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# Constructing a Counter-Discourse: Agroecological Formação at the MST's Milton Santos School

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#### <u>Abstract</u>

The Brazilian Landless Rural Workers' Movement (Movimento Sem Terra, MST) is one of the largest social movements in the world. Situated in a country with extremely unequal land distribution, the MST was originally concerned with obtaining land for agrarian reform settlements through the occupation of *latifúndia* (large estates of the landed elite). However, after realizing its struggle over land rights was rooted in deeper structural issues in Brazilian society, the MST broadened its goals to seeking wider societal change. Over the past thirty years, it has evolved into a movement that pursues social justice by challenging dominant capitalist discourses. This thesis focuses on one tactic in the pursuit of this goal: the movement's incorporation of agroecology into its official discourse and the subsequent establishment of agroecological schools to disseminate agroecological knowledge across the movement. It argues that adoption of agroecology as both a set of scientific agricultural practices and a new way of life serves as a key strategy in the MST's counter-hegemonic project. Drawing on Antonio Gramsci's theory of hegemony, complemented by Michel Foucault's understanding of discourse, this thesis traces the incorporation of agroecology as a strategy in the MST's "war of position" to change the "common sense" in Brazilian and wider global discourses on agrarian reform. Through peasant pedagogy ("formação") – both in the classroom and through daily activities – the MST's agroecological project seeks to construct new understandings of people's relationships with nature and each other.

# CONSTRUCTING A COUNTER-DISCOURSE: AGROECOLOGICAL *FORMAÇÃO* AT THE MST'S MILTON SANTOS SCHOOL

By:

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B.A., Glendon College, York University, 2012

Thesis

Submitted in partial fulfillment of the requirements for the degree of Master of Arts in Geography

Syracuse University

June 2015

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## **Glossary of Portuguese Words**

Acampada – The "encamped," or the people who occupied the land and set up the encampment

Assentada – "Settlers," living on land reform settlements

*Campesino-a-campesino* – farmer-to-farmer (methodology)

Ciranda – day care

*Companheiro/a* – Akin to "comrades" or "brothers and sisters"

Coordenação - the coordinators at the EMS

*Formação* – a process of political and ideological training and education through everyday experiential learning, the shaping of ideas and worldviews, as well as more traditional classroom and technical training

*Horta* – garden

Latifundiário – large landholder

Latifúndia – large estates of landed elites (singular: latifúndio)

*Militantes* – activists (militants)

*Minifúndia* – small land holdings

Mistica - Mistica is an important aspect of the movement's coherence, practiced through art, symbolism and music, as a way of strengthening collectivity, solidarity and empowerment. It maintains the memories of the movement's decades old agrarian struggle for the right to produce on land for subsistence and livelihood.

Movimento dos Trabalhadores Rurais Sem Terra – Landless Rural Workers' Movement

*Mutirão* – the time during which weekly group chores are done at the EMS

*Quilombola* – a resident of a *quilombo* (a rural settlement of Afro-Brazilian slaves who escape slave plantations

Sem Terra – Landless

*Seminário* – an annual meeting wherein the residents of the school discuss the political and social context of their struggle and plan for the upcoming year.

Tempo Comunidade - Community Time

Tempo Escola – School/Classroom Time

#### Acronyms

**CAC** – *Campesino-a-campesino* (Farmer-to-farmer)

CNBT – Coordenação de Núcleo de Base da Turma (Base Nucleus Coordinator for the Cohort)

CNBE – Coordenação de Núcleo de Base da Escola (Base Nucleus Coordinator for the School)

**CAPP** – *Coletivo de Acompanhamento Político-Pedagógico* (Political-pedagogical support collective/group)

**CPP** – *Coletivo Político-Pedagógico* (Political-pedagogical collective/group)

**DS** – *Diálogo de saberes* (Dialogue of knowledges)

EJA – Educação de Jovens e Adultos (Youth and Adult Education)

EMS – Escola Milton Santos de Agroecologia (Milton Santos School of Agroecology)

GMO – Genetically Modified Organism

IMF – International Monetary Fund

**INCRA** - *Instituto Nacional de Colonização e Reforma Agrária* (National Institute of Colonization/Settlement and Agrarian Reform)

**ITEPA** – *Instituto Técnico de Educação e Pesquisa da Reforma Agrária* (Technical Institute of Agrarian Reform Education and Research)

LVC – La Vía Campesina

MAPA – Ministério da Agricultura, Pecuária e Abastecimento (Ministry of Agriculture)

MDA – Ministério do Desenvolvimento Agrário (Ministry of Agrarian Development)

MST – Movimento dos Trabalhadores Rurais Sem Terra (Landless Rural Workers' Movement)

NB – Núcleo de Base (Base Nucleus or Core Base)

NGO – Non-Governmental Organization

PNRA – Plano Nacional de Reforma Agrária (National Plan for Agrarian Reform)

**PROEJA** – Programa Nacional de Integração da Educação Profissional com a Educação Básica na Modalidade de Educação de Jovens e Adultos (National Program for the Integration of Professional Education with Basic Education for Youth and Adults)

**PROMET** – *Projeto Metodologico* (Methodological Project)

**PRONERA** – *Programa Nacional de Educação da Reforma Agrária* (National Program for Agrarian Reform Education)

PT – Partido dos Trabalhadores (Workers' Party)

**SOCLA** – *Sociedad Cientifica Latinoamericana de Agroecologia* (Latin American Scientific Society of Agroecology)

**STJ** – *Superior Tribunal de Justiça* (Superior/High Court of Justice)

UFG – Universidade Federal de Goiás (Federal University of Goias)

WTO – World Trade Organization

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#### **Chapter One: Introduction**

#### EXPLORING THE ROOTS: GRAMSCI, FOUCAULT, AND THE MST

#### I. **REFLECTIONS**

#### Lutar, construir reforma agrária popular! Lutar, construir reforma agrária popular!<sup>1</sup>

Standing in a circle in a large meeting room at the Milton Santos School of Agroecology (*Escola Milton Santos*, EMS) in Paraná, Brazil, I chanted these words with over two-dozen members<sup>2</sup> of the Brazilian Landless Rural Workers' Movement (*Movimento Sem Terra*, MST). It was one of the rituals – part of what is known in Brazilian social science as *mística* – to open the *seminário*, an annual meeting wherein the residents of the school discuss the political and social context of their struggle and make action plans for the upcoming year. *Mística* is an important aspect of the movement's coherence, practiced through art, symbolism, and music, as a way of strengthening collectivity, solidarity, and empowerment. It maintains the memories of the movement's decades-old agrarian struggle for the right to produce on land for subsistence and livelihood. At the *seminário*, symbols of this past and present line the stairs to the meeting room. Atop the barbed wire strewn across the stairs – signifying the fencing of the *latifúndia*<sup>3</sup> – lie a hoe and a long-handled machete. These traditional farming tools are found in much of the movement's symbolism, representing tools of the peasants' (*campesinos*) struggle and emancipation. Rounding the corner, a pole props up the MST flag, mimicking its raising when an encampment

<sup>&</sup>lt;sup>1</sup> "Fight, build an agrarian reform for the people!" This was the slogan for the MST's 6<sup>th</sup> National Congress, a national meeting held approximately every five years so activists from across Brazil (and MST supporters) can share experiences, discuss problems, celebrate, maintain solidarity, and make plans for the upcoming years.

<sup>&</sup>lt;sup>2</sup> While I use the term "members" to describe those affiliated with and participating in MST actions, the term is not fixed. As my host at the EMS explained, the characteristics of being a "member" are fluid and can change depending on the context. For example, some people take part in an MST-led occupation, but once they receive their parcel of land, they no longer participate in MST activities, *formação*, or *mística* (these two concepts are explored throughout the thesis). Conversely, some people may not self-identify as MST members but may participate in actions, gatherings, or protests.

<sup>&</sup>lt;sup>3</sup> *Latifúndia* – large estates of landed elites – "were defined as those 600 times larger than the regionally defined farm module. The size of these farm modules was determined by a combination of criteria, including the population density of the region, land quality, type of activities pursued, etc., and ranged from 2 to 12 hectares" (footnote 5, Deere 2003, 261).

is established after they have occupied a piece of land. Taking the next flight of stairs, a large plastic bowl lies on the floor filled with crumpled garbage and plastic bottles, signifying the waste and unsustainability of today's production and consumption practices. In contrast, plants have been placed next to copies of agroecological publications along the walls, representing their alternative vision for an agricultural system not driven by capitalist logic. Upon entering the large room, a wooden sawhorse draped with the MST flag stands over barbed wire that has been pushed aside. Next to the sawhorse sits a poster depicting the movement's solidarity with the Palestinian struggle in the occupied West Bank and Gaza Strip<sup>4</sup> and a poster bringing attention to the dangers of industrial agriculture and genetically modified organisms (GMOs). Finally, trailing behind the crowd, I see school desks arranged in rows facing the blackboard at the front. As part of the ritual, every person takes a desk and collectively rearranges them into one large circle. This dismantling of the conventional classroom is all part of an intentional challenge to inequality and hierarchy. Sitting in this circle allows everyone to see each other on an equal level, with each voice valued as much as the next. Before sitting, someone begins chanting, and the group follows suit:

Na luta pela terra o MST já fez história A Escola Milton Santos é um pilar dessa vitória! Na luta pela terra o MST já fez história Escola Milton Santos é um pilar dessa vitória!<sup>5</sup>

Greeting everyone as *companheiro* and *companheira*, Claudio,<sup>6</sup> the school's director, began speaking of the movement's history and the current challenges to further agrarian reform. He stated that it is important to discuss and understand what he called "bourgeois hegemony" in order to challenge and dismantle it. Though critiquing the exploitative and unequal nature of the

<sup>&</sup>lt;sup>4</sup> This was due to the heavy bombings by Israel against the Gaza Strip in summer 2014.

<sup>&</sup>lt;sup>5</sup> "In the struggle for land, the MST has already made history, the Milton Santos School is a pillar of this victory!"

<sup>&</sup>lt;sup>6</sup> All names have been changed to protect informants' identities.

capitalist system, he cautioned that the working-class struggle is also prone to becoming unequal, depending on how power is distributed. "We must always be self-reflexive," he urged, "always seek to address injustices, even within the movement." Changing society, he continued, is ultimately an issue of education. This is not only classroom education but also the need for continual, experiential learning: *formação*.<sup>7</sup> "It's not just about agrarian reform," he said. "It's about addressing larger structural issues. We have to show people beyond the movement that it is possible to construct another society, another reality." The crowd nodded in agreement as Cla continued to outline the challenges they (both the school and the wider movement) face and possible ways of addressing them.

Leaving the *seminário* later that evening, I couldn't believe my luck. These meetings are usually only held once a year, in January. However, this year, the school had hosted a large event in the spring called the *Jornada de Agroecologia*,<sup>8</sup> so the January *seminário* had been spent preparing. Now that the event was over, they were holding another meeting to discuss the rest of the year. Though meeting in this way, participating in the rituals, the chants, the symbolism, and discussions was not out of the ordinary for the school's residents, the experience was extremely rich for me because it provided insight into the movement's understanding of *formação*.

While directly translated to English as "formation" or "shaping," the MST uses the concept of *formação* as the process of political and ideological training and education. They understand the latter in the broadest sense, which includes everyday experiential learning, the shaping of ideas and worldviews, as well as more traditional classroom and technical training.

<sup>&</sup>lt;sup>7</sup> *Formação* (discussed throughout the thesis) is described in an official document from the MST's National School as, "The force that makes ideas, strategies, the program, the methodology and the organizational principles and structures commonly known and collectively constructed. It is information made into knowledge, a material force that transforms nature and society and is never simply scholarship or academicism... Leaders must understand and take in the contents and methodology of *formação* in order to creatively multiply leadership, instead of being the simple reproduction of obedient followers" (quoted in Plummer 2013: 4).

<sup>&</sup>lt;sup>8</sup> A yearly meeting held between rural social movements, agrarian reform government agencies, academics and organizations concerned with agroecology.

While I had originally come to the EMS to observe an agroecology course, funding issues with the school's government partner had delayed the next phase of the course, leaving me without a course to observe. With limited time in Brazil (due to limited resources), and no other agroecology courses taking place in the region at that time, I decided to stay at the EMS to observe the school's organization and operation. Throughout my three weeks there, taking part in everyday chores and activities, speaking with residents and coordinating members (coordenação), I came to realize that I was seeing the lived practice of agroecology that was present not only in the garden, forest, or field, but in the way everything around the school was organized and understood. The residents, regardless of their duties or role at the school, appeared to practice the MST's politics through this everyday agroecology – all acted as part of a larger whole, each playing his or her own part in keeping the collective going. From conversations with several residents, I was told of their relationship of stewardship of the land they had been "gifted," rehabilitating what had once been a dumping ground into land off which they could live while restoring ecosystems and habitats for wild and domesticated species. Exploring what drove this agroecological *formação* – which itself challenges the logic of capitalist organization – became the new focus of my project as I spent time in the EJA<sup>9</sup> classes, helped cook, clean, and take care of the children. Through interviews, informal conversations, and participant observation, I began to see how agroecology was being framed as a "new way of life."

These ideas of challenging capitalist logic through *formação* and shifting nature-society relations through agroecology are at the heart of this thesis, which explores the political formation and agroecological education of MST members at the Milton Santos School of Agroecology. I will argue that EMS residents – volunteers who come from MST agrarian reform

<sup>&</sup>lt;sup>9</sup> EJA is a two-year course for youth and adults who have not finished high school. It comprises several 5-10 day "phases," usually once a month, during which students take intensive classes on all subjects covered in high school (i.e. Portuguese, history, math, biology, physics, etc.). Each phase covers one or two subjects.

settlements across Paraná – demonstrate how agroecological *formação* challenges the capitalist logic of accumulation, profit maximization, and the valorization of individualism and free market economics. Through direct actions, such as degree-granting courses to train agroecological technicians or agroforestry projects on settlements across the state, as well as the ways in which they go about everyday activities of cooking, cleaning, rearing children, and organizing a community, the EMS is emblematic of the MST's larger project of structural change in Brazilian society. This is not to say that the school is without its problems, internal and external struggles, but that, as part of their peasant pedagogy, they seek to be self-reflexive, and to address and debate (sometimes fiercely) these challenges. Though not every action or decision explicitly connects to agroecology has come to represent. This thesis explores how agroecology has been woven into tactics of *formação* and popular education, demonstrating that for the movement, it is more than a set of scientific principles. It has become the symbol of a new way of life.

Though the EMS is the empirical focus of my fieldwork, I have drawn on the large, interdisciplinary academic literature on MST praxis. Some examples include work by geographer Wendy Wolford, whose extensive writings on or related to the MST provide in-depth discussions of many aspects of the movement, including its "spatial imaginaries" (2004), construction of community, the role of participatory democracy, and the history and effect of the MST's genesis story on framing and participation (i.e. 2003, 2005, 2007, 2010). Rute Caldeira (2008) and Jacquelyn Chase (2010) examine how the movement frames the struggle and offer some critiques and analyses of internal weaknesses. Nashieli Loera (2010) provides a thorough background of life in the encampments, while Daniela Issa (2007) discusses the MST's use of *mística*. George Meszaros (2000) and John Hammond (1999) both examine the legal

perspectives of the MST land occupations, while James Petras (1998) provides an overview of the political and social basis of regional variation in the occupations. Liam Kane (2000) and Gelsa Knijnik and Fernanda Wanderer (2010) examine popular education in the movement and the influence of Brazilian educator Paulo Freire, while Rute Caldeira (2009), Carmen Deere (2003), and Lynn Stephen (1993) consider the role of women and gender in the MST.<sup>10</sup>

Despite this rich body of literature, there is little in-depth discussion (in English-language academic literature) of agroecological education in the MST. Ana Delgado (2008; 2010) is one exception, focusing on the remaking of nature-society relations within MST ideology through the adoption of agroecological practices. In addition, Abdurazack Karriem (2009; 2013) examines the MST's transition to agroecology from a "Gramscian political ecology" perspective, and Hannah Wittman (2009) explores the forming of a "new agrarian citizenship" on MST settlements. Although the MST's transition to agroecology and participation in important peasant organizations (such as the worldwide peasant organization La Vía Campesina [LVC]) have been cited as examples across these literatures, I found a lack of analysis on the connections between agroecology and education. As concerns grow around the globe over crises in our current food and agriculture systems (as well as related water and financial/economic crises), looking at alternatives presented by groups like the MST seems a worthwhile and necessary endeavor. Through formação, the movement seeks to shift people's mindsets, habits, and understandings of the world and nature-society relations, not just attempt band-aid or one-size-fits-all solutions (such as have been proposed by international organizations like the World Bank).

Raised in rural Nova Scotia, Canada, with Chinese-Scottish-Hawaiian-Indonesian ancestry, my connection to the MST is not apparent. I did not grow up with Brazilian acquaintances and knew little of the country. It wasn't until my final year pursuing a bachelor

<sup>&</sup>lt;sup>10</sup> This list is by no means exhaustive but provides some examples of the breadth of investigation on the MST.

degree in International Studies that I came across the MST in a seminar reading. While different from the rest of my undergraduate education on diplomacy, foreign policy, and international law, this seminar challenged my perceptions of the world and unlocked a floodgate. I soon found myself engrossed in literature on grassroots social mobilization and resistance, challenging assumptions of "modernity" and "development," and changing nature-society relations. I began questioning capitalist logic, examining systems of dominance under neoliberal structures, and searching for people who sought to challenge them. It is here that I came across the MST.

While I have had many interests throughout my life, dominant themes have been human perceptions of and interactions with nature, as well as education and the production of knowledge. My parents, who were raised in several cities around the world and exposed to many ideas about religion, politics, nature and culture, shared this knowledge with their children. However, this sometimes brought my family in contrast to the worldviews of the relatively homogenous Scottish-Catholic community in which we lived. My mother taught in the public education system and was sometimes called a "radical" due to her "unconventional" teaching style and pedagogy (much of which was influenced by Brazilian educator Paulo Freire). In addition, her father had worked with a social movement in our town during the Depression, which organized fishermen and farmers into cooperatives to weather the economic storm.

Though seemingly unrelated to the MST's story, these connections provide some insight into my own sympathies with the movement. When I arrived at the school in Maringá and began participating in everyday activities and communal experiences, much of what I saw and learned resonated with me. Though not attempting to gloss over the contradictions and challenges of the movement, I acknowledge my admiration of the how MST activists passionately pursue socialjustice projects. It was refreshing to see people actively engaging with and challenging issues associated with food systems, nature-society relations, and education that I see facing cities and towns in North America as well. Though situated in very different historical, geographical, and cultural contexts, people at the EMS ask many of the same broad questions my friends and I ask back home. This is not to say that what works in Brazil will work in Canada or the United States. On the contrary, transplanting a model of developing or organizing, without considering the nuances of a place, the complexity of its history and politics, can be dangerous or detrimental.<sup>11</sup> Yet today, what characterizes transnational or new social movements is that their grievances may transcend political borders, even if their actions are not always transnational. Similarly, while MST actions are specific to the Brazilian context, its discourse transcends borders, informing and being informed by people and organizations from around the world.<sup>12</sup> For this reason, I decided to look to the praxis of this movement for inspiration, to investigate what makes it so successful, as well as the continued challenges to its counter-hegemonic project.

As an agrarian reform movement, and "one of the most important and militant peasant organizations in the Americas and a leading member of [*La Via Campesina*]" (Rosset & Martínez-Torres 2012, 20), its pedagogical approach to reshaping nature-social relations and promoting agroecology as an alternative to industrial agriculture and agribusiness should be examined. Agroecological education in the movement has taken hold in the southern states with four specialized agroecological schools in the state of Paraná (with an additional one in Rio Grande do Sul and one in Santa Catarina). Although my spoken Portuguese was not very strong upon arrival in Brazil, I am very comfortable with French. As one of the members of the *coordenação* at the EMS is fluent in French, the MST-Paraná coordinators suggested I conduct

<sup>&</sup>lt;sup>11</sup> Or simply fail, as happened in South Africa when a group of landless trained by MST activists attempted to copy the MST's land occupation and encampment model – for discussion see Baletti et al. 2008.

<sup>&</sup>lt;sup>12</sup> One such example is Bolivia's MST, which, as Nicole Fabricant (2012: 5) describes, "adopted a militant structure and strategy from the better-known Brazilian Landless Movement."

my fieldwork there, as she would be able to host me and help with any language barriers. When I arrived at the EMS, I discovered that it is unique among the agroecological schools as the only one not on an agrarian reform settlement. It is located in the outskirts of the city of Maringá, in the northwest of Paraná, bordering the small city of Paicandu. It sits on 77 hectares of land belonging to the municipality, which has been "gifted" to the school for a period of 20 years (with a reassessment at that time). "The school" itself could be considered more of a campus, comprising several buildings and homes, dormitories, educational facilities, and barns. The land had belonged to a ceramics factory but was abandoned in 1982. In the two decades that passed before construction of the EMS, it became a dumping ground for various types of waste, as well as a site for drug use and prostitution. When the MST acquired the right to build in 2002, construction was done entirely by volunteers from neighboring settlements. Although its living and working conditions were quite difficult for the first few years, the school that I visited in Summer 2014 was a vibrant place with several permanent homes, dormitories, a workshop, an educational building (with a library, a laboratory [which is a work in progress], and classrooms), a day care with a park and playground, a two-story meal hall with a large communal kitchen and meeting area, the "Mercado da Reforma Agrária" ("Agrarian Reform Market," where they sell products produced at the school, as well as movement t-shirts and other knick knacks), and a building for the coordinating committee. They have wireless Internet in the main buildings (extending outdoors), two soccer pitches, and beautiful grounds with various flowerbeds and ongoing agroecological projects. The school is also a working farm, with various types of poultry and livestock, orchards and vegetable gardens. This area in its entirety is what I will refer to as "the school" or "the EMS" throughout this thesis.<sup>13</sup>

<sup>&</sup>lt;sup>13</sup> Maintaining this large area and running the courses and projects at the school requires around 30 people to live as "permanent residents" (with a minimum commitment of one year).

I originally traveled to Brazil in Summer 2014 to observe an agroecological course at the school, driven by the following research questions:

- (1) In what ways does the EMS's pedagogy politicize agroecology and reshape individual and collective understandings of, and their relationship to, nature/agriculture?
- (2) In what ways does this agroecological education and political formation at the school engage with MST and wider food/agrarian movement politics and reflect the ways in which these movements mobilize and 'scale up' agroecology to challenge dominant neoliberal capitalist discourse?

Although I was unable to observe the agroecology course, I interviewed a graduate of the course and interacted with other graduates who now work at the EMS. Staying at the school for three weeks proved an incredibly rich experience in seeing the praxis of agroecology by those who had not been trained in courses. It allowed me to address these questions from a different angle, not focusing as much on the classroom, but on the daily experiences of agroecological *formação*.

#### **II. PARTICIPANT OBSERVATION AND INTERVIEWS: REFLECTING ON METHODS**

In addition to existing academic literature, this thesis draws on sources from my experience in the field. The first and main source of data was from participant observation at the EMS. When I arrived at the school there was an EJA phase taking place and I was able to sit in and participate during their classes, giving me a sense of the pedagogy in practice in a classroom. I also traveled to one of the largest MST settlements in the area, *Oito de Abril*, with three members of the *coordenação* to work on agroforestry through *Projeto Flora* (described in Chapter Two). In addition to documents, such as syllabi, from the agroecology course, I conducted lengthy interviews with my host Ana (who is a member of the *coordenação* and holds a Master's in Education) and Julia, a graduate of the agroecology course who is currently pursuing an undergraduate degree in agronomy and agroecology at the MST's school in Rio Grande do Sul.

Participant observation was crucial to my understanding of agroecological *formação* at the school. This thesis argues that this *formação* is a critical tactic in the MST's war of position, part of a longer, protracted battle to change the underlying structures of society through everyday actions. To support this argument, it was important for me to experience the mundane, day-to-day activities of life at the school, to situate it within my larger understandings of the MST's counter-hegemonic project. I do not claim to have conducted an ethnographic study, which would have required a much longer time in the field. However, my research was mostly based on participant observation, which Emerson et al. (1995: 1) describe as:

[The researcher entering] into a social setting and get[ting] to know the people involved in it ... participat[ing] in the daily routines of this setting, develop[ing] ongoing relations with the people in it, and observ[ing] all the while what is going on ... [while producing] written accounts of that world by drawing on such participation.

Throughout my time at the school, I took daily, detailed notes on my experiences. I often wrote throughout the day, during or after many experiences or conversations I had, and then reflected on the day before going to bed. I then copied these hand-written notes onto my computer, so I would have an electronic copy. This also allowed me to review what I had written, in case I had forgotten something or needed clarification. These notes helped me remember small details, the sensations I had, and my initial reactions to different experiences.

Arriving at the EMS as a relatively young, educated Canadian woman from an American university immediately set me apart from the residents. While I was able to spend time with many of them, I felt the distance that my position created in some (though not all) conversations or situations. Ana spoke with me in French and introduced me to residents, explaining why I would be staying at the school. People greeted me with smiles, although appeared unsure of how to communicate with me, as my spoken Portuguese was very basic. People seemed set in their routines, and although they obliged me when I tried to speak, I found it difficult to connect with residents at first. For the first week and a half, many seemed to ignore me unless I made the effort to approach them. However, participating in the EJA course that began on my second day at the school greatly improved my communication skills and confidence in speaking Portuguese. The EJA students and teachers included me in all of the activities, which forced me to come out of my shell. During discussions they asked me about Canadian politics and struggles, as well as my family and how I grew up. While we come from very different situations, we discussed commonalities, and I expressed a desire to learn from the movement. However, my education was very apparent in the class, as many there had difficulty reading and writing, and some stated how amazed they were by how quickly I appeared to pick up their language (especially the writing). While I do not believe my position as a young woman negatively affected my experience, it helped in the development of my relationships with Ana and Julia.

In addition to the EJA students, Julia was very friendly and interested in helping me with my research. During lunch on my second day she sat with me to chat. She explained her passion for agroecology and her commitment to the movement's politics. She also said she was used to speaking with researchers about the movement and she was happy to spend time with me while I was there. I was grateful for her help and she became a friend. We spent many days together around the grounds or eating meals and walking to the Paiçandu to get passion fruit (which we both enjoy) to make dessert. During these times she shared a lot of her experiences in the movement and with agroecology and had the chance to ask me about my life and politics.

My relationships with Julia, Ana and the EJA students helped in my adjustment to life at the school. However, there were several limitations to my project based on this participant observation. My lack of fluency in Portuguese proved a challenge at first because it made it difficult to gain people's trust, especially in such a short time period. Though my daily immersion in Portuguese rapidly increased my communication abilities, my limited time in the field also proved a challenge for the research, as my language improved just as I was leaving the field site. As a foreign researcher, one requires more time in the field to build relationships and learn the nuances of the language and culture. My lack of time and resources also allowed only one field site. This greatly limited the project as it does not represent the variability that exists in the movement. In general, the MST has been much more successful in the south of Brazil, which also happens to be the epicentre of agroecology in the country. This study would have benefitted from more time and multiple field sites, but was not feasible for my master's project.

Another limitation was due to my positionality as a relatively privileged foreign researcher. Though many foreign researchers have spent time with the MST, the EMS had only been visited and written about by Brazilian academics (though they have had foreign visitors). At first, I only interacted with a few residents who seemed more outgoing. At times I felt invisible to many and was uncomfortable, unsure of how to act. Though discussions about fieldwork had taken place in my program's seminars, I had never conducted fieldwork in North America, let alone a foreign country and language, and upon arrival I felt unprepared. Though I gradually relaxed and became more comfortable, it was difficult to form relationships so quickly. This positionality begs the question of the residents' performativity, as well as my interpretations of their actions and discourse. I do not know the extent to which people's behavior changed due to my presence, or whether what they told me would be different had they been speaking with Brazilian academics or other MST activists. I was also a foreigner, traveling to Brazil for the first time, with little first-hand knowledge of the culture. There is no doubt that this impacted my interpretations of my observations, viewing them through a sympathetic lens and influenced by my extensive reading of MST literature.

Yet some insight into my positionality was gained through conversations with Cristian, another foreigner at the school. He held a very different position from me: he is Colombian, trained in agroecology in Cuba, and has been moving around Latin America working on various agroecology projects. He had been living at the EMS for six months and had no plans to leave. He and I had many conversations about our impressions of the movement, of its politics and discourse. He explained that it had taken him some time to integrate into the community at the school, but that the best way to connect was by participating in projects around the grounds, talking to people and doing your part at the school. He helped me understand the school in a different way, as he was now treated like a resident there, but was not a member of the MST and therefore could speak to me as someone not as embedded in the movement.

While these limitations are unavoidable due to the nature of the research, I acknowledge them here as a preface to the story I am about to tell. While my positionality, lack of Portuguese fluency, and limit to one field site tell a very Paraná-specific story, subject to the interpretations of a non-Brazilian researcher, the three weeks I spent at the school were filled with rich conversations and experiences. I draw from these to make the argument that the EMS is emblematic of the MST's war of position, challenging capitalist logic through the ways in which they organize their community and go about their daily routines. During my time there, I was entered into the rotation of chores in the communal meal hall, participated in *mutirão*,<sup>14</sup> spent several days in the *ciranda* (day care) taking care of the children, worked on agroecological projects on the grounds, attended the *seminário*, EJA classes, and the *Projeto Flora* at *Oito de Abril*, and worked on translating documents into English. I also spent a lot of time speaking with residents about their roles at the school, learning about their lives. Many had participated in

<sup>&</sup>lt;sup>14</sup> Collective work on Saturdays when everyone cleans large collective areas, bathrooms, or whatever big tasks need to be done.

courses at the school, and some were current students of the pedagogy and EJA courses. Living at the school allowed me to see the day-to-day operations and organizational structure.<sup>15</sup>

In addition to participant observation, I conducted detailed interviews with Ana and Julia. While I had originally intended to interview several students and residents at the school, this plan quickly changed upon my arrival. My limited communication skills at first made formal interviews very difficult. Though I eventually improved, people were busy and it became difficult to schedule time to interview. However, I had many informal conversations with several residents, of which I took detailed notes. In addition to the five women and four men from EJA who were not residents, I had several conversations with two women from the pedagogy course, two men from EJA who worked at the school, two men and two women from the production sector, the woman working in the *horta*, and Cristian. The rest of the residents interacted with me mainly during meals and group activities, but were busy with their work the rest of the time.

As my host, Ana and I had had many informal conversations about my research interests, subjectivity, and positionality, as well as her own interests. Her fluency in French allowed me to ask questions in French, while she responded in Portuguese.<sup>16</sup> I also interviewed Julia to understand the agroecology course from the perspective of one of its graduates who was continuing her studies in agroecology. She had been in the cohort that I discuss in Chapter Four and as such, provided a personal view that complemented the documents I collected. Since we had spent a lot of time together during fieldwork she understood my research and perspective, and helped me improve my language skills through our many conversations. I therefore did not

<sup>&</sup>lt;sup>15</sup> Many of these aspects are discussed in more detail in Chapter Four.

<sup>&</sup>lt;sup>16</sup> I asked her to do this so that I could hear her responses in the context of the movement's language. However, our mutual ability to communicate in French allowed for clarification if I didn't understand something. It also allowed the conversation to flow more smoothly, as I could respond without thinking about sentence construction and vocabulary in Portuguese.

have trouble conducting the interview with her in Portuguese. I chose to conduct formal interviews with these two women because they were willing to be interviewed and recorded, had extensive knowledge of the school, the movement, and agroecology, and my level of communication with both of them was much higher than with other residents. They were also aware of my research and views and wanted to contribute to the project. The personal relationship I developed with them also facilitated my ability to conduct the interviews.

The interviews were semi-structured, where I prepared guiding questions so I would remember to cover specific topics. However, they flowed more like conversations, and the flexibility of this method allowed many questions and comments to arise for which I had not prepared. As Andrew Herod (1993) states, less structured interviews "tend to be more spontaneous, offering a two-way interaction in a manner not generally permitted (or encouraged) by the standardized approach" (306). In addition, they allow "interviewees to introduce topics and to speak in their own words rather than in categories dictated by the researcher, something which feminist writers in particular have found politically attractive" (Herod 1993, 306). For these reasons, I found the semi-structured interview an appropriate method.

When I originally prepared for fieldwork, I wanted to conduct "go-along" interviews, which Richard Carpiano (2009) sees as a mix between the traditional sit-down interview and a kind of participant observation. As he explains, the walking or "go-along" interview allows the researcher "to examine the informant's experiences, interpretations, and practices within this environment" (264). James Evans and Phil Jones (2011) suggest that "a major advantage of walking interviews is their capacity to access people's attitudes and knowledge about the surrounding environment" (850). While this would have been ideal, I quickly realized it was not pragmatic for my official (recorded) interviews. In addition to the fact that I was still learning the

language, there were several other obstacles. Some included taking notes while walking on hilly, often muddy terrain, attempting to listen carefully while observing the surrounding environment, taking care to ask questions or give prompts when appropriate. It was also difficult to use my audio recorder while walking because it picked up many other sounds and I was not always close enough to my interviewee. In addition, we would often be joined by children, or stop to do other activities in the middle of a discussion, which would have impacted the interview's flow.

For these reasons, I asked questions and conversed while walking the grounds, taking detailed notes right after the meeting. These notes are part of participant observation. When I sat down to conduct the semi-structured interviews, which were recorded, I asked both Julia and Ana to repeat some of the answers they had given in previous conversations. While these interviews were extensive, only having the time and language ability to formally interview two people proved another limitation to the project. It would have been beneficial to interview other graduates who were no longer at the EMS, as well as course instructors (both from the MST and academic institutions) and representatives from the government agencies supporting the EMS.

Despite these limitations, the field notes, interviews, and documents on the agroecology course help me concretize the MST's counter-hegemonic project through the EMS case study. This thesis illustrates how mundane, daily activities are just as much part of the counter-hegemonic strategy as large organizational planning or the marches, protests, and occupations portrayed in mass media. While the movement's broader ideology may be formulated and disseminated across scales, it is important to understand how it is lived at the local scale. Although I do not claim that what happens at the EMS occurs on every MST settlement and encampment, I argue that it is emblematic of the movement's praxis. The next section briefly introduces the MST before turning to the theoretical framework that guides this argument.

#### **III.** INTRODUCING THE MST

With 1.5 percent of rural landowners controlling over half of the country's 415.5 million hectares of tillable land, Brazil presents one of the world's most inequitable cases of land distribution (Clements & Fernandes 2013, 43). According to Sauer (2006), "these large landholdings make up a sector that includes over 35,000 farms classified as unproductive *latifúndia*, covering a total land area of 166 million hectares" (178). Despite the large population that seeks access to such land for subsistence and livelihood activities, the lands remain idle, concentrated in a few hands (Sauer 2006, 177). In sharp contrast, 89.1 percent of the total number of farms are either "*minifúndia* (smaller than one fiscal module, the minimum deemed necessary to support a family) [or] … under 100 hectares … [accounting] for only 20 per cent of the land area" (Sauer 2006, 178). This inequality is largely the result of a colonial legacy of *latifundiários* (the landed elite during the colonial era) but has been exacerbated by the implementation of industrialized agriculture through green revolution technologies and more recently by neoliberal restructuring, the emergence of agribusiness, and a New Green Revolution (Sauer 2006, 177-8).<sup>17</sup>

Despite the dominance of the industrial model of agriculture, the state's neoliberal turn to market-led agrarian reform, and the prominence of agribusiness today, these models and approaches did not rise uncontested. In the late 1940s, conflicts over land in Brazil became increasingly visible, brought to the fore through mobilization of "dispossessed squatters and tenants of large estates" (Deere & Medeiros 2007, 80). Though President João Goulart attempted to address these uprisings through land reform,<sup>18</sup> this contributed to the political crisis that led to

<sup>&</sup>lt;sup>17</sup> The model of farming promoted here is highly mechanized, with large amounts of synthetic and chemical inputs, genetically modified seeds, prioritizing monocultures of cash crops for export. This type of agriculture makes farmers dependent on large agricultural corporations (such as Monsanto or Syngenta) for the inputs, with farmers often incurring large amounts of debt.
<sup>18</sup> Although many scholars, policy makers, and programmers use "land reform" and "agrarian reform" interchangeably, some see land reform as pertaining to "the reform of the distribution of landed property rights, while agrarian reform refers to land reform *and complementary socio-economic and political reforms*" (Akram-Lodhi et al. 2007, 4, emphasis added). The latter definition

the military coup of 1964 (Deere & Medeiros 2007, 81; Ondetti 2007, 11). Land reform took a backseat under the military regime, which focused instead on agricultural policies centered on "technological modernization and frontier expansion" (Ondetti 2007, 11). This modernization led to a deepening of land distribution inequality, as huge numbers of people who had lived and worked on the *latifúndia* were displaced, forcing them to move "to the peripheries of the cities where they became part of the temporary, seasonal labor force for capitalist agricultural enterprises" (Deere & Medeiros 2007, 81). In the 1970s, the construction of large hydroelectric dams added more families to the numbers of dispossessed and displaced, contributing to tensions and conflicts over land (Carter 2005, 7). Yet instead of addressing these injustices by changing property relations, the regime "solved" land conflicts through "violence and repression rather than by land expropriation" (Deere & Medeiros 2007, 81).

Toward the end of the 1970s, dispossessed peoples – both those who had moved closer or into urban centers and those who remained in the countryside – began using the tactic of land occupations to force the government to redistribute through land reform. This organization of the "landless" led to the formation of the MST, which was officially established in 1984 – the last year of the military dictatorship – at a meeting in Cascavel in Paraná. While some aspects related to the MST's goals may differ depending on the individual settler or location, for the most part there is a shared hope for an alternate system.<sup>19</sup> Kane (2000) lists the three aims of the MST as: (1) acquisition of land, (2) agrarian reform, and (3) a just society achieved "through 'popular mobilization' and the eventual existence of a 'popular, democratic state'" (38). The struggle is

applies to the MST's proposal. For this reason, I mostly employ the term "agrarian reform," but "land reform" still appears when referring to others' opinions or in quotations or where it seemed appropriate to speak simply of land redistribution.

<sup>&</sup>lt;sup>19</sup> The movement is dynamic and heterogeneous, and throughout the past thirty years its aims, discourse and tactics have adapted to changing circumstances. In this thesis, I speak of a unified discourse put forth by the movement's leadership and adopted by many members. That said, I acknowledge the MST's internal complexity and power relations, understanding that individuals have their own reasons for joining and participating in these actions. For an excellent analysis of these complexities, see Wolford (2010), who examines people's motivation for participation, and the success of the movement, in two different areas of Brazil: the southern state of Santa Catarina and the northeastern state of Pernambuco. Also see Caldeira (2008), who uses the concept of framing to examine conflicts *within* the MST arising from the different ways in which the struggle has been framed.

rooted in the notion that, while access or ability to work land is a constitutional right for every person, the government does not willingly enforce this right, and therefore land occupations are required to force the government to act (Karriem 2009, 320). Furthermore, the struggle has been framed in a wider, global context, seeking to break down the entrenched "common sense" and the maintenance of an inequitable and exploitative system through the construction of new forms of (popular) education that seek to remake ideas about rights: land, food, gender, and changing nature-society relations from the ground up (Karriem 2009, 323).

In pursuing these goals, the MST butts up against the capitalist system by demanding the right to rural lands without having to buy them. This is not seen as a handout from the state but rather is in keeping with the notion that every person who wishes to work the land for subsistence and livelihood has the right to do so. As Wolford (2005) states, this is a vision of "land for those who work it" (254) versus "land for those who own it" (250). The movement targets idle land for its occupations, justified in the Brazilian context through the 1988 Constitution. Article 184 states that land should serve a social function and that lands deemed "unproductive" could be "[expropriated] on account of social interest" (Brasil 2010, 131). If the encampment is deemed legitimate under this article, the government agency INCRA (National Institute of Colonization and Agrarian Reform) negotiates a compensation amount for the landowner, and the lands are expropriated to the *acampadas*.<sup>20</sup>

The expropriation process can be extremely lengthy, with occupations sometimes lasting from two to fifteen years. To maintain their claim, *acampadas* must remain in the encampments, often in dangerous and precarious conditions. Because they never know how long the expropriation process will take, they often create structures within the encampment, organizing people to be responsible for certain tasks, or "sectors," such as agriculture and production,

<sup>&</sup>lt;sup>20</sup> The "encamped" are the people who occupied the land and set up the encampment.

education, sports and leisure, infrastructure, health, and political actions. As most MST activists do not believe all power in an encampment or settlement should belong to one or a few people, each group of families (NB, or "nucleus," about 25-30 families) elects one man and one woman to represent its nucleus in the "settlement coordination council" (Wittman 2009, 124-5).<sup>21</sup>

Wittman (2009) illustrates this type of participatory community through her study of an encampment in Mato Grosso, where she conducted six months of participant observation. She explains that the assentadas<sup>22</sup> waited two years for their claim, during which they discussed "strategies of settlement organization, models of production, and ongoing political issues facing agriculture in Brazil" (125). She explained that during this encampment time, the movement's project of popular education begins. For example, courses were offered on various practical and technical skills, such "political education, livestock management, agroforestry and agroecological systems, cooperative marketing, organic farming and reforestation, and other survival concerns" (Wittman 2009, 125). Ana explained that training and participation throughout encampment time is how formação begins. It is enacted through the constant planning of events, education, art and music, work, political engagement, and even leisure activities, all reflecting its counter-hegemonic project. This introduction's next section outlines Italian social theorist Antonio Gramsci's theory of hegemony, then complements his framework with French theorist Michel Foucault's concept of discourse. These theories serve as a theoretical framework to help understand the MST's war of position through constructing a counter-discourse. However, before turning to the theoretical framework, I present a brief note on neoliberalism as the current form of capitalism that the MST's popular project seeks to challenge.

<sup>&</sup>lt;sup>21</sup> Though there is variation in the movement (meaning not all encampments and settlements organize in *exactly* the same manner), this is the most common model for organizing within MST communities.

<sup>&</sup>lt;sup>22</sup> Once land is expropriated, the *acampadas* become *assentadas*, or "settlers," living on settlements.

#### A Note on Neoliberalism

"Neoliberalism" is a notoriously slippery term to define (McCarthy & Prudham 2004). In critical scholarship, it is often referenced as the current form of capitalism, yet its characteristics are often unclear, seemingly taken-for-granted as widely understood. Throughout this thesis, I use "neoliberalism" to distinguish the current capitalist system from other earlier forms. Various authors have described the term with differing degrees of precision. Many focus on the market, state, civil society, and ideology. James Ferguson (2009) describes it as a macroeconomic doctrine, which "always include[s] a valorization of private enterprise and suspicion of the state, along with what is sometimes called 'free-market fetishism' and the advocacy of tariff elimination, currency deregulation, and the deployment of 'enterprise models' that would allow the state itself to be 'run like a business'" (170). Yet the discursive use of neoliberalism in scholarship is often integrated with discussions of wider societal structures. In this sense, Ferguson (2009) argues, neoliberalism "has become the name for a set of highly interested public policies that have vastly enriched the holders of capital, while leading to increasing inequality, insecurity, loss of public services, and a general deterioration of quality of life for the poor and working classes" (170, emphasis added). Similarly, James McCarthy and Scott Prudham (2004) argue that "among its central elements is a near worship of ... the 'self-regulating market' ... the deeply problematic commodification of everything ... [and] political and ideological antagonism toward state 'interference' (i.e. regulation)" (276). They elaborate further on the latter, arguing that neoliberal governance projects seek to redefine the state's role, often cutting resources and curbing state functions that attempt to address capitalism's destructive social and environmental effects (276). Jessica Dempsey and Morgan Robertson (2012) discuss neoliberalism as increasingly financialized, using the example of how "nature is now found frequently

represented as *credit, information,* or *services,* purportedly unbound from material essences and free to move through global circuits of credit and finance commodities" (2).

In the realm of civil society, McCarthy and Prudham (2004) argue, "neoliberal notions of citizenship and social action are discursively repackaged in the image of homo-economicus, the ideal, entrepreneurial, self-made individual" (276). They also argue that neoliberalism constructs "new scales ('the global market'), shift[s] relationships between scales ('glocalization,' the alleged hollowing out of the nation-state), and engage[s] with many scale-specific dynamics, all of which take shape and become tangible in the context of particular cultural, political and institutional settings" (279). Finally, neoliberalism can be understood as a political ideology and discourse. Bram Büscher et al. (2012) define the term "as a political ideology that aims to subject political, social, and ecological affairs to capitalist market dynamics ... accompanied by and made manifest through distinct governmentalities [following Foucault] (techniques and technologies for managing people and nature) and embodied practices in social, material, and epistemological realms" (5). Whether taken as a political ideology, a discourse, a macroeconomic doctrine, a set of institutional practices, or a multi-scalar class project, "neoliberalism" is a useful concept to describe the capitalism's current form, and the discourse the MST seeks to challenge. To simply say "capitalism" neglects how neoliberalism differs from other forms, such as Keynesian or Fordist capitalism. While critical of many forms of capitalism, the MST discourse I encountered cited neoliberalism as exacerbating the crises of capitalism, making the movement's search for a viable alternative all the more pressing. The alternative social organization, agricultural practices, and personal interactions I witnessed at the EMS are direct responses to these characteristics of neoliberalism, and at the seminário Claudio reminded the residents of their role in demonstrating this alternative to wider society.

# **IV. UNDERSTANDING HEGEMONY: WHY GRAMSCI?**

In recent decades, Antonio Gramsci's theory of hegemony has been widely used to understand the dominance of neoliberal capitalism. To examine the MST's counter-hegemonic project in this context, some of Gramsci's key concepts should be understood. His interpretation of hegemony could be used as "a tool for understanding society in order to change it" (Simon 1991, 23). He conceptualized ruling-class hegemony as "not based on force alone, but on a combination of coercion and consent ... [ruling] by incorporating some of the interests of subordinate classes" (Karriem 2009, 317). The dominant class ("elites") attains consent by securing leadership in all domains of society – economics, politics, and culture – through the establishment of social values and norms. These are then reproduced and disseminated by institutions and intellectuals "whose business it is to organize the productivities, moralities, identities, and desires of subalterns," convincing them to subscribe to an inherently exploitative and contradictory system (Carroll & Ratner 2010, 8). However, as hegemony can never be fully secured, the elite must constantly "organize consent" to prevent the organization of dissent among the exploited masses. If the dissenting group becomes too strong and the hegemony built on the consent of the masses is threatened, the elite may resort to coercive domination to protect their hegemonic principles (Cahill 2008, 206-7). As Robert Cox (1983) describes: "to the extent that the consensual aspect of power is in the forefront, hegemony prevails. Coercion is always latent but is only applied in marginal, deviant cases" (164). In other words, Gramscian hegemony is at its strongest when the subordinate classes<sup>23</sup> consent to structures put in place by elites. As long as the status quo is maintained, there is little need for active coercion on the part of elites.

<sup>&</sup>lt;sup>23</sup> Though Gramsci's analyses are often associated with class, this maintenance of hegemony can be extended beyond class relations, applying to all aspects of one's positionality – race, class, gender, age, "ability," etc.

The establishment and maintenance of hegemony can be understood by the idea that the masses are subject to a "common sense" constructed by elites. For Gramsci, *common sense* is "the unconscious and uncritical ways in which individuals make sense of and perceive the world around them" (Karriem 2009, 317). Aspects of common sense may be at odds with an individual's philosophy or worldview, yet it becomes so deeply entrenched through socialization that the person "[accepts] inequality and oppression as natural and unchangeable," despite possible contradictions within the hegemonic system (Simon 1991, 26). Furthermore, Richard Howson and Kylie Smith (2008) state that the construction of common sense must also attempt to maintain disunity within subaltern groups. These tensions within and between different groups cause them to compete against each other, while remaining under the established hegemony of the elite (Howson & Smith 2008, 4). Therefore, their energy is spent vying for influence or the best seat at the *existing* table, rather than organizing amongst themselves and using their collective power to overthrow the elites and construct a *new* table.

Although common sense has been described here as a powerful tool used by elites to construct a structure from which they benefit, it can also be used by subalterns to resist the structure and attempt to create their own. Yet to present a challenge to the hegemon, Gramsci argued that a subaltern group must demonstrate leadership by incorporating not only its own values but also those of other subaltern groups into an alternate vision of the society, which he called "good sense."<sup>24</sup> To spread this good sense, the leading subaltern group makes use of *organic intellectuals*, whose role it is "to produce progressive self-knowledge through education" and restructure the dominant system to reflect good sense (Howson & Smith 2008, 5). This restructuring would be a long process, which he referred to as a *war of position*. Critiquing

<sup>&</sup>lt;sup>24</sup> I believe common sense and good sense can also be seen as different worldviews and sometimes use this to describe the MST's project – challenging capitalist logic or worldview through construction of an alternative worldview.

revolutionary strategies proposed by Marxists such as Rosa Luxemburg and Trotsky as being wars of maneuver,<sup>25</sup> Gramsci did not see these as fitting current (to his time) situations. In socalled "developed modern societies," such "frontal attack[s] on the state" would do little to change the complex underlying structures of society (Schwarzmantel 2015, 205). The necessary strategy, he argued, was a "war of position," which "would entail the creation of a new political culture, to be achieved not through a direct uprising or frontal assault on the power of the state, but through institutions of civil society" (Schwarzmantel 2015, 115). This deeper penetration into society's institutions requires a protracted strategy, wherein subalterns begin to take over positions in all facets of society, and through their subtle influence and the building of a new, good sense, structural changes can develop.<sup>26</sup> This would result in a "gradual shift in the balance of social and cultural forces" (Femia 1981, 53).

Throughout this thesis, I argue that the MST's counter-hegemonic project constitutes such a "war of position," and that the movement's use of education – both formally through courses and informally through *formação* – is an important tactic in this war. This employment of Gramscian theory to understand the MST is not new. Scholars such as Wolford (2010) and Karriem (2009, 2013) have drawn on aspects of Gramsci's framework. In *This Land is Ours Now*, Wolford examines social mobilization *within* the MST, focusing on "ordinary people, on everyday political economies, and on common sense" (6), and hopes her work helps illustrate the MST's ongoing war of position. Similarly, Karriem (2013) states: "Local struggles for land are seen as part of a *popular project* of social transformation for Brazil, a project that resembles Gramsci's protracted 'war of position' to establish an alternative hegemony" (143). Following

<sup>&</sup>lt;sup>25</sup> For Gramsci's detailed discussion of wars of maneuver and position, see *Selections from the Prison Notebooks* (Gramsci 1971, 229-39). Pages 233-9 critique Luxemburg and Trotsky's strategies as wars of maneuver.

<sup>&</sup>lt;sup>26</sup> In Chapter Four I argue that the MST's creation of higher education courses to train MST professionals in a broad range of sectors contributes to this war of position.

these authors, I hope the EMS case study will contribute to the argument that incorporation of agroecology as a new "way of life" is a crucial step in the MST's war of position.<sup>27</sup>

## V. ADDING FOUCAULT'S CONCEPTION OF DISCOURSE

Many critical scholars have sought to marry Gramsci's framework with Michel Foucault's approach. Michael Ekers and Alex Loftus (2008) provide an excellent review of this literature in their examination of the tensions and points of engagement in "Gramscian and Foucauldian work on power" (698). Though some are critical of such engagement (see Ekers & Loftus [2008, 707-8]), the two bodies of work can provide a helpful framework for analyzing subaltern social mobilization today. While drawing on Gramsci's more than Foucault, I use Foucault's understandings of power/knowledge and discourse to complement Gramsci's approach.

In exploring Foucault's understanding of power, one must examine his conception of discourse. In *The Order of Discourse*, Foucault (1981) hypothesizes:

That in every society the production of discourse is at once controlled, selected, organized and redistributed by a certain number of *procedures* whose role is to ward off its powers and dangers, to gain mastery over its chance events, to evade its ponderous, formidable materiality. (52, emphasis added)

He outlines these procedures as internal and external, the latter being comprised of the three systems of exclusion: prohibition, division and rejection, and will to truth (52-56). Foucault's attention to the *will to truth* is significant for analyses of power, resistance, and knowledge production today. While he acknowledges the stronger historical presence of the other two systems (prohibition and division), he argues that today, "the third system increasingly attempts to assimilate others, both in order to modify them and to provide them with a foundation" and is "constantly [growing] stronger, deeper, and more implacable" (Foucault 1981, 56). Therefore,

<sup>&</sup>lt;sup>27</sup> Gramscian theory is also present in the movement's education and discourse. Ana was pleasantly surprised to learn that I had been inspired by Gramsci's work, and explained that his concepts are important in the movement's ideology.

engaging with "will to truth" is crucial precisely because the system is the least questioned. As Foucault (1981) argues, "'True' discourse, freed from desire and power by the necessity of its form, cannot recognize the will to truth which pervades it; and the will to truth, having imposed itself on us for a very long time, is such that the truth it wants cannot fail to mask it" (56).

As with common sense, once the will to truth becomes deeply entrenched, it is not questioned, let alone recognized, in the structures of the society in which that discourse lies. In the same way that will to truth is masked and yet pervades "true" discourse, so too does the elite (for Gramsci) impose its discursive hegemony on subalterns who consent to its imposition without question. However, in both cases, discourse is not static. It has no allegiance to either power or resistance and thus can be utilized by either, or both. As Foucault (1977) argues:

Discourses are not once and for all subservient to power or raised up against it, any more than silences are. We must make allowance for the complex and unstable process whereby discourse can be both an instrument and an effect of power, *but also a hindrance, a stumbling-block, a point of resistance and a starting point for an opposing strategy*. Discourse transmits and produces power; it reinforces it, but *also undermines and exposes it*, renders it fragile and makes it possible to thwart it. (101, emphasis added)

This understanding of how discourse can affect power and be used to both reinforce and undermine existing power relations also demonstrates how power can be seen "as operating in complex ways in venues often not understood as political" (Ives 2004, 141-2). As Peter Ives (2004) writes, both Gramsci and Foucault understood politics as happening all around us, in people's everyday activities as much as in what is more traditionally thought of as politics (i.e. governments, elections, military). Ives (2004) argues that they are not "trying to create some space free of power ... rather both see the most significant political problems deriving from the denial that power is operating" (143). Through acknowledgment of power and questioning the "common sense" or "will to truth" of the dominant discourse people can begin to resist, to challenge hegemony and construct alternatives.

According to Mark Stoddart (2007), Foucault argued that "the production and circulation of discourses are simultaneously mechanisms of social power" and that "those who wish to exercise social power must use discourse in order to do so" (105). Adding this to the discussion of Gramsci, constructing a new discourse *must* therefore be among the first steps in a "war of position." Furthermore, as "the regulation of discourse deals with who is allowed to speak on a given topic, as well as which forms of knowledge are subjugated in the production of truth" (Stoddart 2007, 205), constructing an alternative discourse can produce a new "truth." I argue that this is where the MST's pedagogical project comes into play. The movement seeks to construct a counter-hegemonic discourse so that new "truths" can be spoken, so understandings of nature-society relations and modernizing discourses of "development" and "progress" can be questioned and redefined. Understanding power and knowledge in this way illustrates how the MST's project can begin challenging the "common sense" (and contradictions) of the capitalist system. Through critical popular education, the movement seeks to engage every person to uncover the power relations that exist in everyday activities, reveal the politics in mundane interactions, and see the potential in the mobilization of his or her own politics. Through critical engagement subalterns can become empowered and fight for another possible world.

For the sake of convenience, I refer to the MST's discourse in the singular but acknowledge that the discourse put forth by movement leaders is not homogeneous and that a multiplicity of "discursive elements" exist simultaneously and sometimes in contradiction to one another. In examining the complexity of these relationships, I do not claim that this is a simple dichotomy of a homogeneous dominant discourse (capitalism) and a uniform subordinated counter-discourse (that of the MST). As Foucault (1977) stated, "we must not imagine a world of discourse divided between accepted discourse and excluded discourse… but as a multiplicity of discursive elements that can come into play in various strategies" (100). As I discuss, elements of the "dominant discourse" perpetuated by the state (which itself is not uniform) are at times supportive of the MST's project and at times in complete opposition. Similarly, the MST is rife with internal complexity and contradiction. While its official discourse promotes a specific worldview that opposes the capitalist mode of production, it exists at least somewhat within the bounds of the system it challenges. When not using a frontal attack or "war of maneuver" on the system, the movement is required to play by the rules of dominant institutions (i.e. seeking degree certification legitimized by the state, adhering to laws regarding land ownership, designing educational programs approved by the state-run PRONERA<sup>28</sup> to receive funding). Yet in this complex and protracted "war of position," perhaps these types of contradictions are inevitable. As Foucault (1977) argued, "Discourses are tactical elements or blocks operating in the field of force relations; there can exist different and even contradictory discourses within the same strategy" (101-2). Some of these contradictions will become apparent throughout the thesis and are discussed in the conclusion.

Setting the context for the MST's struggle, the next chapter explores different approaches to smallholder agrarian reform. It briefly introduces the history of land distribution in Brazil, agrarian reform policies, important legislation and social mobilization, but mainly focuses on the neoliberal shift under President Fernando Henrique Cardoso's government. As this discussion centers on smallholder agriculture, I first examine market-led agrarian reform (MLAR), which is supported by the state and the World Bank. I then contrast this with an example of the MST's alternative agrarian reform proposal through *Projeto Flora*, an agroforestry project being implemented on agrarian reform settlements across Paraná.

<sup>&</sup>lt;sup>28</sup> National Program for Agrarian Reform Education – discussion in Chapter Four.

Chapter Three looks at debates around agricultural modes of production at the global scale. After outlining the global discourse of neoliberal agri-food systems, it examines the importance of agroecology as an alternative to industrialized agriculture, promoted by the agroecological movement in Latin America. The chapter then returns to the Brazilian context, highlighting the politics of agribusiness under President Luiz Inácio "Lula" da Silva and its effects on agrarian reform. Finally, the chapter concludes with the MST's shift to agroecology and the establishment of the movement's agroecological schools as a counter-hegemonic tactic.

Chapter Four begins with a discussion of the MST's educational sector as a vital tool in its "war of position." I argue that MST pedagogy seeks to awaken organic intellectuals across the movement, in keeping with Gramsci's belief that all people have this potential. As places of knowledge production and dissemination, schools like the EMS are spaces in which capitalist hegemony is actively challenged and alternatives constructed. After examining the context of popular education, the remainder of the chapter uses the case study of the Milton Santos School to concretize the arguments of this thesis. I demonstrate how the MST's tactics (including *formação*, popular education, and participatory democracy) are put into practice at the EMS. I detail the school's operations, partnerships, the agroecology course, and conclude with a discussion tying the case study back to the political agroecology and the agrarian question.

Finally, the concluding chapter summarizes the arguments of the thesis, connecting the case study back to Gramsci and Foucault. I return to my research questions to address some of the challenges facing the MST's counter-hegemonic project. I also reflect on some of the challenges I faced as a researcher, some limitations of my project and potential avenues for future research, including a trans-scalar study of agroecological knowledge production in dissemination incorporating an analysis of online spaces as new sites for social mobilization.

# **Chapter Two**

# WHICH AGRARIAN REFORM? DIFFERENT APPROACHES TO SMALLHOLDER AGRICULTURAL DEVELOPMENT

## I. INTRODUCTION: PROJETO FLORA

Driving three and a half hours through the countryside south of Maringá, we arrived at the Assentamento Oito de Abril (April 8<sup>th</sup> Settlement), one of the MST's largest land reform settlements in Paraná. I was driving with Claudio, the EMS director, José, the head of the school's agroecology sector, and Maria, one of the school's administrators heading the EMS's participation in *Projeto Flora*. The goals of the project – which is run by the MST in partnership with state agencies, ecological institutes, and academic institutions - are twofold. First, it seeks to promote the productive reconversion and recovery of degraded lands, training farmers through environmental education that combines empirical, experiential, and academic knowledge. Second, it seeks to provide income generation for *assentadas* in agrarian reform areas across the state. Our drive to the settlement took us along winding roads, passing through hilly countryside accented by Araucária, dotted with diverse forest stands, winding streams, and multi-colored fields, interrupted by small towns here and there. Yet as we continued, the landscape began to change. Suddenly, we saw monocultures of a type of tall grass, and a tree I did not recognize. When I asked my hosts about this, they replied that this is sugarcane<sup>29</sup> and eucalyptus country and that vast swaths of land here are owned and operated by transnational and Brazilian agribusiness. "Notice the smoke?" Maria asked me, looking at the sugarcane. I nodded. "They're burning the fields before the harvest, which is prohibited by law. But agribusinesses do what they want, with no concern for people or the environment."<sup>30</sup> She also indicated that the

<sup>&</sup>lt;sup>29</sup> "Paraná is the second leading sugarcane producer in Brazil after the state of São Paulo. ... The city of Maringá is considered the center of sugarcane production in the state of Paraná" (The Soybean and Corn Advisor).

<sup>&</sup>lt;sup>30</sup> This information is corroborated in Bryner (2012).

eucalyptus plantations were ecologically problematic and, unlike the agroforestry project we were about to begin at *Oito de Abril*, wouldn't stand up well to climatic events.<sup>31</sup> She added that these plantations were quite lucrative for the companies but didn't leave much for local people.

This story illustrates a larger debate on agricultural development in Brazil and is central to the MST's struggle. It highlights tensions between different approaches to agrarian reform: market-centrality versus a concern for people and the environment, cash crops versus local food sovereignty, monocultures versus diversified crops, agribusiness versus localized peasant holdings, and industrial farming versus agroecology. While the approaches of both the Brazilian government and the MST are not static and do not fit neatly into these dualisms, these choices often characterize different sides of the debate. Wolford (2005) has explored this, using the concept of "moral economy" (drawing on EP Thompson and James Scott), which she refers to as "the moral arguments (ideal models or ideology) used by a particular group of people to define the optimal organization of society, including most importantly an outline of how society's productive resources (in this case, land) ought to be divided" (243). This chapter explores President Fernando Henrique Cardoso's attempt to address this land division in Brazil by employing different approaches to agrarian reform.<sup>32</sup>

Though the struggle over land involves actors across multiple scales – large landholders, transnational corporations and agribusiness, the Brazilian government, and other governments participating in land grabs in Brazil – this chapter focuses on approaches to land redistribution and agricultural models at the smallholder scale. While it draws mostly on existing literature, it sets the political context of my argument that the MST's agroecological *formação* seeks to challenge the dominant agricultural development discourse through the construction of an

<sup>&</sup>lt;sup>31</sup> Vandana Shiva (1993) also writes of the problem of eucalyptus in Paraná (53-55).

<sup>&</sup>lt;sup>32</sup> I focus on Cardoso's presidency because it coincides with the MST's official adoption of agroecology. Many of his decisions with respect to agrarian reform pushed the MST to reframe their struggle, and agroecology provided a challenge to his approach.

agroecological counter-discourse. It is important to explore the state's role over the time period of the MST's agroecological shift (the late 1990s – early 2000s), as the MST sees the state as central to agrarian reform, providing mechanisms through which the landless gain access to land.

Two visions of agrarian reform will be explored in this chapter. The first is market-led agrarian reform (MLAR), which draws on neoliberal capitalist logic, promotes "modernization" and traditional "development" discourses, and excludes those who participate in land occupations (the MST's main tactic). The second is the vision of agrarian reform promoted by the MST, which seeks larger structural change in Brazilian society that opposes capitalist ideals of profit maximization and faith in the free-market. In addition, it questions and critiques the modernizing development discourse that supports industrialized agriculture and genetic modification experimentation by adopting the agroecological approach.

The next section provides an overview of the legislation that has made state-led agrarian reform possible, which provides the basis for MST occupations. The third section briefly outlines President Cardoso's "ambivalent legacy" (Ondetti 2007) with respect to agrarian reform, as his approaches differed significantly between his first and second terms. The fourth section examines market-led agrarian reform to understand the principles the MST sought to challenge. Finally, I concretize these distinctions through two examples: the *Cédula da Terra*, an MLAR project funded by the World Bank, and *Projeto Flora*, mentioned at the beginning of this chapter, which introduces the idea of agroecology as an alternate approach.

# II. THE MST, INCRA, AND STATE-LED AGRARIAN REFORM

Over the past 30 years, the MST's relationship with the state has had its ups and downs. Many presidents have struggled with how to address the pressure from this large group whose members have, at one extreme, been called terrorists in their own country, while on the other, have gained

international respect and attention as one of the largest, most important social movements in the world. It has even had supporters and detractors within the same administration. Despite struggles within specific governments, the MST ultimately sees the state's role as crucial to the struggle for agrarian reform and a more just and egalitarian Brazil. The movement argues that "the state must be involved in carrying out land distribution – expropriating land and settling the poor – because without such support the market is a tool for the exploitation of the poor and landless" (Wolford 2007, 566-67).

This right to land redistribution has a long history in Brazil, beginning with the 1964 Land Statute, which declared, "private property can be confiscated when it is not cultivated, or when the owner is in violation of labour or environmental regulations" (Martins 2006, 269). This legislation was intended to relieve rural social tensions by finding a middle ground to the inequality gap produced by the existence of *minifúndia* at one extreme and *latifúndia* at the other. Due to the power of landed elites, the only way land redistribution could take place was by providing the government with the authority to expropriate land on account of social interest. In addition to land expropriations, "progressive taxation and support for production, including credit, technical assistance, cooperative development, etc." were also required (Deere & Medeiros 2007, 81). Yet the military regime, which ironically had adopted the Land Statute, dismissed such land reforms and pursued agricultural "modernization" through Green Revolution technologies,<sup>33</sup> the dispossession of rural workers, and continued support of large landholders.

After the military regime ended in 1985, the Land Statute was incorporated into the 1988 Brazilian Constitution, providing the most important legal backing now used by the MST to

<sup>&</sup>lt;sup>33</sup> Chemical and technological inputs discussed in Chapter Three.

argue for expropriation of large unused or "unproductive"<sup>34</sup> lands. In Title VII, Chapter III (*Agricultural and Land Policy and Agrarian Reform*) of the Constitution, Article 184 states, "It is within the power of the Union to expropriate on account of social interest, for purposes of agrarian reform, the rural property which is *not performing its social function*" (Brasil 2010, 131, emphasis added). The use of the term "social function" is further elaborated in Article 186, which describes the conditions under which land is seen as serving its social function:

The social function is met when the rural property complies simultaneously with ... the following requirements: (1) rational and adequate use; (2) adequate use of available natural resources and preservation of the environment; (3) compliance with the provisions that regulate labor relations; (4) exploitation that favors the well-being of the owners and laborers. (Brasil 2010, 132)

MST members who organize occupations often conduct detailed research to find land that fits these criteria to present the best legal claim. However, once an occupation is established, the MST no longer takes part in negotiations. This responsibility falls to INCRA, which conducts an investigation "to determine whether a property is expropriable" (Hammond 1999, 474-5). If it is deemed so, the agency sets an amount for compensation based on market value, and the land is expropriated for agrarian reform. Yet INCRA has often found itself in a difficult position, pressured on one side by MST occupations demanding expropriation and on the other by powerful landholders and their lawyers who claim "that the price offered for the land was too low, that the land did fulfill social functions" (Abbey et al. 2006, 104). In these situations, INCRA is often forced to drop proceedings due to lengthy court battles and its own limited resources. Yet rather than serving as a deterrent for the MST, its occupations increased in the mid-1990s, forcing the Cardoso government to reassess INCRA's authority.

While some consider the idea of squatting on and occupying private property illegal, the

<sup>&</sup>lt;sup>34</sup> According to Sauer (2006): "Unproductive farms are those classified as not achieving 80 per cent of the use of tillable land, or whose yields are below 100 per cent of the average per-hectare productivity rates. The expropriation process includes long-term payment of compensation (through twenty-year bonds) for the value of the land, and cash payments for improvements" (178).

MST "employs legal tools and concepts in the articulation of … alternative definitions" of property (Meszaros 2000, 518). As Meszaros (2000) argues, "law is an important part of the process of ideological self-legitimation" (518). Although, according to Carter (2005), "most judges insist on applying the Civil Code's absolutist approach to property rights and thus criminalize MST activists" (15), in 1996, a decision was reached by Brazil's highest court deeming land occupations "substantially distinct" from criminal acts against property, as they sought a larger legal and societal reform (16). This was a crucial moment that legitimized MST actions and demonstrated the movement's "[active contribution] to shaping the debate on the nature and function of law" (Carter 2005, 16).<sup>35</sup> Yet, as we will discover, this came at the beginning of a presidency whose second term challenged the MST by once again criminalizing their occupations, while promoting smallholder market-led agrarian reform.

# III. CARDOSO'S "NEW RURAL WORLD"

Fernando Henrique Cardoso, a Brazilian academic and leading scholar of dependency theory during the 1970s, became Brazil's president in 1995 and served two terms, ending in 2003. He was elected during a time when MST land occupations were greatly increasing, while INCRA's authority was being challenged by long, drawn-out court battles with lawyers of large landholders resisting expropriation. To address INCRA's lack of resources to fight these protracted battles, in 1996 Cardoso's government amended what was know as the *lei do rito sumário*, "eliminat[ing] many of the legal manipulations that in the past had slowed down or even impeded the land reform process" and required expropriations to occur "within 48 hours, even if the landowner decides to challenge it" (Abbey et al. 104). Cutting out much bureaucratic red tape, INCRA could, in theory, conduct its business much more efficiently, allowing the

<sup>&</sup>lt;sup>35</sup> Wolford (2005: 244) argues that both the MST and the *latifundiários* use the Constitution as legal backing for their claims, resulting in an institutionally weak land law.

government to address the agrarian question<sup>36</sup> through extensive settlement of the landless. This encouraged a dramatic increase of MST land occupations from 1995 to 1999, forcing INCRA to concentrate its efforts on these rather than on other types of agrarian reform (Abbey et al. 105).

During his first term, Cardoso's government managed to settle an impressive 240,819 families, more than all of his predecessors combined (Ondetti 2007, 10). Bernardo Mançano Fernandes (2009) argues this may have been due to political pressure at the time, noting that peasant movement land occupations appear to spur agrarian reform (94). As the largest peasant movement in Brazil, MST actions were integral to the success of land redistribution.

Government	Occupations	%	Families	%	
Sarney (1985–1989)	229	3	34,333	3	
Collor/Itamar (1990-1994)	507	7	82,600	8	
FHC (1995-1998)	1,987	28	301,908	29	
FHC (1999-2002)	1,991	28	290,578	28	
Lula (2003-2006)	2,387	34	343,958	33	
Total	7,101	100	1,053,377	100	

Table 1: Brazil, Land Occupations, 1985-2006

Source: DATALUTA (2008).

Government	Settlements	%	Families	%	Hectares	%
Sarney (1985–1989)	800	11	122,598	16	8,248,899	17
Collor/Itamar (1990-1994)	461	7	61,825	8	4,485,953	9
FHC (1995-1998)	2,211	31	240,819	31	10,706,365	22
FHC (1999-2002)	1,712	24	149,140	19	7,296,429	15
Lula (2003-2006)	1,879	27	192,257	25	17,092,624	36
Total	7,063	100	766,639	100	47,830,270	100

Table 2: Brazil, Agrarian Reform, 1985-2006

Source: DATALUTA (2008).

Tables 1 & 2. Source: Fernandes (2009): 94-5.

<sup>&</sup>lt;sup>36</sup> The agrarian question examines the relationship between peasants and capitalism and the difference between "simple commodity production" (subsistence) and "capitalist commodity production" (surplus-value and the accumulation of capital) (Bernstein 1982, 163). It also examines changing rural conditions and effects on peasant livelihoods.

Though these tables do not specify the number of MST families settled, there is nevertheless a large increase in both occupations and settled families at the beginning of Cardoso's presidency.

However, paradoxically, Cardoso also ushered in Brazil's era of neoliberalism. During this time, agribusiness thrived, trade was liberalized, and global agricultural development discourses led him to champion market-led agrarian reform that was contrary to the MST's model. The numbers of families settled must be understood in this context, as structural issues in Brazilian society that had led to inequality, such as the concentration of land ownership, had not been addressed. The implementation of neoliberal policies had taken a large toll on family agriculture and small farming, as they were forced to compete in the market with large landowners, mostly tied to agribusiness. The farming of cash crops (agriculture for export) had become heavily mechanized, resulting in the "elimination of two million agricultural posts and the expulsion of almost 400,000 smallholders between 1995 and 1998" (Karriem 2009, 321). So despite his settling of landless families through agrarian reform, hundreds of thousands of other rural and urban poor became marginalized. The Cardoso government saw this marginalization as unfortunate but necessary collateral damage of this neoliberal shift (Karriem 2009, 321).

As the agrarian question endured, the Cardoso government attempted a different approach. Due to the increase in MST-led land occupations, Cardoso began his second term by passing the "2000 Decree," a law that prohibited INCRA from purchasing and expropriating land that had been subject to an occupation, even if it was deemed unproductive (Fernandes 2009, 94). This resulted in a dramatic decrease of land occupations, "from 502 in 1999 to 158 in 2001 and 103 in 2002" (Abbey et al. 2006, 105). Yet being unable to ignore agrarian reform entirely, that same year Cardoso created the Ministry of Agrarian Development (*Ministério do Desenvolvimento Agrário*, MDA) "to alleviate rural poverty by administering welfare-oriented policies and support programs (such as price supports and subsidized credit) directed at smallscale farmers, subsistence producers, rural workers and landless settlements" (Hopewell 2014, 300). Those who only glance at the numbers would assume that Cardoso left a great land reform legacy. Yet it was one from which only those who complied with the status quo could benefit. Settlement of families on smallholder properties continued, but only for those who sought land through market-led agrarian reform and did not participate in occupations. These World Bankfunded programs pushed neoliberal principles that ran contrary to the MST's discourse. As the MST's occupations became outlawed, MLAR programs such as the *Cédula da Terra* came to characterize Cardoso's second term and forced the MST to reframe its approach.

#### **IV. UNDERSTANDING MARKET-LED AGRARIAN REFORM**

It is important to understand market-led agrarian reform, promoted by Cardoso in the late 1990s to early 2000s, as it became part of the dominant discourse of smallholder agricultural development in Brazil. It is characteristically neoliberal, centered on the market, favoring a reregulation of the state, and cutting out much of the bureaucracy through decentralization. Looking at cases of MLAR's implementation from Brazil, Colombia and South Africa, Santurino Borras Jr. (2003) argues that this approach comes from an economic perspective that believes it will provide "an *efficiency- and equity*-enhancing *redistribution* of assets" (quoted on 370). The MST's official adoption of agroecology directly coincides with this timeframe, but tends to take the opposite approach of the market-led, industrial agricultural model that will be presented here.

In terms of getting access to land, Borras Jr. (2003) notes that cooperation from landlords is seen as key to successful land reform and that those who do not wish to sell their land will not be forced to do so. If they choose to sell, they are to be paid "100 per cent spot cash based on the full market value of their lands" (Borras Jr. 2003, 370). In addition, there is a battle between

those who seek access to land, as this approach favors the "fittest" beneficiaries. Though MLAR's main objective, he states, is "the creation and development of *efficient* and *competitive* individual family farms," potential beneficiaries must first form their own organization, which "would exclude less promising applicants" (371, emphasis added). This language of efficiency and competition demonstrates the neoliberal discourse of this approach, seeing potential for profit as the goal rather than redistributing land to all who are willing to work it. It promotes competition and individuality rather than cooperation and community. In addition, this model focuses on decentralization, which, proponents argue, makes it more efficient but essentially privatizes land reform and avoids lengthy disputes over compensation levels that are common in state-led land reform (371).

As a condition to the purchase of these lands, the MLAR model requires that potential beneficiaries present "viable farm plans that emphasize diversified, commercial farming" before any funds are released (Borras Jr. 2003, 372). This is based on the argument that it will facilitate faster development of the farms but carry stipulations such as, "a portion of this grant must be spent on privatized-decentralized extension services that are strictly demand-driven" and "hir[ing] consultants (e.g. NGOs and cooperatives) to assist them with project plans" (372). Yet these requirements do not take into consideration the subsistence needs or food sovereignty of peasants but focus immediately on commercialization.

Turning to financing, Borras Jr. (2003) explains that this "model adopts a flexible loangrant financing scheme," where a fixed sum of money is given to each beneficiary, who decides how to use it (373). However, the condition is that "whatever portion is used to buy land, that portion is considered a loan and has to be repaid by the beneficiary. …Whatever is left after land purchase is given to the beneficiary as a grant, to be used for post-land transfer development projects and is not to be repaid by the beneficiary" (373). In short, MLAR's proponents argue that this model "is much cheaper than state-led land reforms primarily because: (i) it does away with huge, expensive government bureaucracies, (ii) land prices are lower and (iii) beneficiaries shoulder 100 per cent of the land cost" (Borras Jr. 2003, 373). It plays into the familiar neoliberal discourse of re-defining the state's role, reducing its interventions in land reform (as it wastes too much money), and places the responsibility of loans directly on the "beneficiaries."

While this may sound perfectly logical, it ignores the historical complexity of Brazilian land distribution and unabashedly discards the "unappealing" poorest of the poor. In addition, the program targeted "people who had experience in subsistence agriculture," but whose farms were no larger than a "family farm" or whose annual income was less than US\$15,000 (Wolford 2005, 249). Consequently, these types of programs are of little use to urban and peri-urban landless, many of whom had been displaced from the countryside in the 1960s and 1970s. It also excluded those with no farming experience but who longed for land on which to create a livelihood.

It is important to acknowledge that even agrarian elites, as Wolford (2005) discusses, "are not primarily agreeing with neoliberalism per se: they are embracing a theoretical framework that legitimates their own worldview and their own claim to resources" (245). Similarly, the MST is not completely against the market as a place to buy and sell goods and services. Many hope to gain a livelihood and participate in the market (on their own terms). Yet Wolford (2005) argues that MST farmers reject MLAR because they "[object] to a worldview that labels their own poverty an indication of slothfulness and interprets their request for assistance as a sign of weakness" (245). She states that, if given the title to it, the laborer will maximize his or her land's productivity and efficiency. The central idea is to transfer land from unproductive people to those who actually produce on it. Wolford (2007) continues that "if markets work well, then property rights should be an indication of having labored" (557).

It is important to underline what Wolford has stated here. The MST is not absolutely against the idea of selling in a market but is critical of the market's *centrality* in social relations. I saw one example of this at the EMS. The school is a working farm, cultivating a lot of produce, dairy, eggs, and meats. Much of this feeds the school's permanent residents, volunteers, students, and visitors for seminars, meetings, and events. Whatever is not used at the school is sold at a *fair price* at the local market in the neighboring city of Paiçandu. This not only helps diversify the meals of a largely poor population but also contributes to the EMS's limited resources while raising awareness about the school and its programs.

### V. COMPARING THE APPROACHES: THE CÉDULA DA TERRA VS. PROJETO FLORA

To understand these differences more concretely, I compare the *Cédula da Terra*, one of the projects supported by Cardoso and the World Bank, and *Projeto Flora*, the agroforestry project taking place in agrarian reform settlements in 42 municipalities across Paraná and facilitated by the MST. While *Projeto Flora* came after the *Cédula*, both represent different approaches to agrarian reform on the settlements. I look at the *Cédula* first, drawing on Sauer (2006), before turning to my own experiences of *Projeto Flora*, based on conversations with participants and observation of the project's implementation on a large settlement in Paraná.

As Sauer (2006) explains, the *Cédula* was the first of three successive World Bank projects attempting to address agrarian reform in Brazil. In essence, it sought to create "a credit line for landless farmworkers and *minifundistas* to buy land" (180), with an aim to "settle 15,000 families in three years (this was later extended to four years)" (181). In addition to this number being far below that of state-led agrarian reform, this project perpetuated traditional agricultural development and ideas of productivity and modernization that relied on industrialized agricultural practices (and Green Revolution technologies). It operated according to the MLAR model described in the previous section, providing loans for landless farmworkers or smallholders to buy land through the organization of beneficiary associations that would negotiate with large landholders to buy plots of land (Sauer 2006, 180). Sauer notes how this gave many landless and smallholders the impression that they could receive land without political conflict or difficult, drawn-out occupations. In this way, the *Cédula* undermined grassroots organizations such as the MST, with its official discourse explicitly espousing the "idea that market mechanisms will provide access to land without confrontations or disputes and therefore reduce social problems and federal expenses at the same time" (Sauer 2006, 182). Yet those critical of these programs argued that the *Cédula* sought to "take 'ideology and politics' out of land reform in Brazil" (182), rendering technical (in the words of Tania Murray Li [2007]) a process that was, in reality *highly* political and ideologically-driven.

Despite the promise of the official discourse, many *Cédula* participants were displeased about their inability to participate in decision-making processes and negotiations and complained about the lack of communication and information regarding the project's "basic elements" (Sauer 2006, 186). They experienced several issues common to traditional development projects around the world: increasing debt, insufficient funding, no consultation about what communities or individuals actually wanted or needed, a model being forced on locals without their unique context being taken into consideration (i.e. having to form community associations in order to apply to the project did not make sense in every context) (Sauer 2006, 184-7). In addition, farmers were encouraged to plant cash crops, "reproducing the logic of exploitation of rural wage laborers" and "imposing certain practices and values" with which the farmers did not necessarily agree (187). The survey conducted by Sauer's team revealed, "very few families covered by the *Cédula da Terra* earn enough to eat and survive" (189). Reminiscent of many Green Revolution victims in other countries, one of Sauer's respondents stated, "Before I had nothing and owed nothing. Now I have nothing and owe money. I have land, but a debt too" (quoted on 190). Sauer (2006) concludes that these hardships cannot simply be solved by access to land, if underlying structures of society are not also addressed. These, he argues, "will never be met through market mechanisms" (190).

When I first read Sauer's accounts, I was struck by the contrast to the MST's agroecological project at the EMS. Though in its beginning stages, the MST's adoption of agroecology relates directly to its vision of agrarian reform as a way to address inequality problems plaguing economic, social, cultural, political, and ideological aspects of Brazilian life (Martins 2006, 266-67). For example, rather than increasing farmers' debt through World Bank financing, forcing them to farm using input-intensive methods without community consultation, the MST favors agroecology, which is strongly linked with the concept of food sovereignty. Local farmers decide for themselves what to grow with the idea of first, feeding themselves and the community, and second, taking any additional crops to a local market. They have the responsibility to decide what is culturally and ecologically appropriate in their local context.

I experienced this at *Assentamento Oito de Abril*, during the planning and implementation of *Projeto Flora*. When we arrived at *Oito de Abril*, we attempted to find the school where the land for the project was located. We quickly found ourselves lost on the narrow dirt roads winding up and down steep hills, so we pulled into a driveway to ask directions. A woman emerged from the house, gave us directions, and we were on our way. We passed several diversified fields and modest-sized homes. As my hosts explained, this was one of the largest settlements in the state, with hundreds of families and plenty of productive farmland. When we arrived at the school, I was shocked by its size (Image 1). Sitting atop a windy hill, it included buildings of classrooms, facilities, a dining area with a kitchen, outdoor studying areas, and a huge covered gym. A fence demarcated the school's area, which included a large portion of land running down the hill below the school. This, the technician explained, could all become part of the agroforestry project one day.



Image 1. School at Assentamento Oito de Abril, Paraná. Photo by author.

We quietly entered the classroom where the meeting was taking place, as the presentation had already begun. A technician who had been trained at one of the MST's agroecological schools was explaining the project to students of many ages and farmers (both women and men) from the settlement. To connect with the locals, he referenced the school's proposal for an agroforestry project to produce fruit. He asked what fruits they have and what else grow well in this environment. Because many attendees were farmers, they began shouting out things they produce, describing their farming experiences on the settlement. They talked about different climates, ecosystems and landscapes, comparing their example to other areas like Paranacity and Lapa (two of the agroecological hubs in the state). The technician built on this, saying they are all different and how you have to learn to work in your local conditions. For example, some considerations he mentioned included sun exposure, the lowest temperatures (this area tended to be a little colder), soil types, and seasonal climate patterns (such as rain and drought).

After brainstorming what they could produce, he began discussing the details of agroecology. He spoke about people's initial skepticism of agroecological systems, not denying their environmental benefits (such as preserving biodiversity), but their uncertainty that such systems could be as productive as monocultures or farming using industrial inputs and techniques. This was a common concern, he said, as he switched slides on his PowerPoint presentation. An image appeared depicting two market stalls, each with a sign indicating that they were selling strawberries. The larger sign (over the larger stall) was from a big industrial farmer. It dwarfed the other, much smaller stall belonging to a local farmer, whose sign read, "without GMOs and chemicals." The purpose of this slide, he explained, was to demonstrate the *politics and economics* behind models of agriculture. Industrial agriculture uses imagery, size, and money to project an idea of abundance, productivity, wealth, and efficiency. Small organic farmers, by comparison, often do not have access to resources to promote themselves in this way or educate others about the importance of their choice of farming methods. Though traditional agricultural development is often presented as purely scientific and apolitical, he made the point that these decisions are *very* political and part of larger discourses of the agro-food industry. In addition, he spoke about the organic certification process and how it can be difficult and political, which is why some farmers who farm organically simply advertise as "sem agrotóxicos" ("without agro-toxins") to avoid the certification process.

Finally, before we broke for lunch, the technician began discussing soils, dispelling myths about the benefits of industrial agriculture. He spoke of the importance of understanding and respecting soil, knowing that healthy soils are filled with helpful, necessary microorganisms. Within industrial agricultural discourse, these microorganisms are not seen as serving a purpose and are destroyed with chemicals. In contrast, he explained, agroforestry enriches the soil and helps return organisms, especially those that have been degraded due to chemical inputs. The farmers chimed in, talking about the settlement's soil types and the problems they have had with degraded soil, especially on the school grounds. While agroforestry designing seemed complex, the technician explained that it was actually quite simple and would draw from and build on people's local knowledge, just as they were doing in the classroom.

After a delicious lunch of chicken, rice, beans, *farofa* (made from manioc flour), and salad (all of which were organic and produced on the settlement or by local farmers), the group headed to the field where they began the project. I was impressed by the efficiency. I had expected the group to sit in the classroom discussing all day, perhaps drawing up designs for later. But they were enthusiastic and didn't see the point in waiting. Some farmers had gone home during lunch to pick up seedlings, offshoots, plants and farming tools to begin. After examining the soil and space, the technician, the EMS experts, the school's director, and the farmers sketched out a design for rows of banana trees, manioc, and papaya (among other things). Children had finished class and began walking to the site to help. Women and men, boys and girls, teachers, and students began digging and planting, chatting as they worked. The technicians explained some agroecological principles and plant properties, but the farmers also chimed in when they could give advice about the local conditions. It was a sharing of knowledge, rather than a transfer from "expert" to "lay." It was also a community project, something with which they were all involved and from which they could all benefit. Picking up several banana shoots, I participated in the ritual of planting, putting my hands into the soil and working with the others. I felt the sense of community, how this promotion of agroecology went beyond a model of agriculture and strengthened social relationships, healed ecosystems, and put the power of decision-making back in the hands of those who worked the land. It was one of those

moments in "the field" when I caught a glimpse of how agroecology facilitated another way of living, an alternative to an individualistic, mechanical, and input-heavy agricultural model based on maximizing profits and the market.

## VI. CONCLUSION

This chapter discussed two fundamentally different approaches to agrarian reform in Brazil. The first is market-led agrarian reform promoted by the Cardoso government toward the end of the 20<sup>th</sup> century. Supported by World Bank-funded programs, this agrarian reform perpetuates neoliberal notions of "efficiency," "competition," and "modernization" in agricultural development discourse. It targets smallholder farmers, attempting to fold them into a supposedly lucrative market-centric logic but burdening them with debt and often starvation. In addition, it did not settle nearly as many families as other types of agrarian reform, which is significant considering the large number of those who seek land. While this approach is seen as dismantling unnecessary bureaucratic spending through the decentralization of land reform, it does not address systemic structural issues in Brazilian society, such as the extremely concentration of land ownership, that led to inequality and poverty in the first place.

In contrast, the MST's approach, facilitated by state-led agrarian reform, has attempted to address socio-economic, cultural, and political problems in rural Brazil by promoting the adoption of agroecology. This agroecological approach is discussed in the next chapter, which scales up these politics and presents the MST's role in the larger, transnational agroecological movement.

# **Chapter Three**

# THE POLITICS OF AGROECOLOGY: CHALLENGING NEOLIBERAL AGRI-FOOD DISCOURSES

# I. INTRODUCTION: AGROECOLOGY VS. AGRIBUSINESS

"Agroecology is many things," Julia answered when I asked what agroecology meant to her. As we walked away from the *horta* (the main vegetable garden on the EMS grounds) toward the orchard she said, "It is a science, a politics, a social movement. But it is also a way of life. It's a way of working, a type of agriculture, techniques and principles, but it becomes a way of living that one adopts. It produces a knowledge, another way of knowing." It was a beautiful, warm, sunny day in late July as I walked around the grounds with this young woman who had trained in the EMS's agroecology course. The air was fresh and sweet, a smell of the countryside. It was winter in Maringá, but nothing like the Canadian winters with which I was familiar. Here, they grew vegetables and fruits year-round. Today, she was showing me the vegetable gardens and orchards while talking about the school, her experience in the agroecology course, and agroecology in general. As we walked and talked, she pointed out the circle of banana trees that had been planted by her class (Image 2), part of their legacy in the *horta.*<sup>37</sup>

Julia is currently pursuing her undergraduate degree in agronomy at the *Instituto Educar*, an MST university on a large settlement in Rio Grande do Sul. Like the agroecology course she had attended at the EMS, the five-year agronomy degree is organized by alternating time in the classroom (*tempo escola*) and practicum in an MST community (usually their home – *tempo comunidade*). Students alternate between the two approximately every 80 days, keeping them connected to both the course and their community and allowing them to share knowledge and

<sup>&</sup>lt;sup>37</sup> Not only does this produce bananas for the school, she explained, but it also helps treat waste water coming from the nearby sheds. Cristian was developing a grey water filtration system by the main buildings and explained the process to me as I helped him with some of the manual labor (which I discuss in more detail in the next chapter). Through him I learned that the banana tree circle helped clean the water, taking up the minerals that are toxic to humans and using oxygen to clean the water.

practice what they have learned. As a graduate of the EMS and a resident of Paraná, Julia decided to return to the EMS for *tempo comunidade*. She described her love for the school's gardens, how she enjoyed coming back here to work and spend time with the people.





Image 2. Julia by the banana trees. Photo by author.

Image 3. Gilherme herding cattle. Photo by author.

After spending some time in the *horta* – accompanied by Gabriela, one of the resident children – we walked along the dirt road that led back to the school. The orchard was down a hill below the cow sheds and chicken coops, which were next to two resident houses. We passed by Gilherme, one of the residents in charge of livestock, who was herding cows up the road on his bicycle (Image 3). We walked past his house, past the new milking station, under barbed fencing and into the pastures as a shortcut to the orchard. As we walked, I noticed that the ground was covered in small mounds measuring around 1-3 feet across. They were part of the landscape, covered in grass, but made it look as if we were walking over upside down egg cartons. Julia said this land was in recovery and told me to be careful of sharp objects sticking out of the ground. She explained that this had been an area filled with waste from both the ceramics factory and the dumping ground it had become after the factory was abandoned in 1982. When the municipality of Maringá loaned the MST the land for the school in 2002, it had begun the process of rehabilitating the soil through agroecology. Currently, sixty percent of the 77 hectares upon

which the school sits is considered the Permanent Conservation Area. Much of this territory is in an advanced stage of reforestation or recovery. It is a very hilly area, and the steepest slopes are used for grazing cattle, as these are unsuitable for agriculture. Livestock raising, I had learned earlier, was also done according to agroecological principles by grazing dairy cattle in conjunction with reforestation projects. They had decided to plant leguminous trees, such as white leadtree (*Leucaena leucocephala*), which serve as a high-protein cattle fodder and provide shade for the cattle during hot summer months. While still in the rehabilitation process, agroecological projects in various stages could be found around the school grounds.

Gabriela was preoccupied, running ahead of us and taking pictures with my camera. Julia and I continued to talk about the courses as we walked through the fruit trees and as she climbed one to grab guava hanging from some of the higher branches. When I asked if she thought agroecology had become widespread since its official adoption into the movement in 2000, she admitted that it has been moving at a slow pace. She explained how the discourse of agribusiness and conventional agriculture was hegemonic that many peasants trusted this model as modern, efficient, and productive. It was difficult for peasants to see agroecology as a possible way of life when they had adopted the dominant discourse. As she stated, "the MST is, after all, working within the capitalist system." Yet, she added, more and more people are discovering contradictions within this discourse. As she explained:

Agribusiness is destroying peasant life – culturally, economically, socially. It destroys the organization of rural life, destroys families, destroys our settlements. I think people are starting to realize this, and have begun participating in debates the movement has around agricultural production. Ultimately, I think there is a need for the adoption of agroecology more widely in the settlements. The more families who learn about agroecology, the more the experiences can multiply.

This, she continued, is where MST educational programs come in. When people attend courses, they study theory and undergo political and ideological *formação*. This, she says, can contribute

to shifting the discourse by disseminating knowledge and questioning the logic of agribusiness and the capitalist mode of production within their settlements. While she maintained that there is hope, she acknowledged that this is a very slow process and that the MST must constantly seek to transform the discourse of agribusiness into that of agroecology.

This story of transformation – both of the land upon which the EMS sits and the peasantry through agroecological *formação* – is explored in this chapter and the next. This chapter's purpose is to examine another aspect of the discursive (and subsequently material) battle waged between official MST ideology and the neoliberal agri-food regime. While the "conventional" industrial agricultural is still the norm on many MST settlements, the alternative agroecological approach has been incorporated into the MST's official discourse. The challenge is now to scale this practice up and out. This requires deconstructing the notion of industrial agriculture as an apolitical model to demand a reformulation of the neoliberal common sense into a "good sense" based on agroecology. This transformation of a rural way of life requires a transformation of the discourse surrounding not only agriculture but also rural livelihoods and organization. As Julia said, agribusiness, which is integral to the neoliberal capitalist model of agriculture, is destroying many aspects of peasant life.

This chapter begins by discussing the neoliberal agri-food regime, exploring how it has been changing nature-society relations. I draw mainly from existing literature, as this chapter provides background on the global context of both the agri-food regime and the mobilization of agroecology. The first section looks at the globally hegemonic agri-food discourses, outlining the industrialization of agriculture and the neoliberalization of agri-food systems, including the rise of agribusiness. The second section provides an overview of agroecology as a science, practice, and social movement. It focuses on the politics of agroecology and looks at the ways in which peasants across Latin America have mobilized it as an alternative discourse. The agroecological movement demonstrates that it is not only the model of agriculture that must change, but an entire way of thinking about our relationship with nature and each other. The third section returns to the Brazilian context, introducing agribusiness under President Lula and its effects on agrarian reform. The chapter concludes by outlining the MST's internal shift to agroecology, introducing the importance of the agroecological schools.

## II. THE NEOLIBERAL AGRI-FOOD SYSTEM: A GLOBAL REGIME

While structured inequality existed for around ten thousand years or so, and imperialism of diverse sorts occurred from the formation of the earliest states, it is only at the end of the 20<sup>th</sup> and the early 21st centuries, under the guise of "neoliberalism," that corporations have acquired the power to control food systems on a global scale.

~Joan P. Mencher 2013, 4.

In the 1960s, the United States began exporting a capital- and chemical-intensive model of industrial agriculture to (mostly) developing countries under the guise of "modernization."<sup>38</sup> This became known globally as the "Green Revolution" and consisted of the mechanization of farming (replacing much human and animal muscle labor), the use of "high-yield" hybrid seeds planted in monocultures,<sup>39</sup> chemical pesticides and synthetic fertilizers. In addition, the system is based on the import/export model, relying on unequal power relations in international trade. As Debi Barker (2002) writes, "these mechanized, modern tools of farming ... quickly became commercial farming inputs that took control away from local farms and communities and gave more control to large corporate structures which supplied the input" (251). She argues that this system transformed humans' attitude toward nature and, consequently, "disrupted local social arrangements and culture" (252). This new attitude consisted of the following shifts: "Working

<sup>&</sup>lt;sup>38</sup> What McMichael (2009: 141) classifies as the *second food regime*, lasting from the 1950s-1970s.

<sup>&</sup>lt;sup>39</sup> Or monocropping, meaning only one crop is grown year to year, which leads to specialized production.

with and within ecological systems was replaced by subjugation and conquest. Diversity was replaced by uniformity. Self-reliance was replaced by dependence" (252).

This shift, which falls in line with western colonial discourses on "modernization" and linear progress, has had an enormous impact on rural livelihoods. Since implementation of the structural adjustment programs (SAPs) and free trade agreements (FTAs) of the 1980s and 1990s, as well as "budget-cutting and free market conditionality forced on [mostly Global South] governments by the World Bank and International Monetary Fund," peasants have been continuously dispossessed of their lands and livelihoods (Martínez-Torres & Rosset 2010, 153). In many cases, those who remain farmers are often forced into debt to pay for the Green Revolution inputs upon which their farms have become dependent (Kremen et al. 2012, 49). Yet it is not only rural inhabitants who are affected by this system. McMichael (2009) argues that the neoliberal world order rests upon this current (emerging) corporate food regime (1980s-present), which has had a variety of economic, environmental and social repercussions. These include land grabbing<sup>40</sup> and deforestation for monocultures (especially across the Global South), public health and food quality concerns, rural livelihood disruption (and subsequent rural to urban migration, affecting urban areas), genetic modification and patenting of organic materials, and the depletion of natural resources worldwide (Altieri 2009, 102; Holt-Giménez & Shattuck 2011, 109; Massicotte 2010, 79; Vandermeer & Perfecto 2013, 78).

In terms of environmental impacts, Altieri (2000) argues that the monoculture system, including the increased use of capital-intensive technology, chemical pesticides, and synthetic fertilizers, have resulted in what he calls "ecological diseases." He describes these as falling into two categories: those associated with soil and water (everything from soil erosion and the

<sup>&</sup>lt;sup>40</sup> According to Derek Hall (2013), current land grabs are "large-scale land acquisitions for (especially) crop production and resource extraction in terms of the dynamics and contemporary transformations of capitalism" (1582).

depletion of soil nutrients, to pollution of surface and groundwater) and problems with crops, animals, and pests (such as loss of biodiversity, creation of "super weeds" and pesticide-resistant plants, chemical contamination, and destruction of natural control mechanisms). Many of these problems are treated separately, not as symptoms of a poorly designed and broken system, ultimately resulting in decreasing yields due to "the steady erosion of the productive base of agriculture through unsustainable practices" (Altieri 2000, 80). The increased use of biotechnology also carries several risks, including increased vulnerability of species because of genetic uniformity, cross-contamination between GM- and non-GM species, increased resistance of pests to toxins used in pesticides, negative affects on non-target organisms, elimination of natural populations of insect herbivores, polluting soils and other toxic activities, risk of new viruses, and the potential to broaden host-range of some viruses (Altieri 2000, 85-86).

From the small-farmer perspective, livelihood conditions have not improved, despite the rhetoric of "progress." Though dominant discourse insists that increased mechanization and the use of synthetic fertilizers and chemical pesticides will make them more efficient and profitable, this forces farmers to become dependent on large companies to supply what used to be available to them through farming's natural cycle (Kremen et al. 2012, 49). Industrialization, along with patenting seeds and genetic material, removed farmers' rights to choose what they grow and how they grow it, as well as their ability to save seeds (a practice dating back as far as agriculture itself) (Altieri & Toledo 2011, 588). While not all peasants use patented GM seeds, they have increasingly been included in technology packages distributed to smallholders under MLAR.<sup>41</sup>

<sup>&</sup>lt;sup>41</sup> The right to non-GM seeds is a concern to the MST, which created its own organic seed cooperative – *Bionatur* – as alternative to patented seeds. In 2004, *Bionatur* harvested approximately seven tons of seed of more than 90 organic plant varieties, increasing to an annual output of 22 tons by 2009 (Karriem 2009, 322). *Bionatur* is "guided by the production of healthy food, free from agro-toxins and transgenic seeds, which is the basis for the food sovereignty of the people" (Karriem 2009, 322).

While many industrial agriculture practices are presented as good economic "sense" (at least in the short-term), the picture painted thus far demonstrates overwhelmingly negative ecological, social, and cultural repercussions for smallholder farmers. Examining societal impacts, Kremen et al. (2012) argue that this cycle of dependence perpetuates a system of marginalization, resulting in many of the world's food producers being the hungriest and most impoverished (49). According to McMichael (2000), the intensification of production for export that began in the 1970s "destabilized family farming throughout the world... and intensified dependence on foreign markets" (132). Under neoliberal globalization, corporations, global financial institutions, and trade organizations have becoming increasingly powerful. These entities favor corporate economic prosperity and the perpetuation of the corporate agri-food regime over equitable labor practices, quality food, and environmental wellbeing. As Barker (2002) states, "the basic GATT [now WTO] premise was that market principles reigned supreme over every other social or cultural consideration and were to be applied uniformly around the globe" (255). These institutions have constructed a discourse of prosperity, and peasant movements actively critique the "reductionism and false promises of neoliberalism," which they claim has "[installed] a 'self-regulating market' on a world scale [*enclosing*] questions of social reproduction within a legitimating rhetoric of 'feeding the world'" (McMichael 2008, 216).

Despite this rhetoric, the neoliberal agri-food system is failing to feed the world. In 2008, the "global food crisis" gained international media attention as protests sparked by the sudden and dramatic increase in food prices erupted in Mexico, Morocco, Mauritania, Senegal, Indonesia, Burkina Faso, Cameroon, Yemen, Egypt, Haiti, and twenty other countries (Holt-Giménez 2009, online). The irony of this crisis, which had been "decades in the making," is that while hunger rose to record levels, "the world's major agrifoods corporations ... [received] record global harvests as well as record profits" (Holt-Giménez & Shattuck 2011, 111). While 2011 statistics demonstrate that enough food was produced to feed everyone in the world, more than one billion people were classified as hungry, with over two billion considered malnourished (Tscharntke et al. 2012, 55). In reaction to the food riots sparked around the world, leading industrialized countries and international institutions,<sup>42</sup> influenced by agribusiness, proposed increasing implementation of tactics championed by neoliberal capitalism, a system that was in part (if not mostly) responsible for the crisis in the first place (Holt-Giménez 2009, online). These tactics included "more genetically modified crops, more biofuel crops, more 'free' trade" (Shiavoni 2009, 682), and a call for "a new Green Revolution" (Holt-Giménez & Altieri 2013, 91). As Eric Holt-Giménez and Miguel Altieri (2013) argue, this new "Doubly Green Revolution" is the basis for this neoliberal strategy, "[retaining] the same proprietary genetic foundations as the original Green Revolution, but [with] added transgenic technologies, global markets, environmental concerns, and a leading role for the private sector" (92).

While this reshaping of global agriculture carries severe economic, social, and ecological impacts and risks, mainstream media "regurgitated these responses to the public, upholding the message that hunger could be solved through a one-size-fits-all approach of boosted agricultural production and quick market fixes" (Shiavoni 2009, 682). As Holt-Giménez (2009, online) argues, these solutions "are being met with skepticism, disillusion, and indifference by a general public more concerned with the global economic downturn than with the food crisis" while "neoliberal retrenchment has met growing resistance by those most affected by the crisis—the world's smallholder farmers." Although this resistance is growing, the power of agribusiness and

<sup>&</sup>lt;sup>42</sup> Such as the World Bank, the International Monetary Fund (IMF), the World Trade Organization (WTO), the UN Food and Agriculture Organization (FAO), the Consultative Group for International Agricultural Research (CGIAR), and megaphilanthropy (such as the Bill and Melinda Gates Foundation, which Holt-Giménez and Altieri [2013] call "the Green Revolution's new philanthropic flagship" [91-2]).

its discursive framing of "efficiency, productivity, economies of scale, trade liberalization, free markets, and the need to feed to the world" (Rosset & Martinez-Torres 2012, 19) present a formidable challenge for social movements and small farmers worldwide.

Before turning to these social movements, it is important to stress the global power of agribusiness, not only as the dominant mode of agriculture, but as the producer of knowledge to solidify its hegemonic grip. This is demonstrated in the publication that came out of a collaborative project between the International Institute for Environment and Development (IIED), the IUCN Commission on Environment, Economic and Social Policy (CEESP) and the Yale School of Forestry & Environmental Studies (Yale F&ES). Avery Cohn, one of the editors and author of the section *Academia and Social Movements*, presents what he calls the "vicious cycle" of agribusiness's influence and power across multiple sectors. I will quote it at length, as it demonstrates the relationship between power, money (resources), and knowledge production:

Agribusiness amasses power, and impels research. That consolidates the industry's power further, and exploits the labor and lands of farmers along the way. Agribusiness giants get to *set the agricultural research agenda* because they provide the lion's share of money for agricultural research, and through lobbying exert *disproportionate pressure on policymaking* that affects public directives for agricultural research. Agribusiness has different priorities for agriculture than small farmers have. Agribusinesses make their money by exploiting the cheap labor of farmers and farm workers, and economically undervalued natural resources. *They aim to produce quarterly profits even at the expense of long-term sustainable management of natural resources and vibrant rural communities.* (Cohn et al. 2006, 51, emphasis added)

Although it may be difficult to imagine how farmers could begin to challenge this system, it is precisely its focus on profit maximization rather than its own sustainability that may prove to be the downfall of agribusiness and the neoliberal agri-food regime. Weaknesses such as these are important for the construction of a counter-discourse, and it is within this context of "out-of-control trade liberalization" (Altieri & Nicholls 2008, 478) and the inherent contradiction of

capitalism<sup>43</sup> that the numerous regional, national, and transnational food, peasant, and agrarian movements find such importance today.

#### **III. THE LATIN AMERICAN AGROECOLOGICAL MOVEMENT**

*The heart and soul of the agroecological movement can be found in 75 million small-scale farming families throughout Latin America.* 

~Darcy Victor Tetreault 2012, 12.

Repeating Julia's description of agroecology once more, she said: "It is a science, a politics, a social movement. But it is also a way of life. ... It produces another way of knowing." In reviewing literature on agroecology, I found her definition encapsulated all of the sentiments of those authors. While this young woman had been trained in agroecology at the EMS and was continuing her studies in agronomy at an MST university, she had also grown up living agroecology. Her mother was from the countryside and accustomed to traditional farming without agro-toxins, which had been passed down in her family. Her mother was critical of farming with agro-toxins, and was very active in MST debates over agricultural models. As a proponent of the cooperative agroecological model, her mother employed these methods on her plot of land in their settlement, and the children grew up working in this way. Julia and her siblings (two sisters and a brother) all attended MST agroecological courses, either at the high school or university level (or both). Knowing her background, I began to understand how she lived agroecology, seeing it as the logical, most equitable, and humane way of living. As an MST activist who had grown up in the movement, she was aware of and reflexive about her agroecological formação. In our many discussions, she was critical of the capitalist system for putting profit above people and nature, yet she recognized the deep entrenchment of this

<sup>&</sup>lt;sup>43</sup> Becky Mansfield (2012) describes the inherent contradiction of capitalism as follows: "On the one hand capitalist firms depend on the environment to provide goods and services firms themselves cannot produce; on the other hand to profit and continue to grow they are under constant pressure to destroy (by externalizing costs) the very environment on which they depend" (93).

discourse in society, acknowledging the MST's own embeddedness in the system. Yet in speaking with her and participating in life at the school, I began to see the movement's vision for another way of organizing society. According to its discourse, it is through *living* agroecology – not just seeing it as an apolitical scientific practice – that society can shift away from the logic and greed of neoliberal capitalism.

At this point, one may ask, "what does it mean to *live* agroecology?" From fieldwork and conversations with those living at the EMS, the answer isn't so simple as following a set of rules in a guidebook. It requires both intentional and organic *formação*, a way of living that incorporates agroecology in interactions with the environment and each other. While vague, I unpack this in more detail in the next chapter, exploring daily activities and agroecological *formação* at the EMS. First, it is important to understand the different facets of agroecology in general. While this section scales out from the Brazilian context to Latin America, this is important to see how the MST's discursive and hegemonic struggle goes beyond Brazil. The MST is part of a transnational network of peasant and agrarian social movements and as such, both influences and is influenced by larger discourses on agricultural practice and politics.

The first part of this section introduces agroecology as a science and practice. It draws from agroecological literature to understand how this type of agriculture differs from the Green Revolution model. It also highlights the importance of knowledge production, especially agroecology's acknowledgement of the plurality of knowledges, with a focus on the local scale. The second part looks at the politicization of agroecology through *La Vía Campesina* and the Latin American Agroecological Movement, and introduces the concept of food sovereignty. Finally, the third part illustrates the transfer and adoption of agroecological knowledge and practice through the farmer-to-farmer (*campesino-a-campesino*) methodology.

## 3.1. The Science and Practice of Agroecology

In their analysis of the concept, "agroecology," Wezel and Soldat (2009) argue that it "can be interpreted as a scientific discipline, as a movement or as a practice" (3). The authors conducted a quantitative and qualitative analysis of the term to determine whether or not it has become its own discipline (4). They searched academic literature in English, French, Spanish, Portuguese, Italian and German for the term "agroecology" or "agroecological,"<sup>44</sup> as well as their equivalents in the other languages. This resulted in 711 publications, which they collected and analyzed based on several topics (author, keywords, date, country affiliation, content, etc.). They traced agroecology's discursive and material development from science to social movement by chronicling different phases of the articles' content. The "starting phase," from 1930s to the 1960s, considered agroecology "the application of ecology in agriculture" (9). The next phase, from the 1970s through the 1980s, saw the "expansion of agroecology as a science" (10). The third phase, in the 1990s, was the "institutionalization and consolidation of agroecology," which saw a shift to concern with "sustainability" and "biodiversity," as well as an increase in publications (10-11). Finally, "new dimensions in agroecology" emerged in the fourth phase, from the 2000s to the present, during which the number of publications exploded and agroecology came to be understood as "the integrative study of the ecology of entire food systems, encompassing ecological, economic and social dimensions" (11). This section follows a similar trajectory, first outlining some of the basic principles of the science of agroecology, followed by the concept's politicization and use to address broader social and political concerns.

Wezel and Soldat (2009) mention Miguel Altieri as the author with the largest number of publications on agroecology, and it therefore seems appropriate to begin with his definition. In his position paper for the Rio+20 summit, he states, "as an applied science, agroecology uses

<sup>&</sup>lt;sup>44</sup> And their alternate spellings: 'agro-ecology' and 'agro-ecological.'

ecological concepts and principles for the design and management of sustainable agroecosystems where external inputs are replaced by natural processes such as natural soil fertility and biological control" (2012, 6). Elsewhere (Altieri 2009), he argues, "this approach is based on enhancing the habitat both aboveground and in the soil to produce strong and healthy plants while at the same time stressing crop pests (weeds, insects, diseases, and nematodes) and promoting beneficial organisms" (103).<sup>45</sup> Rosset and Altieri (1997) widen the definition, describing a "discipline that provides the basic ecological principles for how to study, design, and manage alternative agroecosystems that address not just environmental/ecological aspects of the crisis of modern agriculture, but the economic, social, and cultural ones as well" (290). While the first two definitions concentrate on agroecology's scientific aspects, the latter incorporates other social aspects. This is the conception of agroecology that has been adopted by the MST.

Darcy Tetreault (2012) highlights agroecology's emphasis on experimentation, which is echoed in other authors' descriptions of local farmer innovation and input from indigenous, traditional, and experiential knowledge. For example, Kremen et al. (2012) explain, "much agroecological work seeks to bring Western scientific knowledge into *respectful dialogue* with the local and indigenous knowledge that farmers use in managing ecological processes in existing agroecosystems" (45, emphasis added). In the same vein, Delgado (2008) argues that agroecology not only deconstructs old hierarchical productions of knowledge but also places "a renewed value" on "indigenous, local, and traditional knowledges" (561). As John Vandermeer and Ivette Perfecto (2013) state, "farmers themselves have long been scientists and their

<sup>&</sup>lt;sup>45</sup> See Altieri (2009, 2012) for elaboration on agroecological principles. Altieri is also cited in Machin Sosa et al. (2010, 30), stating the main principles of agroecology as:

<sup>•</sup> Increase the recycling of biomass and achieve a balance in the flow of nutrients.

<sup>•</sup> Secure favorable soil conditions, high in organic matter and with a diverse soil biology.

<sup>•</sup> Minimize the loss of nutrients from the system.

<sup>•</sup> Promote genetic and species diversification, at the farm and landscape level.

<sup>•</sup> Increase biological interactions and synergisms between components of the agroecosystem.

knowledge is, although perhaps narrow in scope, quite deep in regards to their particular farm and farming system, frequently having benefitted from the accumulated knowledge of generation[s] of their ancestors" (81). The authors therefore promote *campesino-a-campesino* knowledge sharing as a way to develop new scientific knowledge (81).

These examples highlight one aspect of agroecology that is important to the MST's story: its emphasis on the local scale. While, as a transnational movement, politicized agroecology seeks structural change on a global scale, Steve Gliessman (2013) argues that "productive ecosystems... should be grounded in local ecological knowledge, locally adapted, limited by local environments and culture, and designed to meet local needs first rather than respond to the demands of export markets for single commodity crops" (22). Agroecology therefore employs traditional, local, experiential, and indigenous knowledge to the function of ecosystems, producing techniques that are "site-specific and tend to be transferred from location to location through horizontal communication and social networks, with much adaptation by local communities" (Kremen et al. 2012, 54). Maintaining local connections, while waging a broader political and discursive battle on the global scale, requires farmers to create networks of knowledge and experience sharing (Massicotte 2010, 74). This was seen in the *Projeto Flora* example and was discussed at the EMS as a key component in building an alternative.

Worldwide movements such as *La Vía Campesina* (LVC)<sup>46</sup> provide a forum for such sharing. According to Rosset and Martínez-Torres (2013), "LVC is a global alliance of organizations of family and peasant farmers, indigenous people, landless peasants and farm workers, rural women, and rural youth, representing at least 200 million families worldwide" (2-

<sup>&</sup>lt;sup>46</sup> LVC was founded in April 1992 by members of social movements (including the MST) and farm organizations across the Americas, the Caribbean, and Europe in reaction to (and with the shared goal of challenging) neoliberal policies (Menser 2008, 28; Desmarais 2002, 95). It is composed of 148 farmers' organizations across 69 countries in Asia, Europe, the Americas, and Africa, and is "independent of governments, funders, political parties, NGOs, and non-peasant special interests" (Holt-Giménez & Shattuck 2011, 129; Martínez-Torres & Rosset 2010, 150; 171). During the past two decades, LVC has employed non-violent actions and mass mobilizations to defy the system and policies of neoliberal institutions such as the WTO and the World Bank.

3). This grassroots movement "envisioned a simultaneously new and old 'agrarian trajectory' that would reintegrate food production and nature as an *alternative culture of modernity*"" (Martínez-Torres & Rosset 2010, 150, emphasis added). In advocating principles of food sovereignty and a renewed agrarian citizenship, LVC promotes the democratization of ecological knowledge, emphasizing the acknowledgement of *a plurality of knowledges*. Delgado (2008) states that a combination of many ideas about nature should inspire what has become known as *diálogo de saberes*, or "dialogue of knowledges" (566). In particular, they place special importance on "indigenous, traditional, and local 'wisdom,' [which] has been taken as a main 'source' for agroecology" (Delgado 2008, 566).

## 3.2. Agroecology as a Social Movement

While acknowledging the environmental significance of implementing agroecological principles, many in the social sciences stress its social importance in challenging the neoliberal agri-food regime.<sup>47</sup> From these discussions, we see that the tactic of presenting agroecology as an alternative to the dominant system goes beyond the MST, tying into the wider counter-hegemonic project of transnational agrarian and food movements. This project points to the *politics* of agroecology and the role of the state and institutions in legitimizing efforts for social change.<sup>48</sup> Manuel Gonzalez de Molina (2013) advocates the need for a *political agroecology*, arguing, "[it] should develop in two directions: as an ideology which ... is dedicated to dissemination and turning the organization of agroecosystems based on an ecological and sustainable paradigm into the dominant system; but also as a disciplinary field responsible for *designing and producing actions, institutions, and regulations aimed at achieving agrarian* 

<sup>&</sup>lt;sup>47</sup> For further discussion see: Altieri & Toledo 2011; Amekawa 2011; Gonzalez de Molina 2013; Holt-Giménez & Altieri 2013; Holt-Giménez & Shattuck 2011; Karriem 2013; Kremen et al. 2012; Patel 2009; Vandermeer & Perfecto 2013.

<sup>&</sup>lt;sup>48</sup> For discussion of the place of institutions in the agroecological struggle, see: Altieri & Toledo 2011; Amekawa 2011; Gonzalez de Molina 2013; Holt-Giménez & Altieri 2013; Kremen et al. 2012; Petersen et al. 2013; Rosset & Martínez-Torres 2012

*sustainability*" (50-1). Chapter Four demonstrates that the MST's *formação* seeks to create such a political agroecology, and provides insight into the successes and challenges of its approach.

Yet this question of politicization raises issues of codification, the institutionalization of practices, and risk of cooptation. Some warn that certain forms of institutionalization may bring more radical aspects of the agroecological movement back into the dominant system, quelling dissent. Despite this concern, Gonzalez de Molina (2013) emphasizes the need for collaboration between both civil society actors (i.e. social movements) and state institutions (53). This is supported by Holt-Giménez and Altieri (2013), who state that the agroecological movement's effectiveness depends on "major changes … in policies, institutions, and research priorities to create an enabling environment for peasant-based, agroecological development" (94). They argue that this will "require a combination of extensive on-the-ground agroecological practice and *strong political will* to overcome opposition and co-optation from the Green Revolution" (94, emphasis added). But this is easier said than done. When political leaders such as Lula praise agribusiness as the reason for Brazil's rise as an economic power, it leave little incentive to change its model of agriculture, despite social and environmental arguments against it.

Maintaining the "strong political will" to promote agroecology as a viable alternative requires agroecology to be seen as "a *social movement* with a strong ecological grounding that fosters justice, relationship, access, resilience, resistance, and sustainability" (Gliessman 2013, 19, emphasis added). He states that producers and consumers must be "reconnected in a social movement that honors the deep relationship between culture and the environment that created agriculture in the first place" (Gliessman 2013, 20). This agroecological movement emerged out of Latin America, where agroecology has a strong base. The preamble to "The Agroecological Declaration of Lima" (Gliessman [2014], emphasis added) states:

We, representatives of universities, research institutions, social movements, peasants, NGO's and students of the region, youth and women of SOCLA, conscious of the environmental, economic, and energetic crises that are profoundly affecting the agrarian reality of Latin America, *being products of an industrial and hegemonic model of agriculture*, which perpetuates hunger, inequality, the displacement of peasants, the destruction of culture and local knowledge, provokes environmental degradation and loss of biodiversity, we consider Agroecology as the *scientific, methodological, and political proposition*, linked closely with social movements, as the *only alternative* for confronting the challenges of climate change and able to achieve food sovereignty for the people.

The declaration then follows with the Congress assembly's five points (text in quotes

from Gliessman 2014, 135-6):

1) Promoting, "both personal and collective, proposals for territorial development based in Agroecology;"

2) The importance of the alliance of social movements for the scientific advances of agroecology;

3) The "need to strengthen the mechanisms for political action," not only by the social movements, but also through consumer solidarity, other types of social justice movements, in addition to the establishment of norms and policies around the world;

4) The declaration of "solidarity with all movements of peasants and indigenous communities that are fighting for the right to land and water, for their cultural and economic autonomy, and for the preservation of their way of life;" and finally,

5) The hope for a "solidarity of cooperation" in the international sphere, and not "a strategy for cooption and dilution of [the agroecological movement's] essential fundamentals of social equity and the construction of food sovereignty for the people."

As is seen in the last part of the declaration, the concept of agroecology promotes the

notion of food sovereignty (see also Massicotte et al. 2011; Rosset & Martinez-Torres 2012).

LVC first promoted the concept of food sovereignty during the 1996 World Food Summit, where

it sought to "develop a comprehensive alternative proposal for restructuring food production and

consumption at the local, national and global level" (Rosset 2009, 190). The organization

believed that it was necessary to highlight states' social and political responsibility to ensure the

food security of their people. Patel (2009: 665) cites LVC as follows:

Food is a basic human right. This right can only be realized in a system where food sovereignty is guaranteed. *Food sovereignty is the right of each nation to maintain and develop its own capacity to produce its basic foods respecting cultural and productive diversity*. We have the right to produce our own food in our own territory. Food sovereignty is a precondition to genuine food security.

Food sovereignty has been widely developed throughout the last decade, with many organizations and movements adopting and spreading its principles (Shattuck & Holt-Giménez 2010, 431). Six guiding principles of food sovereignty – "focuses on food for people; values food providers; localizes food systems; puts control locally; builds knowledge and skills; and, works with nature" - were developed at the Nyéléni 2007 Forum for Food Sovereignty held in Sélingué, Mali, and attended by "over 500 social movement leaders from nearly 100 countries" (Schiavoni 2009, 685). According to Kremen et al. (2012), "food sovereignty movements promote agrarian reforms, resist state and corporate land grabs, and critique proposals that contribute to farmer debt and dependence" (51). This acts as a "unifying concept" in creating a new agri-food regime, seeking to empower all peoples in their right to control their food and agricultural systems (Vandermeer & Perfecto 2013, 77). These principles are in direct opposition to the "commodifying instincts of agribusiness," which "displaces workers from the land, prioritizes agro-exports over meeting domestic food needs, further concentrates land and income in fewer hands, and is detrimental to the environment" (Karriem 2009, 322). For these reasons, agroecological principles are a key component of food sovereignty.

While this section discussed agroecology's characteristics and practices, it has not presented the implementation of such an alternative. Although it provides a utopian vision of community and small-scale agricultural, it is difficult to dispel the allure of agribusiness and Green Revolution technology. The last part of this section presents the example of knowledge dissemination through CAC methodology. This method emphasizes the *diálogo de saberes*,

drawing on a plurality of knowledges to construct its discourse and practices (McCune et al.

2014, 32). This is fundamental to the MST's pedagogy, explored in the next chapter.

# 3.3. Implementation: Campesino-a-Campesino Methodology

Farmers helping their brothers, so that they can help themselves...to find solutions and not be dependent on a technician or on the bank: that is Campesino a Campesino. ~ Argelio González, Santa Lucía, Nicaragua, 1991, quoted in Eric Holt-Giménez 2009 (online)

Eric Holt-Giménez has extensively documented CAC methodology through Mesoamerican

experiences (Rosset et al. 2011, 169-70). He describes CAC as:

[Beginning] with a series of rural projects among the indigenous smallholders of the ecologically fragile hillsides of the Guatemalan Highlands in the early 1970s. Sponsored by progressive NGOs, Mayan peasants developed a method for agricultural improvement using relatively simple methods of small-scale experimentation combined with farmer-led workshops to share their discoveries. (Holt-Giménez 2009, online)

This type of horizontal learning methodology – rather than the "top-down" approaches of

traditional development projects - echoes the ways in which many farmers in different parts of

the world have traditionally learned. Machín Sosa et al. (2010) argue, "the method has more to

do with social processes than with specific technologies" (67, emphasis added). As discussed in

publications outlining agroecology's principles, there are many ways in which to produce using

agroecological methods, but, as Machín Sosa et al. (2010) explain, "the broad dissemination of

these ideas and practices are limited by methodological weaknesses. This is a problem for which

CAC has provided solutions" (69). This methodology rests on five principles:<sup>49</sup>

- 1. Begin slowly and on a small scale. Farmers try out new methods on a small part of their land, without rushing.
- 2. Limit the introduction of new methods. People get overwhelmed when they try many new practices at the same time.
- 3. Achieve rapid and recognizable successes. The process works best when farmerpromoters first teach things that they are sure will have a rapid positive impact, because

<sup>&</sup>lt;sup>49</sup> These points are seen in examples presented from fieldwork, including *Projeto Flora* and the agroecological courses.

people are motivated to continue participating.

- 4. Carry out small-scale experiments. Everyone is encouraged to experiment on small areas of their own land, without risking their entire harvests. The more farmers who become active experimenters, the faster the overall transition advances.
- 5. Develop a multiplier effect. As more peasants become promoters and experimenters, the process begins to demonstrate a self-catalyzing momentum. (Rosset et al. 2011, 170)

Though these methods may seem intuitive to many small farmers, these guidelines must

be understood in context. Although CAC echoes traditional knowledge sharing practices of many

farmers, for years Latin America has been subject to discourses of traditional development

schemes imposed from outside, in addition to Western notions of "progress" and "modernity."

CAC methodology seeks to challenge these discourses, and as Rosset et al. (2011) observe:

Farmers are more likely to believe and emulate a fellow farmer who is successfully using a given alternative on their own farm than they are to take the word of an agronomist of possibly urban extraction. This is even more the case when they can visit the farm of their peer and see the alternative functioning with their own eyes. (169-70)

This observation inspired the subtitle of their book, "For Farmers, Seeing is Believing" (Machín Sosa et al. 2010). It provides several helpful graphics, information boxes, checklists, and guidelines regarding CAC methodology, serving as a guidebook for other farmers, movements, organizations, and governments around the world.<sup>50</sup> The authors argue that "peasant self-organization must be supported and encouraged, and conventional agricultural extension from the state, NGOs or the private sector is no substitute" (Rosset et al. 2011, 186).

This points to a significant debate in the literature addressing "scaling-out (broad adoption over wide areas and by many farmers) and scaling-up (institutionalizing supportive policies for alternatives) successful experiences" (McCune et al. 2014, 34). Rosset et al. (2011) call for the scaling-up and -out of these methods to the international level, using a "Campesino organization'-to-'Campesino organization' method based on exchange visits" (187). This is

<sup>&</sup>lt;sup>50</sup> Available as a pdf online: <u>http://viacampesina.org/downloads/pdf/en/Agroecological-revolution-ENGLISH.pdf</u>.

already happening, as technicians, activists and educators travel between different social movements located in countries across Latin America. My host at the EMS attended one such workshop in Cuba in October 2014. In addition, technicians like Cristian travel around to work with activists, living on settlements or places like the EMS and experimenting with agroecological projects. The question is whether additional agroecological schools, such as the EMS, would be efficient and beneficial for scaling-out agroecological *formação*.

While the agroecological movement and LVC have had many successes implementing CAC, challenges still exist with regard to perceptions of "modernity," "efficiency," and agroecology's viability. Erin Nelson et al. (2009) conducted interviews with farmers employing agroecological techniques across Cuba to examine agroecology's institutionalization in policy and practice. They found that many farmers still sought maximizing production through conventional agriculture as a "higher priority than maintaining a commitment to agroecological ideals" (233). While they employed agroecological techniques – mostly because that was what was available to them – many respondents "expressed varying degrees of desire for more access to resources such as agrochemicals, gasoline, electricity, and machinery" (Nelson et al. 2009, 239). The authors express a concern that these issues should be further investigated, in order to ensure the agroecological movement's long-term success and sustainability, both in Cuba and transnationally.<sup>51</sup> I came across this during fieldwork. Even people at the EMS admitted that one of the largest hurdles to the adoption of agroecology as a way of life is the widely held perception that industrial agriculture is the most efficient and modern way of farming.

In contrast, Nelson et al. (2009) found that some farmers did have strong ideological and philosophical commitments to the use of agroecology. Reminding me of Julia and how she spoke

<sup>&</sup>lt;sup>51</sup> It would be interesting to see if the farmers interviewed by Nelson et al. had been "educated" politically as well as technically, in a manner similar to the pedagogy employed by the MST and other movements at their agroecological schools.

of her connection to the land, the authors give the example of an urban producer who spoke passionately about "'how beautiful it is when you start loving the land;' going on to note that 'chemicals are to soil what drugs are to human beings. They stimulate you, but they bring bad problems in the long run.' One cooperative manager echoed this idea, stating that 'agroecology is very, very beautiful work, and productive and healthy'" (Nelson et al. 2009, 239). Their article is helpful in providing a more nuanced understanding of farmers themselves, demonstrating the diversity in the movements and cautioning against taken them as homogenous. Julia spoke similarly of diversity within the MST, but that the school's purpose was to disseminate agroecological knowledge widely, so as to reshape these perceptions, and consequently, naturesociety relations. The final section of this chapter returns to the Brazilian context in order to introduce how the MST has begun this transformation.

#### IV. THE BRAZILIAN CONTEXT: AGRIBUSINESS VS. AGROECOLOGY

As a large agricultural producer on the global stage and a country with a conflicted history of land distribution, Brazil's agrarian politics are intimately bound up in debates around agricultural models and rural organization. Here I look at the privileging of agribusiness under the Lula administrations (2003-2010) and the problem this presents for the MST's vision of agrarian reform. After detailing agribusiness's centrality to the Brazilian economy, I look at the MST's shift to agroecology as a way of reframing its struggle, in light of the advancement of agribusiness. While its official adoption into MST discourse occurred in 2000 (at the beginning of Cardoso's second term), many agroecological schools were established during Lula's time, further demonstrating the movement's dedication to disseminating agroecological knowledge.

## 4.1. Agribusiness in Brazil: The Lula Administration's Agrarian Reform Failure

The global context discussed thus far is very much at play in Brazil. Brazil's agricultural sector

has increased dramatically since the 1990s.<sup>52</sup> While the MST battled MLAR on the smallholder front, the movement has had to battle agribusiness for access to land. Smallholder MLAR and agribusiness are both proponents of the hegemonic agri-food model, employing Green Revolution technologies, using GM seeds, and producing cash crops monocultures. While the rise of agribusiness in Brazil began under Cardoso, it solidified under President Lula, the socalled "man of the people," for whom many in the MST had shown political support.

Understanding Lula's allegiance to agribusiness is important, as it demonstrates that the MST's struggle is not so easily understood as being on the political left or right. The leader of the Workers' Party was elected with over 60% of the popular vote and many had hoped Lula would move away from the neoliberalism of his predecessor (Baletti 2014, 10). Yet, to their dismay, his government continued many of Cardoso's neoliberal policies. The continued development of the agricultural sector for export was seen "as a key strategy for securing Brazil's place as a world economic power" (Baletti 2014, 10). With a significant presence in Lula's cabinet, agribusiness accounted for "40 per cent of exports and 97 per cent of the country's balance of trade surplus [according to the OECD, 2009]" (Hopewell 2014, 299). Despite privileging agribusiness, land reform for smallholders, subsistence farmers, and landless peasants remained part of the government's rhetoric, and compensatory policies such as the *Bolsa Familia* (a monthly income transfer to poor families) and *Fome Zero* (Zero Hunger, "a program to combat food insecurity and extreme poverty" [Hopewell 2014, 300]), were enacted in an attempt to address the mounting pressure from groups such as the MST.<sup>53</sup>

The MST supported Lula's campaign for president in 2002, as one of his promises had

<sup>&</sup>lt;sup>52</sup> See Abbey et al. (2006: 98) for data on growth in Brazil's agricultural sector.

<sup>&</sup>lt;sup>53</sup> Although the largest, the MST is not the only rural organization or social movement pursuing agrarian reform, nor is it the only group organizing land occupations. Yet as Fernandes (2009) reports: "The MST is responsible for 63% of the families involved in land-occupations between 2000 and 2007 (373,000 families out of a total of 583,000). In 2007, close to 70,000 families occupied land, of which 45,000 were organized by the MST" (96).

been the aggressive pursuit of agrarian reform. Unlike his predecessor, who had criminalized land occupations, Lula spoke with activists in peasant movements, including the MST. Because of this, "peasant movements carried out the largest number of occupations – in terms of both land occupied and families participating – in the history of the struggle for land in Brazil" (Fernandes 2009, 95). In 2003, shortly after Lula was elected, several MST members participated in the creation of the second National Plan for Agrarian Reform<sup>54</sup> (PNRA II), (Fernandes 2009, 93). Yet, simultaneously Lula, who spoke of agribusiness with admiration, "discreetly refrained from expropriating land in regions of interest to corporations, so as to guarantee agribusiness's political support" (Fernandes 2009, 95).

Brazil in the 21<sup>st</sup> century has seen the dramatic rise of agribusiness as the newest threat to agrarian reform. The MST's struggle had originally been framed as transforming unproductive or fallow land owned by the *latifundiários* into productive land – an action supported in the Brazilian Constitution. However, agribusiness is commodifying and commercializing the land by producing on it (mostly for export). Whether agribusinesses buy the land from the large landowners or simply rent it, they produce large-scale monocultures (typically soy and sugarcane) or use it for livestock raising. Even as agribusiness expanded its control over territories, sometimes illegally into public land, the Lula government refrained from taking actions against corporations (such as expropriation of that land for agrarian reform settlements).<sup>55</sup> The government's policy toward land reform became a huge problem for the MST and others who carried out occupations following his promises for aggressive agrarian reform. Seeing no move toward settlement, many families abandoned the encampments, relieving pressure on the government (Fernandes 2009, 96).

<sup>&</sup>lt;sup>54</sup> The first one had been formulated in 1985 during the Sarney government.

<sup>&</sup>lt;sup>55</sup> Unless there had been open conflict over that land (such as violence against the encamped), in which case the Lula government would usually expropriate the land for agrarian reform (Fernandes 2009, 96).

Discursively, the MST and other smallholders faced rhetoric from the Lula government that agribusinesses were Brazil's "heroes," due to the "rapid expansion of export-oriented industrial agricultural production (soy exports alone grew by 35% [in 2003], and agroindustrial agricultural expansion continued to grow at a rate of 22% per year for the next several years)" (Baletti 2014, 10-11). This privileging of agribusiness was based on the idea that Brazil must "export or die" (Hopewell 2014, 299). Hopewell (2014) quotes one Brazilian trade official as stating, "my sympathies are with agribusiness. Just look at the figures – my macro stability depends on agribusiness" (299). <sup>56</sup> This near-worship of agribusiness led the Lula administration to support WTO and World Bank policies and create its own policies in favor of agribusiness expansion, which Baletti (2014) describes as the following:

Continuing tax-exempt status and providing tax incentives for export-oriented agribusinesses, legalizing transgenic soy, funneling 85% of available rural credit into industrial agriculture, opening national parks to logging, rezoning large territories for development, planning national infrastructure projects to support export industries, prioritizing land privatization over agrarian reform in the Amazon through 'legal land,' and maintaining agribusiness control over 76% of arable land through his presidency. (11)

In addition to these privileges awarded to agribusiness, the Brazilian state's discourse concerning production continues to set "small-scale farming and subsistence production ... as a backward and declining sector – and primarily as a target for social protection and welfare programs – while agro-industry is viewed as a dynamic sector and a key source of growth and prosperity" (Hopewell 2014, 300). This dominant perception of "backwardness" versus "progress" illustrates the discourse the MST and other counter-hegemonic movements seek to challenge.

<sup>&</sup>lt;sup>56</sup> The Brazilian government deals with internal tensions when it comes to agricultural development, as it is "likely the only country in the world with two agriculture ministries: The Ministry of Agriculture (MAPA), [which] formulates and implements policies to promote the development of the large-scale, industrial, export-oriented agribusiness sector, [and] a separate Ministry of Agrarian Development (MDA) ... administering welfare-oriented policies and support programs directed at small-scale farmers, subsistence producers, rural workers and landless settlements" (Hopewell 2014, 300). The latter was created in 2000 by the Cardoso administration as a way to address pressure from rural groups, and yet its influence is dwarfed by MAPA, whose resources and size and influence of its staff far outweighs that of the MDA.

In considering the MST's counter-hegemonic project, it is important to note that the discourse created by the Lula administration's policies place agribusiness at the center of Brazilian prosperity. At the same time, Lula continued to work on social welfare programs and redistribution "to improve conditions of the lowest strata of society," helping to "reduce poverty rates, especially rates of extreme poverty, as well as inequality" (Hopewell 2014, 300). Despite Lula's support for agribusiness, the social welfare programs helped him maintain a high degree of popularity and consensus regarding his economic and trade policies. This, Hopewell (2014) argues, is "evident in 80 per cent approval ratings for Lula and re-election of the PT under his successor, Dilma Rousseff, in 2010" (301). His popularity has made it difficult for the MST to gain support in critiquing his policies, especially among the poor who benefit from his programs. Yet these have done little to address the problem of land concentration, which has been exacerbated because of agribusiness. It is in this context that the MST's shift to agroecology, and its dissemination through education, becomes the crucial component of reframing their struggle.

## 4.2. The MST's Agroecological Vision: Reframing the Struggle

Much of the MST's *formação* trains members to actively question and critique the logic of the capitalist system. Inspired by the work of Brazilian educator Paulo Freire, the MST sees education as more than schooling. It is about raising the political awareness of its members, engaging in political and ideological discussions and acquiring technical skills and practical knowledge to aid in their emancipation (Almeida & Sanchez 2000, 17). In keeping with its grassroots approach, the MST understands the need for its members to be educated in order to critically engage with their social reality – understand it in order to change it. This critical pedagogy is exactly what is needed to loosen the grip of neoliberal "common sense" and establish a new popular common sense, or "good sense" (Karriem 2009, 320).

Due to the problems associated with the agri-food system, the MST's popular education project has incorporated the need for concrete alternatives to the state's approach to agrarian reform. In the movement's earlier stages (1980s to the mid-1990s), "MST leadership pushed for the establishment of cooperatives that utilized the agricultural modernization model" (Karriem 2013, 149). In keeping with the agricultural development discourse of modernization, "many land reform settlements adopted green revolution technologies, mechanized, and cultivated monocultures" (Karriem 2013, 149). Yet problems arose, such as escalating costs, deteriorating soils, and failure of collectivist farming, causing MST leadership to rethink its production model and look to an alternative that would rework nature-society relations (Karriem 2013, 150). This spurred the incorporation of agroecology into the MST's politics. At the Third National Congress in 1995, agroecology gained a prominent place in the MST's political agenda critiquing the government's neoliberal project, stating, "Brazilian agriculture was being totally subordinated to the logic of capital" (quoted in Karriem 2013, 153). Knowledge about agroecology continued to circulate in the movement, and in 2000, at the Fourth National Congress, it was "officially inscribed in the movement's ideology via a charter of principles called *Our Commitment to Land* and Life" (153). This agroecological proposal was more than the adoption of a set of scientific practices; it envisioned a reforming of the human-nature relationship as one of custodianship or stewardship, rather than ownership, and a horizontal organizational structure that values the collective, rather than a vertical hierarchy of decision-making based on individualism and unequal power structures (Karriem 2009, 323).

A large part of making this initiative viable was building schools to train agroecological technicians within the movement. As MST technicians, they could then further produce and disseminate agroecological knowledge in settlements and encampments across Brazil, but as

activists they also understood the movement's ideology. In keeping with its political project, the MST's agroecological schools provide much more than technical agroecological courses. As Julia said, they conceive of agroecology as more than a set of principles and scientific agricultural techniques. Agroecology is a way of life.

This shift also coincided with a reframing of its struggle. When it began in the 1980s, the MST fought largely against large landowners whose lands were lying idle. Yet in light of the land grabs by agribusiness and transnational investment planting monocultures for export, Rosset and Martínez-Torres (2012) argue that the MST had to "re-frame [its] arguments ... contrasting the ecological and social wasteland of agribusiness plantations (as green deserts) with a pastoral vision of agroecologically farmed peasant lands, conserving biodiversity, keeping families in the countryside, and producing healthy food for local markets (food sovereignty)" (20).

Though the incorporation of agroecology in MST spaces is by no means ubiquitous, the movement discourse constructs agroecology as an approach around which a new worldview or "good sense" can be built. Delgado (2008) explains how agroecology helped inform the MST's action by not only deconstructing old hierarchical productions of knowledge but also placing "a renewed value" on "indigenous, local, and traditional knowledges" (561). Despite the movement's investment in agroecological research projects and education, this approach remains in competition with the government's "new rural extension model [which] was built upon ideals of technology transfer" (561). Farmers who have received land must choose between agroecology, which may be more environmentally, socially, and culturally beneficial in the long run but requires learning a new approach without help from the state, or the MLAR model, which includes an industrial technological package and is subsidized by the state or through loans from the World Bank. Despite the prevalence of agroecological discourses among the

leadership and the official movement ideology, as well as attempts to have agroecological techniques adopted on the settlements, Delgado (2008) mentions that many MST farmers still opt for conventional agricultural methods, creating the "dilemma of green participation" (561). As Julia explained, many people still doubt the viability of an agroecological way of life.

While there are varying ideas on how to implement a democratization of ecological knowledge, agroecological education acknowledges the existence of a plurality of knowledges and recommends their incorporation into the production of knowledge in this field. This means that for those adopting agroecology, a combination of many ideas about nature should inspire a "dialogue of knowledges" (diálogo de saberes, DS) that "expands on popular education by suggesting that there are many equally valid 'ways of knowing' the world" (McCune et al. 2014, 32). As Nils McCune et al. (2014) note, DS has characterized "processes of education, training, formation, and exchange in agroecology. ... Local peasant knowledge, indigenous and feminist ways of knowing, among others, are validated and considered on an equal basis with logical, Cartesian, historically Euro-centric knowledge" (32). As an alternative discourse, agroecology "challenges many of the dominant prepositions of modernism (like universally applicable practices in agriculture based on rational application of chemistry laws, the enshrinement of the urban proletariat as history's sole anti-capitalist protagonist, and the "bigger is better" approach to change) and thus provides a basis for the diálogo de saberes" (McCune et al. 2014, 32). In its official discourse, the MST respects the implementation of this plurality of knowledges through educational methods in keeping with the participatory models it uses in all of its sectors. Understanding that there are already changes taking place organically in the settlements, agroecological technicians are encouraged to promote these changes, fostering "extended participation and the idea that the result of deliberation would be a better solution: unique,

creative, and sustainable" (Delgado 2008, 566).

As Delgado (2010) concludes, the movement's ecological shift "enabled a certain empowerment of the MST as it redefined the 'struggle for the land' in more current and credible terms" (574), addressing not only their own struggle for land but also the exploitative structures that maintain their oppression and the contradictions in capitalism that continue to result in crises. Delgado (2010) argues that this required an epistemological shift, with "new ideas of complexity, participation, multidisciplinarity and creativity ... brought into the pedagogic program" (573). Understanding it would need agroecological technicians among its ranks, the movement created several schools offering agroecological courses. Though initially taught by non-MST technicians, these technical courses – which began in the early 2000s – have trained enough people in the movement that there is now a balance between MST and non-MST instructors. The schools are mostly located in the southern states of Paraná (which has four agroecological schools), Santa Catarina, and Rio Grande do Sul, and one in the northeastern state of Bahia, although students attend these from across the country. The MST runs all courses with support from INCRA via PRONERA (the National Program for Agrarian Reform Education) and at least one state or federal university in the region. While the movement has encountered some challenges due to these partnerships – such as unreliable funding, slow decision-making processes, and communication problems – these courses have been able to train MST members to become agroecological technicians. Many of these MST technicians return to their settlements to disseminate that knowledge more widely and often travel to nearby settlements to do the same. As more and more students graduate from these courses, they are producing a whole new generation of activist technicians, helping to close the expert-lay divide and actively reshaping the nature-society relations on the settlements.

## V. CONCLUSION

This story of agroecology is a seemingly utopian solution to an unjust and detrimental agri-food system, yet Rosset and Altieri's (1997) question is still relevant: will sustainable agriculture "be able to rescue both First and Third World farmers from the enduring crisis of 'modern' industrial or Green Revolution-style farming" (283)? The world is plagued by economic, social, and ecological crises, perpetuated by the inherent contradiction of the neoliberal capitalist system, which maintains a firm hegemonic grip. In the face of a system backed by powerful global actors, can movements such as LVC and the MST present a viable alternative through agroecology? Many MST activists with whom I spoke, as well as the official movement discourse, seem to think it is possible. They remain cautiously optimistic, understanding there are many hurdles to overcome before a new "common sense" based on agroecology is established.

As Julia stated, change will come slowly, but people are beginning to realize the contradictory and destructive nature of agribusiness and the agri-food regime. Both the MST and other transnational peasant movement (such as LVC and the Agroecological Movement) present avenues for dissent. However, Gliessman (2013) cautions against the co-optation or corruption of agroecological systems by the neoliberal capitalist system:

Like most movements, change is slow, and the roots of industrial agriculture are deep as well. ...it is obvious that the social and ecological components of the food system must receive greater emphasis and support, or the strong link between market forces and the technology of production will continue to dominate. ... we must *constantly maintain the interdisciplinary focus of agroecology* so that its foundations of resistance are not captured or corrupted. (28-9, emphasis added)

Others have also voiced these warnings against co-optation of agroecology and its principles by the corporate agri-food system (Holt-Giménez & Altieri 2013; Kremen et al. 2012). Holt-Giménez and Altieri (2013) caution against agroecology being "further subordinated to conventional agriculture by revisionist academic projects that erase its history, stripping [agroecology] of its political content" (94). Kremen et al. (2012) argue that while many initiatives or projects set out with the intention of providing an alternative to the corporate food system, they end up resembling that system, justifying their industrialization as the "fastest way to 'scale up' alternative farming practices so that they can compete in supply chains with conventionally managed systems" (51). These concerns raise an important point: alternatives *must* be viable for smallholders and techniques and participation in the agroecological movement must emancipate and empower farmers. In this light, the question of knowledge production and dissemination is especially relevant in producing a strong and resilient movement, being careful not to reproduce similar hierarchical structures of oppression.

#### **Chapter Four**

## PEASANT PEDAGOGY AT THE MILTON SANTOS SCHOOL: Embracing Agroecology as a Way of Life

### I. INTRODUCTION: AWAKENING THE ORGANIC INTELLECTUALS

Sitting in Portuguese class with the students of the high school program for youth and adults (Educação de Jovens e Adultos, EJA) at the Milton Santos School of Agroecology in Maringá, I was inspired by the passionate conversation. These students, who had chosen "Nelson Mandela" as the name of their cohort, are MST members and live on agrarian reform settlements across Paraná. That day, we had split into groups of three to write a brief essay on the right to vote in Brazil, addressing if and in what ways this right could lead to the social transformation they felt was so desperately needed in Brazilian society. After finishing, we rearranged our desks in a circle to facilitate discussion. The teacher asked people to share thoughts on these issues. As with many learning experiences in MST classrooms, people connected the question to struggles or injustices faced by those in the movement, and ultimately the struggle for an agrarian reform that challenges capitalist logic. João, a middle-aged man who has been active in the movement for years, spoke eloquently of his experiences of resistance and occupation. He critiqued President Rousseff's approach to agrarian reform and situated his lived experience of marginalization within wider systemic injustices of capitalist hegemony. Yet from the history classes we had attended a few days prior, I knew that João had great difficulty reading and writing. Despite copying the notes from the board very slowly and sounding each word out as he read aloud, João - who in a traditional system of education may have been left aside or forgotten - stood out in the discussions. In addition to his friendly demeanor and obvious intelligence, his classmates looked to him as a leader, someone who engaged deeply with their social reality of marginalization, who knew so well how to articulate their struggle, how to debate the issues and

challenge others to think critically. In these classrooms, literacy meant little if it simply regurgitated the hegemonic (neoliberal) logic and reproduced the system of inequality and injustice that the movement sought to change.

The discussions I heard throughout the week of EJA classes were insightful, mixing history and social theory they had learned with their own lived experiences. Everyone's opinion was welcomed – rather, encouraged – and people seemed to respect that each person's perspective had value and could contribute to their understanding of the world. While I listened to these thoughtful discussions, I was reminded of Gramsci's concept of the organic intellectual. Unlike the traditional intellectual, who is often in a privileged position in society and reproduces a hegemonic worldview, organic intellectuals "are critical intellectuals, whose lived experience within a subaltern group leads them to critique the dominant hegemony" (Stoddart 2005, 50, emphasis added). Though Gramsci argues that all people are potentially organic intellectuals, "not everyone fulfills this social role" (Stoddart 2005, 50). Yet as I sat in that classroom, witnessing powerful new discourses being shaped by questioning the elite "common sense," I saw Gramsci's words come to life. No one had forced these people to be here. They all had different stories: there were women and men; some were young, around university-age,<sup>57</sup> and some were grandparents; some had been farmers or had lived in the countryside their whole lives, while others had experience of the city; some were from large settlements, and others from small (and every size in between); they had various ethnic mixes, though some were visibly of African descent, while others were blonde, blue-eyed, and fair-skinned; some had come with the ability to read and write, while others could barely do either. Yet they shared a common desire to take part in actively shaping their realities, in changing their subordinated position in the capitalist system. Through participation in the movement, the EJA students had come to realize

<sup>&</sup>lt;sup>57</sup> One student's nine-year-old child participated in the activities as well, even though she was not officially in the program.

that to change their world, they first had to understand it. This meant not only identifying the injustices they faced but also critically engaging the structures of the system, the root causes of why the world operates the way it does. This meant, firstly, learning the language of their oppressors – capitalism – to uncover the power relations that exist in a system that seemed rigged against them, and secondly, taking action to shift the balance of power.

The MST's focus on education has been seen as one of the reasons for its lasting success (Carter 2005, 10). This chapter begins by exploring the roots of the movement's schools through the development of its educational sector before turning to the case study of the EMS. It is important to explore why education has been crucial to the movement and the ways it approaches learning – both inside and outside the classroom – to understand the MST's move to incorporate agroecology into everyday practices to construct another way of living. Adding to this broader argument, I argue that the movement's popular education seeks to awaken organic intellectuals across the movement, in keeping with Gramsci's idea that all people have this potential. As "organic intellectuals are the nuclei around which counter-hegemonic discourses emerge" (Stoddart 2005, 50), I argue that schools fostering their development are one space in which capitalist hegemony is actively challenged, and alternatives constructed.

Before turning to the EMS case study, I examine the MST's popular education project, as this has been a key tactic in the movement's success and crucial for their development of a counter-discourse. The third section introduces the Milton Santos School. I draw on Summer 2014 fieldwork to introduce the school's establishment as a community, its organizational structure, and agroecology in practice on the grounds. Finally, the fourth section examines the EMS's partnership with PRONERA and the agroecology course, drawing on interviews with Julia (who graduated from the course<sup>58</sup>) and Ana (my host, and one of the school's coordinators), as well as documents from the course.

#### II. PEASANT PEDAGOGY: EMANCIPATION THROUGH POPULAR EDUCATION

The development of popular education within the MST has been largely inspired by the pedagogical methods of Brazilian educator and social theorist Paulo Freire. His "pedagogy of liberation" sought to empower people through critical engagement with their social realities (Kane 2000, 36), understanding that in order to free the Brazilian people (especially peasants) from the oppression of large landowners and elitist structures, they would need to gain the right to participate in their democracy. Similarly, the MST considers education integral to its larger goal of liberation from the inequities of neoliberal hegemony (Kane 2000, 37; 45). Branford and Rocha (2002) examine the development and implementation of the MST's educational system. They state that "wherever there is an MST occupation, camp or settlement, there is a school," irrespective of harsh conditions (112). Though conditions were often far from ideal, the acampadas understood that the expropriation process could take years and that their children needed education. The authors describe a conversation with one activist and MST educator who participated in the Fazenda Annoni encampment. She recalls that they decided to set up a school since they had 25 qualified teachers among the acampadas and 760 school age children who would often get into trouble since they otherwise had very little to do (114).

When the MST began asking the government to provide schools, as education is a state responsibility, the authorities responded that they did not believe they were responsible since they considered the camps illegal. The MST eventually convinced the government that it was still responsible for the children's education, and the government began providing schools and

<sup>&</sup>lt;sup>58</sup> For this thesis, "course" signifies a degree- or diploma-granting program, not simply one class.

teachers on the encampments (Branford & Rocha 2002, 114). But the MST families soon realized that what was being taught by these teachers (often trained in cities, without any comprehension of the MST struggle or way of life) reproduced a type of thinking that maintained the status quo. This often meant being *against* the values the movement espoused. The parents also felt that the education they had received based on this traditional system was inadequate, and did not want their children to experience the same lack of understanding of "how things really worked in society"<sup>59</sup> (Branford & Rocha 2002, 115). Branford and Rocha (2002) describe the desire for "a school that taught their children 'to fight for their rights, to work together, to value the healthy life they could live in the country and to resist the lure of the city"<sup>60</sup> (115). This determination for a practical and critical education demonstrates how the MST's struggle has developed into one not only for land, but also for "education, for schools, for the right to know" (Branford & Rocha 2002, 112).

It was out of this desire that the MST began developing its own educational system, beginning with the creation of a National Education Sector, whose methods were a combination of Freire's critical pedagogy, theories in the Marxist tradition, educational systems and methods from other countries (mainly socialist ones), and knowledge from their own lived experiences (Branford & Rocha 2002, 116; Kane 2000, 40-1; 45). I saw this in practice when I sat in on the EJA course, described in the introduction of this chapter. One example was from the Portuguese class, which began as one would expect a language course to begin. All the desks were facing the blackboard, and the teacher was writing verb conjugations in different tenses, which we all

<sup>&</sup>lt;sup>59</sup> Ana explained to me that in Brazil "Rural Education" is differentiated from "Countryside Education." Unlike the former, which is the top-down imposition of education programs designed by governments or educators unfamiliar with the rural context, the latter was born in the late 1990s from the practices and struggles of farming social movements (such as the MST) and traditional populations (such as *Quilombolas*, or slave communities in Brazil). This teaching is built around the interests of the people concerned, their cultures and own needs (popular education).
<sup>60</sup> This desire among young people to move to the city has been an internal issue for the MST, as many still hope for a "better life

<sup>&</sup>lt;sup>60</sup> This desire among young people to move to the city has been an internal issue for the MST, as many still hope for a "better life in the city." This is why it has been important, from the perspective of the movement, to demonstrate the drawbacks of the capitalist life in the city and how there are alternatives in the countryside that can often provide a better life.

copied into our notebooks. She then put exercises on the board, and after working on them for a while, we corrected them as a group.

After splitting into groups to play a conjugation memory game, we arranged our desks in a large circle to work on the reading and writing component. This is where the class became interesting. The text the teacher had chosen had three quotes from different political figures speaking about the importance of the right to vote. After taking turns reading aloud, the class discussed voting and the political process. While many struggled to read and write, they came alive during the discussion, which was filled with personal experiences, histories of the movement, and its political struggle within the wider Brazilian context. Everyone had an opinion. They criticized wider society, arguing that not enough people engage in political debates. Many students believed people had the power to change social reality, because ultimately that is how society changed. But, they said, it cannot be done by simply voting on election day. This is one component, but real, substantial change comes through constant political participation and education, as well as actions such as protests, social mobilization, petitions, demonstrations, and lobbying. This is what the MST was attempting to do through continual *formação*, at schools like the EMS and across encampments and settlements.

It was refreshing to witness this lively and engaging discussion. While some of the EJA students may have taken a little more time to read and write, this did not in any way inform the kind of thinkers they were. During discussion time, people came alive, often referring to previous lessons but infusing their arguments with personal experiences and wider contexts in which they have been "educated" by living their politics. I understand that there is variability within the MST, and I was interacting with people who had chosen to further their education and are already interested in these things to a certain degree. I do not claim here that this describes

everyone in the movement. Even some of the students, and others with whom I spoke, said there are those within the MST who are not *militantes* (activists) after they receive their plot of land. But what I was experienced demonstrated how education in the movement can provide access to those who wish to engage with their social realities but who would not have otherwise had the opportunity. These are the organic intellectuals of the movement, and providing spaces for them to grow, to flourish, can only help the movement in its "war of position."

After discussing the right to vote, we split into groups of three to write a 15-lines essay on "the right to vote: how to use this right as a means for the social transformation that Brazil needs." I sat with my group mates – Laura and Diego – to discuss the question and the types of social transformation they believed Brazil needed (such as in the areas of education, health, housing, infrastructure, agrarian reform, income distribution, and job opportunities). I asked them if they think the right to vote could actually change things, to which they both replied with an emphatic "yes!" They said there were still a lot of problems in Brazil, but winning the right to vote had been an important first step.<sup>61</sup> Next, they said, people needed to discuss and debate the issues, take part in the politics of the country, and not just vote without thinking. Diego was adamant that people needed to hold demonstrations and protests when they wanted their voices to be heard, as well as having debates. They both emphasized the need for more widespread political engagement, arguing that the public sector (especially in education) needs to spend more time with these discussions and debates (see Appendix 1 for the essay).

While some of the MST's detractors have accused the movement of indoctrination, one could argue that all hegemonic forms of discourse perform some sort of indoctrination. Though

<sup>&</sup>lt;sup>61</sup> This issue of the right to vote is deeply connected to the peasant struggle, and the need for a countryside education. Paulo Freire developed a method to eradicate illiteracy in Brazil during the 1950s and 1960s, as the law at the time excluded illiterates from voting. His method was simple and accessible and "could teach a person to read and write in 45 days," making it possible to greatly add to the number of people eligible to vote (Branford and Rocha 2002, 112).

the movement has certain goals for the type of education provided, *acampadas* and *assentadas* also have a say as to what they learn, developing program curricula and making known any criticisms and gaps (Kane 2000, 46; Vanden 2007, 26-7). Ana explained that decisions to create courses at the EMS are based on demand. For example, the pedagogy course (a four-year teacher training course) that is now offered at the EMS came out of a demand from a partnership of rural social movements (including the MST) that had formed the "Paraná Group for Countryside Education." Though this had originally formed in 2001, before the establishment of the EMS, the demand for such a certification course remained unfulfilled. In 2007, through a partnership with the State University of Maringá and PRONERA, the pedagogy course began at the EMS. Ana explained that the process for getting a course started can sometimes be slow, but the demand will always come from a need within the movement. As this type of education is seen as integral to formação (even just through the trickle-down effect of militantes trained at these schools disseminating the knowledge more widely across other settlements and encampments), it is important that the schools respond to the needs of the people. For this reason, MST schools partner with university professors who are sympathetic with its struggle.

In addition, the educational sector attempts to remain self-reflexive, intentionally seeking critiques and suggestions for changing what does not work. I saw this during the EJA course, when the students have the opportunity to evaluate the instructors, course material and structure at the end of each phase. One of the education sector coordinators facilitates the discussion, but allows a space for reflection so students can make suggestions for the next phase. Similarly, Ana explained the detailed process called PROMET (*Projeto Metodológico*, Methodological Project) that takes place at the end of each phase of the agroecology course. Students reflect on everything from methodology to content, voicing opinions on what they would like to learn,

what may have been missing, what was and was not working. These elements, Ana explained, are considered in designing the next phase. For example, the students have said, "we would like to deepen our understanding of historical materialism," so in developing the next phase, the pedagogy sector would seek a professor or a teacher within the MST who has expertise on this and invite them to teach that unit. As she explained, "we consider this continuous internal evaluation as integral to our pedagogical project." An aspect of participatory democracy, she said, is making space for people to provide continuous feedback, to be self-reflexive, to constantly question (time is built into the schedule for this). If something isn't working, it needs to be changed. If something is lacking, it should be addressed. This demonstrates another aspect of the popular education project that challenges the status quo.

Reflexivity is seen as an equally important exercise for teachers. According to Liam Kane (2000) – who studied the MST's development of popular education – educators must be transparent with their own ideology, openly addressing their biases and even using them in discussions (45). The MST recognizes the convergence of education and ideology as the need for "improved theorization," with explicit acknowledgement that popular education itself has always been politically motivated to liberate the oppressed (Kane 2000, 45).

In addition to the need to educate their children during encampment time, and on settlements far removed from local schools, the MST saw education as the road to empowerment. Branford and Rocha (2002) explain the MST's realization that to strengthen the movement (and perhaps for its very survival), *acampadas* and *assentadas* would need "not only the physical courage to stand up to gunmen [hired by landowners] but also the intellectual confidence to confront opponents in government offices, courtrooms and television studios" to adequately articulate or justify why (and from what) they were seeking "liberation" (120). Wittman (2009) writes about how education moved the struggle beyond one simply for the acquisition of land to one of understanding the current system of inequality in order to change it. In addition to learning technical expertise for rural agricultural living, *acampadas* and *assentadas* come to understand how their specific local problems fit "within the larger historical context of global political economy and the influence of neoliberal policies – including increasing government support for large-scale export agriculture and decreasing support for small farmers – on their agricultural futures" (Wittman 2009, 124). For activists, understanding their citizenship and participation within the MST begins with political education, with the "conscious recognition of the roots of agricultural and social challenges as a basis for citizenship practice, rather than just the accomplishment of material objectives" (Wittman 2009, 124).

In addition to engaging people in this political education, the leaders understood that as the movement grew, it would require many local and regional coordinators, as well as technicians, recruiters and activists, spokespeople, and other planners to tackle the increasing number of sectors and areas of interest. Yet to maintain their alternate worldview, they would want to maintain (self-) informed, organically developed, critically educated activists to carry out these roles. As Branford and Rocha (2002) explain, the MST saw mass education as a way to train the *militantes*, raise their "critical awareness by teaching them the basic principles of economics, politics and sociology and by analyzing the praxis developed in the struggle for land" (120). As Gramsci argued, it is "very important for members of 'subaltern' social groups to learn the dominant grammar" (Ives 2004, 143), or in Foucauldian terms, understand the dominant discourse if they are to challenge it effectively.

Various methods were used to educate their populace. Some include what Martins (2006) describes as the "work-and-study" methodology, which is used to work through and develop

political ideology (265), as well as the less formal education in the daily lives of the *assentadas* and *acampadas* involved in organized struggle; that is, participation in the "campaigns, marches, *mística*, and framing itself" (Branford and Rocha 2002, 117). These everyday experiences are known in the movement as *formação*. It is understood as a process of socialization and political engagement within the movement's spaces wherein a collective consciousness is developed. This *formação* is intended to create a new type of society through mundane, everyday interactions and activities, as well as specific events, cultural practices, symbolism and imagery, and more formal types of education. As agroecology became integrated into MST ideology and practice, *formação* has taken on an agroecological character (at least in the MST's intention). To support my argument, I will explain agroecological *formação* here in the context of the EMS.

During the *seminário*, Ana explained *formação* to the group. This included wider goals of *formação* within the MST and specific actions and intentions for the EMS. I have translated her slides here (see Appendix 2 for originals):

## What is *Formação*?

- Intentionality: train "activists of transformation" and the makers of a new social order
- Training for the working class
- Training for the Organization [the MST] and its challenges
- Training for EMS goals
- Political, technical, educational and cultural training of activists

#### Formação for whom?

- All EMS subjects
- The MST
- The whole of society
- "All school residents should, as much as possible, engage in a process of *formação*"
- Responsibility for *formação*: CPP (*Coletivo Político-Pedagógico*)

#### Intentional Moments/Actions of Formação

- Struggles, protests, and activities at the core of the MST organization
- Studies, schooling, courses, seminars, theoretical and political engagement

- Organizational activities of the EMS (meetings, seminars) and MST (meetings, meetings of the sectors and *brigadas*,<sup>62</sup> seminars, exchanges, travel, etc.)
- Art/culture and *mística* cultural evenings, workshops, artistic creations, theater, decoration or ornamentation of MST spaces, "socialist days," films, museums, etc.
- Work planning and reflection of *formação* in daily work
- Relationship with society support for trainees and visitors, struggles/protests and other related activities; local radio program; local markets; establishment of memorials or monuments to commemorate internal (to the school) events and people, and external activists and historical events; participation and presentation of papers at events; organization of events and training activities.
- Daily living sports, history, activities to integrate people into community through collective leisure at least once a year
- *Ciranda* for children (daycare)
- International exchanges and sharing experiences with foreigners

This is an integral aspect of education within the movement, as these points demonstrate that

education extends beyond the classroom. While classroom components exist - especially in the

courses offered at MST schools - education stretches into every aspect of daily life. These slides

illustrate that formação is intentional: it is well-planned by the movement's activists to create a

sense of solidarity and collectivity. This education-through-experience and symbolism of the

movement is further described by Kane (2002):

At the end of the speeches, in their red and white T-shirts and baseball-style hats, proffering great humility and respect, these ordinary people, of whom many were illiterate, stood up and debated fearlessly, in public, with a host of eminent politicians and academics before going home to their plastic, bin-bag roofs. This was something learned through belonging to a movement rather than sitting in a classroom. (40)

Reminiscent of Gramsci's description of organic intellectuals, Kane (2000) explains lived-

experience education in the encampments further, arguing that participation in their own brand of

democracy instilled assentadas with "political awareness, collective values, participatory

democracy and a range of specific skills" (41).

One of the most poignant examples of this during my fieldwork was from the seminário.

As the vignette that opened the introductory chapter described, Claudio began by situating the

 $<sup>^{\</sup>rm 62}$  A large group that is another organizational level in the MST

EMS and its residents within the context of the larger struggle. As he explained, it is vital to remember the past, to understand the historical context of how society came to be organized the way it is (under capitalism), in order to begin to see how it could change, or be otherwise. He began outlining the history of agrarian reform. He explained the concept of (Gramscian) *hegemony* as a way of understanding their relationship with the dominant classes. He spoke of Brazil's neoliberalization under Cardoso and Lula's election in 2002. He asked if anyone thought that much had changed with respect to agrarian reform under Lula or Dilma. There was a lot of head shaking, and several people stated almost nothing had changed, despite the surge of political support for Lula from the left and popular movements such as the MST.

Claudio then spoke of the emergence of agribusiness as the newest threat to their struggle. He said that although the struggle began against the *latifúndia*, the dominance of agribusiness greatly complicated the situation. He classified this time as "The New Alliance of the Dominant Classes," explaining that under neoliberal globalization, new alliances between the international financial capitalist classes, institutions, and entities are supported by mainstream media and the state. This, he explained, is why this struggle is very complex and goes beyond the struggle for land to challenge the very structure of the current hegemonic system.

He then introduced four areas in which they face challenges, and how they could begin addressing these. The first had to do with the *wider struggle for social transformation*. He said they should never lose sight of this larger goal and that it was important to maintain solidarity with different groups, both nationally and internationally, struggling for the same things (or against the same system). The second category was the *construction of an agrarian reform for the people*. He broke this down into the following categories, which he explained in turn:

1. Fighting agribusiness and industrial agricultural inputs (including GMOs)

- 2. The struggle for land, and the need to invest knowledge, time and labor in the settlements they win (to disseminate agroecological *formação*)
- 3. The new project of the countryside, which he explained as a new way of organizing life in the countryside, saying they can conquer land, but then it doesn't make sense if we then just function the way agribusiness does. "So what do we do differently?"
- 4. Healthy food: he integrated their agroecological project into this construction of a new society as a way to provide healthy foods that can be sold to poor people for a fair (cheap) price, so that poor people could also have access to something that is currently reserved for the privileged
- 5. Cooperation in organizing production differently. He said cooperative production would also integrate health, education and culture

The third category was strengthening our organization. This included establishing and understanding common objectives and principles across the movement (such as the adoption of agroecology) and integrating their values through international solidarity and volunteer work. He explained that these were pillars of their organization and that collectivity and continual political formação were needed to strengthen the movement. Finally, the fourth category was elections as a tactic. He spoke of various tasks that the movement should undertake during Brazilian elections, the importance of "voting for our side" (progressive leftists) and the need for involvement in both local and federal elections. He spoke of finding and supporting candidates who were sympathetic with or supported the MST's project, especially at the local level. He then explained that they could think of Brazilian society as divided into thirds. One-third wanted systemic change, one-third was against such change (promotes or supports the neoliberal system), and one-third fluctuated in its opinion. Much of the latter group, he said, are new middle class, and they are being coopted by capitalist logic, but still see and understand the systemic problems in society. It is within this group that movements such as the MST must find supporters. As Claudio explained, the school's role was to actively participate in *formação* that challenged the capitalist status quo. That meant that every resident should take part in *formação*,

no matter his or her role at the school. This is what it takes to construct a new society, he explained, and it was their duty to demonstrate another way of living to wider society.

Throughout his presentation, Claudio engaged the residents to add to the discussion. Though introducing theory into the discussion through engagement with Gramsci and other socialist thinkers, he asked people to draw on their experiences or share thoughts on his explanations, especially the challenges the movement faced. Listening to prompting questions from the *seminário* presenters, I was reminded of Wittman's (2009) discussion of this engagement as a type of participatory democracy. She cites questions from the *Cadernos de Núcleo*<sup>63</sup> used by MST activists to facilitate discussion for new members during encampment time (125):

- What is the seed [origin] of our landless, camped, and settled families?
- What can our núcleo do to help the MST overcome its challenges?
- What concrete actions can the núcleo develop?
- What do you think of the organizational proposal of the MST?
- How do you evaluate the current MST State Coordinating Council?
- What are your criticisms of the current leadership and what are your suggestions for the next leaders?
- How does our núcleo act and think about a new model of agricultural development?
- What does our núcleo understand by resistance? What should we be resisting?

As this type of widespread engagement demonstrates, the movement does not limit

learning to classroom spaces and actively encourages all assentadas and acampadas to engage in

formação, much like Foucault and Gramsci's call for recognizing politics and power in everyday

activities. This was seen in the seminário, wherein all MST activists - regardless of age,

experience, or expertise - are expected to take part in constructing a new society through the

mundane, just as much as through protests, marches and demonstrations. This section only

scratches the surface of the complexity of the movement's attempt to change the meaning of

<sup>&</sup>lt;sup>63</sup> The families at settlements are divided into *núcleos de base* (NB), each one consisting of around 25 families. Each NB will meet to discuss various issues, assign tasks, share ideas, etc. It is a space for participatory democracy and decision-making.

education, beginning in the encampments and settlements but aspiring for wider societal change beyond Brazil. As Gramsci (1971) himself stated, "every relationship of 'hegemony' is necessarily an educational relationship" (350), meaning that critical engagement and education are crucial for the development of any counter-hegemonic discourse, promoting another possible world. To demonstrate this more concretely, I now turn to the MST's Milton Santos School as an example of the integration of agroecological *formação* into this popular education project.

#### **III.** INTRODUCING ESCOLA MILTON SANTOS

*Only we, the poor, can create an educational debate about our political reality. You are in a school built by the hands of the workers.* 

~Inscription on EMS building (Image 4 below)



**Image 4.** The Milton Santos quote is on the left hand side, painted over the entrance of the building containing the library, classrooms and laboratory. *Photo by author*.

After taking an overnight bus from Curitiba, the capital city of Paraná where I had spent a month working on Portuguese, I arrived in Maringá at 7:00 am and was picked up by Felipe, one of the residents at the EMS. As we drove to the school, he explained that he was from a settlement in the countryside closer to Curitiba, but that he had been volunteering at the EMS for two and a half years. He's the resident driver and often shuttles people to and from the school in one of the EMS's communal cars or runs errands and sells products from the school in the Paiçandu market

on the weekends. Although he said he would be moving back home soon, he wanted to put in some volunteer time at the school. Volunteer work like this, I discovered, is mostly how the school is supported. It is part of both the movement's structure and ideology: people contribute when they can, using whatever skills they have, even though they are not rewarded monetarily. This collective sense of contribution keeps the movement going. The mentality of this type of volunteering struck me as a fundamental difference between a society driven by capitalist logic of accumulation and the alternative the movement is trying to construct.

When I arrived at the school, I was welcomed by Ana. We entered the refectory,<sup>64</sup> where the mid-morning snack was laid out on the table. She explained that the cooks make the bread every morning, the honey had been produced at the school, and the three other spreads (including jams and *dulce de leite*) came from one of the MST's organic cooperatives on a nearby settlement. There were bowls of fresh fruit, which had been donated to the school by local farmers,<sup>65</sup> and two large tea and coffee dispensers, which were always kept full. After a quick snack, she took me on a tour of the various buildings, explaining the school's history, the courses offered, and the general lifestyle. As we walked, we saw people at work, cleaning, cooking, organizing, and working on infrastructure projects. I could see signs of various green projects and infrastructure on the grounds, such as a sun oven, solar panels, rain catchers, and a water filtration system under construction. Ana explained that the buildings and residents' houses had been built over several years by volunteers from neighboring settlements.

After the tour, we returned to the refectory for lunch. It was a delicious spread of rice, beans, *farofa*, chicken, and salad. Ana introduced me to a few of the residents, including other

<sup>&</sup>lt;sup>64</sup> The hall used for common meals

<sup>&</sup>lt;sup>65</sup> Fresh produce from local organic farmers is donated every week, arriving on Mondays. This is usually whatever they haven't sold at local markets, excess food, or produce that doesn't look nice enough to be sold at the market, but is still perfectly edible (and delicious). This helps supplement some of what isn't grown at the school.

members of the coordinating team. She also introduced me to Julia, with whom I spent a lot of time while at the school. After lunch, I went to Ana's house to leave my things, while she went to a coordinator's meeting. I then explored the grounds on my own. I felt a sense of remembrance and activism in the images around the school, reminders of the struggle of the peasantry or various popular, revolutionary, and socialist struggles. There were posters and quotes of Che Guevara in several places (Image 5); iconic MST photos, such as large marches, people farming, setting up encampments, or standing up to large landholders; there were commemorative plaques and benches marking different groups that had passed through the school (such as the Haitian exchange group and various cohorts of the agroecological course). When I walked to the *ciranda*, spread across the floor in tile was a beautiful image of the sun and the word "socialismo" (socialism) arching above it. Heading back to the refectory, I went to the top floor, which is a large room where meetings and gatherings are held. Along the entire back wall is a stunning mural (Image 6) painted by one of the movement's activists and resident artists, who travels around and lives in different MST spaces (schools, encampments, settlements) when he is commissioned to complete these works of art. This mural depicted many scenes of the countryside, the peasantry, and the MST's struggle.

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Image 5. Next to the soccer pitch at the EMS sits this Che Guevara image and quote along with the MST and *La Via Campesina* logos. This translates as: "If you are able to tremble with indignation every time an injustice is committed in the world, then we are companions (comrades)." *Photo by author*.



Image 6. Mural at the EMS. Source: Escola Milton Santos de Agroecologia (website – see references).

Over dinner, I remarked to Ana that life here seemed very comfortable. The houses were nice, equipped with everything one needs (including an abundant supply of clean, fresh water from the rain catchers on each home), the food was fresh and delicious, people were friendly, and there was a great sense of community. Every person seemed to play a role in keeping the place going, and people appeared to enjoy the work. Though she agreed that life was comfortable for the permanent residents, she explained that this was only a very recent development. For many of the students and short-term volunteers, the living quarters were not so comfortable, and the communal showers that they used (which had just been built) left much to be desired. She said that even as recently as 2011, when a group of thirty-five Haitian students came for a threemonth exchange, it was difficult for them because a lot of the comforts that exist in the common student housing buildings now didn't exist then. Ana said it is a constant work-in-progress, and although they have added a lot of infrastructure over the past three years, many things need improvement. As much of the support is based on volunteer work and the school has very little of its own financial resources, they experience ups and downs with construction. She also explained that there had often been a lack of food, but this changed drastically within the last few years as they began receiving more donations and their gardens became more productive. Another recent change was the influx of funding through joint projects and grants with academic institutions and the government supporting their courses. While this money is not given directly

to the school, it supports the courses by covering costs for students' transportation, room and board, food, books, and the certification process, among other things.

As we were finishing dinner, a man named Pedro greeted Ana warmly. He was introduced to me as the history teacher who would be teaching the EJA students over the next few days. As with many MST teachers, his teaching was voluntary, part of his way of giving back to the movement and contributing to his larger community. Sitting in on his classes helped me understand the *formação* of many MST *militantes*, like Pedro, who considered this type of volunteer work part of their identity, what made them a part of the larger MST community.

### 3.1. The Establishment of a School: Building a Community at the EMS

Created through a partnership with INCRA (with funds from INCRA's National Program for Agrarian Reform Education – PRONERA), the MST established the EMS as a space for agroecological education for rural social movements.<sup>66</sup> In addition to INCRA and PRONERA, the school partnered with the Federal University of Paraná (and its Technical Institute of Land Reform Education and Research – ITEPA) so that it would be officially recognized and eligible for grants under ITEPA. Supported by these institutions and volunteers, construction of the EMS (initially built on the foundations of the old factory buildings) began in June 2002. That August, it was officially inaugurated with commencement of its first agroecological course.

Although run by the MST, the EMS is unique among the movement's agroecological training centers in that it is not located *inside* an agrarian reform settlement. Unlike most settlements, its proximity to a relatively large city center makes it accessible to many visitors, including researchers and academics who are sympathetic with the movement and offer to teach courses. It also means that its organizational structure, while still based on the MST's model, is

<sup>&</sup>lt;sup>66</sup> Though most people associated with the EMS are from the MST, they support and are supported by other social movements.

slightly different due to its small population. According to the coordinators, approximately thirty adults and about a dozen children and teenagers, all from MST settlements, live at the school. These residents volunteer to live at the school to contribute to the movement. Ana explained that they usually require people to commit to at least a year (preferably longer), as more rapid turnover would make it difficult to complete projects and maintain continuity. However, some people remain at the school much longer. For example, one of the graduates of the first agroecological cohort has remained at the school since its establishment. After graduation, he became the head of the EMS production sector and is now the head of the infrastructure sector, while a graduate of the fourth cohort now heads the production sector. Many have started families at the EMS and become an integral part of the community.

Most of the residents come to the EMS as volunteers, fulfilling a sense of duty to the ideology and politics of the movement. They are assigned duties based on their skill set or what they wanted to experience.<sup>67</sup> No matter his or her role at the school, everyone – whether a cook, coordinator, carpenter or gardener (and visitors like myself) – pitches in for collective work on Saturdays. In addition, everyone is assigned a different task related to food preparation and clean up, as they eat collectively. While there are full-time cooks and everyone washes his or her own dishes, duties, such as putting out the food, packing it up, and doing the extra cleaning after dinner, rotate for each meal. People socialize throughout the day, and when the children run around, there is a sense that everyone is watching out for them. Even time watching the children at the *ciranda* is in the rotation so that different people (men and women) experience and contribute to child rearing, freeing the parents to participate in work and study.

<sup>&</sup>lt;sup>67</sup> Ana explained that although they don't have salaries, permanent residents receive small stipends to supplement living costs. Room and board are taken care of at the school, but residents may have other costs or responsibilities outside of the EMS for which they require money. While there aren't large differences in pay, they do vary depending on the length of time the person has been at the school, and for certain duties. This need to money illustrates one of the contradictions with which the MST has had to wrestle in its promotion of an alternative society.

In addition to such division of chores, the school's management and organizational structure is designed to be inclusive. It draws on MST ideas of relatively horizontal decision-making processes and division of labor through a model of participatory democracy. This is an important part of fostering community, as well as organizing in such a way that everyone does his or her part. This also allows people to learn about the different aspects of the school, their community, the struggle, and the movement's history. It shifts responsibilities so that people have a taste of everything that goes into keeping their community going. People rotate through leadership roles, and they deliberately try to have a male and female representative at each level. During my interview with Ana, we spoke extensively on this, as she described the various aspects of their organization chart (Image 7). Referring to the chart, she swiped her hand vertically, from top to bottom, saying that this is the political organization, and then horizontally, from right to left, noting that this is how work (various tasks and actions) is organized.

As the chart demonstrates, everything is connected, and decisions and actions are often coordinated between several different groups. The first bubble she pointed to was the "NB Milton Santos." This, she explained, is the core of the chart, and every permanent resident is a part of this NB. While normally, on settlements and encampments, an NB is made up of 7-10 people, the whole school (about 25-30 people) is part of the NB Milton Santos. This is because more often than not, half of the people are busy working or taking courses and cannot attend the weekly meetings. She then explained how the rest of the school works when different (sometimes overlapping) courses are in session:

Sometimes there are multiple courses at the same time. For example, [pointing to Group 1] this is the pedagogy course, and here [Group 2] is the agroecology course. Each course is then divided into NBs, with 7-10 students in each. Each NB has two coordinators (male or female, but usually one of each) and all of the coordinators form the main NB for the whole course [CNBT]. The CNBT works in conjunction with the *Coletivo de Acompanhamento Político-Pedagógico* [CAPP] (someone from the Pedagogy Sector).

The CAPP provides support, or is a means of communication between the course participants and the *coordenação*. ... NB composition changes with each stage, and in the beginning the CAPP divides the groups into NBs, mixing people from different regions. As they progress through the stages, people change the NBs, separating people who talk a lot, those who speak very little, and those who are often confused by the material. Mixing the groups allows people to help and learn from each other.

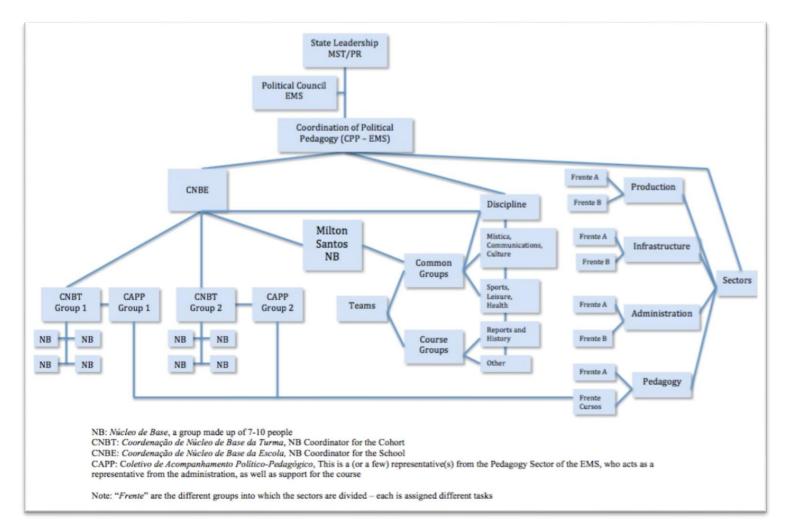


Image 7. Milton Santos School Organizational Chart. Author's Translation.

As the diagram demonstrates, there are different groups for all aspects of life at the school. For example, there is a group for health, sports and leisure; *mística*, communication and culture; and records and history (such as photos, daily newspapers, blogs and websites, the radio show in Paiçandu). These responsibilities rotate as different people are chosen to represent the

NB in these different groups. In addition, work at the school is divided into the following sectors:

- Production Sector: agriculture, livestock, agroforestry
- Education Sector: supervising courses, *ciranda*, equipment, library, etc.
- Administrative Sector: secretarial, accounting and marketing
- Infrastructure Sector: maintenance and repair of structures and equipment, construction and renovation of facilities, ornamentation and design around the grounds and buildings, gardening, cleaning and food preparation.<sup>68</sup>

Similarly to the courses, the different work sectors usually have two coordinators. These coordinators divide responsibilities into "Frente A" and "Frente B." Ideally, Ana explained, the sectors have meetings, and then the coordinators of each sector meet (they form the main coordination, or *Coordenação EMS*). While she said this works relatively well for them, there are always things that can be improved. One of the drawbacks of this type of participatory democracy, she explained, is that they spend a lot of time in meetings. Each NB meets every Monday, and those who are part of coordinating teams then have meetings with other coordinators. Sometimes, she said, they cut down on the levels of meetings to save time. But overall, this type of structure has maintained transparency across the school, allowed most people to take part in decision-making, and provided a variety of voices and perspectives to solving problems. It also keeps people integrated in the community, sharing various tasks and responsibilities so these do not fall to one or a few individuals.

When I asked Ana if this structure is the same at every school in Paraná, she said that some things are the same, but there are elements that differ. She said the structures of schools, encampments and settlements across the MST often share elements, as discussions are had as to what works and what doesn't, but ultimately each must determine what makes sense for its unique situation. This is reminiscent even of agroecological systems, which may be based on a series of principles, but are locally adaptable to fit each unique situation.

<sup>&</sup>lt;sup>68</sup> This information is from the *coordenação* 

## 3.2. Agroecology in Practice: Constructing the Water Filtration System

The final part of this section concretizes this image of community and shared responsibility in an agroecological example. Regardless of whether they participated in the agroecology course, all of the school's residents were surrounded by and participated in agroecology. This is why I argue that the *formação* at the school seeks to foster a different way of living that centers on this reshaping of nature-society relations through remaking societal structures. The whole community is seen as fitting into an agroecological model, where the school was part of the ecosystem. Walking around the grounds, I saw agroecological projects in various stages of development, integrating various aspects of living into the surrounding environment. One was the grey water filtration system being built between the refectory and the main office building (Image 7).

I had noticed the trenches dug around the sun oven in concentric circles when I first arrived at the EMS. On my third day at the school, I was sitting on a bench under a tree writing field notes when a young man walked up to say hello. He was also a visitor to the school, who had intended to stay only for one month but was now into his sixth and had no plans to leave. He introduced himself as Cristian and explained that he was from Colombia but had trained in agroecology at a university in Cuba (which was free and provided a small stipend). Since completing that degree, he had been working and traveling around South America, meeting different people who worked in agroecology (mostly peasant farmers, and many from social movements) and came across the MST. When he arrived in Paraná, he was told of the EMS and decided to stay at the school for a while to work on various projects as a way of contributing to the community. He had a very friendly demeanor and was sympathetic with my struggling Portuguese. After chatting briefly, he asked if I liked working. I explained that I had grown up in

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the countryside and was used to doing many kinds of outdoor work. This is how I was drafted into helping him with the water filtration system.

This system had become Cristian's main project at the school. He said that he wasn't even sure if it would work but that it seemed to make sense from what he had seen with other similar systems. Ultimately, he explained, it's all about experimentation. Training in agroecology can teach you principles, but it's up to individuals and communities to take that knowledge and experiment in their own locale. As I worked on placing the different layers in the trenches that had already been dug (Image 8), he explained how it would work. First the trenches are dug, and the soil (which is reddish and with a mix of clay) is compacted. Then the layering is as follows: a layer of large rocks; long strips of black tarp<sup>69</sup> with small holes cut across the width and length; a layer of leafy organic matter (mostly leaves and dried grass, though people also tossed their organics such as compost onto this layer as it sat decomposing); soil mixed with organic matter and green manure; and finally, plants that have natural filtration will be selected to be planted above – these help to purify the water by removing toxins.



**Image 8.** Beginning of the Grey Water Filtration System being built between the Refectory (left) and Main Office Building (right). A sun oven in pictured in the center of the system. *Photo by author.* 

<sup>&</sup>lt;sup>69</sup> This is significant, Cristian said, as this black tarp is what is used to make their tents during encampments.

In addition, there are three chambers in different areas of the circles where the layers are not placed (Images 9 and 10); these contain only rocks along the sides and a channel at the bottom where the water can pass through in a stream. The grey water first flows through a chamber that filters out the particles from the kitchen. It then enters the first (outer) circle, which was dug sloping slightly downwards. It then passes through the first area of rocks where there's an opening to sample the grey water. After the water travels around the outer circle there is a dramatic slope in the canal so that the water can gain speed before it passes to the inner circle. It then hits the right angle before entering the inner circle so that the water splits into two streams, each running around one side of the circle. There is another chamber from which water samples can be drawn half way around the outer circle, and then at the entrance to the inner circle. Cristian said that, theoretically, there should be a difference in the color of the water at each of these points. It is the final layer – the plants and trees – that ultimately purifies the water. He explained that the roots take up the water, and the plants use minerals that are toxic to humans as food. They then take oxygen from the air and clean the water. Finally, once the plants were in place, they would construct a cover over the inner circle.

As we were working, one of the residents walked by. He had been working on some of the infrastructure projects but stopped to listen to Cristian's explanation. He then started asking questions, talking to Cristian about the specifics of the project, and the types of covers they could eventually build over the center. As Cristian started building a mini model to demonstrate a type of bamboo cover they could build, another resident – one who was also a student of the Pedagogy Course – walked our way. She had been working in the kitchen and was taking out the compost when she saw Cristian giving his demonstration. She stayed and listened intently as we discussed the cover, the merits of the bamboo option over something made of plastic, and how to

integrate as many natural building materials as possible. He floated the idea of adding solar panels to the cover's top to increase the school's energy supply. The cover would also keep heavy rains out of the water filtration system but allow fresh air and sunlight in.



Image 9. Water sampling chamber along the trench. *Photo by author.* 



**Image 10.** Cristian explaining the chamber to a resident. *Photo by author.* 

Two residents walking by stopped to listen, and soon we had a small group discussing the design, asking Cristian questions and adding their own ideas. He reiterated that it's all an experiment and that they are all in the process of learning and designing systems together. Only once they put something into place will they know if it works. He later explained to me that this type of collaboration is essential to these projects, as people move in and out of these spaces for different lengths of time. This way, if he had to leave there were others who know the design. Although he's been working on the project the whole time, a lot of people have helped along the way, worked on it with him and helped in brainstorming the design.

While only a small example, this story illustrates many of the agroecological and CAC methods. These include: a focus on experimentation, farmer innovation through incorporation of other types of knowledges, and multidimensional productive land-use strategies. As suggested in CAC methodology, they begin on a small scale, trying various methods through the agroecology courses or with ad-hoc projects like Cristian's. There is also the "multiplier effect," where the more people who become promoters and experimenters, the more momentum the process gains. While that applies to the spread of the knowledge beyond the EMS, Cristian highlighted the importance of sharing knowledge and the experimentation process, so that understanding of the project belongs to everyone. Cristian himself is an example of this wider, transnational dissemination of agroecological knowledge: he is Colombian, trained in Cuba, learned from and shared knowledge with peasants across Latin America, and ended up at the EMS, continuing agroecological experimentation with locals and a foreigner from Canada. This illustrates the multi-scalar character of the agroecological movement: from local to transnational.

#### IV. PRONERA AND THE CURSO TÉCNICO EM AGROECOLOGIA

This final section examines the fourth cohort of the technical agroecology course at the Milton Santos School, which was held in seven stages (each of which consisted of *tempo escola* and *tempo comunidade*) from May 2010 to June 2012. Before turning to the course, I discuss the EMS's partnership with PRONERA, the part of INCRA that funds countryside education. This partnership has often been strained and presents a challenge to the MST's educational goals more widely. It also demonstrates one aspect of the complexity of the MST's war of position. Though seeking to challenge the status quo through its countryside education, the MST must partner with an agency that belongs to the dominant power from which it dissents, as the movement still operates within the capitalist system and requires resources. This complicates and adds a

contradictory element to the MST's project, as it must simultaneously oppose and work with the hegemon, seeking to construct and promote a new discourse while working within the confines of dominant discourse. I illustrate this relationship through the example of the EMS and my conversations with Ana. After exploring this complex relationship, I end this chapter by discussing the technical course to provide an example of more formal agroecological *formação*.

#### 4.1. The MST and PRONERA: A Strained Partnership

According to the President of INCRA in the introduction to PRONERA's operations manual (2011), PRONERA is:

A public education policy developed in the areas of land reform and undertaken by the Brazilian government. Its goal is to improve life in rural areas in all dimensions: economic, social, political, cultural and ethical. (8)

His introduction describes the history of its establishment in 1998 by representatives from rural social movements as a way to aid in their struggle. He states that this action demonstrates the Brazilian government's commitment to "promoting social justice in the countryside through the democratization of access to education, literacy and schooling of youth and adults, training of educators in settlement schools and technical and professional training at secondary and higher levels" (PRONERA 2011, 8). In addition, it is "a commitment to education as a means of facilitating the implementation of new patterns of social relations in work, the organization of territory, and society's relationship with nature in the areas of land reform" (8). The introduction describes PRONERA's development and collaboration with state and federal universities, providing statistics on the number of families in settlements and their education levels. The rest of the document contains chapters on courses eligible for PRONERA funding, how they should be structured, partners, costs, and extensive appendices with forms for course proposals.

Upon first reading the document, it seemed to line up with what I had learned about MST education. Objectively, based on this document and the PRONERA website, the program appears to be highly positive and encouraging for the agrarian struggle of Brazil's peasants. Moving beyond literacy education (EJA) – which was always the first step in the project for countryside education – the PRONERA manual had sections on integrated high school and technical training courses, professional courses, and specialized higher education. Yet as with much of this story, the government's discourse and the practice on the ground paint two very different pictures. As I learned through my conversation with Ana (reinforced in my interview with Julia and conversations with others at the school), what is not demonstrated in this overview, or on the PRONERA or INCRA websites, are the tensions that exist between these agencies and social movements and the reality of implementation on the ground. While Ana said they are grateful for any funding they can get, such rhetoric glosses over many of the struggles they have faced. As she explained:

Since the mid-1990s, and increasingly since the 2000s, the government [and INCRA's] policies have become restrictive, and the conditions associated with these programs have become more difficult. For a time countryside education made a lot of headway, starting in 1998 with literacy courses, but eventually expanding, providing technical and undergraduate courses. However, social movements fighting for agrarian reform have always suffered repression under different actors. In the eighties, we were dealing with gunmen hired by large landowners on whose land we were encamped. Then, under the Cardoso government, we suffered forms of violence from the state. But since the 2000s, the judiciary has repressed us by taking away our rights, not by using guns. This is a more subtle form of quelling dissent, as they enact laws making our actions illegal. All of our institutions – i.e. cooperatives, schools – began suffering under this strong repression. This made it very difficult for MST schools to offer courses, get funding, certification.

As this quote explains, the MST's countryside education has been at once supported and hampered by different state actors, currently suffering judicial repression. She further illustrated this removal of rights by showing me an article by Otávio Nagoya in a leftist magazine called *Caros Amigos* (Dear Friends), entitled *A Ocupação dos Latifúndios da Educação* (Occupying the

Educational Estates). It spoke of PRONERA and efforts to bring various forms of education to the countryside. It then spoke of the conservative reaction to such efforts: "Threatened with the presence of the landless in universities, the conservative forces were quick to react, using their standard tools: the mainstream media and the judiciary" (Nagoya 2011, 31). The article explains that the university is a space that was always reserved for the Brazilian elite. The MST, in partnership with the Federal University of Goiás (UFG), created a law course so that sem terra lawyers could be trained. One MST lawyer recalls how the (conservative) mainstream media attacked this, concerned with "the possible rise of a landless worker to a prominent position in the judiciary" (Nagoya 2011, 31). The conservatives did not believe that the MST should become lawyers, as they would "seek the legal text that serves the best interests of the landless" and could rise in the ranks, become a prosecutor or a judge, and serve the interests of the landless in Brazilian law (31). Yet as Ana and I read this statement, we laughed. Ana remarked, "the elite control the judiciary, but as soon as their supremacy is even theoretically threatened, they use the full force of the media and law to try to stop it." This hints at the tension existing within the government. In this case, different branches at once attacked and defended countryside education: while the judiciary impeded the program, INCRA tried to support it.

The article goes on to say that the federal prosecutors proposed a civil action against an agreement between UFG and INCRA for the creation of the law course. At first, the judge found this agreement unconstitutional and ordered the cancellation of the course. However, UFG and INCRA appealed, and the case will be brought in front of another court. Until then, the course is free to resume. But the attacks on peasant education do not stop there. One example presented in the article is a case of a veterinary medicine course offered at the Federal University of Pelotas (UFPEL). Before class began in 2008, the Federal Public Ministry of Pelotas filed an injunction

to stop student enrollment. However, after the case was taken to the Superior Court of Justice (STJ), the court ruled in favor of the course, which began classes in 2011.

After we finished reading, I asked Ana why the veterinary course had been such a threat to the conservatives. I understood that *sem terra* lawyers presented a "threat" to an institution that maintained the status quo but didn't see what type of threat a *sem terra* vet would pose. She explained that it was not just the direct threat of lawyers but that *sem terra* vets also threaten the status quo, albeit in a more subtle way. She explained that vets, as well as lawyers, are seen as jobs for the elite, not for peasants. By providing *sem terras* with professional training, they were, in fact, challenging the status quo, penetrating every facet of society in order to shift the balance of social and cultural forces (as in Gramsci's "war of position").

In addition to restricting the types of certification and training peasants could receive, Ana described how social movements' involvement in courses were also monitored, and the court accused the MST of using state funds to support the movement, not just the courses. She recalled that the court attacked PRONERA, arguing that the movement, its institutions (schools, cooperatives, settlements, etc.), and courses promoted an ideological indoctrination, and that the MST should no longer have any input into the courses. This policy was extended beyond the MST to any people's movements. She explained how this created paranoia within INCRA as to the use of its funds, and it had representatives confiscate course documents and prohibit the use or wearing of shirts, hats, flags or other objects with the movement's symbols.

While this may not seem important, the movement's symbols are a large part of *mística* and *formação*. They are reminders of the struggle and symbols of solidarity and belonging. This illustrates an example of what Gramsci called the maintenance of hegemony through a mixture of consent and coercion. Usually maintaining hegemony through consent is best because when

the majority of people are content with the status quo they do not question it. However, at times, the hegemonic discourse, perpetuated by branches of the Brazilian government, have had to use coercive or forceful tactics against the MST. This is one such example, not of violence, but of a repression through bringing their education back into the fold, stripping it of its symbolism and discourse of resistance. Ana even recalled that INCRA banned an entire course entitled "social movements." To get permission for a course, an INCRA representative would have to go through the course proposal and remove any reference to social movements. This included anything even remotely related to social mobilization and the movement's ideology. As she state, "we basically had to strip away the politics."

This shocked me. Before I had traveled to Brazil, during my research of the different agroecological schools, I had come across a few videos on YouTube that showed INCRA representatives seemingly supportive of MST educational efforts. Yet Ana told a different story. She showed me how, even now, the websites for INCRA and PRONERA never mention the EMS, or other MST schools. The courses are presented in official discourse as a partnership between the Federal Institute and PRONERA, and that they educate people from the countryside.

This is a serious problem because without acknowledgement of the EMS and all of the work put in by the MST in official discourse, we lose legitimacy, or at least recognition, for those who may be interested in supporting our project. ...[And] we have contact people INCRA, they know us, ... they know that we have schools that our schools offer many courses: agroecology courses, pedagogy courses, literacy courses. And in person they speak to us a certain way, but for official things, they write in a totally different way, erasing our role in these projects. (Ana Interview)

This, I believe, is an important point. While the EMS – and by extension, the MST – seeks to construct a different system, it must still work within the current system. It must gain a certain amount of legitimacy to secure its own existence, in order to progress in its war of position. These examples demonstrate the long-term goals, and the short-term compromises that must be

made in wars of position. But it also demonstrates the risk of cooptation, if a decision must be made between either shutting down the course or acquiescing to conditions that remove the movement's politics. This is significant in considering the movement's war of position, as it requires inserting organic intellectuals and activists into all facets of society, which the MST has been attempting to do through education. However, removing the politics from the programs forces the MST to either adapt its strategy, or find other sources of funding. These struggles require creativity and flexibility by the movement's educational sector.

After discussing these hurdles, I asked if things were any different now, given that policy was enacted around 2008 and now they were partnering with the State University of Maringá for some courses. Ana explained that these relationships are still complicated, but some programs now allow partnership with federal and state institutions. But everyone, she said, operates cautiously and under fear of legal action. While I had read that there were internal struggles in the government with respect to agrarian reform, I had thought that INCRA's role was to at least support agrarian reform. However, Ana explained their perspective:

At times we are convinced INCRA's purpose is to *impede* agrarian reform. ... Like [Claudio] was explaining [during yesterday's *seminário*], agrarian reform is much less important than the government's other agricultural concerns, such as agribusiness and the cultivation of cash crops. It's more about geopolitical strategy, the movement of capital in the countryside. It's not about rural inhabitants themselves, our livelihoods and wellbeing.

This supports the discussion of the contradictions in Brazilian government policy toward agricultural development, concerned with addressing the agrarian question while maintaining macro-economic growth. This was an especially tense relationship under Lula, and now Dilma, as they are leftist presidents concerned with social welfare and the creation of a larger middle class, implementing progressive social programs to help alleviate poverty and increase employment opportunities. Yet, a large contradiction under these presidents is the continued reliance on the agricultural export sector. When push comes to shove, the government privileges agribusiness and large landholders over smallholders and landless peasants seeking agrarian reform. This tendency has trickled down through INCRA, the agency intended to aid agrarian reform and promote the wellbeing of those in the countryside. Yet, Ana reminded me, it is still part of the dominant system that the MST is trying to challenge.

As seen through my conversation with Ana, throughout the 2000s, these entities became increasingly restrictive with respect to the *type* of education they would support. This places the MST and other rural social movements in a difficult position of whether to conform in order to continue receiving financial support for their courses or to push back against this repression but potentially be disciplined in other ways. Again, this is reminiscent of Gramsci's description of hegemony through consent and coercion. Gramsci also stated that the dominant class (or the hegemonic system) might sometimes acquiesce to certain small demands of the subalterns, or dissenters, or provide incentives in order to fold them back into the system.

Despite these problems, Ana acknowledged that PRONERA funding is vital, and they have had to find ways to work within its parameters without sacrificing their own pedagogy. Still, their access to funds is often inconsistent and unreliable, even after the course has been approved. For example, she explained, the new cohort for the agroecology course was supposed to have started before I arrived, yet they were still unsure when the funds would arrive. She was hoping for October (2014), but there was no guarantee. This has made it very difficult for the EMS coordinators to organize, to make a schedule, invite professors and other teachers, and complete the extensive planning that goes into running the course. She also added that one condition of PRONERA funding is that they cannot invest in anything permanent at the school:

[PRONERA] is an important program ... but there have been a lot of difficulties each time we try to get a course going. For example, with any agrarian reform courses, we cannot

purchase anything permanent, only materials that will be consumed. For example, for the *Jornada de Agroecologia* [which the EMS has hosted for the past two years], we were having a problem that there weren't enough generators. We only have a little one, and there wasn't enough energy for 1200 people. We wanted to get a large one to install at the school but when we were going to use the funds, PRONERA stepped in and said that we couldn't buy anything permanent. They couldn't be seen contributing anything permanent to the MST [the courses are for anyone from an agrarian reform settlement] or INCRA would accuse PRONERA of redirecting funds/resources to support the MST.

This has made it very difficult for the school to grow. For example, when I asked Ana what they would change or implement if they had the money and support, one thing she mentioned was infrastructure. While they have a lot of very capable people working on infrastructure at the school, there is only so much they can do without outside resources. They have been very resourceful, using what they can find or donated materials, but one major setback has been the lack of funding for their laboratory. The main classroom building, which also houses the library, has rooms set aside for a computer lab and a general science laboratory. Yet they remain empty because of the lack of funds for any permanent investment in the school.

Luckily, they have found great support from within academia. When courses do get off the ground, the school invites professors from universities to teach different units. Since the school's establishment, they have used a mix of teachers from the movement and universities. At first, many MST instructors taught units on subjects other than agroecology, but as more technicians have been trained, they have been invited back to pass their knowledge on to new cohorts. However, there is still a need to invite professors who have expertise in certain agroecological fields. These professors, Ana and Julia explained, are usually sympathetic to the movement and its politics, as they basically volunteer their time. According to Ana, teaching at the EMS does not count toward professors' obligatory 40 hours per week required by the university, so they are not compensated with overtime pay by the university, even though INCRA considers this part of those obligatory hours. The teachers from within the movement, similarly, are not usually compensated for teaching courses. Ana said that most MST instructors are *militantes*, and it is considered a privilege to be invited to teach a unit. This is part of their duty as a *militante*. As she explained:

There is actually a system within the MST that activist-technicians who gain employment and a salary contribute part of that salary to a communal pot that supports various MST actions and activities, such as these courses. It has been built into the movement's philosophy that those who are part of its activism will give back to the movement, just as the movement supported them when they wanted to further their education.

One example of this was Pedro and the history course. During a break, I asked him if he was a teacher in his settlement. He said, "Yes, I'm a teacher, a farmer, and a *militante*." He stressed the latter to make sure that I understood that this is a distinction within the MST, that not all farmers on agrarian reform settlements are *militantes*, but ones who are must find ways to contribute to the movement's praxis. As Ana had explained, it was an honor to be invited to teach, and Pedro was happy to pass along his knowledge. In addition, the students understood the time and effort this takes and were grateful to their teachers for providing a space to learn and share. I was especially moved by the short ceremony the students performed when classes finished. On the last day of history class, we watched a historical film about southern Brazil. While this was part of "leisure time," the film provided historical context of land struggles and served as a platform to talk about the current situation, parallels, and links. After the film, Pedro began a discussion by asking the students about the situation in the countryside, about what has and has not changed. When the discussion waned, one student read the following Che Guevara quote:

Above all, try to feel, deep inside you, any injustice committed against anyone in the world. It's the most beautiful quality of a revolutionary.<sup>70</sup>

<sup>&</sup>lt;sup>70</sup> "Acima de tudo, procurem sentir no mais profundo de vocês qualquer injustice cometida contra qualquer parte do mundo. É a mais bela qualidade de um revolucionário." (Portuguese quote)

She thanked Carlos on behalf of the class, expressing how, through teaching them history, he helped teach them about themselves and helped to make the quote come true. She then presented him with a gift of books wrapped in a beautiful MST t-shirt. Everyone clapped and thanked him.

It was a beautiful moment, and both Pedro's volunteerism, and the cohort's gratitude fit in with the discourse surrounding *formação*. While this may not appear to be the sensational, groundbreaking challenge to the capitalist system many of us seek, I argue that these smaller actions that appear in the everyday present a longer-term threat to neoliberal capitalism, as the logic of individualism and profit maximization are questioned. These seemingly small actions on the part of MST activists require little from the givers, but together, all these small actions are working toward constructing a different way of living.

#### 4.2. Examining Curso Técnico em Agroecologia, Turma 4

Here I discuss the *Curso Técnico em Agroecologia, Turma 4* as a more formal example of agroecological education. So far, this chapter has painted a picture of a community that seeks to challenge capitalist logic and the capitalist relation to nature through everyday *formação*. This is present in the organization of the community, the assignment of different work and the participation of all residents, no matter age, skill set, or education level. It is present in the agroecological projects that have been incorporated into daily life, such as the rain catchers, water filtration systems, sun oven, solar panels, *horta*, orchard, poultry and livestock. There is a sense of stewardship for the land, of sharing this space with flora and fauna, of an intimate understanding. But beyond this, there is the formal agroecological course to train technicians.

Four cohorts have graduated from the EMS's agroecology course, with a fifth hoping to begin in Fall 2014 (I am unsure whether the funding came through). It has been offered in various formats, depending on needs at that time. These have included "post-high school," with a duration of two years; integrated with high school, with duration of three and a half years (*Integral*); and integrated with high school for teenagers and adults (National Program for the Integration of Professional Development of Basic Education in the mode of Youth and Adult Education – PROEJA), with a duration of two years (Table 3).

Cohort	Period	Model	Stages	Graduates
I – Karl Marx	2003-2005	Post-high school	5	12
II – Vladimir Lenin	2005-2008	Post-high school	5	28
III – Haydée Santa Maria	2006-2009	Integral	9	19
IV – Carlos Marighella	2010-2012	PROEJA	7	21
5th class	2014(?)-2018	Integral	9	-

Table 3. Classes trained at the Milton Santos School. Source: EMS Pedagogy Sector.

Since I was unable to be present at the school during the course, I interviewed Julia and Ana and collected documents that outlined and reviewed the seven stages of *tempo escola*. These were for the course's fourth cohort, of which Julia was a part. First, I introduce the course as it is outlined in the Federal Institute document (Instituto Federal do Paraná 2010). I explain the different aspects of the course, requirements, and eligibility and examine the course through the PROMET documents and insights from interviews with Julia and Ana.

The *Curso Técnico em Agroecologia – Modalidade PROEJA* runs in partnership with the Federal Institute of Paraná, funded by PRONERA. In its overview document for the fourth cohort, it describes the course's objectives, goals, pedagogy and methodology, as well as a brief history and justification. The introduction states that this course is a necessary component in the sustainable development of various regions of Paraná and integral to the construction of a *new development project*. It also argues that the specific context of Paraná suits the creation of these programs because they have a large rural population but lack technical knowledge, and subsequently, employment or livelihood activities in the countryside. This has resulted in significant rural-to-urban migration, while, simultaneously, large monocultures of cash crops

have been planted by agribusiness, affecting those who remain in the countryside. For these

reasons, they propose the agroecology course, the General Objective of which is to:

Create opportunities for students' general and technical training in agroecology, with the direct participation of civil society organizations; increasing the qualifications of young people and adults, through technical qualification and average level schooling across various disciplines; a vision of the development of land reform settlements and small farming communities; to contribute to the alternative project of the countryside, which has been proposed by social movements and collectives, constructing a new way of life referenced in agroecology. (Instituto Federal do Paraná 2010, 6)

The course's broader goal is also stated:

To train individuals holistically, with a concentration in agroecology, in multiple dimensions (ecological, economic, social, cultural, political and ethical), disseminating knowledge in order to propose changes to the dominant technological matrix and project of the countryside in Brazil. (Instituto Federal do Paraná 2010, 7)

The document then provides several specific objectives, methodological and pedagogical

approaches and strategies, and dimensions of the process of *formação*. It describes the various

aspects of tempo escola, which include classroom, seminar, work, reading, sports and leisure,

office, news, written reflection, self-organization, NB, and time for research and experimentation

in different units of agroecological production. The last substantial written section is on

operational procedures, listing the criteria for student eligibility and requirements (such as

attendance and participation). Finally, the course curriculum is presented in detail (Appendix 3).

There are four categories of educational areas (Table 4), each including multiple units (Table 5).

While these details were interesting and informative, what struck me was the final section outlining the curriculum. The breadth of subjects covered is impressive, and one can understand how students who complete the course achieve its holistic goals. As Julia explained:

During *tempo escola*, [in addition to agroecology classes] we had political classes, because agroecology is also a political issue and practice. We studied with teachers in class and went on field trips. From Monday to Sunday, all activities [whether in class or during leisure times] had a pedagogical intention. This was not necessarily in the classroom. For example, at the end of the week, we had a "self-organization of leisure time," but it also

had an intentionality – that of social interaction between students. The entire time we are here at the school there is intentionality to our subject-formation.

This can be seen in the PROMET documents. Every hour appears to be scheduled with different

activities – a very deliberate formação.

 Table 4. Division of Course Hours. Source: Instituto Federal do Paraná (2010: 37).

Educational Area	Module/Hours					
	Т	Ш	ш	IV	v	Total
Social Science and Humanities		100	100	60	40	400
Languages, Codes, and Technologies		120	120	40		400
Natural Science and Mathematics		120	120	40		400

Table 5. Units in each Educational Area. Source: Instituto Federal do Paraná (2010: 24-36).

Social Sciences & Humanities	Languages, Codes and Technologies	Natural Science and Mathematics	
Philosophy	Portuguese	Energy	
Sociology	Literature	Physics	
Political Economy	Foreign Languages (Spanish)	Mathematics	
Administration	Basic Working Methods	Plant Physiology	
Psychology	Computer Literacy	Botany	
General History	Culture and Physical Fitness	Biology	
General Geography	Methodology of Scientific Research	Chemistry	
Culture		Climatology	
		Ecology	
		Technical Design	

Agrarian Sciences	Agrarian Sciences (Continued				
Green Revolution	Agroforestry Systems				
Natural Processes	Ethology				
Ecosystems and	Forage Plants				
Agroecosystems					
Cooperative Agriculture and	Breeds and Crosses				
Cooperatives (and how they					
contradict Capitalism)					
Soil: A Living Organism	Animal Health in Agroecology				
Agroecology	Milk Production and Pasturing				
Agroecological Crops	Genetics and Plant Breeding				
Topography	Animal Anatomy and Physiology				
Drainage and Irrigation	Animal Nutrition				
Mechanics and Mechanization	Rural and Bio-Construction				
Management and Design of Agroecosystems	Food Technology				
Professional Practice	Ecology of Insects and Plant Diseases				
Rural Sustainable Development	Voisin's Rational Grazing				
Fruit Production	Countryside Factory Farming				
Horticulture					

As this course is integrated with high school (meaning that the students who graduate

receive their high school diploma as well as certification as an agroecological technician), they

are required to study certain core subjects. However, from the list in Table 5, one can see that they go beyond the bare necessities. Just like the daily *formação*, the course encouraged people to engage beyond the agroecological training to see how they could construct another society integrated with agroecological logic. Much of this involved studying politics, economics, understanding the capitalist system and looking at alternatives. They were taught to critique these systems but also to be self-reflexive and deconstruct their own assumptions and problems within the course. For example, as Julia explained:

Although I grew up learning about socialism from my parents, who were both heavily involved in MST activism, this was not the case for many of my classmates. Before they came [to the EMS], they knew a lot about the practicality of socialism, living it in a way through collectives or cooperatives on settlements, but they didn't understand it in a deep way. They hadn't studied it, reflected on it like we do in this course. I believe that a lot of people who speak of socialism today do not actually *know* it. They study, study, study, they read and they theorize, but they don't live it. We don't even understand it fully, but after studying socialism while here in the course, we try to practice what we've learned when we return to our settlements – put the theory into practice.

This demonstrates the movement's praxis: having theory inform its practice and vice versa. While much of this story seems romanticized and unrealistically utopian, the movement puts a lot of effort into discussing and debating alternative ways of living, of organizing and of learning. Though it must deal with contradictions, such as the continued need for money and resources to support students, the MST still pushes the larger war of position further through *formação* that challenges students to question capitalist logic and brainstorm alternatives.

Considering the rich experience of the course, I asked Julia if she and her classmates saw many changes in each other through the various stages. She responded yes, adding that the ones who changed the most were those who may have come from an agrarian reform settlement, but had no base in MST *formação*, had not participated in MST-led activities. She said, "those who came here underwent a profound personal growth, changing life directions and ideological conceptions." She explained that, especially the younger members have been bombarded with

ideas of high consumption, not being able to get away from the consumer lifestyle promoted in the cities. Then she spoke of the reflexivity that the movement's pedagogy promotes:

But then they come here and they start to discover the contradictions that such a society produces. That way of life starts to make less sense to them. Of course, we all see many contradictions within ourselves, because of this consumer part of society, but the pedagogical methods at the school help us work through our own contradictions.

In examining the PROMET documents from Ana, I was able to see how time was allotted, and the priorities and goals that were set (corroborated by the practice I saw around the EMS and in conversations with course graduates at the school). Much of this is indicative of *living* agroecology, because although this is a technical course, students recounted the importance of a holistic approach to personal transformation. It is important to develop agroecological subjects who construct a new collective consciousness, living in a type of reciprocal relationship with the environment and each other. This it is not without its challenges, but as Gramsci's war of position posits, this happens slowly, through a protracted strategy. As I saw through the *seminário* and EJA, as well as in conversations with students and residents, this often begins discursively and is put into action through education, disseminated more widely as graduates or volunteers return home or travel and share their knowledge. In the course, this dissemination is supposed to take place during every *tempo comunidade*. The PROMET documents list *diálogo de saberes* as part of the activity during *tempo comunidade*, meaning the students are required to work and share knowledge with farmers on their settlement.

While students are required to participate in such activities to complete their degrees, this knowledge sharing must become a part of their agroecological *formação* to sustain their counterhegemonic discourse long after graduation. When I asked Julia about what her classmates are doing now, she said that many are currently practicing agroecology, either attending other courses, farming agroecologically settlements, or are traveling to numerous settlements helping other farmers learn agroecological techniques. She explained that some act as MST technicians, while others are technicians for outside companies.

Despite these successes, Julia spoke of the difficulties the course has encountered. Echoing what Ana had explained about PRONERA, she said that many difficulties stem from bureaucratic institutions and partnerships with INCRA and the Federal Institute, and mostly concern resources (or lack thereof). She also addressed student retention. Although her cohort had begun with 50 students, only 21 graduated. Students leave for a variety of reasons: sometimes the course is too intense or demanding, or they have other responsibilities or obligations that take precedent. But Julia did mention that many youth have difficulty assimilating to the process, so they are unable to continue in the course. As every activity is planned in keeping with the movement's *formação*, it can sometimes be too much for those who are not already *militantes*. She said these issues were discussed and debated in NBs every week.

Students' original intention for taking the course also came up during our interview. Although she stated that some people, like herself, have a love for agroecology and a genuine interest to learn more, others attend as a matter of convenience, as there are not many opportunities on the settlements. She said that these courses are paid for by PRONERA and students receive support from the movement to further their education, with the idea that they will return to their settlements to disseminate their knowledge, or become MST technicians (although there is no binding agreement on this). Yet according to Julia, many who make it through the course undergo a deeper type of *formação* throughout the intentional activities and units. Although a student's initial intention may have just been about convenience and "getting ahead," she explained that solidarity for the struggle is formed during the course. As she explained, "the movement still has a long way to go [in its counter-hegemonic project], but I think it is important that we continue with these technical courses, as they provide a fundamental basis through which people can become critically engaged." This reflection supports the argument that popular education is an important strategy in the MST's counter-hegemonic project. The movement is complex and ever changing, adapting as social, economic, cultural, and political contexts shift. Yet the course's reflexivity, flexibility, and creativity demonstrates the ways in which popular education is crucial in the MST's "war of position."

#### V. **DISCUSSION**

This chapter explored the ways in which the MST attempts to dismantle capitalism's "common sense" by constructing alternative discourses through its popular education project. This critical engagement, or *formação*, permeates every aspect of daily life in the encampments and settlements, bringing forth organic intellectuals whose lived experience informs the movement's praxis. The shift to agroecology has furthered the goal of challenging capitalist common sense by providing a concrete alternative worldview that addresses larger inequalities and injustices in society. To disseminate this knowledge more widely, the movement has begun constructing agroecological schools and technical courses, training new generations of technicians within the movement and engaging in transnational knowledge sharing.

While the EMS case study is a very Paraná-specific story (due to the state's centrality for agroecology and the MST), it provides a cursory glance at the construction of a *political agroecology*. As Gonzalez de Molina (2013) described, political agroecology should consist of an *ideology* that seeks to make agroecology the dominant system, and a *discipline* that produces "actions, institutions, and regulations aimed at achieving agrarian sustainability" (50-1). Both aspects are present at the EMS to some degree, in both the formal education of the courses and the informal education of residents' daily *formação*. However, as this is a small site with a small

population within a large and complex movement, this case study should be complemented by similar studies at multiple field sites, investigating the extent to which a political agroecology is being constructed across the MST. Such studies could provide further insight into the viability of agroecology's adoption as a way of life more widely, affecting the organization of society around healthy and sustainable practices along with the implementation of scientific principles.

The EMS's story also provides insight into the continued problem of the agrarian question in Brazil, while hinting at the struggles, tensions, and contradictions within the government and the MST. As the agrarian question examines changing rural conditions and the relationship between the peasantry and capitalism, the different approaches to the organization of rural livelihoods addressed in this thesis are central to such a question. Yet the discussion here reveals that there is no straightforward answer. On one hand, the Brazilian government's relationship to the peasantry has been riddled with conflict. Various administrations have attempted to address the agrarian question through land reform, but with MLAR and industrial agriculture being promoted on smallholder settlements, problematic modernizing discourses of "development" are perpetuated and peasants' food sovereignty is often not addressed. At the same time, branches of the government have impeded agrarian reform, privileging both domestic and foreign agribusinesses' need for land. Similarly, different government branches have simultaneously impeded and supported countryside education, as seen in the EMS case study.

On the other hand, the MST seeks to transform the roots of the capitalist system, a system in which it must operate. Although aspiring to construct a different system that values humans' relationships with each other and nature over the desire for accumulation and profit maximization, *militantes, assentadas* and schools like the EMS must adhere to certain conditions of the system, seeking funding and resources to support courses and students. According to Ana, this is one of the greatest challenges the school faces. Due to limited time and resources, I could not explore this in greater detail, but it is a crucial point that should be researched further. While seeking to provide an alternative to capitalist organization, the MST requires money to function, to continue its struggle and its war of position. This limitation does not mean the movement's goals should not be pursued. Yet, for its continued survival, this contradiction should be investigated, perhaps studying how money moves within the movement: where it comes from (i.e. individual or collective livelihood activities, public or private funding, donations, grants, etc.) and how it is distributed and spent.

There is no question that the people I met at the EMS are devoted to the movement's agroecological project. They are hard working, creative, adaptable people, driven to provide an alternative to a society based on capitalist logic. Yet they still face many challenges. These include issues with funding, lack of resources and spaces, student retention, bureaucratic red tape in dealing with INCRA and PRONERA, and powerful judicial and legislative actors seeking to maintain the status quo. There is also a question as to the rate of knowledge dissemination, whether these schools can train enough people and gain momentum to demonstrate agroecology's viability. Despite these challenges, I believe the MST will rise to meet them, working tirelessly to find solutions and ways of adapting as circumstances change. If they have learned anything over the past thirty years, it is that critical self-reflection is just as important as critiquing that which you seek to change. The EMS case study demonstrated such reflexivity and engagement, providing an example of the movement's praxis. Armed with an ever-increasing number of organic intellectuals, the MST does not shy from its mistakes or from addressing systems that do not work. It faces these head on, and through discussion, critical engagement, and much patience, the activists continue their fight for a new, more egalitarian world.

### **Chapter Five: Conclusion**

# **REFLECTIONS:** Addressing the Challenges and Seeking a Way Forward

In the introduction to this thesis, I stated my initial research questions. These questions were formulated during the first year of my master's degree, before I had gone into "the field," before I could communicate in Portuguese and before I had met any members of the MST. I spent three years *reading* about the MST but had no *experience* of the MST. When I came across the movement in a reading from an undergraduate seminar, I had no idea where the spark of interest would lead me. After months of reading whatever I could find on the MST, I felt solidarity with a movement with which I had never shared physical space. While this seemed odd at the time, it is emblematic of new or transnational social movements' power: the ability to connect geographically distant people through shared interests or concerns. As my biography in the first chapter illustrated, I had no apparent connection with Brazil or the MST. Yet upon discovering the movement, I was immediately drawn to its plight and inspired by its tactics and goals.

This connection led me to pursue a master's degree to learn more from this movement that had captured my imagination. My lifelong interests in nature-society relations and education found a home in this research project, as my questions probed the ways in which people understand their relationship with the environment and each other. When I originally formulated the questions, I expected to observe a course and analyze classroom pedagogy. While literature on the MST described the value of experiential learning both in and out of the classroom, I did not expect such a rich pedagogical experience outside the courses. Though it would have been interesting to experience the agroecological course and meet other students, the lack of one during my time in the field led me to discover powerful aspects of the MST's counter-discourse through mundane, everyday activities at the school.

Demonstrations, marches, protests, national congresses and occupations – these had been the images of the movement that I romanticized over the past four years. Yet my time at the EMS was quiet, thoughtful, filled with laughter and hard work, delicious food and good company. While in some ways seemingly uneventful, this experience unlocked for me a vision of how society *could* be organized differently, how another world is possible. The sensationalized struggles mentioned above are not insignificant. On the contrary, these moments are important symbols and actions that help construct the movement's identity and form solidarity (part of its counter-discourse). But they could, perhaps, be considered wars of maneuver, more blatant or "frontal" attacks on the state, or on symbols of the dominant system that the movement seeks to challenge (such as protest against genetic-modification experimentation sites). My experience at the EMS represented another aspect of the subaltern's struggle, what Gramsci described as the protracted war of position. The daily, intentional *formação* at the school or on settlements begins to change people's relationships with each other and with nature. As more people become exposed to this agroecological *formação*, further disseminating that knowledge and experience, the war of position moves forward. It may take generations. The project, strategies, and tactics may have to shift and adapt to changing conditions. But, according to Gramsci, a new hegemony can only be achieved through the long dedication to the war of position, slowly changing the system from the inside by establishing organic intellectuals in all facets of society.

Beyond serving as part of the strategy in the MST's war of position, the EMS's story ties into Gramsci's notion of praxis through critical engagement with one's social reality. Examples from the *seminário*, EJA, *Projeto Flora* and life at the EMS illustrate the awakening of organic intellectuals in the movement, drawing on their lived experience to inform the construction of an alternative hegemony, while simultaneously becoming "educated," studying history to situate their struggle and being exposed to theories on socialism and capitalism to help understand the system from which they seek liberation. Returning to Gramsci, this story demonstrates how neoliberal common sense – built on free-market worship, mass commodification (of humans and nature), re-regulation of the state to be run like a business, and promotion of "homoeconomicus," the ideal, entrepreneurial individual – can begin to be challenged through a reorganization of society according to agroecological principles. The current crises of capitalism (economic, food, energy, environmental, etc.) are exposing its inherent contradiction: the relentless pursuit of accumulation inevitably forces capitalist firms (and by extension, consumers) to destroy that upon which they rely to produce in the first place (resources/nature). The unsustainability of current societal organization leaves room for an alternative hegemony to assert itself, which is precisely what the MST seeks through its agroecological project. By examining and critiquing the dominant system's discourse (and practice) and exposing its weaknesses (much like Claudio did at the seminário), the MST can undermine the system's power and begin constructing a counter-discourse. As Foucault saw discursive battles as determining what constitutes "truth," the MST's project has the potential to construct a new "truth" to displace neoliberal "common sense." Projeto Flora provides a small example of this, dispelling the myths of industrial agriculture by engaging in a dialogue of knowledges.

Returning to the research questions that began this project, I highlight some challenges that arise in the MST's larger counter-hegemonic project and those I faced as a researcher trying to answer these questions. The first was: *In what ways does the EMS's pedagogy politicize agroecology and reshape individual and collective understandings of, and their relationship to, nature/agriculture?* I have answered this question by engaging with the politicization of agroecology in the Latin American agroecological movement (the principles of which are shared

by the MST) and exploring the MST's pedagogy in the classroom and everyday *formação*. The intentionality of agroecological *formação* employs a holistic understanding of agroecology as a set of scientific principles and practices as well as a politics and way of life. Descriptions of life at the school attempted to illustrate the ways in which a collective agroecological consciousness is being constructed at the EMS and in other MST spaces.

However, the movement continues to face challenges with respect to the dissemination of a political agroecology. Some of these can be traced back to the dualisms presented in the second chapter: market-centrality versus a concern for people and the environment, cash crops versus local food sovereignty, monocultures versus diversified crops, agribusiness versus localized peasant holdings, and industrial farming versus agroecology. These dualisms appear to place the Brazilian government's policies on one side and the MST's proposal on the other, acting in direct opposition. Yet, as we have seen, the situation is more complex. As Foucault stated with respect to discourse, we are often speaking of several discursive elements rather than a cohesive discourse, and contradictory elements will exist within the same discursive strategy. Though Foucault may not have seen this as problematic, the contradictory elements within the MST's discourse can often be construed as hypocritical by its detractors.

The challenge here is that the movement is not, nor could it ever be, a homogeneous entity. The actions of its members do not always fit the rhetoric and ideals of its official discourse. While MST leadership promotes agroecology over MLAR and industrial agriculture, there is no enforcement entity that requires all MST settlements to adopt a specific model. Part of the MST's success is attributed to its relatively decentralized decision-making, trusting that communities have the right to decide what works best for them. However, as Delgado (2008) saw in her study of agroecology in the movement, many people did not believe they could afford to farm agroecologically, especially when the government offered technology packages. For many in the movement, agroecological principles may be an ideal, but their implementation does not appear practical. In addition, some may understand agroecological principles but decide they prefer conventional farming. If the MST supports individuals' or communities' right to choose the model that works for them, it would be hypocritical to then enforce the use of agroecology.

For this reason, it is important for future research to examine regional variability with respect to the adoption of agroecological principles on MST settlements across the country. Paraná is the center of much agroecological knowledge production and dissemination, followed by other states in the south of Brazil. While Julia mentioned that her course in Rio Grande do Sul has students from every region, the implementation of agroecology appears more prevalent in the south. However, it is important to keep in mind that the establishment of agroecology schools is still relatively recent, and it takes time for knowledge and practices to be disseminated and adopted. Yet in continuing the project of agroecological formação to reshape individual and collective understandings of, and relationships with, nature, it will be important to look at spaces where agroecology does not seem to be working or where there is a lack of implementation. Much like Nelson et al.'s (2009) study of the policies and practices of agroecology in Cuba, it would be interesting to speak with farmers who decided not to employ agroecological methods and have opted for conventional methods on the settlements. As Julia said, many farmers still believe in the discourse of conventional or industrial agriculture - that it is "modern," "efficient," and "productive." It is the work of activist-technicians, and all of those who have undergone agroecological *formação*, to continue to challenge this discourse.

This is where popular education and agroecological schools come in. From my conversations with residents at the EMS, as well as what I read in literature on agroecological

knowledge dissemination, preconceptions about agroecology need to be dispelled. This was what the technician at *Oito de Abril* was doing during *Projeto Flora* and what is advocated in CAC methodology. Yet for CAC to work, the numbers of agroecological technicians needs to increase at a faster rate. As Julia stated, "we need to have more families farming agroecologically on the settlements. There, families could act as multipliers, disseminating knowledge more quickly." One proposed solution to the knowledge gap could be to build more schools, train more activiststechnicians to teach courses and facilitate projects like *Projeto Flora*. However, the number of students and their retention in current agroecology courses should also be studied. As Julia mentioned, half of those who began in her cohort left the course before graduating. She explained that this happens for a variety of reasons, including finances, other responsibilities (to families or home settlements), and the intensity of the course. This retention problem could prove a challenge to the agroecological project's viability, and should be addressed in future studies. It would be important to interview students who left the courses to determine if the movement can address these issues, or if the reasons are of a more personal nature.

Limited financial resources and political tensions in running these courses must also be explored in more detail. My study was limited to the EMS, but more research on agroecological schools' and projects' funding should be conducted to determine the most effective ways these courses and projects could be run. Research into partnerships should also be conducted, to determine whether funding could come from different sources (for example, several agroecology projects in Paraná are funded by Petrobras, which in itself could be an interesting study).

Turning to the second question: *In what ways does this agroecological education and political formation at the school engage with MST and wider food/agrarian movement politics and reflect the ways in which these movements mobilize and 'scale up' agroecology to challenge*  *dominant neoliberal capitalist discourse*? This was more difficult to answer, given my limited fieldwork and resources, so here I discuss some of the challenges I faced while conducting this research. I attempted to answer the first part of this question by reviewing academic literature on food/agrarian social movements, concretizing the literature in my experiences and observations at the EMS. Yet the question of scaling social mobilization "up and out" has been mostly left unanswered. Though I make general claims about knowledge dissemination once technicians leave the agroecology course, this argument only goes so far. If the EMS has only trained eighty technicians since 2003, how quickly can agroecological *formação* spread? This is not a criticism of the EMS, as it does incredible work with the people it trains, but it begs the question of the rate of knowledge dissemination, given the large scale at which agribusiness works. Of course the EMS does not work in isolation, but this is one area in which my research was limited.

My original research design incorporated an entire chapter on "scaling up and out: new spaces for social mobilization," in which I planned to discuss the use of online spaces for knowledge dissemination. The MST has a large online presence, whether through its official website (and Friends of the MST websites in seven different languages<sup>71</sup>) or its Facebook page, the extensive collection of videos on YouTube pertaining to the MST, or the various blogs, Facebook groups, and websites of its schools, events, and other groups. Online spaces have become incredibly useful for disseminating information from social movements to the wider public. For example, especially for social movements concerned with wider systemic or structural change (social justice), online spaces can aid in gathering support across multiple scales – from local, regional and state to the national and international – as well as fundraising and awareness raising campaigns. The Internet can create a space in which seemingly

<sup>&</sup>lt;sup>71</sup> English, Spanish (supporters from Spain and Latin America), French, Italian, Swedish, German, and Dutch. Interestingly, these are all based in the Americas and Europe, and would be worth looking into the MST's connections to other parts of the world.

(geographically) distant people can find solidarity in a cause, values, or belief systems. It can help create connections in formerly separated places. For these reasons, the online world produces interesting new spaces for academic inquiry. Researchers can now examine the ways in which websites and social media (such as Facebook, Twitter, Instagram, etc.) are used to further social movements' goals, disseminate information, create relationships, and maintain communication between various actors. They can extend the reach of movements that once would have been confined to the local, regional or national context but can now be accessed by anyone with an Internet connection.

While this would be a fascinate research area, I did not have time to incorporate online spaces in my analysis as I did not want to make any claims from a superficial glance. However, this could be an important area of research in future studies around social mobilization, knowledge production and dissemination, the scaling up of agroecology, and the MST's war of position. That said, there are also some potential issues that could arise with such studies, such as rapidly-changing websites (making it difficult to keep track of original sources, especially if domain names or site addresses are changed or pages are taken down or deleted), copyright infringement and issues of ownership, and ethics regarding the use of people's personal information found in public domains online. Despite these issues, online spaces could provide a wealth of exciting new insight on transnational mobilization.

Such a study of online spaces could be incorporated into a trans-scalar study of agroecological knowledge production and dissemination. This would be a much larger project, requiring more resources and time. Yet ultimately, it could be approached with similar research questions, looking at multiple sites rather than one. Some examples of transnational networking that could be examined include exchanges, such as the Haitian students who studied agroecology at the EMS, and international agroecological schools, such as the Latin American School of Agroecology (ELAA) in Lapa, Paraná, and the Paulo Freire Latin American Institute of Agroecology (IALA) in Venezuela. Both university-level training centers welcome students from across Latin America (and even some from other continents), helping to disseminate agroecological knowledge, guided by *diálogo de saberes* and CAC methodology. This research should incorporate further examination of the dominant system – including the increasing power of agribusiness, global land grabs, and governments and institutions that work to support the systems – to understand potential challenges to the transnational dissemination of agroecology.

Research projects such as that described above would require substantially greater resources and time than I had for my master's fieldwork. While I managed to leave Brazil with more than I had originally thought, I also faced several challenges in the field. I end by briefly discussing some of these challenges, hoping to learn from these experiences for future research projects. First, I was constrained by both time and resources, limiting me to one field site. While the EMS provided a rich case study, I had to generalize out from the experiences and conversations I had there. Second, my limited ability in Portuguese upon arrival in Brazil made it difficult to make connections and conduct interviews with a variety of informants. Immersion helped me acquire the language relatively quickly while living at the school, but with only three weeks to conduct fieldwork, language proved extremely limiting.

Logistically, when I arrived and there was no course to observe, I believed this was a major set back. Yet as I started to observe and participate in the daily activities, I realized that this allowed me to understand a different type of agroecological training. Finally, again due to limited time and resources, I was not able to interview many actors who had been in my original research design. In future projects, it would be important to incorporate interviews with representatives from the government agencies (INCRA and PRONERA) and professors invited to teach at the schools. It would also enrich the story to include interviews with various graduates of the courses to see what they are doing now, hold focus groups and walking interviews with current students of courses at various schools, and to visit settlements that are employing agroecology (or, conversely, ones that have rejected agroecology). Yet given my limited resources and time, the EMS case study was an important learning experience, both as a researcher and an activist. Not only did I come away with data to complete my degree, more importantly, I left Brazil newly inspired, connected to friends who are thousands of miles away, and yet with whom I now share a bond, adding to the transnational character of this movement.

Throughout this thesis, I argued that the EMS provides a concrete example of how agroecological *formação* can begin challenging capitalist logic through everyday activities and intentional actions such as participation in protests and marches, the creation of popular education courses, the facilitation of agroecological projects like *Projeto Flora*, and hosting events like the *Jornada de Agroecologia*. Though it only begins to scratch the surface, I hope this case study helps contribute to the argument that the MST's counter-hegemonic project constitutes a "war of position," seeking to unseat neoliberal capitalist dominance through a protracted discursive, and ultimately material, war. While some may see this story as naïve, romanticized, or overly optimistic, I choose to view it as a story of hope. The residents of the EMS were not forced to be there. They chose to volunteer their time, move to a small community to contribute to the movement's praxis. In completing everyday tasks to keep the school running, taking time to spend with each other, to build community, and to welcome a stranger without once mentioning money or how much she cost to put up, the residents of the EMS were *living* their politics. And in so doing, they demonstrated to me a glimpse of another possible world.

#### **APPENDIX ONE: EJA Essay**

#### **English (Author's Translation):**

Today, we are living in a democratic country, where people can participate in decision making by electing political representatives.

Despite this, Brazil has many social problems that require transformation and investment: in the areas of education, health, rent, agrarian reform, infrastructure, the job market, and income distribution.

Therefore, it is up to us to examine each candidate and determine whether his or her proposal protects the interests of society as a whole, and not just one group. It is important that, beyond voting, wider society continues to participate in decisions, through the public sector, particularly supporting education that promotes debate and discussion about the importance of voting and engagement with political issues as a tool for social change.

#### **Portuguese (Original):**

Vivemos hoje em um país democrático, onde as pessoas podem participar das decisões do país através do seu voto elegendo seus representantes políticos.

Apesar disso, o Brasil tem muitos problemas sociais que necessitam das transformações e investimentos: na área de educação, saúde, moradia, reforma agrária, infraestrutura, mercado de trabalho e uma melhor distribuição de renda.

Por isso cabe a nós analisar cada candidato se a sua proposta defenda os interesses de toda a sociedade e não apenas de um grupo. É importante que, além de votar, a sociedade continue participando das decisões, através que o setor público, em especial a educação promovam debates e discussões sobre a importância do voto e das questões políticos, como ferramenta para mudança social.

### APPENDIX TWO: Formação Slides (Portuguese)

## **QUE FORMAÇÃO?**

- Intencionalidade: qualificar *militantes da transformação* e *construtores* de uma nova ordem social
- Formação para *a classe TRABALHADORA*
- Formação para a Organização e seus desafios
- Formação para os objetivos da EMS
- Qualificação politica, técnica, pedagógica e cultural de militantes

# FORMAÇÃO PARA QUEM?

- Todos os sujeitos da EMS
- Para o conjunto do MST
- Para o conjunto da sociedade
- "Todos os moradores da escola devem, na medida do possível, estar inseridos em algum processo de formação"
- Responsável: CPP

# MOMENTOS INTENCIONAIS DA FORMAÇÃO

- Lutas, atividades na base e do conjunto do MST
- Estudo, escolarização, cursos, seminários, elaboração teórica/de materiais
- Atividades organizativas da EMS (reuniões, seminários) e MST (encontros, reuniões dos setores e brigadas, seminários, intercâmbios, viagens...)
- Arte/cultura e mística noites culturais, oficinas, elaborações artísticas, teatro, embelezamento, jornadas socialistas, cinema, museus, etc.
- Trabalho planejamento e reflexão sobre o trabalho
- Relação com a sociedade acompanhamento a visitas e estagiários, lutas e atividades de outras forcas; qualificar o programa na radio, qualificar as feiras; instituir homenagens internas (mural histórico) e externas a lutadores, e a fatos históricos; participação e apresentação de trabalhos em eventos; organização de eventos e atividades de formação.
- Convivência esporte, historias de vida, atividades de integração e lazer coletivas pelo menos uma vez por ano
- Ciranda infantil
- Intercâmbios e trocas de experiências com internacionalistas

# **APPENDIX THREE: Full Curriculum for the Agroecology Course (Portuguese)**

### MATRIZ CURRICULAR DO CURSO TÉCNICO EM AGROECOLOGIA – MODALIDADE PROEJA

#### ÁREA: CIÊNCIAS HUMANAS E SUAS TECNOLOGIAS

CARGA HORÁRIA: Et. 1: 100, Et. 2: 100, Et. 3: 100, Et. 4: 60, Et. 5: 40

Unidade	Conteúdo
FILOSOFIA	Introdução à história da filosofia e as distintas concepções de mundo;
	O trabalho e a formação do homem;
	Idealismo e materialismo como concepções de mundo;
	O materialismo histórico e os modos de produção na sociedade ocidental;
	Filosofia da práxis, Materialismo Dialético e as leis da Dialética;
	Conceito de classe e extratos sociais e a luta de classes;
	As concepções de Homem e Sociedade em Marx, e a perspectiva histórica da
	emancipação humana.
	Consciência e Alienação
SOCIOLOGIA	Sociedade humana, e conceitos básicos para a compreensão da vida social;
	História da agricultura e a sociologia do trabalho e da organização social;
	Formação sócio-econômica brasileira, a Questão Agrária e a modernização da
	agricultura;
	Histórias da sociedades humanas e formação;
	A luta pela Reforma Agrária no Brasil;
	Movimentos sociais do campo no Brasil;
	A evolução do conceito de campesinato;
	O campesinato no Brasil: formação e características;
	Características dos grupos camponeses;
	O desenvolvimento da consciência e vícios e desvios ideológicos do camponês.
ECONOMIA	História das sociedades humanas e formação e evolução do capitalismo
POLÍTICA	(comercial, industrial, imperialismo, Estado de bem-estar social, e neoliberalismo);
	A mercadoria, Teoria do Valor e da Mais-Valia;
	Teoria da Acumulação;
	A mais-valia na agricultura e a Renda da Terra;
	Capital portador de juros;
	Superação das crises pelo capitalismo ao longo da sua história;
	O modo de produção socialista. Desafios contemporâneos da transição.
ADMINISTRA	Elaboração e Gerenciamentos de Projetos;
-ÇÃO	Conceito de administração
	Particularidades Socioeconômicas e tecnológicas da unidade de produção familiar
	Considerações na administração da unidade de produção familiar
	Generalidade da administração da produção
	Custos de produção
PSICOLOGIA	Estudo do processo de formação da subjetividade humana.
HISTORIA	Era moderna no mundo ocidental;
GERAL	Desenvolvimento da consciência histórico crítica como ferramenta de intervenção
	no presente;
	Formação do Brasil contemporâneo
	Período colonial
	Séc. XX: Formação da classe operária e do sindicalismo brasileiro, incluindo o
	sindicalismo rural;
	Industrialização;
	Estudos sobre a América Latina
	História das revoluções sociais :
	Passagem do Feudalismo ao Capitalismo;

	Revolução Burguesa
	Revoluções Proletárias
	Revoltas populares e camponesas
	História da luta pela terra: compreender atual configuração agrária do Brasil
GEOGRAFIA	Conhecimento e organização do espaço local e regional;
GERAL	Ocupação, espacialização e territorialização <i>do MST</i>
	Geografia (Geopolítica)
	Conceitos/ Teorias Clássicas
	Globalização (origem e nova ordem mundial)
	Movimentos anti-globalização
	Blocos econômicos (ALCA)
	OMC – agricultura
	Novo contexto latino americano
	Geopolítica brasileira
CULTURA	Cultura alienadora e cultura libertadora;
	Conceitos de Cultura camponesa, cultura popular, e de massa;
	Desenvolvimento de algumas técnicas da arte que possibilitem o desenvolvimento
	da ludicidade: teatro, música, poesia, etc

**ÁREA: LINGUAGEM, CÓDIGOS E SUAS TECNOLOGIAS – CARGA HORÁRIA:** Et. 1: 120, Et. 2: 120, Et. 3: 120, Et. 4: 40, Et. 5: 0

Unidade	
LÍNGUA	Leitura, compreensão e produção de textos
PORTUGUESA	Conceitos básicos sobre a Linguagem e Língua;
	Introdução a fonologia; noções de fonética;
	Nivelamento na escrita e na caligrafia;
	Ortografia;
	Estudo dos porquês;
	Pontuação; acentuação
	Leitura e interpretação de textos;
	Estudo de verbos, concordância verbal e verbos impessoais;
	nomes próprios e comuns
	Leitura e estudo de crônicas e poesias;
	Concordância nominal
	Aprofundamento na interpretação do texto;
	Variações, valores sociais e simbólicos da linguagem;
LITERATURA	Estudo da literatura brasileira;
	Estudo do histórico da arte na sociedade
	Desenvolvimento prático de atividades que fundamentam a literatura:
	Desenho artístico e técnico;
	Pintura;
	Escultura;
	Artes plásticas;
LÍNGUA	História do Espanhol;
ESTRANGEIRA	Exercícios de fala, leitura e escrita.
	Músicas e textos em espanhol;
	Gramática básica.
	Fonética.
	A cultura de povos que falam a língua espanhola, principalmente da América
	Latina.
MÉTODO DE	Produção de meios e linguagem para educação em agroecologia;
TRABALHO DE	Métodos de comunicação com o camponês, visando a massificação da
BASE - MTB	agroecologia, através do método de Dialogo de Saberes
	Comunicação e expressão;

INFORMÁTICA	Laboratório de computação: conhecendo o computador e seu funcionamento; Lógica cibernética; Editor de textos, planilhas e outros aplicativos básicos; A Internet.
CULTURA CORPORAL E DE MOVIMENTO	Atividades de cooperação, sincronia em grupo; Cuidados corporais; Alongamento e relaxamento Exercícios de fortalecimento físico (cardiovasculares); Danças populares; Teorias e práticas do esporte; Educação física nas sociedades, através dos tempos; Alongamento e relaxamento; Jogos populares; Educação física e saúde; Dinâmicas de grupos, Técnicas de animação; Atividades artístico-culturais; Corporeidade, Estética; Ginástica;
METODOLOGIA DA PESQUISA CIENTIFICA	Ciência, conhecimento científico e saber popular; Os movimento sociais e a pesquisa Articulação da pesquisa com os agricultores; Metodologias de pesquisa bibliográfica, documental e pesquisa de campo; Elaboração, apresentação e divulgação da pesquisa através do trabalho científico; Noções de experimentação controlada Sistematização de experiências.

CIÊNCIAS AGRÁRIAS E SUAS TECNOLOGIAS – CARGA HORÁRIA TOTAL: Et. 1: 140, Et. 2: 140, Et. 3: 140, Et. 4: 340, Et. 5: 440

Unidade Didática	Conteúdos				
REVOLUÇÃO	História das agriculturas;				
VERDE	Antecedentes, origem, conceito, intencionalidade, instrumentos de				
	implementação e conseqüências da Revolução Verde;				
	O paradigma consumista-reducionista.				
PROCESSO	Transmutação dos elementos à baixa energia;				
NATURAIS	O ciclo etileno; A trofobiose; Alelopatia;				
	A aração e outros processos de agressão ao solo e a rota da dependência;				
	A lei de fertilidade crescente dos solos.				
ECOSSISTEMA E	Estrutura e funcionamento de ecossistemas naturais: fluxo de energia,				
AGROECOSSIS-					
TEMAS	O agroecossistema como unidade de análise;				
	Ecossistemas naturais e comparados; Agroecossistemas sustentáveis.				
COOPERAÇÃO E	Produção da existência e cooperação; o desenvolvimento das forças				
COOPERATI-	produtivas e a cooperação;				
VISMO	História do cooperativismo e suas contradições no capitalismo;				
Formas de produção coletiva: contradição entre produção coletiva e mero capitalista;					
	Cooperação agrícola: razões econômicas, sociais e políticas;				
	Os princípios da cooperação agrícola e as diferentes formas de cooperação				
nos assentamentos;					
	Formas de produção coletiva: contradição entre produção coletiva e mercado				
	capitalista;				
	A evolução da cooperação e a organização dos assentamentos;				

	Crítica ao modelo de cooperação e organização dos assentamentos e
	estratégias de desenvolvimento a seguir; Princípios pedagógicos e metodológicos para cooperação e atuação nos
	assentamentos e comunidades.
SOLO:	Origem, formação e noções de classificação dos solos;
ORGANISMO	Biologia do solo: macro e mesofauna, microbiologia;
VIVO	Propriedades químicas e físicas do solo;
VIVO	Matéria Orgânica: Importância, fontes, funções e fatores que influenciam a
	matéria orgânica no solo;
	Ciclo do carbono, húmus e relação C/N;
	Biocenose e seqüestro de carbono;
	Fertilizantes minerais (sintéticos e naturais) e orgânicos: uso e restrições;
	Adubação e nutrição vegetal;
	pH, níveis de elementos, CTC, relação Ca/Mg;
	Coleta de amostras de solo, conhecimento e interpretação e validade dos
	valores da análise de solo;
	Elementos básicos para o manejo: fixação biológica de nitrogênio, micorrizas,
	mecanismos biológicos de solubilização e imobilização de nutrientes,
	biomassa microbiana, vias de formação de compostos húmicos, estabilidade e
	resiliência da matéria orgânica no solo;
	Manejo Ecológico do solo e plantas: adubação orgânica, compostagem,
	manejo de resíduos sólidos e líquidos, adubação verde, cultivo mínimo, plantio
	direto;
	Plantas de adubação verde;
	Proteção do solo: métodos de controle da erosão, cobertura do solo; plantio
	direto.
AGROECOLOGIA	Importância da agroecologia para os movimentos sociais;
	A contradição entre os movimentos sociais do campo e o paradigma
	capitalista;
	Necessidade e preferência por um modelo tecnológico que liberte da dependência excessiva dos insumos agroindustriais;
	A agroecologia na visão dialética, holística, ecológica e revolucionária
	(discussão conceitual e oportunismo);
	A desconstrução do paradigma reducionista;
	Conceituação e aplicação na atitude produtiva;
	Relação humana com os recursos naturais.
CULTIVOS	Métodos e técnicas para cultivos agroecológicos: alelopatia e plantas
AGROECOLÓ-	companheiras; rotação e consorciação de culturas; cultivos integrados de
GICOS	plantas e animais; tratos culturais; caldas, compostos e biofertilizantes;
	Interação entre comunidades de plantas, artrópodes e microorganismos do
	solo;
	Manejo de comunidade de plantas, insetos e microorganismos: biodiversidade
	no controle de artrópodes e microorganismos, controle biológico e
	microbiológico, rotação de culturas, policultivos, indicadores biológicos,
	alelopatia e plantas companheiras;
	Sementes;
	Métodos para cultivo agroecológico de arroz, feijão, milho, soja e outros grãos.
	Cultivo agroecológico de mandioca, batata doce, cebola, alho, cana-de-
	açúcar, café e outras culturas.
	Pós-colheita, secagem e armazenamento.
	Sistema Mandala de Produção Integrada – importância, modo de
	implementar Agroccología o borta mandala: visualizando os princípios na prática
	Agroecologia e horta mandala: visualizando os princípios na prática
TOPOGRAFIA	Levantamento planimétrico e altimétrico;
	Cálculo de planilhas;

	Uso de aparelhos topográficos;
	Manejo do GPS;
	Prática de campo
DRENAGEM E	Princípios e importância da água nos agroecossistemas e manejo dos
IRRIGAÇÃO	recursos hídricos;
	Conceitos de irrigação e drenagem na agroecologia;
	Qualidade da água;
	Relação solo-água-planta;
	Captação e condução de água para irrigação;
	Exigências hídricas das culturas;
	Métodos de irrigação e drenagem;
	Cálculo de condutividade hidráulica;
	Canais de drenagem.
MECÂNICA E	Noções sobre máquinas e motores: órgãos, sistemas de funcionamento, tipos
MECANIZAÇÃO	de motores;
	Técnicas de manutenção, regulagem e operação de motores e moto-bombas;
	Noções sobre mecanização agrícola: ferramentaria, tração animal e
	motomecanizaçao;
	Regulagem, operação e manutenção de equipamentos e implementos
	agrícolas;
MANEJO E	Levantamento de dados de agroecossistemas: informações principais,
DESENHO DE	metodologias participativas-interativas;
AGROECOSSIS-	Tensões, contradições, interações e fluxos nos agroecossistemas;
	Sustentabilidade ecológica-produtiva, cultural, econômica de
TEMAS	agroecossistemas
	Análise de agroecossistemas: critérios e indicadores;
	Identificação de pontos-chave de mudança, situações limites e temas
	geradores;
	Processo de transição para agroecologia;
	Desenho de agroecossistemas sustentáveis;
PRÁTICA	Desenvolver práticas de campo diversas
PROFISSIONAL	Envolvimento e acompanhamento das atividades das comunidades de origem
THORISSIONAL	e suas formas de organização
	Elaborar resenhas de livros e textos, relatórios e projetos
	Produção de meios e linguagem para educação em agroecologia;
	Relacionar-se com as famílias das comunidades e propor o desenvolvimento
	da Agroecologia através de metodologias participativas;
	Preparação e vivência do método Diálogo de Saberes;
	Desenvolvimento do método Diálogo de Saberes com as famílias.
	Desenvolver ensaios e experimentações
	Elaboração do Trabalho de Conclusão de Curso
DESENVOLVIMEN	Conceito e dimensões de sustentabilidade;
TO RURAL	Correntes de pensamento sobre o Desenvolvimento Sustentável;
SUSTENTÁVEL	Limites do Desenvolvimento Sustentável;
FRUTICULTURA	Implantação do pomar: local, recursos necessários, mudas, consorciação com
	outros cultivos;
	Conceitos e noções de poda e enxertia;
	Principais frutíferas tropicais;
	Tratos culturais, prevenção e controle de artrópodes e doenças vegetais;
OLERICULTURA	Implantação da horta: local, recursos necessários, mudas, canteiros;
	Cultivo agroecológico de hortaliças singulares e de hortaliças consorciadas
	com outras culturas ou criação;
	Planejamento da produção de olerícolas.
	Principais olerícolas cultivadas;
1	

SISTEMAS	Fisiologia das sementes, do crescimento, florescimento e frutificação de
AGROFLORES-	espécies arbóreas;
TAIS	Proteção de matas ciliares e reservas, regeneração de florestas e
	reflorestamento;
	Viveiros e produção de mudas;
	Sistemas Agroflorestais - SAFs;
	Permacultura;
	Legislação Ambiental.
ETOLOGIA	Origem e domesticação dos animais;
	Comportamento e bem estar animal.
	Hierarquia e territorialidade;
	Importância ética e econômica
PLANTAS	Estudo das principais forrageiras tropicais, subtropicais e temperadas;
FORRAGEIRAS	Principais características botânicas e identificação;
ESTUDOS DE	Princípios da genética clássica e molecular;
RAÇAS E	Raças e adaptação ao ambiente;
CRUZAMENTOS	Julgamento.
	Cruzamentos e melhoramento de animais; Importância da biodiversidade e o
	manejo da biotecnologia;
	Recuperação de raças originais.
SANIDADE	Conceito de saúde e saúde animal;
ANIMAL NA	Importância da relação homem-animal e bem-estar animal na saúde dos
AGROECOLOGIA	animais;
	Prevenção e controle de enfermidades;
	Etnoveterinária;
	Imunoterápicos e planejamento sanitário;
	Terapia tradicional: o uso das plantas medicinais; Alternativas terapêuticas: homeopatia.
PRODUÇÃO DE	Raças para produção leiteira;
LEITE À BASE DE	Síntese e ejeção do leite;
PASTO	Ordenha;
TAOTO	Tratamento do leite pós-ordenha;
	Centro de ordenha: sala de ordenha; currais de espera; sala de leite; sala de
	máquinas
GENÉTICA E	Princípios da genética clássica e genética molecular;
MELHORAMENTO	Melhoramento de plantas e animais;
VEGETAL	Recuperação, seleção, conservação e multiplicação de germoplasmas
	originais.
ANATOMIA E	Conhecimento dos principais órgãos e tecidos;
FISIOLOGIA	Respiração, digestão e circulação sangüínea e excreção e seus sistemas;
ANIMAL	Reprodução de mamíferos e aves.
NUTRIÇÃO E	Animais ruminantes e não ruminantes
ALIMENTAÇÃO	Cálculo de rações;
ANIMAL	Uso do Programa Fácil de Formulação de Rações.
	Formulações alternativas de rações e complementos.
CONSTRUÇÕES	Conhecer diferentes técnicas de construção: ferro-cimento, solo-cimento,
RURAIS E BIO-	técnicas com terra e materiais de origem vegetal;
CONSTRUÇÕES	Cálculo de estruturas simples, construção de estradas e barragens;
	Técnicas e procedimentos para utilização de materiais
TECNOLOGIA	Preparo e subprodutos de carne e gordura;
DOS ALIMENTOS	Preparo artesanal de conservas vegetais;
	Preparo artesanal de doces e conservas (oficinas).
ECOLOGIA DE	Noções sobre nomenclatura, identificação e classificação de insetos;
INSETOS E	
DOENÇAS	Morfologia, fisiologia, reprodução e desenvolvimento dos insetos; Métodos de prevenção e controle de insetos

VEGETAIS	Cálculos de aplicação de produtos. Microbiologia agrícola; Identificação de doenças: descrição de sintomas e sinais, diagnóstico de doenças em vegetais, distinção entre carências nutricionais e outras doenças; Métodos de prevenção e controle de doenças vegetais;
PASTOREIO RACIONAL VOISIN	Princípios; Leis universais do PRV; Tempos de ocupação e repouso; À água; manejo dos animais; Vaca ama; Projeto de PRV.
CRIAÇÃO INTENSIVA DE ANIMAIS A CAMPO	Suínos; Aves caipiras; Apicultura;

# CIÊNCIAS DA NATUREZA, MATEMÁTICA E SUAS TECNOLOGIAS – CARGA HORÁRIA TOTAL: Et. 1: 120, Et. 2: 120, Et. 3: 120, et. 4: 40, Et. 5: 0

Unidade	Conteúdos
ENERGIA	Sol: a fonte da energia;
	O ciclo energético na natureza;
	O uso da energia na produção agroecológica: a sustentabilidade (dimensão
	ambiental);
	Fontes de energia renováveis: eólica, hídrica, energia de biomassa, biodigestores;
	Técnicas e equipamentos para utilização de fontes de energias renováveis;
	Balanço energético nas culturas vegetais.
,	Balanço energético na criação animal.
FÍSICA	Fundamentos: Filosofia/ História/ Modelagem;
	Medidas;
	Cinemática: Referencial/ Velocidade/ Aceleração;
	Leis de Newton;
	Mecânica: Mecânica Newtoniana: torque/ energia, trabalho /modelagem/
	Termodinâmica: motor de combustão interna.
	Eletricidade: Eletricidade: instalação predial;
	Optica;
	Eletromagnetismo: transformadores e motores; Hidráulica
MATEMÁ-	Aprofundar a compreensão das quatro operações, porcentagem, medidas agrárias
	(prática).
TICA	Aritmética
	Álgebra
	Geometria
	Trigonometria
	Matemática Financeira
FISIOLOGIA	Fotossíntese: importância dos mecanismos desde a captação de energia solar até a
VEGETAL	formação dos tecidos vegetais;
	Fatores que influem na fotossíntese; plantas C3, C4 e MAC;
	O manejo da fotossíntese e sua relação com a produtividade;
	Relações hídricas: transpiração e absorção de água;
	A respiração
	Interações e outros antagonismos;
	Absorção e translocação de solutos na planta;
	Nutrição Vegetal: macro e microelementos e suas funções nas plantas;
	Ciclo de N-C, P, K, Mg e outros elementos;

	Fixação biológica do N;
BOTÂNICA	Histologia e cortes histológicos;
BOTANION	Anatomia das plantas com sementes;
	Estudo sumário das estruturas e funções vegetais;
	Reprodução sexuada e assexuada dos vegetais;
	Noções das chaves de classificação taxonômicas;
	Identificação das principais famílias de interesse agropecuário;
BIOLOGIA	História da Biologia
210200	Principais características dos seres vivos.
	Composição Química: Componentes Orgânicos e Inorgânicos.
	Diversidade dos seres vivos: Reprodução: Assexuada. Sexuada. Ciclo Estral. D.S.T.
	Métodos contraceptivos.
	Os cinco grandes reinos: Monera, Protista, Fungi, Plantae e Animália
	Níveis de organização dos seres vivos: Reprodução; Metabolismo. Hereditariedade.
	Adaptação.
	Citologia: Microscópio. Tipos de células. Reprodução celular.
	Ciclos Biogeoquímicos: Água. Oxigênio. Nitrogênio. Gás Carbônico.
QUÍMICA	Os elementos químicos e suas utilizações. Identificar os diferentes elementos
	formadores do planeta terra
	Química inorgânica
	Q Química orgânica
	Funções orgânicas (hidrocarbonetos, álcool, acido carboxílico, haleto orgânico, fenol,
	aldeídos, ésteres, amina e amido).
	Petróleo e seus derivados;
	Efeito estufa e chuva acida;
	Motores e combustíveis;
CLIMATO-	Definições de metereologia;
LOGIA	Elementos metereológicos;
	Noções básicas para entender o tempo;
	Fatores e elementos climáticos: umidade, chuvas, ventos, temperatura, luminosidade
	cosmografia, variáveis meteorológicas, danos ao ambiente decorrentes do modo de
	produção da agricultura convencional (efeito estufa, camada de ozônio,
	desmatamentos, secas, poluição das águas, solo, ar, exaustão dos recursos
	naturais, etc)
	Evaporação e evapotranspiração
	Fatores climáticos no manejo de agroecossistemas
ECOLOGIA	Conceituação da composição holística da natureza; A dialética da natureza?
	Conceitos e fundamentos da ecologia: organização ecológica dos seres, pirâmides
	ecológicas, ecossistemas do planeta, perturbações.
	Equilíbrio biológico, definição de ecologia e componentes bióticos e abióticos de um
	ecossistema; Relações ecológicas
	Dinâmica de populações; Aspectos de uma população, fatores limitantes do crescimento populacional, habitat e nicho ecológico;
	Cadeias alimentares, fluxo de energia e matéria no ecossistema Sucessão ecológica; Fases, estágios, características e tipos principais de sucessões
	ecológicas, Ecótono
	Origem e evolução das espécies; a seleção darwiniana;
	A biodiversidade e a agrobiodiversidade;
	Desequilíbrios ambientais – Formas de desequilíbrios, principais poluente e
	introdução ao controle biológico.
DESENHO	Uso de escalas;
TÉCNICO	Elaboração de plantas de prédios, instalações e levantamentos topográficos;
	Uso de software gráfico.
	1 030 de Soltware granco.

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