization of know-how and opening of institutional space and funding for research into agroecology (FAO 2018).

36 As we will see in Chapter 4, Brazil has had a national agroecology plan (PLANAPO) since 2013, with promising orientations and objectives but limited results due to very limited financial resources and unadapted credit structures (Aquino, Gazola and Schneider 2017). Another example is France; see Bellon and Ollivier (2018) and Lamine (2017) for analysis of France's official agroecology policy.

tion as important political subjects and holders of rights. It is, however, more difficult to operationalize on a policy level and to build consensus around (Agarwal 2014; Edelman 2009; Patel 2009; Shattuck et al. 2015); it is embodied in the Declaration of Nyéleni (2007):

Food sovereignty is the right of peoples to healthy and culturally appropriate food produced through ecologically sound and sustainable methods, and their right to define their own food and agriculture systems. It puts those who produce, distribute and consume food at the heart of food systems and policies rather than the demands of markets and corporations. It defends the interests and inclusion of the next generation. It offers a strategy to resist and dismantle the current corporate trade and food regime, and directions for food, farming, pastoral and fisheries systems determined by local producers. Food sovereignty prioritises local and national economies and markets and empowers peasant and family farmer-driven agriculture, artisanal fishing, pastoralist-led grazing, and food production, distribution and consumption based on environmental, social and economic sustainability. Food sovereignty promotes transparent trade that guarantees just income to all peoples and the rights of consumers to control their food and nutrition. It ensures that the rights to use and manage our lands, territories, waters, seeds, livestock and biodiversity are in the hands of those of us who produce food. Food sovereignty implies new social relations free of oppression and inequality between men and women, peoples, racial groups, social classes and generations. (La Via Campesina 2007, cited in Patel 2009, 666)

Even though it does not directly appear in these definitions of food sovereignty, agroecology appears in La Via Campesina discourse as a pillar of food sovereignty, since the beginning of the 2000s, and has become an official strategic orientation since 2004, at the global alliance's 4th international conference (Thivet 2012).

In Brazil, the NGO called AS-PTA, which stands for Assistance and Services for Projects in Alternative Agriculture, is often referred to as one of the main organizations that introduced agroecology as a concept and the basis for rural technical assistance projects and public policy in the country (see Luzzi 2007; Siliprandi 2015; Niederle et al. 2019; Mon-

teiro and Londres 2017 for in-depth discussion of the early construction of civil society and state debates and projects around the notion of agroecology in Brazil, which is not a focus of this dissertation). It was founded by three Brazilians in political exile to France and Chile during the military dictatorship in 1983. Soon thereafter, the Land Pastoral Commission invited its founders to meet and discuss the construction of a technical assistance project that would help build alternative pedagogy, autonomy and the use of agricultural techniques that differed from Green Revolution prescriptions in marginalized rural communities.

“We were a catalyst,” Paulo Petersen,³⁷ one of the organization’s founder, said to me in an interview in June 2017, explaining that AS-PTA saw its role as an organization that primarily supported other organizations and linked young rural technicians and agronomists who felt uncomfortable spreading conventional technological packages among rural populations. At the end of the 1980s, AS-PTA’s organizers had encountered the English word “agroecology” reading entomologist Miguel Altieri’s writings. Altieri (UC Berkeley) is part of a scene of politically engaged scientists which also includes Stephen Gliessman (UC Santa Cruz), David Pimentel (Cornell University) and Manuel Gonzalez de Molina (University of Seville), who are still active today, started to research ecological aspects of agroecosystems and extend their research to the food system as a whole, while taking a clear public stance against the industrial agricultural model. At the time, agroecology was seen as an alternative rural development model (Dias 2004) and AS-PTA aimed to build capacity in existing ecological farming initiatives “often not linked to, even shunned by social movements’ leadership,” according to Petersen, creating didactic material aiming to help spread knowledge and techniques, and helping to build networks between isolated projects.

Following AS-PTA’s lead, countless local NGOs, national networks such as the Associação Brasileira de Agroecologia (Brazilian Agroecology Association, ABA) and the Articulação Nacional de Agroecologia (National Agroecology Articulation, ANA) and the previously-mentioned rural social movements affiliated with La Via Campesina have defended agroecology as a viable model to keep farmers on the land

37 His real name. Interviewed (unrecorded) on 20 July 2017 in Rio de Janeiro, Brazil.

with dignity and producing healthy food for the country's population. As we have seen in Chapter 1, within La Via Campesina in Brazil, the MST has been a particularly vocal advocate for agroecology, and its official discourse describes it as something that is in the interest of all farmers, as a counter-hegemonic alternative to "conventional" or pesticide-based agriculture as a foundation of its proposal for popular agrarian reform³⁸ (MST 2014).

In order to make this alternative model, which runs counter to the ways technical assistance, viable, market access and agronomic research are currently organized (Goodman et al. 2012; see also Buttel 2006), proponents of agroecology have sought to organize alternative institutions. This is what academic agroecologist Manuel Gonzalez de Molina argues for when he points out the necessity for a "political agroecology" capable of effecting concrete policy change, to ensure that it is not reduced to a set of depoliticized, "greener" agricultural practices, or to an archipelago of isolated micro-initiatives. Critically praising the actions of local agroecological initiatives, he writes:

Without a profound change in the institutional framework in force it will not be possible for successful agroecological experiences to spread and for the ecological crisis in the field to be combated effectively. Consequently, political agroecology examines the most suitable way to participate in these movements and to use those tools that render institutional change possible. Such a change, in a world still organized around nation states, is only possible through political mediation. In democratic systems, for example, it implies collective action through social movement, electoral political participation, the game of alliance between different social forces to build government majorities, etc. In other words, it calls for the creation of essentially political strategies (Molina 2012, 51).

38 Popular Agrarian Reform (*reforma agrária popular*) is the conception of land reform the MST has defended since its 6th National Congress in 2014. It conceptualizes land reform as a struggle encompassing the right to work, income and quality food for all of the population (instead of addressing rural populations' access to land only) and includes the right to a healthy environment and sovereignty over national natural resources and energy policy as part and parcel with any viable land reform (MST 2014).

Consequently, rural social movements, such those which make up La Via Campesina, have been important actors in the politicization of agroecology in Brazil and throughout Latin America. The MST in particular has invested substantial activist energy and resources into fostering training spaces to broaden the reach of agroecological knowledge and expertise, lobbied governments to bring forth public policies designed to sustain it, and defends it in public space and the media. Educational initiatives have been particularly important to this end (Pahnke 2014a; Pahnke et al. 2015; Meek and Tarlau 2016; Meek et al. 2017). Indeed, rural social movements organizers know very well that agricultural models gain legitimacy, in part, through the discourse and actions of professionally trained agronomists and extension agents.³⁹ Within the existing literature, the extent of these movements' successes in the "agroecological turn" have, however, arguably been exaggerated (Pahnke 2015) in some cases and romanticized in others (see Edelman 2009). Discursively, it is rather simple to assert that agroecology can be scaled up and scaled out⁴⁰ through farmers' "active participation in the process of technological innovation and dissemination through models that focus on sharing experiences, strengthening local research, and problem-solving capacities" (Altieri and Nicholls 2008, 472). Such activities have led authors to suggest that a peasant-led "agroecological revolution" (Altieri and Toledo 2011) has swept across Latin America.

This elides the actual structural constraints that a new generation of farmers must face as they attempt to build practical legitimacy for a model of alternative agriculture that runs counter to established credit structures and markets, as well as the multifarious ways the agribusi-

³⁹ As Wit and Iles (2016, 11) note, the broad success enjoyed by the conventional agricultural model in the Americas is the result of decades of US-sponsored extension and agronomical training, aiming to circulate Green Revolution technologies and practices, with the support of agronomy centers. This created a snowball effect, which has prompted ongoing research and development, and, practically speaking, has influenced farmers' practices as well as national policy decisions in a partly path-dependent way.

⁴⁰ Scaling up refers to institutionalizing agroecology in collective institutions, state structures and market processes, while scaling out means enlisting more farmers and territories in agroecological production (Altieri and Nicholls 2012; Cacho et al. 2018; Rosset and Martinez-Torres 2012, Varghese et al. 2013; Dalgaard et al. 2003).

ness sector has dramatically degraded Brazilian landscapes⁴¹ and shaped both politics and the economy in the past forty years. Most importantly, it leaves unopened the black box of social movements' internal workings, and left unaddressed the obstacles farmers seeking to "ecologize" their practices (for example by cutting back on pesticides or accessing different markets) and young activists training towards professional practice in agroecology may experience within their organizations.

What is more, as we have seen in Chapter 1, according to a recent, nationwide estimate, only 5% to 15% of settler families associated with the MST have adopted agroecological practices (Pahnke 2015), thus adhering to the MST's official agroecological mission. In Paraná, the state where I conducted my research, a regional MST leader I interviewed in late 2017 estimated that there were about 2,000 families practicing agroecology out of the 25,000 families living in settlements linked to the organization. This shows that most settler families associated with the MST have not, or not yet, accepted agroecology as "credible and authoritative, and express or practice it widely" (Wit and Iles 2016, 2).

In other words, these settlers do not consider agroecology to be a *legitimate* alternative to conventional agriculture. This can be read in an ethical sense (they do not consider it a desirable or viable type of agriculture), in a practical sense (they are unable to practice agroecology for logistic, technical or economic reasons), or a mix of both, which is why I distinguish between the MST's agroecological *ethos* and its agroecological *mission*. This prompts my three research questions, namely: 1) Why do farmers affiliated with the MST come to embrace or reject its agroecological mission and ethos? 2) To what extent does agroecological education facilitated by the MST create conditions for young activists to identify with agroecology as a political project and to convince others to join it? 3) How has agroecological legitimacy been constructed and contested within the MST?

41 For striking descriptions of Brazilian agribusiness-molded landscapes in the context of MST ethnographic research, see for example Gurr (2017, 154–156) and Meek (2014, 1–2).

2.3 Conceptual framework

It may seem odd to invoke the notion of legitimacy in the context of food system debates. The concept is ubiquitous in the social sciences, yet its meaning is contested; here I will refer to mostly sociological conceptions of legitimacy. Legitimacy has generally been understood as the normative “belief that a rule, institution, or leader has the right to govern” (see Hurd 2018) and ought to be obeyed, following Max Weber’s intellectual concerns with the formal organization of politics and the right to exercise authority (Weber 1958); for Weber, legitimacy supports the authority of a leader or a state by instituting the subjective belief that this state or leader ought to govern. He identifies three sources of authority that can be legitimate: legal authority (derived from the existence of a system of clear and widely accepted rules and laws), traditional authority (derived from the belief in continuity with past and immemorial forms of rule, sometimes associated with theocracy) and charisma (derived from the personal qualities of a leader).

Thus, legitimacy is a social process and has a key role in engendering compliance and consent with a social order (Johnson et al. 2006). Dornbusch and Scott (1975) developed Weber’s thinking further by separating legitimacy into on the one hand the belief that one ought to obey a norm, institution or leader without necessary personal acceptance or approval (validity) and on the other hand a personal belief in desirability and appropriateness of a norm, leader or institution (propriety). This is a useful conceptualization, but tells us little about how legitimacy (and its underlying processes of legitimation) works in empirical, specific cases. How might this be applied to transformations within food systems?

Recent developments in social theory, particularly since Michel Foucault, have linked power to ways that knowledge is distinguished from that which is considered as non-knowledge, generated, distributed, trusted (or not) and generative of socio-politically meaningful changes in society. They are productive in this respect and have explanatory value in understanding how different farm management systems come to be embraced or contested by relevant actors, such as farmers, technical agents, scientists and policy-makers (Carolan 2006). For example, societal decisions about food system models and agriculture

do not only depend on the decisions of rulers and institutions seen as legitimate, but on whether different actors see models of agriculture (and the knowledge claims underlying them) themselves as legitimate: as viable, valid, desirable, normal, and credible; but also as practically feasible by growers and farmers under current market conditions and ethical value systems. In a recent book, sociologist Claire Lamine associates the increasing “legitimization” of ecological agriculture with “a change in the way farmers’ perspectives on ecological agriculture, but also processes of re-differentiation within the agrarian world and sustained controversies about ecological agriculture and its place in society” (Lamine 2017, 156).

In the context of debates over agricultural models, legitimacy thus concerns the ways agriculturally-relevant knowledge and technologies are produced, distributed and made to be trusted (including through training, education and practical experience), but also how policies, public institutions and markets influence the economic and political feasibility of new models, and how media and social milieu influence the perceptions and practices of farmers, agronomists, and buyers (Carolan 2006; Goodman et al. 2012; Lamine 2017; Bellon and Ollivier 2018). The interdisciplinary field of science and technology studies (STS) appears to be theoretically productive in this regard. STS understands science and technology as social, culturally embedded practices responding to political systems, power asymmetries, collective imaginaries, and ethical values.⁴² Building on post-Kuhnian historicization (and thus necessarily informed by historiographies of science), this thinking moves away from older conceptions of science and technology as synonymous with universal truths, individual prowess, unquestionable progress, and neutral, value-free knowledge production. It reveals the “co-production” of knowledge, technologies, representations, practices and action in the world:

42 See for example seminal works such as Latour and Woolgar (1986), Callon (1986) and Knorr-Cetina (1999) for social embeddedness of scientific practices, Haraway (1985, 1988) and Harding (1986, 1991) for problematization of gender in science, Jasanoff (1986, 1994) and Douglas and Wildavsky (1982) for social and cultural perceptions of risk, Jasanoff (1990) for the role of scientists and “expertise” in policy-making.

Co-production is shorthand for the proposition that the ways in which we know and represent the world (both nature and society) are inseparable from the ways in which we choose to live in it. Knowledge and its material embodiments are at once products of social worlds and constitutive of forms of social life; society cannot function without knowledge any more than knowledge can exist without appropriate social supports. Scientific knowledge, in particular, is not a transcendent mirror of reality. It both embeds and is embedded in social practices, identities, norms, conventions, discourses, instruments, and institutions – in short, in all the building blocks of what we term the social. The same can be said even more forcefully of technology. (Jasanoff 2004a, 2–3 cited in Jasanoff 2015a, 3)

In a 2016 article, Wit and Iles, two STS researchers, started the important work of mapping out what legitimacy could mean and how it could be theorized in the context of socially organized attempts to ecologize agricultural and food practices – of what has been termed the “agroecological transition” (Duru et al. 2015; Elzen et al. 2017). They define agroecological legitimacy as the social acceptance of “knowledge, norms, customs, or technologies [associated with agroecology]—as credible and authoritative, and [their wide expression or practice]” (2016, 2). Industrial food systems, hailed for more than a century as humanity’s hope for ending hunger and increasing human welfare, have what the authors call “thick legitimacy,” legitimacy that is not simply based on market-mediated demand and policy incentives. Rather, thick legitimacy refers to “multi-stranded and broad-based” legitimacy rooted in the scientific, practical, civic, ethical, policy and legal realms, that makes these arrangements appear normal, inevitable and the natural outcome of historical processes of agricultural modernization to farmers, scientists, law-makers, consumers and policy-makers. Resulting from this are significant public and private funding (in terms of research and development, industry lobbying and price subsidies—resulting in lower final prices for consumers), consolidated markets at local, regional and global levels, scientific approval from many directions, in mainstream agronomy and extension curricula, and the structure of credit available to farmers, which favors monocultures and standardized practices based on conventional inputs.

Therefore, in this STS-based understanding, legitimacy has greater explanatory power than general notions of “acceptance” or participation: it makes explicit reference to formal politics and the ways they shape policy, material flows and knowledge production and distribution. It also refers to food system actors’ subjective beliefs in what is “good,” “right,” “viable,” and “normal” agriculture and food distribution; this emphasizes the importance of their ethical agency and imagination in shaping food systems. In this framework, legitimacy is diffuse, with many “actor-audiences.” This means that sociologically-differentiated categories of actors within the food system (farmers and rural workers, agronomists, extension agents, policy-makers, institutional agents, companies along the chain of commercialization, buyers, and, in the case of this research project, social movement leaders, educators and activists) have to be approached in different ways and legitimacy is achieved through a process that includes many bases for strengthening the collective, subjective belief that a specific system of food production and distribution is desirable, achievable, functional and socially sustainable. This includes “scientific validation, recognition in policy-making and government, practical testing against experiences, and verification by civil society actors” (Wit and Iles 2016, 2).

In the past few decades, cracks have started to appear in the “thick legitimacy” of industrial food systems. Ethical, environmental, and health concerns have been raised by civil society actors, due to industrial farming’s implication in displacement and increasing indebtedness of farmers, especially in poorer countries, as well as the far-reaching corporate and financial control of the food system, resulting in the co-existence of various types of pollution, food waste, malnutrition and persistent hunger (see for instance Van der Ploeg 2008; Thompson 2015; Lamine 2017). At the same time, “alternative” or “sustainable” forms of farming, such as: organic agriculture, permaculture, biodynamic agriculture, and agroecology have gained increasing legitimacy, through claims that this kind of agriculture does not degrade (and even restores) natural habitats and human health, and that it presents some advantages for growers. In some cases, like in the case of “political agroecology” advocated by La Via Campesina movements, it has also been claimed that these “alternative” agricultures, interwoven with political

participation through social movement membership, are conducive to wider farmer autonomy, emancipation, and well-being.⁴³ These claims have not been critically challenged much by politically sympathetic academic researchers. Asking whether, to what extent and why this has been the case within the MST, therefore, has large intellectual and political implications. But it also has important methodological implications, as I argue and explain in the next section.

2.4 Methodology

As it has been pointed out in the literature, the MST is a heterogeneous organization at different scales (Wolford 2010a; DeVore 2015; Rubbo 2013; Lagier and Furukawa Marques forthcoming), and its levels of organization do not always smoothly combine or have the same perceived interests (Wolford 2010a; see also Chapters 3 and 7 in this dissertation). The MST consists of many different fields that rely on the support of different organizations, social bases with different conceptions of land and farming, regional political configurations, government programs and local alliances to carry out particular actions. As Wendy Wolford (2010a, 11) explains of MST membership⁴⁴:

43 In sum, this is what Marc Edelman (2005), revisiting older conceptions by historian E.P. Thompson (1971) and anthropologist James Scott (1976), argues to be the concept of moral economy's "continuing relevance for understanding peasant movements of the late 20th and early 21st centuries. It refers to the notion that these movements' demands and protest practices are based on conceptions of justice, reliable subsistence (for example, access to land, mutual relations with specific ecosystems or availability of seeds) and autonomy based on "the expectations, developed over long historical time, of what states and elites may claim and of what they must, in turn, provide in times of necessity," and of what may not legitimately be turned into a commodity and privately appropriated (Edelman 2005, 332; specifically on the MST and other LVC movements, see Meek 2014), calling for protest and transnational political organizing in response to disregard for these norms.

44 As Gurr (2017, 93) reminds us, in great resonance with my own experiences and observations, the very notion of MST membership is a subject of debate (Navarro 2010) as the MST does not officially keep a register of its members. What is more; conceptions of movement belonging and identity change fluidly in time and space (Issa 2007), with residence in an MST-affiliated space (Sigaud 2000), and according to local and regional dynamics of mobilization responding to structural factors (Wolford 2010).

People join movements for different reasons, and the act of joining does not preclude questioning, rejecting, or even deliberately misunderstanding the organization's ideology, tactics and ultimate goals. But this is not the information that is presented at movements meetings, or in movement newsletters. It is the stuff of mobilization, but it is not the stuff that activists generally like to talk about. To see the full continuum of MST members, one has to focus on the banal, on the everyday, and on the subalterns among subalterns. This continuum is rarely present in social movement analyses because in social movement research by activists and scholars alike, model cases and model members tend to be singled out. We tend to study the ideal members, the coherent messages, and the brightest media stars. We do not focus on the ambivalent or the half-hearted members; social movements are often read sympathetically as organizations of ideologically committed members for whom the act of joining the movement and participating in movement activities.

In the same way, farmers' decision to turn to agroecology, and the broader conditions that enable or prevent them to do so, cannot be explained without looking at specific socio-environmental configurations in depth, through immersive research, and as embedded within institutions, power relations and local alliances. So far, by providing context on how and why agroecology started to be taken seriously by scientists and organizations worldwide, I explained how agroecology has become legitimate to the MST as an organization with a long-term strategy, itself embedded within Brazilian national politics and policies, international environmental politics, global economic trends and the transnational activist network La Via Campesina. However, these explanations tell us little about how legitimacy is constructed in specific contexts, nor how this legitimacy is subjectively experienced and expressed (or not) by members of the MST and other relevant actors.

Limiting research on agroecology within the MST to official movement discourse, interviews with leaders, and structural or historical factors has several epistemic consequences. The first, obvious one being that knowledge produced this way is normative (showing why agroecology is the way forward and must be supported) and therefore will be insufficient to explain why only a fraction of settlers associated with the MST have adopted agroecology.

The second consequence, as Wolford (2010a, 22) clearly explains, is that social movements and their members end up being represented in problematic ways. An organization such as the MST operates at a number of different scales, from the most intimate personal transformation to national and transnational politics. Conflating personal motivations and local dynamics with a fictional universal social movement subjectivity (the “populist” external identity carefully crafted by social movement leaders for strategic reasons, see Wolford 2010a; Flynn 2010) creates subject elision (Wolford 2010a) and lack of empirical complexity (see also, DeVore 2014, 2015; Meek 2014; Chaves 2000; Gurr 2017).

Thirdly, addressing my questions from a non-immersive perspective does not help understand the relational, qualitative aspects of legitimacy-building, either in transnational political spaces where the MST articulates its action with other organizations, or in exchanges with urban consumers of the food produced in ways deemed “agroecological.” Therefore, it is crucial to address them through thorough empirical research, taking into account everyday life in a community, a specific local context, and subjective understandings of agroecology. Because of this necessity for thorough empirical research, an exhaustive, MST-wide answer to this overarching question is outside the scope of any single research project. How, then, to choose a significant research site to explore the questions I asked?

I decided to start in a place I had briefly visited before the start of my PhD, and visited again in May 2016, during the field-based course I have been co-teaching yearly with Dan Furukawa Marques since 2013.⁴⁵

45 During this course, created in 2013 by Prof. Bruce Gilbert of Bishop’s university in Canada, Dan Furukawa Marques and myself (with Melinda Gurr in 2014 and Marie-Alice D’Aoust in 2017) accompany a group of 15 to 20 undergraduate students in humanities, social sciences and related disciplines. We spend a week at the MST’s national training center in Guararema, close to the city of São Paulo, where our students spend time participating in the school’s social life and classes about agrarian issues in Brazil and Latin America, agrarian history and the MST’s way of organizing nationally and internationally. Then our group heads on a 10-day bus tour to rural locations which are different each year to visit spaces (settlements, encampments, cooperatives and training centers) that are considered references by the movement, which usually translates into short visits to places that host particularly successful agroecological production, impressive land occupations that suffer significant repression and/or educational spaces that implement the MST’s model of education. The final part of the course takes our group on visits to unions, media centers and social movement headquarters allied with the MST in the city of São Paulo. The last time this course took place was in May 2017.

For the purpose of this study I call this place the Ecological Resistance School (hereafter ERS), purported the first of its kind in Latin America. ERS has been the site of widely acclaimed but under-researched agroecology training⁴⁶ giving young people linked to social movements from the entire continent (as well as the Caribbean) a chance to get a bachelors' degree in agroecology while receiving political training as provided by the MST and other LVC movements.

One of ERS's particularities is that it is situated in a rural area, in an agrarian reform settlement in the southern Brazilian state of Paraná. This settlement, which I call Terra Prometida, is an important site for studying agroecological legitimacy within the MST, as it is widely cited as a reference for its several projects linked to agroecology, such as the presence of a cooperative that commercializes 100% certified organic production and the organic certification of over half of the production units by Rede Ecovida, a participatory certification network present in all of Brazil's southern region. Moreover, Terra Prometida's settler population also includes a high number of producers using conventional production methods, which makes it an interesting site to study why agroecological legitimacy is not attained even when movement members live in settings where agroecology is widely discussed and practiced.

The need to carry out my research immersed in everyday aspects of life on the Terra Prometida settlement and at the ERS led me to adopt a socio-anthropological way of looking at "my field," and embrace reflexive critical ethnography as a tool. Therefore, my dissertation gives a critical ethnographic account of the MST. As my dissertation is one of the first ones to be submitted in the budding field of environmental humanities at LMU Munich, my work also attempts to show that the environmental humanities can and should engage more deeply with methods and topics in anthropology and qualitative sociology. I hope that my contribution will lead to greater valuation of ethnographic, anthropological, and qualitative sociological training, methods and concerns within the environmental humanities.

⁴⁶ I refrain from citing sources here in order to protect anonymity.

Much of the data I collected was obtained through participant observation. Specifically, I took part in daily activities and lived alongside research participants. I recorded my observations, my impressions and what people communicated to me by taking detailed notes. I practiced engaged listening, both in informal conversations and semi-structured interviews, and at events and collective interactions of all kinds. The epistemological assumption of these methods is that systematic recording and analysis of observations, interactions and everyday practices by a researcher over time generates reliable qualitative information in the realm of culture, power relations, imaginaries, subjective meanings and identities. Carrying out research on a topic that has many meanings to different people and institutions, I spent most of my fieldwork “following” agroecology through activists’ and farmers’ plots, dreams, fears and conversations, walking long hours to visit places where I’d heard it was being practiced, sitting in the cooperative’s truck to help collect and sell products, auditing classes, and participating in political activities revolving around this concept.

I also used in-depth interviews with a range of actors, such as MST leaders and middle-rank militants, rank-and-file MST members practicing different types of farming, student-activists belonging to different La Via Campesina movements, scientists, and administrators linked to public institutions that were relevant for my project. While interviews can sometimes be viewed as problematic because people are free to misrepresent themselves or others, lie, or repeat official discourses, I found them very important in order to perceive what people remembered as “structuring events,” to record tone and hesitations, to see when people used official movement discourses or not, and to “make sense of what people do” (Forsey 2018) by asking them to explain to me their views on something that had happened or their motivations for doing or saying something.

I employed an interpretivist epistemology; in an effort to focus on context and relationship, I chose not to use coding software to analyze my data, instead I revisited my notes manually and worked directly from interview recordings. Back in Germany, I focused on the moment of the interview, recalling the context, and my relationship to each specific participant. Although such methods are time consuming, I found it best in

terms of analyzing the different dimensions of interviews and videos as anthropological sources—both the words, tense, and grammar; what they referred to; but also the specific context in which the conversation was produced (pauses, changes in tones, specific accent, how at ease they seemed with being interviewed, interventions by other people, repetitions, specific wordings) that emerged through the course of Interaction.

2.5 Movement trust and choice of focus

My previous work with the MST in the context of the course I have been co-teaching since 2013 and my participation in Friends of the MST-Quebec and the Friends of the MST-Europe meeting in 2016 was central to the realization of this research project and the trust I encountered while in Brazil. Many researchers who want to work with the MST arrive in Brazil thoroughly unprepared to navigate the MST's subculture and organizational structure and a certain lack of trust in people (e.g. Heil 2008) who come as researchers without "activist credentials" (particularly American citizens, more associated with infiltration risks and cultural imperialism than Europeans in many Latin American activists' views). On the other hand, I already had four years experience in MST spaces and specific terminology, understood the organizational structure of MST spaces and, crucially, had made a lot of contacts.

The MST has systematized rules of access and entry for researchers only in the past few years. As I was made aware of this shortly after I started my PhD, I went through the movement's approval process for research projects and talked to a representative of the movement's national International Relations Committee in São Paulo before making local contact to arrange my first research stay. This helped to clarify my focus, intentions, and timeline, and my willingness to communicate my main research findings in Portuguese to the MST and research participants. While this may limit my research in some ways, as it may have directed me⁴⁷ to a place the MST's leadership feels comfortable having

47 It is important to mention here that I did not go where MST leadership asked me to go, rather I arrived at the national secretariat with a research proposal and expressing interest in conducting research in Terra Prometida and got this decision approved and green-lighted.

foreigners research instead of more ambiguous places, my following the rules of movement consent for research in movement spaces also brought me considerable trust, in a context where various researchers do not seek appropriate organizational consent for research that is never properly explained to participants, published without their knowledge or, in the worst cases, present a risk of political infiltration (see also Edelman 2009; Pahnke et al. 2015).

The choice of topic itself was crucial to how I wanted to position myself as a researcher. I did not want to carry out research that would only lead to outlining hardship and socio-environmental impacts of industrial agriculture, a sort of “ethnography of suffering” (Ortner 2016), which I thought was unethical, not very useful from an intellectual point of view and depressing for the researcher. On the other hand, I was also aware that a lot of literature on agrarian social movements in Latin America, particularly the MST, tends to romanticize these movements or construct heroic narratives around them (Gurr 2017), particularly when they are not based on immersive research stays and closely follow official movement rhetoric (Edelman 2009).

Important consequences of this tendency to romanticize social movement action or repeat official movement discourse in academic jargon is to build “ethnographically thin” historical narratives about these movements (Wolford 2003) that at best do not help understand why geographically and sociologically specific actors decide to join movements at specific times (Wolford 2010a) (or, in the present case, use ecological farming methods), at worst “airbrush” (Edelman 2009) out or silence the consequences of hierarchical organizational relations (DeVore 2015) within settlements, cooperatives or movements (Wolford 2010b) and the internal reproduction of the deeply ingrained patriarchal family relations that permeate Brazilian rural society (Brenneisen 2002; Gurr 2017; Flynn 2010, 2013; Caldeira 2008, 2009; Rua and Abramovay 2000; Rubin and Sokoloff-Rubin 2013; Deere 2004).

While the primary aim of an academic study is to further intellectual debates on a specific question, one of my intentions as a critically researcher from Western Europe was to generate knowledge on the MST that has the potential to help the movement better attain its ecological objectives and live out its proclaimed values of social jus-

tice and human emancipation. I aimed to do this in a way that does not dismiss the organization in itself, but does not shy from critique of leaders and power imbalances within the movement. Particularly, I focused on the way ordinary members and youth experience life in spaces affiliated with the organization. This is based on reflection that has already been advanced by critical ally researchers. For example, Edelman (2009) writes:

one of the most useful contributions of academic researchers to social movements may be reporting patterns in the testimony of people in the movement's targeted constituency who are sympathetic to movement objectives but who feel alienated or marginalized by one or another aspect of movement discourse or practice.

Adopting the same approach, I believe that such research practice, when respecting strict anonymity and participants' rights to privacy and consent, can help well intentioned activist organizers do critical revisions of their internal practices based on empirical observation.

2.6 Funding and access to fieldsite

I employed an ethics of reciprocity during my field research. Since the ENHANCE budget paid for my accommodation costs, I was able to help ERS significantly in exchange for hosting me. Times were never very easy for rural activists in Brazil, but 2017 was especially dire. Political instability and the new conservative government that took power after the impeachment of President Dilma Rousseff enacted an openly anti-movement strategy, and reduced federal payments to many social programs, including some payments to INCRA, the agency responsible for agrarian reform policies. As a result, higher education programs belonging to land reform-oriented public education, such as the agroecology undergraduate program at ERS, didn't receive the funds they were entitled to on time, and the course was under threat of being cut short. I was able to give the school what is, to them, a large amount of money at this crucial time, which helped maintain the course for 3 extra weeks.

This payment of 6,000 euros, which was repeated during the second phase of fieldwork, helped affirm my status as an ally and a researcher to be trusted by movements. While this could have caused dynamics of clientelism or conflicts for access to these resources around my presence, I minimized these potential negative effects by making this donation as accommodation payment to ERS as an institution (and not to individual people), letting ERS coordinators announce this contribution to students themselves as they saw fit (they did it as a public announcement in an assembly setting), keeping the time frame of my research very clear to all participants, and using movements' language of international solidarity to refer to these contributions, highlighting they were tied to my temporary status as a researcher in a collective project. I never made payment to individuals, and I of course never paid money in exchange for any type of data or promises to access data.

2.7 Ethical guidelines

I was made aware by ENHANCE staff member Roger Norum, prior to data collection, of the existence of a guideline for ethics in ethnographic research produced by the European Commission (Iphophen 2016). I read it carefully prior to my arrival in the field and kept in mind its main recommendations about ethics in data collection. In particular, I was very rigorous about consent in research. Due to the nature of my field location and situation (research with people involved in alter-globalization struggles with no knowledge of English) I was unable to use signed consent forms. I taped each research participant saying their full name and stating their awareness and agreement with the taping of the interview for use in my research project. In addition, I always made sure to ask people whether they wanted to stay anonymous or not in my thesis. I later decided to anonymize all participants and places, since this work takes place in a very unstable national political context and addresses some deep-seated power relations within the settlement I studied and within the MST. Hence, all participants' names used in my thesis are not their real names, and I have changed the names of the cities I mentioned (except for the state capitol Curitiba), of the settlement, of the school of agroecology and of the cooperative. I also sometimes

elide or disguise details that would make people and places too easily recognizable, although participants, if they read my work, would likely be able to guess who and what I am talking about. I chose to do this out of respect for the private lives of my research participants, and also out of concern for their safety. The 2018 election of a far right president in Brazil whose administration and close circle have referred to the MST and other social movements as enemies to destroy, makes anonymizing any possibly sensitive information all the more important.

2.8 Importance of collaboration with other researchers

A key element of my data collection was an unexpected series of collaborations with other researchers, which helped my progression and understanding of social relations tremendously. This thesis would most certainly be very different if I had not crossed paths with them. A short account of each of these collaborations follows, using pseudonyms to impede retracing the real name of Terra Prometida through the outputs of these researchers.

Claudia was a Brazilian doctoral student in geography at a major Brazilian university. She knew Terra Prometida well, as she wrote her master's dissertation on the settlement's cooperative in 2010.⁴⁸ In 2014, she started a PhD on the construction of ERS in Latin American networks, which she submitted in June 2018. In May 2017, when I arrived at the settlement few memories and contacts, ERS' coordination team told me I was going to stay with her in a small house reserved for external teaching and research stays. She helped me tremendously not only thanks to her long term knowledge of the settlement, but also after we agreed to merge our interview questionnaires for ERS students and interview students together, since we were both aware that the tight weekly schedule at the school would make students unlikely to agree to two in depth interviews with different researchers over the same period of time. We conducted about 10 interviews together, but also had

⁴⁸ I will not reference her dissertation (or her since published PhD thesis) here for reasons of confidentiality.

countless informal conversations as we took long walks on the settlement roads. This really helped us triangulate data, talk about unspoken power relations that we might have otherwise kept to ourselves or not noticed, and approach interviews in a complimentary ways.

Mariana was a non-Brazilian student-activist enrolled in the agroecology course at ERS. We met in May 2017, and quickly started collaborating after I joined the school's pedagogical sector for the time of my visit. Mariana is trained in photography and filming, and was planning a series of short documentary clips about the settlement's residents and agroecology students to be shared online (via the school's website and Facebook page). I proposed to collaborate with her, since this would give me a way to go into the settlement to meet residents and to talk to her more. I was conscious of the importance of making friends with activists from outside the MST, especially non-Brazilian ones. She was happy to have me on board, as she couldn't drive and was struggling with her spoken Portuguese. We ended up doing quite a lot of interviews together, I drove us to places that were too far to walk to and interviewed the person while Mariana took care of framing and recording. At the end of my first fieldwork trip and during the second one, we were roommates, as she was moved from the collective dormitories to the house where I stayed because her young son made her privacy needs higher than other students'. By the end of my second trip, we had become friends, had several meals together most days, and she provided me with one of my most in-depth interviews.

Mateo was a documentary filmmaker and urban activist from Argentina. In July 2017, he spent two weeks at ERS while I was there and we spent time together talking about the realities of the settlement. We spent an afternoon together with the coordinator of the cooperative and interviewed him together extensively, which helped me gain a very important perspective on the program's structure and how the first agroecological initiatives had been introduced into the settlement. He also shared footage with me from collective events on the settlement, which provided me with incredible visual and audio support to my field notes for various important days.

Amanda was a master's student in geography based in Paraná. She is writing about the territorial construction of the Terra Prometida set-

tlement and spent a few days on the settlement in June 2017 and again in November. She and I joined forces for a few interviews in November and December of 2017 and had countless hours of conversation, which helped us both understand the settlement's dynamics and certain social relations.

2.9 Timeline

My first contact with key participants at my main field site (the coordinators of ERS) was in May 2016, during a short pilot visit. Staying in touch by instant messaging online, I arranged to come back in March 2017, for the start of one of the etapas⁴⁹ of an undergraduate program which trains graduate technicians in agroecology (tecnólogos em agroecologia). Intense political unrest in Brazil delayed the etapa, and thus my first phase of fieldwork was postponed until May 2017. I stayed until the end of the course in July 2017, and returned for the next etapa of the course from October to December 2017. I went back for an additional 3 weeks in April 2018, once again during one of the etapas. While this timeline may seem short to some professional anthropologists, both the structure of my funding and the current political situation in Brazil made it impossible to spend more time in the field. Moreover, what I agreed on with main participants at my field site was that I would be hosted by ERS during the presence of students, and individual farming families in the settlement were not very enthusiastic at the idea of hosting me in their family homes for extended periods of time. Rural settlements in Brazil are remote places without easy access to rental housing, hotels, or safe campsites, so I did not have options besides staying at ERS' accommodation facilities on the agreed timeline. This

⁴⁹ Courses linked to the PRONERA state program, a federal program that funds some higher education initiatives linked to agrarian reform, are often organized according to the alternancy principle to allow students to keep on participating in activities in their community of origin while studying. In the case of the agroecology course offered at ERS, the program is supposed to take 3.5 years alternating periods of 3 months of full-time studying at the school (etapas) and 3 months of stay in students' home communities. In 2017–2018, due to institutional instability in Brazil, the schedule of the course was profoundly destabilized, and students wound up graduating on 27th April 2019, over half a year later than was originally scheduled.

research can definitely be deepened and broadened by future projects, either my own or other researchers', although I am confident at the time of writing that the theoretical insights and empirical complexity I bring to the debates I engage with would not be fundamentally different if my doctoral fieldwork had been longer. The most important question is how the political situation unfolding at the time of writing, with the election of a radically anti-movements, pro-agribusiness far right paratrooper to Brazil's presidency, after two years of austerity and spiraling violence, will impact the MST's capacity for organizing and change structural rural conditions – and this is most definitely out of the scope of this project.

2.10 Dataset

The original information that the main body of my thesis draws on is composed of detailed field notes taken during fieldwork, in-depth semi-structured interviews with 27 students⁵⁰ and 6 activists working⁵¹ at ERS, 4 publicly employed professors teaching in the agroecology course at ERS (including the general coordinator), 6 key informants linked to the Liberdade cooperative, 30 settlers (people working and

50 For students, I closely followed a questionnaire that investigated their community of origin, how the social movement they are linked to conceptualizes agroecology, the objectives of their participation in the course and how it relates to their movement's political strategy in their region, how much space and demand they had back home to share insights from their studies, how their participation in the course was decided with social movement coordinators and to what declared ends, their personal conceptualization of agroecology and initial interest in it, how this conceptualization has evolved with the course they are taking, whether or not they link it to collective forms of work, their experience of life at the school as well as between the etapas, and their educational and personal ambitions following the course. Additionally, for many students, this core questionnaire lead the conversation to unexpected topics or person-specific narratives, which I always let happen, albeit trying to gently steer the conversation back to the questionnaire if the person started to repeat themselves or strayed too far away from the subject at hand.

51 For educators and worker-activists of ERS, I asked questions about the history of the school, its organizational structure and how it related to agroecology, how the schedule was negotiated with the public institution in charge of issuing diplomas and teaching most of the curriculum, how practice and theory were distributed in the activities, how students were indicated or chosen to participate in the course, how the course was evaluated by the movements involved, and what kind of activities students tended to develop after graduation.

living on the settlement),⁵² 4 regional/national MST militants and 8 key informants working inside public institutions and ngos related to agroecology or to the Terra Prometida settlement, for a total of 84 interviews.

Here, semi-structured interviews refer to long interviews—generally between 45 minutes and 3 hours—that loosely followed a questionnaire that I established in advance based on the person's social position (student, settler or settler's family member involved or not in political activities, MST activist, institutional agent, sometimes more than one of these categories at once) and my previous knowledge of their experience with agroecology. On top of the general questions mentioned in footnotes, I freely explored any specific topic that the person mentioned or seemed to want to share with me. Some interviews resulted from informal conversations that prompted me to spontaneously ask the person if I could record the conversation for research purposes, others were the result of pre-arranged meetings, generally at people's houses, often following the snowball sampling method: asking participants to refer me to other potential participants. I also took hundreds of pictures from various social and agricultural activities and videotaped

52 For all settlers, I asked questions about their life previous to arrival at the settlement, their first contact and militancy within the MST, the encampment period (if they had participated in it) or the conditions of their arrival at the settlement, their participation in the settlement's political organization structure (which is closely linked to MST guidelines, as we will see in Chapter 3), their experience with collective forms of labor, the kinds of nondomesticated plants and animals they saw on their production areas and how they conceptualized these beings, the types of production they had on their plot of land, how they divided tasks in the family, how they evaluated the presence of ERS in the settlement, non-agricultural sources of income, how much of their diet they bought and produced, what conceptions they had of health, and what kinds of markets they tried to reach with their production. For settlers identifying as practicing agroecology, I asked additional questions related to their conceptualization of and practices in agroecology, how they accessed the knowledge necessary to agroforestry practices, what benefits and risks they associated with this type of production, how they conceptualized the roles of different species in the system, what their experience of working with the settlement's cooperative was, and whether or not they associated agroecology with specific types of social relations or transformations in social relations. For settlers identifying as conventional producers, I asked additional questions about their previous attempts with organic or agroecological production and why they had decided to change to conventional (if this was the case), why this type of production made more sense for their family, whether they would consider other production methods under other market access circumstances and whether they felt any pressure to convert to other production methods.

some conversations with farmers on their plot of land while walking around and talking about their vision of agroecology and life within the settlement. Additionally, I found a lot of important literature in ers' library (organizing books there became one of my tasks as a member of the pedagogical work sector in my second fieldwork trip), gave me access to the documents that MST activists refer to as central to their ideological worldview, such as books about the MST and culture, internal movement organizing principles and the historiography mobilized by movement intellectuals when referring to Brazilian agriculture and the peasantry.

2.11 Introduction to fieldsite

To access the Terra Prometida settlement, one first needs to get to one of the two closest cities—L_ or B_, Paraná. Paraná is the third southernmost state of Brazil. Colonized later (except for some Jesuits' missions) than the southeast and northeast of Brazil in the Brazilian state's formation, its history is intimately linked to food production for the internal market and small-scale agriculture (Santos 1995). L_ and B_ are small cities⁵³ whose economy and culture are intrinsically linked to rural life. The road out of the settlement is a difficult one, hard to cross on rainy days because of the large holes created by heavy commercial trucks, uncomfortable on dry weeks when the silty road soil raises in thick clouds that obstruct vision and dry out airways. Local residents say INCRA, the federal institution in charge of agrarian reform settlements, has been promising to pave it since the settlement was created, but never does. On the way to the settlement, one passes various other rural dwellings, from single-family chácaras (small rural properties usually operated by a single household) and houses to larger fazendas (larger farmsteads, more akin to ranches or plantations). The landscape on either side of the road is eclectic, alternating between groves of Araucária trees, grain and bean fields, and pastures. One needs to follow this road for about 20 km in order to get to settlement's central

53 According to official statistics, the municipality of L_ had 47,814 inhabitants in 2016 and that of B_, 12,602 in 2017.

buildings, which host the Ecological Resistance School. This is where I was living during my fieldwork, although my research activities were carried all around the settlement, the places where the Liberdade cooperative collects and sell agricultural products, and in public institutions linked to the settlement.

According to Bernardo, a resident of the settlement who worked for ERS and graduate student in history who had been researching Fazenda S_'s past occupation patterns, Fazenda S__ was a 3,228 Ha ranch which was first colonized in the mid-18th century by the Portuguese crown, giving rights to it to a Portuguese settler from the village that would later become the city of L_. In the 19th century, the area belonged to a prominent baron, a very influential individual close to the Brazilian imperial family. He is said to have kept enslaved people of West-African descent subjected to both domestic and agricultural forced labor on the estate, which he is thought to have freed after emperor Pedro II's visit in 1880, eight years before the legal abolition of slavery in Brazil. During this time, the ranch was a traditional staging post for tropeiros, mobile bands of food and animal traders who traveled between Rio Grande do Sul and the Sorocaba market in the state of São Paulo.

During the mid-20th century, the Baron's last descendants put the fazenda to use by employing a manager and local wage-workers to develop cattle production and monocultures of corn and wheat using Green Revolution technologies. I was able to copy abundant personal correspondence and photographs from this era and to interview an elderly resident of the nearby Quilombola⁵⁴ community who had been employed as an agricultural laborer in the fazenda in the 1950s. All information supported this narrative. In 1986, the Rio de Janeiro-based last descendants of the baron sold the area to a local ceramics company which planted *Elliotis* pines on part of the land to provide wood to its ovens in nearby cities, and leased part of the land to grain, potatoes

54 Quilombolas are state-recognized descendants of runaway slaves, and their communities are called Quilombos. For historical and anthropological introductions to this notion and its social dynamics, and debates on slavery and peasantry in Brazil see Arrutti (2006), Leite (2000), Gomes (2015), Mattos 2001, Hecht (2013).

and soybean producers.⁵⁵ The following historical pictures of Fazenda S_ have been obtained and given to me for research purposes by Bernardo from local personal archives.

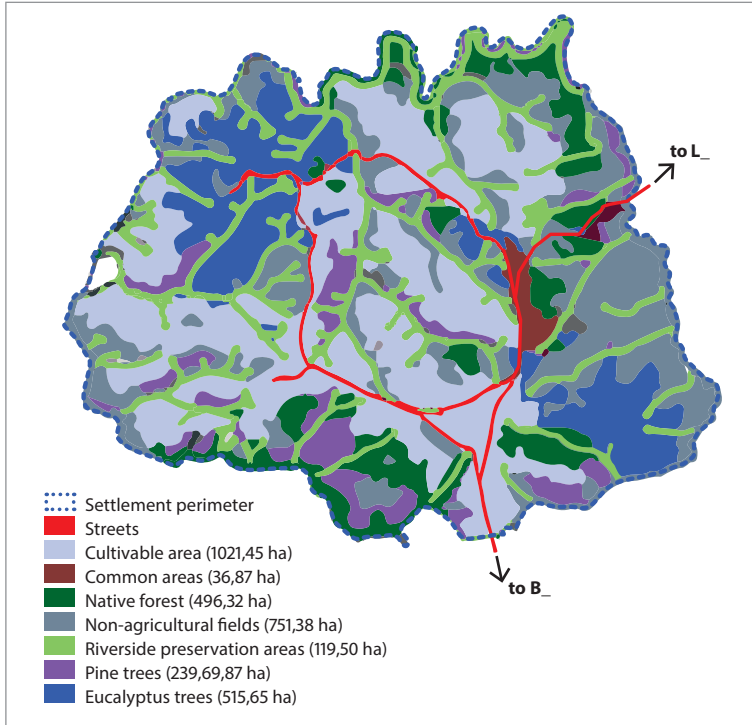


Figure 1: Map of the Terra Prometida settlement. ERS and the Liberdade cooperative's office are situated in the common areas. Source: original map by INCRA, 2002, redrawn by the LMU Library's publishing team, 2020

55 I later confirmed this information by analyzing INCRA's official documents from the settlement's creation, the relevant academic literature (see *Trinidade 1992; Vargas and Schwendler orgs. 2003; Santos 2007; Nascimento 2009*) and interviewing a history and archeology postgraduate specialized in L_'s slave and runaway slave descendent communities (interviewed on 17/11/2017 in Curitiba, Brazil) and Claudia Paradella, a specialized archeologist working at the Museu Paranaense, Paraná's main history and archeology museum (interviewed on 04/12/2017 in Curitiba, Brazil). To my knowledge, there is no academic work dedicated to specifically studying old Fazenda S_'s history of human settlements before the territory's annexation by the Portuguese, although Paradella and a 2011 masters' dissertation in archeology suggest that the wider area had previously been settled by people belonging to *Xokléng*, *Kaingang* and *Tupiguarani* language families.



Figure 2: Grain monocultures in Fazenda S_, 1952



Figure 3: View of Fazenda S_'s central buildings, 1959

Part II — Living agroecologically?

The first time I went to the Terra Prometida settlement was in May 2016. I arrived on a bus with fifteen Canadian students who were taking a course about social movements in Brazil. I was the course's teaching assistant and we had come directly from the MST's national school in the state of São Paulo. Before we left, MST militants told us that the settlement was a model for the movement in southern Brazil. It was known for advanced agroforestry⁵⁶ practices, an organic cooperative (partnered with participatory certification network Rede Ecovida), and its university-level training center, the Ecological Resistance School (ERS).

During our 3-day stay on the settlement, our group was taken on an "internal tour," with a visit to an older couple's plot of land. We were shown a thriving 6,000 square meter agroforestry area and told stories—of political organizing during Brazil's military dictatorship, of the hardship inherent in taking part in successive land occupations, of the crucial importance of ecologicalagriculture for farmers' well-being and autonomy. Thereafter, we received a quick tour of the cooperative's offices and agroindustry, and given the opportunity to ask questions to Dona Lucia,⁵⁷ a settler well-known for her expertise as an alternative "bioenergy" healer. We were also taken to the plot of a couple who was very successful at planting organic strawberries on land which had previously always been under high-pesticide monoculture use. The narrative of the settlement's history that was presented to us, a group of rather sympathetic foreigners, wasn't free of conflict and contention, but this was centered on wrongdoings by the state, the agribusiness sector, and landowners' violence against the movement. The struggle was always straightforward—of the MST, a homogeneous actor, fighting back against external forces. Being able to "build" agroecology (construir a agroecologia) and make the settlement an example of agroecology was presented solely as a grassroots victory of the settlers and the movement fighting against a system that favors agribusiness. As a researcher, I was eager to conduct fieldwork in this settlement precisely because I knew this was a rare occurrence—as one regional MST leader (dirigente) who

56 Agroforestry and the specific practices that went by this name in the Terra Prometida settlement will be explained in detail in Chapter 4.

57 Interviewed on 24/10/2017 in L_ (Brazil).

resides in the settlement estimated in an interview, “If we were to count only families who do agroecology, there wouldn’t be 2,000 families in the MST [in Paraná]. The MST has almost 25,000 families [in Paraná], in all of Paraná there are 2,000 families in agroecology. Here in the southern region [of Paraná] we have 425 families practicing agroecology.”⁵⁸

I arrived for my first fieldwork stay in May 2017 with an optimistic vision for studying the “agroecological transition” at Terra Prometida, believing that the vast majority of the settlement’s inhabitants practiced pesticide-free, diversified production, participated in the cooperative, and that there were positive, mutually beneficial relationships between the farmers and ERS’s students. I was determined to discover what the drivers of this successful transition were, which could possibly inform better practices both for the MST and public policy elsewhere. My goal was to further academic understandings how the MST may facilitate the shift toward ecological practices in agriculture, due to the novel forms of social organization it favors. As soon as I set foot again in the settlement, I started to realize that most of the assumptions I had made about this community, based on that short visit in 2016, were somewhat inaccurate—a reflection of the movement’s outward-facing, seemingly homogeneous and united public identity. As I walked throughout the sprawling settlement, seeking interviews with agroecology practitioners, I couldn’t help but notice that most of what I saw was monoculture—of beans, soy, and corn. The diversified, forested areas I’d learned to associate with agroforestry were actually quite rare. As I started to ask about the extent of conventional production on the settlement in everyday informal conversations as well as interviews with settlers who were part of the “agroecology circle,” two factors became increasingly clear. First, agroecology was often referred to as “the biggest source of conflict within the settlement,” with people making somber faces and vaguely alluding to past confrontations and even violence. Second, people closely linked to the cooperative and model agroecological plots were often rather moralistic—and attributed strong character flaws to conventional producers and their decision not to practice ecological farming.

58 Interviewed on 29/11/2017 in L_ (Brazil).

In reality,⁵⁹ about half of the settlement's 108 production units were under use for some agroecological production in the form of organic vegetable gardens and agroforestry plantation areas—which is already quite an accomplishment considering how time- and labor-intensive this kind of transition is. In some cases, plots were under mixed production, with a small certified organic area and conventional fields, in others, agroforestry areas of a few thousand square meters bordered animal production areas and pastures. The rest of settlement's families produced soybeans, corn, beans and strawberries conventionally. Others informally “leased”⁶⁰ land to other producers (see also, Santos 2015, 95–96).

Most strikingly, the social climate was very tense, with a surprising level of animosity between conventional and organic producers. This raised a number of serious questions to be pondered in this first part of my dissertation. For example: What had contributed to such negative feelings amongst settlers? Why was agroecology so polarizing? What factors had constrained and enabled the practices of agroecology on the Terra Prometida settlement and in its networks? To what extent

59 While I do not claim to have had access to a full demographic and statistical picture of Terra Prometida, and my own research is entirely qualitative, all the numbers I cite in this chapter when referring to numbers of settlers and demographic aspects have been triangulated with a number of local studies published since the settlement's creation and official lists of settlers available through INCRA's online portal. The studies include three masters' dissertations (two in geography and one in agroecosystems sciences) based on empirical research in Terra Prometida conducted between 2009 and 2018 (one of these was written by a resident of the settlement who attended a federal graduate school and conducted his final research in the settlement), a series of articles and conference papers published in Brazilian academic circles, and an interdisciplinary study conducted by the municipality of L_ shortly after the settlement was created. I do not reference these studies here for obvious reasons of anonymity, as they would immediately give away the location and real name of the settlement.

60 Formally leasing or selling land on Brazilian agrarian reform settlements is prohibited, since settlers only receive usufruct rights to their plots of land. However, settlers sometimes enter agreements with other producers whereby their plot of land is used for a type of production (generally lucrative export crops, such as soybeans) and either profit or harvest are divided between the settler and the other agent. This phenomenon is present all over Brazil, albeit to varying degrees and prevalence according to regional and local contexts, depending for example on how attractive and easy using land as capital is compared to using land for labor and life. Due to the sensitivity of this topic, there is an understandable lack of comprehensive research evaluating this phenomenon, although informal land leasing in land reform settlements is often mentioned in passing in articles, theses and personal conversations. See for instance Chelotti and Pessôa (2006); Arbarotti and Martins (2016).

and in what ways had social legitimacy been built for agroecology on the settlement? Which specific practices were deemed agroecological in this social milieu, and how had agroecological settlers learned them?

Chapter 3: The agroecological rift

3.1 Introduction

Agroecology has been viewed by numerous scholars as a means to mend the “metabolic rift” (Foster 2000) caused by the rupture of what Karl Marx called the “unity of living and active humanity with the natural, inorganic conditions of their metabolic exchange with nature” by large-scale monoculture and urban-rural divides⁶¹ (1973 [1939], 489 cited in Wittman 2009, 806). That being said, on the Terra Prometida settlement agroecology had *caused* a rift—of the social kind.

Divisions went far beyond production techniques, in a way not unlike what sociologists Norbert Elias and John Scotson (1965) theorized as an “established-outsider configuration.” In fact, unless they were picking up their children from the settlement’s school, had an appointment at the health center, or quickly stopped into the local market, it was uncommon to see conventional farmers socializing in common areas. Settlers did not diverge much in terms of social or geographical origins, religion,⁶² income bracket, racial identity, education levels, or ethical commitment to the MST’s basic principles of social justice and collective action.

The division that seemed to have crystallized the most in this community was the one between the group that everyone called “the organics/the agroecologicals” (os orgânicos / os agroecológicos), led by the Liberdade cooperative’s leadership, and “the conventionals” (os convencionais). As one conventional settler told me of the social tensions he felt: “If an Organic looks at a Conventional, it’s like he’s already contaminated, and if a Conventional looks to an Organic, he’s distrustful. . .” What had lead to such strong polarization around the notion of agroecology? Why was agroecology a credible and legitimate alternative to

61 See Wittman (2009); Moore (2015); Foster (2000).

62 There were a few Christian churches in the settlement—a Roman Catholic one and several Evangelical ones (Assembly of God, Universal Church, Reign of God). Most settlers I talked to belonged to one of those, or were unpracticing Catholics by inertia. There was no clear religious divide between settlers who preferred agroecology and settlers who used conventional methods.

conventional production to some, and not at all to those who otherwise lived in very similar conditions?

In this chapter, I argue that community conflicts stemmed from early failed attempts to collectively produce organic crops, leading to the regional MST leadership's decisions to impose agroecology upon unwilling settlers in the mid-2000s. Moreover, high social cohesion within a core group of organically-minded families (mediated by MST leadership) catalyzed and shaped the formation of the two "ideal-typical" groups. These trends led to differentiated access to training and markets, and thus shaped divergent production strategies. In turn, this strengthened agroecological legitimacy within the "agroecological" group and further alienated the "conventional" group from considering agroecology to be a viable alternative. Finally, complicating this dual characterization of Terra Prometida's settlers, I describe a third group, the "in-betweeners." They occupy an ambivalent position. As current or ex-members of the cooperative, their role has been relatively passive. Ethically, they espouse preferences towards agroecology, but have been confronted by constraints that caused them to turn away from agroforestry-based production as a main source of income, often leading them to switch back to conventional methods or informal leasing of their land. Acknowledging both the impressive work that the MST has done to foster agroecological legitimacy and the divisive effects of internal power asymmetries, I discuss these findings in light of the main challenges the MST has to face in the next few years: second generation farm succession, and the very unfavorable political conjuncture that started with the 2016 impeachment of PT president Dilma Rousseff and culminated in the election of far-right candidate Jair Bolsonaro in October 2018.

3.2 Terra Prometida, the promised land

Paraná, located in southern Brazil, is the birthplace of the MST. After the first land occupations that took place in Rio Grande do Sul at the end of the 1970s, which serve as an "official Genesis story" of the movement (Wolford 2003, 2010), the MST's first national congress was held in Cascavél, Paraná, in 1985. Thereafter, Paraná became one of the epicenters of MST organizing in the country, as leaders centrally planned

and organized its expansion to other regions of the country (Branford and Rocha 2002, Wright and Wolford 2003).

Jaime Lerner, a famous architect and three times mayor of Curitiba, was elected state governor of Paraná in 1994. In an improbable alliance, Lerner, the urban reformer and adept of progress-by-industrial-development, had sided with a faction of powerful and conservative landowners while standing for reelection as a governor in 1997.⁶³ This prioritization of landowners' interests by the state government⁶⁴ led to a period of intense and violent repression against MST occupations in Paraná, including assassinations of leaders, death threats to religious figures and attorneys working with the MST, and nightly evictions by private security and military police that often included intimidation with dogs, personal threats, tear gas, and verbal abuse (Branford and Rocha 2002, 154–161). According to Branford and Rocha (2002, 151), in spite of high state violence “by 1999, about 15,000 families had won land in Paraná. They lived in 233 settlements, which covered almost 300,000 hectares,” and Paraná was the third fastest growing region nationwide for MST activism.

By 1995, ceramics company I_ was heavily in debt with Brazil's social security agency. Following the MST's third national congress the same year, a delegation of the MST's national directorate had obtained an audience with then-president Fernando Henrique Cardoso. Leveraging the movement's then-growing political power and mobilizing capacities, this delegation requested that the federal government seize land from landlords with significant public debt for the purposes of land reform (Vargas and Schwendler 2003, 48–49). The MST targeted these types of

⁶³ Since a high number of deputies in the state assembly was linked to these landowners, their support was vital to supporting the urban and industrial reforms Lerner was set on implementing. According to attorney Darci Frigo, cited in Branford and Rocha (2002, 153), these landowners' condition for supporting the state government was that “they should be allowed to use whatever methods they thought fit to deal with the MST,” which at the time was organizing occupations on large areas of single-owner unproductive land in the north of Paraná and garnering increasing public support in doing so.

⁶⁴ Also worth noting was the existence of a hard-line faction in Paraná's military police that pre-dated Lerner's first election and considered the MST a threat to national security (Branford and Rocha 2002), making Paraná a notoriously dangerous state for landless activists during confrontations with the military police.

properties for a new wave of land occupations. It is in this context that the occupation of 3,228 hectares-large Fazenda S_, which belonged at the time to I_, the ceramics company, was selected by the MST's state leadership. Fazenda S_ was situated between the cities of L_ and B_, in the metropolitan area of Curitiba, and would eventually become the Terra Prometida settlement.

Milton, a long-time member of the MST's state coordination in Paraná and national leadership, told me about the history of the settlement:

Here [in Paraná] there was a conception, a deliberate definition, that the government didn't want any [land reform] settlements close to larger cities, larger centers, specifically to prevent possible relations between settlers and the cities. Therefore, in our specific case here in the Curitiba area, it was set that the government shouldn't allow any settlement to be created closer than 100 kilometers away from Curitiba. [...] When we discovered the possibility to turn [Fazenda S_] into a settlement, it was in the perspective to create a settlement that would be connected to larger centers, close to the state capitol... it would have to fulfill the task that we [the MST state leadership] imagined was fundamental for the MST at the time. So it would be the settlement closest to the capitol, a large one, and it would be this political support for general struggle when we would be doing [protests and sit-ins] in Curitiba, and at the same time a model of the new matrix would be built inside the settlement.⁶⁵

By “the new matrix,” Milton meant pesticides-free production. At the time, ecological orientations had not yet been adopted by the MST at the national level, but the MST's role in La Via Campesina's creation in 1994–1995 and the existence of “ecological agriculture projects” in some MST settlements in the south of Brazil, such as the BioNatur organic seeds cooperative (Carter and Martins de Carvalho 2015, 256; Lerrer and Medeiros 2014) led to it already being on the agenda at the MST's 3rd National Congress in 1995 (Borges 2007; Costa Neto and Canavesi 2002 cited in Borges 2007). Afonso, the older settler and dirigente

⁶⁵ Interviewed on 18/07/2017 in Curitiba (Brazil).

(leader) whose “model” agroforestry plot I visited with the Canadian students in 2016, had decades of experience as an MST organizer starting at the end of the military dictatorship. He recalled,

The movement wanted to have a settlement here that could be a model for society to know that Landless people are capable to do things well, contrary to the critiques made by agribusiness against the MST and land reform in general. The MST tried to foster discussion on organic production here, we didn't speak about “agroecology” yet, at the time it was organic production only. It was the beginning of the process. We wanted to implement a settlement where veneno (pesticides) would be eliminated. This was our main goal. To have a settlement without veneno.⁶⁶

Going back to Paraná's pesticides problem, as described in the introduction to this dissertation, helps understand the meaning this took on contextually. The movement's state leadership wanted Terra Prometida to become a model settlement for collectively-organized organic production, to show the outside world that agrarian reform could work and feed large cities while avoiding some of the issues that had arisen in some conventional cooperative settlements during the inflation-ridden 1990s—indebtedness of settlers, health issues related to pesticides, and settler disengagement with the MST's collectivist principles.

At the crack of dawn on Sunday, February 7th, 1999, about 40 families⁶⁷ entered Fazenda S_, led by regional MST activists. They had the support of the local branch of the Workers' Party, of the Land Pastoral Commission, and of L_'s Rural Workers' Union. They set up a camp of wood and black tarp tents a few hundred meters away from the old Baron' residence, in the center of the fazenda. Most of these families were from rural areas in L_ and neighboring municipalities, and some were peri-urban families from Curitiba. In the weeks following the initial occupation, the MST sent in leaders from other areas of southern

⁶⁶ Interviewed 03/06/2017 in L_ (Brazil).

⁶⁷ This is a small number of families for an initial occupation by the MST, but the area's expropriation for land reform was already being processed institutionally and taking place with the owner's consent, for debt repayment, so the MST didn't need a spectacular occupation to exert symbolic pressure at this particular location.

Brazil, who brought with them clusters of families who had been living in other encampments facing slighter chances of obtaining land, adding an extra 80 families to the encampment. Some came from central and western Paraná, while others had been recruited in Rio Grande do Sul and Santa Catarina. Many settlers remembered this time period with nostalgia, a time of discovery of collective solidarity and mutual aid. As one female settler, who had grown up in the neighboring Quilombola⁶⁸ community, said of the encampment time:

We had better a better life together (*convivência*) then, with all our tents together, than now that each family lives in their own plot. There was more friendship, more sharing, we helped each other.

Another settler, who had recently switched from agroforestry-based production to conventional bean farming for family-related reasons at the time of the interview, felt that:

The encampment was a better era, because it's a phase where everyone is equal. Everyone has a house made out of black tarp, everyone lives in the same place, everyone has fun, makes jokes, helps each other. The encampment is the best phase. Everyone thinks together, for the collective—when you get the land people are divided, to each their own.⁶⁹

This echoes the wider empirical MST literature on encampments and memory of encampments (e.g. Flynn 2010; Issa 2014; L'Estoile and Sigaud 2006; Loera 2006, 2010, 2014; Marques 2018; Rosa 2004; Sigaud 2000, 2015). Authors contributing to this literature have advanced the argument that collective land occupations go far beyond providing campers a material opportunity for gaining access to land. Indeed, they have also served as spaces for individuals' socialization into MST organizational principles and development of identification with the collective Landless (Sem Terra) identity (see Flynn 2010; McNee 2005), ideology and norms. They have been experienced by members as a setting to perform and demonstrate personal sacrifice in order to achieve

68 Quilombolas are state-recognized descendants of runaway slaves.

69 Interviewed on 27/11/2017 In L_ (Brazil).

personal and family advancement, meaning they represent a “chance for social mobility and recognition” (Loera 2010) both within wider society and within the MST’s hierarchies. They have also been identified, in the discourses of many campers and ex-campers, as the origin of one’s political subjecthood. Finally, encampments are often remembered as a time when egalitarian collective life, at odds with the exploitative conditions many rural people in Brazil experience, seem within reach through newly established everyday relations of mutual help and common struggle. In Terra Prometida, above all, settlers lamented the loss of a time of equality, unity and open possibilities, before divisions between “organics” and “conventionals” had arisen.

3.3 “There was a rush to conventional methods”

In the early times of the occupation, MST militantes from the organization’s Frente de Massa (its organizational arm tasked with recruiting and organizing occupations, see Carter and Martins de Carvalho 2015, 245; Flynn 2010) decided that the settlement would be organized based on: ecological agriculture, collective work, and agrovila-style⁷⁰ housing clusters.⁷¹ According to Bernardo, a son of landed smallholders from Rio Grande do Sul who had come to the encampment as a 19 year-old Diocesan seminar student (and had left orders to become engaged to a fellow squatter within months), the MST’s principles set the tone for what were to become the settlement’s internal institutions. For instance,

70 Agrovilas are rural housing developments where houses are built close together in cluster of families, with fields and working areas in a different location. This model has been held as the “best” housing solution by MST leadership, since it is thought to enhance collective organization and identification, collective labor (since working areas are located all together and away from housing), security against domestic violence and outside theft, and makes the setup of water and electricity infrastructure easier. In practice, this organization has often been rejected by settlers, who cite their greater need for privacy and lack of desire to live close to their neighbors and the unpractical nature of having to travel back and forth to their fields.

71 This type of MST social engineering has produced a few very successful organic cooperatives in Brazil, such as Copavi in northern Paraná (see for instance Schimanski 1998; Bleil 2009, Gurr 2017) or Coopan in Rio Grande do Sul (see Marques 2018), however this model has been moderately successful, and has been so mostly in the south of Brazil (Pahnke 2015), failing completely in some other regions (Gilbert and Diniz 2013).

they sparked the organization of an informal school for children, the adoption of a set of internal rules (which among other things prohibited felling Araucária trees and wildlife hunting in the settlement), the division of families into “núcleos de base” (groups of 8 to 10 families forming a political unit and later living in the same geographical area) by draw, and the set up of collective production areas to help produce food for the encampment and crops for sale. Participation in collective production was basically mandatory for men in the encampment,⁷² and several settlers reported that some families were forcibly evicted from the occupation due to their refusal to participate.

Discussion of organic production was present in the occupation from the start. Many people were convinced to try to produce organically, some because they remembered their youth in the countryside when their families survived without using agrochemicals, others because they thought this type of production could be cheaper or to fit into the community and the MST's set goals. However, no-one was particularly trained to do so on a productivity level necessary to survive within contemporary market forces, and no-one had access to adequate tools. After the settlement's official creation in 2000–2001, families were still living in barracos (makeshift tents) but had moved to different geographical areas of the settlement according to the location to the 10 hectare piece of land they had received by draw. Each núcleo of families was free to organize housing and production internally, although the MST's strong orientation was to set up 10 agrovilas with collective production, without pesticides. Some settlers planted conventional corn and beans after receiving seeds from an MST cooperative in Cascavél,

72 At the time of the encampment, production and decisions regarding production were overwhelmingly thought to be male realms, with women expected to help each other with child-rearing, taking care of collective health, collective cooking and teaching children in the encampment school. Following this period, women followed different subsistence strategies: some trained as teachers and started working at the primary school and high school when they were built on the settlement, others occasionally work for a wage in ERS's kitchen when students are at the schools. Most “conventional wives” stay home to take care of domestic matters and “help” their husbands with strawberry hand harvest, administrative and logistical tasks without a clear arrangement around income control. As we will see in Chapter 4, women from “agroecological” families often work in production, although they also cite unequal access to decision-making and low recognition of their labor as a cause of low satisfaction and lack of motivation to practice agroecology.

something that was seen as contrary to the organic vision but wasn't formally sanctioned because the first priority was to manage some production, to make viable settlers' presence on the land—the “orientation” received by settlers was that all were to transition to organic production within five years. Around that time, several group projects to produce market-oriented crops organically popped up around the settlement, with little success however, due to perceived injustices in collective work and difficulty accessing markets.⁷³

For instance, a conventional producer (who had worked in conventional agriculture before joining the encampment) said that his núcleo de base had tried to produce organic soybeans, only to face conflicts stemming from the commonplace “freerider” problem (for further reflection on this in the context of the MST see Brenneisen 2002; D'Incao 1991; Diniz and Gilbert 2013; Firmiano 2009; Gurr 2017):

We started collectively. It was 100% collective, but it soon became clear that only 3 or 4 actually worked and one or two tried to manage us, and we never got any money. It made the whole thing impossible, the group exploded and I switched to conventional production.⁷⁴

But perhaps most strikingly, the failure of one settlement-wide project alienated many would-be organic farmers. Mauricio, a settler who also participated in local and regional MST coordination, emphatically recalled:

Do you know why people switched to conventional production? We had this large organic soybean project. It was a partnership with an NGO, the first year we sold a lot of soy. We had been here for about four years [around 2003]. There was a lot of poverty in the settlement, people were desperate for some income. We planted with horses and hoes... we harvested manually because we didn't have a harvester... we almost worked

73 It is important to note that the first ever Brazilian law framing organic agriculture was voted in 2003, only coming into effect in 2009. In the first years of the existence of the Terra Prometida settlement, the legal frame for organic production and commercialization did not yet exist, and mainstream markets and circuits were not yet developed (Blanc 2014).

74 Interviewed 16/04/2018 in L_ (Brazil).

ourselves to death. The second year, I refused to participate because it was too much work. Are you crazy? Weeding five hectares [50,000 sq. meters] with a hoe, like a slave! But many others did it again because they wanted money. The buyer took all the production, didn't pay...and disappeared. There are people who lost 4,000, up to 5,000 reais at the time, which would be 10,000 reais today [about 2,500 euros in 2018]. Almost everyone lost faith in organic production. There was a rush to conventional methods. This way, they had access to infrastructure through the established [non-MST] conventional cooperative in L_: harvesters, sprayers, trucks, technical assistance and the conventional technological package of seeds, fertilizers and pesticides. Only a small group stayed with organic production... about 8 guys...⁷⁵

What is more, following the failures with collective production, most *núcleos de base* had decided not to build definitive housing units in *agrovilas* configurations. Only one *núcleo*, the one situated the farthest from the settlement's center (about 7 km) decided to do this, with each family receiving one hectare of land to build a house and produce subsistence crops in a village-like area and 9 more hectares in a different location, although production was never organized collectively there either. All other groups of settlers decided against this and built their houses inside their plots, far away from their neighbors. *Terra Prometida* was quickly deviating from the MST's plans of forming a model settlement with organic and collective production.

3.4 The rift

A few families decided to stay organic. They were a group of young militants who had undergone extensive MST political training, or had had personal contact with religious figures associated with left wing seminars and base ecclesiastical communities. Aside from one middle-aged MST dirigente, a man who still resided in the settlement in 2018 and was well-versed in Marxist philosophy, most were at the time single men or recently married couples in their 20s. They believed fervently

75 Interviewed on 29 November 2017 in L_ (Brazil).

in the MST's ideological mixture of Marxist theory, social reading of the Gospel, and prescription for collective labor as a way to bring on social change. They were determined to produce organically, and to show others that collectivizing production could yield good results.

Shortly after the settlement's creation, they founded a dairy and vegetables production collective named after Dom José Gomes, a recently retired bishop from the Diocese of Chapecó in Santa Catarina state who followed the Theology of Liberation.⁷⁶ Arnildo and Sara, a couple with a young daughter, were part of this group. Sara was active in the encampment school and would later become a teacher in the settlement's municipal school. Arnildo was a recruiter for the MST and had brought families to Terra Prometida from various locations in Paraná and Rio Grande do Sul. He would later join the MST's production sector, train as a cooperative manager through an MST-state university partnership in another state, and become a controversial figure in the Terra Prometida settlement—as the Liberdade cooperative's president.

Arnildo remembered the Dom José Gomes production collective with nostalgia, and explained its quick dismemberment by the geographical distance that separated the plots (the group had been formed after INCRA had already divided the land between families, impeding plans to collectivize the settlement) and its members' participation in courses and political militancy activities, which paradoxically limited time for actual agriculture. Camilo, another former member of Dom José Gomes, also cited a lack of technical preparation as a reason for separation, which had, according to him, given many non-participants the impression that organic agriculture didn't work.

We went into it head first, we embraced agroecology fully, but we weren't prepared. This is my personal evaluation: we started wrong. It was agroecology from the top down. The results we expected didn't come, and it caused a lot of frustration.⁷⁷

76 Dom José Gomes' political action during the end of the military dictatorship had been instrumental in training a generation of CPT priests, rural social movement militants and PT politicians in the west of Santa Catarina and Rio Grande do Sul states. See Burdick (2009) for anthropological analysis of 1970s–80s Liberation theology's broad influence on Brazil's political life and social activism.

77 Interviewed 05/04/2018 in L_ (Brazil).

Despite these difficulties, Arnildo noted that this pioneer group catalyzed what would become the Liberdade Cooperative. After a large number of families switched to conventional production, those same organic families had formed the base of the Liberdade cooperation and agroecology group, which would later morph into a legally registered association, and finally incorporate itself into the current cooperative in 2010. This group, which only comprised about 19 families in 2003, acted as a coherent space for socialization of ecological ideals. It also nurtured friendships between participating families. Within this group, members shared specialized knowledge, training, and experimentation with organic vegetable production. They planned production and commercialization in local fairs, which helped show other families that organic produce could generate income. Most important, perhaps, the group had the full support of the MST's state leadership in Curitiba. By 2009, it had grown to some 42 families.⁷⁸

Something else would soon be imposed on settlers without much discussion. In 2005, on the margins of the 3rd World Social Forum in Porto Alegre, an agreement⁷⁹ was signed between the government of Paraná, the Federal University of Paraná, the government of Hugo Chavez in Venezuela and leaders of La Via Campesina Brazil and La Via Campesina international to implement two Latin American courses of superior training in agroecology, one in Brazil and one in Venezuela. Open to students selected by movements, these courses were conceived of as support for La Via Campesina's global vision for agroecological transition. Paraná was by then a friendlier state for the MST following the election of then-president Lula's ally Roberto Requião as the state governor (see McCann 2008, 63–64), and the movement's state and national leadership was looking for a settlement where the Brazilian training center could be implemented. According to João Maria,⁸⁰ the long time political activist of the MST who would later coordinate the

78 This is confirmed by the findings of a locally-researched mixed methods masters' dissertation which I do not reference for reasons of anonymity.

79 A copy of this agreement available on Open Data LMU: Claire Lagier, *Agroecology within and beyond the Brazilian Landless Workers' Movement (MST) – Appendix 1–4*, [2020], Open Data LMU. <https://doi.org/10.5282/ubm/data.193> (last accessed ##.09.2020), here Appendix 1.

80 Interviewed on 06/06/2017 in L_ (Brazil).

training center (see Part III of this dissertation), the MST's leadership quickly chose the Terra Prometida settlement because of the presence of the Liberdade cooperative and its agroecology working group. It was also selected due to its close proximity to Curitiba, facilitating travel of educators and students.

Initially, many “organic” settlers were thrilled with the perspective of a university-level agroecology training center being built in their settlement. That being said, the Liberdade clique was rather small. As a result, the MST's coordination decided that the school would be “implanted” (in João Maria's words) in Terra Prometida without receiving consent from the majority of settlers. This is an example of how the MST may at times paradoxically disregard local autonomy⁸¹ in the name of helping build “food sovereignty” transnationally.⁸²

Márcio, a proud conventional farmer,⁸³ didn't oppose ERS's placement in the settlement in principle, but resented that such a decision had not been made democratically. As he explained:

Almost no-one knew. There was no discussion within the settlement. There was no infrastructure to receive the school aside from the casarão [the colonial house] where our settlement meetings took place. So there was resistance—it's not that we didn't want it, but we didn't want it this way. The whole thing should have been discussed openly. It ended up causing a lot of fights and division.

The events that followed, taking place in 2007–2008, are not straightforward, as there are a number of different accounts circulating through-

⁸¹ See Wolford (2010a, 95–97) for an earlier discussions of how the MST's strong national and transnational articulation using a discursive focus on the “local” as “counterhegemonic strategy” has not always favored local interests, autonomy and conceptions of social justice. While Wolford makes this argument to compare MST action in the southern state of Santa Catarina and in the northeastern state of Pernambuco, I show these dynamics can be found within “model” communities in the south of Brazil, where the MST was born and gets its conceptions of land justice (see also Schimanski 1998; Brenneisen 2002).

⁸² See Agarwal (2014) for a critical analysis of contradictions within the notion of food sovereignty, for example between the strengthening of “family farming” and gender equality, between individual and collective land rights, or between local food autonomy and national food autonomy.

⁸³ Interviewed on 16/04/2018 in L_ (Brazil).

out the settlement. The trouble began when a group of conventional settlers decided to cut and sell pine trees from protected areas (these areas were not native forest, but were protected under forest legislation), acting against INCRA's request to wait for permission from environmental agencies. For some, this group of conventional farmers interpreted the MST leadership's decision to place *ers* in the settlement as a stratagem to oblige farmers to produce without pesticides. I was told that some factions responded with force against *ers*, when it was under construction. There were instances of arson and physical threats, leading the MST's leadership to call on so-called "brigades" of people from other areas to defend the school. This was the version most often repeated around the settlement, especially by *ers*'s coordination and in the cooperative's social milieu. Yet others discredited this official account.

They suggested that arson had been faked by the MST's state leadership to frame the well-organized conventional settlers as "undesirable" and a threat to the future of the movement and its goals. Soon after the episode, the federal police arrived and arrested a group of conventional settlers for extracting wood from federal forest reserve areas without a permit. Thereafter, INCRA revoked their usufruct titles.⁸⁴ At this point, the narrative gets a bit confusing, as some of the men who had been arrested were later allowed to return to their plots in the settlement. In any case, the episode was clearly quite traumatic for them and their families. This was not the only time that settlers were reported to have been evicted—many research participants reported that other families had been evicted in the first years of the settlement's existence, for reasons varying from vocal and defiant non-compliance with the five year organic transition plan, to refusal to participate in MST internal fundraising efforts, and refusal to participate in MST occupations. It is now

⁸⁴ In Brazilian land reform legislation, settlers gain rights to usufruct of a plot of land, meaning they have full rights to use it for production and residence (although public help to set up production and housing are often limited), are the sole earners of any money made from agricultural sales (although in practice they often pay membership rights to a cooperative or end up leaving a lot of value added with intermediaries), and can pass on the land to their legal heirs. However, this does not award them ownership of the land. The land stays the public property of the federal state and can be taken away from individual settlers by INCRA for a range of reasons, including if MST leadership persuades INCRA to. They do not have a right to sell or lease it, although some illegally do.

relatively established in the ethnographic literature on the MST focusing on various regions of Brazil (see for instance Brenneisen 2002; Caldeira 2008, 2009; Wolford 2010b; Flynn 2010; DeVore 2015; Gurr 2017) that the MST's leadership sometimes uses coercion and forcible evictions to discipline rank-and-file members who are viewed as non-compliant with the leadership's interests, with various degrees of democratic legitimacy within the communities where these evictions happen.⁸⁵

It is not my intention to reconstruct "the facts" concerning the Terra Prometida evictions. My point is that this is remembered as a symbolic turning point in the life of this community by conventional and agroecological settlers alike, where agroecology definitely became a symbol for struggles over internal democracy, autonomy of families over their production methods, and the rights of rank-and-file members to a real debate around decisions shaping the future of their local space. A regional leader living in the settlement, who openly criticized what he called the broader movement's "Leninist messianism" reflected, "This is why those who plant conventional will never experiment with agroecology... they have been traumatized by these events [the evictions]." Indeed, a deep rift had been opened in the settlement's social relations, on the one hand associating agroecology with injustice, violence, and exclusion of conventional settlers, while showing practitioners of agroecology that they had MST leadership's powerful support in their production choices, thanks to the presence of the Liberdade group.

Ironically, because the MST officially has a strong Marxist orientation, the micropolitical situation reminds me of Elias and Scotson's (1965) description of greater power of one group over another in the same English working-class neighborhood, in what they called an "established-outsider figuration".⁸⁶ They write:

⁸⁵ Often, INCRA's role as a state agency (which should normally have complete decision power over who gets to stay in settlements) is ambiguous or clearly subordinated to decisions made by the MST's leadership due to its institutional weakness and its employees recognizing MST activity as a normal and legitimate part of land reform processes (see Wolford 2010b).

⁸⁶ In "The Established and the Outsiders" (1965), Elias and Scotson make a sociological analysis of social stigmatization in a suburban community in working-class England, where sub-groups who otherwise did not differ in traditional "class", national or racial terms were sharply divided, contributing to the sedimentation of social hierarchy and the

one could see here the limitations of any theory which explains power differentials only in terms of a monopolistic possession of non-human objects such as weapons or means of production, and disregards figurational aspects of power differentials due [...] to the degree of differences in the degree of organization of the human beings concerned. (Elias and Scotson 1965, xviii)

Early failures with collective work and organic mono-crop production, a high degree of social cohesion in the *Liberdade* group, and the symbolic and material backing up of the MST's leadership to those willing to practice agroecology, coupled with public disciplining of recalcitrant conventional settlers, opened up a deep social rift in the *Terra Prometida* settlement and created a self-reinforcing "figuration" of power which resulted in social exclusion of the "conventionals." How did this rift affect production and income generation strategies, access to different markets, and feelings about land tenure? In turn, how did this influence settlers' capacity to envisage agroecology as a legitimate and credible alternative to pesticides-based production? In the next sections, I examine the three "ideal-typical" groups that I identified on the *Terra Prometida* settlement: the "agroecologicals", the "conventionals", and those I call the "in-betweeners." In the last section, I discuss this ethnographically-informed microsociological analysis in light of future perspectives for the MST as an organization and generational farm succession.

deterioration of life prospects in the lower strata of this hierarchy over time. One older "established" group "closed ranks against" a newer "outsider" group, treating them as "people of lesser human worth" lacking "the distinguishing group charisma which the dominant group attributed to itself" (1965, xv) and treated them as "people who did not belong" (xvi). Important to Elias and Scotson's theory is the role of gossip in disciplining members of the "established": negative gossip against members of the group seen as behaving as or associating with the "outsiders" and "praise gossip" in favor of those respecting the taboo (xvii). See e.g. Fonseca et al (2018) for reflection and review of the concept of social cohesion in sociology. At the level of community (as opposed to institutions and individuals), this translates into high levels of "shared loyalties, mutual moral support, social capital, strong social bonds, trust, social environment, formal/informal control, overlap of individuals' friendship networks, pressures for conformity and caring, civic society, reciprocal loyalty and solidarity, strength of social relations, shared values, common goals, moral behavior and norms, values of rewards in groups, and process performance and goal attainment."

3.5 The “agroecologicals”

My impression during fieldwork was that Arnildo, the *Liberdade* cooperative’s president was something of a mythical figure in the settlement. Some despised him and accused him of dishonesty and authoritarianism, while others credited him with holding agroecology together in the settlement and wanted him to be the cooperative’s president for as long as possible. He was a lean, quiet man, whose abrupt manners, perpetually neutral facial expression and penetrating eyes could lead one to think he had something to hide—or was simply reserved.⁸⁷ Arnildo took his role as the cooperative’s president very seriously and showed up at meetings with wordy PowerPoint presentations and elaborate technical explanations, staying on top of changes in legislation and new business and technological opportunities, presenting his plans to cooperative members, and asking them to ratify his strategic decisions. He repeatedly said he was ready to step down and let other people take charge, but that nobody wanted the responsibility. In practice, it was difficult to imagine other settlers, most of whom had never finished high school, taking over the daily administrative and commercial tasks that him and his small staff did on a daily basis for a modest salary (combined with income from agricultural production and/or a spouse’s income, this often amounted to them being relatively better off than others), and in some cases for access to free family housing close to the cooperative’s headquarters.

The *Liberdade* cooperative’s leadership was closely linked to the MST’s regional and state leadership. They operated as the settlement’s “voice,” which gave them great symbolic power. They recited the settlement’s story to researchers, filmmakers, and visitors (so much so that

⁸⁷ Some researchers who have spent time in Terra Prometida reported difficulties making conversation with him, and he did seem very distrustful of me the first times I met him. He smiled to me for the first time only after I accepted to join a cooperative meeting to give an oral presentation about my research and volunteered my labor to help in cooperative activities. After this, he seemed to open up to me, enough to invite me into his home on weekends and have *chimarrão* with his family several times, to personally invite me to cooperative assemblies and meetings, to let me have lunch with the cooperative’s staff in their little kitchen on a regular basis, and to let me take part in produce collection and commercialization activities aboard the cooperative’s trucks.

some of them joked they should record a video for future visitors—the settlement's status as a model within the MST meant national and international group visits were frequent). They took these visitors to the settlement's most impressive agroforestry projects,⁸⁸ and told their personal stories of life-changing activism and ecological awareness. What is more, they mediated others settlers' access to training events, government programs set up to buy organic production, private organic markets, and Rede Ecovida through the cooperative's fairly impressive range of activities.

At the time of my fieldwork, about 7 years after its legal creation as a cooperative, Liberdade had about 230 individual members, who came not only from the Terra Prometida settlement (where about 120 of its members lived, sometimes two or three people in a single family unit were members) but also from 5 other rural communities in L_ and surrounding municipalities. Members had to pay about 30% of their sales profit to the cooperative (which is very high compared to membership in a large conventional cooperative, where contributions were about 1.5 to 3% + a yearly contribution). It had about 10 permanent remunerated staff, to take care of administrative matters, of the agroindustry, and of logistics (including collection, organization and delivery of produce), and owned three mid-sized trucks (one of them refrigerated). It also owned several tractors and other equipments such as the cata-capim, a tractor accessory made to cut and triturate grass to cover soil, which members could rent from the cooperative for preferential hourly rates (only for use with legally recognized organic production, since the legislation prohibits the sharing of equipment items between conventional and organic production). The two main public food programs that the cooperative participated in were the Programa de Aquisição de Alimentos (PAA, Food purchase program) and the Programa Nacional de Alimentação Escolar (PNAE, National program for school lunches). The first one is a policy of support to family agriculture created in 2003 as part of the Fome Zero (Zero Hunger)

88 As we will see in detail in Chapter 4, what a lot of settlers saw as the turning point between “organic” and “agroecological” production on this settlement was the 2010–2014 implantation of agroforestry plots by a series of Petrobras-funded projects.

program, which buys produce from small farmers and land reform beneficiaries at a higher price than market price and distributes it to food insecure communities through neighborhood associations, parishes and other local organizations.⁸⁹

Every day from dusk to dawn, the cooperative’s truck drivers were busy either picking up boxes of produce from members or delivering them—activities which I often took part in. Delivery places included: organic fairs in Curitiba, a community center in Curitiba’s periphery where PAA program donations were distributed to beneficiary organizations, municipal schools and state high schools in different municipalities around L_ who received agroecological produce through the PNAE law, a food processing company in a neighboring municipality which received untransformed ingredients to make school meals for public schools through the PNAE law, and about 10 distribution points in Curitiba for a weekly delivery of custom-made product boxes that customers could order online (these boxes could include produce from cooperative members, but also organic and non-organic industrialized products from other MST cooperatives, such as butter, sugar, rice, eggs, beans, frozen peeled manioc, marmelades or breads, and organic non-MST products, such as natural cosmetics and kombucha tea).

The cooperative’s leadership participated in regular meetings for their local chapter of Rede Ecovida (which organized regular visits to members’ plots to verify conformity to organic legislation and internal rules) and participated in political activities, like protests in Curitiba, the Free Lula encampment in Curitiba (set up in 2018 in the wake of Lula’s arrest on corruption charges) and a summit with local and state politicians to showcase the advantages of land reform for education, food security and local economies. Through the cooperative, training events also took place for cooperative members to further their tech-

⁸⁹ However PAA is a program and not a law, which means its conditions, budget and very existence are at the mercy of successive governments. PNAE is enshrined in law, and therefore less vulnerable (see 2009 bill here: www.sed.sc.gov.br/documentos/alimentacao-escolar-2015-525/legislacao-517/2344-lei-n-11-9472009-pnae-4129/file – Last accessed on 04/05/2020). It funds and organizes state-subsidized purchase of food from small farmers to offer middle- and high-school children free lunches, a program which (together with the famous cash transfer program Bolsa Família) was credited with an important rise in school attendance, especially in the country’s poorest regions (Szinwelski et al. 2015).

nical knowledge on agroforestry.⁹⁰ Another example was an agroforestry weekend course which took place in the settlement and open to MST members from the whole region, organized through the Pronatec technical training program (a program created during Dilma Rousseff's first mandate to increase market-oriented technical training within the population and thus increase employability of low-qualification workers, which interestingly includes an "agroecological grower" training program). The cooperative did not offer regular technical assistance services to its members or organize regular collective work sessions at the time I was in the settlement, and did not have an information or library space for members to inform themselves on agroecological production methods.

It is important to note that the cooperative leadership did not nearly include all members of the cooperative living in the settlement, but rather a small cluster of families (approximately 15 households) who had high cohesion between themselves. They had close relationships with each other, a relatively long history of informal contact, and were close to the MST's state leadership. This last point means that some of these people (mostly the men) were current or ex-members of the state leadership or regional leadership. This provided them with access to social and material resources. They were able to send their teenage children to work at the MST state secretariat in Curitiba or to MST-run training courses. They held high status within the MST (at least regionally), not least of all because they were acting on the MST's principle to organize organic cooperatives. Somewhat ironically, several of these families did not depend fully on agricultural income for their subsistence. Some earned one (or two⁹¹) incomes working for the cooperative, the settlement's primary school or high school, earned a state retirement pension,⁹² or earned a stipend from the MST for militancy

90 The most obvious were projects A_ and F_ and the mandala garden project, which I'll be explaining in more detail in Chapter 4.

91 Unsurprisingly, families who earned two stable incomes not directly from agricultural production had above average houses in terms of size, external aesthetics and amenities. This was the topic of much critical discussion among those who considered the cooperative exploitative of its rank-and-file members.

92 In Brazil, as of 2018 (Brazil's new far right government is currently attempting to modify these rules), farmers, rural workers, artesanal fisherfolk and indigenous people who could

activities in the Frente de Massa (the MST’s grassroots recruitment and public action organization arm, see Carter and Carvalho in Carter 2015, 245). To be sure, these were not very high salaries, stipends, or pensions, but they made PAA and PNAE individual contracts (ranging from 4,000 reais—1,000 euros in 2018—to 20,000 reais—5,000 euros—a year, which are nearly impossible to live from exclusively) a sort of income supplement, rather than a main source of income. Those who actually lived from agroecological produce sales had often had privileged access to resources in order to become exemplar practitioners of agroecology, either because their children were trained as agroecologists or by becoming pilot project “demonstrative areas” for agroforestry projects. As a result, they received heightened attention from technicians and scientists participating in these projects (see Chapter 4). In two cases, agroecological reference families established relationships with private urban customers to sell certain products (organic strawberries sold 15 to 18 reais per kilo in one case, vegetable baskets as a direct sales scheme in the other) aside from their institutional sales through the cooperative.

These families had a strong ethical worldview rooted in agroecology and was often expressed on the terms of official MST rhetorics.⁹³ As one settler told me, it is “the only way forward for humanity,” a necessary condition of any substantial agrarian reform free from corporate control, and a way to embody their environmental and socialist values and do good in the world. In this discourse, agroecology was a way to live within nature’s cycles rather than against (or in spite of) them. One agroecological grower, talking about crop diversification and soil cover as a way to manage insect populations instead of eradicating them, told me his thinking about “pests” had changed. He had come to realize that “humans are the real pests, and we are ravaging the earth much more

prove that they had worked in agriculture for at least 180 months (a long list of documents is eligible in order to prove this) are entitled to a monthly minimum wage level pension from the country’s social security agency, starting at age 55 for women and 60 for men.

93 This kind of ideal social movement subjectivity is what a lot of academic literature on social movements and agroecology reiterates and universalizes as simply what agroecology is to social movement activists without much nuance or critical analysis, obscuring internal hierarchies and influence of structural conditions (see Altieri and Toledo 2011; Martínez-Torres and Rosset 2014 for widely cited examples).

than other animals,” which led him to include plants that attracted insects and extra quantities of seedlings to “feed” these insects in his agroecosystem. Many also perceived strong links between diet and health, and saw agroecologically-produced manioc, beans, fruits and vegetables as a basis for a healthy existence, whereas conventionally-produced foods were seen as “contaminated,” “poisoned,” and causing disease. This moral imperative not to cause disease was extended to consumers of food. For instance, one settler whose plot was regularly called a reference said: “[with agroecology] I know that what I am producing is good, both for me and the people consuming it. I go to sleep without worrying, I am positive that whoever is going to eat my production will not be harmed.”⁹⁴

Among the “agroecologicals,” as often expressed in informal conversations in the cooperative’s social milieu and interviews with me, the “conventionals” (but also other cooperative members who were seen as more weakly engaged with agroecology) were portrayed as lazy, in search of quick money, ignorant of the MST’s core values, and most importantly, in possession of a lower moral consciousness (because they were willing to commercialize products that agroecological producers saw as harmful for consumers and the environment) or suffering from “false consciousness” caused by exposition to mainstream media and agribusiness propaganda. One older “agroecological,” a long-time MST militant and part of the original group of families practicing organic agriculture in the Terra Prometida settlement, put this in direct terms of “pollution.” He likened pesticides runoff to ideological pollution by mainstream media:

Society is polluted... the human mind is polluted by agribusiness. So people only think about money, only think about getting rich, they think agroecology is not going to earn them profits, [...] they don’t care about the environment...⁹⁵

94 Interviewed on 22/06/2017 in L_ (Brazil).

95 Interviewed on 07/06/2017 in L_ (Brazil).

Another, who lived in a dual-income household which did not practice agriculture for a living (both members of the couple earned income through other MST- and state-supported activities), likened the decision that some families had made to switch to conventional production after they were unable to earn a living income from agroecological sales to a sort of “regression.”

This often led to conversations where “agroecologicals” asserted their group’s own moral superiority and greater political consciousness. For them, agroecology was a “means to farmers’ liberation” (see also Delgado 2008, 564) whose massification was being slowed down by human greed and ignorance. The “agroecologicals” were completely opposed to former Brazilian president Michel Temer’s plans to individualize land reform usufruct titles (which included the right to pass the land on to descendants but not to sell or rent it) and convert them into full property titles to be paid for over a twenty year period. They understandably described this as a right-wing plot to destroy settlements from the inside, as many settlers would be unable to pay and end up losing their land to the bank, bringing back the dynamics that had driven so many rural people to urban centers in the second half of the 20th century. However, their moralistic condemnation of their neighbors as prone to greed and individualism was troubling.

Many “agroecologicals” took pride in not desiring definitive property rights, as it showed they were members of a hard-earned, grass-roots-driven agrarian reform, and didn’t feel a need to own land in order to feel at home. “The Earth belongs to all of us,” said Isaac. “I don’t like fences, fences are for the bourgeoisie. Why does this (he made a gesture in the direction of his plot) have to be mine and that (gesture to his neighbour’s plot) have to be someone else’s? I don’t need to be the owner (dono) to feel that I belong to this land and it belongs to me.” Agroecological settlers felt secure enough in their land tenure with usufruct titles, and saw private property titles as contrary to the interests of the MST as an organization and to their personal interest.



Figure 4: A Liberdade cooperative worker uses a mini-tractor to prepare the soil for vegetable beds between rows of trees on an agroecological plot in December 2017

3.6 The “conventionals”

Barbara and Ivo, like many settlers I got to know, felt ambivalent about the MST. On the one hand, they strongly supported the organization’s goal of land redistribution in Brazil and considered themselves part of this effort. As Ivo said, “We are all part of the movement. The movement is us.” Their house was small, but one of the prettiest I had visited—well finished, with shiny tiles in and out, and spotless. It was also one of the most angst-ridden places I visited on the settlement. As a family associated with conventional, pesticide-based production, the couple felt marginalized and isolated within the organization and the Terra Prometida settlement’s social spaces.

It isn’t that they were “against” the movement’s goals of converting to agroecology. “We know that eating organic is healthier. Nobody sprays pesticides because they like to,” Ivo explained. Whenever possible, they preferred to feed themselves and their school-aged daughter with products grown without pesticides. They had a fruit orchard and vegetable patch for their own consumption close to their house, which they never sprayed. They had even been producers of certified organic vegetables

for the PAA, when Rede Ecovida still allowed parallel production in its rules. At the time, they had dedicated a small area of their land to organic production, using the “natural barriers” prescribed by organic legislation to separate it from their conventional fields. But after the Liberdade Cooperative and Rede Ecovida started advocating for total organic conversion of the production areas within five years, they reported feeling intense social pressure to convert their entire plot to pesticide-free production. This had brought back the anxiety of the settlement’s initial five-year organic plan and of the evictions that had followed it.

Letting go of their largest source of income—conventional soybeans and black beans—to experiment with organic production was unthinkable under current conditions, especially as they faced increasing problems with insects and rust fungus, and were heavily indebted. With such real pressures, they were not about to surrender to “the organics,” some of them real “fanatics” as they said, to convert to pesticide-free production. Thus, they turned to the cultivation of conventional strawberries to replace the organic vegetables, because strawberries drew in monthly income, which complimented biannual income from beans and soy well. In doing so, they had become one of the more than 60 production units, out of a total of 108, to produce conventional strawberries on the settlement, according to a local 2015 study (not referenced here to preserve anonymity). Ivo felt cheated by some MST leaders because he recalled having originally been drawn into occupying land on the basis of redistributive politics—land for those who work it. This is more akin to MST discourse from the MST’s official discourse in the mid-90s, at a time where its official slogan was “Occupy, Resist, Produce” (“Ocupar, Resistir, Produzir”) and production in itself (rather than a specific way to produce) was seen as the highest moral imperative for MST-affiliated land reform settlers. However, over the past ten years or so, he had felt increasing pressure to adopt pesticide-free production methods. Born and raised in the countryside of northern Paraná, he had worked with conventional methods as long as he could remember. His professional and his personal identities were deeply entangled with his knowledge and expertise as a grain farmer, to the point of conflating them with his own body. “A gente sempre trabalhou com lavoura, tá no sangue né, lidar com maquinário. [We always tilled the land, used

these machines... it is in my blood.]” Barbara had married Ivo after he had obtained land as a single man and moved into the settlement. They had invested their life savings into machinery for production: a truck, a small tractor, a harvester, a planter, and a sprayer.

In the absence of a definitive property title for their land, it had been difficult to convince the bank to give them loans. To repay them, they loaned their equipment to other conventional producers. They also informally employed two settlement residents to pick strawberries, which Barbara then weighed and packed. The couple sold them to the intermediaries who came to the settlement several times a week to buy their production (for 3 to 6 reais per kilo—0,75 to 1,5 euros in 2018) and sold it back to buyers at Ceasa, the central produce regulation agency.

Barbara felt more and more distant from the settlement’s institutions. Theoretically, all ought to actively participate in social life through *núcleos de base* and theme-based sectors. She had always been interested in the education sector, and actively taken part in school meetings and activities. Lately though, she stopped being involved, and the couple even considered withdrawing their daughter from the settlement’s public school in order to study elsewhere. The event that had sparked their change of heart was somewhat unexpected—a theater performance at school. Sensing her parents might not like it, she only mentioned it in passing, hoping her mother wouldn’t attend. When Barbara went, she found herself watching pre-teens enacting a symbolic battle between peasant movements and agribusiness multinationals. The multinationals sprayed mock pesticides. Her daughter, on the peasants’ side, suddenly raised her left fist with rest of the group and yelled: “SYNGENTA, ASSASSINO! [SYNGENTA, MURDERER!]” Ivo used Syngenta products at home. Barbara was frustrated by the performance, and felt her daughter was being turned against them. According to her, the settlement’s school was dominated by the “agroecological” agenda.

It was not the first time Ivo and Barbara had felt that their daughter was learning something at school that symbolically attacked the basis of their subsistence. For instance, one day, their daughter had come home and asked her father whether she really could eat their strawberries safely, after she had participated in a debate about pesticides at school. At the time, Ivo had taken this as a personal affront, but had

relativized his feelings because he valued his daughter’s education and the MST’s struggle to pressure the state into building public schools in land reform settlements (see Tarlau 2013a,b, 2014a,b; Pahnke 2015a). The school play, however, was over the line. It violated the way they had come to understand their membership in the MST. They saw the organization as an entity that had helped them gain access to a piece of land to work and live on. They knew that like politics in general, the movement had its good and its bad leaders, although they ethically believed in the MST and helped financially whenever they could. Now, above all, Ivo and Barbara wanted their usufruct rights to be turned into a regular property title, which they were prepared to pay for in installments over 20 years. They saw this as a necessary guarantee that neither politicians or MST dirigentes would be able to take away the only place they had to call home and to pass it on to their daughter “bem documentadinho...documented and in order” (see also, DeVore 2015 and Flynn 2013 on the importance of land title documents to socially insecure land reform beneficiaries).

Barbara and Ivo’s case exemplifies several characteristics of the “conventional” group. Conventional settlers I talked to agreed with the MST’s broader values, but felt a sense of exclusion from MST-led structures in the settlement (especially the Liberdade Cooperative and the education sector). They were afraid of being excluded further if they brought negative attention to themselves, which had led them to disengage from social activities. They were entirely aware of what the “agroecologicals” said about them: that they were going to get sick because of pesticides, that they had a lower moral and environmental consciousness, that they wanted their land property titles to sell their plots without any thought for the MST as an organization.

They often derived income from a mix of the following products: soybeans (which they sold to the local branch of a regional conventional cooperative, for the internal market and export to China), black beans, corn, strawberries, raw cow milk (which they sold to a specialized, external cooperative). They were entirely excluded from the Liberdade cooperative for producing with conventional methods, although some lamented not being able to sell strawberries to Liberdade for a higher value-added retention, instead of selling for extremely low prices

to intermediaries. Some of them had been able to invest in machinery and infrastructure in the absence of formal land titles through kinship-based collectives (often, this took the shape of two or more brothers organizing production and investing in machinery together) and informal hour-based rental of machinery (with or without labor) to other settlers. This was not a marginal phenomenon: according to a local leader, about one third of Terra Prometida's production units were under some type of informal leasing agreement (this was also confirmed by two local studies I do not reference here for anonymity reasons). All of them wanted a property title and were prepared to get loans on it, in exchange for the certitude that the land would be theirs.



Figure 5: Conventional bean monocultures, a common sight in the Terra Prometida settlement

For these settlers, agroecology had little economic legitimacy (aside from a way to earn a bit of side money, which had proven much more complicated and stressful than producing strawberries). It was also associated with exclusion from the social structures that regulated their immediate environment—with a type of second-class MST citizenship. All the “conventionals” I talked to viewed agroecological production as a big risk, and thought those who were in this situation in the Terra Prometida settlement were not in a good economic situation. One settler said:

Those who are doing well with agroecology have another source of income, either they own a house that they rent to others, they have rich external customers who buy their products directly, someone in the family earns a salary from the school or the cooperative, or they earn a pension. Living only from agroecology through the cooperative is not easy from what I see.

Based on my observations, I cannot say he was wrong.

Ethical legitimacy was more ambiguous. On the one hand, these settlers often advanced the argument that agroecological production alone could not feed “the nation” or “the world”,⁹⁶ making conventional production the only way to avoid mass starvation—echoing an argument that is often used within scientific and political institutions to oppose organic agriculture and agroecology (Thompson 2015; Iles and Montenegro de Wit 2016; see Mauser et al. 2015 for an example of this). Some of the “conventional” settlers also thought that organic food’s market prices made it food “for the rich,” that someone from their social class in urban settings would never be able to buy. In this sense, they contested the ethical legitimacy of agroecology, and thought the “agroecologicals” were hypocrites for saying that they had no consciousness of harm. However, to them agroecological production methods had a certain ethical legitimacy in terms of health and environmental concerns. Most conventional settlers preferred to eat food grown without pesticides or with a lower quantity of pesticides, being concerned with the effects of the pesticides they used on the watersheds around them, and that secure access to technical assistance and markets could possibly one day cause them to rethink their production methods. They were, however, unwilling to make the full transition until they were certain they could earn a living income from agroecological production.

⁹⁶ This argument is often used within scientific and political institutions to oppose organic agriculture and agroecology (Thompson 2015; Iles and Montenegro de Wit 2016; see Mauser et al. 2015 for an example of this), with or without model-based supporting calculations.

3.7 The “In-betweeners”

A large group of settlers did not fit into either of these categories. They were not a “self-conscious” group in the sense that they did not have a group identity, high social cohesion between themselves, or a very strong identification with one or the other set of production methods. I will call them “the in-betweeners”. The “in-betweeners” were a disparate group of people who could be found practicing either type of agriculture on their plots. Often, their plots were actually a mixture of both, where the idea of agroecology lingered – even if it was reduced in practice to a small diverse garden for household consumption. They were generally members or recent ex-members of the *Liberdade* cooperative who had not been especially close to members of the “agroecological” group (although some of them had emotionally complicated kinship ties to cooperative workers). They were people who either were 1) relying on agroecological production for income and were struggling, or 2) had been (partly) relying on sales of agroecological produce through the cooperative for income, but at some point had decided to convert all or part of their plot to conventional production, often by entering an informal agreement with a conventional producer who owned adequate machinery for sowing, spraying, and harvesting. Their decisions to convert to conventional production methods were generally motivated by economic variables, pressure by kin, and changes in household arrangements —in sum, the elements that are decisive in generational farm succession and farm viability in family-based small-scale agriculture.

An example was Ivânia, a single woman head of household who had had to stop practicing labor intensive agroforestry for a while after she injured her leg so badly that she almost had an amputation. While in recovery, she converted part of her plot to conventional soybean production because she needed income. Thereafter, she occasionally worked as a cook for ERS and as an occasional informal day laborer for a conventional settler picking strawberries—she derived her income from a combination of these three activities. Natália and Roberto, a middle-aged couple, also converted their plot to conventional production when financial issues had arisen after one of their adult children had left the house, which meant there were fewer hands to work the fields.

Another in-betweener, Rodrigo, a settler in his early 40s, had sold agroecological vegetables through the *Liberdade* cooperative for many years, organizing production with his two brothers. However, after his brother left the settlement, and another started work as a cooperative employee, insect numbers had risen, and he couldn't keep up. Furthermore, payments had been delayed by the cooperative (or, as it had happened a few times for bureaucratic reasons, when easily perishable products such as lettuce were ordered and produced but not picked up on time, resulting in wasting a whole day's worth of harvest and not receiving payment). Not having received adequate technical and personal support from the cooperative and in dire need of money, he converted a good part of his plot to conventional beans and corn production. He regretted having had to make this decision and hoped to be able to switch back to agroecology in the future.

But the most striking example was that of Alice, a settler in her 70s and long-term MST member. She had an intimate relationship with the notion of agroecology, as she cared a whole lot about medicinal herbs (which she called *remédios*—remedies, medicines) and ornamental flowers. For her, these exemplified a spiritual unity with nature and were an outgrowth of her Catholic worldview. She deeply believed in the rights of plants and animals to exist independently of their usefulness to humans, and believed that pesticides caused long-lasting damage to water resources and the soil. However, her plot was in “agroecological de-transition” following the arrival of her adult son from a previously urban life. He was set on making a living from the only type of agriculture he believed to be productive, conventional production.

The first time I visited Alice, I was with Ariane and Pablo, two students at the Ecological Resistance School that I was accompanying to observe the pedagogical exercise they were taking part in (see Chapter 6). Alice took us to an area where conflicting values about types of agriculture became quite obvious. Inside of a fenced area lay rows of her son's conventional tomatoes and strawberries. We stood there for a moment and Ariane asked whether Alice's son had sprayed them with *veneno*, pesticides. “Yes,” said Alice. “Wait, no. I don't know. It's not really *veneno*, it's... something [é um negócio lá]”. She knew he had sprayed something, but it was not really all that bad. She couldn't

explain exactly what it was. Maybe it was even a *remédio* for the plant. She started picking strawberries and eating them, offering some to us. Ariane was reluctant to eat them, Pablo and I did. They tasted like early season strawberries sold at European supermarkets: bland and slightly sour. Alice said we had to understand that it was very hard to make a living nowadays with organic production, her son had to work like this. After all, he had a wife and child to feed.

Just a few meters over on the right, at arm's length from the last row of strawberries, a bushy area with different types of trees was visible. Or at least, this was my first thought when I looked at it. Alice walked over and picked a small peach from one of the trees bordering the strawberries' area. "This is... my abandoned agroforest," she said defiantly. It hit me that it was, indeed, an agroforest, albeit one that looked like no-one had cared for it for a while.

Ariane and Pablo had solemn looks of their faces—I later learned they had already worked with her in this area, before my time, before her son had come. Alice named the different plants around us: *araçá*, *urucum*, *gavira*, *uva-japão*, *pitanga*, *jabuticaba*, nectarine trees, lima trees, lime trees, mandarine trees, passion fruit, orange trees, eucalyptus, plum trees, apple trees and pear trees, that she had planted herself.



Figure 6: Conventional black bean culture on Alice's plot, June 2017



Figure 7: Conventional strawberry and tomato culture on Alice's plot, June 2017

Some were native and came on their own, like the Taquara bamboo and different types of grass and flowers. She used to plant rows of cabbage, lettuce, and red beets between the rows of trees, for sale to the public food programs PAA and PNAE through her membership in the settlement's cooperative. She had had to stop because that would have been too much for the family's consumption, and her son, backed by her husband, decided that the family's commercial production would be conventional and pesticide-based.

The in-betweeners are a group that has a great deal of potential for those interested in consolidating agroecological legitimacy and scaling agroecology “out.” For them, an agroecological disposition was something to be proud of, and being able to make a living from it was often greatly missed. The ethical legitimacy of agroecology in this group was high, with heightened perceptions of the ecological issues caused by pesticides and fertilizers runoff, soil fertility decline, and erosion. Most of them had a great deal of respect and attachment for the flora and wildlife they observed on their plots, and most were still convinced that agroecology could “work” even after they had switched to conventional methods. They did not attribute their decision to a universal (ethical or technical) superiority of conventional methods, but to unfavorable cir-

cumstances that had led them to choose based on a combination of economic and personal constraints. In sum, the in-betweeners embraced agroecology ethically, but for diverse reasons were unable (or no longer able) to act practically upon the MST's agroecological mission.

The enhanced social and material capital possessed by the core members of the *Liberdade* group enabled them to remain in agroecological production, or helped them never stop (or "fall out," as people said) in the first place. Instead, the in-betweeners reported having been mostly ignored or judged for their decisions to switch to conventional methods, which made them suspects of capitalist greed. In one case, a settler reported having been implicitly threatened by a woman working for *Rede Ecovida*, who had unilaterally withdrawn her organic certification from her entire plot (even areas that were entirely separate from where conventional production took place). She said she was told that she could lose her land if she didn't produce in accordance with agroecological principles.



Figure 8: Alice's "abandoned agroforest," not in use for commercial agricultural production

3.8 Future outlooks

Thus far, this chapter advanced a three-fold typology of settlers on the Terra Prometida settlement: the relatively high-status and cohesive “agroecologicals”, the low-status, in-debted and economically precarious “conventionals,” and the ‘in-betweeners,” who could have been convinced agroecological producers but were instead forced by circumstances and the settlement’s deep social rift into dependence on conventional production for income.

When I asked Arnildo why the cooperative did not offer more help to these people, he said resources were already stretched thin, and that the cooperative had no capacity to offer technical assistance because INCRA had not provided funding for agronomists since Dilma Rousseff’s impeachment.⁹⁷ I do not doubt his sincerity, as the political situation in 2016–2018 was truly exceptional. However, without using double standards, it is difficult to understand why the “agroecologicals” (accompanied by a few non-resident members of the MST’s regional coordination) conducted sessions of intensive collective work on Arnildo’s plot or on the plot of a seriously ill “agroecological” MST leader (to keep the land well-managed while he was in hospital) on some Saturdays, but could not organize similar activities for Ivânia after she’d injured her leg or for Rodrigo when he had faced increased insect problems. After all, both leaders were part of families that derived income from other sources than direct agricultural activity—Arnildo had the cooperative president’s wage and his wife was a teacher, while the sick leader’s wife and son lived outside of the settlement during the week,

97 EMATER professionals (publicly employed agronomers) do not typically work with land reform settlements in Paraná, as INCRA is technically responsible for contracting technical assistance for settlements. This certainly wasn’t the case in the post-impeachment period. In the late 2000s, the Liberdade cooperative managed to secure sporadic partnerships with local pro-agroecology EMATER professionals in order to access knowledge on composting and organic fertilizers, which several settlers mentioned as a turning point in their productivity levels and attributed to the cooperative itself rather than to the MST. Arnildo was in regular dialogue with the small team of pro-agroecology EMATER professionals in L_ (one of which has previously been the mayor of L_, interviewed on 16/04/2018). He occasionally secured cooperative participation in EMATER-related activities and advice on small machinery adapted to agroecological production this way, but this was far from being a regular partnership and providing support to most cooperative members.

both working in intellectual professions. On the other hand, both “in-betweeners” had depended entirely on agricultural income at the time when they had needed help and were on the verge of having to renounce agroecology.

The purpose of this analysis is not to “blame” the MST or specific individuals for limited social unity and equality around the notion of agroecology in the Terra Prometida settlement—I believe that lack of proper availability of public investment in agroecological research, technical assistance, and farm infrastructure, coupled with comparative difficulty accessing markets for organic production, are by far the most important factors structuring social divisions like Terra Prometida’s “agroecological rift.” However, I have also shown that concentrated power within the leadership and specific relations within the MST can at times be an obstacle to the construction of agroecological legitimacy and to settlers’ ability to use agroecological methods in their production.

Far from linking a certain set of production methods (conventional), commercialization strategies (through conventional agribusiness channels) and attitude towards land tenure (desiring full land ownership) with a decline in alignment with the MST’s values, this chapter shows that the vast majority of settlers (regardless of production methods) relate what they do as motivated by ethical principles and by principles that form the spirit of the MST’s formation – although settlers might sometimes disagree with some of the MST’s leadership or tactics. As DeVore (2014, 12) writes:

the struggle to create a more just world is something that also occurs internal to liberatory social movements such as the MST, where the struggle for emancipation can also occur internally. These challenges, however, cannot be properly understood as “oppositional” to the MST. Indeed, given the historical trajectory of which the MST is a part—aiming to create a more just and participatory Brazil—these community members’ challenges will best be understood as an unflinching embrace of the same historical spirit that gave rise to the MST and other social movements like it.

It is important to look at these findings in light of a pressing issue facing rural social movements: how do these social conflicts affect the youth,

whose decisions to stay or not in the countryside will be absolutely vital to the possible continuation of organizations such as the MST in the coming decades (Gurr 2017; McCune et al. 2017)? One thing that is obvious in the Terra Prometida settlement is the relative absence of young adults. According to Mauricio, the same regional leader who criticized the MST's "Leninist messianism," conflicts between "organics" and "conventionals" following the 2008 evictions deeply affected the settlement's youth, with some children of "conventionals" adopting an oppositional attitude to ERS (breaking things, intimidating students) and finally leaving the settlement:

There is a generation of the youth that we lost. This generation that was about to become settlers now [at the time of this interview, there were talks to create a number of new and smaller plots in the settlements after legally extracting timber from some areas, to settle sons and daughters of current settlers]. Since there were these conflicts in 2007 with timber extraction between organics and conventionals, the youth massively left the settlement to work outside. Some got married and stayed here, but most left. At the time there was a lot of work available, it was the Lula government, they opened a lot of opportunities in civil construction, so there was work and people who worked outside made more money. It's not that they necessarily wanted to work outside, but these conflicts took place and they gave up, saying, "whatever, I don't care, I'm just going to live my life." They left.⁹⁸

In parallel, the settlement's "agroecological" youth, thanks to their parents' social capital within the MST, had some opportunities for upward social mobility. Their status as sons and daughters of local leaders made them more likely to access education through MST channels. Their close experience of MST organizing at home made them well-acquainted with MST organizational practices and political culture. When I participated in meetings of the settlement's youth collective, it was entirely made up of sons and daughters of agroecological leaders (and a few descendants of in-betweeners), which gave some of them an occasion to attend the

⁹⁸ Interviewed on 29/11/2017 in L_ (Brazil).

National MST Youth encounter in Rio de Janeiro state in 2018 to perform music and theater. Most children of Terra Prometida conventional settlers did not participate in the youth collective.

On the other hand, these young people, some of whom were finishing high school, were unlikely to stay in the settlement to live from agriculture in the next decades. While most wanted to stay involved with the MST's struggle in some way, many of them expressed a desire to leave to get training and to get to know other places. Unless major crisis hits urban areas and prompts an "urban exodus" (which is possible), it is unlikely that twenty years from now there will be enough "agroecological" youth to take over their parents' plots in the settlement. What is more, the example of Alice's son shows us the dynamics of farm succession. Given the lack of access to resources to clearly show that agroecology can give good production (and technical support for those attempting to do this in local conditions), and the relatively low pro-activeness in the cooperative's social milieu to support settlers in staying with agroecological production, settlers who firmly believe in agroecology might be replaced against their best will by conventional-minded younger family members. Over time, this means areas currently under agroforestry-based production might be turned into conventional monocultures.

3.9 Conclusion

In this chapter, I have introduced the Terra Prometida land reform settlement. After explaining how a social rift was formed between producers supporting agroecology and producers using conventional methods, I argued that a third group of settlers has been both constituted and affected by the dynamics surrounding different production methods. These settlers are current or ex-members of the cooperative who have not played an active role in it. They ethically prefer agroecology, but have been confronted to situations that caused them to turn away from agroforestry-based production as a main source of income, often leading them to switch to conventional production or informal leasing of their land. I concluded discussing these findings in light of the current political situation in Brazil and of the perspective of inter-generational farm succession, which is absolutely crucial to the future of agricul-

ture and rural movements—not only in Brazil, but worldwide. One very important aspect of the “agroecological transition” in the Terra Prometida settlement remains unanswered by this chapter, and will be addressed in the next. How did “agroecological” settlers and those who practice agroforestry learn to do what they are doing? What are their practices, and how did they appear on the settlement? Above all, what can be learned from their experience in terms of establishing agroecology in farming communities and as a societal concept?

Chapter 4: Embedding a sociotechnical imaginary?

4.1 Introduction

In this chapter, I seek to explain in more detail what made “agroecological” production possible for some of the families living in Terra Prometida. As the food regimes literature (e.g. Friedmann 1989; McMichael 2009) makes clear, and as confirmed by my findings in Chapter 3, many farmers (even those living in territories affiliated with a social movement that has promoted agroecology ideologically) continue to produce for conventional markets using conventional methods. Major factors responsible for this include farmers’ entanglements in path-dependent chains of norms, beliefs, rules, practices, and constraints at multiple levels—from fields and agronomic research institutes to market access and consumers’ plates. This makes change hard to imagine, technically difficult to implement, and requires farmers to take financial risks given that the status quo strongly disadvantages smallholders (see also Wit and Iles 2016, 4–5; Araghi 2000; Lamine 2017, particularly chapter 4; Elzen et al. 2017). In contrast to this broader trend, which includes a vast majority of the MST’s rank-and-file nationwide, in Terra Prometida, the notion of agroecology has gained economic, practical, and ethical legitimacy within the Liberdade cooperative, particularly among the “agroecologicals” and the “in-betweeners” in Chapter 3. That being said, “practical” agroecology is a broad set principles meant to be adapted to local and regional socioecological contexts (Kloppenburg 1991; Altieri 1995; Wezel et al. 2009; Gliessman 2015, 2018; Toffolini et al. 2018). Therefore, processes of legitimization must always be rooted in place-specific practices, material flows, and social relations. Therefore, I ask: Which specific practices were deemed properly “agroecological” by the Liberdade cooperative? How had settlers learned them? What other actors were relevant to social processes? How have these projects and their attendant social relations influenced the construction of agroecology’s legitimacy within Terra Prometida?

Theoretically, this chapter applies insights from STS, rural sociology, and environmental sociology to interpret empirical data gathered in

and around the Terra Prometida settlement in 2017–2018. Using specific examples, I attempt to show that agroecological legitimacy within the MST cannot be studied without taking into account other actors involved in “expanding social networks of knowledge and trust” (Carolan 2006). Ultimately, I argue that agroecology can be likened to an emergent “sociotechnical imaginary” (Jasanoff and Kim 2009; 2013; 2015), which links farmers to the MST and beyond. The efforts of MST activists have helped embed agroecology within local civil society: with conservation-minded scientists, institutional allies, urban activists, and consumers of food. However, this fragile “institutionalization” (in the broader sense defined by Bellon and Ollivier 2018)⁹⁹ is far from secured.

To explore this contested territory, it is useful to introduce sociotechnical imaginaries, as defined by Jasanoff (2015a). I then apply this notion to agroecology and ways it was consolidated in Terra Prometida. Then, I explore what this means for three interlinked categories of actors: scientists, settlers and urban organizers who facilitated the sales and distribution of agroecological produce via institutional channels. I explain preexisting motivations, advantages, and transformations of worldviews prompted in part by their experiences with agroecological agroforestry. I also describe certain contradictions that emerged from the way “agroecology” has been constructed; importantly I show that gender relations are an important and underresearched variable in the construction of agroecological legitimacy. Finally, I discuss these findings in light of recent political developments in Brazil, and the rapid dismantling of a supportive legislative framework for small-scale, diversified, and organic agriculture.

⁹⁹ Bellon and Ollivier (2018, 2) define institutionalization as “as a gradual process of creating and stabilizing relationships between actors, as well as sharing common ideas and norms that make collective action possible. Our gradual approach differs from more binary ones considering institutionalization as being (i) limited to formal and powerful organizations and (ii) detrimental to a genuine transformative program in agroecology.” Their approach reminds us that agroecological social movements are always in connection with (and attempting to transform and channel resources from) mainstream institutions; as such, it is crucial to extend analyses of agroecological legitimacy within social movements such as the MST to their local connections with mainstream institutions and other organizations.

4.2 Sociotechnical imaginaries and the “arrival” of agroecology

Within STS, the notion of sociotechnical imaginary¹⁰⁰ has been defined as a “collectively imagined forms of social life and social order reflected in the design and fulfillment of nation specific scientific and/or technological projects” (Jasanoff and Kim 2009, 120).¹⁰¹ While appropriate for their comparative research on nuclear energy in South Korea and the United States, using the nation-state as the analytical unit makes little sense when it comes to exploring fundamentally global and transnational concerns. Such challenges, and the social movements which seek to respond to them, prompt a re-theorization of sociotechnical imaginaries—as they are not limited to national collective imaginations, scientific networks, and legal systems. In a later edited volume (2015, 4), Jasanoff’s introduction broadens the concept in this sense:

Sociotechnical imaginaries [...] are not limited to nation-states as implied in our original formulation but can be articulated and propagated by other organized groups, such as corporations, social movements, and professional societies. [...] Multiple imaginaries can coexist within a society in tension or in a productive dialectical relationship. It often falls to legislatures, courts, the media, or other institutions of power to elevate some imagined futures above others, according them a dominant position for policy purposes. Imaginaries, moreover, encode not only visions of what is attainable through science and technology but also of how life ought, or ought not, to be lived; in this respect they express a society’s shared understandings of good and evil. Taking these complexities into account, we redefine sociotechnical imaginaries in this book as collectively held, insti-

100 See Jasanoff 2015a for an intellectual genealogy of the concept, which broadly draws on the one hand on socioanthropological concepts of imaginaries, imagined communities and technoscientific imaginaries, and on the other hand on historiographies of modern scientific imaginations.

101 The authors develop the concept further in a 2013 article, where they shed light on the different sociotechnical imaginaries that underline American, German and South Korean national energy policies in the early 21st century, when “the political machinery of the industrial world is gearing up to address the energy crises of the new millennium” (Jasanoff and Kim 2013).

tionally stabilized, and publicly performed visions of desirable futures, animated by shared understandings of forms of social life and social order attainable through, and supportive of, advances in science and technology. This definition privileges the word “desirable” because efforts to build new sociotechnical futures are typically grounded in positive visions of social progress. It goes without saying that imaginations of desirable and desired futures correlate, tacitly or explicitly, with the obverse—shared fears of harms that might be incurred through invention and innovation, or of course the failure to innovate.

Although Jasanoff and Kim’s earlier work addresses energy policy and systems,¹⁰² such insights clearly have parallels with food systems. After all, food and energy systems are currently tasked with meeting rising and changing demand. Drought, flooding and disrupted fire patterns exacerbate instability for planting and harvesting practices predicated upon predictable weather patterns. Just like energy futures, imagined food futures have been characterized by a series of social and technoscientific controversies, ranging from the safety and contested ethics of genetically modified organisms and pesticide use, to debates over the morality of eating animal products farmed in different ways. These controversies, although they have given rise to nation-specific debates, legislative outcomes, and political claims, contribute to competing global and transnational imaginaries about the future of food and farming.

Agroecology, as mobilized by La Via Campesina, has been hailed as a solution to diverse challenges, which are ultimately to be blamed on the destructive tendencies of global capitalism. This itself is one global sociotechnical imaginary. It is extended¹⁰³ not only through activist networks, but also through global scientific-academic debate and practice (see also Warner 2006; Lamine 2017; Bellon and Ollivier 2018; Compagnone et al. 2018). Agroecology has been enshrined in policy in an increasing number of countries (for example, France, Brazil and the

102 These authors’ 2015 edited volume comprises one chapter which touches on food systems, but only addresses the rejection of genetically modified organisms.

103 “Extension” is Jasanoff and Kim’s (2015) theoretical alternative of critique of power-eliding Latourian networks circulation (see pages 333–337). However, I do not get into details here as it is secondary to the chapter’s argument; I may do so in a future article.

Canadian province of Quebec have all launched so-called “agroecology national plans” in recent years). Moreover, it is based on strong ethical claims in regards to how collective life ought to be lived.

This includes making space for non-humans within in our rights-claiming collectives; prioritizing food production and food producers over industrial and commodity oriented agriculture; excluding certain things, such as land and seeds, from global trade; prioritizing agrobiodiversity; eliminating corporate monopolization of science and technology; and discriminating against technologies that are deemed to cause disease and contribute to social fragmentation. Strongly intertwined with the concept of food sovereignty, the agroecological sociotechnical imaginary is “grounded in positive visions of social progress” based on notions of the common good, human emancipation, and the fulfillment of human necessities in ways which peacefully coexist with and sustain non-human worlds.¹⁰⁴

This raises an important question: how does a global sociotechnical imaginary such as agroecology, which is anchored in attention to context and adaptation to specific conditions, take root in said specific places? After all, “a foretaste of change, even when it originates with a sole progenitor, needs to be laid down upon economic, material, and social infrastructures in order to take hold at population-wide or nationwide levels” (Jasanoff 2015b, 327). Jasanoff’s (2015b) theorization of imaginaries’ “embedding” is key to understanding such dynamics. Broadly speaking, embedding refers to imaginaries’ necessity to “latch onto tangible things that circulate and generate economic or social value” such as commodities/products, legal instruments, or “the relative hardness

104 The agroecological sociotechnical imaginary is strongly related to competing, ethically-charged visions of land use. This is clear in the land sparing/land sharing debate. Broadly, land sparing consists in intensifying agriculture in some areas to better preserve biodiversity and “natural” habitats, including forests and wetlands, in others. Meanwhile, land sharing refers to trying to conciliate both activities on the same land. This means adopting a more multifunctional approach to agriculture, where the latter is seen as means for sustaining dignified social life in rural areas, generating stable, quality employment, and acting as a steward to important ecological functions, rather than the more strictly economic role as quantitative food production envisioned by the first model (see also Wilson 2007; Skogstad 2012). Both have been praised and criticized by scientists and scholars (see for instance Fischer et al. 2008; Phalan et al. 2011; Tscharntke et al. 2012; Wehrden et al. 2014; Renwick and Schellhorn 2016).

of long-entrenched cultural expectations and interpersonal relations” (2015b, 326) in order to become meaningful and productive of political and material change outside of the restricted circles that pioneer them. In so doing, such alternative visions become “re-embedded into local constellations of production and practice” (Jasanoff 2015b, 334).

We have seen in previous chapters how the notion of agroecology took hold in Brazilian civil society and in MST leadership orientations; let me now return to Terra Prometida. There, “organic” production was understood in the early years of the settlement to be monocultural plantations of soy, beans, and corn according to the logic of input substitution (using organic inputs instead of chemical fertilizers and organic certified pesticides). It also involved the collective tending of cattle or the production of vegetables in home and rather visually impressive, ever rotating, mandala gardens.¹⁰⁵ On the other hand, agroecology’s “arrival” in the Terra Prometida settlement was commonly associated with two alternative rural extension projects, which took place between 2010–2014 (with minor follow-ups in 2016 and 2018–2019). In interviews and informal conversations alike, an overwhelming number of settlers involved in pesticides-free production mentioned these projects as the beginning of their own relationship with agroecology. Some said agroecology had come to be understood as something they had already been practicing or feeling, and went far beyond the standards for beyond organic production. This was particularly true for those who grew up on farms where pesticides had not been used until they were young adults.

Although these extension projects had concluded, they remained semiologically present throughout the settlement in very obvious ways. Settlers wore hats and shirts adorned with the projects’ logos during meetings and work in their agroforests. They proudly kept books, CDs and pamphlets in their homes. The cooperative’s agro-industry building even sported a large sign, which indicated project participation. Additionally, a few land parcels received heightened attention from the projects’ extension agents, in order to transform them into “demonstrative

105 Mandala gardens are circular production areas that some MST settlements (including a few settler families of the Terra Prometida settlement) have been implementing on model plots.

units,” as denoted by large billboards. These projects were unique in that the “experts” were not extension agents from technical assistance agencies (such as public servants within technical assistance structures or agronomists employed by private structures), but farmers linked to Coopeco, an agroforestry cooperative. Coopeco was founded in 1996. Its members come from geographically dispersed Quilombolas and smallholders in the watershed region of Vale do Paraíso Verde,¹⁰⁶ in the coastal area a few hundred kilometers north of Terra Prometida. Before opting for agroforestry, these farmers had been producing beans conventionally. They struggled with declining soil fertility and market access. Their successful transition into collective agroforesters is well-known in Brazilian agroecology networks¹⁰⁷ for its impressive and highly productive agro-forests. Twenty-two years later, their lands have been transformed—from monocultures to something that closely resembles the native Atlantic Forest biome.

In 2010–2011, shortly after the creation of the Liberdade association in the Terra Prometida settlement,¹⁰⁸ Coopeco successfully applied for funding from Petrobras Ambiental¹⁰⁹ to start Project A_. Petrobras’ socioenvironmental agency used oil revenue to fund cultural and socio-environmental projects linked to biodiversity conservation, forests and

106 This is a pseudonym, as is Coopeco. Remarkably, Vale do Paraíso Verde includes about 21% of what is left of Atlantic Rainforest according to a team of specialized ecologists, which I do not cite here for anonymity reasons.

107 In 2013, Coopeco received a prize from a well-known foundation for its agroforestry and alternative extension projects. Unfortunately, due to time restrictions and lack of personal transportation, I was unable to spend time at Coopeco during my field research, which is why I include information on it as context to this chapter and not in the main analysis. Other project stakeholders I was unable to visit are IAP (Environmental Institute of Paraná), IAPAR (Agronomical Institute of Paraná) and Instituto Chico Mendes de Conservação da Biodiversidade.

108 The creation of an administratively-recognized association allowed its members to access sales to institutional markets through the PAA program starting in 2009. As I indicated in Chapter 3, PAA buys smallholders and land reform settlers’ production through different modalities with preferential prices for organic produce (for more information on PAA, see Grisa et al. 2011; Maluf et al. 2015).

109 The agency was transformed into Petrobras Socioambiental in 2013. Petrobras is Brazil’s semi-public oil agency, which has control over the country’s large recently discovered pre-salt oil reserves (mostly off the coasts of São Paulo, Rio de Janeiro and Espírito Santo states, but also in some areas of northeastern Brazil, see Sauer and Rodrigues 2016) and the oil refining process, although this might be changed by future administrations.

climate, water management, children's and teenagers' human rights, and sports. According to official figures, the agency invested over 850 million reais¹¹⁰ (about 200 million euros at January 2019 rates) in such projects from 2014–2017. Before projects A_ and F_ started, some of Terra Prometida settlers produced grain monocultures, vegetables, and milk organically (as we saw in Chapter 3). They had never experimented consciously with agroforestry in their commercial production areas. Before moving on, let me briefly characterize what “agroforestry” refers to, in a broader sense. Stephen Gliessman (2015, 345) defines agroforestry as “the practice of including trees in crop or animal production agroecosystems.” According to the FAO (2015), agroforestry refers to:

land-use systems and technologies where woody perennials (trees, shrubs, palms, bamboos, etc.) are deliberately used on the same land-management units as agricultural crops and/or animals, in some form of spatial arrangement or temporal sequence. In agroforestry systems there are both ecological and economical interactions between the different components. Agroforestry can also be defined as a dynamic, ecologically based, natural resource management system that, through the integration of trees on farms and in the agricultural landscape, diversifies and sustains production for increased social, economic and environmental benefits for land users at all levels.

In Terra Prometida, following the completion of Projects A_ and F_, this resulted in areas between 1,000 and 6,000 square meters per “model” family. These are relatively small areas when compared to the 10 hectares each family tends to in the settlement,¹¹¹ but represent significant man-

110 This seems like a high figure but is quite negligible when compared to the alleged 10 billion reais (2 billion euros) bled out to political corruption schemes for which politicians and several ex-directors of Petrobras have been and are being investigated as part of the sadly famous “Operation Car Wash” (Lava Jato) that also saw ex-president Lula jailed in 2018.

111 This means “agroecological” families commonly used the rest of their land to let a few heads of cattle graze, to let sheep and chickens roam free in some areas, to build barns and coops, to plant fruit trees and ornamental plants, to raise trout and tilapia in artisanal ponds and to have a medicinal herbs and fine herbs (temperos) garden. Most of these activities were for the house's consumption, community and family networks (such as gifts to family and neighbors, non-monetary exchanges, small-scale informal sales of milk, eggs

ual and knowledge-intensive labor for successful implementation. As such, these agroforests often mobilize the labor of several family members, even though symbolically, ownership was mostly ascribed to families’ adult men. It is important to note that these model families were relatively few in number (between two and five per project). They had strong ties to the *Liberdade* cooperative’s leadership. Outside of these families, many others (often from the group I called the “in-betweeners”) tried their hand at agroforestry and succeeded on a smaller scale.

Let me describe their agroforests. These pilot plots were planted with rows of trees spaced five meters apart. Between the trees, vegetables and tubers were planted, in raised beds from 80cm to one meter wide. Woody perennials included: bananas, apples, pears, figs, eucalyptus, citrus, and to a lesser extent, native species (araçá, jabuticaba, and araucária). Given *Terra Prometida*’s cool winters, farmers couldn’t replicate the exact formula pioneered in the warmer *Vale do Paraíso Verde*, where notoriously productive agroforests included, edible palms, jackfruit, avocados, and gliciridia.¹¹² In *Terra Prometida*’s agroecological test plots, the soil was covered in locally-sourced straw and planted with commercial crops, such as: lettuce, arugula, escarole, almeirão (a bitter green), kale, cabbage, broccoli, cauliflower, carrots, beets, manioc, pumpkins, squash, garlic, potatoes, sweet potatoes, spinach, onions, green onions, parsley, sweet corn, and cucumbers. These edible plants were planted in combinations of two to three species in the same beds, and harvested on a rotating basis. When I asked settlers to name the common species in their agroforests, it was common for them to name at least 35. They combined commercial crops, trees, nitrogen-fixing “green fertilizers,” native species, and medicinal plants. Planting areas were occasionally left fallow to be covered by *ervilhaca* and oats, known as green fertilizers (*adubo verde*), and tall grasses. Those would later be cut and left to decompose in the soil, which enriched its fertility.

and meat in the settlement—fruits and vegetables being interestingly considered by many as “unsaleable”), an exception being cheese and homemade jams and preserved vegetables that were sometimes sold through the cooperative (if the entire plot was certified organic).

112 Gliciridia is a tree related to beans and other legumes, native to central America and the Caribbean, which has been widely used in agroforestry due to its multiple possible uses: as a tree providing wood and wind-cutting, as feed for cattle, and as a nitrogen fixer.

The Liberdade had once produced its own seedlings, but had to abandon this project due to a lack of funding. Therefore, even the “agroecologicals” did not fully adhere to agroecological principles—as they were dependent on an external supplier for seed. In interviews with agroecology-practicing settlers, this was sometimes referred to as a local “contradiction” and proof that the cooperative was weakening.

Thus far, I have introduced the notion of sociotechnical imaginaries and argued it has strong explanatory power when applied to agroecology. I have also introduced agroforestry systems and alternative extension projects. This marked the practical “embedding” of the agroecological sociotechnical imaginary in the settlement. This raises further questions: which other actors were important to this process? How did they influence the construction of agroecology’s legitimacy within and beyond Terra Prometida?



Figure 9: Agroforestry on Vitor’s model plot in Terra Prometida



Figure 10: Agroforestry on Afonso's model plot in Terra Prometida



Figure 11: Agroforestry following biodynamic agriculture's principles on Leandro's plot

4.3 “It’s a bit crazy for a conservation biologist to say this, but this is our reality”

In his study of agroecological extension projects in the United States, Keith Warner (2006) describes “agroecological partnerships” as projects where farmers and scientists entered into direct relations with each other based on a shared vision, with the help of farmers’ organizations and public agencies. Such partnerships create changes in agricultural practices, moving them towards greater integration with local natural processes (Warner 2006, 100; see also Pence and Grieshop 2001).

He writes (2006, 79):

The agroecological partnership model is a socially-created mental model, oppositional to mainstream agricultural science, guided by the belief that alternative agriculture is possible. Proponents of the model assert that if extension practices incorporate alternative social relations—growers and scientists working together—progress can be made toward achieving progress in the field. [...] the shared fundamental goal [is] preventing agricultural pollution through collaborative research and education among growers and scientists. The model was socially constructed, meaning that practices and social relations were negotiated, developed, and promoted by participants to help others imagine an alternative way of farming.

This echoes insights from Claire Lamine’s (2017) study of agricultural ecologization in France. She claims that ecological change in farmers’ practices often depends on “new alliances,” including direct partnerships between scientists and farmers who share goals and ideals of ecologization. Scientists and their institutions bring legitimacy to farmers’ initiatives but also, through their participation in these projects, take part in the creation of new “professional norms” both within scientific institutions and on farms (Lamine 2017, 105–106). This is ultimately what Wit and Iles (2016, 11) call the “hidden dimension of legitimacy”: the possibility for researchers (who have a certain autonomy within scientific institutions) to “direct the material infrastructures and systems of producing and propagating knowledge.” These cases strongly

resonate with Terra Prometida’s Petrobras-funded projects. As I will demonstrate, a cluster of EMBRAPA Florestas scientists were key actors in fostering new partnerships and novel practices. They resided in Curitiba and were able to regularly visit the settlement for fieldwork and sampling.¹¹³

Fausto, a biologist by training, was heavily involved. His case demonstrates that in the case of the Terra Prometida settlement the agroecological sociotechnical imaginary “latched onto” new collaborations between scientists and farmers.¹¹⁴ I met Fausto fortuitously at an inter-institutional meeting on public policy and agroecology at Paraná’s Center of Reference in Agroecology (CPRA) in Curitiba. His eagerness to defend agroforestry as a solution to Brazil’s agrarian issues in a public forum piqued my curiosity. Enthusiastic about sharing his perspectives, Fausto’s interests centered on the potential of “anthropic” forests (forests deliberately planted by humans) to promote biodiversity conservation and combat habitat degradation.

Fausto was drawn to biology because he “wanted to work close to nature.” He started researching environmental impacts of human actions after “becoming disenchanted” with environmental degradation in Brazil. A specialist in forest fragmentation,¹¹⁵ working towards sustainable solutions was Fausto’s life vocation.

113 Militant scientists and agronomers working for IAP (Environmental Institute of Paraná), IAPAR (Agronomical Institute of Paraná) and Instituto Chico Mendes de Conservação da Biodiversidade were also part of the projects, but I choose to concentrate on Embrapa’s involvement both because agroecology is more controversial within this organization than within IAP, IAPAR and Instituto Chico Mendes, but also because I was not able to interview these other actors for lack of time and personal transportation. Analyzing their participation would be an interesting follow-up research project.

114 Embrapa is the Brazilian Agricultural Research Corporation, a state-owned corporation created in 1973, during the military regime, to oversee the national development of agriculture-related knowledge, technologies and research. Embrapa Florestas is one of Embrapa’s 46 subagencies, the only one dedicated to forestry research. It was transferred from Embrapa’s Brasília-based head office to a regional office close to Curitiba in 1984, meaning it is located close enough from the Terra Prometida settlement to allow for regular fieldwork and sampling visits.

115 Forest fragmentation can be described as the division of forest areas into isolated patches brought by changes in human-driven land use. The ecological literature that focuses on the role that human-driven corridors of vegetation within landscapes can play in innovative conservation practices and policies uses the concept “connectivity conservation” (see for instance Crooks and Sanjayan eds. 2010 for a reference textbook).

When hired by EMBRAPA, he was supposed to develop technological solutions for forest fragmentation in rural areas. His first projects focused on the creation of ecological corridors. Fausto quickly realized that there was a serious problem with this technomanagerial approach, especially in a country like Brazil, given that many people living in or around the scant forest areas are resource poor:

Who wants to create an ecological corridor? Nobody. It doesn't make sense to take an area that belongs to you and plant trees so that animals can transit. Only a magnate or a totally selfless person would do this. I realized that, in order to restore the landscape, you would have to try to give something back to humans, like an exchange, something more than the joy to restore and help animals. So I started to learn more about human uses of planted forests. You'd plant a forest and this forest would give you something in return—in this case an economic return, the most obvious for farmers—while at the same time it restores the area. If you do this on a large scale, you restore a landscape using productive anthropic forests that include a mixture of native and non-native species. This is a way to describe agroforestry systems.

After this realization, he gave up on restorative ecological corridors (whose cost he estimated at around 30,000 reais per hectare—a cost private actors and governments were unlikely to shoulder willingly). As a result, Fausto quit idealizing the idea to recreate primary forests:

The solution isn't in forests. Let's conserve them; let's make conservation units. But the solution is in the anthropic matrix (*matriz antrópica*). Humanity is occupying everything, but this occupation can be improved

This resonates with what biologists Perfecto and Vandermeer and historian Wright (2009) call “the agricultural matrix”: the Anthropocene-era notion that most high-biodiversity ecosystems on the planet exist as “a patchwork of fragments in a matrix of agriculture” (2009, 4). They argue that any serious attempt at conservation and sustainable farming must take this into account.

Favoring the global food sovereignty movement, they strongly reject “the romanticism of the pristine” (2009, 10) which underlies many conservation initiatives. They write:

First, in fragmented landscapes [...] the balance between extinction and migration is what determines whether a species will survive over a larger area—there is no question that it will periodically go extinct in particular fragments, but the key issue is whether that extinction will eventually be countered by a migration event or will eventually become part of a regional extinction. Second, the matrix in which the fragments occur is mainly devoted to agriculture of various kinds, and the particular form of agriculture may or may not be biodiversity-friendly, either in its ability to preserve directly some forms of life or in its ability to act as a passageway for migrating organisms.

With this debate in mind, I wanted to know what Fausto thought about the promises of conserving endangered trees by promoting agroforestry. In order to achieve long-term results, he highlighted the need for disciplinary flexibility.

As he explained (almost conspiratorially):

I’m telling you things that a conservation biologist wouldn’t usually say, all this talk about production, simple systems, doing things so that farmers will adopt them [...], it’s a bit crazy for a conservation biologist to say this, but this is our reality. At the end of the day, I see all this as a conservation initiative, which includes Araucária, Imbuia [Ocotea Porosa] and Bracatinga [Mimosa Scabrella—all important species in the region’s native biome] but isn’t limited to it. What I want is a system without pesticides, with high biodiversity. I want this to cover Brazil all over like a carpet. This would be my dream. And the little patches of forest that are isolated now wouldn’t be so isolated anymore...

In 2010, Fausto visited the agroforests of Vale do Paraiso Verde, and met Coopeco’s members. He was eager to “bring Coopeco’s expertise to other places”—in other words, to help “embed” the agroecological sociotechnical imaginary elsewhere. Later, Fausto compared two types

of agroforestry systems in the coastal area of Paran . In so doing, his research team discovered that positive outcomes were reliant upon a high level of social cohesion in the local community.

Meanwhile, Coopeco secured Petrobras funding to start Projects A_ and F_, and wanted to introduce agroforestry to Terra Prometida. The team wanted to work with land reform settlements, as they imagined such communities to have a high degree of internal solidarity. As Fausto explained, they had “something that was already established socially, as [in agroforestry] success depends a lot on social organization. After all, early stage agroforestry systems are like newborn babies.” He was referring to the fact that agroforestry demands precise contextual knowledge and know-how to succeed. Peer and neighbor support are crucial in early learning stages. Similar to cases described elsewhere (Warner 2006; Lamine 2017), Fausto was part of an interdisciplinary team of researchers tasked with both tracking soil composition changes and biodiversity inventories in Project A_. They compared outcomes in agroforestry systems and uncultivated areas.¹¹⁶ Their working hypothesis was that agroforestry would be more beneficial to the soil than abandoning the land and “letting nature run its course.” Project A_ also evaluated the economic viability of agroforestry for farming families. In so doing, Fausto, a civil servant employed by MAPA, the Ministry of Ranching and Agriculture (along with his renegade colleagues) challenged disciplinary norms by creating “agroecological partnerships” (Warner 2006) with farmers. He also challenged Brazil’s export-oriented agrarian vocation narrative (Linhares and Silva 1981)¹¹⁷ from within the public sector: We are part of the Brazilian Corporation for Agricultural

116 When I asked him further about the experiment, Fausto explained that they would have ideally involved soil sampling and analysis and biodiversity inventories on conventional areas for comparison, on top of agroforestry systems and uncultivated areas, but they had given up on this part of the experiment because it made no sense to ask agroecologists to set up conventional production on purpose for the experiment. When I asked if they had reached out to conventional settlers in the settlement to participate in the experiment, he said this possibility hadn’t been considered by his team, which points to a lost opportunity to involve “conventionals” in these projects, and thus perhaps create a bridge to the “agroecological rift” I identified in Chapter 3.

117 This can also be analyzed through the theoretical lens of sociotechnical imaginaries and will be the subject of an upcoming article I am planning to publish in a Brazilian journal.

Research. Brazil is “the world’s breadbasket,” in their worldview. They think this will not be achieved through organic agriculture, agroecology, or environmental stuff. Those who work with soy or cattle have an easier time. I work with environment, family agriculture, and agroecology, so I have my difficulties within EMBRAPA.

Driven by a personal vision of agroforestry as a way to reconcile conservation with generating income for rural families, Fausto created space for an alternative agricultural sociotechnical imaginary, that of agroecological agroforestry, within public institutions.¹¹⁸ Given his credentials and expertise, this conferred a measure of scientific legitimacy and recognition.¹¹⁹

Fausto’s mission entailed significant responsibility. Asking small-scale farmers to modify their practices to enhance conservation outcomes left him feeling morally indebted to provide them with an economically viable model. There was a tension between experimental uncertainty and the need to ensure a measure of financial security. This led him to experiment with more, rather than less, complexity in agroforests. He also tolerated the use of “exotic” species within the agroforests. According to him, the non-native trees were harmless when integrated to an agroforest. They were only problematic if they spread invasively into non-agricultural forest areas. He cited the example of uva-japão, a fruit tree known for its medicinal properties which settlers loved to plant as it attracts pollinators. Another cluster of examples were three types of tall grass (capim): Colonião, Napier and Mombassa, that were widely used as bovine fodder and provided abundant dried grass to cover soil in vegetable production areas.

118 He also contributed to strengthening norms favorable to agroecology within his scientific discipline – he explained his team allocated leftover research to graduate students training to become biologists after funds ran out, thus participating in orienting the future of his discipline. What is more, he also participated in further legitimizing agroecology within Terra Prometida’s agroecological social milieu, where the Petrobras projects pesquisa (research) outcomes were often cited as proof that the projects were serious, respectable and environmentally virtuous (although this did little to convince conventional farmers to switch to agroecology).

119 Examples of publications based on the Petrobras projects and research at Coopeco include among others Amaral-Silva et al. 2014; Seoane et al. 2014; Froufe et al. 2011, and others I cannot reference here for privacy reasons.

Fausto insisted that his projects needed to be well planned, with a defined beginning, middle, and end (“principio, meio e fim bem definidos”). Although this production style was flexible, “You can’t have just let anything happen, you have to know what is going to happen. You have to reduce the outcomes to 3 or 4 scenarios.” Intrigued by his insistence on control and linear processes, as much literature on agroecology insists that what matters in this kind of agriculture is to work with ecological cycles, I probed further. Why was this so important? The answer related to a prosaic, albeit central contradiction—the limited public and private credit structures available to land reform settlers were built on assumptions that were diametrically opposed to agroecological realities. As he put it,

When you go to the bank to ask for credit, you have to be able to say ‘Look, I have this project. I need you to lend me, for example, 5,000 reais, and in x amount of time, I’ll be able to pay back this amount with interest.’ We cannot do this today with agro-forestry because we don’t have the data. This is one of our objectives as researchers: coming up with good projections from start to finish so that farmers can receive credit. There is credit to be applied for, for example with Pronaf agroecologia [a specific credit line for agroecological projects in family agriculture created under the Rousseff administration’s 2014 PLANAPO national agroecology plan] but farmers haven’t been able to use it much because they don’t have solid projects to present to bank managers in ways that make sense to them. Bank managers are used to the following: they lend 5,000 reais to a farmer to plant a monoculture of some crop using pesticides, all inputs are neatly budgeted for, they have good reasons to think that the farmer is going to be able to pay back within a reasonable period of time. You can do this to plant a monoculture of beans, of cucumber, of soy, whatever. But beans with cucumber with trees and other stuff? No. Bank managers need training to understand agroecology’s needs, but it would be useless to train them considering that we don’t have the data. First, we need rational planning based on a certain amount of certainty, which is why we model and budget.

Fausto articulated an important limitation to his “embedding” work. It became his moral and professional mission to help farmers navigate powerful credit structures, designed with monocultures in mind. Financing and credit clearly has the power to support or destroy potential agroecological transitions.

4.4 A “new way of seeing”?

One morning, I was with Amadeus and Isaac, the two brothers I introduced in the very first paragraphs of this dissertation. We were standing in a shady area close to their agroforest and the barn where their pigs lived. We were surrounded by fruit trees linked by bushy vines heavy with passion fruit, *cará-moela* (also known as *Dioscorea bulbifera*, or air potato, a funnily-shaped, potato-like tuber crop which makes long vines that produce delicious bulbils) and different varieties of *chuchu*, a bland vegetable commonly found in Brazilian kitchens. Isaac spontaneously told me:

Agroforestry systems (SAF) are not new, they are the recovery (resgate) of an ancient system. Our ancestors lived without large machines and without veneno (pesticides). We are learning to recover our past. The SAF is an indigenous system that consisted in living with the forest.

It is important here to mention that Coopeco’s agroforestry learning (and consequently, Terra Prometida’s agroforestry learning) was heavily influenced by Ernst Götsch,¹²⁰ a Swiss national who spent time in Costa Rica to research indigenous agroforestry in the late 1970s. His theorization of syntropic agriculture has gained significant international attention. Photographs of Götsch, the settlers, and Coopeco’s workers features prominently in promotional material for Projects A_ and F_; this personal connection is a source of pride for settlers. Götsch has become a leader within Brazilian agroecological circles. Even though he developed syntropic agriculture in the rainforest biome of Bahia in northeastern Brazil, his innovative methods (use of pruning to foster poly-

120 See Steenbock et al. (ed.) 2013 for a detailed history of Götsch’s trajectory and influence.

cultural growth) inspire farmers in southern Brazil and beyond. Götsch draws upon fantasies of ancient, ecologically virtuous and pre-colonial practices, and thereby helps to foster continuity between “remembered pasts and desired futures” (Jasanoff 2015b, 328).



Figure 12: Vegetable production in agroforestry settings on Isaac and Amadeus' plot, December 2017



Figure 13: A larger area being prepared for grain production on Isaac and Amadeus' plot, December 2017

Probing further, I asked Isaac and Amadeus about agroforestry systems and their advantages. Amadeus, with his quieter and more quizzical demeanor, said agroforestry, aside from its status as an ancient system-in-recovery, was akin to learning “a new way of seeing.” After a pause, he explained that agroforestry demanded becoming conversant with agroforestry’s radically different productive system. When he first arrived in the settlement, four years previously, he thought agroforests were bushy, unclean, and unproductive. “If my father saw this,” he said, “he’d call it an agriculture for lazy bums (*uma agricultura de vagabundos*) because there is no uncovered soil between the plants and everything is mixed up.” He explained that agroforestry demanded learning to distinguish between three types of rural spaces: monocultures, abandoned areas and agroforestry. The agroforests were messy, but were deliberately planned and the most useful to humans, according to him. Planning (*planejamento*) is key to agroforestry systems, when done well, settlers claimed it cut their working hours in half. *Manejo* (stewardship) was also important—it refers to the deliberate act of caring for the agroforest by intimately knowing soil textures and different plants’

cycles, needs and symptoms of imbalance, and trimming, treating, planting, harvesting and rotating accordingly. Such knowledge helped farmers keep excesses in check and ensured some kind of production year round. The (chattier) Isaac said:

Before we had the SAF, we had a lot of problems planting monocultures. In our heads, when we arrived here, we wanted to plant as much as possible to make money. With small areas and quantities, we didn't make money. If you plant a hectare of corn or ten hectares of corn... the money increases with the quantity. With SAF, you don't think first about the overall quantity, but about the variety, then second about the quantity of each thing. You have options. For example, if I only plant corn and I don't get a good price, I am not going to make much money because I just have corn. And if I do that, what will I have to eat? Just corn. After two weeks it's dry. So I'm going to have to sell it in order to buy beans. Why would I do that when I can plant corn *and* beans? I can count over 50 things I've brought into our home as food from the SAF.

Isaac's new, "agroecological" way of seeing was accompanied by a shift in priorities. Food crops were no longer valued mainly for their market value. Production was oriented around feeding his family. He learned to value diversity more than quantity. Isaac's experience is important. It demonstrates that the agroecological sociotechnical imaginary had "latched onto" some advantages for farming families; specifically, agroforestry helped his family to gain access to a cheap and diversified family diet.

His view, however, is certainly gendered. While women also valued food diversity, autonomy, healthy food, there was a growing resentment among "agroecological" women. They increasingly felt that their labor was not adequately recognized. The PAA program stipulates that payments ought to be dispersed to the familial matriarch (if there is one). This means that many women enrolled in the program and agroecological production to secure their own income (at least in theory). The lack of recognition of female labor and leadership within families and the broader community, however, was a source of dissatisfaction. Lucineide was a university-educated settler who coordinated Project

F_ and the local gender collective. She told me that the many contradictions of rural patriarchy were causing family conflicts. This directly undermined the viability of agroecology.

Rodrigo and Christiane, a divorcing couple,¹²¹ illustrate this trend. Their plot was undergoing an agroecological de-transition. Christiane told me:

They always had this collective between the three brothers. Rodrigo and his brothers. They always had this collective even when Rodrigo's brother was married to his first wife. In their collective there was never a discussion about income for us women. So my sister-in-law and I just took care of the house and we also had to work outside, sometimes we worked more than them! We started talking about it and we said: “We're not going to the agroforest anymore” because we didn't earn anything. The money was all theirs and we needed ours. We started doing other stuff to make money, we sold cheese, we made bread, we sold other things. We started to abandon agroforestry. They kept doing it. We helped when they needed us a lot, but we never earned anything. They fought with us when we questioned this. When they did the planejamento, they never invited us. They got together the three of them and did what they wanted. Our opinions never counted. I got away from agroforestry and stopped being interested in it.

I heard dozens of similar examples, and university-aged daughters of settlers often cited rural machismo as a reason to move out of the settlement and pursue education and employment elsewhere. Women complained about lacking a voice at home and in the cooperative; they reported having to shoulder heavy work in the agroforest as well as all domestic and family-related chores for little recognition. They helped me to understand that gender relations are a very important variable in understanding the social dynamics that enable and legitimize agro-

121 At the time of my fieldwork, one of Rodrigo's brothers worked for the Liberdade cooperative as a truck driver, his second wife was taking care of their agroecological production with the family's PAA contract in her name, the third brother had moved out of the settlement, and Rodrigo had switched to conventional production; the brothers' collective had been terminated

ecology (see also Botelho et al. 2015; Siliprandi 2015). Thus far, women have been largely absent from theorization of both agroecological legitimacy and sociotechnical imaginaries. Centering women complicates simplistic representations of “family farmers” and “local” autonomy. Among settlers, agroecology needs to go beyond an assortment of planting techniques and beyond Isaac’s “new way of seeing”; it must strive to foster more egalitarian relationships between men and women if it wants to achieve higher levels of *social* sustainability.

4.5 Agroecology and the city

In this section, I describe the social construction of sustainable markets and reflect upon their vulnerabilities given the current political conjuncture. I argue that the agroecological sociotechnical imaginary “latched onto” advantages for settlers that came with Liberdade cooperative and Rede Ecovida membership, economic conditions created by the PT-era PAA program, and the solidarity work of urban activists who facilitated in the distribution of Liberdade’s produce. However, this was fragilized by post-impeachment conditions and raises critical questions about the kind of discourse that should be mobilized by social movements in order to reach those they are seeking to represent and convince to oppose agribusiness as well as economic inequality.

“Isso é agroecologia! [*This is agroecology!*]” Márcia¹²² exclaimed enthusiastically, in response to my appreciative comment about the PAA food program’s local partnership. We were driving on the highway close to Curitiba, towards Terra Prometida, returning from a community center, a place I’ll call Fraternidade. Dropping off food at Fraternidade brought us into Curitiba’s poorer periphery; there, we unloaded the weekly PAA food distribution’s load, which fed hundreds of poorer

122 Márcia is a person who was enrolled in the undergraduate agroecology program at ERS, the transnational training center situated in Terra Prometida, when I started fieldwork and worked for ERS as a permanent in parallel. Over the course of my fieldwork, she dropped out of the course and finally left ERS to live with her partner on a different land reform settlement.

families around several districts of Curitiba's outskirts.¹²³ *Fraternidade* was in charge of mediating between the *Liberdade* cooperative and the different associations and churches¹²⁴ tasked with distributing produce bought by the state through the PAA program to families deemed in need of food aid. I had just met up there with Márcia upon returning to Paraná for my third and last phase of fieldwork, in April 2018.

Back in *Terra Prometida*, the cooperative's working day always started at 6am. After waiting in damp darkness for the day's driver and logistics operator to arrive, I watched them maneuver the cooperative's truck out of its night parking. We all climbed on board the truck and set off on a dizzying journey on the settlement's unpaved roads. I had arranged with Arnildo, the cooperative's president, to join and help in produce pick-up and delivery, respectively known as *colheita* and *entrega*. Every working day was a full day of *colheita* in the settlement and the other communities where cooperative members lived, and *entrega* in the different places where produce was sold or distributed. During *colheita*, we stopped at each of the *Liberdade* associates' *Ecovida*-certified¹²⁵ plots where agroecological produce had been harvested the same or the previous day. We counted boxes of different items, loaded them onto the truck and gave the person a receipt showing the quantities of each product that had been picked up. During *entrega*, we drove with a full truck to wherever produce was being delivered (often a school which received lunches through the PNAE program, or a catering company that delivered lunches to schools, once a week the cooperative sold products in a market fair in Curitiba but only a small portion of its total income was derived from this), unloaded (and

123 As a reminder, the PAA program (created in 2009 as a way to support small farmers' sales and reduce food insecurity) buys food from smallholders and land reform settlers organized in associations and cooperatives at preferential prices (with higher prices for certified organic produce) in order to supply food insecure demographics with a complement to their weekly diet

124 These included Catholic parishes, several neo-Pentecostal churches, community centers, neighborhood associations, women's groups (not necessarily feminist in outlook) and a community bakery.

125 *Rede Ecovida* is present in all of Brazil's south and functions through local units which bring together organic producers. Instead of paying an external company to certify areas for organic production, producers certify each other through regular visits and social control. See Silva (2014) for an analysis of *Rede Ecovida*

sometimes weighed) boxes, signed papers, and left. Everywhere, except at *Fraternidade*, during the PAA entrega.

At *Fraternidade*, the weekly entrega for the PAA program was highly collectivized and quasi-religious, with frequent references to the Bible and prayers held at the end of each session. Each week, on a rotating basis, one organization was responsible for organizing *mística*, a small opening ritual including poetry and symbolic items representing the struggle to end hunger; another organized the coffee break which everyone shared before parting ways. All cleaning and tidying was done together. After collectively unloading the produce boxes with members of all organizations which received produce donations, everyone sat together to listen to the sermons of Francisco, *Fraternidade's* coordinator. Francisco was not a priest, but PAA distributions were often reminiscent of mass. He invoked God and recited Biblical passages while discussing the political causes of hunger, unemployment, and environmental injustice. Francisco, and his partner Alessandra, had been politicized through Liberation Theology study circles during the dictatorship. During the redemocratization period, they helped to establish an educational and cultural center in Curitiba, where produce was sold and food politics debated. During the second Lula administration, Alessandra and Francisco started coordinating local distributions of the PAA. They told me that their food activism had only recently started to take environmental conditions into account. For example, they emphasized that bringing visitors to *Terra Prometida* helped to affect the preferences of urban consumers:

Francisco: People in the participating entities¹²⁶ want to see how things are planted, understand how farmers work... People on both ends of the PAA come to understand each other as part of the same suffering people, be it here or in the countryside. They understand that food doesn't just satisfy hunger, but that it is also a means to create popular consciousness, in order to never forget that urban-rural alliances are crucial to our struggles.

126 Entities (*entidades*) refer to the administrative units which are enrolled in the PAA program to receive food for their members; they are often churches, neighborhood associations and other small-scale organizations.

Alessandra: In these exchanges, the way of planting [agroforestry] really touched people. People go there thinking that fields need to be “cleaned” from weeds, and then they get there and they discover that lettuce can grow in straw-covered soil in agroecological production. It really challenges people, and they also learn to let go of their preconceptions about the MST. Some people arrived here hating the MST and totally transformed their point of view through these exchanges.



Figure 14: Lettuce and broccoli seedlings planted in straw-covered soil in Leandro's plot, June 2017

The Liberdade cooperative used their contacts with the PAA program to build a network of private urban consumers, which greatly helped the cooperative's sales as PAA budgets retracted. Under this scheme, which relied on a website platform, consumers could choose items from a list of products and order online (consumers could choose not only from Liberdade's products, but from a range of other products sold by other MST-affiliated cooperatives in Paraná). On a weekly basis, the cooperative assembled the orders and delivered them directly to consumers at specified drop-off points in Curitiba. These drop-off points were either organic stores (in middle-class neighborhoods), the MST state headquarters in Curitiba, or the headquarters of organizations which received PAA donations at Fraternidade, such as local evangelical and Catholic churches and neighborhood associations (these were located in more modest, peripheral districts).

That being said, Francisco and Alessandra faced grim prospects in their everyday practice. Firstly, they saw the language that activists used to address poor working people (supposedly their constituency) as detrimental to their common struggle. Francisco criticized the jargon that MST leaders used in Fraternidade's meetings, opposing it to the fraternal and ecumenical spirit the couple tried to cultivate:

Many poor people are not affiliated with the Catholic Church anymore—they belong to evangelical churches. If we want to get back to democracy after the coup [he was talking about Rousseff's impeachment] taking this into account is the way forward. The problem is that we, in the militant left, are full of prejudice. We don't know how to talk to these people. People only go to meetings when then they can bring something back home at the end and when they understand the language we use. We have to learn again – many people say “we have to do more base work [grassroots organizing, campaigning]” Ok, there are many people who want to do this. But they don't know how! They don't know what to say. They don't even know how to say hello to these people. Today the old language doesn't work anymore. This includes the MST, when they arrive with their discourse many people say: “My God, what is this guy talking about? Is he from a different planet?” What they say is great... for me. But for other people not so much, some people don't even under-

stand what they are saying. Now if you invite these people to participate in collective work or discussion, to practice solidarity through actions... you can talk to them with a language they understand. You can't arrive and talk about socialism directly, this is avant-gardism not socialism. The movement needs to learn, I've already told [local and regional MST leaders] many times... Their language doesn't resonate with the people.

What is more, the reliance of their activities on institutionally insecure programs such as the PAA means that the post-impeachment conservative government was able to threaten their agroecology and food security activism. For example, through research on the website of the national Food Supply Company (Conab), which is in charge of the PAA program, using a publicly accessible register of PAA transactions, I found that the number of Terra Prometida residents who received payment through this program was cut in half between 2010 (roughly 100 people) and 2017 (roughly 50 people); another MST-affiliated cooperative which delivered yogurt at Fraternidade along with Liberdade lost its funding and had to stop participating in 2017. Many people were unable to keep receiving state-funded agroecological produce (and political messages) at the Fraternidade center. In the absence of material resources and a common language of mobilization that is able to convey the importance of agroecology in accessible terms, movements run the risk being unable to “embed” the agroecological sociotechnical imaginary further, with dire consequences for agroecological legitimacy both within their grassroots and in sections of the populations which could be their greatest allies.

4.6 Conclusion

In this chapter, I used Jasanoff and Kim's (2009, 2013, 2015) notion of sociotechnical imaginary to analyze the relation between agroecology as a global political and scientific discourse, and important aspects of agroecology in the Terra Prometida settlement and its institutional network. I showed that agroecology gained scientific, social and practical legitimacy in the Terra Prometida settlement's social milieu through the local embedding of this global sociotechnical imaginary. This impli-

cated not only local MST-affiliated farmers and the *Liberdade* cooperative, but also a more distant non-MST cooperative, scientists working for public institutions, and urban organizers. Thus, the legitimization of agroecology within the MST cannot be understood as a process that is detached from non-MST actors; it is highly intertwined with localized processes of “embedding” in material flows, policies, social networks which help settlers access markets (such as *Rede Ecovida* and the *Liberdade* cooperative’s social milieu), knowledge production processes, and pre-existing solidarity networks such as those *Francisco* and *Alessandra* were able to mobilize in favor of agroecology in the *Fraternidade* center’s network through PAA donations. The construction of markets based on alternative values and production methods is arguably one of the most challenging aspects of agroecological transitions (Loconto et al. 2018); in this sense, the kind of work done by public food programs like the PAA, the *Liberdade* cooperative’s leadership and the *Fraternidade* community center is of crucial importance for the social construction of agroecology’s legitimacy.

However, agroecology’s current prospects in Brazil are extremely fragile. Firstly, material resources to generate knowledge and sustain production have heavily relied on institutionally insecure PT-era programs and ad-hoc Petrobras funding. Such sources of support are likely to diminish or disappear altogether in the post-PT era. This has been the case for *Liberdade* cooperative members. With the reduction in the budget for PAA, farmers face reduced opportunities to sell to institutional markets—agroecologically or otherwise. Furthermore, Brazil’s national plan for agroecology was established in 2014 and offered 2.6 billion reais in credit. It was only budgeted until 2019, and is unlikely to be renewed under the current administration. What is more, as I have shown in Chapter 3, some families of “in-betweeners” have been detransitioning from agroecology, mostly for lack of technical support, income, and reasons linked to *Terra Prometida*’s agroecological rift.

Given current and foreseeable conditions, agroecology may appear increasingly unattractive. This raises crucial questions about the role of MST-operated agroecological training centers and young people, which will be explored in the next part of this thesis. Under the current political conditions in Brazil, state investment in agroecological technical

assistance initiatives is likely to be minimal or nonexistent. Thus, the MST and its allies, if they want to preserve whatever legitimacy they have built for agroecology within their rank-and-file bases during the PT years, will more than ever need to count on internally trained technicians and educators who, as Francisco mentioned, are able to address rural and urban working-class people in ways that speak to them in everyday and pragmatic terms—not necessarily in the MST's socialist jargon. What role have the MST and its allies given youth and young adults in the context of agroecological training? How do young activists undertaking training through their affiliation with social movements experience this kind of training? Do the tools and language they acquire through this type of training equip them to engage in dialog with their movement's target populations, beyond those who are already politically sympathetic? In sum: To what extent does political agroecological training organized by these movements create conditions for young militants-in-training to embrace political agroecology and convince others to join?

Part III : Learning agroecology

“I’d like to thank the panel, such a beautiful panel. Everyone is part of struggles that are so important to our Latin America, struggles which point to a new way in the process of social transformation that we build and need...” Geni, the pedagogical coordinator of the Ecological Resistance School (ERS), begins.¹²⁷ It is the last morning of a large agrarian geography symposium held at the Federal University of Paraná, in Curitiba. Geni has been invited to participate in a round-table on rural resistance and shares the stage with an anti-mining activist and an activist of MAB, the movement of people affected by dams. ERS’ current cohort of students is present in the audience.

Geni, a first generation MST militante,¹²⁸ is herself a graduate student in pedagogy. In her mid-30s, she is articulate, politically savvy, and assertive. It is clear that she is enjoying addressing the crowd, in spite of a certain nervousness that makes her speak faster than usual. This platform, however delimited in time and space, is important nonetheless. An articulatory space for agroecological perspectives is rare in Brazil, whose notoriously concentrated media landscape is dominated by Rede Globo and, increasingly, neo-Pentecostal media.¹²⁹ This kind of ultraconservative media spends significant periods of time promoting agribusiness interests while depicting social movements as criminal enterprises (for analysis of MST representation in the Brazilian media see Hammond 2004; Ayoub 2007; Ferreira 2012; for agribusiness influ-

¹²⁷ As a reminder, ERS is the transnational agroecology training center located in the Terra Prometida settlement.

¹²⁸ Meaning that she joined the MST as a young adult, with the rest of her family, when her parents decided they wanted to participate in a land occupation to get a piece of land of their own. She was not born into a family of MST leaders.

¹²⁹ For instance, on February 10th 2019, the Evangelical channel Record TV published defamatory material about the 1st Landless children and teenagers’ national gathering, which took place in July 2018 in Brasília. Without interviewing any recognized specialists or participants, they alleged that the gathering infringed upon national child protection legislation, and constituted indoctrination of, and a danger to, children (see material here: <http://recordtv.r7.com/domingo-espetacular/videos/domingo-espetacular-investigacao-envolvimento-de-criancas-no-mst-10022019>). Record TV, a private network, played an important role in Jair Bolsonaro’s presidential campaign by giving him access to long and unchallenging one-on-one interview opportunities during the same time slots when other candidates were having official debates on public TV, which he pulled out of for alleged medical reasons following his September 2018 stabbing. Record TV is chaired by billionaire Universal Church of the Kingdom of God bishop Edir Macedo (see also Cuadros 2016).

ence in schools and environmental education initiatives see Lamosa 2010; Lamosa and Loureiro 2014).

As a result, social movements have relied upon their academic allies for intellectual legitimacy. Their university colleagues often visit social movement spaces for research and teaching (including, as we will see, teaching *to* social movement members), and in return, provide activists with opportunities to give speeches, share their opinions, and criticize the predominant model of capital intensive agrarian development in Brazil. The hundreds of professors and graduate students who present papers at the symposium (and participate in diverse activities ranging from feminist theater to indigenous Guarani hip-hop, along with short excursions to agrarian reform areas) are part of demographic which tends to have an active online presence, organize public events, and publish research.

Attending the conference wasn't easy. ERS's fifty students were bussed from the Terra Prometida settlement along with the sleeping and collective cooking gear for the four days they have to spend camping in the gym that the conference offered as budget accommodation. Officially, their participation in the conference is encouraged as it provides them with fresh research perspectives on the "agrarian question," which, in this context, entails seemingly endless debates (mostly between urban intellectuals) on agricultural issues, the (im)morality of the land-owning structure, and the difficult conditions that rural people faced.

I noticed that the students were being displayed by social movement coordinators as a strategic means to mark presence. Many of ERS' students feel lost and unprepared at the symposium. They had received very little information as to what to expect or how to behave during the only preparation meeting that was held for them by the school's coordinators, the night before. The rural students, along with their comrades from across Latin America, appear somewhat self-conscious, aware that something in their clothing, demeanor or prosody could give away the fact that they did not "belong" to this urban world; meanwhile, the cohort's few urban activists seem completely at ease. (The cohort's two young mothers had had to stay behind at ERS due to a lack of childcare facilities at the symposium.)

Inclusion in friendly academic public spaces has become especially critical considering the heightened political repression and hostility social movements have been operating in since the 2016 presidential impeachment. In particular, such exposure is crucial in providing awareness and a language for agroecology. After all, as Wit and Iles (2016, 15) write,

[I]anguage is an important variable. It is often said that ‘agroecology’ is a difficult term to wrap one’s head—and public tongue—around. [...] As with all idioms, we suspect that when people learn more about agroecology, and more importantly *practice* its grammar, syntax, and structure, they are likely to become more conversant. Moreover, this dialogue should extend to raising the profile of conditions agroecology stands for and wants to achieve—a goal as important as raising the profile of ‘agroecology’ itself.



Figure 15: Public intellectuals Davi Kopenawa Yanomami (left) and Raúl Zibechi (right), introduced by a local moderator (center), give opening keynote addresses emphasizing the importance of social movements and agroecology in Latin America at an international agrarian geography symposium in Curitiba, November 2017

At this conference, the symbols and vocabulary of agroecology were omnipresent. Urban students and researchers wore caps, shirts and bags stamped with the word, often from some other event they attended.

For this occasion, the central campus square was filled with stalls selling books on radical social theory and organic farming, indigenous issues, anti-racist activism, feminist social critique, artisanal items, and foods produced on agrarian reform settlements. Therefore, Geni was confident that she was addressing a sympathetic audience, and used the opportunity to praise ERS—as a place to bridge the gap between academia and the rural world, to promote a dialogue between different kinds of knowledge and a train new kind of activist-professionals to become “agents of social transformation *with* (and not *for*) peasants.”

One important interrogation this raises is how this kind of training is experienced by young militants-in training, and how this, in turn, influences social movements’ social sustainability. This part of my dissertation builds on a series of recent anthropological studies which are concerned with connected questions and adopt a similar ethnographic approach (Delgado 2008, 2009; Flynn 2010; Meek 2014, 2015; Gurr 2017). Generational trends in conceptualizing agroecology identified by Delgado are confirmed by my data. Meek’s assertion that “agroecological education has the potential to maintain MST members’ political participation” is reinforced by the strong association between specific ways of relating to “nature” and “natural processes” deemed “agroecological” and a political disposition to act within an activist collective at ERS. Finally, Gurr’s argument—that the MST’s capacity to renew and reproduce itself, both in the near and long-term future, is hopelessly entangled with young people’s aspirations and experiences—was foundational to my investigations at ERS.

That being said, my research breaks new ground. It examines a more expansive activist assemblage which is inclusive of LVC individuals and a cohort with members from six Latin American countries (Brazil, Argentina, Chile, Bolivia, Paraguay and the Dominican Republic).¹³⁰ The following table lists students by country, organization and gender (including drop-outs).

¹³⁰ Since my research investigates the MST, I focus more intensely on the discourses and experiences of students affiliated with the MST and other Brazilian LVC movements, although I base my analysis on living among all of the cohort’s students and occasionally quote from the five international students I interviewed in depth.

Organization (Acronym and full name, not pseudonyms unless indicated)	Country	Description	Number of students enrolled in the Bachelor of Agroecology at ERS (broken down by state if Brazilian and by gender)	Number of students who were enrolled in but dropped out of the course at ERS since the beginning of the course
ANC Articulación Nacional Campesina	Dominican Republic	National federation of various rural organizations	5 (5 men)	None
ASA Articulação do Semi-Árido	Brazil	Alliance of organizations working around the problem of water scarcity in the semi-arid region of Brazil (north-east)	None	1 (1 woman from Bahia)
CEFURIA Centro de Formação Urbano Rural Irmã Araújo	Brazil	Local community and training center that links urban and rural initiatives in Curitiba, Paraná Not a member of La Via Campesina but has a direct relationship with MST-Paraná's leadership	1 (1 woman)	2 (1 man, 1 woman)
Cooperativa Liberdade (this is a pseudonym)	Brazil	Organic cooperative on the Terra Prometida settlement (pseudonym). Members include local settlers and members of other (non-MST) communities in nearby municipalities, this is the case of both men studying at ers	2 (2 men, Paraná)	None
CONAMURI Organización de Mujeres Campesinas y Indígenas	Paraguay	indigenous and peasant women-led movement (accepts men as activists)	3 (2 men, 1 woman)	None

CONAPROCH Confederación Nacional de Asociaciones Gremiales y Organizaciones de Pequeños Productores Campesinos de Chile	Chile	Smallholders' organizations confederation	1 (1 woman)	None
FETRAF-PR Federação dos Trabalhadores na Agricultura Familiar (Paraná)	Brazil	Labor union for family agriculture workers. Not a member of lvc, but linked to Frente Brasil Popular ¹³¹ and CUT ¹³²	1 (1 man from Paraná)	None
FNMCB Federación de Mujeres Campesinas Bartolina Sisa	Bolivia	Rural women's movement	1 (1 woman)	None
Levante Juventude	Brazil	Urban youth and student movement, Not a member of La Via Campesina but a member of Frente Brasil Popular	1 (1 woman from Rio Grande do Sul)	None
MAB Movimentos dos Atigindos por Barragens	Brazil	Movement formed by people who lost their land or are at risk of losing their land to massive dam projects	1 (1 man from Mato Grosso)	None
MCP Movimiento Campesino Paraguayo	Paraguay	Movement campaigning against debt and for land access on behalf of smallholders and peasants	2 (2 men)	None
MMC Movimento das Mulheres Camponesas	Brazil	Movement of rural women	2 (1 woman from Bahia, 1 woman from Paraná)	None

131 Frente Brasil Popular is a national alliance of social movements, political organizations and labor unions created in 2015 to affirm a commitment to democracy and progressive values during and beyond Dilma Rousseff's impeachment process. The mstis a member.

132 CUT (Central Única dos Trabalhadores) is the main central labor union in Brazil. It has traditionally been allied to the pt and the MST and was created in the same context during the return to democracy in the early 1980s.

Organization (Acronym and full name, not pseudonyms unless indicated)	Country	Description	Number of students enrolled in the Bachelor of Agroecology at ERS (broken down by state if Brazilian and by gender)	Number of students who were enrolled in but dropped out of the course at ERS since the beginning of the course
MNCI Movimiento Nacional Campesino y Indígena	Argentina	Indigenous peasant movement	1 (1 man)	None
MPA Movimento dos Pequenos Agricultores	Brazil	Movement of landed small farmers	3 (2 men from Rondônia, 1 man from Santa Catarina)	1 (1 man from Santa Catarina)
MST Movimento dos Trabalhadores Rurais Sem Terra	Brazil	Movement of landless people and people who obtained land in an agrarian reform settlement, present in 24 of Brazil's 27 states and founding member of La Via Campesina	15 (12 men, 3 women) State breakdown: 1 woman from MST-Ceará 2 men from MST-Mato Grosso 7 men and 2 women from MST-Paraná 2 men from mst-Rio de Janeiro 2 men from MST-Rondônia 1 man from mst-Rio Grande do Sul 1 man from MST-São Paulo	6 (3 men and one woman from MST-Paraná, 2 men from MST-São Paulo)
OLT Organización de Lucha por la Tierra	Paraguay	Land rights organization	1 (1 man)	1 (1 man)
PJR Pastoral da Juventude Rural	Brazil	Catholic movement for rural youth	2 (1 man from Espírito Santo, 1 woman from Pernambuco)	1 (1 man from Pernambuco)
Total: 16	Total: 6		Total: 45 (34 men, 11 women)	Total: 13 (9 men, 4 women)

Table 1: Data on students enrolled in the Bachelor of Agroecology at Ecological Resistance School (elaborated by author from data gathered during fieldwork).

Instead of a multi-sited analysis, which would have provided me with breadth, I have attempted to provide an in-depth look, by confining my analysis to one cohort of students at ERS. Finally, my research is timely for historical purposes. I researched with ERS's fourth cohort, which is set to graduate in April 2019. Given the recent election of a radically anti-social movements right wing president in the 2018 election, the future of ERS appears more compromised than ever, and it is unclear whether a new group of students will start the same course any time soon. Therefore, it is more than ever crucial to keep a record of educational initiatives that social movements have organized and facilitated according to their unique internal norms. However, both a part of the MST yet separate from it, ERS has a somewhat complicated relationship with the movement. The school is viewed with a degree of hostility by some residents, who see it as a top-down imposition, as demonstrated in Chapter 3. On the other hand, the MST appropriates ERS's space when it sees fit—for statewide and regional leadership meetings and events—yet, similar favors and recognition are not extended to students and ERS staff in the MST's secretariat in Curitiba.

This raises a number of questions to be addressed in this part of my dissertation, as I relate and analyze the experiences of young agroecologists-in-training who were enrolled in the Ecological Resistance School (ers) in southern Brazil between 2015–2019. In particular, I ask: To what extent does agroecological education facilitated by the MST create conditions for young activists to identify with agroecology as a political project and to convince others to join it? For example, how has ERS emerged as a state-social movements partnership, and to what extent do social movements determine its internal norms? In what ways are student-activists' understanding of agroecology transformed through this type of training? How does ERS provide students with expertise and skills to make a difference in their home communities, and what obstacles might they encounter in their agroecological endeavors? How do ambiguous relations between ERS, the local community, the broader MST and CLOC-LVC play out in these students' lives?

Chapter 5: Scaling agroecology “in”



Figure 16: View of ERS's main buildings. Left: dormitories and bathrooms; center: lecture hall; right: offices and dining hall

5.1 Introduction

ERS does not look like the average university campus. Driving there, from the nearby city of L_, one crosses 14 kilometers of bumpy dirt roads, until reaching a cluster of old buildings that comprise the sede [headquarters], of the settlement. A newly built health center is located just a couple of hundred meters from the reputedly haunted historic casarão [large house], once the residence of a powerful slave-owning baron, where ERS' students used to have class before a large new lecture hall was built. (The old master house was under reform to become into a cultural center for the settlement at the time of my research).

The revolutionary ambitions of the school have been painted on the walls. ERS's cafeteria is decorated with a colorful mural celebrating Andean indigenous agriculture alongside a large mosaic of Che Guevara. El Espacio, the simple brick building where most classes are held, is decorated with social movements' flags and posters celebrating revolutionary heroes. Although isolated and insulated, ERS generally has adequate (albeit rather modest) infrastructure and facilities for sixty

students. The students live and study on-campus, sleeping in loosely gender-segregated¹³³ dormitories. The rooms are furnished with simple bunk beds and metal cupboards. The naked concrete floors and thin walls make these spaces rather damp in this region which is notorious for endless rain between May and September. Between the two dormitory buildings, there are collective bathrooms—again, simple but generally functional. In short, overall conditions at ERS are modest, spartan even. Infrastructure is rudimentary, a good Internet signal is scarce, and catching the flu is common, particularly in the cold and damp winter months. However, as one student told me, “This is the kind of infrastructure the working class has access to in this country.” Most students viewed their school positively, and were quick to remind me that this was one of the only ways for them to obtain a university education.

Having briefly set the stage, in this chapter, I introduce my qualitative study of ERS by giving some context on higher education, agrarian reform and MST-style political training in Brazil. Thereafter, I make a three-fold argument to explain what I call the scaling “in” of agroecology within social movements: the ways movements use education to foment support and participation of young militants-in-training for agroecology, a movement-wide mission, and, by doing so, create conditions for young activists to cultivate new ecological subjectivities and worldviews. First, I claim that the MST creates educational conditions for young adults to receive movement-coordinated agroecological training through partially state-supported partnerships. I draw on the concept of self-governmental resistance (Pahnke, 2014a, 2014b) to explain ERS’ emergence and the agroecology program taking place there. Then, I explain how movement-specific organizational practices and values shape students’ understanding of their role as activists for

133 In practice, students are free to constitute co-ed dormitory groups, although it is generally assumed that students will prefer gender-segregated arrangements. I witnessed couples making arrangements with roommates to be able to sleep in the same bed in a collective setting, and one empty room was reserved by general consensus for sexual intimacy. I was also told by a long-time ERS worker that in an earlier cohort, students had voted for couples to all live, sleep and enjoy sexual intimacy in the same room, divided by blankets for a minimum of privacy. This leniency of leadership towards young peoples’ rights to sexual freedom and intimacy and their right to make democratic decisions about them is unusual for MST political training spaces and constitutes one of the many ways ERS is different from many MST-only spaces.

agroecology-as-political-project. Finally, I highlight important ways in which education at ERS transforms students' view of what agroecology *is*, encouraging students to see their role in agroecological activism as an *ethical* posture that links social justice and ecological regeneration.



Figure 17: Inside ERS's lecture hall during a non-academic cultural activity, July 2017

5.2 Young adults: a strategic public for movement-mediated agroecological higher education

When the PT came to power in 2002, with the election of Lula, Brazil's most historic higher education institutions were less than a hundred years old—first as isolated professional faculties in medicine, law and agricultural sciences, then organized into universities during the Vargas era, during which the Ministry of Education (MEC) was created in 1930. Access to universities had been restricted to a very small population because they were thought of as training spaces for the country's intellectual and political elites, while a large proportion of the population was illiterate.¹³⁴

¹³⁴ In 1940, 56,1% of Brazilians over 15 years old were illiterate. 25,9% of the adult population still could not read a simple text in 1980, towards the end of the military dictatorship. These figures come from a research report published by the Brazilian Education ministry's research institute in 2003 and is based on official census data. See Instituto Nacional de Estudos e Pesquisas Educacionais Anísio Teixeira (2003, 5).

This was to change after the signing of the 1988 Brazilian Constitution, which defines education as a fundamental social right (Article 6).¹³⁵ The neoliberal government of Fernando Henrique Cardoso (1995–2002) began to increase funding for higher education (Aguiar 2016), but kept the offer mainly restricted to privileged students through the predominance of expensive private universities, cuts in funding to public institutions, and leaving untouched the concentration of facilities in large coastal urban centers and larger cities. After the election of Luiz Inacio Lula da Silva in 2002, the federal government started working towards democratizing opportunities for higher education, as part of its neodevelopmental program to reduce poverty and inequality, with mixed results.¹³⁶

One important aspect of PT-era education policies is the consolidation of *pronera*, a program which offers access to a variety of formal educational programs (from literacy and basic schooling to technical and university degrees) to agrarian reform beneficiaries and other communities administered by *incra*. Founded in 1997–1998, during the Cardoso government, *pronera* was created in response to pressure from rural movements, who were determined to access education in their local communities (for an in-depth take on the MST’s undoubtedly impressive educational achievements, see Tarlau 2013a, 2013b, 2014a, 2014b, 2014c; Pahnke 2014b). Through PRONERA, federal funding ought

135 The Constitution divides education into primary (municipal level), secondary (state level) and higher (federal level) and creates an autonomous financing structure. For a more detailed juridical analysis, see Duarte (2007).

136 The dual system (with expensive private universities, and free public universities, free but with a difficult entrance test, which gives a large disadvantage to students who rely entirely on public basic and secondary education) persists (Aguiar, 2016). The private university sector is still flourishing, but the creation of a large number of new campuses, some of them in rural areas, and the allocation of new study grants for undergraduate and graduate students have allowed a large number of lower middle class and low-income youth to join the rank of university-educated Brazilians through public institutions, doubling, for example, the number of students enrolled in federal programs between 2002 and 2014. The Federal Network (*Rede federal*), a network of institutions for professional, technological and scientific training, was created at the end of 2008 from a loose collection of technical schools belonging to federal universities and other units of technical teaching, adding more than 500 new campuses from 2003 to 2016 to the 140 technical schools created between 1909 and 2002 (see <http://redefederal.mec.gov.br/expansao-da-rede-federal> last accessed on 04/05/2020).

to be¹³⁷ made available via INCRA for partnerships between educational entities and social movements, to support adult literacy, high school, undergraduate and graduate programs, and grants paid to students to cover their costs while studying.¹³⁸

There are good strategic reasons for social movements to seek to advance their agroecological project through the technical and ideological training of young adults. For example, anthropologist David Meek (2016) researched agroecological education initiatives in the Amazon. He found¹³⁹ that training youth, in partnership with public universities through PRONERA, provided the MST with promising opportunities to circulate agroecological expertise and enthusiasm within the movement. He writes,

[A]groecological education has the potential to maintain MST members' political participation, identification with the movement, utilization of the agricultural principles it advocates, and role as individuals committed to a longer process of emancipatory social change (Meek 2016, 256).

Moreover, the MST has long recognized the importance of renewing the organizational commitment of its members through various forms of collective action. As Melinda Gurr's (2017, 141–142) doctoral thesis reminds us:

137 While PRONERA hasn't been shut down yet, the transition government which took power after Dilma Rousseff's impeachment, headed by her right-wing vice-president Michel Temer, significantly slashed funding and made efforts to slow down cash transfers to educational centers. Brazil's newly elected president Jair Bolsonaro and his administration's members, who defend extreme right wing positions and radical neoliberalism, are likely to attempt to shut down many agrarian reform policies and have already announced their will to shut down even primary education in agrarian reform settlements to replace them with distance education. It is likely that PRONERA higher education will soon have to be spoken of in the past tense.

138 The policy was instituted in law (Lei n° 11.947) as a public policy in 2009, and has benefited hundreds of thousands of students (Pahnke 2014).

139 Alongside the merits of agroecology, he also encountered several obstacles to advancing agroecological "common sense" with MST-led programs. The most prominent of these included the patriarchal family structure, most specifically paternal authority, which inhibited the adoption of ecological methods, distrust toward agricultural extension agents, local cultural history, and beliefs about landscape management (Meek 2014).

In order to maintain momentum and secure ongoing commitments, the MST periodically stages times and places for physical co-presence—in encounters, protest camps, and political training courses. Examining these liminal spaces sheds light on the ways in which the MST attempts to harness the hearts, minds, and bodies of young people, and put them to work on behalf of its institutionalized political project.

Gurr also points out that young people’s experiences and subjectivities have been largely neglected in the MST literature. For her, the crucial question in pondering the sustainability of the movement is whether the MST has “helped to organize conditions that may appeal to and retain the next generation of rural producers.” While her research focuses on the potential strengths of agrarian collectivization, as it disrupts patriarchal dynamics within farm families, she does not directly address agroecological transitions.

Yet, as suggested in Chapter 3, it is safe to argue that youth and young adults will be central to the success of agroecological initiatives in the long-term. Viable polyculture-based futures will require complex planning, specific knowledge, as well as intensive labor. Given the challenges involved, agroecologists must be determined to make a living in the countryside and devote themselves to farming as a “cultural way of life” (Gurr 2017). This is an essential part of creating a sustainable “repeasantization” (Van der Ploeg 2008; 2018) capable of stopping, and perhaps, even reversing urbanization trends. By guaranteeing conditions for new generations of farmers to develop autonomous rural livelihoods devoted to domestic food production, it is hoped that they would engender a more substantial sort of land reform—meaning land redistribution without rural proletarianization, environmental stewardship, living incomes, and positively experienced lifestyles. How have the MST and its allies secured resources to train and socialize young adults into useful activists at MST?

5.3 ERS as an “internationalist” space of self-governmental resistance

Political scientist Anthony Pahnke examined MST education and production and coined the notion of “self-governmental resistance” (Pahnke 2014a, 2014b, 2015) to elucidate his findings. For Pahnke, the MST is not merely disruptive, and generative of protest as is generally expected of social movement organizations; it is productive of established order and discipline, governing its members by institutionalizing services designed and implemented by movements themselves.¹⁴⁰ In this sense, he joins other MST researchers (Flynn 2010; Tarlau 2014; Meek 2014) in claiming that the MST escapes the fate theorized by scholars for social movements (e.g. Della Porta and Diani 2006) according to which movements are bound to become toothless and fade away or to become co-opted when they institutionalize. Drawing on this approach, in this section, I draw on Pahnke’s theorization to ERS in order to explain the school’s emergence.

In the case of PRONERA, the MST partners with the institution to promote the training of professionals to work in its strategic sectors; for example, as cooperative technicians, teachers, veterinarians, and agroecological educators. To do so, the MST obtains public funding from state agencies and partners with formal institutions of higher learning, who provide graduates with accredited diplomas. This is what the Bachelor of Agroecology offered at ers is, to the Ministry of Education.

The institutional language of PRONERA (INCRA 2014) mirrors the language and principles elaborated by the MST in its rural pedagogy, *Pedagogia do campo*¹⁴¹, a conception of education with roots in

¹⁴⁰ For Pahnke, self-governmental resistance differs from revolutionary resistance (which seeks to take control of state power through a revolutionary government) and reformist resistance (which seeks to gradually improve government), and functions by effectively splitting state power, creating “sites of democratic management within certain services” organized according to the logic and practices of movements themselves (Pahnke 2014, 161).

¹⁴¹ Key ideas in *Pedagogia do campo* are that teachers should know the community before teaching, teaching should relate to a student’s specific everyday reality instead of universal examples and premises that exclude rural subjects, and that discussion should be started around *generative themes*, themes that the teacher has identified as important to the specific community and where he or she feels that action can be taken to change an oppressive reality. See Tarlau 2013; Arroyo et al. 2011.

the 1980s; under deep influence from Paulo Freire’s “Pedagogy of the Oppressed” (1970), pupils are referred to as *educandos*,¹⁴² and professors as *educadores*.¹⁴³ PRONERA’s manual uses other Freirean terms such as “dialogue” and “*práxis*,”¹⁴⁴ describing them as “orienting principles.” It also institutes alternancy pedagogy (*pedagogia da alternância*), a program structure proposed by social movements as better adapted to rural realities, where students alternate periods of full-time study in boarding school settings at training centers¹⁴⁵ designed and administered by social movement activists (*tempo escola*, school time) with periods of permanence in their community of origin carrying on their normal activities and homework assignments (*tempo comunidade*, community time).

According to Pahnke (2014a, 2014b) social movement training centers offering PRONERA education, which exist throughout the Brazilian hinterlands, can be understood as examples of self-governmental resistance¹⁴⁶ because they represent spaces accredited and partially funded by the state. However, given their isolation from the outside world, movement pedagogues have significant freedom to determine the content and objective of such programs. At the same time, they

142 This is sometimes translated into English as student-teachers, I will use the Portuguese *educando/educanda* or simply “students.”

143 This pedagogical perspective seeks to deconstruct hierarchical relationships between student and teacher, and help to develop emancipatory knowledge. Freire strongly denounced the “banking model of education” and insisted that teachers not treat students as empty receptacles for top-down knowledge. Instead, both ought to actively educate each other through conscious and respectful dialogue as a first step towards problematizing and changing an oppressive reality (Freire, 1970).

144 In Freirean pedagogy, *práxis* refers to the continual movement between reflection and action that leads the oppressed to change their condition by naming their world and its problems, identifying ways to change it, acting together, then reflecting on this action.

145 This is not the case of all PRONERA programs, as some of them (especially graduate programs and law programs) generally take place on urban campuses, but a number of well-known training centers completely administered by movements exist all over Brazil.

146 As I showed in Chapter 3, the decision to build ERS within the Terra Prometida settlement was not at all consensual as far as settlement residents were concerned, and the settlement was chosen by the MST’s state coordination because of its proximity to Curitiba and the existence there of a group of committed militants already experimenting with agroecology, at the time a relatively new principle of the movement. This, too, shows that ERS is a product of self-governmental resistance, since higher instances of the movement were able to impose the installation of an educational space inside of a federal settlement without full agreement from the community, which is something generally associated more with state power than with social movement action.

require individuals to become accustomed to movement rules and norms, practices and values. They also exercise authority over who is invited to participate in these educational programs. Indeed, even as the institutions of higher learning who deliver the diplomas exercise a selective process by carrying out entrance tests (vestibular) at the beginning of the course, it is the social movements themselves that present proposals for new courses,¹⁴⁷ negotiate curricular content with the public university partners, and enroll new students.¹⁴⁸

ERS is a typical example of a self-governmental educational space. I arrived at ERS for my first fieldwork trip in May 2017. The 4th cohort of agroecology students were starting their 3rd official *tempo escola*, which normally lasted 90 days (even though this one and the following were shortened as a consequence of the political chaos that followed Dilma Rousseff’s impeachment). Following the creation of the aforementioned Rede Federal in 2009, the course was now proposed as a partnership with a local Federal Institute of Paraná campus. The cohort had originally been composed of the PRONERA maximum of 60 students, but a few students had dropped out.

Yet ERS is also the product of the MST’s brand of “socialist internationalism,” inspired by projects of international cooperation and solidarity pursued by the revolutionary Cuban government.¹⁴⁹ Such princi-

¹⁴⁷ This information comes from official policy documents and an interview I conducted with the Federal institute professor who is in charge of the agroecology program offered at ERS (Interviewed on 12/12/2017 in Curitiba, Brazil).

¹⁴⁸ It is important to emphasize that ERS is not a “typical” PRONERA educational space in the sense that it is attached to CLOC-LVC and receives students from other Latin American countries in addition to Brazilian students. However, in many ways it is a space where the MST retains a large degree of control and agency over organizational principles and course design. The school is located in the central district of an MST -affiliated settlement. ERS’s Political-Pedagogical Coordination (CPP), comprised almost entirely of MST militants, coordinates the day-to-day activities of the school and negotiates schedules with its PRONERA university partner. At the time of my last field trip, the CPP was composed of Geni (who left the school mid-2018 due to pregnancy), Laura, a Brazilian activist from the MMC who had herself graduated from ERS and was enrolled in a political training course at the Escola Nacional Florestan Fernandes (ENFF, the MST’s national training center), a couple freshly arrived arrived at ERS and affiliated with the MST.

¹⁴⁹ João Maria, a main educator behind the creation of ERS, described this “Cuban example” to me as an element of orientation, a direction and model that Latin American movements have. To him, this explains why solidarity has been better integrated within La Via Campesina in Latin America than any other region of the world.

ples have led the MST to scale up its political struggle by participating in La Via Campesina starting in the late 1990s. (As the motto goes, “Globalize the struggle, globalize the hope!”). Socialist internationalism itself will not be a focus of my dissertation *per se*.¹⁵⁰ However, ERS is clearly a space that reveals agroecology as part of the MST’s broader mission and goal—to create a transnational strategy to counter transnational interests.



Figure 18: La Via Campesina symbols are omnipresent at ERS

Most of the students were Brazilian, belonging to the MST and other movements linked to La Via Campesina Brazil.¹⁵¹ For the first time, some Brazilian students from social movements and unions allied with the MST but not included in La Via Campesina have been allowed to join, such as one urban activist from the Levante Popular da Juventude. She intended to use knowledge gained at ERS in urban agriculture organizing. Significantly, the cohort was made up of a vast majority of

¹⁵⁰ The reader can refer her/himself to a recent book in Portuguese by Brazilian sociologist Deni Rubbo (2013) for a more in-depth take.

¹⁵¹ Such as the Movement of small farmers (MPA), the Movement of peasant women (MMC), the Movement of people affected by dams (MAB) and the Youth rural pastoral (PJR).

male students (11 women¹⁵² for 38 men the last time I was at ERS). Students are between the ages of 18 and 39, although most are between 20 and 28 years old. The age gap often caused tensions, as older students frequently complained about blamed younger students’ problematic behavior, their immaturity, lack of life experience, and lack of commitment to militancy. They often blamed their younger peers as impeding their advance—both as a cohort and collectively as a project for agroecology. Brazilian students were joined by cohort’s 15 international *companheiro/as* (comrades) from Paraguay, Chile, Bolivia, Argentina and the Dominican Republic. They all self-identified as militants of social movements who worked in cooperation with the MST within the CLOC-LVC network.¹⁵³ The Brazilian students receive a modest personal scholarship from PRONERA for each *tempo escola*, which the MST requests they hand over to the school’s coordination in exchange for full room and board at the school, with relatively little transparency in accounting.

According to Federal Institute professors who lecture at ERS, PRONERA students did receive similar education to students taking courses in urban settings, especially after the MEC heavily criticized the Federal Institute for curriculum irregularities in previous cohorts after an independent evaluation in 2015.¹⁵⁴ Professors drove to the settlement to teach, sometimes staying overnight if they taught multiple days in a row. Because of the alternancy model, the class routine was intensive, meaning the cohort often had up to 8 hours of classes per day, when they studied with Federal Institute professors. Classes were lecture-driven, on topics such as: plant physiology, ecology, soil science, climate science, statistics, organic animal production, agroecosystem analysis, and genetics for agrobiodiversity. Professors had planned powerpoint presentations to guide lectures, which were followed by collective discussion. The absence of a laboratory and functional library was cited by

152 As we will see in Chapter 7, such a skewed gender distribution clearly has consequences for young women’s sense of efficacy and security in their role as students, educators, and future agrarians—a traditionally male occupation.

153 Upon graduation, these international students will earn the same diploma as their Brazilian counterparts. Their presence is not part of the main PRONERA agreement. As such, they do not receive money from the Brazilian state to take part in the program. Source: Key informant interviewed on 12/12/2017 in Curitiba, Brazil.

154 Professor interviewed on 12/12/2017 in Curitiba, Brazil.

both professors and students as a major challenge, but, more positively speaking, it fostered creativity in teaching. For example, I observed an activity where students were to learn to conduct empirical soil analysis without lab testing, but rather by using colors, smells, textures and landscape clues, so they could replicate it back at home.



Figure 19: A Federal Institute professor instructs a practical class on soil textures and compositions, May 2017

Relations between the cohort (which resides in an enclosed and highly politicized social milieu) and their urban professors (accustomed to teaching in individualized settings) were sometimes tense, especially when professors showed little experience with social movements. Students complained that professors were “not speaking our language,” and are viewed as being ignorant of actual agricultural practices. Others criticized their teachers’ authoritarian attitudes, or for lacking the same ideological perspectives as activists. Based on my interviews and conversations with professors, it was apparent that these professors knew very little about the school’s routine outside of the classroom (with rare exceptions). In one extreme case, one professor (who had very tense relations with the cohort) said he had not previously know what social

movements were exactly, and had to google it. These professors all spoke about teaching at ERS as an extremely enriching professional experience for them, as they encountered a diverse student body and a kind of political conversation that is rare at the Federal Institute campus. This contrasts with the accounts students made of the same interactions, which they talked about as very different from what they expect from a course taught in social movements settings, or interesting and useful in terms of content, but not taught in a way that might help them pass knowledge onto farmers afterwards. The following significant quote by a student who chose to drop out of the course illustrates this last point well:

When you arrive at a farmer’s house, if you say that you are enrolled in a bachelor’s program in agroecology, he looks at you and starts to test you. And you feel ashamed... because you don’t know. I once saw an agronomist wanting to plant bean seedlings... and then he goes to the farmer... it’s sad to see an agronomist wanting to plant bean seedlings.¹⁵⁵ There are expectations, aren’t there? Our farmers know we are here to take a course. This sets expectations. [T]hey want something new, they want to learn something. But they don’t want to know about the Calvin cycle¹⁵⁶. They want to know if we can handle things, if we can handle planting, if we know how much water the plant needs or how to fertilize and prepare the canteiro.¹⁵⁷

At times, it seems that formal class and the rest of life at ERS function in two parallel universes, where conceptions of what constitutes useful knowledge differ vastly between professors and students. Interestingly, students often told me that what happened outside of their formal classes was the “real” training they were receiving, although students

155 Beans are normally planted directly from ungerminated seeds, as transferring bean seedlings into soil generally kills most of them.

156 The Calvin cycle is the part of photosynthesis that the cohort had been learning about shortly before this interview.

157 Interviewed on 27/06/2017 in L_, Brazil. In Brazil, raised beds, sections of agroecosystems where vegetables are produced, are generally referred to as canteiros, which is the name for a flowerbed or a section of a construction site. Generally canteiros in humid areas are about 1m wide and raised by about 20cm. They are often covered with straw to preserve soil humidity and prevent overgrowth of undesired plants.

who were planning on pursuing further education obviously saw more value in mastering academic knowledge. What is this “real” education offered at ERS by social movements as part of a “self-governmental” partnership with a public university, and what are its effects on how students understand and experience agroecology?

5.4 Organicidade: agroecology and “the collective”

In this section, I describe and analyze aspects of daily life and activities at the school, as well as curriculum elements. Together, this explains how ERS attempts to mold committed militantes, capable of fostering and supporting agroecological values and projects. I do this in two main ways. First, I focus on organicidade. Through its peculiar organization, the school itself becomes an act of MST-inspired collective communication with its own norms of accountability and planning. Such an organizational milieu helps students imagine themselves as part of a broader collective project for agroecology. The following table provides the reader with a weekly schedule of life at the school, to help visualize how much “making the collective,” in Sian Lazar’s words (2017), is part of daily life at ERS.

Time	Activity (weekday)	Example of task or activity	Saturday schedule	Sunday schedule
6h00	Work slot for some of the sectors	<ul style="list-style-type: none"> - Preparing collective breakfast (kitchen sector) - Planting seedlings, weeding and harvesting vegetables in the school's production area (production sector) 	Same as weekday	Sleeping in allowed
7h-7h30	Collective breakfast	After eating, each person washes their dishes	Same as weekday	Assigned NB prepares breakfast
7h45	Mística / NB gathering	<ul style="list-style-type: none"> - The entire school comes together - Coordinating NB greets collective and performs mística rehearsed the night before, - each NB and brigade chants their motivational phrase, - individuals with a short message of collective relevance invited to speak up 	Same as weekday	
8h00	Class or course activity	<ul style="list-style-type: none"> - Formal class with a professor detached from the Federal Institute of Paraná's campus. Examples: <ul style="list-style-type: none"> - Plant physiology - Soil sciences - Organic animal production - Agroecosystem planning 	Seminar organized by the political-pedagogical coordination of the school (theme negotiated with the cohort through the NB system) Examples: <ul style="list-style-type: none"> - Gender and sexuality - History of Latin America - History of agriculture - Spanish language - Portuguese language 	Breakfast served (sleeping in can be continued if the person belongs to an NB whose collective task comes in later in the day)
10h15	Coffee break with snacks	Coffee break with snacks	Coffee break with snacks	Assigned NB prepares coffee break, each person washes their own dishes

Time	Activity (weekday)	Example of task or activity	Saturday schedule	Sunday schedule
10h30	Class or academic activity	Personal reading time or working on final thesis	Seminar continues	Assigned NB prepares lunch collectively
12h30	Collective lunch	After eating, each person washes their own dishes		
13h15	Work slot for some of the sectors	<ul style="list-style-type: none"> - Trimming grass around buildings and making the surroundings pleasant (production sector) - Producing contents for the school's website and Facebook page (pedagogical sector) - Taking care of small children in the Ciranda with the regular workers (pedagogical sector) - Quick clean-up of toilets and showers (administrative sector) 	Same as weekday	Assigned NB collectively cleans up pots and pans used in the preparation and serving of lunch food
14h30	Break	Taking a nap, taking a shower, personal organization		
15h00	Class or academic activity	Formal class with MST educator on theory and methods of <i>Diálogo de saberes</i> , the courses professional practice component	Mutirão: each work sector undertakes collectively agreed upon tasks that are better performed by people joining forces. Examples: <ul style="list-style-type: none"> - Organizing and cleaning up the library space - Thorough cleaning of bathrooms - Building a fence for school pigs to have an outside roaming area 	
16h30	Coffee break with snacks	After eating, each person washes their own dishes	After eating, each person washes their own dishes	Assigned NB prepares and serves coffee and snacks. After eating, each person washes their own dishes.

16h45	Class or academic activity	<ul style="list-style-type: none"> - Activity taking place outside of a class setting, such as going to the settlement to practice Diálogo de saberes with residents of the settlement or learning how to do a soil analysis 	Mutiirão continued until task is done or there is a consensus to stop or people get tired and unilaterally decide to stop, which might result in collective questioning of this attitude in the next sector meeting.	Assigned NB collectively prepares dinner
19h– 19h30	Collective dinner	<ul style="list-style-type: none"> - eating, each person washes their own dishes 		
19h45	Work slot for some of the sectors	<ul style="list-style-type: none"> - Cleaning up the collective dining hall (kitchen sector) - Drying dishes (kitchen sector) - Cleaning the school's large industrial kitchen from dinner preparations (kitchen sector) 	Free time	Assigned NB cleans up pots and pans from dinner and kitchen
20h30–22h	Weekly meeting or activity	<ul style="list-style-type: none"> NB meeting Coordination meeting - Team meeting - Sector meeting - Cultural activity (activity organized on Fridays by the Culture and communications team, for example watching a movie or taking part in a self-organized workshop) 	Cultural night: should be a space for a collectively organized performance aiming to share different aspects of Brazilian regional cultures and Latin American / cultures through food, traditional dances and music. In practice, it is most of the time a party where whichever affinity group happens to be in control of the playlist plays forró for couples dances and their preferred type of mainstream commercial music (Sertanejo universitário, funk carioca and Brazilian pop are preferred genres), resulting in other affinity groups getting frustrated and leaving the party, in some cases starting a parallel party in a dormitory or around a bonfire.	Free time
23h	Lights out		Party allowed to go on until midnight, then sound system has to be turned off	

Table 2: Weekly schedule at ERS (compiled from author's field notes, 2017–2018)

It is a Saturday afternoon during my second stay at ERS, and the cohort is organized in small groups, accomplishing tasks that contribute to the maintenance of the school. As a member of the pedagogical work sector, I have been tasked with organizing the school's library, a drafty second floor room, built out of rough wood on top of the school's administrative office. At the moment, the “library” is a chaotic space where thousands of unsorted donated books lay in piles on the floor and on shelves, serving more as a haven and breeding ground for brown recluse spiders than as an intellectual resource for the cohort. Together with the three educandos who share my task, we have decided by consensus that we need to sort out books and magazines between usable and non-usable, to clean and sort the usable ones by broader theme, and to sweep the floors clean of any traces of insect and arachnid life. All afternoon, I carefully pick up books from the irregular wooden floors, leaving spiders time and space to run away without feeling they have to bite me. Marxist social theory, left pile. Science textbook, middle pile. Brochure issued by social movement or union, right pile. Outdated encyclopedia, pile that goes for donation to the daycare so that children can cut out pictures and play with them. Primary school textbooks, donation pile.

Another Saturday, we will put together a larger team to reassemble the bookshelves and start the inventory of all the books that are staying in the library. The work ahead of us looks Sisyphean, as we are surrounded by an ocean of books and our individual contribution is hard to even discern. Once in a while one of us expresses discouragement, or frustration at the sight of good books negligently abandoned on the floor. We remind each other of the relevance of our task: one day before graduation, this space will be an orderly library where students can easily find books, borrow them from a computerized system, and even sit to study and write their final thesis. Our work is a direct contribution to building the continental agroecological project because it will facilitate access to knowledge and critical theory to militants. We are collectively and quite literally, in my *companheiros*' words, “building the school” and “building agroecology,” as we sort dusty books and dodge dangerous animals. At the end of the afternoon, we look at what we have done and feel satisfied with the fruits of our labor: orderly piles, semi-visible floors, and a heap of books to be discarded. “If four of us have done this

in one afternoon with planning and collective work, maybe millions of us can create significant change in agriculture,” Michael, a student from Paraguay who shared the task with me concludes, half-joking. He seemed tired, eager for a break. Transforming menial labor into revolutionary action requires small tasks, coordination, and keeping the bigger ideological picture in mind.

This is the weekly *mutirão*.¹⁵⁸ The tasks accomplished during *mutirão* are as diverse as fetching wood for water heaters, cleaning up of the collective bathrooms, painting a new colourful mural on a building’s walls or planting vegetable seedlings in the school’s gardening area. These collective tasks have been planned in advance in what are called the Work sectors (*Setores de trabalho*). The work sectors¹⁵⁹ are an organizational principle according to which the group is divided into small groups in

158 *Mutirão* is a term that in Brazil refers to an effort to collectively plan and accomplish work benefiting a community, especially when the quantity of work is overwhelming for a single person or family but can be quickly accomplished as a group with good planning. The word originated in the indigenous Tupi language and is especially used in rural settings where traditional communities often used this way of working to accomplish large tasks. Movements working with agroecology and socialist movements in Brazil have recovered this word to refer to the superior efficiency and social value of setting time apart to work on tasks as a collective.

159 The work sectors are: 1) Kitchen, in charge of doing all tasks linked to the large collective kitchen, except for the cooking of daily lunches and dinners from Monday to Saturday, which is done by women who are settlement residents and are contracted as cooks; 2) Pedagogical, in charge of planning and executive the cohort’s contribution to the daycare center, producing contents from the school’s online presence and centralizing daily information about all the activities that were carried out by the cohort; 3) Administration, in charge of the school’s dormitories, bathroom cleaning, cars and helping international students with visa-related issues; 4) Production, in charge of the school’s agroforest and animal production areas, of trimming grass and planting flowers around buildings, maintaining the school’s water system functional and heating water for showers. Each sector is divided into sub-sectors (*Frentes de trabalho*) taking care of a specific aspect of the sector, for instance work in the school’s daycare is a *Frente de trabalho* of the pedagogical sector. During this initial meeting, each educando/a volunteers to join a *Frente de trabalho* for a specific daily task within the sector - for example, someone in the kitchen sector might volunteer to clean up the dining hall each day after dinner. Individuals are expected to perform their daily task every day, in one of the three slots available for work, either before breakfast, after lunch or after dinner. The other two slots are considered free time. On Saturdays, *mutirão* is used to accomplish large tasks that require more people than the usual daily tasks.

charge of performing the daily work collectively defined as necessary to the school’s maintenance.¹⁶⁰

Students are held accountable to the collective in case of slacking or lack of commitment to the chosen task. These behaviors will often be picked up on by others in the sector and addressed in the meeting, with reminders that each person’s commitment to their daily task is necessary to the school’s maintenance. But this goes further: these critiques are often a reflection of one’s commitment to the collective political project of La Via Campesina social movements and the transformation of society based on agroecological principles. It is not uncommon for relatively minor behavioral infractions to be perceived as selfish or uncoordinated to be grounds for a reminder that a militant’s attitude must embody the changed society he or she strives to live in.

As a result, everyone is responsible for washing their own dishes after meals. This might seem insignificant, but for many young men in the cohort, who still live with their parents back home, their time at the school is the first time they have to do any housework. (Young women are generally used to cleaning tasks and care work from late childhood onward.) The long line that forms at the sinks after each meal serve as a reminder that a good militant is one who takes responsibility for cleaning up themselves. The line serves as a space of socialization and visually demonstrates that dirty dishes and sinks are not natural female domains, but rather a space where each person is expected to participate equally in collective cleanliness.¹⁶¹

160 At the beginning of each *tempo escola*, the CPP of the school assigns each student to a work sector on a rotational basis, to have everyone participate in each sector at least once during the course. Then, each sector has an initial meeting where a member of the Chico Mendes Brigade, the collective for permanent members of the school who are not students, facilitates a discussion aiming to identify and negotiate the tasks to be accomplished by the sector for the weeks ahead. Once a week, sectors come together for a meeting where each *Frente de trabalho* relates its progression to the rest of the sector. In case of doubt, conflicting opinions or problem, individuals use this space to seek advice and ideas from the rest of the sector, and collectively negotiate modifications made to the initial plan.

161 Gender implications of collective organization will be developed further in Chapter 7. Similarly, on Sundays, all tasks of maintenance (including cooking meals, as the cooks do not work) are and performed collectively, meaning one will have to clean or cook for the collective at least once a week no matter what his or her daily task is.

Here, I am reminded of Sian Lazar’s study of union activism in Argentina (2017). Much like in the Argentinian context, in Brazil, militancy (a *militância* in Portuguese) “names the practices of activism as well as being a group noun that describes the collective of political activists” (Sian 2017, 13) and designates “how individuals create and understand themselves and others as political actors located in a particular time, place and family and consisting of a particular set of values, dispositions, and orientation” that can be cultivated in individuals and a collective. At ERS, young activists learn that agroecology is a core value in their political commitment, but also that political commitment is a *sine qua non* condition of agroecology. This is an important way that agroecology becomes legitimate to them, by embodying not only an alternative in ecological and agricultural practices, but as a set of concrete *social* practices that resonates with already familiar movement practices and social norms within the collective.

The insistence on collective work as an important component of the daily schedule has two main grounds. First, as Geni told me, there is no-one else other than the students to perform these tasks as there is not budget to pay external staff aside from the cooks. But Geni also stresses a moral dimension to housework. Planned, collective daily work is valued for attuning militants-in-training to the larger collective.¹⁶² Again,

162 ERS, in spite of being a space of La Via Campesina, relies heavily on MST organizational principles. Besides Paulo Freire, the MST is inspired by Soviet revolutionary pedagogy, especially the works of Anton Makarenko and Moises Pistrak. João Maria, the MST pedagogue who is one of MST’s main designers (see Chapter 6), cited these two authors as direct influences on his own thinking in conversations and recorded interviews. Anton Makarenko’s novel “The pedagogical poem”, published in English as “The Road to Life” tells the story of the author’s stay at the Gorky colony, a center for orphans of the Bolshevik Revolution considered deviant youth. Makarenko emphasizes the value of collective life and giving students responsibilities in running the school in socialist education. Pistrak was a pedagogue who had a main role in designing the Soviet school system after the Bolshevik Revolution. His main work, translated into Portuguese but not English, emphasizes the role of the school as an important ideological arm of the revolution and the practice of manual labor in schools as a central element of revolutionary discipline: “Work elevates the man and brings him happiness, it educates him in a collective sentiment, it ennobles the man and because of this, work, and particularly manual work of whatever type, is necessary as a means of education” (Pistrak, p. 48 cited in Tarlau 2013a, p.60). See Caldart 2004; Makarenko 1936; Pistrak, 2000; Tarlau 2013a.

referring to Table 2, the reader can visualize the busy schedule of life at the school and how prevalent collective-building activities are at ERS.

The other main collective organization principle is the Núcleos de base collectives, commonly referred to as NBS (pronounce “énibés”).¹⁶³ NBS are groups of 5 to 7 people, which change with every return to the school after tempo comunidade. NB members are one’s immediate political community at the school, in the sense that all collective issues and personal issues affecting the collective, including apathy, changes in behavior or personal conflicts, are expected to be discussed critically and resolved in NBS as a first step, during weekly evening meetings. Collectively agreed upon decisions resulting from these meetings are encaminhamentos, and expected to be acted upon by all members of the NB. Having been a member of one’s NB in the past seems to give one a certain legitimacy in talking about someone’s moral character or evolution as a militant: “I was part of [name]’s NB last year and I can say he has matured a lot since” or “I am a member of [name]’s NB, so I’m well-placed to say she tends to close herself to discussion when contradicted” are but a few comments I heard about belonging to NBS.

Each NB chooses a name for itself by consensus at the beginning of tempo escola, and names are generally a homage to deceased revolutionaries from the Latin American left or socialist history (for example Las Mariposas¹⁶⁴ or Rosa Luxemburgo¹⁶⁵) or fallen social movement militants (Valmir Mota¹⁶⁶ or Marielle Franco¹⁶⁷) but can also refer to

163 The CPP creates NBS with the intention to break affinity groups and cliques perceived in the cohort, and to give everyone a chance to organize closely with a wide range of people. The NB structure is derived from Paulo Freire’s pedagogical theory for critical adult literacy and has been used in Brazil by social movements and the progressive branch of the Catholic church as a method for organizing encampments, community improvement projects, activities and schools since the 1980s. In particular, it has been the MST’s preferred method for organizing land occupations and training centers. See Tarlau (2013b).

164 Three sisters who were in organized resistance against the military dictatorship in the Dominican Republic and were assassinated as a result.

165 German socialist assassinated in 1919.

166 Assassinated MST activist.

167 Activist against police brutality and municipal councillor who was assassinated in Rio de Janeiro in March 2018.

significant non-human species (Macaxeira¹⁶⁸, Grelha Azul¹⁶⁹), scientists important in agroecological knowledge (Ana Primavesi¹⁷⁰), indigenous concepts (Pachamama¹⁷¹) or engaged artists (Violeta Parra¹⁷²). A short, catchy chant is also chosen by each NB (for example, a NB called Primavera dos Povos¹⁷³ chose as its chant “Contra o inverno dos poderosos, passamos a primavera dos povos”¹⁷⁴). Each day at 7h45 a. m., after breakfast, the entire school gathers and the day’s coordinating NB does a small artistic or theatrical performance rehearsed the day before, *mística*¹⁷⁵, greets the collective and calls all other NBs one after the other to perform their chant three times, with the entire school (“the collective”) expected to join in the two last times, a classic practice in MST educational places.

Each NB chooses two representatives who go to a coordination meeting every week, along with a representative of each team and representatives from the CPP. I was not allowed to join the coordination meeting when I asked a CPP representative for the permission to do so, but going there was often talked about by students as tedious. Female students, in particular, often talked about being pressured to participate in the coordination during each *tempo escola* as there were only 12 of them in the cohort, meaning each NB often only had one woman – it is considered preferable that NBs be represented by one man and one woman, although it is not mandatory at ERS. When I asked Geni about this, she said students did not like the coordination because being coordinators forced them to practice debating and criticizing others’ ideas

168 Word for Cassava in some regions of Brazil.

169 A small blue bird considered native to Paraná’s Araucária forests, today endangered (*Cyanocorax caeruleus*).

170 Austrian soil scientist who moved to Brazil decades ago and wrote the first detailed book about agroecology and tropical soils.

171 Reference to the Earth in some Andean cultures, often associated with agroecology in La Via Campesina in Latin America.

172 Chilean singer-songwriter who died in 1967.

173 Spring of Nations, referring to the series of revolutionary events that took place in Europe in 1848.

174 “Against the Winter of the powerful, we spend the Spring of nations.”

175 *Mística* is another widely spread MST practice that finds its origins in practices in the Catholic church and is generally performed every morning at MST occupations and training centers, as well as an overture to many ceremonies, important meetings and training sessions. See for example Issa (2007); Flynn (2013); Marques (2018).

and opinions about everyday life, while having to present their criticism in constructive and non-personal ways. This may be easy in the realm of abstract knowledge or academic arguments, she said, but when it comes to the dynamics of everyday life and evaluating one’s ethics of practice as a militant, students often found hard to criticize their friends, to face their own contradictory behavior, and to synthesize different opinions within their NB in a neutral way. She said that in most cases, “learning how to debate is more important than the final decision” as the school’s instances are relatively low-stake spaces that function as a laboratory for students to train their capacity to coordinate, lead, debate and “learn how to feel the fine line between authoritarian decision-making and the flexible firmness” required in a role of coordination.

Together, these micro-institutions—the CPP, the NBS, the coordination, the teams, the work sectors—constitute what is called *organicidade*, once again a concept borrowed from MST organizing. *Organicidade* refers to the idea that a well-functioning collective is like a well-functioning organism, where each element has a defined role and importance in the organism’s health. Above all, *organicidade* is based on the good circulation of information of collective relevance: within the NB and between the NB, the coordination and the CPP, but also within the work sectors. As students are help accountable to micro-instances, it is easier to identify where information was not properly passed on and investigate into the reasons it did not.¹⁷⁶

As Valdemir, one rather idealistic student who is new to activism, put it:

It’s difficult, isn’t it? Actually, until last year I was quite lost... No but seriously, I think it’s cool. It functions really well, everyone communicates, I think it’s cool, everyone knows everything, you know what I mean? When some people don’t know something, it means something got lost in the [flow of] information. You can easily trace back the place where this happened. The school functions this way because of this method.¹⁷⁷

176 In practice, information often does not flow and many tensions arise from this. But having these micro-instances in place and as an ideal to strive for often mean miscommunications are questioned as a symptom of something and not a feature of “human nature.”

177 Interviewed on 10/04/2018 in L_ (Brazil).

This often seems obvious to MST militants who are used to *organicidade*, but for students who are newer to social movements, taking part of this kind of daily life can be a life-changing experience. Another example is the following comment; it was made by Lucas, a first-time activist who comes from a poor neighborhood in the metropolitan area of Curitiba, a life he describes as miserable, individualistic and alienated:

I'd like this to be recorded... for those of use who lived in a community that is only... called a community because it's a space, a space in common, but people don't interact... where each person takes care of his own stuff... of his property for himself... so, in this sense, collective work and life within a collective... something wonderful happens.¹⁷⁸

Through *organicidade*, militants-in-training learn that collective organization, collective work, open¹⁷⁹ public debate about most aspects of daily life, consensus decision-making and the flow of information between small collectives are part and parcel with the project of political agroecology, in a way that goes beyond farming techniques or scientific knowledge and spills into a way of problematizing social relations and tensions. This, however, brings the following question: how does this translate into students' subjective understandings of agroecology and their own role of agroecological militants?

5.5 Scaling in: Agroecology as an ethical posture

Lucas's views point us to the last important argument that I want to make in this chapter: the fact that students consistently report that their conception of agroecology has changed *through* participation in

178 Interviewed on 22/06/2017 and 03/07/2017 in L_ (Brazil).

179 This is in theory, at least. In practice, some topics (such as those related to interpersonal power abuses, sexual assault and how to transform the sexual division of labor) are hard to address even when interpersonal communication about collective issues and self-reflection about injustice and structural violence are organized according to clear rules, daily practices and local institutions, which often gives rise to frustration, informal discussion of these issues and gossip. As Lagalisse (2013) writes, gossip should sometimes be considered as a forum for direct action against "unspeakable" power relations within revolutionary organizations (see also Scott 1991 on gossip as a "weapon of the weak").

the course, in ways that follow a specific pattern. I call this “scaling in”: the way that social movement action through agroecological training creates conditions for movement-affiliated students to cultivate an “agroecological attitude,” thus legitimizing agroecology as part of their personal worldview and motivation. A common thread between the vast majority of educandos I interviewed is that before participation in the course, they placed agroecology mostly in the realm of agricultural production and economics, as a synonym for organic agriculture or for “produzir sem veneno,”¹⁸⁰ to produce without pesticides. Through participation in the course, they developed a view of agroecology as relational (in ecological and social ways) and *ethical*.

The following quote, from my interview with student Ayrton, an MST activist from Paraná in his early 20s, is a good illustration of this point. He ultimately expresses the view that agroecology is a relational worldview which favors “life” and “balance” over destruction and domination, and places the agroecological human agent as a “builder” of the right type of relations:

The idea I had is that it was agriculture without veneno, only this. Don't use veneno. You get here and discover that there are the relations to the land, biotic and abiotic relations... you will know the chemical relations that exist, the biological relations... knowing how nature will be favored from a certain construction of agroecology... Organic agriculture is different from agroecological agriculture. In organic agriculture you can say, for example: “I'm going to plant lettuce, one hectare of organic lettuce, and I don't use veneno, all organic.” You're going to have only one dominant species there, you're going to have a biological control that will not build balance, there are going to be dominant [species]. In agroecology no. In agroecology you see the relations between plants, the relations between layers of vegetation. The relation between microscopic beings,

180 In the following quotes, I keep the word *veneno* in the original Portuguese because it does not have exactly the same connotation as the English “pesticide.” *Veneno* literally means poison, so the word carries this connotation rather than being something that simply kills pests.

and macroscopic beings too. You are going to build all these relations. You are going to build life, not destroy something.¹⁸¹

Clara, a student linked to the MMC who lives in Paraná, in a community where she is the only one linked to a social movement or to agroecology, knew very little about agroecology before she came to ERS. She, too, talks about agroecology as relational, since she sees different projects on different territories (“scaling out”) as “steps” taken by agroecology like a being learning how to walk:

When I started here, I thought agroecology was something really new still. But then, in some spaces [she is talking about Coopeco, the cooperative which inspired Terra Prometida’s agroforestry’s transition, see Chapter 4] that we went to visit, I saw that agroecology is already more than crawling [like a baby], that it already managed to take a few steps...¹⁸²

Mayara, a participant in the Youth Pastoral Commission from the northeastern state of Pernambuco, brings to this relational view the notion of “totality,” as she locates in her education at ERS her new awareness that agroecology is a worldview based on holism:

I only thought about production without veneno, I thought about agroecology very superficially. We’re going to produce agroecologically like we think about organic production, that’s it. I’m going to sell, have a product of higher value and all. But then coming here, understanding that totality of agroecology within human relations, within care for the land, with others, I think I changed a lot my vision of agroecology and of what I want. Building from this course, from this collective work, I learned this care for an undivided reality (*cuidado com um todo*), with the totality of things, and the change of relations – especially gender relations within society¹⁸³

181 Interviewed on 22/11/2017 in L_ (Brazil).

182 Interviewed on 18/06/2016 in L_ (Brazil).

183 Interviewed on 09/04/2018 in L_ (Brazil).

Views similar to hers were quite common in interviews I made with students who had been quite new to agroecology when they started the course; students referred to newly acquired systemic worldviews; agroecology became a prism through which relations of social and ecological interdependence (including gender relations) became visible and easier to act upon in emancipatory ways. In this sense, my findings are linked to those of anthropologist Ana Delgado (2008, 2009), who described generational differences in agroecological imaginaries among MST leaders. On the one hand, older individuals tended to espouse an almost Leninist approach, whereby agroecological methods and practices ought to be spread by an elite-revolutionary cadre of properly trained activist-agronomists affiliated with the movement. On the other hand, younger leaders had a much broader (ontological) understanding of agroecology as a holistic framework which provided them with the opportunity to “radically re-think relations with nature as well as social relations, including the farmer-technician relation” (Delgado 2008, 564).

Another common theme in the way educandos/as talk about the way their conception of agroecology has changed with their stay at ERS is how they see it as a space, a bounded, yet potentially expansive territory. Mariana, a Chilean, said the following referring to the definition of agroecology she had before she started the course:

Well first off it was a very basic definition, that corresponded more to a vision...of an exact science and not very... political. I knew there was a political intention, but I didn't know that it was *within* agroecology... that there were social, ethical and economic aspects, in such an important way. I thought these aspects were *outside of* agroecology¹⁸⁴

In another example, Pedro, an urban-raised MST activist from Rio de Janeiro state in his early 30s, talked about agroecology's “ampleness” (amplitude):

I already had theoretical and conceptual baggage about what agroecology is. [he had lived for a year on someone's plot trying to do agroecol-

184 Interviewed on 13/07/2017 and 15/07/2017 in L_ (Brazil).

ogy] But it was a very limited thing. Here at the school, I manage to give a greater dimension, that I didn't imagine previously, to agroecology. I already had the notion that it was something large, very ample. But I hadn't yet managed to create relations between different aspects of this "ampleness." I have been seeing it here, taking place in daily life... because we are still trying to build this agroecology, right? As a technological matrix but also a political and ideological guideline.¹⁸⁵

As an example of the multidimensional character of this new way of thinking about agroecology Pedro added that his day-to-day life at ERS had helped him problematize gender relations in relation to agroecology as a political project:

Between workers and students, there are more than 60 of us here... I perceive within the cohort that our daily contradictions have to do with the construction of agroecology... the capacity that agroecology has to be in the most micro... of our relations as human beings. I never imagined that the question of gender said this much about agroecology... Because there is the theoretical debate that is easier to understand, but when this materializes in reality... it's much stronger, isn't it? A predominantly male cohort, this says a lot in respect to the kind of agroecology that we are building, doesn't it? This too makes us see what the... the limits that we have too, in this construction. So we start to perceive... the size of agroecology, and how unfinished it is. Solving our day-to-day contradictions, we are building a bit of agroecology, aren't we?

On top of this view of agroecology as a sort of multidimensional entity, a common response was to refer to it as something that was "in perpetual construction" through the identification and overcoming of contradictions. Mario, a student from Paraguayan movement CONAMURI who was initially trained in a conventional rural school and left it with the vision that his role in technical assistance was to know the doses of different types of veneno to deal with different pests and diseases. He didn't think it was possible to produce without pesticides. His father

185 Interviewed on 18/06/2017 in L_ (Brazil).

wanted to produce in ecological ways, and Mario “wanted to impose [his] knowledge” to convince his father that it was impossible—until personal events brought him to the course at ERS.

He was convinced that, through his education at ERS:

my life is already changing and is going to change a lot still. Agroecology is a space of construction, politically, and a space of technical knowledge to be able to produce in a natural way, respecting the natural cycles of plants, in my life particularly a lot of things change because [...] every day [agroecology] transforms itself.¹⁸⁶

Several important themes emerge from these significant quotes from students describing how their education at ERS transformed their conception of what agroecology is. First, gender relations are perceived as a part of social life that can be problematized and changed through the development of agroecology, something that will be further developed in the next chapters. Second, agroecology is relational and social, a collective project that necessarily includes self-cultivation as a political activist,¹⁸⁷ something often expressed in private conversations and group deliberations as “addressing contradictions.”¹⁸⁸ But most importantly, agroecology becomes legitimate when it is envisioned as an ethical militant posture.

This echoes Iles and Wit (2016)’s normative and prescriptive argument, according to which agroecological legitimacy can be furthered by “centering attention on the ethical legitimacy of food systems. By advancing an ethics of regeneration that emphasizes cyclical—not extractive—processes, we can create conditions for agroecology to become widely regarded as a new normal.” (Wit and Iles 2016, 2). The

186 Interviewed on 15/07/2017 in L_ (Brazil).

187 See Lazar (2015, pp. 23–26 and Chapter 4) for an overview of the concept of self-cultivation in the anthropology of ethics literature, specifically in the context of Latin American militancy.

188 This is formally addressed within the school’s *organicidade* through periodical collective self-critiques, where each student reviews their progression as a militant as well as areas of possible progress, first within their NB then in plenary sessions. My presence during these sessions was conditioned on me not taking notes, not recording anything and not writing in depth about the contents of these sessions by ERS’ CPP, which I will respect.

legitimacy derived from ecological regeneration in the case of my ERS research participants is not centered on individual practices and world-views. Rather, it is closer to what Lazar (2017) describes when she talks about the meaning of *contención* in Argentinian labour union activism: a way to make oneself into a political subject, “building the collective aspect of collective subjectivities” (2017, 22). The ideal agroecological militant was well-described by Ayrton in the aforementioned quote: “In agroecology you see the relations between plants, the relations between layers of vegetation. The relation between microscopic beings, and macroscopic beings too. You are going to build all these relations. You are going to build life, not destroy something.” This perspective seems to indicate collective conscience and practices that direct how the human agent should act within the agroecosystem in order to foster and build the right type of relations, a clearly political-ethical position.

This points to possible relevance of this research for the burgeoning environmental humanities literature on more-than-human ethics, and vice versa. For instance, Maria Puig de la Bellacasa’s (2017) book on STS, care and ethics uses the example of permaculture¹⁸⁹ practices to write that:

Embedded in the interdependency of all forms of life—humans and their technologies, animals, plants, microorganisms, elemental resources such as air and water, as well as the soil we feed on—permaculture ethics is an attempt to decenter human ethical subjectivity by not considering humans as masters or even as protectors of but as participants in the web of Earth’s living beings. And yet, or actually, correlatively, in spite of this non-human-centered stance, of the affirmation that humans are not separated from natural worlds, permaculture ethics cultivate spe-

189 Permaculture “emerged as an ecosystems-based design technique in Australia in the 1970s and was developed by the interdisciplinary science instructor Bill Mollison and ecological design student David Holmgren” (Massicotte and Kelly-Bisson 2018, 3). It is often compared to agroecology as both have in common an approach to food production based on mimicking ecosystem processes. However, agroecology has a much more political connotation due to its use by La Via Campesina-affiliated organizations as a political principle, and agroecology often holds connotations of food excedent production for commercialization and feeding urban populations, whereas permaculture envisions food production primarily for subsistence of the practitioner (Massicotte and Kelly-Bisson 2018).

cific ethical obligation for humans. Collective-personal actions are also moved by ethical commitment and an exigency to respond in this world. (Bellacasa 2017, 121)

As Massicotte and Kelly-Bisson (2018) point out, it is important to keep in mind that MST agroecological trainings are based on pedagogical and political principles that are very distinct from permaculture training in the North American (and European) context. Specifically, permaculture trainings do not engage with political strategies and visions of collective education held by La Via Campesina strategists, using their platform instead to market expensive training sessions to relatively wealthy individuals who do not learn to see themselves as part of a collective project, and therefore do not build a political strategy for the advancement of permaculture (Massicotte and Kelly-Bisson 2018). But Ayrton’s view of agroecology as intrinsically relational, and his colleagues’ views of agroecology as an ample living thing in perpetual transformation, in construction that includes human social relations and relations to non-humans, reminds me of Puig de la Bellacasa’s characterization. For Ayrton, the vision of agroecology he has developed through his education at ERS has made obvious to him that humans have specific ethical obligations within agroecosystems and to non-human beings, while at the same time making him aware that human politics and agency exist within networks of relations he did not use to perceive and started to perceive through participation in the collective political project he names “agroecology.”

This brings me back to my notion of “scaling in.” As we have seen, there has been much discussion of strategies to scale agroecology “up” and “out,” (see e.g. Altieri and Nicholls 2012; Dalgaard et al. 2003; Varghese and Hansen-Kuhn 2013; Teran et al. 2018) but this leaves under-theorized the way that social movement action scales agroecology “in” their activist contingents. In this section, I provided an ethnographic account of this process of self-cultivation, built on opportunities provided by social movements through educational partnerships with the state, at ERS.

5.6 Conclusion

The MST creates conditions for politically committed movements-affiliated students to identify themselves with political agroecology in different ways. In ERS' case, one is by establishing partnerships with public universities and other Latin American social movements, in order to set up educational spaces where internal norms and rules are largely under movement control. Another is by enabling the cultivation of agroecology as a collective endeavor and militant posture through the organization of daily life in a collective manner. An important aspect of this is to bring coherence to the lives of young militants between their political and ethical values (solidarity, social justice, effort to build an egalitarian world order through activism, in some cases, drawing upon a pre-existing ecological sensibility) and ecological farming practices, understood as a basis for a changed social order. I have called this the scaling "in" of agroecology. However, this raises several further questions, to be addressed in subsequent chapters. How do students "learn" agroecology in practice, in the professional practice component of the course? What tools and methods are available to them in order to foster practical legitimacy for agroecology around them and in their community of origin? Most importantly, do ERS's students feel supported and valued by movement leaders around them? What obstacles do they experience in their endeavors?

Chapter 6: Ambiguous dialogues

6.1 Introduction

Movement-styled agroecological training, technically and politically, has been deemed an integral part of resistance strategies for rural social movements, albeit with somewhat mixed results (Massicotte and Kelly-Bisson 2018, 7; see also Levidow et al. 2014). Within the MST, as well as in movements allied with La Via Campesina, young activists undergoing training must not only learn how to *resist* an unjust sociohistorical and agrarian order—rooted in agribusiness, the commodification of the commons, liberalized markets, and land concentration; they must also learn to envision and build alternative systems for food production (Barbosa and Rosset 2017; Toledo and Barrera-Bassols 2017). In the last chapter, I explored subjective transformations and activist agroecological legitimacy by examining young *militantes*' experiences of collective political training. In this chapter, I build upon this analysis in order to address the following questions: How do ERS's students learn to understand social and productive dynamics around them in order to foster positive changes, within their social movements and back in the countryside? What pedagogical tools and methods do students learn at ERS? How they understand and introduce agroecological practices in their home communities? For example, do these students envision themselves as taking on agro-technical assistance roles within social movement networks during and after their education?

To explore these questions, I argue about the importance of “contradiction” as a methodological tool to teach students to foster the legitimacy of agroecology within ERS, as it encourages students to identify contradictions and use them to promote critical consciousness and change—in somewhat unexpected domains. For example, social movement learning prompts students to develop critiques of both formal and informal institutions of social control (i.e., the family, religion, school, market forces). To make my empirical case, I describe the kinds of socio-ecological situations the students are tasked with transforming, and critically analyze a set of ERS's professionalization practices, known as “Dialogue of Knowledges in the Encounter of Cultures” (hereafter

referred to as DK). As conceived by movement pedagogues, DK is a research-action methodology based on building trust with farming families and understanding their local contexts. With such knowledge, students ought to help farmers identify “contradictions” in agroecosystem management, promote critical consciousness, and build consensus in the agroecological transition. Through a concrete example, I demonstrate how students interpreted and applied this method in their home communities to build practical agroecological legitimacy. This discussion reveals tensions about the roles of agroecological “technical agents” and “educators” within social movement organizations. Unsurprisingly, what is expected from the students training at ERS by educators can be best understood as the development of agroecological political militancy, rather than mere “technical assistance.” While this is clearly important, students are under-trained in key areas that would enable more productive outcomes, which at times lead to confusion and disengagement.

6.2 Political agroecological subjectivities

La Via Campesina movements generally conceptualize agroecology as a strategy to dispute territories from agribusiness interests, large landowners, foreign buyers, speculators, and conventional production at any scale, by proposing a model that questions the kinds of social relations and ways of relating to rural ecosystems, as well as the kinds of products, market conditions and capital accumulation generated by different kinds of food systems (Thivet 2012; La Via Campesina 2016; Pinheiro Barbosa and Rosset 2017). In sum, they are attempting to transform what some authors (Friedmann, 1987; McMichael, 2008, 2009) have theorized to be the current “food regime.” In response, La Via Campesina clamors for “food sovereignty” as an alternative (La Via Campesina 2016, Desmarais 2007, see Chapter 2).¹⁹⁰ Yet such a broad, generaliz-

190 For a critical analysis of evolving definitions of food sovereignty and their consequences in practice, see Agarwal (2014), Edelman (2014); Iles and Wit (2015); Patel (2009), Shattuck et al. (2015).

ing framework, although important for mobilizing international social movement actors, leaves many questions unaddressed.

While many of ERS's students have adopted social movements' Marxist and anti-capitalist vernacular in their descriptions of agroecology (e.g., *enfrentar o capital*, to confront capital), the meanings they attribute to these confrontations vary according to their positionality, movement objectives, and local socioecological circumstances. As a result, agroecology should be understood as a dense signifier of sorts, connoting different phenomena simultaneously.

For some students, agroecology is a framework for helping people settling into a new geographical and social space to make sense of these settings, and building meaningful future perspectives. For instance, Marcelo,¹⁹¹ an activist of the MAB, based in the north of the state of Mato Grosso, describes agroecology as a framework to help families facing eviction because of hydroelectric expansion. He sees agroecology as a way of dealing with the seismic trauma of involuntary displacement, and of limiting rural exodus by providing support for people who might otherwise move to urban peripheries. Some students linked to the MST described agroecology in such terms, particularly when they were part of encampment communities (or recently created settlements) where people are learning to build relations with strangers they view as potential neighbours (or enemies). This is particularly important for *Projetos de Desenvolvimento Sustentável* (PDS) settlements. PDS's are a specific type of land reform settlement, enshrined in law in 1999, that INCRA establishes in environmentally sensitive zones. The condition of existence of these settlements is that they are destined for organic small-scale family agriculture or populations practicing activities of "low ecological impact," meaning the rules for pesticide use, poaching, and extraction are very rigid. Contrary to standard federal settlements, where INCRA divides the land into small parcels for individual families, in PDS settlements, land tenure is collectivized. Settlers lack formal, individual land tenure. This entails the collective division of labor and intense planning, as such projects are viewed as risky by producers. Such material conditions clearly influenced Ayrton's understand-

191 Interviewed on 15/06/2017 in L_ (Brazil).

ing of agroecology. In his early 20s, he resides in an MST encampment within the Atlantic rainforest in coastal Paraná. Since the encampment is located in a highly disputed area, with claims made by an indigenous community, traditional fishermen, the MST, landed smallholders, and a protected ecosystem involved in REDD+ carbon trade schemes through an American multinational—ecological agriculture plays a key political role in claiming legitimate use of space. If legalized, his community will be a PDS settlement. For Ayrton, the prospect of collective land tenure and the “ecological imperative” make agroforestry-based production of fruits, vegetables, and tubers for transformation and sale through a cooperative is a living testament to agroecological ideals.

I heard similar sentiments from Everton and Pedro, two MST militantes in their 30s living on a recently created PDS in the hilly tropical region of northern Rio de Janeiro state. They faced the double challenge of being rural organizers in a predominantly urban state (where the MST enlists a high proportion of new families moving to land occupations in urban favelas), and living on land degraded by its previous use as a cattle ranch—meaning pasture has taken over previously forested areas. They strongly linked agroecology to helping previously marginalized city dwellers with little or no practice of agriculture “become peasants” as Everton put it. Everton and Pedro understand the process of becoming a peasant as cultivating new relationships with the land—as a living and topographic entity, learning to valorize subsistence production, and gaining practical knowledge of farming. Such knowledge and practices are rather novel for these urban men themselves. For them, their prior lives had been marked by precarious informal employment or low paid formal labor, and growing up in a violent milieu marked by territorial battles between drug cartels and rogue militias.¹⁹² As a result,

192 This fact was prominent in these two friends’ life histories: Pedro emotionally spoke of the murder of one of his friends by a criminal organization in an MST encampment over territorial disputes a few years earlier, which had resulted in him being informally banished from his city of origin after death threats. Everton often talked about his upbringing and early adulthood watching opposing drug cartel factions exchange fire with each other and the police in the close vicinity of his house – his father’s participation in trade unions, and later in the MST, was a gateway to his own participation in the MST starting in his mid-30s, after he “realized [he] would die young if [he] didn’t start living differently.” See Perlman (2011) for ethnographic analysis of Rio de Janeiro’s favelas life conditions over four decades, showing increased violence and marginalization over this period.

for them, agroecology is part of a process of personal reinvention, based on small-scale agrochemicals-free agriculture. Their vision of appropriate farming is opposed to mainstream media depictions of successful big operators—who rely upon large tractors, pesticide sprayers and neat rows of perfectly identical, commodity-producing plants. These men have numerous challenges ahead of them. They seek to collectively organize land and labor among families who will not receive individual titles to the land in spite of having struggled in an encampment to receive “their own” land.¹⁹³

Agroecology plays an important role in students’ imaginaries as a way to challenge the hegemonic view of large-scale monoculture production. This means that they place high value on introducing agroecological projects in communities or regions where producers overwhelmingly use conventional methods, or where production has historically been linked to export-oriented commodity monoculture. Within some MST settlements and land occupations, conventional production predominates. For example, Andreia,¹⁹⁴ an activist living with her family in an encampment in northern Paraná, is one of the few proponents of agroecology within her home community. She has acted on her ethical values by becoming a facilitator for children’s workshops at the encampment school. She describes the large production developed by squatters on this land, originally an old sugarcane plantation, as “counter-hegemonic” as it has helped show the surrounding population that agrarian reform settlements have the potential to bring economic benefits to the wider area¹⁹⁵ and have an overall positive impact, while creating a base for encamped families’ food security.¹⁹⁶ For her, the next step is to intro-

193 See also Holston (2009) for the importance of secure individual land rights in the context of insecure and informal land tenure in Brazil’s peri-urban areas.

194 Interviewed on 05/07/2017 and 29/10/2017 in L_ (Brazil).

195 Andreia reported that the municipality where this encampment is located was initially very hostile to the MST, and that the presence of a productive encampment had helped many local inhabitants develop a positive vision of the movement’s actions and of the potential for agrarian reform. This includes local cooperatives and agroindustries, who saw their economic activities expand thanks to the commercialization of the settlement’s products.

196 Wendy Wolford reminds us that historical and legal tensions between property rights and labor rights in Brazil have meant that “land reform beneficiaries who have won access to land based on a labor theory of property find it difficult to feel secure in their own ownership – unless they use their land in ways that are consistent with collective social norms regarding productivity and productive-ness” (Wolford 2008, 158). This means that because

duce the idea of agroecology within the encampment, to help fellow squatters see that alternative production is possible. In spite of living a region where large-scale agroecological projects such as the Copavi¹⁹⁷ organic sugarcane cooperative operate, she perceived both the MST's organizational structure and the encamped population lacked faith in agroecology as a viable means of farming. She relates this to the widely held belief around the encampment community that no other sort of agriculture than conventional monoculture can be truly productive and generate income. Describing this hunger for profit as illusory,¹⁹⁸ she cites the health costs of chemicals-intensive agriculture and cycles of dependency and debt associated with conventional farming as some of her motivations for supporting agroecology.

Mayara¹⁹⁹ is active with the Rural Youth Pastoral (PJR) and grew up in a small rural community of sugarcane workers living close to a processing plant (*engenho de cana*) in the northeastern state of Pernambuco²⁰⁰. As the industrial processing of sugarcane increased and became more efficient in the state of São Paulo, the company that had employed her parents—which itself had used the land without proper documentation—closed its doors and stopped paying its employees. Her family stayed on the land where they had always lived, thus becoming *posseiros*—land dwellers with no formal property rights.²⁰¹ This occu-

they are awarded land usufruct rights in virtue of an appeal to the constitutionally-defined “social function of the land” and productive occupation of previously inadequately-used land in a hostile political context, land reform beneficiaries and social movement leaders tend to be extremely conscious that their social and legal legitimacy on the land depends on performance of productivity.

197 Copavi is a fully collective sugarcane cooperative operating in the municipality of Paranacity in northern Paraná. It is often cited as a model of MST production, due to its good organization, collective land tenure, high volume of organic sugarcane products (for example unrefined sugar, molasses, *cachaça*). See for instance Gurr (2017) and Bleil (2010).

198 As we saw in Chapter 3, agrarian reform settlers who plan on working with conventional techniques outside of a cooperative often face increased debt and dependency on intermediaries, given the level of financial investment demanded to buy machinery and inputs and their inability to use land as a deposit (because they are not formally owners).

199 Interviewed on 11/04/2018 in L_ (Brazil).

200 For an in-depth study of the region's dynamics in the context of agrarian movements, see Wolford (2010a), see also Scheper-Hughes (1993), Rosa (2005), Sigaud (2015) and Gurr (2017).

201 Although the 1988 Constitution theoretically protects productive squatters' usufruct rights on small surfaces, Mayara reported that her parents were granted such rights in the absence of opposition from the formal owner (see Wolford 2008).

pation occurred spontaneously, without the external influence of organizations such as the MST. The community of wage laborers started to plant for subsistence, progressively moving towards agroecology as they saw that conventional methods were not adequate for this highly degraded land. When I interviewed her, Mayara reported that her family produced for their own subsistence and sold fruits at local fairs. They were also part of the federal food program Programa de Aquisição de Alimentos (PAA). Her example is striking because in her community, agroecology re-signified and reshaped the land—in a region associated with sugarcane monoculture and slavery since colonial times (see Scheper-Hughes 1993).

Luis,²⁰² a landed small-scale producer affiliated with the MPA of Rondônia,²⁰³ offers another example. He lives in a hilly rural area, which means that it is unfavorable for agribusiness. Where terrain is flatter, fields of cocoa, tomatoes, cotton, and soybeans have come to dominate the landscape. This, together with what he describes as a lack of public support and credit for smallholders, means that many farmers are tempted to sell or rent out their land and move to urban areas. As part of his *militância*, agroecology was understood to be a way to valorize smallholders' livelihoods and to discourage them from selling their land. By drawing attention to ecological processes and the environmental impacts of agribusiness through discussion of agroecological principles, he hopes to show producers that their decision to leave “will end all life around... Human as well as plant and animal...”

Agroecology was also recognized by ERS's students as an important strategy to combat water scarcity. For example, Mariana, a Chilean activist, strongly relates the relevance of agroecology to water disputes in her region. There, the mining sector along with large fruit and avocado monocultures for export to Europe and North America, have left water resources scarce and polluted, and unfit to support other forms of rural livelihoods. She is the first activist from her movement to train at ERS, and explains that agroecology is not very well-known within

202 Interviewed on 05/07/2017 in L_ (Brazil).

203 Rondônia is an Amazonian state in north-western Brazil. It borders Bolivia.

Chile's activist scene.²⁰⁴ For her, in the face of manufactured water scarcity, agroecology is "the only alternative we have." She uses agroecological discourse to politicize debates regarding desirable forms of water use, while finding creative ways of conserving water.

Water is also important for Márcia.²⁰⁵ She is from the semi-arid sertão in the northeastern state of Bahia, and a member of the Articulação do Semiárido, ASA. Her militancy began with nuns who worked to counteract water scarcity and contamination, which were major causes of childhood mortality. They provided clay water filters, cisterns for water storage, and artesian wells for rural communities. They also tried to raise awareness of water conservation practices. ASA was founded in 1999, as a means to carry on this work and provide farmers with high-volume cisterns, adapted to subsistence-level agricultural production. According to Márcia, ASA was "born within agroecology" because of their acute attention to water problems. As agroecological practices direct attention to tree planting, control of soil humidity, as well as plant varieties well adapted to specific context, for her agroecology is the logical means to respond to water scarcity.

In short, I have outlined three significant ways that ERS students interpreted agroecology as an important means to improve their communities at home. Firstly, it helped individuals in new social and geographic settings to make sense of their newfound rurality, work collectively, and learn farming habits, including temporalities and planning that differ significantly from wage-earners'. Secondly, it encapsulated an oppositional set of practices and ethos, in stark juxtaposition to the agribusiness complex. Finally, it was a means to respond to and politicize water consumption. All of these students sought to promote favorable conditions in rural areas and to build up producer autonomy from market forces. Building on these complex and multiple understandings of what agroecology is set up against, or as a response to, in ERS's students' regions of origin, in the next section I move on to the

204 Altieri and Nicholls (2017) relate that some universities in Chile have been introducing agroecology in their agricultural curriculum since the 1990s, but Mariana related that there are virtually no agroecology projects that she knows of coordinated by social movements.

205 Interviewed on 27/06/2017 in L_ (Brazil).

methodological tools they learn at ERS to foster legitimacy and viability for agroecology in their home communities.

6.3 Witnessing contradictions

One Friday, shortly after I arrived at ERS for my first phase of fieldwork, the day's schedule was dedicated to "Dialogue of Knowledges in the Encounter of Cultures" (DK), more commonly referred to as "Diálogo de Saberes." The cohort split into pairs and ventured into the settlement to meet with assigned families, with whom they had been working since the early stages of the course (except when families opted out). I joined Pablo's team. He was from Paraguay and a member of the rural indigenous feminist movement, CONAMURI.²⁰⁶ We were joined by Ariane, a student and MST militante in her late 20s from northeastern Brazil. Ariane was also a member of ERS' permanent brigade and stayed at the school during tempo comunidade. She was the sole title holder for her plot of land back home, and was adamant about returning to the northeast and practicing agroecological production after completing her education.

We left shortly after breakfast. The students' attitude varied—some were excited for a day outside of the classroom, and others seemed to genuinely look forward to visiting "their" families. The majority, however, were uncertain. They admitted they were still not clear on what Diálogo de Saberes was supposed to be and how they were supposed to do it. As we walked through the settlement, Ariane told me that the situation of the family she was paired up with was a bit difficult. The family was "de-transitioning" from agroecology because of what she called "a complicated situation." We walked along the settlement's dusty roads for about 45 minutes when we reached the house of Alice—someone whose story I briefly introduced in Chapter 3 to exemplify the social group I called "the in-betweeners." Alice was a long-time activist settler in her 70s, who had participated in the first land occupations that gave

²⁰⁶ Three of the cohort's students belong to CONAMURI, a movement whose membership is open to both men and women but where decision-making instances are controlled by women. Interestingly, in spite of this orientation, only one of the three young people sent to ERS by CONAMURI is a woman—and her ability to obtain her diploma was compromised by pregnancy in the last year of the course.

rise to the MST back in the late 1970s in Rio Grande do Sul. She seemed pleased to see us. For a while, we sat with her in her kitchen, sipping the traditional chimarrão—burning hot mate tea passed around groups in social situations—next to her wood-burning stove.

As we chatted, I understood that the “de-transition” had much to do with the arrival of Alice’s son. In the past, he lived an urban life in another southern Brazilian state, and he firmly believed that agriculture could only be productive when using industrial pesticides. After moving back home and building a separate house on his parents’ plot, he started planting chemical-intensive strawberries and tomatoes on her plot of land. Alice knew her husband and she were getting too old to work much longer. Reflecting on this, she seemed profoundly sad as she explained how she was “the last one in the family to hold on to agroecology.” With tenderness, she told us about the plants that she called *remédios* (remedies, medicines). There was *poejo*,²⁰⁷ “good for everything, colds, stomach aches...,” *pulmonaria*,²⁰⁸ good for the lungs, *tarumã*,²⁰⁹ to purify the blood and lower cholesterol, *yacon*²¹⁰ (“it can help if you have diabetes”). Ariane and Pablo were eager to know more about her medicinal herbs and the uses she made of them in the settlement’s social structures. Alice was a member of the settlement’s health sector and loved to work with medicinal plants, which she regularly gathered in the forest with other women. They dried them and packaged them for the medicinal herbal therapy program, *xecagem*, which involved weekly visits to a man that many people affectionately called “o bruxo” (the wizard) who made a diagnosis using mysterious diagrams and a metal stick. Alice said that even though the health sector didn’t have a collective garden,²¹¹ “there are medicinal herbs in all the gardens of the settlement to be taken advantage of;” something she likened to micro-scale agroecological practices and traditional knowledge she had learned from her female ancestors and neighbors. Ariane and

207 Pennyroyal, *Mentha Pulegium*

208 Lungwort

209 *Vitex megapotamica*

210 *Smallanthus sonchifolius*

211 A small collective garden for medicinal herbs was created next to the health center of the settlement in early 2018.

Pablo were actively noting down her words, as they were responsible for reporting on them as part of their DK coursework.

A couple of weeks later, we returned to inventory Alice's possessions. Hesitantly, Ariane and Pablo asked Alice to provide detailed responses about the monetary value of her houses' contents and all her tools. Alice struggled to remember everything. She was asked to tell them when they bought each element of small machinery and furniture. She said that she was thankful for the exercise, as she had never thought about the total monetary value of her material possessions. She was less excited to talk about loans and debts, the subject of another question on the DK guidelines document²¹² (in appendix 3). Instead, she took us outside.

Her husband sowed a portion of the 10-hectare plot of land with symmetrical rows of corn and beans. The seeds were acquired at an exchange program she participated in with other farmers. She proudly showed us her technique of leaving some corn on the ground, between seedlings. This distracted birds from the precious plants, by offering them the seeds. For her, both the seed exchange and the corn technique were *agroecological*. She helped us through a fence of barbed wire at the edge of her land, and we entered a different world—one of pine monoculture. Her land was adjacent to the river, but the riverbanks were covered in dense, identical *Elliotis* pines groves, a reminder of Fazenda S_'s past ownership by a ceramics company, which had planted the trees to serve as firewood in its kilns. On the way back, we talked about the effect of these pines on the water supply of the settlement and the river. The trees had been blamed for drying up water sources by multiplying endlessly on the riverbanks,²¹³ and of polluting the river with their resin. Ariane and Alice questioned: how could agroecology progress in the settlement when its production areas and primary forest areas were surrounded by pine monocultures that seemingly expanded of their own volition?

212 Appendixes 3 and 4 available on Open Data LMU: Lagier (2020), DOI: <https://doi.org/10.5282/ubm/data.193>.

213 Because of Brazilian forest legislation rules, removing trees from these areas would be a federal crime, and trying to get legal permission to do this have been ongoing since the creation of the settlement.

Later in the day, Ariane and Pablo asked Alice and her husband to sit opposite one another and draw a map of their plot of land. She began with the house, the animals and the fruits trees. He drew the barn and the rows of conventional corn, under the amused gaze of two of their grandchildren. Ariane and Pablo took notes and recorded the conversation. I observed the observers. The exercise felt like meta-ethnography.



Figure 20: Practicing DK at Alice's, June 2017



Figure 21: Alice shows Pablo her corn seed technique; in the back and on the right-side image, dense Elliotis pine groves situated just meters from her cultivable areas can be seen, June 2017

6.4 Diálogo de Saberes: Theory and practice

What exactly were Ariane and Pablo seeking to accomplish at Alice's house? Diálogo de Saberes is part of ERS's state-recognized curriculum as the course's professional practice, although none of the Federal Institute professors I interviewed were able to explain to me what it was. DK is divided into modules conducted at ERS and homework to be realized in one's community of residence. The ERS component includes theoretical lectures with MST educator João Maria, sessions of practical fieldwork with volunteer families living in the Terra Prometida settlement, and sessions where students write reports based on their observations. The homework component requires that students recruit three families back at home and complete the same inventory and questionnaire. At the end of each tempo comunidade and each tempo escola, they were to write detailed reports on their findings and submit them to João Maria (which many students neglected to do).

An eclectic character, João Maria has an impressive history with progressive causes. He worked with labor unions, as a PT politician, and worked for an agroecology NGO before he joined the MST. Based on his

experience, he started working in the movement's Production, Cooperation and Environment sector in Paraná. In 2004–2005, he was tasked with coordinating the implementation of ERS in the Terra Prometida settlement and the planning of further schools in Latin America. He recalls the early discussions in ERS's team regarding the type of education the school was to foster:

I started asking: 'What is the profile of the average technician who works within a radical social transformation movement that understands agroecology as part of this project of social transformation?' We came to the conclusion that this person should possess human, political and professional capacities distinct from those who graduate from mainstream agronomy programs and technical schools.²¹⁴

João Maria invented DK and has been teaching it at ERS since the school's creation. He described the method to me as a type of research-action methodology inspired by Paulo Freire's dialogical principles, aiming to "overcome the contradiction of the technician in agrarian sciences." Freire wrote his essay, "Extension or Communication?" (1968) while in exile in Chile at a time of profound transformation in the meaning of technical assistance in agriculture and rural extension.²¹⁵ In this essay,

214 Interviewed on 19/04/2018 in L_ (Brazil).

215 The Brazilian institutions for rural extension were modeled after the American extension service model. From the 1950s onwards, rural extension in Brazil took on the role to "educate" rural people seen as backward in the context of modernization of agriculture, which intensified with the military dictatorship that started in 1964, especially after agrarian reform was pushed out of political possibility. Social change was seen as a function of the introduction of new techniques a way to sell industrial goods to rural producers. ATER, the Brazilian agency for rural extension worked on the premise that agriculture needed modernization, and that its role was to modernize the countryside (see Silva 2017). For Freire, the very term "extension" betrays the fact that this type of practice aims to "extend" knowledge from its source (the technician) to its receptor, the producer. He saw extension as replacing the knowledge of farmers with the knowledge of government agents, which he qualified as opposed to emancipatory education. Freire writes: "Knowledge is not extended from those who consider that they know to those who consider that they do not know. Knowledge is built up in the relations between human beings and the world, relations of transformation, and perfects itself in the critical problematization of these relations." (p. 21). Since 2003, thanks to advocacy actions by the National Agroecology Articulation (ANA), ATER opened institutional space for agroecology, although a main remains in "entrenched models of management and conventional technical-methodological conceptions adopted by the institutions" (Petersen et al. 2013, 109).

he described rural extension agents as “cultural invaders” who imposed top-down knowledge on farmers without regard for local culture and worldviews. Farmers were persuaded to abandon traditional methods and adopt conventional ones during the Green Revolution in the name of modernization. João Maria’s conception of agroecological training is that it should allow students to envision their role within social movements as problematizers and un-doers of such “cultural invasion,” seeking instead to help farmers find their own ethical agency, value their own knowledge and culture, and quit thinking of conventional agriculture as the only possible path to prosperity and family success. João Maria presented the objective of *Dialogo de Saberes* to students as the following during a seminar on May 31st 2017:

To understand and plan familial and collective agroecosystems based on the knowledge/knowhow (saberes) of the subjects involved and of the environment they manage. To valorize their historical processes and to link them to and problematize them in light of the history of agriculture and of the social movements they belong to. To identify the ecological and agrarian potentials and limits of the local environment in order to make progress in militant pedagogical action with the objective to develop agroecological experiences, to implement an agroecological transition and to establish sustainable agroecosystems. (Field notes, 31/05/2017).

Concretely speaking, at ERS, DK consists in a series of drawn-out, fairly un-Freireian theoretical seminars²¹⁶ taught by João Maria in four hours blocs over multiple days. During these seminars, which I attended with the cohort, students were exposed to a syncretic synthesis of social theory spanning rural sociology and academic agroecology,²¹⁷ dialectic-

²¹⁶ João Maria used the seminar to provoke reflections on the meaning of labor, science and technology, the financialization of agriculture, sustainability, gender relations, religious dogma and theologies, and the role of education in society. He also touched upon the way colonization influenced environmental and agricultural knowledge, and the notion of world-view/cosmivision in relation to indigenous, peasant and modern societies.

²¹⁷ During the seminars I attended, João Maria taught the work of Miguel Altieri, Ana Primavesi, Manuel Gonzalez de Molina and Stephen Gliessman in the agroecological field. All of these authors have works published in Portuguese or Spanish.

tical historical materialism, Marxist anthropology,²¹⁸ and Paulo Freire’s concept of critical consciousness. Through these seminars, João Maria sought to transcend the marginalization of what he called, following La Via Campesina ideology, “peasant cultures” by mainstream culture and to question the universality of notions such as: “necessity”, “poverty” and “sustainable development” (which resonates strongly with the critiques of some authors in the post-development literature e.g., Escobar 1995, 2012; see also Woodgate 2015, 2016).

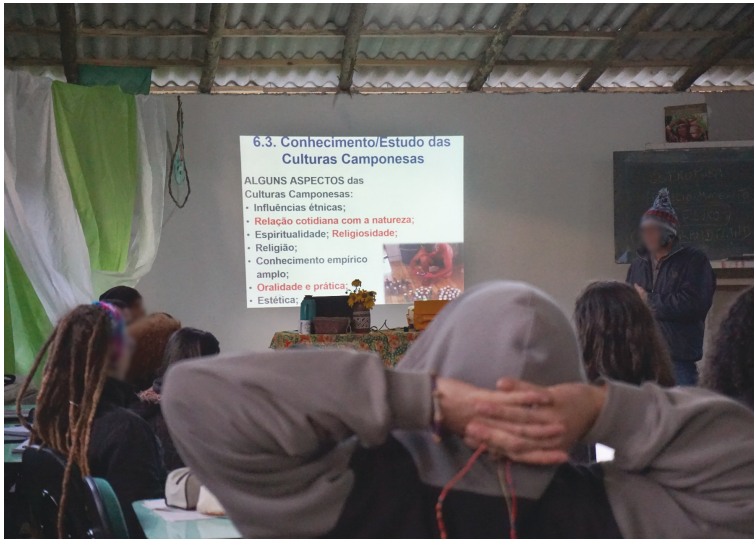


Figure 22: Theoretical DK seminar with João Maria on “peasant cultures” and their revolutionary potentials and limitations, November 2017

218 João Maria was particularly fond of Pierre Clastres and Claude Meillassoux, whose work he used to respectively discuss “American” pre-colombian indigenous societies’ social organization and “peasant economy” in African societies. However, with students lacking an overview of anthropology as a discipline, these references were sometimes taken by students as proof that “pre-modern” social organization either in what is now the Americas or in Africa somehow represented an “emancipatory” social order morally opposed and superior to “capitalist” and “colonial” social orders—for example, Meillassoux’ work on patriarchy and slavery internal integral? to African societies was not discussed.

João Maria insisted on the global peasantry's diversity, but also on its purported social and "cultural" specificity,²¹⁹ which predisposed the world's food producers to both agroecological transition and an important role revolution against the capitalist order (this idea is also relatively widespread in currents of agrarian and environmental sociology, see e.g. Guzman and Woodgate 2013; Rosset 2009). "Peasant cultures" were seen as both the bearers of forgotten agroecological knowledge and practices with a predisposition for revolutionary action, and in need of "problematization" when it came to domains such as gender or religion. During DK seminars, João Maria sometimes enacted this "problematization" by applying to revolutionary "consciousness" notions of unilinear cultural evolution and reified notions of culture critically discussed within the discipline of anthropology at least since the works of Franz Boas in the early 20th century. For instance, one day, João Maria explained critical consciousness in the following way:

Paulo Freire teaches us that human emancipation happens via our progression between different stages of consciousness. The first stage is magical consciousness, which brings us back to the origins of human thought, it has manifested itself in all societies. Magical consciousness is when you think your fate is due to a supernatural force, when you think you can't change anything because this is what God wants ("porque Deus quiser"), when you attribute the identity of a woman to the Earth (Mãe Terra) without asking why or when you watch TV and one of these TV economists appears and says "the market is nervous today" and you believe the financial market possesses some sort of metaphysical intelligence and independent will.

219 To do this, João Maria discussed ideas brought forth ideas from the critical literature on the peasantry, such as the concept of moral economy (see Hobsbawm 1974; Scott 1977, 1987; Edelman 2005), and brought in Antonio Gramsci's writings on the importance of peasants in communist revolution. He also discussed the purported mutual relationship that "peasant cultures" have with "nature", asserting that small producers using conventional techniques were "peasants cut off from nature." According to him, agroecology could transform them back into revolutionary peasants capable of bridging Marx's "metabolic rift" and extending the class struggle to ecosystems (see Wittman 2009 for a similar academic line of argumentation, see also Foster 1999, 2000 and Moore 2015 for recent ecosocialist academic analyses of what Marx called the "metabolic rift").

Those students who were well-versed in Freireian and Marxist theory, who often also had previous academic education or MST-style political training, seemed passionate about the discussion. On the other hand, many students stared at João Maria, looking doubtful, or seemed more interested in their chimarrão-drinking gear. A handful of students avoided the discussion altogether, by sitting at the back of the room, scanning their phones, or smoking outside. The cohort included Catholics, Adventists, Pentecostals, and members of youth Church groups. Some were taken aback by his reference to Mother Earth, which they had come to identify with the indigenous cosmovisions promoted by La Via Campesina, while others were pleased with his critique of essentialism in the notion of sacred feminine.

Although most students seemed to agree that criticizing individualism was at the core of their social movements' values, few bought into the view that a sort of cosmopolitan secularism was at the heart of agroecological change. Some students found it difficult to negotiate the contradictions engendered by the friction of their own faiths and backgrounds with what DK asked them to do.²²⁰ Many came from social milieux where the same kinds of dynamics they were tasked with transforming were the undisputed norm, or had difficulty envisioning Pope Francis' 2016 "Laudato Si" encyclical, indigenous Andean worldviews and Candomblé beliefs in spirits as cosmovisions of equal value, to be treated as both a basis for and a limitation to critical consciousness. Most strikingly, in informal settings, even those students who were

220 Although in some cases, it led students to perceivedly positive personal transformations. For example, a Bahian student, who had been born to rural parents but had grown up in an urban environment, explained that ERS had profoundly changed her vision of both religion and gender, helping her move away from the intense body shame and sentiment of inadequacy she felt as a single mother. She associated "agroecological" relations with a diminution of patriarchal relations and religious dogmatism: "I am a Catholic. I think that religion... (nervous laughter)... In some aspects it blocks things. Within the cohort, it blocks things when you start to study the history of Latin America and you learn that Christianity was a "son of a bitch" (filho da puta) with indigenous people, it blocks things when you start to study the scientific method and you see that God doesn't exist, that man created God to dominate man. People can have a beautiful agroforestry projects, have perfect food sovereignty, but if it exploits women and excludes them as workers it's not "agroecological". Farm women are always working but are never seen as [farmers], she is always an afterthought. Religion does this, it puts in the head of men that women are just helpers, that she doesn't really do work."

open to such views pointed to the fact that these seminars, although useful in helping them perceive the origins of social patterns in rural families, gave them no indications how to communicate effectively about this with rural families—in other words, what João Maria called “building subjectivity.”

Using the notion of consciousness to push students to think more critically about dynamics within social movements, João Maria continued:

Ingenuous consciousness is when you perceive some of the social mechanisms leading to problems, but you apply an individualist framework to it, when you think political problems can be fixed by volunteering, charity, entrepreneurship or meritocracy instead of political organizing and solidarity. It's a neoliberal worldview. Critical consciousness is when you finally learn to uncover the world's contradictions, and you change your reality based on this analysis by organizing with others. This is why the MST exists, even though in some respects the MST sometimes acts like an NGO around the issue of agroecology. It is like this because subjectivity is not built collectively. We are here to learn to build this subjectivity in your communities, your role is not to become extension agents and bring agroecological techniques to families. You are being trained to become technicians-teachers-popular educators and help people problematize their reality, and use this as a lever to promote agroecology, without imposing anything.

He explained that an overwhelming focus on technique and productivity threatened to deform agroecological activism into a sort of Leninist avant-garde struggle to evangelize agroecology. According to him, such attitudes had contributed to the collapse of MST-style cooperativism in many regions²²¹ and had brought unhealthy workaholism to successful cooperatives, which sparked a strong debate as to whether the MST's most successful cooperatives were revolutionary strongholds or had become the hostages of harsh capitalist market forces. However, more down-on-earth discussion on how to share and use this knowledge “on the ground” was still lacking.

221 For academic analysis of this phenomenon, see Diniz and Gilbert (2013).

This dizzying succession of epistemological positions and theoretical elements sparked passionate discussions about the extent to which “peasant culture” was both a basis for lost agroecological knowledge and social forms to be recovered (*resgatar*) and an *obstacle* to emancipatory agroecological transitions (because it included the patriarchal family and religious dogmatism for example), to be problematized and overcome. Many students were left wondering how to respectively recover and problematize the right aspects of “peasant culture” without to some extent pressuring people to act a certain way, something they perceived had been extremely problematic within the Terra Prometida settlement itself. Their hesitations were exacerbated when it was time to leave the classroom to explore the DK process with actual farming families.

Beyond its somewhat confusing theoretical background, actually performing the DK was a challenge. Each student pair received a document that served as a methodological guide for lengthy semi-structured interview series (which João Maria always insisted was a set of guidelines—*roteiro*—to adapt to specific situations and not a questionnaire—*questionário*, but that many students treated as the latter). Students had very little methodological training on collecting and analyzing qualitative data. After all, as Petersen et al. (2013, 108) underline, Brazil’s many agroecology training programs (more than 100 in 2013, spanning all levels from technical high schools to post-graduate) suffer from numerous institutional limitations—and ERS was no exception.

The Federal Institute of Paraná, the public University partner of ERS’ agroecological training, is a technical institute. As such, its professors come from technical and life sciences backgrounds. During my fieldwork, ERS’ curriculum included some methodology classes, which were taught by a biology postgraduate, who was uninformed about the DK exercise and only explicitly addressed methodology in the context of the students’ bachelor’s thesis. At one point, she attempted to give students general advice about taking notes and research ethics, but she was visibly uncomfortable about advising students to do this in social science settings. This specific class consisted in telling students they should always tell people when they were being recorded, followed by watching the film *Lorenzo’s Oil* (1992) and taking notes about its characters. The contents and assignments for her class were generally more

related to the scientific method, deductive and hypotheses-driven, an approach which is often inadequate when studying humans subjects in immersive settings. In the context of an exercise as ambitious as DK, it is fair to say that students should have received some methodological training by experienced anthropologists, sociologists, social workers²²² or agroecologically-minded practitioners working within social movements, in NGOs and at official extension agencies. Instead, they were exposed to tidbits of social theory hand-selected by João Maria. Meanwhile, qualitative methods were glossed over—after students had already been sent to families to conduct fieldwork.

For the purpose of DK, students also received agroecosystem and household possession inventories, and a flowchart showing the promotion of critical consciousness about both agroecosystems and social relations leading to agroecological “massification,” which was often read and discussed in seminars—the “Fluxograma”²²³. Students were asked to produce written reports detailing their findings and provide an intervention plan in order to push participants towards ecological production, in a way that could be seen as paternalistic or helpful, depending on the students’ attitude and on the local circumstances. The issue of trust, which typically takes substantial time in qualitative research, was of particular concern to students, who found families often didn’t trust their intentions. While all students I interviewed greatly valued the spirit of DK, many found it difficult to explain to families in simple terms why they wanted to collect intimate and life history information on behalf of a movement-led university exercise.

For instance, Ayrton said that:

There are many difficulties to do DK with a family. First you have to build a very close relationship, a relationship of trust. If there are older family members, because of their lack of schooling [he was referring to some

222 Several students also mentioned the lack of insights from psychology in the training (both academic and political) at ERS. Many felt the need for psychological understanding both in the DK practice and in the cohort’s daily life, with mental health issues such as depression, isolation and anxiety affecting a great many students, who felt tentative and ashamed to bring it up in collective settings and unequipped to deal with it in others.

223 Appendix 2 available on Open Data LMU: Lagier (2020), <https://doi.org/10.5282/ubm/data.193>.

farmers' lack of literacy and sentiment of inferiority when talking to university students] you have to build a very profound relationship before you can fulfill some of DK's objectives, because you need to learn all the family's internal processes, what its members suffered through in the past or what they are going through in the present. It's like you have to become a member of the family. Sometimes it's hard to address some of the issues the DK guidelines says we should address, you have to be really careful about your reactions, the way you speak..."²²⁴

In addressing these issues, it was thought that students would learn to think through the complex and contradictory dynamics at work within farm families, with the ultimate goal of them applying such insights back at home. Let us go back to Alice's case. Through DK, Ariane and Pablo stepped into a world where an elderly woman's "family problems" could be broken down to several levels of analysis, such as the way competing land uses are material manifestations of beliefs and values about agriculture (see also, Meek 2016). The emotions that arise from having one's ecological worldview attacked by family members could be analyzed as related to broader political and territorial trends, and having a certain type of ecological knowledge (about medicinal uses of plants and their ecology, in Alice's case) could be understood the basis for participation in a social space (the settlement's health sector).

By learning about Alice's life history and worldview, then touring her plot of land, Pablo and Ariane were able to see how struggles between different visions of appropriate agriculture materialized, as we amply discussed every time we walked back together from Alice's. In principle, it was thought that a popular educator might use this emic knowledge to nudge the family towards agroecological practice. In this sense, for example, the practice that many conventional families have to keep a small organic garden for home consumption could be seen as a potential resource for agroecological transition, albeit a contradictory one, as the family uses conventional methods even though its members prefer not to eat the products they sell at the market (this was the case of most conventional families I spent time with). In sum, DK asked students to

224 Interviewed 26/11/2017 in L_ (Brazil).

become critical social scientists, ethnographers, social workers, and “experts” who knew better than common rank-and-file social movement members and were to softly change the latter’s minds (see also Delgado 2008). They were to leverage their knowledge and the trust they build with people to legitimize agroecology—not the average undergraduate assignment.

6.5 Breaking the “conventional vision”

Now that I have explained some of DK’s own internal contradictions, I present the way a cluster of students sought to use their training to foster agroecology at home. Paulo and Evelina were both from the Northern Pioneer Zone of Paraná [Norte Pioneiro do Paraná]. This region is historically linked to large coffee and sugarcane plantations, particularly since the early 19th century, and migration waves from Europe and from the relatively nearby states of São Paulo and Minas Gerais. Paulo, who was in his late 20s, had lived an urban life in Curitiba for a while, and was now living in an MST encampment in his region of origin, hoping to get a plot of land in the near future. He described his entry into the MST as “being parachuted in,” as improbable family connections brought him to the encampment. At the time, he was looking for a training to become a rural technician, and nearly started one that would have led him to work on conventional farms. Nevertheless, as he put it, that first course deviated from the movement’s principles:

No way, it wasn’t a course linked to the movement and it didn’t have anything to do with social movements, so the brigade didn’t let me do it, because as I would have needed to study, I would have had to stay outside of the encampment. So he [the dirigente] said no, it is not possible because that is going to train a militante—at the time I didn’t know anything about activism—for agribusiness, and we want militantes to work in our cooperatives, our communities.²²⁵

225 Interviewed on 19/04/2019 in L_ (Brazil).

The MST dirigente who oriented him used the power derived from being able to exclude or support people in the encampment to steer Paulo to a training deemed appropriate to the overall movement, as it took place at a “self-governmental” (Pahnke 2014) educational space, ERS.

Evelina, a student in her early 20s, had grown up on an agrarian reform settlement whose creation was linked to the MST, but where the movement had lost its influence. Many settlers in her area rented out all or part of their plots, a phenomenon she referred to as “minifúndio” (by reference to Brazil’s centuries-old latifúndio, its extremely concentrated and elitist land ownership structure) because it allowed single producers to rent out extended areas of land from various settlers and practice large-scale conventional agriculture within land reform settlements. Her entire family worked in conventional production.

As we talked, it became clear that they were confronting a monumental task: introducing agroecology in an area where the agricultural common sense for both agribusiness players and small-scale farmers was commodity production based on monoculture and heavy pesticide use. The “thick legitimacy” of the conventional production system seemed near complete—aside from the agroecological vision of the local MST dirigente who struggled to rally people both to the MST as an organization and to agroecology. On top of the historical crops, soy and eucalyptus had been important regional productions in the last few decades, Paulo told me, and most agrarian reform settlers in the area relied mainly on conventional milk production for untransformed (and therefore low-priced) sale to agroindustrial companies, and conventional coffee. Through project F_, as described in Chapter 4, a few plots had been made into agroecological demonstrative units (*unidades demonstrativas*), and this included the plot of the dirigente who was instrumental in bringing Evelina to the course at ERS. Together with Luciano, another student in the course who lived on a different all-conventional settlement in the same region and wanted to start an agroecological project there with his father, and a friend who studied agronomy in another MST-linked school, they gradually realized they needed to work together in order to bring an agroecological vision to the area.

One way that this regional cluster of students was hoping to build agroecological alternatives was through a project for organic coffee pro-

duction in agroforestry settings, planting the coffee with guandu bushes, a variety of bean that provides nutritious legumes and excellent nitrogen fixation in the soil, and fruit trees. Paulo said this last element may help convince families of the viability of the project. Coffee plants need three years to become mature in the area where they lived, and there was only one harvest every year. The perspective of spending less to buy food off the farm and having other crops to rely on between coffee harvests, especially organic fruit that could be sold to government programs for a good price, is a significant economic advantage for families.²²⁶ Besides, the other trees in the system help protect the coffee bushes from freezing, a normal occurrence in many regions of Paraná in the winter, and from the high winds typical of the region.

Paulo, who planned on turning his future plot into a demonstration plot for this type of coffee production, explained he got this idea practicing DK back home:

The families I do DK with plant coffee, and while doing the production inventory with them, they mentioned that the production has been decreasing with the years, because of plant nutrition issues. Fertilizers are expensive and they couldn't always buy them. From there I had this idea to research this, to bring it to the community.

From a contradiction he identified, Paulo conducted research into potential solutions. The greater quality of the coffee produced also means that producers could potentially secure more income with less production. Evelina told me that a bag of 60kg of conventional coffee sold for 420 reais [about 100 euros in 2018], whereas the same quantity of high quality, certified organic coffee sold for up to 2,000 [about 450 euros in 2018]. The partnership they were establishing with a regional commercialization cooperative is also quite an attractive

226 This is true of the period when federal social programs destined to support family agriculture and agroecology, such as the PAA, were functioning well on higher budgets. This guaranteed yearly income to families, and offered them a price per kilo much higher than market price. As explained in Chapter 4, the PAA's budget has been greatly reduced since Dilma Rousseff's impeachment and runs the risk of being entirely cut off under president Jair Bolsonaro.

opportunity to farmers and agroecological militantes, because the existence of pre-established access to markets might translate into more secure income.

In spite of all these arguable economic advantages for producers, Paulo remained doubtful about the power of these arguments to convince encamped families to adopt agroforestry. He spoke carefully:

Agroecology in reality is more like... I don't see it only as a means of production. I mean, agroecology... it ends up becoming a life ideology. You break habits that you had acquired in conventional production, like dietary and cultural habits. It is difficult for us to say 'Let's work agroecologically'. It is seen as this hippie thing, right, people say 'Ah no, but we're going to need water and the encampment is facing a water shortage,' they... the community ends up not even listening to the proposal. Then when you suggest to make a calda [artesanal organic mixture to manage pests]—to control slugs, they say: 'Ah but it takes a long time, it's better to use a chemical pesticide, this way they die instantly'. So... they don't have this vision... they are focused on the short term. [...] It can be organic, but the animal has to die instantly, and they don't understand that all this is part of the same soil life, the same environment. So it is very difficult, for you [as an agroecologist] to break this 'conventional vision'.

Paulo's experience provides us with important insights regarding the difficulties young militantes must face as they try to encourage farmers to experiment with alternative agriculture. Using the DK exercise as a somewhat covert method to introduce an agroecological agenda, Paulo moved away from the understanding of agroecology as "a means for farmers' liberation" (Delgado 2008). However, his new, more social and transformative understanding of agroecology (and his relative lack of experience within the movement and local conditions) marginalized him in his community's eyes. Paulo tried to make economic arguments, hoped to start a test plot and, in that way, demonstrate that his model might work. He rightly pointed out that some of the most important barriers were temporal—they were looking for quick solutions to long-term structural problems. For Paulo, "conventional vision" led both coffee and land to be viewed as commodities, to be sold and rented

out, which he saw as opposed to the model of agrarian reform the MST defends. Agroecological coffee production is, then, a way to change values producers attach to land and coffee, while keeping the focus on a crop producers were used to:

Our production there... culturally... it's something that is getting lost. As time passes by... there were always coffee harvest celebrations, coffee dances, and this is getting lost... and our initial idea, at least mine [...] is a little bit... bringing back the notion of family farming that is getting lost. Most of the time, work on a settlement ends up as *minifúndio*, uh, “Ah, I'm going to rent out the land and live from this”... but you don't manage to have a vision... [...] so the intention with agroecological coffee production is... is a small-scale production, with a small volume but high quality.

Some of the conflicting views communicated by João Maria in the theoretical DK seminars were reflected in Paulo's speech. On the one hand, he seemed to view “local culture” and a sense of community as a static thing in danger of being lost, to be “recovered” (*resgatado*) through agroecology and family farming. But as Evelina and he later told me, they saw agroecology as an all-encompassing life alternative for families which they wanted to *implant*, implying new dynamics rather than the resurrection of older ones. They were also conscious that basing their action on the notion of “family farming” risked further legitimizing patriarchal family relations, which they saw as incompatible with agroecology:

PAULO: You don't plant agroecology, you live agroecology. [...] It's not just something linked to production. There are the issues of health, of social relations, of culture involved in agroecology, it's not just a means of production and we would be so happy if we managed to implant this in our communities, right Evelina? It is a major challenge for us.

EVELINA: It's an enormous challenge! Just the production part, we find it difficult to implant there. Now the other issues involved in agroecology... it's muuuuuch harder. Especially the issue of gender. It is very complex... to try to bring this debate, because there are a lot of families

where women themselves do not accept it, they see their own rights as unimportant... Myself, when I started the course... sometimes I suffered from machismo, but I didn't recognize it as machismo, you see? It is like in my reality, women suffer from machismo and don't perceive it as such.

On the other hand, though, working around the notion of "family farming" allowed them to reach another important type of actors: children. Evelina and Paulo had spent two years working at an itinerant school in a regional MST encampment, providing students with lessons. Evelina recounted:

We wanted to put together something related to agroecology, and we decided to organize a forest-garden where food could be produced with trees, to make biomass that we could use to regenerate the soil [...] this was the idea, and the project lasted, what? Two and a half years?

Paulo intervened to add context:

That encampment... it's a very old fazenda [...] where a lot of sugarcane used to be planted. So the soil is very degraded, so much so that when we first started planning... right Evelina? With the dirigente from the production sector, we chose an area close to the school where... when we went with the tractor, it got stuck in the sand, we barely managed to get it out, it was a huge challenge for us.

Evelina considered the project to be a success as they managed to implant a small agroforestry project in that area of gross sandy soil. They managed to get the encampment community involved for occasional collective work sessions and to make a deal with one of the schoolteachers, who helped them make links between what she was teaching in her biology classes and practical workshops in the agro-forest. Ultimately, they faced many issues because they lacked appropriate tools and were unable to be present consistently. They were, however, proud of the impact they made. They successfully demonstrated to themselves and others that a degraded sugarcane area could quickly become a forest-garden. It also could be a living laboratory for chil-

dren whose families might soon be making decisions about production, if they got access to land. To them this was what DK was about: getting inspiration from local challenges and opportunities to develop semi-participative projects showcasing agroecology’s potential—both in terms of community-building and agricultural advantages (which, as we already stated, go beyond questions of productivity and income).

As scholarship on historical nonviolent resistance movements (e.g. Bloch 2016), as well as literature on agrarian transitions in Latin America and the Caribbean attests to (Delgado 2008, 2009; Baronnet 2015; Meek 2015; McCune et al. 2017; Moore 2017; Schwendler and Thompson 2017), ongoing mobilization and sustainable capacity building depends on training the next generation. Youth studying agroecology at ERS did not see employment within official technical assistance structures as a future priority, or even as a possibility.²²⁷ It was clear to students and movement-affiliated educators that they were being trained to be their movements’ next generation of “agroecological leaders,” which Paulo and Evelina, for instance, were proactively preparing for. However, in their case, it is important to note that all of this rested on coherent help provided by a local MST dirigente, who practiced agroforestry on his plot, had helped the students enroll at ERS and supported them throughout their education and militancy. It left me wondering how other students experienced this kind of mentorship from older, more powerful and more experienced activists, as Paulo and Evelina’s example made clear to me that this kind of support had been crucial in their projects.

227 Most students I interviewed located their future action in relation to agroecology in one or more of three spheres. Firstly, some saw agroecology as an area in which they could contribute to movement-led popular education, within their community of residence or as movement leaders in larger territorial units, urban projects, or cooperatives. Others felt a drive to make the land they live on a model plot for agroforestry that could then be used for farmer exchanges on the model of the Cuban farmer-to-farmer method. Finally, some unsurprisingly saw their education at ERS as an entrance point into further education. Some students expressed to me the desire to do a masters degree relating to an aspect of agroecology (some admittedly as a way to leave behind their life in rural communities while keeping a link to agriculture), others to even pursue academic careers and keep alive the academic debate around agroecology and land access.

6.6 Conclusion

DK is an ambiguous experience for ERS's students. The role that DK gives young agroecological educators moves away from a Leninist understanding of a revolutionary avant-garde crusading against false consciousness in production methods, but effectively tasks them with "softly" convincing people in their communities that a production model seen as economically risky and practically foreign, and operating on different time scales than their usual methods, is a safe bet. Many students were rather disengaged from the DK exercise, often failing to attend seminars, write reports, or attempt profound engagement with families in the Terra Prometida settlement.

For the many students who took the exercise seriously, given the theoretically bushy nature of DK seminars and the methodological unpreparedness they faced at ERS, DK was often confusing because of the many, sometimes contradictory demands it placed on them. These demands included: doing in-depth micro-ethnographies without having time to build sufficient trust, both "recovering" and "problematizing" reified "peasant cultures," circulating movement values, and circulating technical agroecological knowledge in contexts where understandings of agricultural timescales based on conventional harvest imperatives prevailed over understandings of systemic ecological relations. Problematizing patriarchal gender relations and the nuclear family as the basis of agriculture was both something that was increasingly seen as part and parcel with political agroecology by young militants, and something they could not entirely rely on because their movements have used "family agriculture" as a mobilizing principle (see also Agarwal 2014), because this framework allowed them to reach children and youth, and because their rank-and-file members largely live in social worlds where patriarchal norms prevail. This chapter suggests that while DK holds many potentials, the methodological tools students learned at ERS to legitimize agroecology led to ambiguity and student disengagement in many cases. What capacity did this training provide students with in their agroecological endeavors back at home, and what obstacles did they perceive in fostering agroecological legitimacy once they left ERS? I will examine this in more detail in Chapter 7.

Chapter 7: Barriers to dialogue

7.1 Introduction

In this chapter, I examine the social obstacles young people face in their agroecological endeavors, both at ERS and back at home. I am evidently basing this analysis on my observations at ERS and students' subjective perceptions and what they told me, as I did not conduct fieldwork in any students' communities of origin. This much field research would have been impossible for a three-year single-researcher project, especially given the formidable geographical diversity present in the cohort. Nevertheless, listening to what students perceive and experience as obstacles reveals a great deal about the ways internal social movements dynamics influence young *militantes'* capacity to build momentum for agroecology, and what can be changed to foster better conditions for them.

Recent ethnographic literature on the MST already points out that second generation exodus (the tendency for sons and daughters of land reform settlers to leave settlements for urban life, in or out of MST networks) has been a problem in MST-affiliated settlements and established cooperatives. Authors seeking to explain this phenomenon have cited the negative effects of patriarchal family dynamics, cultural attractiveness of urban life and higher education, generationally-differentiated social mobility expectations, unavailability of land, relevant skills, and farm infrastructure resources for descendants of agrarian reform settlers, and finally, a supposed disillusionment with left-wing electoral politics and demobilization due to cash transfer public policies in the PT era (Hall 2008; Vergara-Camus 2009; Flynn 2010; Caldeira 2009; Gurr 2017; Marques 2018); this echoes broader reasons why youth increasingly turn away from small-scale agriculture beyond the Brazilian land reform context (White 2012). However, as McCune et al. (2017) write and previous chapters of this thesis clearly show, rural social movements in Latin America and the Caribbean have sought to develop "identities and skills for peasant futures" through educational initiatives (see also Khadse et al. 2017; Meek et al. 2017; Meek and Tarlau 2016). As a result, many of ERS's students develop a strong ethical commitment to

agroecology as a socially sustainable way of life that differentiates them from rank-and-file youth in land reform areas (and in other low income rural areas and areas under use for small-scale agriculture, in the case of students affiliated with other movements than the MST). Nonetheless, it should *not* be uncritically assumed that this means the only challenges and obstacles these young people face in their agroecological militancy are structural and macroeconomic. As the literature (Wolford 2010a; Flynn 2010; DeVore 2015; Gurr 2017; Caldeira 2009) and the case of Terra Prometida shows, power dynamics internal to social movements and frictions between different scales of mobilization create important obstacles to activists' ability to locally "embed" what I have argued in Chapter 4 to be the agroecological sociotechnical imaginary. It is therefore important to ask: What are the main social obstacles to ERS' young militants-in-training's ability to build agroecological legitimacy in their communities and networks?

I argue that a certain lack of internal democracy and support for these young militantes within social movement organizations is an important factor slowing down and limiting their abilities to effectively build legitimacy for agroecology in their networks and back at home. To make my case empirically, I discuss such dynamics at the level of relations between students and the social movement coordinators who were tasked with supporting them within their organizations. Then, I discuss local level implications as observed at the Terra Prometida settlement, reflecting on both contradictions between scales of organizing and the consequences of past conflicts. Subsequently, I address more specifically the contradictions inherent in fostering place-based education in transnational settings. Finally, I demonstrate that patriarchal and gerontocratic forces influence young female militantes' capacity to feel safe, valued, and competent as builders of agroecological legitimacy.

7.2 Internal democracy and the "generation question"

It is already clear in the literature—and unsurprising—that favorable public policy and markets, compatible land use history, strong grassroots organizations, and effective practices are key drivers of agroecol-

ogy’s ability to “scale up” and “scale out” (Meek 2016; Loconto et al. 2018; Altieri and Nicholls 2012, 2008; Varghese and Hansen-Kuhn 2013; Khadse et al. 2017; Lamine 2017). This raises a critical question, namely: How can young activists use their training and their organizations’ social base and mobilizing discourses (Cacho et al. 2017) to build legitimacy for agroecology when supportive structural conditions are absent, weak, or in the process of being actively dismantled by regressive governments, as was the case in Brazil at the time of my field research? One might expect the MST and La Via Campesina to prioritize youth capacity building within already established networks to encourage ongoing mobilization. In contrast, this chapter suggests that movements’ internal politics do not always create favorable conditions for these young people to play the crucial role they could play within their organizations, especially when measured against the great expectations that a methodology such as *Diálogo de Saberes* places upon them. This is an essential contribution, as the stakes are very high and have implications beyond studying social movements academically. Indeed, as McCune et al. (2017) and White (2012) among others²²⁸ point out, a “generation problem” confronts small-scale farmers globally, with ever fewer young people willing and able to stay on the land to practice small-scale agriculture. Such conditions effectively threaten the social reproduction of rural populations and the ecologies they produce and reproduce.²²⁹

As should be clear by now, the MST is a social movement organization which possesses well-established national and transnational networks and alliances (Wolford 201; Rubbo 2013), a strong mobilization culture (Rosa 2004; Wolford 2010; Issa 2007; Loera 2010), an emblematic collective identity (McNee 2005; Flynn 2010²³⁰), and has had some access to public resources to foster training (Meek 2015, Fernandes and

²²⁸ See also Flynn (2010); Meek (2014, 2015, 2016); Gurr (2017); Furukawa Marques (2018) for discussions on the MST specifically.

²²⁹ See Ekers and Loftus (2012) for an introduction to the production of nature thesis, according to which “labor is at the heart of the co-production of nature and society” in the field of Gramscian political ecology, see Meek (2016) and Karriem et al. (2013) for political ecology discussion on the MST specifically. See also Escobar (1999) for earlier discussions on the production of nature in political ecology.

²³⁰ See Wolford 2010; Flynn (2010, 66–93) and Flynn (2013) for a critical anthropological discussion of the MST’s collective identity in the context of social movement literature,

Tarlau 2017) and the creation of “self-governmental” (Pahnke 2014) training spaces. It could be the agent of youth mobilization and stabilization in rural areas—and has been to some extent, at least for first generation activists who channelled energy into incipient land rights movements when they were young adults themselves, in the 1970–80s (Flynn 2010). However, in resonance with Gurr’s (2017) findings, I argue that current social movement leadership has insufficiently valued this younger generation of *militantes*—in terms of their potential and aspirations. This is especially true of today’s young female activists: they may be ethically and practically committed to the practice of agroecology and to family life in the countryside, but not at the perceived cost of their own dignity and autonomy, the perception of which has been strongly influenced by the rural feminist political culture which has emerged in Latin America in the past four decades (Rubin and Sokoloff-Rubin 2013; Shayne 2004; Alvarez, Dagnino, and Escobar eds. 1998; Schwendler and Thompson 2017).

In the last chapter, I introduced the cluster of students formed by Evelina, Paulo and Luciano, showing how they had, to a certain extent, managed to use João Maria’s DK methodology to foster agroecological projects and legitimacy in a region of largely undisputed agribusiness hegemony. I do not wish to diminish their achievements and those of other clusters of students who have managed to perceive social relations differently, implant agroforestry projects, give workshops, engage children in encampments, consolidate agroecological cooperatives, or take part in social certification schemes based on the training they have actively participated in. I also do not want to detract from the inventiveness and hard work put into teaching at ERS and coordinating social movement training spaces by educators such as Geni, João Maria and the other social movements educators, who occasionally come to teach workshops and seminars at ERS.²³¹ However, I do think it is important to

including possible negative effects of this kind of monolithic identity on internal democracy and perception of the movement in wider society.

231 Two in particular come to mind: Claudia, a feminist educator linked to the MST who taught engaging seminars on the history of Latin America and the history of revolutions in Latin America, and Ciro, a trained nurse and activist from the MST’s gender sector who taught a memorable day seminar on gender, the body and sexuality.

outline the contradictory limitations that students face in implementing DK methodologically in their home communities, which has much to do with reasons internal to movements. Such an analysis is important because, while social movements may not be able to alter external, structural factors (i.e., commodity prices, global markets, the influence of lobbies and international capital on domestic politics)—they may, however, change practices internally. This way, I hope to be able to provide those who participated in my research with productive recommendations based on observations their organizers—who are often too busy juggling militancy, parenthood, study and social movement politics—may not have time to make systematically.

7.3 Returning home from ERS: agroecology or militância?

To introduce some of the challenges students experienced, I first share observations of a conversation at a workshop on DK at ERS. It took place in April 2018, near the end of this cohort's studies, a period imagined by movement pedagogues to be a time when students have successfully implemented and internalized such practices at ers and in their home communities. I share insights from an exercise when students united with their Núcleos de Base (NB), and reflected on the progress and difficulties they faced at home. The purpose of the exercise was for students to autonomously report on difficulties to each other, away from educators. Thereafter, all NBs would gather again in the classroom and designated group speakers would read out a summary of the discussion, for plenary discussion with João Maria. Sitting in a circle with eight students, I listened to students report on difficulties to each other. Such comments were representative of problems reported by students in informal conversations and recorded interviews throughout the period of my data collection, and in the plenary discussion which followed the conversation. Some highlights included:

Student 1 (son of MST settlers in the south of Brazil, early 20s): I chose three families and managed to record some interviews. I already did the agroecosystem inventory on paper but I still have to type everything up.

One family dropped out of my study. One family agreed to participate, but then when I went to record their life history, they didn't want me to put it on paper, I don't know if I will try again with them. It was awkward.

Student 2 (son of landed small farmers, activist with the Movement of small farmers [MPA] in the southern Brazil, early 20s): I didn't have time to do this stuff [sic, qualitative research] because I was doing political work for the MPA, it's hard at this uncture.²³²

Student 3 (Paraguayan land activist, early 20s): I managed to record the life history of three families, but my computer broke down and I lost everything.

Student 4 (first generation MST activist living in an encampment in Paraná with her children, mid-30s): I am really behind. I talked to the MST dirigentes (movement leaders) in my region, they vaguely recommended two families for me to work with a while ago, and said they would give me their contacts. I asked and asked and asked, and they never sent me anything. I'm on my own. I went to talk to a dirigente to tell him I was taking the matter into my own hands²³³ because I was tired of asking and waiting. Now I found three families and talked to them all, but I'm still collecting data on their life history. I still have almost everything to do.

232 The 2016—2018 period was politically eventful, with many mobilization events organized by social movements around Dilma Rousseff's impeachment process, public corruption scandals, neoliberal cuts decided by Michel Temer's administration and Lula's trial. This means militantes involved in social movements' Frente de Massa sectors, the sectors in charge of expanding mobilization and organizing public protests and sit-ins, were often called up on to join protest camps, marches, land occupations and sit-ins in public buildings. Promising Frente de Massa activists often enjoy relatively high status with higher MST leadership (although this can lead to them being perceived as privileged and agriculturally idle by rank-and-file members), receive a small stipend from the MST's hierarchy (collected through semi- to fully-mandatory financial contributions asked of settlements and cooperatives affiliated with the MST, see DeVore 2015) and are morally expected to drop what they are doing at short notice to join encampment, marches and similar events (see also Flynn 2010).

233 The MST's organizational principle of democratic centralism means that decisions concerning militancy are expected to be taken in accordance with coordinators and leaders who are higher up in the organization's decision-making hierarchies, which is why it sometimes seems that rank-and-file members and middle-rank militantes act as if the MST "owns" social relations between its members.

Student 5 (daughter of former sugarcane workers who recently started living from subsistence agriculture in the northeastern state of Pernambuco, activist with the Rural Youth Pastoral, early 20s): I had a conversation about the nature of DK with three families, in three different communities. So I'm theoretically doing the DK with all three, but I'm only actually doing it with one. The second one hasn't invited me over yet, even though I explained what the process is and they agreed to participate. I didn't manage to do anything with the third family. But with the first two families I already did some work even though I still have lots to do in the next tempo comunidade. I think the hardest part is to explain what the DK is and why we ask questions about their life history and what they plant without pesticides, and how they consume, what they consume and what they don't consume, the prices of things... The families here in the Terra Prometida settlement accept and understand this more even though we still run into difficulties here. But people back home... they don't know anything about DK, they think that you're spying on them, that you're hiding something, that I'm investigating their family, their daily life, what they do, what they buy, I think this was the biggest difficulty for me. People wonder whether I'm from IBGE [the Brazilian census and statistics bureau]. The families were open to the dialog, but I could see that they didn't tell me a lot, the conversation was very superficial. I tried to go more in-depth but didn't really manage. It stayed very superficial. The third family, I'm not even sure that they'll do anything. So that's it for me, so far I'm doing it with two families.

Student 6 (militant linked to the *Articulación Nacional Campesina* in the Dominican Republic, early 30s): The family I was working with dropped out, now I joined another team. We have to start over.

Student 7 (son of MST settlers in the south of Brazil, late teens): This tempo comunidade was complicated for me. My settlement had a celebration to mark the 20th anniversary of the community, but people started to argue and a fight broke out. The family I was doing *Dialogo de Saberes* with turned against us, they insulted my mother, so I don't want to work with them anymore and they don't want to work with me. I started over with a different family, and I still have to do the whole process with two families.

Student 8 (son of MST settlers in the state of São Paulo, committed militante, mid-20s): I spent all of this tempo comunidade doing mobilization work in Frente de Massa organizing, I didn't do anything for Dialogo de Saberes. Some families in my community see my absence to come here and for political activities as proof that I am a privileged member of the MST so I'm having a hard time finding families to do it with.

DK includes an exhaustive and detailed questionnaire designed to reveal information about family history, worldview, internal hierarchies, ecological practices, and domestic economics²³⁴ as I established in Chapter 6, ERS's students are poorly trained in social scientific methods, they feel uncomfortable taking notes and asking interview questions, and end up presenting DK to families in their communities as a long homework project rather than explaining the aims of the process to families (student 1). What is more, as the research instrument requires disclosure of intimate details (e.g., financial information), cultivating long-term trust with targeted families is felt to be an unattainable goal for students who have little time to build such relations and often report that families back home see them with suspicion, if not outright hostility (student 5). In other cases, problematic political relations within settlements and high turnover rates in MST encampments and cooperatives means that potential participants drop out of the exercise and the movement altogether (students 1, 5, 6 and 7).

Beyond these challenges, many of them inherent to qualitative research more generally, students often reported being treated with indifference by movement leaders (*dirigentes*) who acted as gatekeepers (student 4) or being made to prioritize Frente de Massa activities, which are seen as “real” *militância* by their superiors (students 2 and 8)—in the MST and MPA in the specific example above. This contradicts the emphasis placed on agroecological training and DK while students are at ERS, as I have shown in Chapters 5 and 6. What is more, drawing on Evelina and Paulo's example in the north of Paraná, Chapter 6 showed that at home, attempts to build agroecological legitimacy closely resem-

234 Appendix 3 available on Open Data LMU: Lagier (2020), <https://doi.org/10.5282/ubm/data.193>.

ble Frente de Massa activism (giving visibility to a political alternative and attempting to change the minds of those who do not necessarily desire for their minds to be changed or educated) than mere technical assistance. However, supporting students who may be in the position to carry out work that is very important for the sustainability of land movements' generational reproduction does not always appear to be a priority of leadership, because they are responding to daily crises requiring fast response, such as: land occupation evictions, interpersonal conflicts, political persecution, last-minute issues in the organization of rallies, marches and sit-ins, and managing the daily affairs of busy cooperatives.

This echoes the sentiments articulated by students in interviews when I asked about relationships with leadership, and about the goals and expectations of their time at ERS. In spite of insistence by ERS's educators on the notion of social function of education,²³⁵ many students told me there was never a foundational conversation to clarify what their education should train them for, at home or within their local community. Many reported that there was no follow up (acompanhamento) with leaders beyond a quick exchange of banalities once in a while, even in communities where agroecology plays a key role. For instance, one student living in an entirely agroecological community ironically commented, "Follow up? The follow-up with my dirigente goes: 'Hey man, everything good at ERS? All good? Great.' That's it." Many students reported not being asked anything about what goes on at ERS by their community and movements coordinators, not being clear on what is expected of them in their home community following graduation, and not being able to carve out space to share things they learn at ERS with their broader community. This gap is surprising and significant because the investment made in these youth is quite intense, and lack of guidance can lead to student disengagement with

235 In one instance, during a seminar where students were tasked with presenting research projects, Geni insisted on the fact that education as envisioned by the MST's Educação do campo conception is to fulfill a specific *social function* in the construction of local alternatives and the reflexivity of marginalized communities on their historical and social positionality—something she opposed to liberal, individual, falsely neutral conceptions of higher education.

agroecology and militancy—which is the last thing movement leaders want valuable state-funded education to do to the next generation of agroecological leaders.

In some cases, students doubted their hierarchies' willingness to ever do more than talking about agroecology abstractly. As one student, who had previously been an activist with the MMC, before moving to an MMC encampment, said in a seminar: "Leaders are disconnected from the base [the rank-and-file members of the organization]. In the MST you don't often see leaders practising agroecology with the base. This was different in the MMC." Perhaps not coincidentally, Paulo and Evelina's example in Chapter 6 comes from an area where a local dirigente actually practices agroforestry on his plot and uses his position to support ERS students living in his area. Several students reported that their only contact with practical agroecology back home was within their own family unit, with no articulation whatsoever with movement-backed projects.²³⁶ For this reason, Mayara, the student who grew up in the interior of Pernambuco, decided to move from her isolated community to the all-agroecological encampment area where some of her classmates live in coastal Paraná, leaving a place where agroecology has less legitimacy (and therefore more potential to expand) for one where agroecology is the only model of production:

The movement [The Rural Youth Pastoral] wasn't making any proposals for me to contribute, I thought I was just going to practice agroecology at home... Now I decided to go to coastal Paraná [to an all-agroecological area] and do agroforestry there with the MST.²³⁷

In many cases, dirigentes who were in a position to help students throughout the duration of the course to make contact with families, envision a clear role for themselves as agroecological "pedagogues-militants-technicians," and share what they were learning stayed passive and indifferent, or put students in a position where other political tasks

²³⁶ This is also due to the fact that there are simply no "agroecological" projects in many regions, and highlights the importance for students to be able to team up to launch initiatives (like Paulo, Eveline and Luciano), something that is very difficult to do on one's own.

²³⁷ Interviewed 11/04/2018 in L_ (Brazil).

were prioritized over agroecological militância. This phenomenon was a clear obstacle to students’ ability to build agroecological legitimacy in their networks. But even more crucially, it sometimes harmed students’ own perception of themselves as competent militantes and agroecological practitioners, and their capacity to practice what they were learning in a way that helped further their organizations’ goals.

7.4 Complicating the local: How democratic are “horizontal dialogues”?

The idea of a “dialogue of knowledges” is discursively prominent in CLOC-LVC. The umbrella organization uses this expression to refer to indigenous and non-indigenous political cultures with different cosmologies, epistemologies, readings of food sovereignty, and relations to working-class and peasant identities, respectfully engaging in political debate, knowledge construction, and reaching consensus for action (Martinez-Torres and Rosset 2014) in what has emphatically been called “a true peasant internationalism” (Martínez-Torres and Rosset 2010). It is often mentioned as a key component of La Via Campesina’s agroecological political training, which is offered in some form or another at dozens of schools throughout the world, several of them being situated in Latin America and Central America (McCune et al. 2017).²³⁸ Although it is more often than not based on short-term research stays²³⁹ by broadly sympathetic scholars,²⁴⁰ this literature attests to the transnational character of practices of political training for agroecology using the familiar method of *organicidade*, internationalism of Cuban inspiration,²⁴¹

238 A burgeoning literature focuses on this type of political training, which has sometimes been dubbed “education for food sovereignty” (Meek et al. 2017; Massicotte and Kelly-Bisson 2018; Massicotte 2014). See also McCune et al. 2017; Teran et al. 2018.

239 One notable exception to this is the long-term anthropological work of David Meek. **240** MST political training has also been the target of heavily inimical literature by ex-allies, calling these courses “indoctrination” (see for instance Navarro 2000), a point of view that has largely fed into right-wing media narratives about the MST in Brazil.

241 This is something MST leaders have been developing through transnational partnerships with revolutionary and social movements since the 1970s (Rubbo 2013; Marques and Lagier forthcoming).

Paulo Freire's Núcleos de Base methodology, Marxist political theory, and more recently the introduction of feminist and indigenous insights.

However, the use of the expression "Dialogue of Knowledges" can be confusing, since there is no formal centralization of teaching methodologies (and the actual degree of participation of local communities in pedagogical activities) within CLOC-LVC. In the case of ERS, *Diálogo de Saberes* refers to the specific pedagogical method I have been describing so far. According to João Maria, this specific method is only used in two schools, both located in Paraná—ERS and Escola Che Guevara,²⁴² another training center where the MST has a partnership with PRONERA, this time to offer a high school diploma that focuses on agroecology and technical assistance.²⁴³ João Maria explained to me that *Diálogo de Saberes* is an "experimental" method and wasn't officially adopted by the MST or La Via Campesina. It was briefly held as a preferred method within the MST's production sector in Paraná, but this orientation was dropped in 2007, and the only reason it is still practiced ten years later is because ERS and the Che Guevara school, under the impetus of three educators, made a clear decision to keep using it. They lobbied the Federal Institute of Paraná to accept it as a course component.

This clearly shows the complex side of "self-governmentality" (Pahnke, 2014): ERS is a semi-autonomous space, which contrarily to some academic conceptions doesn't mean it is "sovereign"²⁴⁴ from state power (it is partly dependent on federal payments and could easily be shut down by a hostile administration or invaded by the army) or free from oppressive social relations. Rather, in this case, it means that *Diálogo de Saberes* is not fully supported by localities, state curricula, or social movement networks, making it a socially fragile and isolated pedagogical experiment.

The ongoing use of this method is perhaps symptomatic of decentralization and spaces of experimentation within La Via Campesina, as educators periodically meet to discuss pedagogical innovations. How-

242 This is a pseudonym.

243 Interviewed on 19/04/2018.

244 McCune et al. (2017, 18) romantically write that La Via Campesina's agroecological training spaces "can often be considered "sovereign" spaces in which movements develop a microcosm of the world they wish to see."

ever, it also poses problems. First, students perceive that such tasks are not valued by leadership and rank-and-file members alike. Thus, it appears utopian, unrealistic and illegitimate. As it is circulated solely through transnational channels, students come to question such a method and their teachers. They question why João Maria spends so much time traveling throughout Latin America—speaking at conferences and seminars, praising “his methodology,” while its reception is disputed on the ground. As a result, some students suspect that he uses their hardship and written assignments as an intellectual hobby rather than a way to advance emancipatory education and agroecology.

This leads us to another challenge—specifically, ERS’s disconnection from local dynamics and realities on the one hand, and its problematic insertion in them, on the other. In Chapter 3, I described how ERS’s implantation in the Terra Prometida settlement was the result of a top-down decision by MST leaders. Due to its geographic proximity to Curitiba and federal universities, vacant infrastructure, and the presence of a small collective of agroecologically-inspired militantes, they imagined that it would be ideal for the establishment of a transnational school. They promoted the development of ERS, with very little local input.²⁴⁵ Interestingly, local views of agroecology differ starkly from what is being taught at ERS. Settlers tend to espouse a vision more congruent with the older generation of green MST “experts” best described by Delgado (2008)—who understand agroecology to be a mode of production, which ensures farmers’ liberation. They seek to “massify” it to destroy the “false consciousness” created by the media and agribusiness. Conversely, ERS’s educators and students tend to have a more emancipatory and transformational view.

245 Due to internal conflict around the presence of ERS and the notion of agroecology, some individuals’ attempted to physically destroy ERS, which was perceived as a symbol of cultural invasion and a series of expulsion of conventional families by MST leadership ensued. The social rift this has caused in Terra Prometida’s community has meant that roughly half of the settlement categorically rejects agroecology and part of the other half tries to make a living out of fruit and vegetable production in agroforestry systems for commercialization through a cooperative dominated by the same MST leaders, with many people dropping in and out of agroecology with economic fluctuations and renting out part of their plots to conventional producers (see Part II of this dissertation).

While spending time in ERS, it seemed that the school and the settlement's cooperative were worlds apart, even though they were only separated by a few hundred meters. Students never frequented the cooperative's buildings, and many reported not knowing anything about it, aside from the occasional guided tour that my groups of Canadian students had also received in 2016. For their part, cooperative staff rarely ventured into ERS, except during the weekly deliveries of vegetables paid for by the Programa de Aquisição de Alimentos, and ad hoc meetings or activities entirely separated from ERS's schedule. I only saw cooperative members participating in educational activities, other than DK, a handful of times.²⁴⁶ Only a few students, who were either permanent residents of the settlement or had learned about ERS through previous participation in the cooperative, had been involved in local production activities, such as: agroindustrial transformation of products, facilitating access to markets, and organic certification—presumably key skills in “scaling up” agroecology as viable food system alternative.

As Wendy Wolford writes (2010, 96), “a progressive politics is tied to the ability of place-based actors to articulate with progressive transnationalisms” (see also Katz 2001). In contrast, this triple estrangement—between ERS and part of the settlement, between ERS and the cooperative, and between agroecological producers and conventional producers—interfered with students' abilities conduct the DK exercise in the Terra Prometida settlement. What could have been a prime teaching opportunity, therefore, was missed. According to João Maria, DK had earlier been envisioned as a co-constructed practice between ERS and the Terra Prometida settlement, with the latter being a “territorial laboratory” from which students might gain practical agroecological experience (for example in helping those I called “the in-betweeners” stay with agroecological production). Instead, social conflict marred in the MST's internal hierarchies and prioritization of the transnational scale of struggle caused resentment and gaps in communication. This leads me to reinforce Wolford's (2010, 96) point about scale and place

²⁴⁶ For instance when a local beekeeper gave a workshop during an animal production lecture held by a professor from the Federal Institute, or when a few families from the group I called “the agroecologicals” in Chapter 3 attended an exhibition about soil properties and textures that the another Federal Institute professors tasked students with organizing.

in transnational MST activism: “the MST’s construction of the “local” struggle for land has conflicted with place-based understandings of social justice.”

Some students and settlers suspected that poor communication was intentional, although they located this intentionality with different actors. MST-style *organicidade* meant all information about the process of DK, and the dates when students were scheduled to spend the day with families, was taken by ERS’s coordination to the conflict-prone settlement’s coordination, which was theoretically in charge of taking this information to each group of families in the settlement. However, many students suspected families had not been properly informed about the schedule, nature, and aim of DK, and were thus unable to conduct fieldwork with families. They reported being received with hostility when they showed up seemingly unannounced on *Diálogo* day, or being “treated like free labor” rather than entering a mutually beneficial, pedagogical relationship. Such impressions were confirmed when I accompanied students on their visits to settlement households. Families, even “agroecological” ones and agroecology-practicing “in-betweener” families, indeed seemed poorly informed about the entire process. This became clear when I spent the day with Ivânia, a long-time MST member and ex-agroecological producer who still²⁴⁷ articulated agroecological ethical values. As we walked through the parcel around her house, I asked, “How was the DK presented to you? Did you ever talk to someone from ERS’s coordination about it?”

She turned to me, with a quizzical expression on her face, and said, plainly:

247 She reported an injury and lack of social support (which she blamed on *machismo*, as she was a single woman head of household and thought the cooperative’s leadership didn’t like that) kept her from continuing the labor-heavy practice of planting vegetables and tubers in an agroforestry system. After her recovery, she started a work relationship with a conventional settler who came to plant and harvest soybeans on part of her plot with his tractor and divided profits with her, and periodically employed her and her son as informal day laborers to pick strawberries on his plot. Ivânia is a typical example of the group I called “the in-betweeners” in Chapter 3.

They didn't explain much. The coordinator asked if we were willing to let students help us plant and harvest vegetables, and since we were always alone, the whole group accepted. ERS's coordination didn't talk to us directly. They passed this information to the settlement's coordination. The coordinator said this: 'Some students are going to come to help with the hortas.'²⁴⁸ But since I don't do agroforestry anymore, I wasn't able to do much with the students. They come, we talk, we drink chimarrão, and we snack. What can we do? There is no horta here anymore.

Her answer was far from atypical, and helps explain why some students felt they were being treated as free labor—families were told that *Diálogo de Saberes* was “students coming to help with planting.” There was no group meeting between participating families and ERS's coordination beforehand, to build a basis for a common understanding. Families who utilized “conventional” agriculture might have been mobilized pedagogically, as a resource to help students to understand why agroecology was not an option for some. These families, described in somewhat condescending terms, consistently reported never being asked to participate, although some said they would have been willing to.

Difficult political relationships within the local MST network, including memory of past conflicts, made DK into something quite unexpected, a series of awkward encounters that bore little resemblance to a democratic and horizontal dialogue between farmers and students as described by the literature on participatory learning methodologies in social movements (see e.g. Rosset et al. 2011; Machín Sosa et al. 2010; Altieri and Toledo 2011). Most importantly, it often left students demoralized, confused, and unable to conduct observations or engage in practical work in ways that would have helped them further their agroecological goals. As we will see in the next section, this calls into question a notion that is at the core of agroecological theory—adaptation to place and context.

²⁴⁸ Horta is the word used to refer to vegetable beds planted between rows of trees in some agroforests, it refers to vegetable gardens more broadly.

7.5 Where is the place in place-based?

The importance of place²⁴⁹ and adaptation to context is a central feature of the literature on agroecology in both the social (e.g. Duru et al. 2015; Toffolini et al. 2018; Bell et al. 2018) and the agrarian sciences (Altieri 1995; Stephen Gliessman 2015). Steven Gliessman, often recognized as an expert in agroecological science, writes that practically, agroecology “values the local, empirical, and indigenous knowledge of farmers and the sharing of this knowledge, and which undercuts the distinction between the production of knowledge and its application” (2018, 600). Toffolini et al. (2018) remind us of the fact that the literature often focuses on broad agroecological principles but rarely investigates their contextual application in specific systems. Consequently, education that aims to promote social equality and agroecological legitimacy should include heightened attention to local and regional knowledges, ecologies, and problems – much in the way Meek (2015) describes some regional, territorially specific PRONERA certificates in the Amazon.²⁵⁰ In contrast, I have explained how ERS’s simultaneous insertion in and displacement from the broader settlement impeded students’ ability to engage with practical agroecology and obtain the purported pedagogical benefits of *Diálogo de Saberes*.

249 Although this is not the focus of the present chapter, the notion of place as a category of social analysis has been the focus of a good part of the subfield of cultural geography and of a large corpus of literature in social and cultural anthropology (Holwing and Hastrup eds. 1997; Gupta and Ferguson eds. 1997; Low and Lawrence-Zúñiga eds. 2003; Coleman and Collins 2006; Dawson, Zanotti and Vaccaro eds. 2014); environmental anthropology (Ingold 2000; Descola 2005), political ecology (Biersack and Greenberg, eds. 2006; Robbins 2005) and environmental humanities and history (Cronon 1995; Rose 2004; Kirksey 2015; Heise 2008) among other fields of study: furthering the study of agroecology in interaction with these fields seems like a productive future endeavor.

250 Meek (2015) describes a pedagogical model that has otherwise a lot in common with *ERS Dialogo de saberes*, with students learning through problematizing social relations and identifying contradictions, before devising research-action processes in partnership with farmers aiming to solve real-life problems. Following Gruenewald (2003) he calls this a “critical place-based pedagogy,” emphasizing the fact that relation to local landscapes and land-use history is part and parcel with the training’s transformative potential. Nevertheless, Meek also fails to report how this pedagogical method generates any engagement with actual farming practices on the ground—perhaps because the certificate he is talking about is not directed towards training technicians, but rather teachers.

Aside from occasional interaction with Terra Prometida's families and their agroecosystems, ERS included a space where students were supposed to get some farming practice. It covered less than one hectare of land, and mostly consisted of straw-covered raised beds for producing vegetables. This place was often referred to as an *agroflorestra*, because of the small intercropped vegetable production for the school's consumption (mostly in lettuce, green onions, spinach, beets and other greens), the soil straw cover, and the presence of some rows of trees and bushes near the back. It had a lot of symbolic and emotional importance for some students, especially for those who had helped set it up in 2014 at the same time as many agroforestry areas were being implanted in the broader settlement as a result of project F_ (see Chapter 4). The few students who stayed at the school between *etapas* took care of it on a more regular basis, and were more attached to it. That being said, its size and production level made it more comparable to a large hobby garden than a model for sustainable farming techniques similar those celebrated in the Cuban farmer-to-farmer method (Sosa et al 2010; Rosset et al. 2011).²⁵¹ During my first field trip, three tiny pigs were being raised in a barn close to this space,²⁵² but no other animals were ever kept there, in spite of the cohort's perpetual complaints about the lack of meat in the daily menu. This was mostly due to the school's lack of resources to maintain staff and obtain food for animals outside of *etapas*.

Garden tasks were usually planned by Beto, the Paraguayan ERS graduate and permanent staff member who coordinated the school's production sector. He explained his planning and sought superficial feedback in group meetings. Tasks were carried out by students in the production sector—for approximately 1.5 hours daily, either before breakfast or after lunch—with a longer work slot on Saturday

251 The farmer-to-farmer method, which is often associated with Cuban agroecology but is inspired on older Central American practices, is predicated upon farmers learning agricultural techniques directly from each other, by direct observation and participation.

252 Three pigs were slaughtered at the end of the *etapa* for lack of food to give them and humans to take care of them. Only two students and myself ever got to take care of them and interact with them, which culminated in spontaneously building a fenced area outside the barn for the pigs to be able to stay outside and act like pigs, after a student pointed out the contradiction in keeping pigs in a tiny wooden space with no windows in a school of agroecology.

for *mutirão*. I often wondered how much actual farming experience students were getting in this space. Only about 6 or 7 students performed these tasks during each *etapa*, and teams constantly rotated. Most of the actual maintenance (*MANEJO*) tasks and planning were performed by Beto while students were sitting in lectures and seminars. This meant that students were mostly engaged in weeding, planting, harvesting, and covering the *canteiros* in half-fermented straw during their short working hours. I regularly took part in these activities, and these seemed quite familiar to the urban gardening and family garden projects I had been a part of in the past as a casual participant.

Therefore, I got the sense that for ERS' students, advanced agroecological place-based practice was lacking—both within the school and the settlement. This clearly has consequences for students' further capacities to build practical legitimacy. As one conventional producer²⁵³ living on the settlement told me while we were chatting about ERS:

I don't have any contacts with ERS. I don't know, I always thought it could be a good thing to have a school of agroecology here. But I always wondered... and I still think that they should have an example there. So that we could go see this example. Theory... theory is pretty easy. I'd like to see an example, a large production area with 3–4 hectares here. Real agroecology. I always wondered: Is it a school of agroecology? Should they not have a demonstrative area? I don't see one here.

Moreover, what “place” even means to individual students is also firmly rooted in their local socioecologies. When I asked students about agribusiness and challenges this posed to them in their regions of origin, most of them were very knowledgeable. For them, agroecology and food sovereignty resonated as they call for context-sensitive agriculture, locally sourced inputs, and socially embedded commercialization strategies. This raises a number of questions.²⁵⁴ What does context-sensitive

253 Interviewed on 29/11/2017 in L_ (Brazil).

254 This does mean students did not find value in their education. This kind of international political training course holds a lot of political value, for instance for transnationalizing movement practices, “inventing” Hobsbawmian traditions (1983) and symbols of resistance, cultivating a certain type of militante aware of the global dimension of their struggle. It also contributed to broadening access to education and to more general scientific knowledge. Students often celebrated to symbolic value of attending university in a rural settlement, using a philosophy of education that valued students' social context.

agriculture in the Bolivian Altiplano have to do with sustainable farming in the semi-arid northeast of Brazil? How can lessons about soil cycles in the Amazon inform struggles in southern Chile? How does ERS prepare students coming from hot and humid Paraguay, southern Chile, the Argentinian Pampa, the tropical Caribbean, or even from the warmer north of Paraná? After all, agroecology is context-sensitive and the subtropical first planalto of eastern Paraná's Araucaria Atlantic forest biome is extraordinarily unique, with very heavy winter rain, slow soil cycles, and freezing low temperatures which harmed plants like banana trees in winter. As a student from the semi-desertic hinterlands of northeastern Brazil with little prior agricultural experience (but strong will to make a life in the countryside) put it:

When I came to study agroecology, in my head we were going to have theoretical classes, but we were also going to have lots of practical classes, I thought we would spend a lot of days on farmers' plots or working in the agroforest. You know, I wanted to see seed banks, I wanted classes on bees with the beekeepers directly in contact with the hive, animal production classes taking care of actual animals like cows, pigs, chickens. I came with this in mind... I really like practice, I like the actual work. Theory makes me really tired. Practical work soothes me. I like the course, it's very interesting, the theoretical part is essential to understand how things work. But I get really restless sitting down in class all day... I am unable to absorb all the information in theory [...] To work with conventional farmers and try to convince them to come to the organic side, I'm going to need other tricks. To show in practice that agroecology works, that to plant without pesticides works... For example, I know that you need to integrate this or that type of plant to the canteiro to fixate nitrogen in the soil or help keep the soil moist. But making a canteiro here in the South is one thing. Making a canteiro in the semi-arido is different, it's a different soil, a different way, a different climate, and this is what is missing in our course. In theory you have to raise the canteiro if the locale is very humid, you have to use the cata capim [a small tractor designed to cut up grass and leave the soil covered]. But in practice, each place and each region is different. And how am I going to learn this if I didn't get any practice anywhere? How am I going to manage to do this and show a farmer?

Beyond broad principles, such as paying attention to soil coverage, water resources, plant cycles, and fostering simultaneous production for subsistence and for the market, “practical agroecology” in each of these regions is substantially different. This is precisely why it is so difficult to give a definition of agroecology beyond these broad “context-sensitive” principles. Practical agroecological learning always depends on local and regional ecological conditions and configurations of markets, land tenure, and policy. This, combined with students’ difficulty to practice *Dialogo de Saberes at home*,²⁵⁵ meant some students living in substantially different ecological regions from the Terra Prometida settlement felt their education was too theoretically removed to make them legitimate agroecological educators elsewhere.

7.6 Gender: The greatest contradiction

This brings us to one of the biggest contradictions I witnessed during my stay at ERS: the fact that young female students felt gender relations held them back from feeling secure and taken seriously in their role as agroecological educators. As indicated in previous chapters, gender relations were a major preoccupation at ERS and during my fieldwork in general. Many people of both sexes—students, educators, settlers—said to me that their definition of agroecology included a transformation of social relations between men and women and within families. For example, Izaura, a pious young woman from the northeastern state of Bahia, told me:

We could understand agroecology as simply a way to produce in a sustainable way, without using pesticides. But at the same time I’ve been cultivating a different idea. Agroecology is part of being (*faz parte do ser*),

255 In some instances, like that of student 8 from the conversation reported earlier in this chapter, students reported that their frequent and long absences from their community caused by their education at ERS (sometimes associated with a remunerated Frente de Massa role or some kind of personalized financial assistance coming through the MST) caused *fofocas* (gossip) and hostility towards them in their community. This was the case of two students who reported having the greatest difficulty planning agricultural activity when they were at home, and having been ironically called *mochileiros* (backpackers) and accused of trading the hard work of cultivating the land for a life as professional activists.

and at the same time agroecology is in the partnership between humans and nature, and between the individual and the family. Agroecology can be applied within the family. If you produce agroecologically but you don't have good domestic relationships, with your partner and your children, I think agroecology is not being applied well, because you have to have this understanding. It's about production and about the family²⁵⁶

As we saw in Chapter 5, for many young people at ERS, agroecology was more expansive than organic farming. It included a redefinition of what constituted productive agricultural labour and reproductive domestic labour, and the “de-naturalization” of what religious discourse and rural culture had construed as women's natural role in the family—first, as the property of her parents and later her husband, as a reproducing body and devoted mother, and as an invisible worker and caregiver, physically incapable of certain “men's tasks.”²⁵⁷ In the same way that Leite and Dimenstein (2012) report that female MST militants' political involvement created tensions with the gender behaviors that were expected of them in their family units, I found that female students at ers highlighted that their realization that gender relations could be problematized had been ignited by their stays at the school:

This was particularly linked to the cohort's five outspoken feminists—who seldom missed an occasion to criticize macho attitudes, the invisibilization of women's labor in agriculture and the extent to which women were subjected to sexual violence in Latin America. These women had been exposed to feminist discourses and training through rural and urban political organizations, and were unwilling to submit themselves to the same existence rural women had often lived—that of hard-working agricultural producers whose non-domestic labor went unrecognized, against whom sexual aggression, lack of family planning autonomy and disrespect is normalized, and who lack decision power on production and financial decisions that affect them.

256 Interviewed on 17 and 18/06/2017 in L_ (Brazil).

257 These ideas have been the focus of an encyclopedic volume of literature by different streams of feminist thinkers, social reproduction theorists, anthropologists, sociologists and historians, but I want to keep the focus on my empirical data. For a review, see Smyth et al. (2018).

Overall, female activists (whether they had previously been exposed to feminist discourses or not) felt more politicized thanks to their education at ers, and did not conceive of agroecology without recognition of female labor and leadership. On the other hand, this made them feel all the more strongly the contrast between feminist discourses put forth by LVC and the MST, and the way their male comrades, acquaintances and family members often treated them.

When I started my research, gender relations was not set to become a focus of my investigations although I knew that gender was highly contentious within MST spaces and the left in general. Indeed, intimate conversations with female rank-and-file MST members and militantes - and the words of some anthropologists who have paid attention to them and their specific struggles (see Flynn, 2010; Caldeira, 2009; Gurr, 2017)—quickly render obvious the fact sexism and machismo are central issue in MST spaces. This takes on different and complex forms according to different generations of women and types of spaces, as I have touched on in Chapter 4 in the context of Terra Prometida's female settlers' relationship with agroforestry. The MST has made obvious for quite some time now that its struggle is not only for land, but also importantly a dispute on how to use the land, including social relations that underlie emancipatory, revolutionary projects.

What the MST does and has done to advance women's rights and leadership is the subject of much discussion and controversy both within the MST and the Brazilian radical activist scene, and in the specialized academic literature. The MST stems from Brazilian society, one in which the weight of violence against women is very heavy and where women bear the brunt of reproductive and care work in rural families and communities while their productive labor is often dismissed as "just helping her husband" (Rua and Abramovay 2000, 283), so it is unrealistic to expect an absence of reproduction of these patterns within the MST.

Overall, it can be said that rural women in movements advocating for small-scale agriculture face the great contradiction of struggling for the reproduction of so-called "family agriculture" while also struggling internally against a conception of "family" which devalorizes their labour and autonomy (see for instance Garcia et al, 2013). For example, Rubin and Sokoloff-Rubin (2013) tell the story of the formation of the

Movement of Peasant Women (MMC) in the 1980s in parallel to the MST, emphasizing the fact that many young women who initially placed their hopes in the early MST ended up splitting off to form their own movement out of frustration after their specific concerns were dismissed by their male comrades and framed as a low priority, secondary struggle compared to class struggle instead of a central part of it.²⁵⁸ These women then organized autonomously, eventually winning many of the social rights that rural women have today in Brazil (including welfare-sponsored maternity leave and a pension independent from their husband's).

Although the MST's decision-making structure theoretically demands one male and one female coordinator at each level of decision-making and its instances include a gender sector and an LGBT committee which organize workshops, political training and base work activities around gender and feminism, it is indeed the case that many women suffer sexual, financial, physical and psychological violence in MST spaces. This fact is widely acknowledged by many female MST activists and members (see also Deslandes 2009; Flynn 2010a), and increasingly recognized by leadership (at least discursively) as an important mobilization issue. What is in dispute is the extent to which MST structures create favourable conditions for women's emancipation and safety, what constitutes women's emancipation in the Brazilian context and whether a younger generation of girls and women is prepared to stay in MST-led communities (Deere 2004; Brumer and Anjos, 2008).²⁵⁹ Spending time in ERS: I

258 See also Siliprandi, 2015 for an ecofeminist analysis of women's political participation in the agroecological movement including the MST and the MMC.

259 Gurr's multi-sited doctoral dissertation (2017) explores the crucial question of youth and gender within the movement in different regional context, concluding that patriarchal structures are heavily present in both rural families and the MST's political training for youth, especially in the northeastern region, and that some youth see in the movement both old-school activism that doesn't respond to their dreams and hopes, and as a way to escape the heavy weight of unpaid labour in patriarchal families. Caldeira's work on women in MST encampments in Rio de Janeiro state (2009) shows that women face significant difficulties participating as equals. Various policies of the Workers' Party governments (2002–2016) supported by the MST actively tried to empower rural and poor women by making them the obligatory recipients of payments for family support (Bolsa Familia) and, in the case of rural women, of the Programa de Aquisição de Alimentos (PAA), which organized public acquisition of food products from small producers for donation to charities and local organizations: the results of these policies have all been positive on women's financial autonomy (Siliprandi and Cintrão 2011). In the case of specific spaces where work is orga-

soon learned through experience how omnipresent a *questão do gênero* [the issue of gender] was.

On the first Saturday night I spent at ERS for my doctoral fieldwork, there was a small party, almost every Saturday. Cultural Nights (*noite cultural*) are supposed to be a space for counter-hegemonic bonding and cultural display (Gurr 2017; Gurr forthcoming), but were often little more than a dance party where sexual and cultural tensions came out in the open. That night, still new and fairly shy, I was sitting on the side of the class plenary—turned into a dance floor for the occasion—and chatting with Claudia, another doctoral student on a field trip to ERS. Suddenly, a pair of young men walked up to us like they owned the room. They looked about twenty years old. They started chatting us up, making clear sexual innuendos, and getting physically close. Eventually, we told them off, and were visibly uncomfortable. The two boys giggled and sneered before backing off. It turned out they were part of an informal clique within the cohort who gave themselves the nickname of *chifrudos* (horned animal / cuckold).

The clique was made up of gregarious young men who seemed to only walk around in groups of two to five, took a lot of pride in their group identity, shared the same dormitory room (the door of which they had decorated with a horned cow's skull) and didn't like to interact with feminists, some of whom also refused to talk to them. They often played soccer while other people were finishing work on Saturdays during the scheduled *mutirão*. They always rushed to the cafeteria at mealtimes, standing first in line to fill up their plate with two or three individual allowances of meat—sometimes causing shortages at the back of the line, in spite of repeated protests from fellow students. They also seemed to consider participation in seminars about race and gender optional. Many people complained about them controlling the

nized collectively, MST spaces organize day car centers and sometimes a shorter workday for the same pay for women as a recognition that they have to deal with domestic labour (see for instance Salvaro 2003). A comprehensive book (Rua and Abramovay, 2000) concludes that the construction of a female political subjectivity on land reform settlements created favourable conditions for emancipation, in spite of the reproduction of many gender-related issues in the first generation, because it fosters high levels of female education and the creation of female socialization spaces around education and activism (see also Cardoso Pimenta 2006).

playlist during cultural night and imposing sertanejo and valerão traditional music from the south of Brazil, without much consideration for others' wishes, something which often caused other students to boycott cultural night or start a parallel party somewhere else. They never participated in discussion during DK seminars and did not seem particularly committed to either agroecology or socialism.²⁶⁰

The two young men who left Claudia and I uncomfortable were family members of MST dirigentes in Paraná. One of them was the nephew of a regional dirigente living in the Terra Prometida settlement, and the other had family high up in the MST leadership elsewhere. One Saturday night, they strangely deserted the playlist, which made for a euphoric night for other students, playing and dancing to funk carioca, axé, musica popular brasileira and forró, all musics associated with other regions of Brazil, and cumbia, the Paraguayan students' music of predilection. The two young men were occupying opposite dark corners of the plenary room, kissing and groping girls with whom they later disappeared off into the night. It turned out later the two girls were underage—just 15 and 16 years old. They were daughters of Terra Prometida settlers, invited by the these boys. Predictably, the girls' parents complained, and a heated debated ensued in the cohort, with many people calling for the pair's expulsion on the double grounds that they had committed statutory sexual assault and that they contributed to the school's tense relations with the settlement's community. It was said that their behaviour reflected badly on ERS, and strained already tense relations with the settlement. ERS's coordinators later announced they were to be given a second chance after "talking to the leadership in their region," and a private chat with the boys. Geni, normally an outspoken feminist, told me that they had to be given a chance to grow into the mature leaders they could be in the future, in her words "machismo is in them, but it doesn't belong to them." It was hard for me to believe that their status as relatives of MST leaders did not play a role in sheltering them from the consequences of their actions (see also e.g. Flynn 2010;

260 See Flynn (2010), Moscal (2014) and Gurr (2017) for ethnographic reports of shockingly similar events in the MST in other regions of Brazil.

Deere 2004 for other examples of this phenomenon), which were ostensibly against the MST's ethos and collective sentiment in the cohort.

On the other hand, some of the cohort's women were having a hard time getting others to take their experiences of victimization and sexual assault seriously. Several women had been groped or kissed against their will by male peers. They lacked the ability to be taken seriously when they publicly denounced sexual assault (or did not dare to in the first place, and only talked about it in informal settings²⁶¹), and entirely lacked confidence that the male-dominated human relations team would advocate on their behalf. Indeed, many men tended to avoid conflict when women brought up such dynamics, but avoided changing their behavior or calling their peers out on what was theoretically considered off-limit in social movement spaces. As one young man, who'd come to consider himself politically active after enrolling in ERS, told me:

[Prior to his education at ERS], I didn't have any of this perception [of gender], I had this moral perception from going to church. I am an Adventist. This stuff is implanted in our brains, do you understand? My parents have a respectful relationship, but even with them now I sometimes see dynamics that I find absurd, when my father wants to order my mother around. My perception is really different now. I think I'm getting better. But I see a lot of guys of just going quiet to avoid fights, I think the girls are carrying this weight alone most of the time²⁶²

One female student, a committed MST militante in her 30s, had been the victim of a violent crime involving a higher rank dirigente a few months before I came to ERS. Understandably, she was anxious and depressed, and was on the brink of dropping out of the course because

²⁶¹ As in Chapter 5, this reminded me of Lagalisse's (2013) characterization of "gossip" as direct action when female members of emancipatory political organizations suffer sex-based discrimination and are unable to address it collectively through their organization's discussion channels. In this case, women often knew exactly who had been assaulted by whom and talked about it in small groups in private settings but found hard to address these behaviors through the school's collective organizations mechanisms (the *núcleo de base*, the *etapa* evaluations, the human relations collective).

²⁶² Interviewed on 11/04/2018 in L_ (Brazil)

she had been ostracized and isolated for bringing it up—though this had helped others denounce similar facts committed by the same person and file a formal, collective complaint. She had the profile of the “ideal” militante: a mother to young children (whose constant presence with her, while their father was away, was making her all the more exhausted), relatively young, committed to La Via Campesina’s ideals, politically savvy due to her previous militancy in another movement, outspoken, from the countryside, and willing to build her life there. She, and really any of the young women I met at ERS, seemed to be the ideal candidate for militancy and membership in rural social movements.

As Pierre Bourdieu noted regarding rural France (1962), women can be “agents of social decomposition” in rural society. If women choose to leave rural life and do not accept life conditions “on the farm,” opportunities for social reproduction are foreclosed. In the case of movements concerned with legitimating agroecology as a way of life and an alternative for food production, these young women could certainly be “agents of social recomposition” (Lamine 2017, 33) as both settlers and militants. It was perplexing that young men, who were not necessarily concerned with agroecology or social change, were sheltered from the consequences of their actions, whereas young women had to swim against the current to become agroecologists, knowing they would be taken less seriously as rural professionals because of their sex. (Indeed, all students, regardless of sex, stated that they thought a female agroecology technician would be taken less seriously than their male counterparts.) It was troubling that women’s experiences of sexual and intimate partner violence weren’t taken seriously within the organizations they dedicated their lives to—reinforcing their status as second-class citizens and members.

Sexism also manifested itself in women’s inability to get familiar with certain tools and tasks. The same Adventist male student who reported having started to problematize gender relations through his education at ERS said some young men were so offended by feminist declarations that they wanted revenge. Behind closed doors, they reportedly made comments such as: “Let’s put all the girls together to chop wood to show them equality.” There was a whole series of tasks that women were informally not allowed to perform during *tempo trabalho*. Cars

and tractors were male provinces, as it is common for rural young boys and men in Brazil to be instructed how to drive from a young age by male relatives, making them proficient drivers by the time they can take a driving exam. I was myself an exception, being one of the only women around with a driving license. My arrival in the driver's seat of the school's pick-up truck never ceased to amaze male students, and my request for tractor driving lessons, immediately granted due to my European researcher status, inspired a group of girls to request permission as well. One girl, a proficient tractor driver thanks to her family at home, was ashamed to do it at ERS or in public. She explained that her father and brothers had taught her to do it so that she could help on the farm, but she saw it as a disgraceful, unfeminine task. Chopping wood with axes and chainsaws, admittedly difficult for the untrained and people of a smaller build, was also off limits for women (although a student's still child-sized 9 year-old son was being quickly socialized into it by male students). Other male dominated tasks included: supervising the school's fire-based water heating system, fixing up the water storage system when it was clogged, preparing the soil with hoes in the garden, and trimming grass around buildings. It's not that men formally refused to let women performed these tasks, or that women were particularly eager to do them. A lack of familiarity, knowledge, and skills in women who had grown up estranged from these tasks, matched a seemingly natural propensity for men to flock to these tasks.

This made a different order of things, an alternative sexual division of labor, almost unfathomable. This had severe consequences for female confidence as adequate agroecologists. Echoing something most female ERS students told me in interviews or informal conversations, Mayara felt that women were getting a much more theoretical education than men at ERS:

We [women] are stuck within theory. [...] In my opinion, here at the school we are really theoretical, girls are not being taken into account for practice, boys always get to do the practical part. We don't really get to.

Many women retreated to the kitchen, childcare, or administrative tasks, and excluded themselves when it was time to do practical work in the garden. Some felt resentful about it, and suspected that men had simply

stopped talking about gender rather than trying to think about it differently. At ERS, gender was part of the curriculum in the form of conflictual everyday relations, in the theory of *Dialogo de Saberes*, and in different seminars offered to students as political training (although not as much as in other MST-organized agroecological trainings observed elsewhere, Schwendler and Thompson 2017). However, sexist dynamics within movement spaces, often unsanctioned (or perpetrated) by leaders and individuals in positions of power, interfered with rare opportunities to learn valuable skills. Most importantly perhaps, it wound up leaving women feeling like second class movement members and agroecologists.

7.7 Conclusion

In this chapter, I addressed several ways that internal movement dynamics and hierarchies undermine ERS's students' ability to build legitimacy for agroecology and to feel legitimate as agroecological militantes. Such dynamics simultaneously prevent students from gaining practical experience with agroecology—in terms of place-based practice, within the settlement, and in the school itself. Arguably, this will limit students if and when they attempt to build practical legitimacy for agroecology in their networks and local realities. As I have noted, gender relations are a very sensitive issue. Sexist dynamics within ERS discourage women from seeing themselves as capable agroecological experts. This clearly threatens the revolutionary prospects of agroecology. These findings may seem paradoxical for those familiar with the extensive literature on *La Via Campesina's* agroecological educational initiatives (Tardin et al. 2015; Barbosa and Rosset 2017; Martínez-Torres and Rosset 2014; McCune et al. 2017; Meek et al. 2017; Motta 2017). Nevertheless, my engagement with ethnographically rooted critical scholarship (for example DeVore 2015; Flynn 2010; Wolford 2010; Gurr 2017; Caldeira 2009) confirms that findings are part of a broader trend. Positively speaking, such awareness may point a way forward for the MST as it attempts to survive in increasingly troubled circumstances. Under the concerning current rise of the far right in Brazil, which is likely to preside over at least four years of hostility to social movements and dismantling of labor rights and PT-era public policies, the MST cannot afford to alienate women and youth who are committed to its goals and values.

Part IV: Conclusion

Chapter 8: Conclusions

8.1 Introduction

This thesis claimed that ecological transitions within rural social movements have been little explored in the existing critical literature. To address this gap, I proposed to examine how agroecology's legitimacy is built, negotiated, and contested within Brazil's Landless Rural Workers' Movement (MST), a well-known founding member of the global food sovereignty coalition La Via Campesina. I asked the following questions: 1) Why do farmers affiliated with the MST come to embrace or reject its agroecological mission and ethos? 2) To what extent does agroecological education facilitated by the MST create conditions for young activists to identify with agroecology as a political project and to convince others to join it? 3) How has agroecological legitimacy been constructed and contested within the MST?

In what follows, I present the original contributions to academic knowledge I have made with this research. In the next section, I summarize my main findings. Then, I present the contributions I have made to scholarly literatures. Thereafter, I explain the implications of these findings, both in terms of practices for the civil society actors who participated in my research, and when it comes to the avenues I have opened for future research. I conclude the chapter and my dissertation with personal comments on my own evolution as a researcher and the difficulties of making "policy" recommendations in Brazil's current grim political context.

8.2 Main findings

In answer to question 1), the MST-affiliated farmers I came to know rejected and embraced agroecology for reasons directly linked to the MST's internal hierarchies. My research documents how competing notions of agroecology are at the heart of a deep social rift within the Terra Prometida settlement. Many strongly reject agroecology because they associate it with previous attempts to pressure farmers into adopting pesticide-free, collective production methods. They also see agro-

ecology as a means to marginalize and stigmatize particular families, by comparatively high-status individuals involved in MST leadership. The undemocratic imposition of the Ecological Resistance School in the settlement for the sake of the MST's transnational alliances was resented (Chapter 3).

However, I have also demonstrated that settlers who embrace agroecology have largely done so through channels opened by the action of MST leadership. This is exemplified by the centrality of an organic cooperative led by movement-educated settlers who enjoy privileged access to regional MST leadership, which translated into better access to technical training and education, social power, and ideological justification for their decisions. This cooperative successfully mediates between rank-and-file settlers and alternative markets through direct sales schemes, farmers' markets, and government food purchase programs. It also helps settlers gain access to an organic certification network, which further connects producers with consumers. This certainly helps a faction of the settlement to generate income from agroecological production. What is more, the cooperative also played a key role in a series of alternative extension pilot projects, starting in 2010. These initial attempts at agroforestry encouraged some farmers to embrace agroecology for both economic and ethical reasons (Chapters 3 and 4).

It is important to note that rejection of the MST's mandates to produce diversely and without agro-chemicals does not necessarily entail automatic rejection of the organization's agroecological ethos. Among those who do not or have stopped to farm "agroecologically," economic and social constraints are the main obstacles. For them, structural factors, community polarization and family dynamics profoundly influenced decision-making. In other words, limitations were circumstantial, and decisions were not made according to some ideological preference for conventional farming, often the contrary. My findings also suggest that cooperative's leadership was perceived by many settlers to be indifferent to their difficulties (Chapter 3).

In answer to question 2), I have found that agroecological education facilitated by the MST creates conditions for young activists to identify with agroecology as a political project. At the same time, however, certain organizational practices undermined their ability to convince

others to do so. On the one hand, partial movement autonomy over organization and pedagogy in educational spaces allows MST educators to foster understandings of agroecology as a collective political project and experiment with novel and ambitious pedagogical methods. As a result, agroecology has been increasingly understood as more than a way to farm. It is an ethical stance that student-militants cultivate through participation in social movement training (Chapters 5 and 6).

On the other hand, a lack of appropriate training in social scientific methods and the confusion regarding the actual role of agroecological educators within the MST (and its partner organizations) has hampered students' ability to make a good use of grassroots pedagogy, with consequences for their ability to "scale out" agroecology (Chapters 6 and 7). Furthermore, a lack of internal democracy and gender inequality undermines the commitments of rank-and-file members and limits the potentialities of, young activists' to be effective agents of socioecological change (Chapter 7).

In answer to question 3), most broadly, this thesis illustrates the fact that agroecology's legitimacy is fragile and hotly contested within the Terra Prometida settlement. Its construction has heavily relied on institutionally insecure neodevelopmentalist policies and programs, and the semi-autonomy of movement activity within state power spheres (such as education) during the Workers' Party governments. It has also relied on a centralized internal politics that prioritize national and transnational scales of mobilization over local autonomy. This has translated into social power and heightened agroecological legitimacy for those who have leveraged resources through their standing as "good" MST members. The consolidation of agroecology in the settlement opened channels for the circulation of knowledge and ethical values between conservation-oriented scientists, settlers, and food consumers in nearby urban centers. Mediated by urban and rural activists, this had the effect of amplifying agroecological legitimacy beyond the MST into what I claim is an incipient, albeit fragile, sociotechnical imaginary (Chapters 4 and 5).

8.3 Contribution to scholarly literatures

My work makes important contributions to several academic literatures. In the introduction, I placed my work a priori within a series of interdisciplinary, ethnographic studies of the MST (e.g., Cardoso 2002; and Wolford 2003, 2004a, 2004b, 2008, 2010a, 2010b). This literature has stimulated further exploration by critical ally scholars (e.g. Caldeira 2008, 2009; A. Delgado 2008, 2009; Flynn 2010, 2013; Tarlau 2013a, 2013b, 2014a, 2014b; Pahnke 2014a, 2014b, 2015a, 2015b; Pahnke et al. 2015; DeVore 2014, 2015; Meek 2014, 2015, 2016; Gurr 2017; Moscal 2017; Marques 2018).²⁶³ This literature, which should not be conflated with writings by scholars who dismiss the MST and its objectives (e.g. Navarro 2006, 2007, 2010, 2013; Martins 2000, 2003; Graziano 1996, 2017; Rosenfield 2006) has brought forth a nuanced understanding of the MST's internal dynamics and how these are responsive to structural forces.

Although there are nuances within it (with some authors more sympathetic to MST leadership and to Marxian and Gramscian theory than others), this literature adequately constructs the MST as a multilevel, complex sociological and ethnographic object, rather than a fundamentally flawed organization whose time has passed or an idealized revolutionary collective subject. It provides critical perspectives beyond the heroic or Manichean narratives produced by other authors (e.g. Fernandes and Stédile 1999; Carter 2002; Fernandes 2000; Harnecker 2002; Mészáros 2013; Petras and Veltmeyer 2001, 2005; Rubbo 2013) that have often relied on leaders' discourse and the MST's own publications, and prioritized macro-scale structural dynamics and transnational alliances.²⁶⁴

263 These works cover eight Brazilian states (Paraná, Pernambuco, Santa Catarina, Rio de Janeiro, Bahia, Pará, Rio Grande do Sul and São Paulo).

264 Some English-language works on the MST are hybrids in this respect. Carter's (2015) edited volume takes a critical ally position without hiding its extremely sympathetic perspective, and includes chapters that offer a more rosy, descriptive view of the MST and others that address internal power in a more nuanced, less celebratory way. In any case, there is no denying that this volume is a major work in MST literature and offers a mine of information and perspectives to the scholarly reader. Ondetti's (2008) sociological book provides analysis that is not easily qualified as romantic or idealistic, but focuses on movement strategy, agency of leaders, relations with governments and protest as political resource rather than

My findings and methods resolutely place my work within the first body of work I mentioned. It echoes Woford's (2010, 11) finding that only observing "model cases and model members" leads to the production of narratives which elide internal differences. That being said, focusing on a seemingly model case (such as Terra Prometida) from a critical ethnographic lens may be generative of new knowledge. As a result, I included the discourse of model members in my analysis. Paying attention to Mauricio, for example, demonstrates that "leaders" are complex beings. After all, he openly criticized what he called the MST's "messianic Leninism," and suggested that the cooperative should be administratively inclusive of conventional producers. Terra Prometida was an ideal space from which to observe various levels of mobilization, urban and rural links, as well as the local, regional, national, and transnational dynamics, helping to reveal frictions between scales of political mobilization that Woford herself (2010) highlighted (see also DeVore 2015) and that some of the critical food sovereignty literature (e.g. Agarwal 2014; Patel 2009; Wit 2016) identifies as major contradictions in food sovereignty practice. My study suggests that prioritizing the transnational scale of mobilization over local autonomy and conceptions of justice and democracy (in the case of ERS' imposition on Terra Prometida, for instance) can simultaneously widen movement access to resources and public attention, while limiting agroecological legitimacy for movement-affiliated farmers and future technicians (what I have called the scaling "in" of agroecology). These are complex problems, unaddressed by previous scholars of non-LVC transnational mobilization (e.g. Della

on internal dynamics, different sociological positions within the MST, and changing conceptions of membership. Robles and Veltmeyer's (2015) tome does acknowledge as early as its preface that resources scarcity, internal conflicts and ideological differences significantly complicated their initial ideas. They go on to a robust analysis that spans three Brazilian states, whose conclusions aren't too optimistic (they ultimately argue that "the MST has very limited capacity to promote far-reaching structural changes in the Brazilian countryside") but fail to elaborate on internal hierarchies and take for granted that MST action has been environmentally positive. Pahnke's recent book (2018) adds to this by moving away from his more critical doctoral work (2014a, 2014b, 2015a, 2015b) to reproducing movement rhetoric ("airbrushing" research to fit a research partner's agenda, in the words of Edelman 2009) in arguing that the MST has been "constructing democratic ways of governing economic, political, and social life in collectivized production cooperatives, movement-run schools, and decentralized agrarian reform encampments and settlements."

Porta and Tarrow 2004; Della Porta and Diani 2006; Santos 2006) and by the only overview book on *La Via Campesina* (Desmarais 2007)

While the body of literature within which I locate my work has abundantly examined settlements, schools, land occupations, and political mobilization events, only two authors in the English speaking literature (A. Delgado in Paraná, Rio Grande do Sul and Santa Catarina, and Meek in Pará) have examined the MST's "green turn," and its decision to "ecologize" production methods and promote agroecology. This move was, in part, prompted by its relationships to partner organizations in *La Via Campesina*—relationships which Desmarais (2007) celebrates without addressing how they are actually coordinated in everyday settings, power-laden, and generative of tensions. In contrast, my study is the first one to shed light on a critical ethnographic perspective on an important node for this "green turn" in MST and *La Via Campesina* networks: the Terra Prometida settlement and its oft-praised transnational activist school, ERS. In particular, my study shows that contrary to what is often taken for granted by the more celebratory literature on rural social movements and ecological transitions in agricultures (e.g. Wittman 2009; Altieri and Toledo 2011; Martinez-Torres and Rosset 2012, 2014; McCune et al. 2017; Massicotte and Kelly-Bisson 2018), rural social movements produce complex and contradictory effects on both local ecological transitions and young activists' capacity to promote agroecology as a politicized alternative to agribusiness. This literature generates uncomplicated narratives that are good for movements' image on the strategic level of international solidarity partnerships and the discursive practices of the global justice movement (see also, Deslandes 2009). They help prop up academic careers, and further access to research sites. However, such efforts do not necessarily constitute solidarity with actual rank-and-file members of grassroots organizations (see also, Edelman 2009). They do not shed light on the social challenges farmers face as they strive to "ecologize" their practices. They do not encourage social movement actors to modify internal practices so as to better attain their objectives.

My findings support A. Delgado's (2008) claim that the introduction of agroecology and agroecological expertise within communities creates new distinctions, hierarchies, and conflicting views of the

role of activists with specific training in “ecologizing” agriculture. I also showed the continued relevance of Pahnke’s (2014b) concept of “self-governmental resistance” to explain MST-state partnerships. My analysis, however, offers a critical insight: the semi autonomy of a social movement school can lead to the implementation of ambitious, experimental social methodologies without adequate methods training or support in social networks. This fragile and contested grounding does little to advance the “resistance” part of “self-governmental resistance.”

This study contributes to understandings of agroecological education and “critical food systems education” (Meek and Tarlau 2016) within the MST. My findings are reminiscent of Meek’s (2014a), who suggests that institutional partnerships with the public education sector help “maintain the active political participation of [movement members]” (Meek 2014a, 235) and create educational opportunities for MST members (and in the case of ERS, members of other allied movements) which doesn’t necessarily lead to immediate movement decline or co-optation.²⁶⁵ However, my research illustrates that this doesn’t always constitute “place-based critical education” (Gruenewald 2003; Meek 2015) or easily translate into students’ ability to foster agroecological legitimacy in practice (this especially applies to female students). A link between the two cannot be presumed, and this disconnect may have consequences for the movement’s sustainability over time.

Finally, this research fills an important gap in understanding the relationships between social movements, rural youth, gender, and the “generation question” of agriculture (e.g. Rua and Abramovay 2000; Caldeira 2008, 2009; Deere 2004; Delgado 2008, 2009; Flynn 2010; White 2012; Siliprandi 2015; Gurr 2017; McCune et al. 2017). For instance, Flynn (2010) argued that ideological flexibility, coupled with the equitable treatment of women and young people may be key to the MST’s capacity to adapt in the future. Gurr (2017) highlighted that movements-affiliated rural youth’s subjectivities, aspirations, and trajectories have been extremely understudied and misunderstood. In the context of agroecological education, my findings confirm that a lack of

²⁶⁵ This is also an argument that Flynn 2010, Tarlau 2014 and Pahnke 2014a, 2014b make, contra mainstream social movement theory (on this, see Flynn 2010 for a discussion).

internal democracy and gender equality threatens movement reproduction—both in the present and (not so distant) future. Clearly, the participation of young people, especially women, in rural life is central for fostering attractive conditions for second and third generation settlers and mobilizing new members. My study also seconds Delgado's (2009) insight that a younger generation of activists has developed a more transformational and emancipatory understanding of agroecology than their older peers. Again, hierarchical practices within the movement present significant obstacles to agroecological mobilization potential (this is especially true given the hostile present political context).

Another important contribution of this work is to develop Wit and Iles' (2016) insight on the concept of legitimacy and its explanatory potential when it comes to understanding why food systems are the way they are and how they can be transformed. I showed it does have explanatory power for understanding why grassroots members of a farmers' organization accept or reject agroecology.

This dissertation is rooted in an empirical approach, which allows me to theoretically fuse the insights of Wit and Iles' (2016) approach with Elias and Scotson's (1965) classic microsociological understanding of community divisions. It also engages with recent approaches in organizational sociological theory (Johnson et al. 2006), STS (Warner 2006; Jasanoff and Kim 2009, 2013, 2015), rural sociology (Lamine 2017; Bellon and Ollivier 2018) and environmental sociology (Carolan 2006; Goodman et al. 2012), these last categories often blending together when it comes to studying food systems. Based on this corpus and on my empirical research, I have come to understand that legitimation (the construction of legitimacy) is a social, subjective, and dynamic process that does not only relate to formal government and political leaders' Weberian "right to rule"; it is a useful concept when analyzing competing knowledge claims in the context of food production and consumption, and how these are generated, embedded in policy and infrastructure, normalized, validated, embodied, contested, materialized, and expressed by different actors with different political goals in different arenas (for example, civic, legal, practical, scientific; see also Wit and Iles 2016). It is more political and material than general notions of "acceptance." Moreover, I built upon Jasanoff and Kim's (2009, 2013, 2015)

notion of the “sociotechnical imaginary” to highlight how agroecological legitimacy cannot be understood separately from both a global ethical vision and the local and regional alliances the MST makes with other actors (scientists, urban activists, food consumers) that share its ecological vision and help sustain local agroecology initiatives in practical ways.

One very important aspect of broadening the legitimacy of alternative agricultures is located in the ethical realm. I agree with Wit and Iles (2016, 16) that “the willingness of people to accept (or tolerate) a particular order” is central to legitimacy within the debate concerning food systems. Building ethical legitimacy for agroecology, then, means successfully promoting values in opposition to those associated with conventional agriculture. When viewed through an agroecological perspective, conventional agriculture comes to appear abnormal, undesirable, or outright immoral. This is a strong source of legitimacy for alternative agriculture because it does not draw solely on economic opportunities and incentives, but on personal beliefs about what is right and wrong, and sense of ethical agency. I have shown that ethical legitimacy—both when it comes to environmental impacts of agriculture, health impacts on consumers and non-humans, and the duty to provide others with a diversified and high-quality diet—is a powerful motivation for “ecologized” agricultural practices (or at least a sense that they are right and an ideal to strive for).

Finally, my study takes a stance on the necessary inclusion and importance of debates and methods from social anthropology, social movements studies, rural sociology, environmental sociology and environmental anthropology (including, but not limited to, multispecies and more-than-human approaches, e.g. Haraway 2008; Dooren et al. 2016) for the environmental humanities (EH). I stress the value of including social scientific insights and methods in research (e.g. Buttel 1993; Carolan 2006; Norgaard 2006; Skogen and Krange 2003; Tsing 2015; Todd 2017) within the EH. Although a number of authors have discursively affirmed the integration of the social sciences in this emerging field (Rose et al. 2012; Neimanis et al. 2015; Emmett and Nye 2017; Iovino and Opperman 2017), thus far, the EH have been grounded in environmental historical and ecocritical perspectives and methods; sociology and anthropology have been treated as related to, but separate from, the EH’s

construction as a field. If the EH seek to further scholarly understanding of entanglements between “culture” (something anthropologists have been debating since the origins of the discipline), values, meanings, identities, power relations, ethics and changing notions of community, there is no way around engaging with these existing debates and practicing immersive empirical research. It is impossible to compartmentalize environmental ideas from their particular contexts, histories, and networks of circulation—through social actors and practices.

8.4 Implications and future research avenues

Social polarization and sometimes undemocratic internal politics have resulted in alienation of many farm families from agroecology in Terra Prometida. They have become further dependent on elements of the conventional food system, such as corporate-owned chemical inputs, market-based technical assistance, intermediaries, and high personal debt. This has immense implications for both research and internal MST practices, even more so in Brazil’s new far-right political context.

While it would be an overstatement to affirm that my findings are easily generalized to the entire MST, my study suggests that the agroecological transition within its communities is rather limited. Thus, future research must ask similar questions of other settlements and training centers affiliated with the MST and other La Via Campesina movements, in Brazil and in other contexts. This is crucial if activists and scholars are to understand how the MST and other civil society organizations can better foster agroecology in ever-changing political contexts. Can they do so without alienating their grassroots when they lack societal support? My work also shows that in-depth engagement and ethnographic methods are necessary tools to this end, and they allow researchers to pay heightened attention to everyday practices, contradictions between discourse and action, and add complexity and nuance to their analysis.

If Flynn (2010) conducted his ethnography at the height of the PT years and Gurr (2017) conducted hers “in the twilight of the PT years,” the period during which my fieldwork took (2016–2018) place was marked by the transition to a post-PT, post-commodities boom political and economic depression. This culminated in the recent election

of an openly anti-movements and pro-agribusiness far right president, Jair Bolsonaro, who took power in January 2019. Since his administration has shown open hostility to social movements like the MST, state support for agrarian reform initiatives is likely to be even further weakened. Already since 2016, budget cuts to the PAA program has started to pitch cooperatives into a competition for state resources, and alter the capacity of individual families to subsist on these meager production contracts (meanwhile, budgets for technical assistance on settlements were often suspended). This could have a renewing effect on social movement membership and political mobilization by cutting opportunities and resources rural people will have access to, but could also further weaken movements' opportunities to introduce conditions for agroecology within their membership base.

In this context, it is more crucial than ever to associate the consolidation of local experiences (such as the impressive achievements of the *Liberdade* cooperative and *Rede Ecovida*) to resolutely democratic, conciliatory and pragmatic internal politics, rather than prioritizing personal power and apparent ideological conformity. For the MST, lessons from *Terra Prometida's* story might include the need to build momentum and a good knowledge base before attempting to implement high-stakes initial organic projects within communities (which the MST as an organization did not have the capacity to do in 1999, but does now thanks to the resources it has managed to mobilize during the PT years). It may also be wise for the movement to extend "agroecological" solidarity to the people I called "in-betweeners" in moments of vulnerability. I also suggest that leadership ought to dialogue with conventional settlers around the cooperative. Including these settlers administratively²⁶⁶ in the cooperative could be a way to start bridging the "agroecological rift" and even eventually persuade some of them to adopt agroecologi-

266 Total inclusion of conventional settlers in cooperative practices, such as sharing trucks, tractors, storage spaces and other equipment, is impossible due to organic certification legislation and *Rede Ecovida* internal norms. However, including these settlers in the cooperative administratively would help them retain a lot of value lost to intermediaries and external cooperatives. However, this might be made entirely impossible due to new PAA rules, which favor 100% organic cooperatives: inclusion of conventional settlers could mean the loss of future PAA contracts for *Liberdade*.

cal methods. More generally, my work clearly shows the importance for future research to look into how ecological ideas and social practices meant to scale ecological agriculture “up” and “out” have entailed internal divisions and actual retrogression of ecological farming practices in projects set up by social movements, NGOs, and governments. Our current context is one of rapidly escalating global climate change, which calls for quickly cutting greenhouse gas emissions (to which current food systems are at present high contributors) and transitioning to more resilient and regionalized food systems. Agroecology and other types of “ecological” agricultures appear to be one avenue of great importance for the future of agriculture and global food production. However, how *socially* sustainable are they? Will farmers adopt them, and under what conditions? Is the rural exodus irreversible? What tensions exist between ecologization and democratization (see also A. Delgado 2009)? How can civil society organizations foster the widening of the legitimacy of ecological agricultures among farmers and consumers of food?

My research points to the prevalence of intense desires for the conciliation of rural life, agriculture, and ecology among both established farmers and young adult students enrolled in movement-mediated agroecological training courses. This challenges notions that the rural exodus is inevitable (and desirable), and that agricultural futures depend on highly mechanized production and limited employment. However, alternative rural futures may only be achieved if structural and social conditions are attractive to young women and men. Focusing on these demographic shifts both in research and social movement activism will be crucial in the next decades (see also Gurr 2017). The younger generation may soon have the opportunity to break the more hierarchical structures created by their parents’ and grandparents’ generations within the MST and critically overturn concentration of power with the organization’s leadership.

Finally, my research points to the importance of fostering partnerships and a common ethical vision upheld by concrete material action within civil society—with scientists, academics, students, urban activists and consumers of food for the expansion and social sustainability of agroecology. I have likened this to the notion of the “sociotechnical imaginary” (Jasanoff and Kim 2009, 2013; Jasanoff 2015a, 2015b). My

work could be the starting point for future expansion of the understanding of agroecology (and other forms of ecological agriculture) as a sociotechnical imaginary. For example, how may we better foster the circulation of ideas relating to scaling up, out and “in” ecological agricultures, and their “re-embedding” in local production and social systems? What are the tensions within a kind of agriculture that claims to be highly context-dependent, yet has become a global mobilizing keyword, and how do we overcome them? What places do ideas about health, non-human agency, desirable technologies, the social functions of scientific knowledge, and forms of collective labor and property hold in the agroecological sociotechnical imaginary? How do conceptions of agroecology relate to ideas of common, non-apocalyptic, “good” future lives without eliding existing power relations, as actor-network oriented approaches arguably do (Jasanoff 2015a)? How might this be translated into suggestions for education and political organizing at different scales of government and civil society action? These are some questions that could be asked by a future book aiming to explore this topic.

8.5 Personal outlooks and the limits of policy

One may ask why I do not offer explicit policy recommendations to the official government in Brazil, for example when it comes to programs fostering agroecological education, extension and market access. The notion of policy implies a liberal state with a rational approach to using resources for the greater good. Clearly, this has not been the case when it comes to food systems given the current crises, whose most visible symptoms are a sharp global decline in pollinating insect populations, catastrophic poisonings, health issues linked to pesticides and inadequate nutrition, global soil erosion and deforestation, water pollution, and dramatic rise in food system related greenhouse emissions. My recommendations would likely fall on deaf ears in Brazil, as the agribusiness-backed new administration has promised to open up the Amazon for mining and agribusiness, to deregulate agrochemicals, to treat social movements as criminal organizations, and to block land reform. The closest thing I can give to “policy” recommendations for future progressive governments is to focus on achieving durable knowledge sharing,

access to agroecology-tailored credit lines, and market access through law-enshrined programs such as the PNAE (rather than easily undone policies, as is the case of the PAA for example).

I started this research project in a very different Brazilian political context than I finish it, at a time that seemed like a globally more hopeful conjuncture. I was both more naïve about the MST and its internal dynamics, and more optimistic about the extent of agroecological legitimacy within the movement. I finish this research project more intimately acquainted with the MST's internal workings. The MST's tactics and oppositional identity have been perceived with hostility by large segments of the population (Flynn 2010), which came out very clearly during the 2018 elections, as I was writing this dissertation. Moreover, the erosion of grassroots organizations on the model of the Base Ecclesiastical Communities, and the concurrent rise of neo-Pentecostalism means a shift in potential recruitment channels for social movements (see Chapter 4; see also Burdick 2009). The election of President Bolsonaro, who promises to enhance popular access to weapons, supports the rights of private property above human rights, and proposes of the criminalization of movements that “invade the property of others” (Folha de São Paulo 2018) arguably calls for a reinvention, or at least profound reflection on social movements' tactics. This indicates the difficult circumstances confronting movements for agrarian and urban reform—as criminalization effectively delegitimizes landless politics.

Given such a scenario, it seems likely that ecological agriculture, with its focus on feeding the national population and poor school children, keeping agrarian reform settlements socially thriving, preserving resources like forests and water, and producing food seen as healthy, will be a point of ethical and practical convergence with a broad range of allies. These include working-class families who have benefited from the PNAE and PAA food programs, urban activists and the middle classes, religious leaders, and international allies. In this new era, agroecology has arguably become as important to the MST's survival (as both an organizational tactic and as an ethical discourse on land reform) as traditional mobilization activities, such as occupations, marches and demonstrations. Its current contested legitimacy, for reasons that are not only structural but also internal, alerts us to the necessity of profound transformation.

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References: Original interviews

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- Adam* (student), interviewed by author, 10 July 2017.
- Afonso* (long-time MST militant, settler involved in MST state coordination and central cooperative coordination), interviewed by author, 3 June 2017.
- , interviewed by author, 3 April 2018.
- Alessandra* and Francisco* (couple organizing distribution of agroecological produce through PAA in Curitiba), interviewed by author, Curitiba (Brazil), 11 December 2017.
- Alexandra* (student), interviewed by author, 26 November 2017.
- Alice* (settler), interviewed by author, 30 October 2017.
- Amadeus* (settler), interviewed by author, 6 April 2018.
- Ana* (MST Paraná culture sector), interviewed by author, 30 November 2017.
- Anderson* and Dilma* (young relatives of a settler, residents of the settlement), interviewed by author, 5 April 2018.
- Andreia* (student), interviewed by author, 5 July 2017.
- , interviewed by author, 29 October 2017.
- Ariane* (student and ERS worker), interviewed by author, 29 October 2017.
- Ayrton* (student), interviewed by author, 26 November 2017.
- Bernardo* (settler and ERS worker), interviewed by author, 6 June 2017.
- Bernardo* (settler and ERS worker) and Cristina* (settler and settlement school director), interviewed by author, 29 November 2017.
- Beto* (ERS graduate and worker), interviewed by author, 21 June 2017.
- Camilo* (settler), interviewed by author, 5 April 2018.
- Clara* (student), interviewed by author and Alessandra S., 18 June 2017.
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- Claudia P. (archaeologist at Museu Paranaense), Curitiba (Brazil), interviewed by author, 4 December 2017.
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- Igor* (Liberdade cooperative temporary worker and ERS graduate), interviewed by author, 14 June 2017.
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How are agroecological transitions and rural development alternatives experienced by farmers and rural activists?

To explore this broad issue, Claire Lagier examines how agroecology's legitimacy is constructed and contested within the base membership and transnational networks of Brazil's Landless Workers' Movement (MST). The MST's politics of land redistribution—as well as campaigning for sustainable rural livelihoods and education—have attracted significant attention worldwide, as have the food sovereignty alliance La Via Campesina's agroecological training centres. However, few ethnographic studies have focused on the lived experiences of several generations of activists as they struggle to generate ecological transitions in the food system.

Addressing this gap, Lagier's study draws on intensive fieldwork carried out in Brazil in 2017–2018 alongside farmers living in a settlement affiliated with the MST, as well as young Latin American food sovereignty activists taking part in agroecological education.

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