

"WHEN WE CAME, THERE WAS NOTHING"
LAND, WORK, AND VALUE AMONG TRANSNATIONAL
SOYBEAN FARMERS IN THE BRAZILIAN CERRADO

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ABSTRACT

ANDREW LEHNE OFSTEHAGE: "When We Came There Was Nothing": Land, Work, and Value among Transnational Soybean Farmers in the Brazilian Cerrado
(Under the direction of Rudolf Collaredo-Mansfeld)

This dissertation is a comparative ethnography of two groups of transnational soybean farmers in the Brazilian Cerrado. In this exploration of migration and industrial crop production for global markets, the new capacity for highly flexible farming is examined in relation to the fixity of family tradition, religious practices, landscapes, and expertise born of working the land.

In 1968, Holdeman Mennonites embarked on a tour of rural Brazil. In search of autonomy from an encroaching cultural crisis, they found cheap farm land in Rio Verde, Goiás and encountered a government eager for their migration. Decades later, a group of Midwestern family farmers toured rural Brazil and found cheap, expansive land to occupy. They courted investors (mostly neighboring farmers), bought massive tracts of land, and settled in Luis Eduardo Magalhães, Bahia.

The two groups' migrations began with experiences of crisis: for the Mennonites a cultural crisis in the United States that threatened their family and community reproduction and for the Midwestern family farmers a farm crisis which threatened their livelihoods. In Brazil they adopted common farming techniques related to soil fertilization and tillage, yet differed in crop rotations, use of technology, and most starkly in their perceptions of what counted as "good farming." Each community internally contested identity and value as they made meaning out of transnational lives and industrial farming.

These cases problematize how we understand large-scale processes of the South

American soy boom, the massive expansion of soy production in South America, the global land grab, and the proliferation of global land deals. This dissertation identifies difference and generativity of farming in two communities of transnational soybean farmers while also recognizing the power and domination behind such massive economic processes. The Holdeman Mennonite community pursues an alternative to soybean development in their use of family labor, avoidance of capital and technology, and diversified farming practices. The community of Midwestern family farmers adopts capitalist managerial and farming practices, yet reconcile this with their values of good farming. Together they reveal areas of convergence and divergence that make industrial, transnational soybean production possible.

For Arlo and Amanda.

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LIST OF ABBREVIATIONS

ABAPA	Associação Baiana dos Produtores de Algodão
ADM	Archer Daniels Midland
AIBA	Associação de Agricultores e Irrigantes da Bahia
EMBRAPA	Empresa Brasileira de Pesquisa Agropecuária
FHA	Farmers' Home Administration
GMO	Genetically-Modified Organism
GPS	Global Positioning System
IBAMA	Instituto Brasileiro do Meio Ambiente e dos Recursos Naturais Renováveis
INCRA	Instituto Nacional de Colonização e Reforma Agrária
LEM	Luis Eduardo Magalhães, Bahia
LP	Limited Partnership
Mapitoba	Maranhão, Piauí, Tocantins, Bahia
MBA	Master of Business Administration
MST	Movimento dos Trabalhadores Rurais Sem Terra
POLOCO- ENTRO	Programa de Desenvolvimento dos Cerrados
PRODECER	Programa de Cooperação Nipo-Brasileira para o Desenvolvimento dos Cerrados
PROTERRA	Programa de Redistribuição da Terra
U.S.	United States
USDA	United States Department of Agriculture
USDA ERS	United States Department of Agriculture - Economic Research Service
USDA-FAS	United States Department of Agriculture - Foreign Agricultural Service

USDA-NRCS United States Department of Agriculture - Natural Resource Conservation Service

WWF World Wildlife Fund

YBP Years before present

PROLOGUE

In her analysis of rural America in the wake of the 2016 Presidential election, Brandi Janssen writes,

Our job as anthropologists is to make sense of this sentiment, to find the sociocultural logic that scaffolds support for an administration whose policies seem inconsistent. Farmers want personal independence and overall economic growth that will increase access to their products without government interference. But they also want support, in the form of federal crop insurance and conservation programs, and cultural recognition, reflected in the desire to hear someone simply say ‘merry Christmas.’...It is our job to take rural people seriously and to understand these spaces that remain isolated yet global, forgotten even as they are undeniably influential” (Janssen 2017).

Ulrich-Schad and Duncan argue that part of the interest in making rural American great again is linked to feelings of being “left behind” and forgotten; “With the notable exception of oppressed minorities in chronically poor areas, those who stay [in rural spaces] are nostalgic for the ‘heritage’ of what used to be” (Ulrich-Schad and Duncan 2018, 76). Writer Osha Gray Davidson wrote about this feeling of being “left behind” two decades ago and linked it to the farm crisis of the 1980s which left rural America industrialized, capitalized, isolated, and broken (Davidson 1996).

Farmer George Naylor succinctly describes the state of farming in the 21st century.

The typical farmer in the Midwest owns probably only ten percent of the land they farm; the rest is cash rented. Landlords often take the highest rent bid from the biggest, most industrialized farmer. Through the years, farmers have invested in bigger and bigger livestock facilities, only to lose money, watch their facilities become ‘obsolete,’ and abandon their beneficial crop rotations. Today, almost all the pigs, chickens, and even market cattle in the United States are owned by corporations and fed in giant feedlots and concentrated animal feeding operations (CAFOs). The millions of gallons of CAFO manure, along with the remaining farmers’ fencerow-to-fencerow corn and soybeans

rotation, pollute our lakes and waterways. Getting bigger is clearly not the answer to our problems (Naylor 2017, xviii).

This research stems from a similar interest and curiosity about rural America. In 2011 I had recently finished a master's thesis on quinoa production and commercialization in Bolivia - in retrospect a culmination of my personal turn from agronomy and production agriculture in South Dakota to the anthropological study of alternative ways of doing agriculture and marketing farm products. After my admission to the University of North Carolina at Chapel Hill, discussions with Rudolf Colloredo-Mansfeld led to my consideration of a new project, both farther afield and closer to home. I had heard of North American farmers producing soybeans in Brazil for years in producer magazines like *Successful Farming* or *Progressive Farmer* and had only considered them a curiosity. Yet, the more I considered the questions of how these farmers came to migrate to Brazil and how they make that work, the more academically-engaged I became with the phenomenon. How do they balance saving their family farm with abandoning farmsteads? How do they come to see the complete transformation of farming as their means of remaining in farming? How do they reconcile long-held and ingrained agronomic knowledges and practices with new on-the-ground realities of environmental protections, worker relations, climatic conditions, pest populations, and seed selections? In short, what "sociocultural scaffold" supports this movement? Later in my academic career at UNC-CH, influenced by the writings of Ingold, Tsing, Haraway, and Li (Ingold 2011; Tsing et al. 2017; Tsing 2015; Haraway 2016; Li 2014a), I further began to ask what social and material realities were generated from this movement of people.

How can we make sense of the crisis of North American farming that drove two groups of farmers to find land elsewhere? What's wrong with rural America and how do we make sense of it? For rural sociologist Michael Bell, the 1980s farm crisis never really ended but is part of a

perpetual farm crisis of a decreasing number of farms and farm consolidation. This “farmer’s problem” (M. M. Bell 2010, 43) places farmers in direct competition with each other for the most basic unit of agricultural production - land. The oppositional relationship between farmers cropped up in the 1980s farm crisis, as identified by Dudley. The individualization of success and failure and move away from agrarian solidarity, community, and connection (Dudley 2002).

I once introduced Dudley’s tragic story of loss, blame, and suicide in rural America to my father who lived through the farm crisis and had neighbors who committed suicide after losing their farms. He agreed with the story, said it reflected our family and community’s experience, yet, stated that it seemed “almost to critique capitalism.” As farmers move away from state extension agents, farmer cooperatives, land-grant college driven seed development, community gatherings, and family work they pursue an individualized notion of farming in which success and failure is due to personal entrepreneurship and hard-work - not to class, structure, or capital. This rupture of rural America seems to stem from three inter-connected changes happening in U.S. agriculture: oppositional relations between farmers; increasing ambiguity around who is a farmer and cultural politics around who counts; and increasing disconnection of the farm from collective, social worlds and centering on the farm as economic unit. In the following examples I will not answer, but rather illuminate these questions to show emerging tensions within farming today.

Gorillas and the Iowa renter, or what is a farm community?

When I was growing up on our South Dakota farm in the southeast corner of the state, my family and neighbors directed our ire at an Iowa farmer who outbid any local farmers for rental contracts, used farmworkers and large machinery, and had gone bankrupt several times. He was

well-known for out-bidding any local farmers for scarce farmland and not leaving any local economic benefits besides his rental payment (his workers, inputs, and machinery were brought over from Iowa). He made already hard-to-access land even more difficult to get. Worse yet, as an outsider and a renter with little investment in the land nor concern for land stewardship, most farmers believed he implemented poor soil management practices which denuded the soil. Yet, while our ire was directed at the Iowa farmer, our resentment was directed at our neighbors. Why would they rent to this outsider? Why would they not favor local farmers, especially young farmers who needed a bit of help to get their own farms started?

Later in my youth, rumors began circulating in the community about a mysterious investor who appeared to be making land deal offers to local farmers for large tracts of land and above-market prices. Soon the project had a name - Project Gorilla - named as much for its size and strength as its exoticness. Some neighbors sold and others held out and the politics around this became a dominant topic of conversation and clouded over social relations in the area. Local opposition to Project Gorilla, only later formally outed as a project of Hyperion seeking to install an oil refinery, decried the company and project as unsustainable, destructive, and a catalyst for crime, violence, and change, more personal attacks were directed at those farmers who had sold land to Hyperion in the first place. Neighbors directed their most passionate vitriol at neighbors and did not directly critique capital, business, or outsiders.

This leads us to ask: what is a farm community?

Thank the Farmer or the Farm Worker? Or, what is a farmer?

During Super Bowl XLVII, Dodge ran a commercial featuring pictures of pensive, praying, and working farmers in tractors and pickups with Paul Harvey's speech, "Thank a

Farmer,” playing in the background (Ram Trucks 2013). The ad transitioned from image to image of mostly white male farmers working in fields, standing against working landscapes, and hands held in prayer. The speech in full:

And on the 8th day, God looked down on his planned paradise and said, "I need a caretaker." So God made a farmer.

God said, "I need somebody willing to get up before dawn, milk cows, work all day in the fields, milk cows again, eat supper and then go to town and stay past midnight at a meeting of the school board." So God made a farmer.

"I need somebody with arms strong enough to rustle a calf and yet gentle enough to deliver his own grandchild. Somebody to call hogs, tame cantankerous machinery, come home hungry, have to wait lunch until his wife's done feeding visiting ladies and tell the ladies to be sure and come back real soon -- and mean it." So God made a farmer.

God said, "I need somebody willing to sit up all night with a newborn colt. And watch it die. Then dry his eyes and say, 'Maybe next year.' I need somebody who can shape an ax handle from a persimmon sprout, shoe a horse with a hunk of car tire, who can make harness out of haywire, feed sacks and shoe scraps. And who, planting time and harvest season, will finish his forty-hour week by Tuesday noon, then, pain'n from 'tractor back,' put in another seventy-two hours." So God made a farmer.

God had to have somebody willing to ride the ruts at double speed to get the hay in ahead of the rain clouds and yet stop in mid-field and race to help when he sees the first smoke from a neighbor's place. So God made a farmer.

God said, "I need somebody strong enough to clear trees and heave bales, yet gentle enough to tame lambs and wean pigs and tend the pink-combed pullets, who will stop his mower for an hour to splint the broken leg of a meadow lark. It had to be somebody who'd plow deep and straight and not cut corners. Somebody to seed, weed, feed, breed and rake and disc and plow and plant and tie the fleece and strain the milk and replenish the self-feeder and finish a hard week's work with a five-mile drive to church. "Somebody who'd bale a family together with the soft strong bonds of sharing, who would laugh and then sigh, and then reply, with smiling eyes, when his son says he wants to spend his life 'doing what dad does.'" So God made a farmer. (Franke-Ruta 2013)

Like Eastern North Carolina billboards that remind drivers that “if you ate today, thank a farmer” and the more divisive South Dakota version, “Eat Steak...Wear Furs...Keep Your Guns: The American Way,” the Dodge Super Bowl ad made two claims: first that farmers are forgotten

members of society whose contributions are underappreciated and second, that farmers represent a human ideal in their faith, hard work, and selflessness. Farmers widely supported the advertisement, thanked Dodge for honoring their work, and shared the ad liberally on social media (CNN 2013). Yet the advertisement also sparked backlash from farmers and advocacy groups who noted that the ad and speech placed undue focus on farmers (especially white and male farmers) over farmworkers. The Coalition of Immokalee Workers noted that “Today, the vast majority of physical labor done on the vast majority of commercial fruit and vegetable farms in this country is done by farmworkers — the vast, vast majority of whom are not white (NC Council of Churches 2013). The homogenized, gendered, and racialized images of the American farmer portrayed by Dodge make other ways of farming invisible, but also fit into long histories of marginalizing Black, Latinx, and women farmers (W. J. Wright n.d.). The tension here regards who counts as a farmer and whose labor matters?

This conflict between farmer, farm worker, and farm manager isn’t new. “Devil Take the Farmer,” by Dave Gordon and shared with me by Rudolf Colloredo-Mansfeld captures the multiple angles of this tension:

Devil take the farmer -
They don't know good from bad land
They don't know corn from weeds
They never use the houses
They only use the deeds
They use them as a tax dodge
They use them as a shield
And with half the stuff they hand you
You could fertilize your field
They don't care whose home they're taking
They don't care whose land they grab
They just sit out in the blazing sun
In an air-conditioned cab
They got a button saying Sow
They got another saying Reap
And the third one just says Money

And it pours in while they sleep (Gorden n.d.)

Contrast this with the ideas of work, joy, and satisfaction expressed by Wendell Berry in the first few lines of “The Satisfactions of the Mad Farmer” (Berry 2011).

Growing weather; enough rain;
the cow's udder tight with milk;
the peach tree bent with its yield;
honey golden in the white comb;

the pastures deep in clover and grass,
enough, and more than enough;

the ground, new worked, moist
and yielding underfoot, the feet
comfortable in it as roots;

Or consider “The Change” by indigenous poet Allison Adelle Hedge Coke (Hedge-Coke 1997) which for VanWinkle highlights the “sanctity of life and the dignity of old ways displaced by industrial agriculture” (T. VanWinkle 2018).

Before edgers and herbicides took
what they call *weeds*,
when we walked for days
through thirty acres and
chopped them out with hoes.

The conflict between advocate of farmers and of farmworkers challenges the legitimacy and authority of claims to be producing food, to be working hard, and to demand gratitude for farm work and production.

This leads us to ask: what is a farmer?

Bean buggies and RoundUp, or what is farm work?

While we kept busy steering great ships through stormy seas (riding old, stationary, broken-down farm machinery through wind-blown tall grass), disputing the movement of ghost

runners in a game of baseball, and playing hide-and-seek in the tangled branches of the grove behind our house, my brothers and I spent much of our childhood working on the farm. Our work included watering the pigs on sweltering days (indeed not even pigs sweat like pigs), keeping feed troughs and watering tanks full, collecting chicken eggs, corralling escaped pigs which inevitably destroyed Mom's flowers, and collecting sweet corn from the field.

At once the most grueling and rewarding work was the bean barring and bean walking. For each task we would wake up early, so as to get into the field before the sun was at its highest. For a day of bean walking we would fill a jug of ice water, collect a grocery bag of snacks, throw a few machetes into the pickup, and we'd be off. Each of us would take a number of rows (I would take fewer than my older and more responsible, or perhaps more confident brothers) and walk from one end of the field to the other, cutting every cocklebur, button-weed, sunflower, and volunteer corn stalk we saw. The days were tough - our backs sore from bending down, our hands raw from pulling weeds and blistering where the machete rubbed our skin, and our feet often wet and cold from walking in the mud (while Dad always warned us to stay in the dry soil). And yet I enjoyed those days. We talked, played, and roamed free. For me, it was rewarding to play a part in the farm tasks and also gave us a feeling of independence and importance. Alone in the field, we knew what to do and were contributing.

Bean barring provided a similar feeling of hard-work and responsibility. Again, leaving early in the morning, we and one or two neighbor kids or friends of my brothers would set out. Our job was to sit on seats on a bar at the front of the tractor. Each of us held a gun in our hands connected to a tank of herbicide. As the tractor moved slowly through the field we squirted any weeds we saw, being careful (more or less) to not hit any soybeans which the herbicide would also kill. While not alone, we still gained a sense of importance and autonomy on the farm -

learning the importance of attentiveness and carefulness. It was also a lot of fun. Riding through the field, strapped to a tractor, and shooting weeds with a squirt gun. When Dad wasn't looking we sprayed each other's feet, turning old gym shoes pink and yelling out to each other. Farm work for me as a child was social. We got to work together, work with neighbor kids and older brothers' friends, and all under the watchful eye of Dad.

Turn now to weed control in the post-Monsanto world. In 1996 Roundup-Ready soybean seeds were sold commercially. Monsanto genetically-engineered soybeans to resist the effects of RoundUp (tradename for glyphosate). This allowed farmers to spray an entire soybean field with RoundUp to kill weeds and leave the crop intact, thus reducing the need for manual cutting of weeds from a field or of bean barring. Following this, for years my Dad simply sprayed the fields, leaving us to other jobs on the farm - but those too dwindled. Our free-range chickens fell victim to greedy foxes and we sold out our hogs when it became increasingly clear that even one hundred hogs were not enough to compete with concentrated agricultural feeding operations. There is a common saying in the Midwest that "RoundUp makes a good farmer lazy and a lazy farmer good," meaning that technology has a leveling effect on hard work and skill. In our experience it also had the effect of dividing the farm into separate spheres - one of social reproduction of the family and the other an economic unit of production.

This leads us to ask: what is farm work?

The anthropologist, or where are the farm children going?

In high school I enrolled in a career class for two reasons. First, it was widely regarded as one of the easiest classes a student could take and, second, all of my similarly uninspired friends were in it. Prior to the course I had little intuition to what I wanted to do for a career. We took a

personality test and one of my results for possible career was “farmer.” For the first time, I really considered that possibility. I did three internships during the class - working the USDS-NRCS and for two grain elevators - and left with a career plan. I would get an agronomy degree at South Dakota State University, then work as an agronomist until I could take over the family farm. Two things happened - I became interested in the study and social side of farming and my family was lukewarm about me becoming a farmer - not fun, not a reliable career, stressful, uncompetitive small family farm. So I followed my connection and interest in farming and became a researcher of farming.

This leads us to ask: what is happening to those tossed asunder by agrarian crisis?

So, what is this dissertation about? On its face it is a comparative ethnography of two transnational farming communities in Brazil: the first a colony of Mennonites who fled threats to their cultural production to become first soy farming pioneers then later small-scale soy farmers in agro-business driven Goiás, the second a group of Midwestern farmers seeking adventure, land, and profit who purchased large tracts of land and adopted Brazilian farming practices. More personally, however, this is about the trajectory and possibilities of industrial farming. What is possible for farming if we leave behind assumptions of connectedness with the land, tight-knit communities, and agrarian ethics of work? What is left? Divisions about what rural America should be, individualization of success and failure, lack of solidarity, longing for the days of community, cooperatives, and cooperation. This comes up in my research in both ways - through resistance to materialism, worldliness, and technology by the Mennonite farmers and through acceptance and evangelization of the Brazilian Model of farming by Midwestern farmers in Brazil, but as you will see, it is more complicated than that.

CHAPTER 1 INTRODUCTION

We set out early from Luis Eduardo Magalhães to get to Ian's farm atop the escarpment that marks the political border of Bahia and Tocantins states and a natural boundary that separates native Cerrado from the soybean production frontier. While discussing the difficulties of managing farm workers, inefficient and backward environmental and worker protections, and his theories on race and morality we drove past endless fields of soybeans and cotton. After more than an hour driving on a busy highway we passed one of his family's fields; at 11,450 acres it stretched to the horizon. Ian's family owned and managed 4,400 acres of Brazilian farmland in 2003 when they first arrived from black-soiled Illinois. By 2009 the Brazilian farm had grown to 30,000 acres. Their farm was managed by the family as a tag-team agreement between father and son, one of them at the Illinois farm and one at the Bahian farm, both in perpetual transit. Together they managed the 30,000-acre Brazilian farm which employed more than one hundred farm workers, several farm managers, agronomists, a legal team, an accounting department, and a human resources department.

They purchased Brazilian land for a number of reasons. Ian Hanson wanted to farm, but didn't want to be given land or machinery. Illinois farmland prices were high at \$3,000 per acre and he also didn't want to incur unsustainable debt. He had the farming experience and also had been through agricultural business training at university. It was easy to start, to buy land and now he's an employee and owner. Sitting in the shade on his Western Bahian soybean farm later that

day, he told me that his “family has always farmed, [we] came from Ireland sometime in the 1800’s and probably just always farmed.”

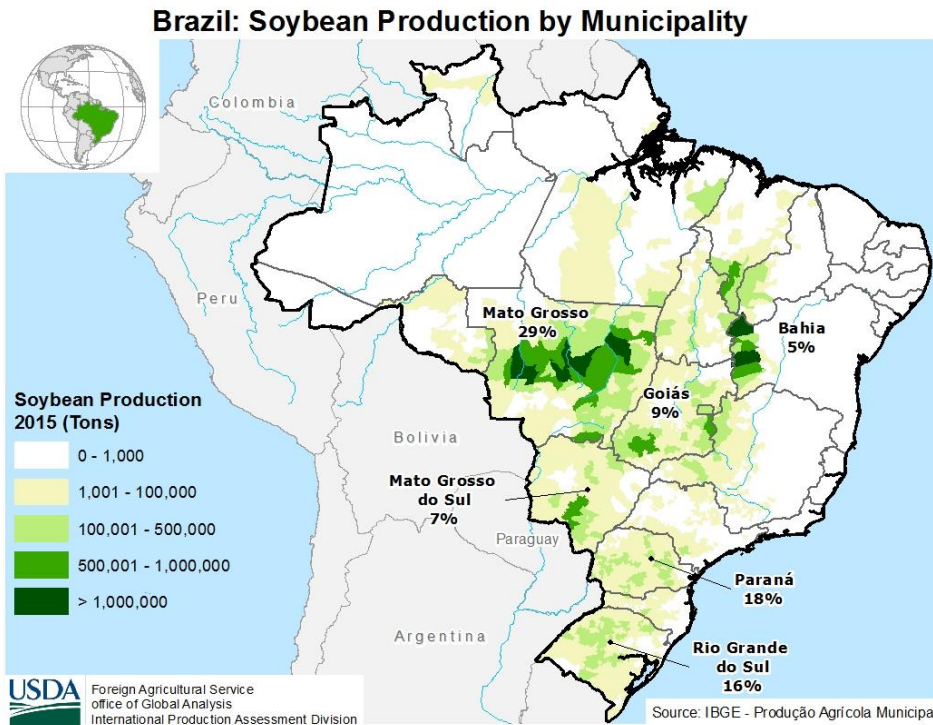
This was neither the first time nor the last that a transnational, highly capitalized, and highly technified farmer explained their entry into Brazilian farming with reference to earlier histories of migration, frontier settlement, and farming. The Hanson family is one of dozens of migrant US soy farm families in Western Bahia, Tocantins, Roraima, Goiás, and Mato Grosso, Brazil. North American farmers came to Brazil in two waves, one stretching from 1988-1994 and another from 2000-2004. Generally, the first cleared native Cerrado to develop agricultural land, while the second purchased cleared and developed land. In Bahia, Brazilian and North Americans produce cotton, soy, and corn and several own cotton gins. Today their numbers are beginning to dwindle as some sell Brazilian land and farms and others have gone bankrupt.

Decades earlier, a group of Holdeman Mennonites founded a colony on the outskirts of Rio Verde, Goiás as a means of creating the conditions of life that were supportive of their lifestyle and livelihoods and to escape worldly traps of public education, color television, and forced military service in the shadow of the Vietnam War. In 1968 they purchased Cerrado land and became some of the first farmers to produce high yields of corn and soybeans in Southwestern Goiás. While they self-identify as pioneers in soy production in rural Goiás, they recognize their present status as minor actors in the regional agricultural economy. “We’re not so materialistic,” Wilson Funk, explained, and in the colony’s disinterest in technology, capital, and land has led to them being “passed up” by neighboring Brazilian farmers from Southern Brazil (Sulistas) and other foreigners with massive technology-dependent and capital-intensive farms. Mennonites were early leaders in soy production and are now fighting for community survival by adopting new farming practices from Brazilian farmers and looking elsewhere in Brazil for farm

land.

Figure 1: Soybean Production in Brazil by Municipality

(USDA, Foreign Agricultural Service 2017)



Soylandia, United Republic of Soybeans, and Soyization

In Brazil, both communities of transnational farmers have engaged with a region that Hecht and Mann provocatively call “Soylandia” (Hecht and Mann 2008) and GRAIN, following agrochemical seller Syngenta, calls “The United Republic of Soybeans,” a “patronizing moniker given to the entire Southern Cone – comprising the countries of Brazil, Argentina, Uruguay, Paraguay, and Bolivia...an open statement of the neocolonialist fervour with which these companies are attempting to dominate this region of the world” (GRAIN 2013). They also engage with a process Wald and others call “soyization” which “rather than involving the

introduction of an alternative cash crop in highly mechanised farming systems, soybean cultivation imposes significant land use and socio-economic changes on either forested lands or small-farming (*campesino*) landscapes” (Wald, Rosin, and Hill 2013, 165).

Adams finds the following four patterns in the “soyization” (Wald, Rosin, and Hill 2013) of South America.

First, the expansion of industrial agriculture produces a distinctive landscape dominated by large-scale farms. Second, this style of production tends to generate concerns about the health and environmental effects of agrochemical use among neighboring landowners and the general public. Third, waged farm employment replaces independent smallholder agriculture, and the new rural economy results in an increased standard of living for some. Fourth, soybean agriculture leads to rural out-migration and weakened rural communities (R. Adams 2015b, 87).

Soy production in South America has rapidly expanded to Northeastern Argentina shrub forests, Paraguayan pastures, Bolivian lowlands, and Brazilian Amazônia (Gudynas 2008). Brazil, the heart of Soylandia, now has 20 million hectares in soy production (Wilkinson, Reydon, and Di Sabbato 2012). Altieri has found that the soy boom is ecologically destructive (2009) and McMichael finds it to be exemplar of corporate-driven agrarian change (2012).

Soy has become one of the most important agricultural commodities in the global economy, accelerated by and accelerating the transformation and enclosure of landscapes across South America, which has become a leading production region (G. Oliveira and Hecht 2016). Soy production covers 57 million hectares of South America after replacing forests and savannahs as well as replacing productive landscapes including pastures and polyculture farming lands (See Figures 1 and 2). For supporters, the story of the soy boom is a triumph of green revolution technologies over “barren” wastelands and inefficient farming systems - a model for increasing yield, transforming poor agricultural land to breadbasket, and feeding a growing global population (Akihiko Tanaka 2016; N. Borlaug 2006; Economist 2010; Hosono, da Rocha,

and Hongo 2016) and the culmination of the March of Progress for Brazil (Kubitschek 1955). Spurred by economic liberalization, market globalization, and soy expansion, transnational agro-industrial companies - Archer Daniels Midland (ADM), Bunge, Cargill, and Dreyfus (the ABCDs) - have come to dominate the soy sector in the Southern Cone through both transnational power and local formations, maintenance, and exploration of relations of power (Wesz Junior 2016). Other agricultural institutions also helped induce frontier expansion and soy production by reducing costs and risk and helping to settle land claims (Jepson 2006).

Figure 2: Soy Production in South America

(G. Oliveira and Hecht 2016)

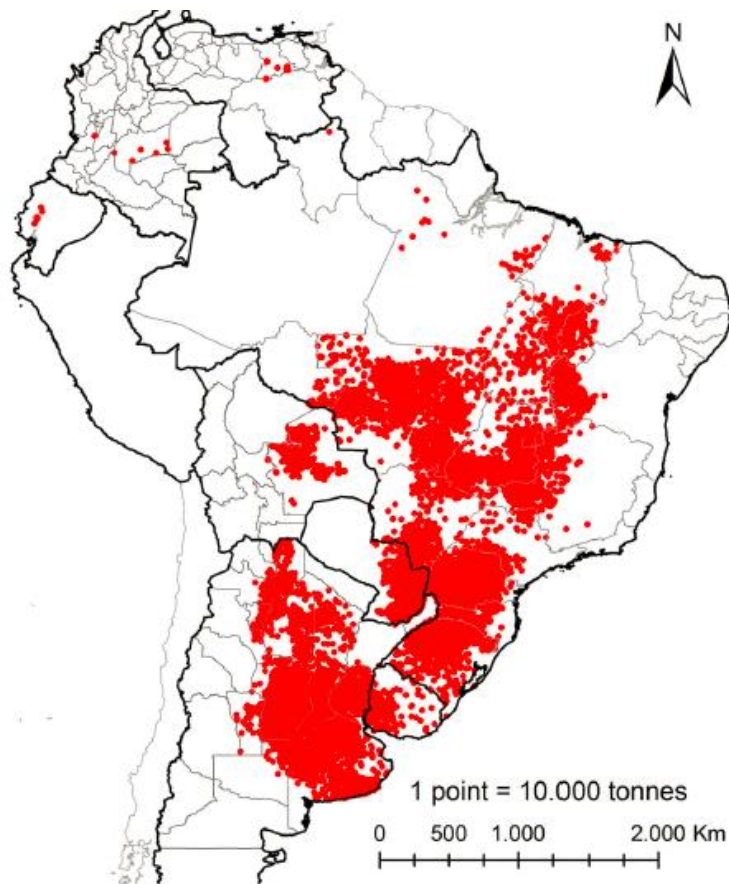


Figure 1. Map of soy production in South America by volume, 2013.
Source: Elaborated by Valdemar Wesz Jr., Ben McKay, Gonzalo Colque, Efrain Tinta, and the authors from multiple sources.

And yet, detractors of the soy boom are numerous. Soy production has promoted deforestation and habitat loss, soil nutrient depletion, and increased risks associated with high rates of pesticide use (Altieri 2009). A coalition of transnational corporations have worked to ameliorate this affect by forming the Roundtable for Responsible Soy with a vision “That soy help to meet social needs, environmental and economic consequences of the present generation without compromising the resources and the welfare of future generations and allowing the construction of a better world through consensus and joint action” (Round Table on Responsible Soy 2014). However, Elgert questions claims that responsible soy reduces deforestation, promotes good agricultural practices, promotes national economic growth, increases food security, and fosters public participation in soy governance (Elgert 2016). Others have found that the participatory governing tenets of Responsible Soy are far from participatory (García-lópez and Arizpe 2010). The program not only has questionable environmental benefits, but also may help legitimize agri-business multinationals (Baletti 2014) and counteract resistance actors (Baletti, Johnson, and Wolford 2008). Damien et al find that changes in responsible soy production do not protect communities from the effects of pesticide sprays and contribute to a “preservation illusion” by which development is forestalled in Amazonia in favor of development in the Cerrado of Brazil and Nacala Corridor of Mozambique (Damien et al. 2017; G. Oliveira 2013).

Soy production disrupts carbon flows in the Cerrado (Sawyer 2009) and represents a great threat to tropical ecosystems in Brazil (Fearnside 2001). Adams writes of Santarém soy producers, migrants from Mato Grosso,

Farmers in Santarém are using their self-identification as responsible producers to claim that moderate environmentalism includes their farming practices. “In every group there are people who are dangerous or disrespectful, but those of us in Santarém who are farming this way are responsible. We preserve and we respect nature. We provide jobs

and opportunities in a place where there were none.” (R. Adams 2015b, 91).

Their concept of responsible soy production is reduced to ratios of farmed land and non-farmed land with little consideration of biodiversity or conservation practices in farming. This supports Zycherman’s analysis of soy culture in Brazil where

“becoming environmentalists and responsible producers makes them internationally recognizable as part of the global fight against climate change. This position is economically advantageous, not only ensuring immediate sales, but also opening doors to future ones. This new identity does not reflect a sudden moral appreciation for the environment but rather a strategic move to make a place for themselves in the global market. These emerging forms of social hierarchies and identities influence who deforests, who intensifies their agriculture, and under what circumstances.” (Zycherman 2016, 83)

Meanwhile community destruction and land loss has accelerated with the expansion of soy production. Selective application and existence of environmental protections increase competition for resources in the margins of the soy commodity frontier, increasing competition between soy farmers and local indigenous populations and forcing confrontations of existence and resistance (Eloy et al. 2016) while control over land becomes concentrated among entrenched landed interests (Goldfarb and Haar 2016). Cases of agro-chemical exposure have risen with soybean production and disproportionately affect local communities (CAPOMA, La Soja Mata, and Chaya Communication 2009; Lapegna 2016a, 2016b) and direct confrontations lead to assassinations and killings (Hetherington 2013) showing that indeed “la soja mata.” In 2016, sixty-one people were killed in agrarian land conflicts in Brazil (Movimento dos Trabalhadores Rurais Sem Terra 2017; Arsenault 2017a, 2017b).

Resistance to hegemonies of genetically-modified seed (Feeney-McCandless 2017; Gutiérrez Escobar and Fitting 2016; Lapegna 2016a), land control, (Wolford 2010; A. L. Wright and Wolford 2003), and violence of soy production (Hetherington 2013) are vibrant, yet fraught with violence, danger, and risk. Yet, indigenous groups in Maranhão (Mathias 2017) and

throughout the Cerrado (ActionAID 2017) continue to engage in acts of resistance which, even if they do not threaten the march of soy production, do make themselves visible in a land where many claim nothing existed prior to soy production (Mathias 2017).

For Teubal (Teubal 2001), the cultural aspects of soy farming represent a new rural reality of South America ruled by MBAs, managers, and control, a notion supported by Kay (Kay 2008). Gudynas calls this a “great transformation of rural life” in which rural life is commodified, decentered, and decoupled (Gudynas 2008). However, others (Mier y Terán Giménez Cacho 2016; Vennet, Schneider, and Dessein 2016; Wesz Junior 2014) demonstrate that industrial soy production in South America is neither homogenous, nor settled. Differences in scale, capital-intensiveness, work, and even production systems of Brazilian soybean farms complicate broad analyses of rural life.

Nevertheless, research shows that large-scale farmers throughout Latin America balance both agrarian and industrial regimes of value and defy portrayals as disinterested economic actors (Valdivia 2010; R. Adams 2010; Bobrow-Strain 2007; Hoelle 2012). Mirroring changes in U.S. agriculture, the very nature of farming in Soylandia has undergone a shift from poor farmers planting diversified crops to Master of Business Administration (MBA)-holding farm managers directing the cultivation of bio-engineered monocultures (Gudynas 2008; Reboratti 2010; Teubal 2006; R. Adams 2010). However, the role of large-scale farmers in general – be it as harbingers of oppression and destruction, improvisational entrepreneurs, or refugees of crisis – remains unresolved, as does the specific role of North Americans.

This research examines the extent of non-market, agrarian considerations in one of the most financialized and technified segments of the international soy boom: *To what extent is farmers’ migration to Brazil an attempt to re-produce socially valued forms of work in the face*

of economic and social crises? And, what new social relations and forms of work emerge from U.S. farmers' relation with laborers, agro-ecologies, and the political economy of farming in Brazil? My intervention is to approach large-scale land acquisition, industrial soy production, and transnational agriculture as processes imbued with contradictions, an approach which can yield practical and surprising results (Vásquez-León and Liverman 2004).

I premise this research on three propositions. First, I propose that North American farmers have migrated to Brazil as a response to complex economic and cultural crises and their migration cannot be understood as simply pursuing capital accumulation. Second, I assert that North Americans' work and practices unfold in relation with soy infrastructures (including regulations, transportation systems, and financial systems), soy ecologies, and Brazilian social spheres to co-construct farming practices, meaning, and social relations. Third I claim that emergent forms of work generate new discourses of “good farming,” narratives of landscapes and practices, and social values and identities. My comparative approach highlights cultural difference in the two study groups to observe how the pressures of an international commodity market are acted out in distinct communities and ecologies. It also goes beyond difference and sameness to elicit sites of entanglement between Mennonite and Midwestern farmers to create room in current soy development and environmental conservation discourses for a consideration of social values of stewardship, development, cultural preservation, and pride in both “traditional” and “modern” large-scale farmers.

Theoretical Engagement

Marx identified the incompatibility of agronomic cycles and market forces, writing

“The way that the cultivation of particular crops depends on fluctuations in market prices and the constant changes in cultivation with these price fluctuations—the entire spirit of

capitalist production, which is oriented towards the most immediate monetary profits—stands in contradiction to agriculture, which has to concern itself with the whole gamut of permanent conditions of life required by the chain of human generations,” (Marx and Engels 1978).

This point was highlighted later in works on the second contradiction of capital - that capitalist agriculture leads to environmental collapse (Foster 1992; O’Connor 1988). I employ socio-ecological crisis (Moore 2010a, 2010b) as a model to highlight the interconnectivity of crisis and commodity frontier expansion and actors’ “pluralistic ways of socially organizing market production” (Fraser, Fisher, and Arce 2013, 17). Crisis is a dynamic process in which “particular sets of social relations, political connections and economic practices” link up with development interventions and forces of political economic change to construct post-crisis realities (Fraser, Fisher, and Arce 2013, 17). Yet crisis is not only an inducement to change or action, it is also a narrative tool which can be used to claim authority, responsibility, or immediacy of action (Redfield 2005).

Diverse social responses are evident in Mennonite reactions to agrarian and social crises in the 20th Century. Communities fractured as families left for ‘the city’ to become shop keepers, while others industrialized farm production at home, and still others opted to try their luck in farming in Paraguay, Belize, and Mexico (Loewen 2006). Each path involved a re-articulation of value, community, and market as families made sense of and engaged with agrarian change. Similarly, the Mennonite colony of Rio Verde, Goiás responded to a double crisis – that of perceived cultural threat and of economic survival – by migrating to Brazil.

Midwestern farmers’ migration to Brazil, on the other hand, was the culmination of the long decline of the family farm. The farm crisis of the 1980s accelerated processes of farm consolidation and corporatization that have led to narrower profit margins, increased dependency on finance markets, and a shift in expertise from agro-ecological knowledge to understanding of

high finance (MacDonald, Korb, and Hoppe 2013). Along with new forms of farm organization, Midwestern farmers confront high land prices (Nickerson et al. 2012) and unpredictable weather patterns linked to global climate change (Walthall et al. 2012). Farmers changed management styles, became part-time workers (splitting time with farming), and engaged with government farm support, together entailing a clash of industrial and agrarian values (Barlett 1993; Dudley 2002).

Crisis provides a frame to conceptualize agrarian change in relation to both the “big battalions” (Scott 1985) of capital, state, and land and for improvisation, social values, and community-making of agrarian life. The frame also integrates cultural, ecological, and economic aspects of crisis by re-affirming that “economic crises are ecological crises are cultural crises” (Escobar 2008, 14). The narrative of both groups of farmers appear to fit the paradox of migration as preservation and loss in which cultural survival requires cultural transformation and movement (Good-Gingrich and Preibisch 2010), however it remains unclear what practices, landscapes, values, and meanings farmers preserve, abandon, transform, and adopt. For Mennonites it is of concern if this settlement is the resolution of crisis or rather if their history of migration is expected to continue. Additionally, it is of concern whether migration was motivated primarily by evangelism, economic sustainability, or cultural survival.

For Midwestern farmers it is of interest if migration is intended to strengthen and continue a way of life including farm practices, routines, and values, or if it is directed to economic survival of family farms by any means necessary. I employ career history interviews to understand how farmers perceive this process how they place their migration and future within a frame of crisis and survival.

While asking if farmers’ migration was driven by a response to crisis, I hope to avoid

simplified understandings of action and reaction or of static systems. Where researchers have highlighted the moral dilemmas and complex power dynamics of agrarian change, ecologies, capital, and ideology have been framed as constraints to be overcome or worked around. I approach this research from an alternative perspective, that of relational processes of co-creation (Escobar 2010) to address the intimate entanglements of development. A relational approach takes account of how human and non-human actors enact change and are subject to change (Escobar 1999, 2001, 2008, 2011; Ingold 2013; Wolford 2008).

My approach will also reflect the post-local, post-equilibrical, post-structural, and post-western perspective applied by Michael Dove and others to conservation studies (Dove, Sajise, and Doolittle 2011). This approach suggests that there is no “normal” state of conservation and development, but rather these are complex and dynamic processes that emerge from entanglements of actors with divergent interests and values. In applying this approach to development, I take complexity and inter-connectivity of actor struggles seriously.

I employ meshworks, as the interwoven relations between actors in motion, (Ingold 2011) to see relationality and co-creation in terms of both soy ecologies and soy infrastructures. Agro-ecological meshworks emerge as farmers redefine the meaning of land (Sérgio Sauer 2012; Yeh 2013), stewardship, and ecological processes and as agro-ecologies delimit the parameters of production. U.S. farmers in Bahia adopt new practices such as strict nutrient testing and precision fertilizer testing in order to adjust to Cerrado soils which have a different chemical composition than Midwestern soils. Soil is both a materially-existing reality which structures viable farming practices and is changed by agricultural production and a social entity imbued with meaning, memory, and life (Dove 2011; Gordillo 2014; Kawa 2016; Lyons 2014; Raffles 2014). At the same time, farmers give meaning to the land as inferior or as wasteland because of

the land's alleged "fragility." This narrative value allows farmers to claim that they are developing and improving the land.

Along with local agro-ecologies, production is mediated by infrastructures that induce or restrict the flow of capital, commodities, and labor. Relations with the infrastructure of soy (e.g. capital, road systems, and state laws and regulations) are not simply constraints to be overcome by farmers, but are co-creative of life (Larkin 2013). For example, Brazilian labor and environmental regulations restrict certain farming and business practices, but are also mobilized by farmer discourse to frame workers as unappreciative and the Brazilian state as irrational and inefficient. Regulations also produce practices designed to evade the state. I seek to understand the extent to which the interaction between farmers and agro-ecology, capital, and state is creative of new knowledges and farming practices as well as new ways of thinking about the land, workers, and farming by documenting the influence of transportation infrastructure, labor and environmental regulations, and agro-ecologies on farming techniques, business practices, and meaning.

This documentation requires textual analysis of relevant government regulations, participant observation of business and farming practices, textual analysis of environmental studies of the regions, and recordings of farmers' discourse on infrastructure and ecology through semi-structured interviews and unstructured conversations. The destruction of soil, wildlife, and communities is well documented in studies of soy production in the Cerrado as are the economic consequences; what I have worked towards is a study of the generative possibilities (Bear et al. 2015; Haraway 2016; Haraway et al. 2016; Li 2014a; Tsing 2015) of transnational soy production to find what material and social realities are generated from the messy negotiation of actors in relation with each other.

Involved in both processes of crisis and relations with humans and non-humans is the careful negotiation of social values. Mennonite and Midwestern farmers in Brazil possess highly technified machinery, operate within market-driven institutions (be they farmer cooperatives or family corporations), and engage in a global commodity market of soy. It may be attractive, then, to view them as “capital personified,” their souls being the soul of capital (Marx 2008, 257) or to propose that, like Wall Street bankers, their values of work directly reflect the demands of the market (Ho 2009). However research on large-scale farmers throughout Latin America (Valdivia 2010; R. Adams 2010; Bobrow-Strain 2007; Hoelle 2012) indicates that farmers hold ethical and social values of work aloft as they defend their own work, often balancing agrarian and industrial regimes of value. I propose that U.S. farmers’ work in Brazil, including the act of migration and farm work, supports new meanings of action and these meanings can be tied to both agrarian and capitalist regimes of value.

Work, or action, is the subject of value realization and contestation; it is also a product of that negotiation (Elson 1979; V. K. Gidwani 2008; Graeber 2001). Value, as the importance of action, is subject to legitimation as actors defend their know-how and their work, thus entailing a process of “people-making” (Graeber 2013). Actions are people-making in two senses. On one hand they establish one’s status as a legitimate social actor, be it a good farmer, a devout Mennonite, or an innovative entrepreneur. On the other, actions re-make farmers as they tie emerging actions, such as managing labor or speaking Portuguese, to articulations of the self and community. Both aspects of action as people-making are apparent in the everyday practices (Certeau 2011) and everyday ethics (Brodwin 2012) of agriculture.

The value of action is evident in the way farmers mobilized “good farmer’ identities (Burton 2004) during the U.S. farm crisis of the 1980s and in how certain agrarian landscapes are

tied to aesthetic values of industrial or agrarian work or even ethics of capital (Weber 2001). Farmers re-imagined the very meaning of the family farm and farm work as two regimes of value – industrial and agrarian – came into conflict (Barlett 1993). The infusion of industrial or capitalist values of efficiency and thriftiness led to the fracture of communities as bankrupt farmers were cast out as irresponsible or lazy (Dudley 2002), demonstrating the emergence of a community of practice (Holland and Lave 2001) oriented to profit and efficiency. Within the Mennonite community economic and social crises have led to a paradoxical process of migration in order to sustain agrarian life and that migration leading to a re-interpretation of the value of stewardship and collectivity in farm practices (Loewen 2006). Collective identities are contested through these processes of sustaining and re-interpreting values as communities fight together against outsiders, freeloaders, and rivals and fight internally over what constitutes legitimate action and who belongs (D. M. Goldstein 2004; Dudley 2002; Colloredo-Mansfeld 2009; Colloredo-Mansfeld and Antrosio 2009).

I take into account the extent to which transnational farmers reproduce socially valued forms of work and formulate new values in relation with infrastructures and ecologies of soy by documenting farming techniques, land use, and business practices. I also document everyday ethical statements elicited in conversation, interviews, and documents, such as farm plans. Finally, I take agrarian landscapes as a site of contestation by documenting comments and reflections on landscape change through semi-structured interviews and through casual conversational comments on land as wasteland or valuable land.

Research Questions

Out of this literature and preliminary research I developed three sets of questions. First,

what are the primary farming techniques and uses of the land? To what degree do practices create and re-create social values of work, soy infrastructures, and soy ecologies? Second, what kinds of social relations do farmers develop with local workers, farmers, and community members? To what extent do they construct and articulate notions of community in Brazil and in the US? And third, to what extent do emerging practices and social formations support farmers' socially valued forms of work and redefine what it means to be a "good farmer?"

Research Sites: Luís Eduardo Magalhães, Bahia and Rio Verde Goiás

I worked in Luis Eduardo Magalhães. Bahia and Rio Verde, Goiás to conduct research with American farmers about their hopes and plans as soy farmers, documenting the industrialization of a farming landscape, and the emerging diversity of farming life-ways within the corporate world of soy. In order to capture the interconnectedness of the global socio-ecology (Moore 2010a, 2010b) I employ a multi-sited and comparative approach. This study's sites and populations address the importance of migration in this process, feature different agro-ecologies, present different cultural worlds, and feature different temporal scales of migration. Mennonites have been in Brazil for nearly fifty years while Midwestern farmers have been in Brazil for ten to twenty-five years; this lends an element of history to my analysis. The populations are also culturally distinct. For the colony of Mennonites, theology provides a basis for the meaning of work, land stewardship, and social relationships (Redekop 2000; Redekop, Ainlay, and Siemens 2001). Meanwhile, North American family farmers employ dreams of modern production, visions of traditional work, and an impetus to satisfy investors (Ofstehage 2016). The groups' sites of production are distinct in rainfall patterns, local populations, and regional agrarian histories. Goiás has a long history of soy production, while Western Bahia lies in the Cerrado

and is an emerging area of soy production. The two populations in conversation can demonstrate the different social worlds at play, agro-ecologies, and historical scales.

Holdeman Mennonites migrated from Ohio, Georgia, and California to Rio Verde, Goiás, Brazil in 1968. According to interviews conducted by Heloisa Brito de Mello, this group migrated to escape both cultural and economic crises. First, an economic crisis in the United States in the 1960s led to increasing farm production costs. According to one interlocutor,

“With the economic crisis in the United State in the 60s, the cost of agricultural production kept rising, taxes were high, things were becoming unaffordable, then my father heard of lands in Brazil that were very cheap and very good for farming...so, he and some friends decided to go to Brazil, arrived here [Rio Verde] by chance, and stayed” (Mello and Silva 2011:28, translation by author).

For Joseph, the economic crisis, or perhaps more aptly the agrarian crisis, challenged the community’s way of life and Brazil’s fertile and cheap land offered a way out. Other Mennonites cited cultural reasons for leaving the United States. Forced military service at the height of the Vietnam War military draft threatened their pacifist theology and changes in educational standards and inescapability of the color television led to a perceived loss of control over child raising.

Other Mennonite groups have taken other actions to escape or confront economic change and unprofitability of farming. Mennonite communities in Kansas and Manitoba, for example, have fragmented several times over in members’ distinct responses to increasing costs of production. Some remained farmers by intensifying and technifying farming practices while others abandoned rurality by leaving for wage labor or to become entrepreneurs in “the city.” Still others migrated to Belize to found new colonies in order to maintain their farming and community practices in a new country (Loewen 2006). Although couched in terms of economics, profitability, and taxes, it appears that the economic crisis of the 1960s was more accurately an

agrarian crisis for this Mennonite colony.

In the early 1960s, only 44% of Goiás land was under agricultural production and that was primarily an extensive cattle production system. The region was at the frontier of agricultural production and limited by poor land and lack of capital (Estevam 2004). In the mid-1970s, the government program *Programa de Desenvolvimento dos Cerrados* (PRODECER) provided rural credit and agricultural research to encourage agricultural development. The program increased the amount of land under production, the use of tractors, and the economic development of the region and also shifted production from predominantly rice in 1960 (50% of total value of agricultural production) to a more mixed production system in 1993 including only 3.7% rice and 16% soybean. These changes also brought outsiders from southern Brazil and Europe (Estevam 2004).

Decades after the Mennonites' first tour of Goiás, a less articulated group of American farmers settled in the Cerrado. Family farmers from primarily the Midwest, but also including upstate New York and Idaho, migrated to the Mapitoba region (alternatively Matopiba, a soy frontier of the Brazilian Cerrado region including the states of Maranhão, Piauí, Tocantins, Bahia) of Brazil, primarily settling in the agribusiness town of Luis Eduardo Magalhães. This group is at once more celebrated than the Mennonites and depending on the source and the measure, more or less successful.

With headlines like “American Farmer’s Try Their Luck in Brazil” (Omestad 2008), “U.S. Farmers Scramble to Buy Brazil’s Farmland” (Elizondo 2012), and “U.S. Farmers Put Roots Down in Brazilian Soil” (Romero 2002), the arrival of U.S. farmers in Brazil has been greeted with a blend of pity and curiosity. The headlines provide an insight into this migration – the search for opportunity and a second chance in Brazil.

Centered in the “City of Agribusiness,” Luis Eduardo Magalhães, the soy frontier of Western Bahia has experienced rapid demographic and agricultural change after soybean production began in the region in 1979. Native Cerrado land accounted for 73% of land cover in 1986 and only 40% of land cover in 2002 (Brannstrom et al. 2008). Luis Eduardo itself has grown from a rural outpost to a town of 70,000 people. In interviews several farmers reported that when they first arrived there was “nothing,” though this reflects their dismissal of indigenous communities that preceded them and continue to dwell in the region.

Figure 3: Brazilian Cerrado

(R. de O. Silva et al. 2016)



Western Bahian agricultural production increased from 2.05 km² in 1979 to 1615 km² in 1986 then to 5743 km² in 2000 and to 7259 km² in 2005. By 2005, agricultural production accounted for 55% of total land (Brannstrom, 2009). Meanwhile, the introduction of capital and self-identified ‘agents of modernization’ provoked a transformation towards agricultural capitalization, *technification*, and in farmers’ words, modernization of the Cerrado (See Figure 3) (Diniz 1984).

A note on definitions

The notion of the family farm is broadly defined by the United States Department of Agriculture (USDA) as any farm where the majority of the business is owned by the operator and individuals related to the operator (Hoppe and MacDonald 2016). By contrast, the Programa Nacional de Fortalecimento da Agricultura Familiar of Brazil defines the family farm in terms of who conducts labor, where the majority of income is coming from, who owns the land, and how much land is owned (BNDES n.d.). Puzzled by the complicated definitions of family farms during my research I turned to a frequent sounding board for my ideas: my father. I asked about a corn seed farm near to our farm. It is family owned, but labor is hired out, operations are highly industrialized and highly capitalized. “Is it a family farm?” He paused, knowing now that I will write out his answer and then who knows what, before explaining that he didn’t think it was, though he couldn’t explain why. The colloquial idea of a family farm has transformed in both the United States (Rosenberg 2015) and Brazil (de NB Wanderley 2000), becoming in both cases a more pure form of an unit of economic production.

From the beginning of my research I have struggled to define my research population. In referring to the collective group, “North American farmers” captures their origins and roots, yet

lumps together those who farm by email from the United States with those who have truly set down roots in Brazil and plan to stay indefinitely. Earlier proposals referred to large-scale North American farmers, but this excludes with smaller acreages, but who I intend to include in my study because they engage with the same material and social worlds as their larger-scale neighbors. I settle on “transnational soy farmers” because it refers to both their shared engagement with soy production and ability to easily cross and manipulate borders.

More complicated is my reference to the individual groups. The group of non-Mennonite farmers originates primarily from the Midwest, but not all. Most operate their farms as a satellite of their family farm, but not all are family farmers. Some may even question if they are farmers at all, based on their dependence on outside capital and hired labor. So, while this definition depends on our definition of a family farm and our faithfulness to geographical origin, I make some generalizations for clarity of prose. Additionally, most individuals of this group migrated to Western Bahia, but I have included families and individuals with farms in Tocantins, Goiás, and Roraima as well due to their cultural similarity. Thus, I will be referring to this group, made up of mostly young, educated, white men who migrated from (mostly) the U.S. Midwest between 1985 and 2005, as Midwestern family farmers while recognizing the possible arguments against my use of “Midwestern,” “family,” and “farmers.” I do this to reflect that farmers often returned to their roots to make connections to agrarian family histories clear and referred to themselves as farmers and to their families as farm families. While recognizing challenges to their self-identifications, I will use the terms they use to describe themselves.

The Mennonite colony seems to be a clear-cut issue, but here as well there is room for contention. During my interviews and participatory research, I found several areas for debate within this definition. First, the colony is made up of Americans born in the United States and

Brazilians born in Brazil; there are also children of two American parents born in Brazil, children of Brazilian and American parents born in Brazil, and children of two Brazilian parents born in Brazil. Thus, it's necessary to clarify that I include all above groups in this category, despite statements by some informants that suggested that Brazilian Mennonites may still be considered outsiders by some. There is also the issue of who is actually Mennonite. Adults who were raised in the faith but have not yet been baptized are not Mennonites in the religious sense, yet they remain liminally within that cultural and social sphere. I include non-baptized Mennonites in this grouping. Finally, there are three distinct settlements of Holdeman Mennonites in Brazil; one in Goiás, one in Mato Grosso, and one in Tocantins. I spent my time with the colony in Goiás, but include references to the other settlements.

One final note with regards to definitions regards units of measurement. I use 'acres,' "alqueires," and 'hectares' interchangeably to describe area, my use of each term is determined by how each farmer referred to land, whether using the US measure (acres) or the Brazilian measures (hectares or alqueires). For reference, a hectare is equal to 2.56 acres and a Goiás alqueire is 4.84 hectares. I also use Brazilian Reais, US Dollars, and sacks of soy in reference to monetary value. A sack of soy is equivalent to the market value of sixty kilograms of soybeans in US Dollars. The Brazilian Real conversion to US Dollars fluctuated widely during my research, between 1USD=2.6 Brazilian Reais to 1USD=4 Brazilian Reais.

Research Methods

I worked with farmers and farm workers in the fields and observed office work to understand everyday farming techniques and business practices. I observed who is doing what on these farms and how they are doing it. Using my experience growing up on a South Dakota

soybean farm and agronomy education, I reflected on differences and possible hybridization of US and Brazilian farming styles. I recorded observations into fieldnotes to record what practices were utilized, how they were performed, who performed them, what machinery was used, and what reasons farmers and farm workers provided for the practice. Using my agronomy training, I paid particular attention to tillage practices, pest management, seed selection, and construction of conservation structures, including terraces, grassed waterways, and riparian buffers. These key practices provide a basis for comparison and indicate relative investment in soil stewardship. Everyday practices of planting and harvesting in the field or ordering fertilizer and conducting meetings in the office provide ethnographic insights at the site where structures of agrarian change are situated in actor knowledge, skill, and values (Certeau 2011).

Along with recording the everyday farming practices carried out in the field by farm managers and laborers and in the office as farmers order inputs, make contracts, and develop plans, I also study how farmers frame practices as ethical matters. Semi-structured interviews ascertain the relative importance or value given to different practices. Besides semi-structured interviews, I follow other large-scale farming researchers (Hoelle 2012; R. Adams 2010) in recording off-hand remarks made by landowners, managers, and farmworkers that indicate distaste or preference for certain kinds of work, landscape aesthetics, or other ethical statements in order to observe the everyday ethics of farming (Brodwin 2012). I then compare these off-hand statements with official discourse such as mission statements or labor contracts to locate the site of everyday ethics.

I observed farmers' participation in social events such as farm shows, Thanksgiving dinners, and birthday parties to document social relations. Like Max Gluckman's pioneering work on "the bridge" (1940), I take note of who is talking to who, what groups form, who mixes

between groups, and how rituals and speech acts differ between groups. This work enables an analysis of spheres of cooperation, conflict, and avoidance between farmers, farm-workers, farm managers, and other actors. Semi-structured interviews ascertain perspectives on labor and environmental regulations and political engagement in Brazil.

I analyze visions of success and good farming by conducting career-history interviews that capture farmers' lives before moving, the process of choosing to move, the move itself, and the process of founding a farm in Brazil. Career history interviews can humanize actors and situate broad narratives in personal and local experiences mediated by circumstance, improvisation, and chance. As demonstrated in *Fighting Like a Community* (Colloredo-Mansfeld 2009) career histories reveal sites of difference and sameness, as well as sites of entanglement between seemingly disparate actors and processes. These interviews establish short-term and long-term goals of migration and to place the migration and work within a frame of crisis or a frame of profit accumulation.

I use investor reports, farm plans, loan applications, and other business documents to corroborate interview data, tell corporate histories, and show changing farm plans. I also incorporate farmer blogs to understand how farmers present their work to the public and friends and family. In the Mennonite community I collected oral histories of the settlement in order to record its long-term historical development. Of particular interest with the Mennonite colony was whether they see Rio Verde as a resolution of crisis or as a stopping point along their long and continued history of migration and settlement. I also composed self-reflective journal entries in which I will critically analyze my own discomfort (Fassin 2008) with the justifications for and effects of large-scale soy farming in Brazil due to my own family connection to soy farming.

My research design is guided by three considerations: this research “studies up,” it is

comparative, and it is transnational.

On Comparison

As a comparative study I contribute to the study of human behavior by identifying similarities and differences between Mennonites and Midwestern farmers, however my research takes difference and sameness as a site of research, not as a product of research. Comparative research as the identification of difference and sameness alone reiterates “the economy of a world structured in dominance” (Radhakrishnan 2013, 31) and reproduces a politics of dominance and otherness (Stanford Friedman 2013). A comparative approach needs to break down difference and sameness to create greater flexibility, work with contradictions, and create dialogue (Stanford Friedman 2013). I work towards this vision of comparison by following Mignolo in going beyond difference and sameness to relationality. In moving from an “ontology of essence” to a “relational ontology” (Mignolo 2013, 112) I consider myself as an actor in the research, not a detached observer, I consider entities as interdependent, and I seek out sites of entanglement (Mignolo 2013) to create a self-reflective, relational comparative ethnography which breaks down difference and sameness to create space for dialogue. During preliminary research I repeatedly heard statements that compared Midwestern farmers favorably or unfavorably to Mennonite farmers, but always as fundamentally different. I intend to show how the apparently disparate groups are bound up together in an interconnected process of agrarian change (Strathern 1990).

The original goal of my comparative research was quite in line with the traditional anthropological comparative analysis, I will begin by describing how I see this and what I sought to gain from it, and then I will explain what the deficiencies are of this approach and what I hope

to gain from a re-formulated comparative approach.

In Franz Boas' introduction to Ruth Benedict's *Patterns of Culture* he writes that "This treatment is distinct from the so-called functional approach to social phenomenon in so far as it is concerned rather with the discovery of fundamental attitudes than with the functional relations of every cultural item (Benedict 2005, xxi). In Margaret Mead's preface to the same work she writes that *Patterns of Culture* is "the best introduction we have to the widening of horizons by a comparative study of different cultures, through which we can see our own socially transmitted customary behavior set beside that of other and strangely different people" (Benedict 2005, xi). Although not caged in the same discourse of comparing "us" and "them," which would be even more bizarre in my case since I study people very much like my own family, a major focus of my early iterations of the project were to study the differences that were present in the way two culturally distinct groups conducted agriculture in Brazil. I imagined that Midwestern farmers would reproduce aspects of the typical Midwestern farm, bring family to live with them, and would carry on with U.S. farming practices. Mennonites, on the other hand, would be practicing agriculture similar to how they would in Ohio with some minor changes perhaps, but in a culturally-distinctive way.

This project was designed to elaborate the diversity that exists within the soy boom and Soylandia by showing that actors have different histories, values, and interests and one cannot talk about the process as a homogenous process or a simple matter of economics. The value for me of the comparative approach was to confront homogeneity by elaborating diversity.

However, as I became more engaged with the topic I incorporated two aspects that complicated this narrative – relationality of infrastructures and ecologies. Following seminars that dealt with relationality and the co-constitution of action by human-nature, human-

infrastructure interactions I move beyond the narrow concept of cultural diversity to ask how different ecologies and infrastructures in different regions (e.g. Goiás and Bahia) could also influence this comparison by framing and co-creating human practices and values. This reflects Arce and Long's suggestion to de-construct 'hyperspaces' to locate spaces for difference (Arce and Long 2000a).

Walter Mignolo (Mignolo 2013) reflects that a comparative study needs to be greater than a matter of difference and sameness, a comparative study such as *Patterns of Culture* more than relating different cultural groups, reifies difference between them and essentializes them as distinct, independent, and exclusive. Thus, my interest in this research project has transformed from a study of cultural difference to a study which recognizes difference, but searches for sites of entanglement between groups as well as sites of divergence. That is to say, a notion of culture that is dynamic, inter-dependent, and interactional.

Two key concepts for searching for these processes and sites of entanglement and divergence have been concepts of crisis and success. I frame this project as actors' (collective) responses to socio-ecological crisis, but a key to this is that they are emerging from different forms of crisis. For Mennonites it is a general economic crisis of the late 1960s, but more importantly a response to challenges to their schooling system. For Midwestern farmers it is a desire to maintain a profitable family farm in the face of a farm crisis. However, as I have seen in several studies of Mennonite migrations, migrants can re-define or re-frame their migration in terms of emerging realities in their host country.

On success as well, I take account of how concepts of success differ between the groups but also how these concepts may diverge or converge around a set of principles or ideas. In Peggy Barlett's work on the farm crisis in the U.S (Barlett 1993) she finds that some farmers in

Georgia came to adopt “industrial” values of work as she defined them – a preference for steady income, regular hours, and security.

Farming practices are a key concept that I track between the two groups. If the two groups of farmers use the same farming practices I can determine if there is a set of agro-ecological properties that encourage these practices, if government regulations are pointing farmers towards certain practices, or if it is simply a process of knowledge diffusion from Brazilian farmers to North Americans. The Brazil Model, which will be explored in Chapter Three, is taken as a fact, but rarely does one ask how it arises. If farmers are indeed converging around a set of practices, despite emerging from distinct sets of knowledges and know-hows, I identify restrictions or prompts are pointing towards this convergence.

Social relations are also key in determining the extent to which these groups are in fact distinct and independent. As much as my original project was to ask how different they are, I am more interested now in the extent to which they remain identifiable populations. The case for Mennonites seems clearer because they have a strict set of religious and educational practices that mark them, but it is less clear for Midwestern farmers. Upon explaining to one collaborator that I was interested in the diaspora of North Americans in Brazil he responded by asking, “do you think we’re a diaspora?” So, to what extent do they in fact maintain social cohesion and an independent life from Brazilians or other North Americans, and to what extent are they simply agents of some larger economic process?

My goal of this work is not to show that Mennonites are traditional and maintain social cohesion while Midwestern farmers adopt a wholly industrial outlook to farming, nor is it to show that they are all becoming agents of the soy boom. My curiosity is centered on how both groups maintain difference and distinction, while also taking up elements of the capitalist-driven

Brazil Model. An additional benefit of a comparative approach is its potential to reveal important facets of life that might otherwise go unnoticed, but when compared became obvious and gain significance, it also allows the ethnographer to explore their own ideas through analysis (Dumont 1992; Iteanu and Moya 2015).

On “studying up”

Large-scale industrial farmers are portrayed by foodies as profit-driven businesspersons with little concern for land, animals, or neighbors (Pollan 2006) and by television dramas as exploitative and profit-driven (Specht 2013). Part of the inspiration for this work was my curiosity about the accuracy of these portrayals. Often, my explanations of my prior quinoa research findings that small-scale Bolivian quinoa farmers pursued multiple goals through their quinoa marketing and production were met with knowing nods - part of my inspiration for this research was the curiosity of if I could similar complexity and richness in the experience of large-scale, foreign, capitalized farmers.

Since the 1980s anthropologists have tended towards the study of neoliberalism and its effects on work, community, and environment, a turn Sherry Ortner identifies as “dark anthropology” (Ortner 2016). In more recent years, the focus has further shifted from the power and effects of neoliberalism towards the study of how neoliberal practices, discourses, and relationships emerge and are generated. In his preface for a re-issue of his classic work, Arturo Escobar builds on this trajectory by calling for anthropologists to conduct ethnography with not just the victims of neoliberalism, but also the purveyors (Escobar 2011).

Bear et al call for a deeper understanding of how capitalist projects are constructed through what they call “the gens approach...a concerted strategy to reveal the constructedness—

the messiness and hard work involved in making, translating, suturing, converting, and linking diverse capitalist projects—that enable capitalism to appear totalizing and coherent” (Bear et al. 2015). For example, in her analysis of the global trade of matsutaki mushrooms Tsing avoids simple explanations and causation by showing how things as well as people are alienated under capitalism to become standalone objects to be used or exchanged, but that alienation is never complete as connections endure and new relationships are generated (Tsing 2015). Capitalism is not only a process of alienation and dispossession, it also generates social and material arrangements between humans and non-humans (Tsing 2015; Ho 2009) as well as ruin, rubble, and residues of success and failure (Gordillo 2014) or ghosts of labor (Bear 2018).

This dissertation builds on this emerging study of the generation of capitalism by asking what are the practices, relations, and values of transnational, industrial agriculture and what new social and material arrangements are generated from this emergent livelihood strategy. As noted by Tsing and Haraway, plantations demonstrate the potential for simplification and abstraction of rural life to commodified assets as well as the role of relocation of generative units (plants, animals, microbes, and people) (Haraway et al. 2016).

Studying up and escaping the “savage slot” (Trouillot 2016) provides rich ethnographic material on an ethnographically understudied group – elites – but requires a modified ethnographic toolkit (Nader 1972). As shown in other ethnographies of elite farmers of Brazil (Hoelle 2012; R. Adams 2010) participant observation can be modified or re-focused to better capture the daily lives of elites. Hoelle observed cattle auctions to identify and analyze social interactions between ranchers and ranch hands and meanings assigned to bulls, clothing, and behavior (2012) while Adams attended social events shared rides with soy farmers, attended birthday parties, and spent time with them at tractor supply stores and nearby beaches (R. Adams

2010). Likewise, my research with large-scale soy farmers follows the nature of their work and therefore as much in the pickup truck and the office as in the field.

Transitioning from my earlier research on small-scale Bolivian quinoa farmers to transnational soy farmers in Brazil was difficult. I began research with the group of Midwestern family farmers in Bahia and received skeptical, yet, open invitations to interview and visit their farms. I wholeheartedly appreciate these gestures. Yet, my presence there was always, at best as an aloof outsider and at worst a member of the cultural and political oppositions. I worked to keep my political opinions on global warming, genetically-modified crops, *Movimento dos Trabalhadores Rurais Sem Terra* (The Landless Workers Movement) (MST), and large-scale farming in general to myself, but not secret. When an interlocutor asked my opinion, I gave it. I held these opinions for two reasons; one practical and the other ethnographic. First, I was already marked as an outsider and a nosy intellectual, to put my political opinions into the open would further distance myself from my interlocutors. Second, my research was designed to ask why these farmers were there and why they farm the way they do. Although I have ideal farming conditions in mind - mostly reflecting my own experience on a mixed-use family farm and research experiences elsewhere - I was there to challenge scholarly perceptions of transnational farming and industrial soy production as well as my own. When debates proved unavoidable or I decided to challenge something said, I did have productive conversations which likely did not change minds, but perhaps humanized the other side.

There were times when conflict was unavoidable, for example a heated conversation about the social construction of race or the legitimacy of climate change evidence. There is also the common prelude to a potentially controversial subject, “I don’t know if you’re a liberal, but...” which I heard often. One tool in my ethnographic kit that aided in my search for common

ground was agronomic knowledge and farming experience. I often referred back to agronomic principles while discussing tillage practices, pest pressure, or farming technology and often related my research or the on-the-ground realities I was seeing to my own childhood farming experiences. This, more than anything, gave me a measure of legitimacy as a researcher and expert to be taken seriously. It also provided common ground between us.

Working with the Mennonite colony was comparatively easygoing. Families there often invited me to their homes for meals and were more open and natural in conversation. The phrase, “I don’t know if you’re a liberal, but...” was replaced with “I don’t know if you’re an atheist, but...” and I refrained from recording interviews or taking photographs, but otherwise it was less tense. When questions did arise, for example in relation to President Obama requiring churches to conduct same-sex marriages, we were able to calmly discuss the issues.

As most ethnographers I was plagued by questions of what I was doing in Brazil and why I was there(Saldanha 2007); I also had moments of sheer exhaustion with being ready with a comment or question and being careful not to say the wrong thing. Yet it was these moments of mischaracterization, misinterpreted statements, and slips that often elicited the most interesting comments - for example notes on the joy of smelling 2,4-D or expressions of simultaneous empathy for the landless workers movement and dismissal of them as drug-addicted bums.

On conducting transnational research

Transnational ethnography requires practical and logistical adjustments. One is unable to find people, communities are unbounded, social interaction is often digital, so I adjusted by traveling frequently, skyping, and reading online postings by farmers, but I also took an opportunity to engage in participant observation of that transnational community, taking an

ethnographic approach to the internet (D. Miller and Slater 2001).

Ethnography of transnational communities challenges a foundational ethnographic concept of “being there.” Transnational communities are not confined to a singular “there” as community as transnational characters move back and forth, maintain frequent lines of communication across borders, and dwell, work, and play in disparate places. While researchers can capture this reality by attending re-configurations of community as members re-unite for celebrations, periods of mourning, or business-related tasks, I propose a different kind of participant observation which includes the ethnographer’s attempts to address the challenges of transnational community research as a means of researching the new modalities of social relations within these communities. Without reliable face-to-face connections, transnational ethnography can utilize Skype calls, public blogs, Facebook posts, and chain emails as ethnographic data, but also as a kind of participant observation into how transnational characters maintain vibrant communities.

Participant observation was a tremendously important part of my research. I rode along with farmers as they survey their fields and their field hands. I helped them check seed depth during planting and work on planters when they aren’t functioning right. I spent time in their offices as much as possible to see the stacks of paperwork. I even accompanied them to the local court to deliver paperwork. These observations showed me how U.S. farmers learn to produce soybeans in a different agro-ecology and for that matter a different hemisphere, how they manage different (and from their perspective intrusive) environmental and labor regulation, how they learn to manage farm workers, and how they create and adopt new values of work. However, the observation of everyday agricultural and business practices depends on one important thing – being there. This is straight forward enough with many aspects of my research,

but for the second of my three major research questions: “What kinds of social relations do farmers develop with local workers, farmers, and community members? To what extent do they construct and articulate notions of community in Brazil and in the U.S.?”

Halfway through a Skype call with a farmer who had gone bankrupt in Brazil and returned to the United States, a solution to the problem and an opportunity to do some interesting research struck me. Why not approach the interview and the experience of using Skype as participant observation? From that point on I approached Skype interviews as a chance to capture how farmers communicate with family, friends, and what technology they use or are comfortable with. Participant observation becomes a matter of seeing how they present themselves and how they communicate (if they have skype accounts for example, what’s on their blogs, websites, how open they are, what they exclude, etc.). This is especially important because this is likely one of the main ways that investors keep track or how new investors would do research on a company. How do they communicate?

I have been continually impressed with the tech savviness of this community. Almost all have Skype and are at least comfortable with using it. Besides this, I found some suggesting to me other methods of international communication. One day working with a farmer in his office, the only sound breaking the silence was the frequent ting of an incoming and outgoing Skype messages. Communication is kept alive through other means as well. Some farmers publish blogs, directed towards family and friends, in which they discuss diverse as themes Brazilian farming policy, currency markets, local diet, and daily farming life. Others operate more business-like blogs for agricultural journals in which they focus on the issues that can inform U.S. farmers on goings on in Brazil. Still others even have Instagram feeds or farm Facebook pages to publish pictures and daily reflections. A less public route is to publish kinds of informal

newsletters that are distributed to family, friends, colleagues, and investors. These often show the progress on the farm, farm work, landscapes (ideal and not), and agronomic factors (pests, evidence of erosion, evidence of drought, etcetera).

Each of these methods of communication – Instagram, Skype, Facebook, email newsletters – provides a dual function for me as a researcher. Each conveys information in raw form as well as information on the social lives of farmers. Blogs and newsletters keep farmers involved in social networks (whether networks of farmers spread throughout Brazil, or kin networks) and allow farmers to maintain personas in absentia (as good neighbors or farmers or entrepreneurs) through their selective portrayal of farm work, farm landscapes, and general farm life. Investor reports maintain their persona as a good business person and good farmer by focusing more squarely on the financial and managerial aspects of farming in Brazil. These reports have multiple functions, ranging from business transparency, to relieving investors' worries, to courting new investors.

For Skype as well, the media is functional for my research as well as informative of social networks. A conversation provides me with data, but also informs me on the difficulties of international communication. The act of trying to speak with people through Skype, using a poor internet connection, shows the work that has to be done to maintain transnational social networks. Email newsletters, blog posts and Skype conversations are evidence of vibrant social communities that farmers maintain in the United States.

In addition to using these methods as research data, I have developed my own more visible online persona. I have done in order to more fully participate in the worlds I am observing. In forming a blog, an Instagram site, and a twitter account I learn the practices and habits of each forum. Again, this helps me better understand the work being done by farmers to

maintain online personas, it also helps me understand the extent to which other farmers (who contact me through these forums or follow me) use social media. Increasingly, I see this kind of work as becoming an aspect of, not outside of, farm work, at least in the case of transnational, large-scale soy production. More so, I create a more visible online persona in order to reciprocate the leaps of faith my research subjects make in putting themselves on Twitter, Instagram, etcetera. I use my personal web page through the UNC-Chapel Hill Anthropology Department and my Academia.edu website in particular to be more transparent about my research project and my past work.

What began as my attempt to work around the difficulties of studying a transnational community has become a form of participant observation. U.S. soy farmers in Brazil extend and strengthen their social ties through social media and online communication. Their financial situations are also strengthened through consistent farm and business updates.

Mennonites used the internet sparingly, but did have their own Wi-Fi tower and most had internet access. One farmer used it to investigate an aquaculture project to install on his farm, others used it to follow commodity markets, and most used it to connect with family in the United States. In both groups, the internet is a tool to maintain vibrant connections with home communities (Wiltberger 2013) and make the loneliness of being in a strange place more sufferable (Gill 2005, 2004).

Broader Impacts of Research

This research challenges the notions that U.S. farmers in Brazil are either harbingers of chaos or rational economic actors by focusing on the myths to which they are beholden, the material constraints which limit and structure their field of action, and the farmers' agency in re-

working the global soybean economy. Furthermore, it contributes to an understanding of the “soy boom” in the Southern Cone, the multi-dimensional reality of foreignization of soy farming in Brazil, the power and powerlessness of farmers in a global economy, and the political and social value of farm work. I analyze how agricultural development reflects visions and myths of modernity. My research coalesces with development studies in an effort to achieve greater symmetry in analysis of development strategies of actors in the North and South. Finally, by employing a relational approach to address multi-dimensional interactions among farmers, land, and community I produce a dynamic study of the complex social and agro-ecological processes that comprise Soylandia.

Limitations

My position and research topic has limited the voices that appear in my research and the dissertation. Much of this was unavoidable within my topic, though this is a valid critique of my research questions and topic, but much could be ameliorated by continued study by other researchers and collaborations.

Women’s voices are lacking in this dissertation. In Bahia this is primarily because most American-owned farms are operated by single men who may have a romantic partner, but not someone involved in the farm. This is interesting in itself in the way it separates this lifestyle from the traditional view of a farm family as a family unit. It is also interesting in terms of who stays and who goes in migration flows (Bonifacio 2013). In Goiás, two things limited my access to women’s voices. Norms of conversations between men and women shaped my encounters to mostly avoid talk of business and strict norms of gendered work led to many of them referring me to their husbands. I address this further in chapters four and five.

In conducting participant observation and extensive interviews with large-scale landowners, I found my avenues for research with farmworkers and local communities limited. My identity as a white male from North America researching white male farmers from North America marked these interactions as risky business for the precarious position of farmworkers. For in-depth analyses of the exploitation of local communities by large-scale soy farmers in Brazil, see da Silva Coutinho, Germani, and de Oliveira (da Silva Coutinho, Germani, and de Oliveira 2013), Diniz (Diniz 1984), Gudynas (Gudynas 2008), and Top’Tiro (Top’Tiro 2009). For more information on farmworkers see de Oliveira for their poor working conditions (A. U. de Oliveira 1997), de Souza et al for the reduced need for labor in Soylandia because of mechanization (de Souza, Targino, and Moreira 2011), Roessing and Lazzaratto for the capital intensiveness of farming and association with limited employment opportunities (Roessing and Lazzarotto 2004), and Pignati and Machado and da Silva Coutinho et al on dangerous working conditions (Pignati and Machado 2011; da Silva Coutinho, Germani, and de Oliveira 2013).

Summary and Outline

I argue four points. First, U.S. farmers have migrated to Brazil for various social, political, ecological, and economic motivations that sit alongside profit. They migrate to reproduce facets of their ways of life (e.g. Mennonism, family farming histories) that they deem unsustainable in the United States. However, their migration leads to changes in their own practices and values as they in turn create change in Brazilian ecologies, infrastructures, and communities. Moving away from narratives of the soy boom as a homogeneous phenomenon of political-economy and narratives of powerful foreigners, the story of U.S. migration to Brazil is a story of transnationalism, socio-ecological crisis, and relational construction of new realities.

Second, Landgrabbers are powerful and somewhat profit-driven, but also powerless, value-driven, and precarious. Third, Mennonites migrated primarily to protect their way of life (Holdeman Mennonism) and their work reflects an interest in reproduction of the family and colony as well as an incorporation (on their terms) of aspects of Brazilian (agri)culture. Fourth, Family farmers migrated for more varied reasons, including: preserving family farming traditions, profit, adventure and their work primarily reflects an interest in farming (and profiting) in Brazil temporarily until they can settle down in the U.S.

My main contribution is to take a seemingly detached process of land grabbing and show that it is a generative process that creates new practices, values, and models of farming as well as changes in the landscape - it is also a contingent process not directed by the land grabber, but done in negotiation with the Brazilian Cerrado, the Brazilian government, workers, and home communities. I also develop the concept of flex farming, which is a livelihood strategy that detaches farm, farmer, and farming, yet generates new practices, material relations, and social values.

The remainder of this dissertation follows our two groups from their separate origins in different regions of the United States and different time periods, to their convergence in the Brazilian Cerrado, their divergence in terms of social values, work, and community, and finally their re-convergence around themes of flexibility and fixity in farming. The dissertation is organized as follows.

In Chapter Two I outline the migration of the two study populations. I begin with narratives of crisis – threats to cultural reproduction for the Mennonites and a general farming crisis for the family farmers. I take the reader through each groups' early experiences of Brazil through their tours of rural Brazil, to the decision to purchase land, and early attempts by each

community to settle down in the Cerrado. I argue that each group is induced to migrate by perceive social and economic crisis in the United States and that Brazil offered them a sense of hope in recouping those lost realities, but that Brazil offered something different for each group.

For the Mennonites it was a kind of autonomous space away from the encroachment of modernity and government. For family farmers it offered cheap land and a chance to become farmers but also participate in frontier farming as their great-grand parents did in the American Prairie. Here I engage with land grabbing literature by introducing the concept of crisis (via Jason Moore and Arturo Escobar) and by approaching it as a migratory process rather than just a one-off transaction and enclosure. I show that the Midwestern farmers migrated to Brazil due to land inaccessibility in the US, expectations of adventure and easy profit in Brazil, and frames of masculinity in agriculture that valued business savvy over in-field work. I show that Mennonites migrated partially due to land inaccessibility in the 1960s, but primarily due to concerns about cultural and social change in the US that threatened their cultural reproduction and pacifism (Vietnam draft). So, my intervention is to show the relation between crisis in the US and frontier expansion in Brazil, but also to broaden the analytic of crisis to include the intersecting ecological, social, and economic crises.

In Chapter Three I bring together soil and agro-ecological data, farming practices, and narratives of the land to understand farmers' encounters with the Cerrado. I begin by explaining the differences between Midwestern soils, climate, pests, etc. and the Cerrado. From this, I provide farmers' narratives of how they adapted farming practices to fit the Cerrado agro-ecology. Some of them claim a special role in developing farming practices that have allowed increased soy production in the Cerrado. From here I will provide farmers' narratives of how they interpret differences in soil characteristics as deficits compared to Midwestern soils as

requiring greater farmer intervention, and then deduce from this that they have improved and developed the Cerrado from a wasteland to a productive sphere. They often connect this to the history of settling the West, taking it from unproductive indigenous people, and making it productive for the country and capitalism.

Here I work through the ways transnational farmers engage with the Brazilian Cerrado through soy production. I apply relational approaches and look to what is generated through these practices. I find that they do not simply impose practices on the land, but that their farming practices emerge in relation with existing farming knowledges and values and the on-the-ground conditions in Brazil. Additionally, the farmers generate narratives of the land that frame it as "nothing" and thus their work as improvement. My contribution is to look at what is generated from both a social and agronomic perspective.

In Chapter Four I analyze the transformation of the family farmer's identity, values, and community. I explain the changes in their value of work in response to changes in their work practices. As they have taken on more managerial roles on the farm, they have come to value efficiency, profit, and office work and placed less emphasis on ability to drive a tractor, yield, and traditional farming values. I explore the ways in which this community has become antagonistic towards itself and not created durable social roots in Bahia. I find that the Midwestern farmers readily adopt the business and cultural practices of large-scale Brazilian farmers (living far from the farm, working primarily as a manager, being mainly concerned with government regulations and worker strife). My intervention here and the next chapter is to show how values and identities of a community emerge not only from social engagement, but also engagement with infrastructures, government agencies, and worker federations.

In Chapter Five I focus on the Mennonites' more durable social values of community,

humility, godliness, and hard work. While they have adopted some modern agricultural practices such as genetically-modified organisms (GMOs) and pesticide use, they adopt these only after careful consideration on the impact on their livelihoods, community, and work. If they are deemed necessary and not destructive to the community, then they are allowed. If they are deemed unnecessary or destructive, and a farmer adopts them anyways, that farmer will be shunned. This chapter will explore the uneasy community-making practices of the colony which hold them together, but hold the threat of shunning as a very real consequence of indiscretion. I also explore the ways that the colony engages with the surrounding community through evangelism, farm research, and work and the limits on community engagement.

I argue that Mennonites have resisted adopting Brazilian style farms by strict communal enforcement of norms (going as far as banishing certain members). They operate small farms, with mixed uses, and live on the farms. They also talk about being not materialistic and not 'hitched to the satellite'(not dependent on technology). Despite this, there are disagreements in the community about what language they should speak, what identify is most important (Mennonite, Christian, or American), and who is really a member of the community.

In Chapter 6 I develop my concept of the flexible farmer. At the frontier of Soylandia, North American soybean farmers have left behind family-owned land in the US, outsourced labor, and planted commodifiable crops in order to save their family farms from crisis. This strategic response to crisis, flexible agrarianism, depends not on durable material relationships, but flexible crops, labor, and land which are alienated from social and physical relations, commodified, and replaceable. Nevertheless, certain relations are unalienable and unavoidable. Temporalities of farming survive, redefined in terms of progress and backwardness and new materialities of farming emerge in new sites of production. This emergent agrarianism is flexible

both in terms of fungible means of production as well as farmer subjectivities that push the reified boundaries of “family farming.” Re-conceptualizing the global land grab in terms of transnationalism, farming, and resilience creates space to understand the histories, subjectivities, and pathways of transnational agriculture.

I begin by exploring how farmers make transnational farming possible, and this is through distancing themselves from work, land, and crops (both physically and socially). I explain how they do this, then add the twist which is that despite their work to do this, they generate new material and social relations with the land, communities, and land. They also create new pathways for themselves (for the Mennonites a continual search for cheap land and isolation from worldly influences and for the Midwesterners a way of farming that depends on investors, capital, and mobility). My contribution is to show that land grabbing is not just a destructive process (although it indeed destroys) but also a livelihood strategy for precarious farmers and a generative process of new social and material realities.

CHAPTER 2 CRISIS, MIGRATION, AND SOY FRONTIER EXPANSION

In 1969 nine Mennonites toured Mato Grosso and Goiás in search of arable farmland. Thanks to the guidance of compatriots, careful negotiation, and a portentous omen, they purchased 10,000 hectares of native Cerrado land. They slowly converted this land first to rice, then later corn, and finally soy production and built a community near Rio Verde. Today the community claims a key role in the development of the Brazil Model of farming, enjoys a local reputation for hard work and honesty, and looks to new land to purchase in response to increasing land prices.

From the late 1980s to the early 2000s, dozens of U.S. family farmers migrated from the Midwest to Western Bahia. Having heard of the boundless hope of Brazilian agriculture through farm journals and farm stock reports and having perceived a limited future in the Midwest, many participated in farm tours to confirm the stories and some purchased land. They rapidly accumulated land using investment capital, bought state-of-the-art farm machinery and engaged closely with the Brazil Model of farming. Today some remain in Brazil as farmers, others as consultants, and still others have found their way back to the United States. This chapter centers on a question: why and how did these farmers migrate to Brazil? I lay out the motivations and rationale for migration, the practice of seeking out and purchasing land, and the practice of beginning a farm.

Migration, land grabbing, and transnationalism

Large-scale land purchases to foreigners are often approached through a foreignization or land grabbing framework. Though long a feature of global agrarian change (Borras et al. 2012), land grabbing came into the public consciousness following a series of massive global land deals in the late 2000s, including a proposed 99-year lease by South Korean corporation Daewoo on 3.2 million acres of Madagascar land (Walt 2008), though the deal was later voided. While industrial soy production has rapidly spread and become entrenched in South America, a parallel process of foreignization of land and production, part of the global land grab, has recently gained scholarly and non-governmental organizations' interest (GRAIN 2008; Humphreys, Solomon, and Tumusiime 2013; Zagma 2011).

Borras et al. recognize the difficulty of defining land grabbing and the global land grab due to the historical, political-economic, and cultural differences, but outline three connected characteristics of current land grabbing (Borras et al. 2012). First, following Peluso and Lund (Peluso and Lund 2011), it is essentially “control grabbing,” or “grabbing the power to control land and other associated resources such as water in order to derive benefit from such control of resources” (Borras et al. 2012, 850). This entails a redefinition of land as a productive asset used for profit accumulation, not as a socially, ecologically, or culturally-meaningful thing. Following Wolford (Wolford 2010), they recognize that land is extracted and alienated from local and directed to global market production. Thus, the “land grab does not always require expulsion of peasants from their lands; it does not always result in dispossession” (Borras et al. 2012, 850). It does entail a taking of control over land. Second, land grabs may relate to large scale land acquisition, but also to large scale capital investment. Third, the current land grab, is a capital accumulation which responds to inter-connected food, energy, climate, and financial crises and

the rise of middle income countries in search of reliable or controllable sources of fuel and food. The authors define the current global land grab as “the capturing of control of relatively vast tracts of land and other natural resources through a variety of mechanisms and forms that involve large-scale capital that often shifts resources use orientation into extractive character, whether for international or domestic purposes, as capital’s response to the convergence of food, energy, and financial crises, climate change mitigation imperatives, and demands for resources from newer hubs of global capital” (Borras et al. 2012, 851). While land or control grabbing has the same effect on national and global food security, regardless of the source of the capital, scrutiny is often directed politically - for example in the opposition of Chinese capital over any other source and this impetus to enforce foreign land laws (G. Oliveira 2018).

McMichael identifies the land grab as a response to the crisis and contradictions of the neoliberal corporate food regime, centered on Southern land, which will likely prove catastrophic (McMichael 2012). De Schutter warns that land grabbing is not simply a governance problem, requiring stronger legal restrictions to foreign ownership, but a problem of opportunity costs - of missed opportunities for local farming communities to access land and water, to re-inforce local food systems, and to strengthen local agricultural economies. Additionally, even those who retain land rights are put at risk as land and resources are increasingly commodified and capital is injected into local food and farming systems (Schutter 2011). Important to note in this discussion as well, is that land grabs are not exclusively in the domain of rural spaces, but are also taking place in urban spaces especially in the context of “urban renewal” efforts. Salvador, Bahia, for example is in the midst of urban renewal projects carried out by tearful bulldozer operators and intransigent police while Afro-Brazilian women lead resistance efforts (Perry 2013, 2004). Land grabs are land grabs regardless of where the capital originates (White et al. 2012).

The global land grab centers on control, use, and access to land, water, and other natural resources. Foreignization is similar, yet re-centered around themes of nationality, transnationalism, and borders. Zoomers writes that the main processes of “foreignization of space” within the global land grab are: offshore farming by food insecure countries in countries with fertile, but cheap land; offshore farming of non-agricultural commodities and biofuels; privatized protection of nature preserves; large scale infrastructural works; large-scale tourist infrastructure; retirement and residential migration; and purchases by migrants in their country of origin (Zoomers 2010). This broad definition of land control by foreigners illustrates the difficulty of identifying the critiques, dynamics, and trajectories of foreignization.

Despite attempts to stem land foreignization in Brazil has been largely ineffective, while foreignization in Bolivia has been weakly opposed and continuous. Groups of Japanese and Mennonite immigrants as well as three waves of Brazilian farmers have entrenched themselves in Santa Cruz, Bolivia as landowners. On the role of Brazilians in Santa Cruz Urioste writes, “It is clear that soybean cultivation in Bolivia would not have developed to current levels without the presence of Brazilian and other foreign investors, who bought and rented lands in Santa Cruz and brought capital, knowledge and technology to the region” (Urioste 2012, 445–446). Foreignization of land in the Mapitoba region of Brazil, or as Castro, Hershaw, and Sauer prefer “internationalization” of land, represents a territorialization of agribusiness, consolidation of extractive production ideologies (and practices), and a financialization of land (Castro, Hershaw, and Sauer 2018). Borras et al. argue that, in light of domestic land grabs and crop booms, the nationality of investors, cross-border flows of capital, and procedural elements of land investment are less significant than who gains or loses land, labor and capital (Borras Jr. et al. 2018).

The issue of foreignization and land grabbing has only recently been studied from the perspective of elites (Keene et al. 2015). Both control grabbing and foreignization have deep and entangled histories in the soy boom. Brazilians, primarily Sulistas (Southern Brazilians from the states of Parana, Santa Catarina and Rio Grande do Sul), have settled the Paraguayan Chaco, Santa Cruz region of Bolivia, and the Brazilian Cerrado. In Bolivia, Brazilians are well known for bringing technology, know-how, and capital and playing a large role in the development of the soy agroindustry (Valdivia 2010; Mackey 2011; Soruco, Plata, and Medeiros 2008). In Paraguay, however, it was primarily poor Sulista farmers (known as brasiguaios) who settled the Chaco and remain poor and precarious in relation with large-scale Mennonite farmers of the region (Souchaud 2002, 2007; Blanc 2015; Albuquerque 2005; Wagner 1990).

More recently Brazilian farmers, capitalists, and agronomists have migrated to Mozambique to capitalize on cheap farmland and introduce the Brazil Model of industrial soy farming to a similar ecology as the Cerrado in the Nacala Corridor in a sister country of colonialism (Amanor and Chichava 2016; Wolford and Nehring 2015), though it is possible that transnational agricultural interests in Africa have been over-hyped as land deals have often been unrealized or become ghost projects (Maiyo 2018). Sulistas in Acre and Northern Brazil too have brought with them know-how, capital, and legacies of farming and migration. They claim privileged positions as missionaries of modernity and drivers of development and culture (R. Adams 2008, 2010, 2015a; Costa and Mondardo 2013; Hoelle 2012, 2015). In accounts of Gaucho migration to the soy frontier, Southern Brazilians express an interest in settling new land and establishing themselves (Haesbaert 1998; Botelho and Andrade 2012; J. V. T. dos Santos 1991). Japanese colonists have a history with soy production in both Brazil and Bolivia (Costa and Mondardo 2013; Suzuki 2006).

Mennonites in Paraguay, Bolivia, and Belize, often called ‘mechanites’ are recognized as pioneers in soy production and leaders in their field. (Dana and Dana 2008; E. S. Miller 1982; Redekop, Graham, and Stoesz 1980; Stoesz and Neufeld 2008), while Mennonites in Bolivia are significant actors in the field of soy production as pioneers and highly capitalized and technified land owners, (Hecht 2005; Soruco, Plata, and Medeiros 2008). Mennonites in Paraguay claim responsibility for improving the economy and wellbeing of the Chaco and a positive influence on local indigenous populations (Stoesz and Neufeld 2008). Mennonites in Argentina (Bottos 2008), and Belize (Higdon 1997; Loewen 2006; Roessingh and Boersma 2011; Roessingh and Schoonderwoerd 2005) have less significant roles in soybean production, but have established thriving farming communities.

Americans’ history of migration to South America and engagement with soy production is more recent, and often connected with competition between Brazil and the United States and experiences of land inaccessibility in the United States Midwest (Hecht and Mann 2008; Wolford 2008). Besides the narrative of European migrants dispossessing American Indians and settling in in the American West, U.S. farming has and continues to be a transnational history - from interconnected grain production in the U.S. and Canada, to Latinx farmworkers in the tomato industry, to Canadian custom harvesters (Evans 2017), to Latinx farm workers turned owners (Minkoff-Zern 2018).

The Mapitoba region as a whole has experienced an acceleration of foreign land ownership due to institutional and economic incentives. (Sérgio Sauer and Pereira Leite 2012). An increasingly visible representation of North American interests in South American agriculture has been the land deals negotiated by TIAA, an equities fund (ActionAID 2017). A recent report accuses the fund of evading Brazilian land laws, colluding with a local businessman

in appropriating land from local communities by force, and disregard for their own claims of responsible farming (Farthing 2017; Rede Social de Justiça e Direitos Humanos et al. 2015; Romero 2015). Land privatization and “modernization” in Piauí began in the 1970s and is defined by local communities as a process of exclusion, as an enclosure of common land (V. E. L. Alves 2009) driven by manifestations of crises of soybean production in Brazil and capital accumulation at the commodity frontier (V. E. L. Alves 2006).

A report by Brazilian non-governmental organization Rede Social de Justiça e Direitos Humanos finds that cases of land grabbing are not only profit seeking, but also a means of distancing investors from the effects of agricultural investments. Relating the process to “terceirização,” roughly defined as outsourcing, but better understood as a process of detaching capital and capitalists from work and workers, the report finds that investors and investment funds exempt themselves from responsibility from community land dispossession, poor working conditions, and environmental consequences of industrial agriculture (Rede Social de Justiça e Direitos Humanos 2018).

Studies of the soy boom suggest that landowners are asocial and amoral personifications of capital who are dependent on the state (Gudynas 2008) or capital (McMichael 2010). Meanwhile popular media portray Midwestern farmers as self-made entrepreneurial adventurers who bring American know-how and work ethic to Brazil (Omestad 2008) while Mennonites sustain their livelihoods on the Cerrado (Osava 2007). Each of these narratives frames the process of migration and production as a linear process with a single objective. I employ a deep empiricism (Whitehead 1978, ste; Stengers 2011) to avoid abstraction and consider the “conditions under which something new is produced (creativity)” (Deleuze and Guattari 1987). This approach is informed by what Sherwood, Arce, and Paredes call the cosmopolitical

perspective (Sherwood, Arce, and Paredes 2017). This approach decenters the nation-state, dualities, and relations of cause-effect in favor of daily practice, relations, and contingencies. It also places emphasis on existence and creativity over resistance (Sherwood, Arce, and Paredes In Press).

In their introduction to a special issue of the *Journal of Peasant Studies*, White et al. define land grabbing as “the large-scale acquisition of land or land-related rights and resources by corporate (business, non-profit or public) entities” (White et al. 2012, 19). This framework includes land deals between corporations and governments which may or may not result in real enclosure, dispossession, or new production of land (White et al. 2012). Studies of land grabbing are situated, at their earliest, from the moment of land deal contract. From this moment of the land deal, studies focus on a number of areas including the broader geo-political consequences of land grabbing (McMichael 2012), the impact of foreign land deals on local land prices (Wilkinson, Reydon, and Di Sabbato 2012), displacement of local farmers (Feldman and Geisler 2012), and acceleration of agricultural modernization (Galeano 2012). These studies expand our understanding of the impact of foreign land deals on local farmers and land markets and on the global agricultural political economy, yet say little about the motivations of foreign buyers of land. In many cases this is due to researchers’ justified choice to focus on the consequences of land grabbing rather than the causes.

However, beginning the narrative of foreign land deals at a point in time prior to the land deal itself enables a better understanding of the historical and personal antecedents to the deal as well as the land purchaser’s motivations. I open up a novel set of questions to further specify my main question of farmers’ motivations to mobilize. How does the land deal fit into a farmer’s personal history? Is this a break or continuation of that history? What future does the land deal

enable for the farmer? The land grabber is a capitalistic, powerful, and even malevolent figure in many works on land grabbing. By problematizing this figure I will draw a more realistic image of this figure and perhaps improve our understanding of the dynamics of land grabbing itself.

U.S. farmers' narratives are situated only partially within this framework. They are responsible for the purchase of large tracts of land in a foreign county, yet, are they corporate entities? What counts as a corporate entity? Are they motivated by speculative profit, production, both or something else entirely? Does it matter? Land grab literature informs academia and the public on the social, ecological, and economic consequences of large-scale corporate land deals, yet by centering on the land deal itself they often lose sight of the processes, motivations, and histories that led to that moment. This tendency to begin with the land grabbing event depends on a common assumed narrative in which the land grabber is presumed to be motivated by capital accumulation and perhaps post-colonial dreams of land control. While nuanced research situates land grabbing within social, ecological, and economic contexts, seldom do researchers situate global land deals within farmers' personal narratives. Thus, in this chapter I step away from the present situation to narrate the historical and personal antecedents to the land purchase itself. I work towards a holistic understanding of the movement of North American farmers to Brazil via a framework not of land grabbing, but of migration.

The story of foreign land deals naturally begins with global commodity markets, flows of capital, and economic conditions. I re-center migration in this debate to place greater focus on the household. I recognize that migration is also somewhat limiting in its definition and less useful than "mobility: which foregrounds the "changing, floating, fluid nature" (Cohen and Sirkeci 2011, 7) of global movement of people. When describing "migration" I refer to the process of household decision to move across borders and settle in Brazil.

Crisis and Mobility

Migration and mobilization are household decisions, but also occur within general frames of political ecology and political economy. O'Connor proposes that increasing ecological costs of production threaten capitalism as capital accumulation takes precedence over land stewardship and ecological destruction renders land useless for agricultural production (Foster 1992, 2000; O'Connor 1988, 1981). This work refers back to Marx's critique of industrialization of agriculture in which he states that "all progress in capitalistic agriculture is a progress in the art, not only of robbing the labourer, but of robbing the soil; all progress in increasing the fertility of the soil for a given time, is a progress towards ruining the lasting sources of that fertility" (Marx 2008, 298). To which Simmel might reply, is also the process by which the capitalist farmer sees his self value and labor capitalized (Simmel 1997). The flight of farmers from the Prairie to the Cerrado lends credence to this theory, but their concomitant contribution to the expansion of the soy frontier suggests a twist.

Socio-ecological crisis theory (Moore 2010a) connects crisis (via the second contradiction of capital) with commodity frontier expansion. Moore proposes a capitalism as world ecology in which "capitalism does not act upon nature so much as it unfolds through nature-society relations" (Moore 2010b, 190). Within "capitalism as world ecology," socio-ecological crises emerge where fiscal, agro-ecological, and political crises thwart strategies for capital accumulation and render technologies, labor, and techniques of capital accumulation inadequate. This allows Moore to name our current era the "Capitalocene" (Moore 2018). When strategies of capital accumulation are rendered inefficient actors seek out frontier lands – allowing crisis to beget expansion. Social and environmental crises are mutually constituted and at the same time constitutive of commodity frontier expansion.

While socio-ecological crisis operates at the scale of global political ecology, personal crises, “a sense of rupture that demands a decisive response” (Redfield 2005) acts at the household level. “Economic crises are ecological crises are cultural crises” (Escobar 2008, 14) and crisis is not only an economic relation between the forces of capital and actors, but a dynamic, relational process involving capital, ecology, knowledge, values, and practice. It works at multiple scales and arenas. Fraser et al conceptualize political economic structures alongside actors’ life worlds at the site of crisis. Socio-economic relations and economic practices intersect with forces of political economic change to create post-crisis realities (Fraser, Fisher, and Arce 2013).

Crisis, in its various forms, is an enduring feature of the narrative of American farming history. The Dust Bowl brought together ecological crisis wrought by over-tillage and disregard for soil erosion. Responses at the time drew attention to soil tillage practices as erosion as a form of conquest that leads to the destruction of civilization (Lowdermilk 1953) and led to the formation of the Natural Resource Conservation Service of the United States Department of Agriculture (USDA-NRCS), while critiques of banking interests and farm foreclosures popularized by *The Grapes of Wrath* (Steinbeck 1967) were left unaddressed. The experience of migrant, dispossessed farmers in *The Grapes of Wrath* remain relevant today.

Some of the owner men were kind because they hated what they had to do, and some of them were angry because they hated to be cruel, and some of them were cold because they had long ago found that one could not be an owner unless one were cold. And all of them were caught in something larger than themselves. Some of them hated the mathematics that drove them, and some were afraid, and some worshiped the mathematics because it provided a refuge from thought and from feeling. If a bank or a finance company owned the land, the owner man said, The Bank - or the Company - needs - wants - insists - must have - as though the Bank or the Company were a monster, with thought and feeling, which had ensnared them. These last would take no responsibility for the banks or the companies because they were men and slaves, while the banks were machines and masters all at the same time. Some of the owner men were a

little proud to be slaves to such cold and powerful masters. The owner men sat in the cars and explained. You know the land is poor. You've scabbled at it long enough, God knows (Steinbeck 1967, 42–43).

The Dust Bowl gave way to what Loewen follows Shover (Shover 1976) in calling the Great Disjuncture of the mid-20th century of commercializing farms, commodification of farming, land consolidation, and rural to urban flight (Loewen 2006) - a time that also featured a shift from small farms to agri-businesses (Goldschmidt 1978) and its consequences. In the 1980s a new wave of farm foreclosures, farmer suicides, and farmer protests signaled continued crisis (Dudley 2002). At the same time, critiques of the cultural crises in farming emerged. Wendell Berry, among others, decried technified farming, capital-intensive farming, and the imposition of forms of expertise on rural life (Berry 1977).

Today still, farms are getting larger, work is increasingly hired out, and farmers need to, to paraphrase, get big, get out, or get a second job (MacDonald, Korb, and Hoppe 2013). Tragically, farmer suicides have also risen in recent years and farming remains one of the most at-risk occupations for suicide in the United States (Tiesman et al. 2015; McIntosh et al. 2016; The Guardian 2017). As Bell suggests, the United States has experienced not periodic farm crises, but a continuing and constant crisis (M. M. Bell 2010). The 20th and 21st century farming crises become visible through land inaccessibility, financialization, agro-chemical pollution, and nitrate pollution in waterways. Yet, farming itself is associated with crisis, collapse, famine, and control (Scott 2017).

The interplay of frontier and crisis is evident in the ever-moving frontier of Soylandia. Gaucho farmers have faced land inaccessibility in Southern Brazil and responded by internal migration and outward migration. Gaucho cattle farmers in Acre and soy farmers in Santarem claim to continue farming and migratory histories as well as roles as “missionaries of

modernity.” Although rooted in crisis, they celebrate their migration as spreading development through hard work and improvisation (R. Adams 2010; Hoelle 2015). Gauchos have also migrated to Bolivia and Brazil in search of land. Brazilian soy farmers in Bolivia similarly claim to bring development through capital and technology (Urioste 2012; Valdivia 2010), whereas Brazilians in Paraguay (Brasiguayos) remain smallholders who are undercapitalized in comparison with Mennonites in Paraguay and continue to face marginalization (Blanc 2015). The relationship between soy and commodity frontier expansion and internal mobility and transnational migration is apparent in the pattern of accumulation and declining opportunities at home, interconnectivity of people, markets, and production, and seamless extension and accumulation.

Professionalization, corporatization, and decoupling of farm and farmer have characterized agrarian change in both Brazil and the United States. Sixty years ago, Walter Goldschmidt tied agricultural industrialization and the growing predominance of agribusiness to declining vibrancy of rural communities in the United States (Goldschmidt 1978); more recent scholarship builds on this relationship while lending nuance to Goldschmidt’s distinction between industrial and small-scale agriculture. While family farms account for 99% of all U.S. farms and 89% of U.S. agricultural production (Hoppe and MacDonald 2016), the nature of family farming is undergoing changes. For example, the workdays of Bobby Trask, a small-scale fruit and vegetable farmer in upstate New York (M. Gray 2013) and Rob, a medium-scale corn and soybean farmer in Iowa (M. M. Bell 2010) reflect an increasing reliance on hired farm workers. Both occupy themselves in the fields, but neither primarily operates machinery. Rather, they hire farm workers to carry out the agricultural tasks and concern themselves with checking in on workers and progress of field tasks.

As farm work becomes specialized and professionalized, the value of farming has also shifted. Masculinity on the farm is increasingly expressed in terms of savvy businessmen working with agribusinesses over rugged yeomen farmers working with neighbors and family in the field (S. E. Bell, Hullinger, and Brislen 2015). Barlett and Conger characterized farming masculinities into three categories. First, an agrarian perspective which emphasizes farm life, family partnerships, and land stewardship; second, emerging out of changes of the 1980s, an industrial perspective which values modern living standards, business opportunities, farming as an occupation, and man as provider and woman as homemaker; and finally a “third wave” of masculinity emerging out of the sustainable agricultural movement centered around cooperation over individualism and situated within local ecological awareness (Barlett and Conger 2004). Masculinity in farming communities is socially-mediated and changes with the agricultural economy.

Farm communities become embroiled in relations of competition for scarce land and disappearing profit margins (M. M. Bell 2010), decentering family, community, and stewardship in favor of management science and rationality (Ramírez-Ferrero 2005). By decoupling farm from household (J. H. Adams 1988), farm families mirror Australian and New Zealand farmers in redefining the family farm (Johnsen 2004; B. Pritchard, Burch, and Lawrence 2007) as a business-driven, if not fully corporate entity. Small-scale New York farmers struggle to become capitalists and managers, dealing with workers, negotiating pay, and also balancing with pastoralist ideal (M. Gray 2013).

Yet crisis in American farming is not an emerging trend. In 1936, Schmidt asked

What will become of the family farm in the United States? Will it remain the dominant type of farm business organization? Or will it disappear in this capitalistic commercial age? Will it give way to corporation farming applying the methods of large business concerns to the tasks of farming with the result that the rural community composed of

owner-operator farmers will essentially be lost? Or will it decline towards the peasant levels in Europe? What is the true objective toward which we should direct our efforts if we are to maintain a sound agriculture without which we cannot have a sound nation?" (L. B. Schmidt 1936, 176).

Neither were discussions of agrarian crisis removed from discussions of masculinity and value. To lay bare the stakes of the crisis, Schmidt quoted Dr. Alvin Johnson, saying:

A sound agriculture is based on the technical skill and energy of the farmer, his insight, spirit, and love of the country-side, the jollity of the country picnic and dance, the fresh cheeked maidens who eagerly seek the role of sweethearts of country boys and develop into contented farmers' wives. The original and independent properties of the soil are all very well in their way, but they are dead matter which counts only if organized into the living community (L. B. Schmidt 1936, 203).

This juxtaposition of "fresh-cheeked maidens," "contented farmers' wives," and the "technical skill and energy of the [male] farmer" serve as a reminder of the conservative aspects of the farming crisis - that perceived changes are complicated and made significant by both sexist and productivist, as well as racist assumptions of what is good and what is natural.

In 1946 Walter Wilcox wrote of rural Wisconsin:

Families on small farms in the United States find themselves in the cross-fire of two opposing sets of powerful forces; one sustaining them while the other crushes. The forces tending to squeeze out these families on small farms are the increasing cash costs of family living and the continued improvements in farm machinery which increase the amount of land a family can handle. Forces tending to maintain small farms are the inability of most families on them to accumulate savings to purchase additional land and the demand for small farms by families with limited savings and less attractive alternatives" (Wilcox 1946, 458).

Shortly after McMillan questioned the role of farm machinery in rural change, finding that:

Farm mechanization has produced saving in labor, increased efficiency of farming operations, and resulted in greater productivity, consolidation of many uneconomic farming units, and improved levels of living among farm families remaining in agriculture. On the other hand, with mechanization have come a capacity to produce more food and fiber than can be consumed under effective peacetime demand, potential unemployment of agricultural workers, concentration of farm ownership among fewer landholders, increased social stratification of tenure classes, and depopulation of farms

and villages, which are service centers for farmers” (McMillan 1949, 28).

In 1970 Howard Gregor named large industrialized American crop farms “a mid-latitude plantation variant” with “characteristics such as crop specialization, advanced cultivation and harvesting techniques, large operating units, management centralization, labor specialization, large-scale production, and heavy capital investment” (Gregor 1970, 151). A decade later Harold Breimyer perceived a mischaracterization of agriculture in the United States - finding that the uniqueness of agriculture as a sector was melding into a common mold, that the essential nature of farming was losing ground as farming became increasingly reliant on fuel, metals, and chemicals, that farming communities were no longer “geographically myopic islands of isolationism” as “citrus and soybean emissaries circle the globe in the search for new markets” (Breimyer 1982, 186) and in the most extreme case, the farmer’s self-image had transformed as an independent, libertarian figure to a primary beneficiary of government aid. Another decade later Hart recognized a drastic growth in farm acreage, and a change in farmer strategy towards rental and acreage growth (Hart 1991). The United States, it seems, has fallen into a perpetual farm crisis of ever-decreasing farms, ever-increasing farm size, and increasing antagonism between neighbors, farmers, and relatives (M. M. Bell 2010).

Perhaps inspired by “the mechanized grain farm of the American Midwest and the Canadian prairies” (Llambi 1989, 745) capitalized family farms have also emerge in Latin America. This transformation is perhaps starker in Brazil where rural landscapes have transformed from vast grasslands to monocultures of soy, in which agricultural products are fully commodified, farmers are MBA-holding businesspersons managing farms by email from near or far cities, and land is a fully capitalized asset (Gudynas 2008). While the image of large-scale, fully commodified soy agribusinesses selling to global markets does not capture the diversity of

soy farming styles in Brazil (Mier y Terán Giménez Cacho 2016, 2014), the Brazilian model of industrial soy production can be characterized by farm managers, high dependence on advanced technology and machinery, and agronomic practices including zero tillage, high pesticide use, and intense fertilization (Ofstehage 2018a).

Similar to shifts towards rationalized business-forward thinking on American farms, Brazilian landscapes are increasingly under the logics of capitalist modernization (C. C. M. dos Santos 2008) as land is reinvented and reimagined as modern (Sérgio Sauer 2012). Large-Scale mechanized soy farmers see themselves as missionaries of modernity who implement widespread improvements to the land to transform wasteland to productive farmland. The aesthetics of farming and landscape change are used to legitimize their farm work and indeed serve as common ground for new farmers in the area and established local farmers. While they may disagree on certain political issues, they find common ground on discourses of production and development of the land (R. Adams 2008).

This chapter is divided into two parts. The first explores the origins of the migration of Holdeman Mennonites to Rio Verde, Brazil, beginning in 1969. This history calls back to a history of Mennonite migration and continual seeking out of the conditions that support their religious and cultural lives. It ends in the present day where young Mennonites are currently wrestling with decisions to stay in Rio Verde or move again to the next frontier land. The second part addresses the histories of family farmer migration to Mapitoba, in particular to Western Bahia. These histories are rooted in the episodic periods of crisis in American agriculture and the pursuit of farming lifestyles, profit, and even adventure.

Each section will address three aspects of migration: the situation of sending communities at the time of migration, the situation in Brazilian soy producing regions at the time

of migration, and farmers' personal and communal narratives of migration. I outline the ecological, political, and social situations of the sending communities to understand the context of migratory flight. Context on regional histories of soy production in Brazil help us understand why U.S. farmers fit into local situations of production. Most importantly for the purpose of this dissertation, I provide the communal and personal narratives of migration to understand the economic and social rationale for migration and the affective significance of Brazil, farming, and soy. Narratives of farmers' migration plans and improvisations connect the situations of American and Brazilian farm communities.

Distinct migrations of North American farmers to Brazil represent improvisations in response to agrarian crises. Each group experienced a lack of hope for the continuation of their livelihood in the U.S. and saw space for hope in Brazil. Their plans unfolded haphazardly over the political, economic, and ecological terrain of Mapitoba, but always in pursuit of unfulfilled and perhaps unfulfillable dreams. Sometimes in pursuit of progress, other times in pursuit of socio-cultural preservation, these farmers became transnational soy farmers.

Mennonites seeking autonomy and finding signs in Goiás

In my first dissertation fieldwork interview I spoke to an American tour operator and consultant about the role of North Americans in Brazil. Prior to this interview I knew only of the family farmers in Bahia, my research consultant quickly dispelled that view. "You need to talk to the Mennonites." He went on to juxtapose the questionable ethics and practices of the family farmers in Bahia with the hard work and pristine reputation of the Mennonites in Rio Verde. Where the family farmers were only recently in the country and had only adopted their practices from Brazilians, the Mennonites had been in Goiás for more than four decades and had a

foundational role in making the Cerrado productive, though their long-term sustainability was in question due to their resistance to capital, land acquisition, or high technology. This interview led me to question my research from the outset, but also opened up a new line of research. Who are these Mennonite farmers? How do they differ from the Brazilian way of farming? And, how long will their farming lifestyle last in the midst of technology and capital intensive neighbors?

In many ways the narrative of Holdeman Mennonites in Rio Verde, Goiás reflect the history of Mennonism. They experienced living conditions that they perceived as a threat to their culture, community, and way of life and determined that this threat was unacceptable. They responded by migrating to an unsettled, in their eyes, space wherein they could strive towards cultural, religious, and economic autonomy. In Rio Verde they found a manner of autonomy, but not without introducing changes to their culture and livelihood nor without accepting a role of the market into their community (Henderson 2017).

As argued by James Urry (Urry 2006), many recent studies of Mennonism focus on their withdrawal from “worldly” concerns such as participating in government elections, serving in public office, and other forms of participation in the secular political world. This view frames Mennonites as a traditional people who are separated from politics, modernity, and the secular world. Subsequently, communal or personal decisions are portrayed as responses to modernity, governmental intrusion, or other worldly matters and Mennonite actions as withdrawal from worldliness. Thus, Early Mennonite’s movement to tolerant Holland is framed as flight from intolerant regions of Western Europe, their flight to Russia is framed as escaping the traps of modernity in Holland, and their migration to Canada and the United States as fleeing communism. Seen another way, each of these subsequent migrations fit into a continual process of creating the conditions for the enactment of a new reality for Mennonites. In this dissertation,

reflecting Urry's argument, I approach the migration of Mennonites to Brazil not as a simple response to socio-cultural changes in the United States, but as a proactive action to foment a new reality in which Mennonite community can embrace their way of life, values, and community and thrive.

As Holdeman Mennonites, the Rio Verde colony traces its roots to John Holdeman. Holdeman, born in Ohio, emphasized the importance of adult baptism, spiritual childhood education, discipline for unfaithful members, and avoidance of worldly churches and associations. John Holdeman placed himself and his followers as the true church due to the perceived decay of the Mennonite Church and its betrayal of their theological foundations. Though initially his call for reform went largely unheeded, an influx of Russian Mennonites in the late 19th century to Kansas and Manitoba took up his call and empowered the movement (C. R. Hiebert 1971). Holdeman Mennonites are physically distinguishable by their dress. Men wear beards and mustaches, striped or solid button up shirts, plain pants, and strictly avoiding ties. Women wear long, high neck-line dresses, often with floral patterns, and wear black prayer caps (Arthur 1986; C. R. Hiebert 1971). Beliefs and practices are strictly enforced and those who do not follow these face excommunication; ten to twenty-five percent experience excommunication and seventy-five to eighty percent of those excommunicated repent and are reaccepted (C. J. Dyck and Martin 1990).

The first half of the 20th century was a period of transition and adaptation for the Holdeman Mennonites, transitioning from German to English, maintaining pacifist ideals and behavior in the face of compulsory draft in two World Wars, adapting to some "Americanization," and dealing with emerging technologies in farming and the household. Challenges emerged in the 1970s as they had to content with growing affluence of some

members, higher land costs, growing memberships, questioning of the church's position as the "one true church" and growing engagement with outsiders. A purge of members, to weed out those who did not meet strict theological requirements left many traumatized and shunned, they also responded to encroaching worldliness of public schools by forming private schools. (C. J. Dyck and Martin 1990).

Holdeman Mennonites migrated from Ohio to Rio Verde, Goiás, Brazil in 1968. According to interviews conducted by Heloisa Brito de Mello, this group migrated to escape both cultural and economic crises. First, an economic crisis in the United States in the 1960s led to increasing farm production costs. According to one interlocutor, "With the economic crisis in the United State in the 60s, the cost of agricultural production kept rising, taxes were high, things were becoming unaffordable, then my father heard of lands in Brazil that were very cheap and very good for farming...so, he and some friends decided to go to Brazil, arrived here [Rio Verde] by chance, and stayed" (Mello and Silva 2011:28, translation by author). For Joseph, the economic crisis, or perhaps more aptly the agrarian crisis, challenged the community's way of life and Brazil's fertile and cheap land offered a way out.

Other Mennonite groups have taken other actions to escape or confront economic change and unprofitability of farming. Mennonite communities in Kansas and Manitoba, for example, have fragmented several times over in members' distinct responses to increasing costs of production. Some remained farmers by intensifying farming practices while others abandoned rurality by leaving for wage labor or to become entrepreneurs in "the city," still others migrated to Belize to found new colonies in order to maintain their farming and community practices in a new country (Loewen 2006). Although couched in terms of economics, profitability, and taxes, it appears that the economic crisis of the 1960s was more accurately an agrarian crisis for this

Mennonite colony. In the following sections will turn to an analysis of concepts of work and land in order to address this theme.

A second motivation for the Mennonite migration to Brazil is a search for religious and educational autonomy. In the same decade as the agrarian crisis, U.S. school systems began to implement a required curriculum of sex education and the Mennonites rejected this as undue state intervention and an imposition on their cultural values. According to Joseph:

since the 60s, the members of almost all congregations have sent their children to private schools maintained by the church itself. It is our goal to educate our children in a Christian environment. We believe that our principles must be preserved. Therefore, we seek to always keep a clear view on this subject thus preventing our children from being diverted by worldly influences. Since at that time they had been approved teaching sex education in schools, we opted out, because home schooling was not yet allowed in the United States, we saw that there was not...we had to leave because we have other principles on sex education. We believe that sex is only blessed with marriage, with God's blessing (Heloisa Augusta Brito de Mello and Silva 2011, 29).

Here we see the crisis framed in less productivist, economic, or even agrarian terms in favor of a higher calling. Mennonite children, surrounded and perhaps overwhelmed by a social crisis of “worldly” influences of secular society and sex education, required an escape.

In Brazil the Holdeman Mennonites found both cheap lands and a space for educational autonomy. The colony wrestled certain concessions from the State, including freedom from conscription and autonomy in home schooling, and purchased land in a frontier region of Goiás, Brazil. The colony originally intended to plant dryland rice in Goiás, near Rio Verde, but some members began to experiment with soybean production using novel techniques to transform “inferior” land into a soil more suitable for soy production. Interestingly, some Midwestern farmers who are now farming in Brazil originally lived in the Mennonite colony in order to learn farming practices and to become acquainted with Brazil; after several years on the colony they moved off and started their own farm. Although the colony remains intact today, several former

members have been shunned due to owning an excessive amount of land or associating with the wrong people and are now farming independently in the region. This recalls Bruce Trigger's work on communities seeking a leveling of household economics to preserve community vitality (Trigger 2003). They remain in contact with the colony but are disinvited from certain social functions.

In the following section I present two narratives of the Mennonite migration to Goiás to better understand the motivations at play in their movement. I begin with Aldo Claasen's narrative before exploring that of Charles Funk.

I met Aldo Claasen in Rio Verde when he and his son were picking up tires from a mechanic. He was one of the first of the colony to migrate. His house is about 100 yards from his son's and we met over lunch to discuss his early experiences in Brazil and reasons for migration.

Aldo grew up on a farm in the United States. Despite selling the tractor to raise cash and saving as much as possible, his family had to sell the farm for \$3,500 in 1944 to escape debt (the exact amount of their debt). They "lived poorly, went to school with no shoes, and went hungry often." He and his dad were "farmers at heart and were very sad with selling the farm, they lived hand to mouth." His father found work as a builder to provide for the family, but could never save enough to buy back their farmland.

Yet, despite their interest in farming and regret for selling the land, Aldo expressed interest in migration primarily out of concern for changes in public education and fear of the military draft. Aldo, reflecting his father's sentiments, "would go to jail before letting his kids go to a public school or enter the draft."

Figure 4: Amish children flee police

(Clayworth and Rodney White 2015)



Captured in Thomas DeFeo's photo of children fleeing from school officials into an Iowa cornfield (See Figure 4), several states in the 1960s passed laws enshrining compulsory public school attendance for children to require attendance through the age of sixteen. The Amish and some Conservative Mennonite groups resisted this due to opposition to teaching of human evolution, secular values, and sex education, as well as the requirement that students enroll in public school beyond eight grade (Johnson-Weiner 2007). The Supreme Court later held up exceptions to compulsory education requirements for religious reasons (Burger 1972), but prior to the decision, Conservative Mennonites feared a loss of control and autonomy over the formation of their children.

Mennonites in Latin America responded to similar educational standards by working

around requirements or simply disregarding them. Mennonite schools in Brazil in the 1930s and 40s taught religious and cultural values and were used as safe spaces to speak Plautdietsch when speaking German (with no reference to German dialects) was restricted by district law 383 in 1938; schools were an institution to reproduced cultural identity and cultural legacy and resist the worldly influences of the Brazilian government, although they had to recite patriotic hymns and lessons against their wishes (Renk and da Cruz 2014). Old Order Mennonites in Bolivia recall “weapons of the weak” (Scott 1985) in their resistance to Bolivian national laws on teaching Spanish language in the classroom by simply disregarding it, as a colonist explained “The Bolivian government has said [that we] should have one hour of Spanish a day in the school, but [we] haven’t fallowed this; . . . it would be good to learn Spanish in the school but [we] learn German” (Loewen 2016, 168).

John Holdeman, founder of Holdeman Mennonism, wrote critically about the role of education in the church and community, writing that people who placed too much importance on formal education also

granted liberty in many things, which are neither found in the Holy Scriptures, nor were these allowed in earlier times by the brethren. The Church of God has not had any higher schools in many hundreds of years and has actually conquered the world better than those churches which have had higher schools. We cannot believe that a church can remain the Church of God if she has higher schools, and annually hires teachers; because we hold that a church which sponsors higher schools manifests waywardness in a number of things if, in fact, she has not already fallen. If one such church can be found, which lives faithfully according to the entire Scriptures, and teaches according to our confession, and has higher schools, I would very much like to become acquainted with her, so that I can actually see for myself how I have erred in this, if, in fact, I have erred. Experience has taught us, that she must first become self-exalting and proud before she will put on such a worldly styled dress, to parade her glory on her body and with her pen and tongue. . . . Wherever a spirit for higher education arises in a church, where it was previously opposed, there a deep fall has transpired . . . and she stands in great danger of dying (C. R. Hiebert 1971, 464–465).

This sentiment motivated this group’s migration and continues to guide their schooling

and educational systems today in Brazil. While U.S. states legislated educational standards in the 1960s and Mennonites in the U.S. resisted through migration and legal action, similar processes occurred in Canada. In a prominent case in Alberta, Mennonites sued the Province of Alberta for autonomy in the classroom and exemption from educational standards - an extraordinary case because of the groups desire to distance itself from representations of worldly society, government, and culture, including the court system (Pemberton-Pigott 1992).

Pemberton-Pigott argues that this case “stems directly from the founding principles of Anabaptism. They believe that humans are inclined towards sin and hence need spiritual redemption. To be fully human requires knowing and following the will of God in order to have the proper relationship to God, to the community, and to oneself. Adult baptism is a ritual signifying the voluntary decision to consecrate oneself to the will of God as expressed in the ideals of the Church” (Pemberton-Pigott 1992, 51). A Mennonite witness testified:

[T]he best years of their [lives], the molding years, were being lost because they were too close in contact with the low standards of today ... we finally realized, if we don't do something as parents, we will lose our only eternal heritage which is our children ... we feared we would lose them; they would lose themselves and leave God” (Pemberton-Pigott 1992, 49).

Encounters between the Mennonite community and outsiders encouraged action; some Mennonites viewed instances of adolescent disobedience as being related to this growing proximity to worldliness and secularism (Levy 1979).

The Vietnam War also concerned Aldo. He worried that they would lose religious exemption from the military draft, threatening their pacifist ideology, and that the military would be opened to “girls” to serve which would threaten their gendered ideologies of work. The original Articles of Confession of 1896, with John Holdeman in attendance, stated unequivocally the Holdeman Mennonites belief in nonresistance, or pacifism. It states,

We do believe, all who are in the kingdom of Christ, whose kingdom is not of this world, and the gospel prohibiting all fleshly and legal revenge, and compulsion, that therefore the members of God's Church cannot be permitted to serve in any office of the magistracy, from the highest to the least, which require to bring transgressors into judgment by the power and authority of law” (Church of God in Christ, Mennonite 1896).

In addition to their beliefs in pacifism, their avoidance of associating with the U.S. government, nationalism, and patriotism encouraged their resistance to joining the military as volunteers or draftees.

In 1968 Aldo joined eight other Holdeman Mennonites from Ohio, Georgia, and Kansas, to tour rural Goiás in a Volkswagen combi. He and four others had responded to a call for help from four Mennonites already in Goiás who had begun farming, saw great opportunity for a Mennonite colony, and sought the formation of a community. They had their own camping and kitchen equipment, never stayed in a hotel and rarely ate at a restaurant. During the trip they referred to themselves as Moses’ spies seeking out land, space, and autonomy, referring to the following Bible passage:

¹³ And the Lord spoke unto Moses, saying, ² ‘Send thou men, that they may search the land of Canaan, which I give unto the children of Israel. Of every tribe of their fathers shall ye send a man, every one a ruler among them ¹⁸ And see the land, what it is, and the people who dwelleth therein, whether they be strong or weak, few or many; ¹⁹ and what the land is that they dwell in, whether it be good or bad, and what cities they be that they dwell in, whether in tents or in strongholds; ²⁰ and what the land is, whether it be fat or lean, whether there be wood therein or not. And be ye of good courage, and bring of the fruit of the land.’ Now the time was the time of the first ripe grapes. ²³ And they came unto the brook of Eshcol, and cut down from thence a branch with one cluster of grapes, and they bore it between two upon a staff; and they brought of the pomegranates and of the figs. ²⁴ The place was called the Brook Eshcol, because of the cluster of grapes which the children of Israel cut down from thence. ²⁵ And they returned from searching of the land after forty days. ²⁶ And they went and came to Moses and to Aaron and to all the congregation of the children of Israel unto the Wilderness of Paran to Kadesh, and brought back word unto them and unto all the congregation, and showed them the fruit of the land. ²⁷ And they told him, and said, “We came unto the land whither thou sentest us, and surely it floweth with milk and honey; and this is the fruit of it. ³⁰ And Caleb stilled the people before Moses, and said, “Let us go up at once and possess it, for we are well able to overcome it (*The Holy Bible: King James Version* 2004).

With five respondents to the call and the four Mennonites who were already in Brazil, Aldo remembered someone suggesting they see Rio Verde and they went straight there. Seven of them thought that Rio Verde was a great option. Rio Verde was a sizeable city with access to household goods and markets and it had developed infrastructure. Furthermore, Preacher John, one of the nine, had a prophetic vision of Rio Verde as a thriving new home for the Mennonites.

Two dissenters thought they could find better land elsewhere; they expressed interest in buying land from local land owners and said they would come back to give the final answer. The objectors said the land was poor and they could find much richer land elsewhere. They said, with technology, they could build everything new, but in Rio Verde they already had electricity and infrastructure. They decided to keep travelling for two weeks. They drove around Goiás and on their way to explore land options in Mato Grosso came to a creek separating Goiás from Mato Grosso and there was extreme flooding. They waited overnight and woke to find their way barred by flooding and had to move camp. They waited for the water to go down and it never did. They took this as a sign from God and decided to turn around and go back to Rio Verde.

Aldo recounted they wanted to establish a colony built on religion and wanted God's approval of their settlement. In a nearby town they found a place on a homestead at the fork of a creek to discuss their options. They did a devotional and prayer in which each could express his convictions and thoughts. The first six said yes. The seventh, the minister John, spoke of the advantages of Rio Verde compared to the advantages of their other options. With modern technology they could make the other land productive, but can't move out to the "doonies." His vision was that they could come to Rio Verde and build an established colony where they would have autonomy from military service, autonomy over education, and space to thrive as a community.

Preacher John Penner, the “prophetic visionary,” convinced the group that “the location of the town, future of the economy, all suggested this was the place for them.” Looking back, “they survived because of the location, not the land. Land is not as good as Mato Grosso and the rains don’t allow double cropping like in Mato Grosso, but it’s enough.” The role of dreams, visions, and omens have a strong foundation in Holdeman Mennonite history as stated in a study on the history and beliefs of Holdeman Mennonites, “The validity of revelations, dreams, and visions seems to have been of considerable importance both to John Holdeman and to many of his followers... Visions frequently solved a particular problem when adequate “light” was not forthcoming from their study of the Scriptures” (C. R. Hiebert 1971, 394).

The last two opposed Rio Verde. They got up and, “with watery eyes and trembling voices, expressed opposition.” They wanted cultura (fertile soil), but stated that everything indicates that Rio Verde was the place to go, ceding that “God’s finger is on Rio Verde.” So, all nine agreed to Rio Verde. In 1969 they went to the owner, signed a contract and went to Annapolis, then home. They signed the contracts on a Thursday, by Monday, when they were already in the United States, the Brazilian government had changed the laws behind foreign ownership and they needed approval from the Instituto Nacional de Colonização e Reforma Agrária (INCRA). Two of them organized a new sale and eight decided to buy again. They bought 6,000 hectares for \$20,000. One buyer eventually backed out.

In 1968 there were two Holdeman Mennonites in Annapolis. In 1969 two more came to Rio Verde and in November of 1969 three more families came. In October of 1970 two more families came down, and then every year thereafter “one or two families” would come to Rio Verde per year until the 1990s when migration slowed. About half went back. In Brazil they gained exemption from military service and public schools, though they still have to fight for the

school separation.

After recounting the early tour and decision to settle in Rio Verde, Aldo shifted his narration to describe the threats to the Rio Verde colony. An auto accident in 1973 almost sent the colonists back to the United States. He described the accident:

There was a long hill, paved, to Goiania. A car pulled out in front of them, they pulled to the side, but the car also pulled to the side at the same time and they crashed head on. Two died, one survived. Some took it as a sign they should leave, two of their leaders were dead. They took them to a Goiania's hospital. One was dead at the accident, another had serious brain damage and died at the hospital. The survivor went back to Ohio.

According to Clarence Hiebert, the accident mobilized the Brazilian community which attended the settlement's first funeral in solidarity and support of the community and that Mennonites saw the loss of two men was by the spreading of the gospel through the presence of the surrounding Brazilian community (C. J. Dyck and Martin 1990).

The community also struggled with members who found life in rural Goiás difficult. "Many continued to go back...Land brought a lot of people down and many found success quickly...They successfully established the church, school, community, everything, but [those who returned] continue to insist on being "Americanized." Aldo's son added "Those that insist [on being 'Americanized'] often do go back." Later, a few Mennonites went to Curitiba, Mato Grosso in search of better land, but "because there was no church or community and they are a very community-centered people," they could not last. Instead of coming back to Rio Verde they went back to the United States. "It's like a cooperative," Aldo's son told me, "built around religion."

I met Charles Funk through his son, Wilson Funk. He is an affable man, quick to joke, and a gifted storyteller with a tendency to tell and re-tell stories of his childhood. His son introduced me to Charles and his wife at their farm and we had spoken a few times before he

took me for a pickup ride around the community to retell his memories of crisis, migration, and settlement. Charles Funk was born in California, always believed in the “go west young man” ideal and enjoys the challenges and the idea of “progress.” Before coming to Goiás he did logging, dirt work, some farming. He calls himself a pioneer. Early on, they stayed because they were “too poor to leave.”

Charles’s father-in-law was among the first group that came down to scout land, he was a preacher in Georgia. Television in the 1960s was becoming a bigger presence and was being used in classrooms regularly, according to Charles, and his father-in-law felt this was a threat to the community. “There is some good on television, but it’s outweighed by the bad, violence, crime, they’re detrimental...So it’s not worth eating all the hay to get to the grain.” He added that over 18 years of television influence can, over time, overcome the church influence on a young person, encourage them that certain behaviors are normal.

The original Articles of Confession restrict “fleshly lusts” including “saloons and places of destruction” (Church of God in Christ, Mennonite 1896) but more recent writing clarify encounters with worldly influences,

The church and the world are distinctly separate institutions with different desires, goals, and accomplishments. Christians are not to be conformed to the world. God has set forth a clear standard of righteousness, which must not be compromised by worldly dress, amusements, or other worldly attractions. Entertainment provided by movies, musical instruments, radio, television, and the improper use of the internet detract from the sanctity and simplicity of one’s spiritual life in Christ and should be avoided” (Church of God in Christ, Mennonite 2018).

Holdeman Mennonite communities continue to struggle with strict limitations on television, photography, and internet use; particularly when internet use may be necessary for commodity market information or photography is necessary to document construction work for clients or government bureaucrats (Huber 2015). Charles and his father-in-law weren’t opposed

to television as technology, but as something that both brought unwelcome and perhaps evil influence into their world and distracted youth from positive influences of the community and church. This loss of control to worldly influences threatened their social reproduction.

From Charles' recounting of his father-in-law's experience, the group came out in 1968 and chose to stay in Rio Verde because of exemptions from educational curriculum standards and perceived safety. After arriving, they asked some questions about the area, particularly if schools could be independent. Officials confirmed that they could operate their own schools. Guaranteed this measure of autonomy, his father-in-law was further impressed by an experience in the streets of Rio Verde. "They saw a pretty girl walking alone in the street late at night, asked the mayor about this and the mayor said it was his daughter. Asked if she felt safe, said that in Georgia they'd expect a pretty girl in the street late at night to be raped, but she seemed to not be worried, the mayor explained that she was safe because of their justice." Meaning that "They would kill anybody that did something like that." He reminded me then that he's a pacifist because Mennonites believe in non-resistance, but that he (Charles) thinks this idea of justice works better than jail. "Jail is not so bad for a lot of people and not much of a deterrent. Not long ago a member of their church was sentenced to twenty-one years for hiring a person to murder a preacher." He implied here that the member deserved worse than jail time.

In 1972 Charles bought 960 acres of Goiás farmland for \$0.50/acre. Though the family still owns 260 acres, they had sold the rest primarily over the years. Reflecting on this later, Wilson claimed they would have \$200,000,000 profit if they could sell the 10,000 acres today.

Cultural Crisis and Frontier Expansion

19th Century Goiás was a frontier land with little engagement with the Brazilian state or

the global market. The primary economic activity was extensive cattle raising, requiring extensive land and very little labor (McCreery 2006). The Brazilian government later sought to integrate the region economically and politically into the Brazilian state by supporting agricultural modernization, improving the infrastructure, and encouraging urbanization (Arrais 2013; Estevam 2004). Mennonites' arrival in Goiás in the late 1960s preceded the intensification in governmental efforts to develop rural Goiás. This allowed Mennonites to buy up land cheaply, experiment with production strategies, and stake their land claim prior to an influx of primarily southern Brazilian farmers to the region.

From the narratives of Charles and Aldo, this opening up of land, growth of agricultural production, and economic growth in Goiás was not at the foreground of their decision to migrate. Charles remembers concerns about the ubiquity and influence of television and Aldo remembers concerns about military service and control and autonomy over education. For each, their main concerns were a growing sense of cultural crisis in the United States and a dire need to escape. Clearly agricultural land and infrastructure were considered in this decision, but only after the decision was made to seek out other lands and space for cultural reproduction.

That decision was informed by crisis in the United States and room to maneuver in Brazil - to reproduce a culturally-meaningful way of life - but also omens and spiritual moments that called to the travelers. Aldo remembers the flooded creek between Goiás and Mato Grosso acting as a heavenly sign that guided them back to Rio Verde despite the doubts of two of their compatriots. Again, their discussion in Rio Verde about whether to buy land or not is remembered not as a discussion of markets, prices, or even soil, but as the passionate dream of their spiritual guide who saw a future for the Mennonites in Rio Verde.

Mennonite's migration was not based on preservation alone. As we will see in further

chapters, much of their work in Goiás is to create new realities for themselves and for the surrounding community. Their migration began with socio-cultural crisis in the United States and threats to their educational system, their pacifism, and their norms and they found space to escape crisis and create a new reality for themselves in Goiás. Further, they engage with two forms of missionary work, though both are relatively passive forms of missionary work. First, as Holdeman Mennonites they are relatively unique within Anabaptism as evangelists. As such, they place importance on engaging with local communities and expressing an outward degree of openness. Compared to Mennonite communities in Paraguay or Bolivia that speak little Spanish, withdraw from local communities, institutions, and markets as much as possible, this community is much more open to active engagement with their surrounding communities and encourage locals to join their faith and community. Second, as early pioneers of soy production in the Cerrado (as they claim), they continue to take pride as demonstrators of how to make the land productive through careful and hard work.

The Mennonite colony provides an interesting insight into two processes. First, in their relation to situated and general agrarian and social crises in rural 20th century United States, they provide insight into how families and collectivities of farmers respond to agrarian change through resistance, creativity, and political maneuvers. They are neither able to evade and ignore agrarian change, nor are they totally subservient to the big battalions of change. Rather, they respond creatively to change in a way that transforms, produces, and re-produces practices, values, and relations. Second, through their long history of migration, work, and making lives in Brazil, they can shed light on the development of soy production in Brazil and the general development of the “soy boom” in South America. Their long and influential history of soy production in Goiás and their present situation there makes their story pertinent to the larger

history of soy production. At the same time their unique history, culture, and practices allow us to allow see the role of difference and the production and re-production of value, identity, and work within a single supposedly homogenous hyperspace (Soylandia) and a supposedly uniform technological package (the Brazil Model of soy production).

Further, conservative know-how is often seen, even in some interviews by Mennonites themselves, as backwards, but fits what Loewen calls horse and buggy genius - the way Mennonites contest and re-work the modern, or worldly world (Loewen 2016). Is it the preservation of cultural values at the cost of migration and change as proposed by Good-Gingrich and Priebisch, political futuring as proposed by Bottos, or something else entirely? I will argue, following the vitality approach to rural studies which shifts focus from preservation and resistance to creative, improvised action (Sherwood, Arce, and Paredes 2017) that Mennonites are working towards an ideal future existence, rather than preserving a fleeting present or restoring a lost past. They do this by working towards religious, cultural, and educational autonomy, maintaining and re-producing values and practices of work, and by framing the land as both a gift to be saved and a canvas for demonstrating hard, meaningful work.

Previous studies of the Rio Verde colony reflect the Holdeman Mennonite's simultaneous flight from the encroachment of government and socio-cultural change and pursuit of their own visions of an ideal community. Mennonites perceived an economic crisis, including rising cost of agricultural production, in the 1960s and cheap lands in Brazil and a good productive climate drew them to Brazil. Others reported that they migrated due to new mandates of public schooling, which included sex education, and limits on home-schooling and pursued autonomy over their educational curriculum in Brazil (Heloisa Augusta Brito de Mello and Silva 2011).

Clarence Hiebert explains that the Mennonites migrated to uphold strict enforcement of spiritual education and continue an agrarian livelihood and motivate by concerns related to moral corruption in public schools and high farmland values. Religious services began in 1969 outdoors, and later in a minister's home, then finally in a house of worship in 1972. The first baptisms of Americans were in 1970 and the first baptisms of Brazilians in 1974. They founded a printing press in 1974 which reaches hundreds of thousands of Brazilians and publishes gospel tracts and bibles and a literature center in Rio Verde in 1975. They built a church in Rio Verde and tried to build a church in Rio Verdinho (a neighboring settlement) , in 1976, which failed because of poor roads and driving distance, but res-started construction in 1987 and held their first services that year (C. J. Dyck and Martin 1990).

20th century Mennonites increasingly looked to Latin America for space to recreate their ideal community and society. Post-war old-order Mennonites migrated to Mexico and Paraguay to resist encroaching modernity, primarily in the form of strict regulations on home schooling curriculum (Loewen 2006). Others migrated to Belize to form agrarian communities. Many researchers saw paradox in their maintenance of traditional livelihoods and culture and concurrent adoption of modern agricultural practices. Loewen argues that Mennonites do not offer a counterpoint to the agrarian transformations of the 20th century (technification, urbanization, and financialization), but respond in many of the same ways as “worldly” farmers. Just as other American farmers respond to this great disjuncture by maintaining certain practices or values and transforming others, Mennonites adapt to societal changes within the greater context of their culture and theology.

Transformations in rural economies also challenged Holdeman communities' isolationism from worldly society, as argued by Hiebert, “With vocational pursuits expanding

beyond farming and many young men entering alternative service as conscientious objectors, the isolationism of rural life began to break and young people were forced into more interaction with the non-Holdeman community.” (C. R. Hiebert 1971, 458)

The frame of worldly “forces” and Mennonite “escape” can hide the active engendering of possible futures and ideal conditions of life. Old order Mennonites in Bolivia do not only reject symbols of modernity, but enact “visions of the future” through a sometimes contentious process. The community imagine and construct futures by managing deviance, conflict, and border maintenance (Bottos 2008). Similarly, Mennonites who migrated to Paraguay frame themselves as transformation agents who re-worked the “green hell” of the Paraguayan Chaco into a paradise through soy production (Stoesz and Neufeld 2008). In direct conflict with the concept of Mennonites as fleeing modernity, Mennonites in Paraguay take pride in their role of introducing industrial agriculture, developing the region, and converting indigenous Paraguayans to Mennonism.

Mennonite history, whether framed as the positive creation of the conditions of Mennonite lifestyles, culture, and theology or flight from encroaching modernity and worldliness, is a history of migration, diaspora, and flight. Yet, Loewen places the movement, mobility, and diaspora of North American Mennonites within agrarian histories of North America as a rural disjuncture (Loewen 2006). The cultural transformations of rural North America in the 20th Century - rural to urban flight, the influx of capital and markets, and changing social norms - led to changes within Mennonite communities in terms of changing gender roles, changing acceptance of political or economic engagement with worldliness, and shifting weight on theological practices. While many Mennonite communities adapted and changed, some Old Order Mennonite groups opted instead to migrate further in search of space,

autonomy, and the conditions for social reproduction. In acting to preserve cultural practices and beliefs, they initiated processes of change as well - distancing themselves and defining themselves in opposition to worldliness and other Mennonite groups with whom they disagreed, Old Order Mennonites abroad often entrenched themselves and their separation became more adamant. In order to preserve their culture, they migrated, and migration led to cultural change (Good-Gingrich and Preibisch 2010). It's this slow and integrated process of cultural change, happening simultaneously and inter-connectedly in Mennonite society and rural North America that came together in the migration of Mennonites to Brazil.

Family farmers continuing agrarian traditions...by migrating to Bahia

Farm journal magazines in the late 1990s and early 2000s presented Brazil as the new center of soy production and a land of unrivaled productivity, beneficial climate, and inexpensive labor with the only drawback being a lack of infrastructure. Further, for politicians in Brasilia and both local and foreign agro-industrialists, the Cerrado of Brazil represented a wasteland waiting to be developed: land that could be purchased in massive tracts for pennies. The common narrative in farm journals, and often expressed by transnational farmers still, was the inevitability of Brazil overtaking the U.S. in soy production once the Cerrado reached its full potential. Alongside narratives of farm crisis in the United States, Brazil became an ideal site to reproduce not only farming histories, but histories of migration and settling barren wastelands. The imaginary world of the Cerrado, for migrant farmers, was a wild, untamed, and neglected space ready to be made productive. It represented an opportunity to continue farming, migration, and pioneer histories as well as a chance to turn a profit. This opportunity clashed starkly with the perceived stagnation of the U.S. agricultural sector.

The 1980s farm crisis was characterized by increasingly heavy debt loads, decapitalization of agriculture, and low commodity prices (Buttel 1989). The debt load of the US farm sector nearly doubled from 1972 to 1982 (Buttel 1989) and debt/asset ratios skyrocketed in the mid-1980s (USDA Economic Research Service 2016) as debt increased and farm assets such as land and machinery lost value. Farmland value in Iowa, Illinois, Nebraska, Indiana, Ohio, and Minnesota decreased by more than 39% from 1981-85. Reduced inflation and rising interest rates further compounded the high debt burden and declining asset value of US farmers (Buttel 1989).

Farm financial stress led to bank foreclosures on farms throughout the Midwest. The liberal lending policies of the 1970s Farmers Home Administration (FHA) abruptly ended in the 1980s as the administration tightened lending and substantially raised interest rates. Faced with low crop prices and high interest rates in the early 1980s, many farmers took out mortgages on their farms through FHA, the lender of last resort. Continued farm financial stress coupled with stricter enforcement of loan repayment led to a rash of foreclosures. Kathryn Dudley recounts how one family, The Porters, descended from the prosperity and security they experienced during the 1970s. Rising interest rates and poor harvests in 1982 and 1983 led them to take out a new loan to cover seeds and inputs in 1984. The loan consolidated their new debt with the mortgage on their farm. Over the years, their interest rates climbed: from an initial six percent, to 11 percent in 1984, then to eighteen and nineteen percent in 1985. With weekly debt payments reaching an untenable \$1000, they turned to the FHA as a last resort to alleviate their debt. The Porters were able to continue farming, barely breaking even, but they did so under the strict supervision of the FHA, who required approval for all seed, fertilizer, and pesticide purchases (Dudley 2002).

Many families were not as fortunate as the Porters. Farm foreclosures became the sites of

not only economic insolvency, but also personal and community trauma. Farm sales auctioned away farmers' means of production alongside relics of family farming traditions. Communities fractured as foreclosed farmers blamed predatory banks, and surviving farmers blamed their neighbors' lack of frugality. In the worst of cases, farmers took their own lives (Dudley 2002).

“Farm loss” meant the loss of a desired occupation, farm property, steady income, and even a home. While the farm crisis did not force a mass exodus of farmers (Buttel 1989), it did redefine the work, values, and relations of farm families as farmers changed management styles, became part-time workers, and engaged with government farm support (Barlett 1993). Many farm women also left farm work and household work behind in favor of part time or full time wage labor which provided stable income and health insurance; they joked about supporting their husbands' “farming habits” (Thanks to Glenda Ofstehage for this insight).

The current farm crisis, characterized by financialization, has similarly deepened the role of the market in rural life. On its face, the U.S. agricultural economy is strong for family farmers. Ninety-six percent of US farm entities are family farms and their production accounts for eighty-seven percent of US crop production by value (MacDonald, Korb, and Hoppe 2013). However, the loosely defined “family farm,” “any farm where the majority of the [agricultural] business is owned by the operator and individuals related to the operator, including relatives who do not live with the operator,” (Hoppe 2014, 56) belies the vast difference in small, medium, and large-scale farms. The US agricultural sector had a net income of \$118 billion in 2011, and large and very large-scale family farms accounted for 35% of the value of production while accounting for only 2% of total farms. Midsize family farms accounted for 5.7% of farms and 24.8% of value of production and small-scale, sales-based farms accounted for 31.5% of farms and only 11.9% of value of production (Hoppe 2014). Small-scale farmers are facing great challenges, and this is

particularly true for young and beginning farmers. Like all farmers, they face the everyday agronomic difficulties of weather, soil health, and pest management, but their biggest concerns, as mentioned above, are capital, land access, and health care. The financialization of farming has limited their access to land and their opportunities to farm profitably or to farm at all.

Financialization, following Greta Krippner's definition, is "the tendency for profit making in the economy to occur increasingly through financial channels rather than through productive activities" (Krippner 2011, 4). In the context of agriculture financialization is experienced in terms of value, social relations, and practices, as well as profit accumulation. There is a tendency for capitalist value to take precedence over other forms of value (i.e. the preference of profit over land stewardship) and for a stronger tendency towards commodification of land and labor. We also see financialization of social relationships, in which the family is no longer the primary unit of production. In the face of increasing worries regarding the fate of Wall Street in the years leading up to the 2008 financial crisis, investors added agricultural land to their investment portfolios. Encouraged by high commodity prices and the perception that agricultural production was "safe," investors purchased land to lease out to farmer-renters or to operate themselves via hired farm managers and workers. Each strategy hinged on the principle that land operates simultaneously as a financial asset and a means of production, and therefore contributed to the historical financialization of land (Fairbairn 2014). Wall Street investments can negatively affect farming realities by disrupting farmland markets and raising floor prices for land. Moreover, land acquired as an investment can be securitized and sold on markets instantaneously for financial gain, decoupling a fixed asset from production and making it a liquid asset ready for rapid sale and resale (Fairbairn 2014).

Family farming has persisted in the US despite repeated crises and the current

financialization of agriculture. Self-exploitation by farmers (known in non-academic circles as belt tightening), the inherent riskiness of agriculture, and lack of short-term profit opportunities generally make farm production an unappealing investment, even while farmland purchase remains appealing to investors. They profit from farmland rent, while deferring the most severe risk to farmers until they can sell the land for speculative profit. Further, private farmland investors are re-framing the meaning of land, production, and farming:

Based upon the logic that small family farms are backward and inefficient, financial actors frame their activities as socially necessary investments that will modernize agriculture and solve the contemporary food crisis...they consider the concentration of family farms into larger industrial operations as a solution to Malthusian scarcity and a positive contribution to society (Isakson 2014, 768).

Although scholars and activists would reject the Malthusian framing of food production, preferring to focus on agribusiness, capital, and distribution as problems and pointing to agroecology and interconnectedness as solutions (Shiva 2016).

The impact of farmland financialization is not only to disrupt land markets and inflate land value, but to appropriate the meaning of land for finance. The crisis I describe as resulting from financialization of agriculture is twofold. First, it is an economic crisis in which beginning farmers with less access to capital have less access to farmland. Second, it is a cultural crisis in which farmland loses non-capitalist value (e.g. as a site for carrying out preferred occupation or as the location for producing desired food products) in favor of capitalist notions of value (e.g. efficiency, profitability, and modernity).

Even as the number of small farms grows, reversing a decades-long trend of small farm loss, farmland continues to be consolidated in the hands of a few large holders. The long-term decline of small farms reversed trends in the 2000s as the number of farms with 0-49 acres of cropland grew from 43.7 million in 2001 to 51.5 million in 2011. During the same time, mean

farm size shrank only from 235 acres per farm to 234 acres per farm. However, the share of farmland held by large farms rose sharply. The percentage of farmers with greater than 2000 acres of cropland grew from 1.7% to 2.2% and their share of US farmland grew from 24.1% to 34.3% (MacDonald, Korb, and Hoppe 2013). MacDonald and co-authors argue that higher rates of return, labor-saving technologies, and federal farm policies support farm consolidation while the growth of small farms is probably due to the growth of “lifestyle farmers” who farm small acreages but primarily generate income from off-farm work (MacDonald, Korb, and Hoppe 2013). Appropriation of land by large-scale farms limits land availability, especially to under-capitalized beginner farmers. Iowa farmers reported in 2012 that, despite average farmland values near \$9,000/acre, one of the main limits on purchasing land was not cost but availability (Duffy 2013).

Farmers experience financialization through decreasing land accessibility as well as changes in crop specialization, technology, and government policy. Farmers shift away from integrated crop-livestock operations and complex crop rotations towards simplified rotations and crop-livestock separation and specialization. Technology, including genetically modified seed and GPS-guided (Global Positioning System) machinery, and changes in farming practices (herbicide use and no-tillage) have controversial impacts on farmers and agro-ecologies, but reduce on-farm labor requirements, and thus encourage farmers to expand acreages and pursue off-farm work. Federal policies that inject capital into the farm sector and reduce financial risk for crop production may have also encouraged investment in farmland (MacDonald, Korb, and Hoppe 2013). While consolidating, family farms are taking on corporate business forms. Forty-three percent of US farm production in 2007 originated from corporate farms and farm partnerships, up from thirty-four percent in 1982 (O’Donoghue et al. 2011).

While farm consolidation and corporatization limit land availability, financialization of farmland has accelerated farmland value increases (Gunnoe 2014). Average farmland prices plummeted during the 1980s farm crisis and steadily risen since until reaching nearly \$2,000/acre in 2009 (Nickerson et al. 2012). Farmland values are considerably higher on highly productive land. Poor-quality land in Indiana, for example, sold for an average of \$5,750/acre in 2013 while top-quality land sold for an average of \$9,177/acre, up 19.1% from 2012 (Dobbins and Cook 2013). Iowa farmland registered a state average of \$8,296 in 2010. Iowan agricultural producers cited high commodity prices, low interest rates, cash/credit availability, and lack of land availability as key factors in the rising cost of land (Duffy 2013). Tellingly, rent-to-value ratios are falling and farmland value increases have exceeded increases in farm income (Nickerson et al. 2012). Rent-to-value indicates the time necessary for farmland rental to pay for the cost of land – a lower rent-to-value suggests that farmland value is not in line with income from agricultural production and thus, likely to be influenced by non-agricultural factors. In other words, farmland value is becoming priced beyond the reach of production farmers because it is increasingly unrelated to farm income.

Financialization of farming is not limited to farmland. Labor is increasingly hired out, minimized, and simplified. Financialization entails a distancing of food from farmer and land (Clapp 2014) as complex socio-physical systems are broken down into abstract financial components (e.g. wage labor, land price, commodity price, etc.). Changes in farming practices have reduced on-farm labor requirements: today, ninety-one percent of soy, seventy percent of cotton, and fifty-two percent of corn is herbicide tolerant, fifty-one percent of cotton and forty-nine percent of corn is insect-resistant (O'Donoghue et al. 2011). Each of these genetically modified traits reduces required labor. It also simplifies agricultural work and expertise. Farmers

have also shifted towards reduced tillage systems, which greatly reduce labor requirements (Landers 2001b).

From 1982 to 2007 operator labor fell by forty percent and hired labor fell by thirty percent (MacDonald, Korb, and Hoppe 2013). The operator and spouse conduct three-fifths of labor on “small farms,” one-half of labor on “medium-sized” farms, and eleven percent of labor on farms with sales exceeding \$1 million – the remainder being hired labor (MacDonald, Korb, and Hoppe 2013). In addition to farm labor, forty percent of US farmers worked off-farm for at least 200 days per working year, indeed many rely on this labor for financial survival (MacDonald, Korb, and Hoppe 2013).

In the U.S. farmers faced high farmland value, farm consolidation, which left little available land, and expensive startup costs. An Idaho farmer, who by the time of our interview had lost his Brazilian farm explained, “We had the choice between going broke in Idaho or going broke in Brazil.” Another family sold farmland in Northwest Iowa in 2001 for \$3100/acre and bought farmland of similar quality for \$800/acre in Western Bahia. With the rise in farmland prices farm size has also increased. In 1982 the average U.S. farm size was 589 acres, in 2007 it was 1,105 acres. The bloating of the U.S. farm can be credited to labor-saving technologies such as GMO seeds, reduced tillage, and larger equipment that allow farmers to manage larger acreages. Farms have also shifted towards specialization in which they focus on the production of fewer commodities (MacDonald, Korb, and Hoppe 2013). Accompanying this shift has been an increasing corporatization of U.S. farms as family farms become incorporated as limited liability corporations or publicly traded corporations (O’Donoghue et al. 2011). Together, farmland value increases and high rates of farm consolidation reduce land access.

Farm financialization is a trend of taking activities away from production and towards

financial channels. Inflated land prices better reflect their status as speculative assets than means of production. Family farms are re-organizing as corporations and partnerships in which farmers hire out farm labor in favor of office or off-farm work. Even values of agriculture are shifting as farmers' identity shifts from stewards of the land and community to agro-businessmen.

Financialization extends beyond the means by which people pursue profit – it affects the very meaning of work, land, and social relations. The reality of farming imagined by Wendell Berry includes a farm family unit conducting farm work while maintaining the land and community as stewards. This vision, mirroring what Berry calls the Unsettling of America (Berry 1977) is ceding as work become wage labor, land becomes a commodified, and value becomes simplified from many values to capitalist value.

Notwithstanding the agrarian crisis, many farmers sought a way out, without leaving farming altogether. Some have shifted to part-time farming and part-time wage labor to continue the rural lifestyle and gain access to a steady income and health insurance without the financial burden and risk of full-time farming. Others have pursued work in agricultural-related work, for example as a farm loan officer at a bank, an agronomist, or a rural extension agent. Farmers' response to migrate to Brazil, though extreme, is another example of this. In the following vignettes, I present the early contemplations of farming in Brazil, farmers' choice to leave, and the early work of settling in Brazil. These vignettes juxtapose agency against power, crisis against hope, and plans against improvisations to place this migration in personal and political economic contexts of agrarian change.

Jacob Miller's family is descended from a German farmer who migrated to Northwest Iowa in the nineteenth century; the family still owns the century farm. Jacob's father, Paul, inherited the homestead in the early 1970's, during the inflationary period and continued to

operate the farm until the 1990's. He now rents out the farm and manages his financial services and consulting business. Interested in other investment options, Paul took a Brazilian agricultural tour in 2001 and was promptly amazed by the extensive availability of flat land, although he reported that the soil was degraded and had a poor soil profile and was 'nothing but Cerrado.'

Jacob, then still in university, reported sleepless nights, saying,

I remember I couldn't sleep the first three nights cause I was so excited about it and you come from Iowa and you know, these 80 acre fields and you come down here [Bahia] and you see everyone has these 1,000 acre fields and you didn't even know stuff like that existed and you'd go home and explain it to people and they'd either think you're exaggerating or you know they don't believe you.

They witnessed the clearing of Cerrado and pasture, 'not much besides ten-foot trees and grassland' and were told that the site was near to a limestone quarry that would be useful for making the poor soils fertile. The two Iowans found the scope and scale impressive enough for them to suggest that someday Bahia could look like their home acreage. The tour operator informed them of the relatively cheap, but 'unskilled' labor force in the region and the family began to seriously consider purchasing land in Brazil.

In 2001, the family pulled together 'a few million [dollars]' through a private placement offering, a non-public funding stream, and the family purchased land from another North American in Western Bahia. A private placement offering requires that investors must have a prior relationship with the company, thus, the family attracted interest from business partners, nearby farmers, and other colleagues. They also raised capital by selling Iowa land at \$3100/acre and purchasing Bahian land at \$800/acre. Paul Miller's son Jacob packed his bags and, without speaking Portuguese or having much farming experience of his own, relocated to Brazil. The Miller family purchased land from a fellow North American near Luis Eduardo Magalhães, Bahia who then managed the farm. It became operational in 2004. After some management

issues in the early years, they turned the business over to Jacob. Today, the farm employs ninety farmworkers, sixty workers for the cotton gin, ten office employees, an agronomist, and an operations manager. They cultivate 4,000 hectares of soybeans, 3,000 hectares of cotton, and own 9,000 hectares of Cerrado in Legal Reserve. After not returning any profit to investors in the early years, they turned to a New York investment bank for expansion and “capitalization,” soon after the economic crisis hit and the fund was spent. They then turned to a London agricultural investment company seeking to invest \$250 million in production agriculture. The company bought out the farm’s partners and later grouped the investment with other agricultural investments and went public. At the time of research, Paul was Chief Executive Officer of the company, Jacob was Chief Operating Officer, and they were both board members, while a London agricultural investment company is the sole shareholder. And now...

The Carter family came to Brazil in 1972 after Caleb Carter sold the Indiana farm to become a missionary in São Paulo and Paraná. His son Kurt stayed in Brazil until 1977 when, drawn by an interest in farming, he moved back to Indiana to work on his grandfather’s farm and attend university. After ten years in Indiana, Caleb asked Kurt to leave the Indiana farm for a few years to help out with the expanding missionary organization. Kurt departed Indiana with his wife and ten-month-old son Brad and worked in the missionary’s accounting department. This work provided experience with Brazilian business practices and international money transfers that would later prove invaluable. After seven years working for the missionary, the young family moved to central Brazil to fill a perceived ‘spiritual burden for farmers in central Brazil [Mato Grosso], [where] there’s no church, or bible study or anything’ and also as a means of re-connecting with agricultural production. According to Kurt’s son Brad Carter, and current manager on the family farm, ‘my parents made the decision from that standpoint to go to central

Brazil and agriculture was a little bit of a secondary question. They had to do something to be there in the community.’

As a way of financing this mission, and re-engaging with the agrarian life, Kurt courted like-minded investors, driven by missionary objectives as well as capital accumulation, to begin a soybean farm in Mato Grosso – some investors are also missionaries and many are farmers. The farm grew slowly and the family witnessed, and implicitly contributed to, the tremendous growth of the region, going from having ‘nothing, no bank or phone lines’ to producing 1,000,000 metric tons of soy annually. The family continued to do missionary work and grow the farm until 2001 when they perceived an economic and spiritual opportunity in the North of Brazil. Land prices were rising in Mato Grosso while prices in Roraima remained low. Roraima also had extensive infrastructure and expected market opportunities with Venezuela. They sold the Mato Grosso farm for forty percent over their expected market price. However, the move came with difficulties. Land prices in Roraima at the time that the family decided to move (2001) were forty reais, then increased to 100 reais by 2003, and then rose by another 800 reais in the next eighteen months. To make this turn of events worse, poor weather conditions in Roraima placed a stress on farming, as I will discuss below.

Ian Hanson grew up on a large family farm operated by his father, uncle, and grandfather and he ‘never had any doubt he was going to farm.’ He was studying business at a state university when, drawn by press coverage on the soy boom and personal connections to tour operators, his father and uncle went on a short agricultural tour in Brazil’s Cerrado. Months later they went on a second, longer tour. Ian’s father, John, and uncle saw Brazil as a means of acquiring more land to expand and maintain the family farm as well as provide more on-farm work opportunities to the wider family. Ian, on the other hand, saw it as a means of starting to

farm straight out of college without heavy capital investment to buy land in the Midwest or waiting to take a more central role in the family farm. He also wanted to farm without depending on gifts of land and machinery from the family.

The Hanson family purchased 4,400 acres in 2001, not including Legal Reserve, for a tenth of the price of Midwest farmland. Unlike most US farmers in Brazil, the Hansons self-funded their move to Brazil using capital from their Midwest farm. Their purchased land was cleared, but not yet completely ‘developed.’ At the time Ian spoke no Portuguese, and had relatively poor knowledge of the local agro-ecological conditions. Through the years he has learned the language informally and developed a cropping rotation that is less focused on soy and more dedicated to cotton – a rotation that more closely resembles that of Brazilian producers in the region. At the time of research the farm had 30,000 acres of production land, 4,000 of which was cleared by the business, the remainder was cleared previous to being purchased. These 30,000 acres are in a rotation of corn, soy, and cotton, with the relative mix of the three crops changing year to year with the changes in commodity markets. In addition to their own land, they manage a sizeable acreage for a US investment firm.

Dennis Foster is a fourth-generation farmer in Illinois and began farming on his own in 1979. He “worked [his] butt off to make fifty dollars an acre” on corn and soybean farming 160 acres and since he quit farming in Illinois in 2000 farming has gotten even more competitive and profits are much lower. In the 2000s he began to transition from farming towards real estate, specifically farmland sales. He visited Brazil on an Illinois farmer leadership program in 1998, then again in 2003. He noted that Brazil was expanding rapidly and consultants were saying that in a year or two they would out-produce the U.S., although he later complained, “they still say this.” While fact finding he met a couple in Tocantins, Brazil who was interested in selling, he

bought and opened up a test plot soon after, in 2004. Tocantins also drew his interest for its relative lack of American farmers compared to Bahia. He found the culture of the U.S. farming community of Bahia distasteful.

The test plot yielded well enough to encourage him to purchase a 1,010-hectare farm the next year with financial support from a small group of investors. As of 2012, Dennis farmed 650 hectares, of which nearly 550 hectares were planted to soybeans, and rented 700 hectares, of which 660 hectares were planted to soybeans. Dennis and his agronomist also managed 280 hectares and he and his investors had plans to add 1800 hectares to their operation, though since this time they have decided to sell the farm. For Dennis, Brazil offered an opportunity to make economic profit, but also become involved again in farming. In the United States, farms of 100-249 acres, including Dennis' original 160 acre farm, made an average profit of 1.2% on corn production and lost an average of 0.03% on soy production in 2013, far behind larger farms (MacDonald, Korb, and Hoppe 2013), however cheaper land and labor prices, as well as access to capital, allowed him to profitably farm in Tocantins.

Leon Oster owned a small farm in Idaho until realizing that he could not make a living from his 600-acre edible bean and sugar beet farm in the United States and wanted to build something for his children. After four consecutive years of financial loss on the Idaho farm, Leon went on an agricultural tour of Bahia, Brazil, found impressive farming opportunities and farming scale, sold his home acreage, and purchased a 2,300-acre farm near Luis Eduardo Magalhães in 2007.

Less cautiously and slowly than Dennis, Leon began farming soon after arriving in Brazil, though he later regretted his fast pace of farm purchase, clearing, and planting. Another farmer blamed Leon's difficulties on intentional obstruction by another U.S. farmer in the area,

who dragged his feet in delivering purchased machinery. Disputes of this nature are not uncommon. Difficulties with paperwork, securing farm machinery, and weather delayed his first year's planting beyond an acceptable growing year length and soon after starting the farm Leon went bankrupt and had to return to the United States. Though he does not own a farm today, he hopes to either purchase a farm or engage in farming as a farm worker in order to return to agricultural work. Leon, more so even than Dennis, is driven by an interest in the farming livelihood. His choice when facing bankruptcy in Idaho was not between going bankrupt or finding non-farm work, it was between going bankrupt farming in Idaho and possibly going bankrupt farming in Bahia. As he recounts his early visits to Brazil, he was not impressed by the rate of profit or economic risk, but rather the scale and the possibilities available to him to continue farming.

Farmer-investors got involved for a variety of reasons. Farmers see production agriculture as both a safe investment and one that makes sense to them; investing in Brazilian soy farms can provide them with insider information on the climate and market in Brazil; and, from producer magazines, Brazilian soy can appear to be an inevitable out-competitor of American soy and investing in it is seen as a way to ameliorate this loss .(Hecht and Mann 2008) In a Skype interview, an investor reported hearing and enjoying a farmer's investment presentation in Chicago and finding appeal in the honest and forthright communication style. He invested a small amount for multiple reasons: to stay informed about production costs and the production environment, to gain contacts with American and Brazilian farmers in Brazil, and to gain profit. Another investor, who I met by chance on a rural bus on his way back from an American's Mato Grosso farm where he works a couple times per year, also suggested farmers' investment presentations informed investment decisions. Speaking of one infamous farmer, he

scoffed, “he’s a smooth, sharp talker, [who] says you’d have to be stupid not to invest, with how good ag is in Brazil, how cheap land and labor are, there’s no downside.” A small town newspaper (Zippay 2003) reported the reasoning and process of another farmer-investor’s decision to become a “pioneer” in international farming. While doing missionary work in Brazil, the family had met an American farmer who operated a farm for profit, passion for farming, and access to Brazilian farmers for Christian evangelization. Encouraged by the farmer’s qualifications and Christian work ethic, and assured they would not “take down the rain forest for farms,” the family visited and then invested.

Farmers financed their migration through private placement (piecing together investors from neighboring farmers, business associates, and family), open calls for investors, or for those, who owned farmland, but perceived a need to “get big or get out,” the sale of farm land at high prices to be used as capital to invest in Brazilian land purchases (Ofstehage In Press). One call for a \$10 million investment framed the opportunity as:

The [redacted] Fund I, LP [Limited Partnership] provides investors with a vehicle to invest in U.S.-managed agriculture in Brazil. The Fund will utilize Brazil's attributes of affordable land and ideal agriculture conditions and the expertise and experience of a U.S. large farm operator and manager. Fund resources will be applied to land, management, operation, and the renting of machinery. The properties will be located in Western Bahia, Brazil ("investment territory") and will be managed and run on site.

For investors, it was an opportunity to invest for retirement in a productive asset that made sense to them, similar to the preference to invest in ethanol plants over Wall Street stocks. It also offered a chance to gain first-hand knowledge on markets and production in Brazil, which could be used to guide farming decisions on Midwestern farms. For farmers, seeking investors provided quick capital for farm purchases and development. However, in their shift from bank loans to fund production in the United States to private investments to fund production in Brazil, they also relinquished a measure of control as they now had to answer not only family, but also

stock holders (Ofstehage In Press)

A sense of crisis is present in all narratives – whether it is socio-ecological or spiritual. As we see in the Millers and Hanson’s narratives, the migration of US producers to Brazil cannot be disentangled from conditions of opportunity and threat in the United States. The Millers respond directly to the unprofitability of farming in the Midwest while the Hansons respond to a more complex situation in which it is not only profitability, but also a way of life that is threatened. In each case, the farm families are faced with a rupture with the past and an immediate call for response. Faced with the same rupture, farm families may opt to find wage labor in local towns as agronomists, farm loan agents, or extension agents. They choose instead to continue farming, but drastically alter the manner in which they farm, let alone the drastic change in place. The crisis narratives, in their own way, each touch on two subjects, the inability to access the means of production to farm and the inability to make profit from farming - and these are both related to each farmers expression of desires to farm although their ideas of what constitutes farming varies between them.

Socio-ecological Crisis and Soybean Frontier Expansion

The first experience for most North American farmers in Brazil regularly begins with an agricultural tour intended to confirm the whispers of farming opportunities in Brazil. Most soy tourists are driven by curiosity about the Brazilian soy industry and a desire to learn from Brazilian agronomic and business practices, others do use the tour experience to scout out land and infrastructure. Farmers’ tour experience highlight is often the sight of felling trees and extensive, productive land. The sight of felling trees may remind them of the clearing of native prairies in the Midwest and highlight the transition from wasteland to productivity occurring in

Brazil. Agricultural tours powerfully express the contrast between the US farming landscape and the Brazilian farming landscape. In Brazil, agro-tourists find large contiguous tracts of cheap land, native Cerrado to be converted, and large technologically advanced machinery.

The main objective for purchasing land in Bahia is mixed. Some do so to sustain the family farm, others to capture a seemingly ripe and easy profit, and in the Carters' exceptional case, to conduct missionary work. For most farmers, Brazil serves as a solution to the rising costs of production in the United States and the increasing difficulty of finding land for farm expansion. There is also a sense of adventurism – one farmer even reported that it felt like he was living in the pages of *National Geographic*. Here, farmers mirror the Mennonites' appreciation for positive and ill omens. These early experiences of seeing wide open, productive land for the taking was striking visually, but also in its sharp distinction to the smaller, divided parcels of land of their home counties that are either unavailable for sale or available only at high costs that would incur high debt.

While perceiving crisis in the U.S., farmers saw hope in the soy frontier. Here was a wide open space, not unlike what their predecessors are said to have witnessed in the Great Plains of the 19th Century. Several opening interviews with farmers began with a retelling of where the farmers' ancestors came from, where they settled, and made little mention of what existed prior to their arrival. The Cerrado, supported by government programs to incentivize deforestation and development in the Cerrado (G. Oliveira 2016), offered cheap land, cheap workers, and boundless opportunity. Many first experienced the Brazilian Cerrado on farm tours, some led by private consultants and tour operators and other operated by farmer leadership councils, in which they could witness the endless fields of soybeans, the clearing of Cerrado land for frontier expansion, and the growing city of Luis Eduardo Magalhães. An agricultural tour operator based

in Yankton, SD reported to me that the consensus favorite among farmer-tourists was the clearing of forest and savannah for land development. While farmers' first experience with Brazilian Cerrado was through agricultural tours, many later hired American agricultural consultants based in Western Bahia to identify pieces of land for sale and purchase; consultants supported the farmers' dreams of boundless and easy opportunity by emphasizing opportunity and minimizing climatic risks, environmental destruction, and the difficulty of starting a new farm. One consultant's website framed the potential as endless, stating "Brazil's frontier region is booming, and the boom is destined to continue long into the future. The potential of this vast and largely untapped area--the largest virgin land mass on earth--is beyond rational speculation" (Ag Brazil 2012). The Cerrado presented by farm tours was a terra nullius ripe for implementing soy production, leaving local communities and ecologies either invisible or portrayed as wastelands awaiting redemption.

The Cerrado was a natural fit for their endeavors. It is celebrated in farm journals and holds seemingly boundless promise. Whereas the Midwest is limited by high farmland prices, little available land for sale, and a seemingly endless march towards farm consolidation, the Cerrado is wide open, relatively cheap, and, compared to farm size in the U.S., unbounded.

The wide open fields that farmers find on tours and purchase to farm are products of a decade's long political-economic strategy. President Getulio Vargas' "March to the West" created the concrete airplane-shaped capital of Brasilia; it also created soy fields in the *Cerrado*, a tropical wooded Savannah in central Brazil. Similar to processes of populating and claiming Brazilian Amazonia and laying claim to "unproductive" Amazonia in Bolivia, public policies in the *Cerrado* incentivize soy production in order to populate and make productive territory where previously there was "nothing," according to many U.S. and Brazilian farmers in the region.

Amazonia and the Cerrado to its south have a dynamic relationship of taking and retaking land at their border as climate and weather patterns change. Their intertwined ecological history is matched by their similar soy production histories.

Incentivization of Cerrado production stands in distinction from soy production in Amazônia. Successful activism of Greenpeace and other NGOs has induced soybean importers to demand proof that soy does not originate in Amazonia. Strict government protection, industry watchdogs such as the Roundtable on Responsible Soy, and non-governmental organizations keep a vigilant eye on Amazonian production. Meanwhile, the Brazilian state has encouraged soy production in the Cerrado. Legal land reserves in Brazil require land-owners to set aside land. In *Cerrado* states farmers are required to set aside twenty to thirty-five percent of their land, depending on the state, while land within the Amazonian ecosystem are required to set aside 80%. Infrastructural improvements and government-funded agricultural research further induce farmers to make the *Cerrado* “productive” (Nehring 2016; G. Oliveira 2013). The incentivization of the Cerrado to soy farmland transformation, via legal land reserves and government incentives for Cerrado soy production has also pushed rural Bahian communities off of *gerais* (the commons) on which they depend for subsistence agriculture and ranching.

Brazilian government research into suitable seed varieties and soil management processes made soy production in the Cerrado possible and profitable, while government support programs induced farmers, primarily from the south of Brazil, to migrate to the northeast of Brazil. The late 1960s military government enacted an agrarian development project, POLOCENTRO (Programa de Desenvolvimento dos Cerrados), to incorporate the Cerrado into the national economy and support rural producers through funding for infrastructure development and agricultural research. Concurrently, the government provided loans for land purchases on

generous terms through the PROTERRA (Programa de Redistribuição da Terra) program (Jepson, Brannstrom, and Filippi 2010). U.S. soy farmers, as well as gauchos from Southern Brazil, found large contiguous tracts of land, low land prices, strong infrastructure, cheap labor, and reduced presence of environmentalism compared to Amazonia (Mondardo 2010).

Financing for US farms in Brazil often come through personal contacts, much in the way that investors for ethanol plants in the Midwest are often local farmers. For farmers who distrust the stock market or other investment funds, ethanol plants and international production groups organized into limited liability companies offer an expected return on investment, but also a measure of legibility as a less abstract, more personal and material investment. Nearly all US soy producers in Brazil form corporate bodies such as LLCs or corporations or are moving towards that model. This reflects the nature of large-scale production in Brazil as much as the changing landscape of family farm corporatization in the United States (MacDonald, Korb, and Hoppe 2013). Farm investments also mirror global trends of farm financialization (Fairbairn 2014) in which financial motives, markets, actors, and institutions take on a larger role in farm production and capitalization (Epstein 2005). Through the own-operate model of farm financialization, land is both a productive asset and a speculative one, meaning that while farmers do intend to profit annually from sales of their harvest, they also expect to sell their developed land at a profit (Fairbairn 2014).

Family farmers from the Midwest have purchased large tracts of land in the Brazilian Cerrado. However, this move was made only minimally as a proactive effort to accumulate profit. Farmers left the United States in response to a general agrarian crisis which made farming unprofitable, inaccessible, and insufficient as a livelihood. Their move to Brazil was motivated as much by profit seeking as by finding space to reproduce farming livelihoods and values of

farming. While perceiving crisis in the U.S., these farmers saw hope in the soy frontier. Here was a wide open space, not unlike what their great-grandparents witnessed in the Great Plains of the 19th Century. The Cerrado offered cheap land, cheap workers, and boundless opportunity.

Conclusion

The migration of Mennonites and Midwestern share several characteristics - both respond to socio-ecological crisis at home by turning to frontier expansion abroad; both found Brazil desirable for political policies (pro-extractivist policies, exemption from certain educational standards and military service), agricultural potential (land value, soil quality, land availability, favorable climate), and favorable economic potential; but both also appealed to affective moments as pivotal in their decision. Mennonites left the United States in response to the encroachment of modernity and worldliness as seen in the ubiquity and inescapability of the television, new educational requirements and standards, and feared military draft as well as unaffordable land prices. Midwestern family farmers primarily left the United States in response to doomed outlooks for American agriculture, with little available land for sale, high cost for available land, and a desire to avoid the pitfalls of extensive farm debt, they found cheap land and capital from investors to start farms in Brazil. The extractivist support from the Brazilian government and desire to populate the Cerrado provided support and their timing allowed them to purchase land cheaply, but take advantage of some local infrastructure. The Mennonites depended partially on passionate appeals from members of the search party in favor of settling Rio Verde and opposed as well as an omen of a flooding river to make their decision, while Midwestern family farmers recall sleepless nights, wide open fields, and seemingly boundless opportunity as they found in Brazil everything they had lacked in the United States.

This supports the propositions of Moore on ecological crisis and commodity frontier expansion, but details the dynamics of such a process and expands the notion of crisis. This is dependent not only on the economic pitfalls of established production regions, but also on desires of cultural reproduction, identity politics, and on affective experiences and personal connections and networks.

In both narratives we see the privilege to have the option to respond to crisis. For the Mennonite colony, the Brazilian government made sweeping exceptions for them from national laws. They were allowed to operate their own schools under minimal supervision or subjection to national standards and were exempted from military service. Besides this, they had the capital to purchase land in Brazil, even at relatively cheap prices. The Midwestern family farmers were far more privileged. Those who financed the move by courting financiers depended on family and friends, at least in the early years, for financing. Those who sold land to finance a migration depended on having land to sell. It is telling that they were able to respond at all to crisis in a way that avoided wage labor for themselves.

The two cases represent different crises and different responses. The United States in 1968 was a place without promise for Holdeman Mennonites. The military allowed a greater role for women, worrying their sensibilities of gender roles, and rumors of an obligatory military draft threatened their pacifistic theology. Community members fretted that educational autonomy over school curriculum was nearing an end, and with it control over the role of sex education and teaching of evolution in their schools. Cultural and social changes in the United States, and the television that transmitted them, threatened the preservation of cultural norms in Holdeman communities and the increasing price of farmland loomed over farmers. This is how Mennonites in Rio Verde, Goiás described their community's decision to seek out farmland in Brazil. It was

less an opportunity for change, growth, or profit than a way out of crisis. They defined this general crisis in terms of threats to their theology, culture, community, and livelihood. The Mennonites experience a cultural crisis in the United States in which changes in educational standards and the ubiquity of television threatened the reproduction of their community, the Vietnam War draft challenged their non-resistance principles, and farmland values made agrarian livelihoods difficult. They responded by finding space in Goiás with land for farming, autonomy over educational standards, and exemption from military service.

Family farmers in Bahia narrated their migration in a similar way. Farming in the United States in the late 20th Century and early 21st Century was expensive, unprofitable on a small scale, and limited by the unavailability of the most basic unit of agricultural production: land. Young farmers could not afford land, nor could they even locate enough land via sales or rent to make a living independent of family support. Those who had small tracts of land found it difficult to earn more than a basic living or faced the prospect of bankruptcy. Farmers described a landscape of high land prices, lack of available land, and a general concern that they could not thrive as farmers in the United States. Midwestern family farmers responded to a socio-ecological crisis of farming in which farmland became scarce and they faced a choice of leaving farming or leaving the United States - they chose to leave the United States and in so doing helped expand the commodity frontier of soybean production.

Mennonites and family farmers migrated in response to differentially perceived socio-cultural and socio-ecological crises, experienced a sense of hope via the Brazilian Cerrado, and their plans unfolded messily into improvisation. Their migrations demonstrate power and powerlessness, capital and culture, and crisis and hope.

CHAPTER 3

THE BRAZIL MODEL OF INDUSTRIAL SOY PRODUCTION, THE BRAZILIAN CERRADO, AND LANDSCAPES OF WASTE AND DEVELOPMENT

At the outset of my research I expected to find one of two scenarios in relation to transnational farmers land use in Brazil. First, that they brought with them the practices, values, and technologies of farming from the United States and implemented them. Or, second, that they adopted the Brazilian practices, values, and technologies and implemented that model. I found that neither of these scenarios was possible, as adaptation was necessary to produce soybeans in the Cerrado and preservation of some facets of earlier lives was inevitable as people hold on to what is natural or important to them. This finding is not surprising. What is more interesting is that I found that my construction of the problem missed the point. I had imagined a confrontation of two entities and a resolution of that conflict. What I found was that this relationship is better imagined as an encounter in which both transnational farmer and Cerrado were transformed in being together. This chapter addresses the farming practices, values, and narratives of transnational soy farmers to understand how they enacted transnational farms in relation with land, capital, public policy, and technology in Brazil. It asks, what emerges out of this encounter?

For proponents of productivist agricultural development, the Brazilian Cerrado is exemplar of the promise of agricultural science to convert a valueless wasteland to a global breadbasket. To Nelson Borlaug, father of the Green Revolution and Nobel Peace Prize winner, the Cerrado began as a land that could barely support an insignificant number of cattle aside

from a few streamside patches of fertile land.

Until 30 years ago, the Cerrado was sparsely inhabited and generally considered to have little value for agriculture. Some agriculture was practiced on strips of alluvial soils along the margins of streams, which were less acidic and where there had been an accumulation of nutrients. In addition, there was some cattle production although the natural savanna/brush flora characterized by poor digestibility and nutritive quality resulted in low carrying-capacity production. Today, a great agricultural revolution is under way in the Cerrado, the result of a long process of research and development that began more than 50 years ago (N. E. Borlaug and Dowsell 2003, 10).

For proponents, the Cerrado became, through advanced and intensive fertilization, newly developed hybrid seed varieties, and an emerging set of best agricultural practices, a tool for the reduction of global hunger in a growing world population and the economic lifeblood of the Cerrado region. In an edited volume on the Cerrado and sustainable agriculture (Hosono, da Rocha, and Hongo 2016), the President of the Japan International Cooperation Agency reminds the reader of the growing global population before writing that, “Brazil achieved an epoch-making breakthrough to become a net exporter of grain by converting barren land into one of the most productive agricultural areas in the world” (Akihiko Tanaka 2016, x). The volume goes on to argue that this “epoch-making breakthrough” converted the “barren land” (Hosono, da Rocha, and Hongo 2016, 6) of the Cerrado into not only a source of local employment and impetus to regional development, but even a major factor in national poverty reduction and reduction of global hunger. All this, with little environmental destruction and apparently little social displacement. The authors argue that the development of the Cerrado be “regarded as a sustainable development model” (Hosono, da Rocha, and Hongo 2016, 2).

The Economist has supported this position as well, praising the complex of business and farming practices that make up the Brazilian soy farming as the “miracle of the Cerrado.” The magazine celebrates the miracle of the Brazilian model for providing work, modernizing agriculture, increasing production, and feeding the growing world population, all with little

government support and no deforestation, stating that the Empresa Brasileira de Pesquisa Agropecuária (Embrapa)'s greatest achievement is in fact, "to turn the Cerrado green." The piece argues that this complex can be readily exported as a model for development in Africa (Economist 2010).

Meanwhile ecologists and agro-ecologists have critiqued this model as environmentally destructive of a fragile and highly endemic ecology and activists and researchers have critiqued the model as providing little local benefit at best and as endangering the health and livelihoods of local communities at worst. The Cerrado is a highly endemic tropical savannah with a diverse population of plants, birds, fishes, reptiles, insects, and amphibians. With only 2.2% of its land legally protected, nearly half of the Cerrado has been converted to agricultural use from 1970 to 2005 (Klink and Machado 2005). Environmental effects are concentrated in hotspots of agricultural development and contribute to the rapid decline of the Cerrado biome (Brannstrom et al. 2008).

Furthermore, land use changes in the Cerrado, even early in the historical process, have provoked the influx of "agents of modernization" (capitalized farmers, economic groups, and the State) and led to social and violent conflicts between local communities and newcomers (Diniz 1984). These conflicts, including poor working conditions for farm workers (da Silva Coutinho, Germani, and de Oliveira 2013) and dispossession of land from indigenous and peasant groups (V. E. L. Alves 2009), have continued into the present.

For Eduardo Gudynas, the Brazil Model of farming is indicative of great transformation of rural South America which entails a shift from integrated agricultural systems to monocultures, partial commodification of labor and agricultural products to strong commodification, and local-based to export-oriented production (Gudynas 2008), reflecting Karl

Polanyi's original "Great Transformation" and creation of fictitious commodities of land, labor, and money (Polanyi 1957). Genetically-modified seed, no-tillage farming, precision fertilizer and pesticide application, and cutting-edge farm machinery serve as a technological package while the farm itself is packaged as a hierarchically-organized and highly capitalized business in which the "classic image of poor farmers and rich ranchers is replaced by one of rural managers, most of them with university-level education, living in cities, and specialized in business management" (Gudynas 2008, 515). The transformation of business organization and practices is also reflected in a neoliberal hegemony in which large-scale soybean farmers come to see themselves as pioneers and heroes of market-oriented export agriculture and look to the market as legitimation of their work (Peine 2010). For detractors and proponents alike, the set of farming, business, and cultural practices of industrial soy production in Brazil constitutes a model to either be resisted or disseminated.

This model resembles a model proposed decades ago by South Dakota State agricultural engineers. In his discussion of the modern agricultural ideal, Wendell Berry discusses the "South Dakota State model" of farming (Berry 1977). Designed by South Dakota State University agricultural engineering students, the South Dakota State model is a vision, set in 2076, of an enclosed farming system with livestock housed in a fifteen story building and crops grown year round under plastic covers. Planting, tillage, and harvest would be conducted by machines. Pest control would be unnecessary due to the strict phytosanitary controls of the system. The enclosure would hold 600 cow-calf units, 2,500 feeder cattle, 500 dairy cattle, 2,500 sheep, 6,750 finishing hogs, 150 sows and litters, 1,000 turkeys, and 15,000 chickens. Seeding would be guided by underground magnets that would precisely place seeds at ideal spacing. Tillage, if needed, would be done using magnetic waves.

While praising the model for its proposed use of sustainable energy sources (solar energy and recycled wastes) and its aims to produce an abundance of food, Berry critiques two aspects of this proposal: a “a totally controlled agricultural environment” (Berry 1977, 70) and the lack of people. “Total human control is just as impossible now as it ever was,” (Berry 1977, 70) and “the necessary context of the model is the future...the qualifications of the present, of living, do not affect it, nor do the non-functional or the undesirable” (Berry 1977, 71). This level of control is not possible when working with soil, plants, weather, and people. Plants will react differently to being grown year-round under tarps than being grown under open sun for four months; pests will enter the enclosure by worker error, gaps in safeguards, or other means; and magnetic tillage might have unwanted effects.

In reference to the lack of people, Berry identifies that the model, as shown in an issue of *National Geographic*, has only one farmer, now named “manager” to be found “standing in the ‘bubble-topped control tower,’ presumably operating the whole farm by remote control” (Berry 1977, 73). Very few people will own this kind of farm, few would work on it, and those that do “will live remote from the farmland, divided from it by distance...by economics, by official structure” (Berry 1977, 74). The question, then is what happens to the people but also what is farming without people? Evidence from the expansion of large-scale, mechanized, managed farms in South America suggests that widespread social and community movements would oppose this operation if working conditions are poor, employment is sparse, little economic benefit materializes for local communities, land is made inaccessible, and environments are severely altered. Where opposition does not materialize, for example in cases of farm consolidation and land inaccessibility in the United States, rural-urban flight is accelerated and opposition between farmers grows as they compete for sparse farmland.

A third aspect of models which Berry does not address specifically, but seems to underlie his comments, is the significance of what is made invisible by models. The South Dakota State model erases people, contingency, and nature in its proposed techno-centric model. So, as agronomists, politicians, and economists call the Cerrado a barren wasteland, they make clear their opinions or ignorance of life in the Cerrado. Aside from agronomic and cultural parallels between the South Dakota State model and what I call the Brazil Model, the two models overlap in their conceptualizations of control and common good. Each presupposes a direct relationship between a set of agricultural practices and a desired social and agronomic outcome, absent of friction between the complex, sometimes chaotic, biological and chemical relations of agroecosystems and cultural practices of tillage, planting, harvesting, and so on. Additionally, proponents of each model envision panaceas for local economies and communities as well as an insignificant or positive impact on local ecologies.

Real world models are even being developed to showcase “modern” agriculture. The Chinese government, encouraged by the Governor of Iowa, has invited an Iowan farmer to develop a model Iowa farm in China to demonstrate ideal farming conditions to Chinese businesspersons, government bureaucrats, and rural farmers (Munson 2017a, 2017b). The resulting model farm is removed from its cultural, political, and ecological world and grafted onto a new situation. As narrated by the *Des Moines Register*, the farm had the air of a Hollywood premier.

The setting was a little surreal, especially by farm standards. Red velvety carpet covered the dirt, with 250 or so mostly Chinese dignitaries in suits seated in cloth-covered chairs — or even in leather recliners in the VIP tent. White-gloved assistants carefully positioned a water bottle in the same spot at every seat. Orchestral music blared as prelude, making the event feel all the more like an Olympic opening ceremony than a rustic farm party. The backdrop on stage showed the image of the Great Wall on one side and the Golden Gate Bridge on the other — one more sign of how this single Iowa farm is being leveraged for much more ambitious bridge-building. At the back of the open-air

seating area, 16 golden shovels festooned with red bows poked from a circle of fine brown dirt, with a foundation stone at the center (Munson 2017a).

We can see the use of models too in the efforts of the Rockefeller Foundation's attempts to "modernize" farming in Mexico, asking "could U.S. agricultural methods be transplanted in Mexico for the benefit of its farmers?" (Olsson 2017, 98). The agronomists, of course, found the transmission of models to be more complicated than that. As elaborated by hooks, rural communities are creative quiltworks of class, race, land, and belonging (hooks 2009) and simplifying out or erasing people, health, and race is a violent act. As models, these visions of the future lack on-the-ground situatedness. The purpose of this chapter is to situate this model via the experience of transnational farmers and their engagement with the Cerrado through farm work.

Development unfolds uneasily across social and physical landscapes. Socio-ecological difference gives friction to development, both supplying traction to the process of change and obstructing the process (Tsing 2011), evolving through socio-ecological encounters. Berry argues that the South Dakota State model is an attempt to impose control on rural ecologies and communities. Just the same, the Brazil Model is imagined as control and domination by capital, science, and the state over the Cerrado and its human and non-human inhabitants. This control, however, is always just out of reach and the generative (Bear et al. 2015) potential of things betray expectations. Even the powerful industry of oil extraction is not a predictable black box, but a contested and generative process, even if formidable (Appel 2012).

Soil, for example, has life beyond taxonomic classification and management prescriptions. Colombian soil scientists commonly refer to Amazonian soils as poor and unproductive due to its high acidity, defining it according to its potential for agricultural production. Indigenous communities, however, perceive the same soils as neither static, nor

powerless, nor even poor (Liebman and Peller 2017). Each collective, soil scientists and indigenous farming communities, engages with soil. For soil scientists, it is classified as poor soil and considered a deficient means of production in need of improvement. Indigenous farming communities consider an ongoing entanglement of human and non-human actors as something to be engaged with, but not necessarily improved. Progressive, productivist, and linear perspectives of soils fail to understand the roles of rest, relations with human and non-human actors, and the vitality of soil (de la Bellacasa 2015).

Following Bennett and de la Bellacasa, we can observe that soil has “thing-power” to not only resist human actions, but also to create new realities and possibilities (de la Bellacasa 2017; Bennett 2009). Soil has its own history marked by human interaction, non-human species interaction, and millennia of weathering, erosion, and soil creation. Soils, then do not exist as static, meaningless material, but as living, remembering things with histories and memories of destruction, growth, and encounters (Gordillo 2014; Kawa 2016). The thing-power of soil encounters ethics of soil conservation and relations with the soil (T. N. VanWinkle and Friedman 2017) and with pride and value of tillage practices (Strand, Arnould, and Press 2014).

Plants too exist with and become with humans in an iterative process (Kawa 2016; Raffles 2014). Besky and Padwe argue for a decentered approach to plants and territory as “becoming together” “emphasizes that territory is less a push-and-pull between differently empowered human and nonhuman “agents” than a profusion of meetings and intersections that can never be reduced to the behaviors of single species—some competitive, some cooperative, some short-lived, and some long-lasting.(Besky and Padwe 2016, 21). Haraway and others joke that the “Plantationocene,” not Capitalocene or Anthropocene, may be the best term to capture the current state of global affairs. “The plantation system depends on the relocation of the

generative units: plants, animals, microbes, people. The systematic practice of relocation for extraction is necessary to the plantation system... we need to call it the Plantationocene, forget the Capitalocene! [Laughter]" (Haraway et al. 2016, 557). Indeed, we need to move beyond the recognition that humans live in a multispecies world to take account of the competing and contentious ways humans live with, destroy, and control non-human species in the Anthropocene (Bocci Paolo 2017). This relocation of plants, among other things and people, is not a seamless grafting, but a process of translation and mutual becoming.

Through Bennett's "vibrant materiality" (Bennett 2009) I recognize the confederated agency of assemblages of things acting together. While human intentionality and action indeed play significant roles in the development/destruction of the Cerrado, these intentions and actions act *with* the Cerrado to create new realities. Along with vibrant things, I approach engagements between farmers and agrarian landscapes as meshworks (Ingold 2011), not models. Similar to Bennett's vibrant materiality, Ingold defines things as "gatherings of materials in movement" (Ingold 2012, 439). Things co-respond and become together in "continuous birth" (Ingold 2011). Development has come into being through planned actions, but also thwarted plans, improvisation, and engagements. Whereas a network is a set of interconnected points, a meshwork is "a tangled mesh of interwoven and complexly knotted strands" (Ingold 2011, 151). Ingold's "meshworks" (Ingold 2011) situates things in interwoven lines of constant action (with), becoming (with), and relation (with). I use this framework of vibrant materialism and meshworks to de-essentialize (Escobar 1999) industrial soy farming in the Cerrado. Along with de-essentializing the soy boom as a homogeneous thing, I de-center both the model of farming and the farmer to understand how practices are co-constructed by the Cerrado and how both farmer and land emerge as new beings with new trajectories.

It is this engagement between farmers, land, the state, and capital that I seek to address here. What is the relation between agricultural practices and local agroecosystems? How are practices transmitted to farmers? And how did farmers enact practices within the socio-ecological realities of their farms? Using ethnographic evidence, this chapter asks what is the Brazil Model of farming and how is it transmitted? I employ a framework of meshworks to analyze two migrant farming communities' encounters with the Brazil Model. In so doing I focus on the encounters between agro-ecosystems, farmers, and know-how across physical and social landscape. I frame these relationships as encounters and the phenomenon as a meshwork to capture the forward-looking trajectories and backward-looking histories of the entities and the openness of the interaction. While network analysis can capture the inter-relationship of entities as they engage in a project, meshworks allow us to consider where these entities are coming from and where they are going; potentiality and hope; and the dynamism of entities as they become new things together in interaction. My use of "encounter" recognizes that the multiple entities engaged with each other are not necessarily working within a network, but pursue different goals and ends as they touch upon each other. Thus, this chapter focuses not on the consequences of the Brazil Model, nor even on the effects of transnational farmers' agronomic practices, but on how the Cerrado and farmers co-respond as they move through time and uneasily become together. I argue, through empirical data, that the model itself excludes biotic, cultural, and chemical life and including these vibrant processes allows us to conceptualize two production meshworks which are defined by interactions and movements between soil, people, and soy. Cerrado soils, for example, were created by thousands of years of weathering and human interaction through fire-starting, due to this, today they have low pH and high aluminum content which calls for farmers to adopt new farming practices, farmers in turn define the

Cerrado as infertile and a wasteland, despite its ability to act as a global breadbasket.

Narratives of the migration of North American farmers to Brazil and their encounter with soy production in the Cerrado share elements of encounters with the Brazil Model, engagement with Cerrado land, and experiences of crisis and hope. However, the difference in their trajectories say as much about their experience as the intersections. They both engage with the Brazil Model of soy production, but they differ in their manner of doing so. They perceive Brazil as a way out of crisis but differ in their perception of crisis and in their sense of hope. They use capital to gain access to land, but their use and value of capital are different. In this dissertation I will seek out a deep understanding of transnational U.S. soy farmers via a comparative ethnographic study. I review their experience as distinct trajectories which converge and diverge across a set of engagements with land, capital, people, and soy.

Farmers develop practices suited to their local environment (González 2001) and in relation with identity and cultural politics (Minkoff-Zern 2012, 2018), and concepts of perception and belonging (O'Connell et al. 2017), rarely in strict accordance with prescribed best practices of agriculture, so it is no surprise that the Brazil Model is similarly messy.

Construction and Destruction of the Brazilian Cerrado

The maligned Cerrado, referred to as “infertile” by the kindest of writers and “wasteland” by the cruelest, has some of the oldest soils on Earth which soil scientists describe in oddly anthropomorphic terms. They write that, due to non-extreme soil and climate factors, “Once established, the Cerrado tends to maintain itself with more tenacity than other vegetation formations” (P. E. Motta, Curi, and Franzmeier 2002, 13). The earliest record of “Cerrado-type vegetation”, by analysis of plant pollen, dates to 32,000 YBP, while vegetation that closely

resembles present-day Cerrado occurred in 7,000 YBP in central Brazil and 10,000 YBP in northern Brazil (Ledru 2002, 47). This plant pollen analysis suggests an answer to a longstanding debate on the origins of the Cerrado. One camp has argued that the preponderance of fire-adapted species suggests human-induced origins. The other argues that the Cerrado predated human occupation and Cerrados formed naturally. The analysis concluded that both increased temperatures and human influence increased fire frequencies and created the soil and plant characteristics of the Cerrado (Ledru 2002).

Figure 5: Mapa de Solos de Goiás

(A. A. Silva and Castro n.d.)

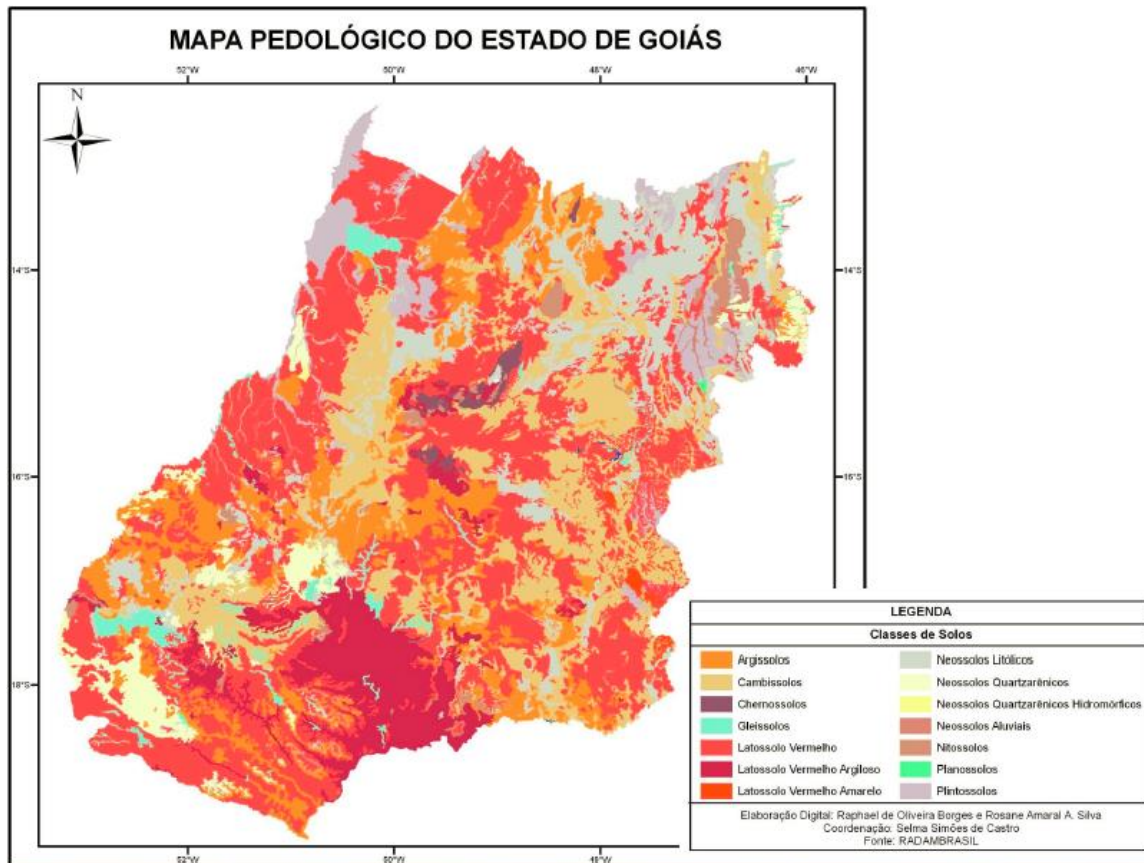
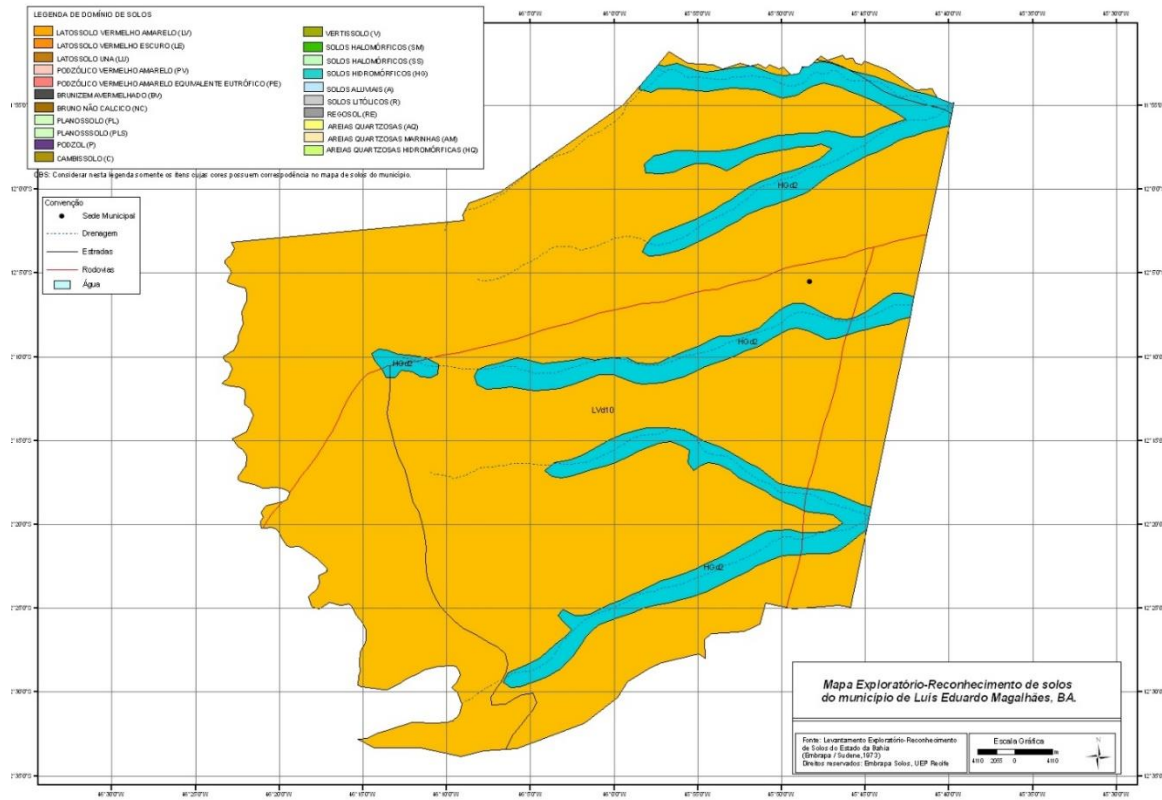


Figure 6: Mapa de Solos de Luis Eduardo Magalhães

(Embrapa n.d.)



The dominant soils of the Cerrado are latosols (oxisols in USDA soil taxonomy and Ferralsols in the World Reference Base for Soil Resources). Latosols are defined by Embrapa as soils in an advanced stage of weathering and “virtualmente destituídos” of primary and secondary minerals (Embrapa 2013, 93) (See Figures 5 and 6). Sano et al identify Latosols as the dominant soil profile in Goiás, particularly in the region around Rio Verde. They remark that latosols are suited for mechanization due to physical characteristics of the soil, have high water permeability, poor chemical characteristics, and are “apt for agribusiness” but care must be taken for latosols high in sand (Sano et al. 2007). They are generally well-drained soils and extremely deep, the topsoil rarely measures less than a meter, and there is little distinction between soil

layers. They are strongly acidic (Embrapa 2013). Latosols are formed by the removal of silica and bases by weathering. Generally, they are soils with “grandes problemas de fertilidade” (Sousa and Lobato 2004, 43). Limiting factors of latosols are low fertility, susceptibility to erosion, and low soil organic matter, Embrapa advises farmers to “correct” the soil with respect to acidity, Aluminum saturation, and low fertility, keep soil covered (especially at the beginning of the rainy season), and use conservation practices such as plantio direto (direct planting, zero tillage, or no-tillage) whenever possible (Sousa and Lobato 2004).

Deep-rooted plants contribute significantly to water availability in Cerrado ecosystems and the replacement of deep-rooted woody plants by exotic grasses and agricultural crops may change the biome’s hydrological cycle (R. S. Oliveira et al. 2005). Hunke et al find that land use intensification threatens the Cerrado’s future in terms of both agricultural productivity and ecosystem stability due to agro-chemical overuse, mineral leaching, groundwater contamination, and falling rainfall (Hunke et al. 2015). Furthermore, Batistella and Valladares find increased risk of soil erosion and degradation with the expansion of “modern” agriculture in the Cerrado (Batistella and Valladares 2009). Thousands of years of weathering have produced soils that make the Cerrado resilient to change and at the same time limited in agricultural use, and yet they are home to a global breadbasket.

Emergence of a Brazil Model

The Brazil Model, claimed by Emprapa agronomists, North Carolina State soil scientists, Brazilian farmers, and Mennonite farmers alike, emerged out of engagements between scientists, farmers, and the Cerrado. The “miracle of the Cerrado” is often attributed to two major breakthroughs: deriving soil management practices to coax production out of the “barren” land

and then developing hybrid soybean seeds to adapt to the climate of the Cerrado. (Nehring 2016). Embrapa played an essential role in the development of new soy varieties (Lopes et al. 2012).

Embrapa, the national agricultural research department, led this agricultural transformation in concert with developmentalist interests and the material conditions of the Cerrado to build upon Brazilian President Juscelino Kubitschek's determination to "rationalize agriculture" and extend the presence and visibility of the Brazilian state into the interior of Brazil (including the Cerrado and Amazonia (Kubitschek 1955; Nehring 2016). The government initiated POLOCENTRO to provide research and technical assistance for farming expansion in the Brazilian Cerrado (Inocêncio and Calaça 2011).

Cerrado soils have very low levels of Phosphorus and a low pH, associated with high levels of Aluminum toxicity (Kiihl and Calvo 2008). Researchers found that fertilizing with high levels of lime (CaCO_3) could "correct" the pH of the soils and, with high levels of Phosphorous fertilizers, drastically increase soil productivity. Inoculation of Cerrado soils with *Bradyrhizobium* allowed biological Nitrogen fixation by soybean plants to eliminate necessary Nitrogen fertilization (B. J. R. Alves, Boddey, and Urquiaga 2003). Further, no-tillage soy production (production without the use of field cultivation) became widely adopted by farmers to maintain soil moisture, reduce soil erosion, and also reduce production costs (Kiihl and Calvo 2008). John Landers, proponent of no tillage in Brazil finds the widespread use of the practice is due to farm tested and cost-effective technology, awareness of benefits, technical training, removal of serious soil physical and chemical constraints and problem weeds, availability of cover crop seeds, credit or small grants for small farmers, and enabling legislation for community management of micro-catchments (Landers 2001a, 1, 2001b). No-tillage farming in

the Cerrado has resulted in both increasing Carbon stocks in the soil (increased organic matter which aids in increasing water carrying-capacity among other things) and increasing soil microbial life (Green et al. 2007) compared to conventional tillage. While fertilization and tillage practices increased soil productivity, Brazilian soybean yields increased by 54kg/ha per year from 1984-2005 due primarily to improvements in hybrid seeds, developed for the low-latitudes and high acidity of the Cerrado and resistant to plant diseases and pests (de Almeida et al. 1999). More recently, Brazil has allowed the planting of GMO seeds and Monsanto's RoundUp Ready soybean seeds and Bt Cotton seeds have become commonplace (R. Motta 2016). This, along with no-tillage practices, has further encourage the use of pesticides as the primary form of pest management.

The Brazil Model has taken on these factors – high rates of fertilization and pesticide use, no-tillage practice, and hybrid and GMO seeds – as common agronomic practices. However, Gudynas characterizes this mode of production by its cultural practices as much as its agronomic practices (Gudynas 2008). This includes: a shift from farmers of land to managers of farms, a full commodification of the production process, and the use of technologically-advanced agriculture (GPS-guided planting, harvest, spraying, etc.).

The transmission and of this Brazil Model and the relation between the model and its implementation have remained relatively unexamined. Recent work has shown heterogeneity within Brazilian soy production, suggesting that farm scale and farming styles produce difference in practices (Mier y Terán Giménez Cacho 2016; Ofstehage 2016, 2018a; Vennet, Schneider, and Dessen 2016; Wesz Junior 2014). Explorations of the heterogeneity within the model perhaps overlook or mask the possibility that difference and life play more prominent roles than models. By focusing on models, transformation, and new ruralities, we privilege

capitalcentric practices and modes and lose sight of the role of life. Life stands in the way of the inaction of models.

In the following sections I explore two encounters with the Cerrado and the Brazil Model - the first from the perspective of Holdeman Mennonites in Rio Verde and the second from Midwestern farmers in Luis Eduardo Magalhães. I frame them as encounters to focus on the process of learning to farm in the Cerrado in relation with its soils, rainfall, and species. I approach each case through time to recognize that this is an ever-evolving relationship. I address the Mennonite colony as a community because this is how they narrated their engagement with the Cerrado while I describe the community of Midwestern family farmers through family and career histories because this is how they perceive their experience. This difference in how they understand their own histories is significant and should be reflected in their narrations.

Encounter #1: Mennonites and the Cerrado

In 1968 a small group of Holdeman Mennonite men traveled to rural Brazil to scout for fertile, cheap farmland. The men were representatives of Mennonite communities in the United States who had become fearful of social change. Rumors of a military draft threatened their pacifist theology. Changes in educational curriculum standards suggested they would have to teach human evolution and sex education in their classrooms. Even the ubiquitous television brought uncensored “worldliness” into their homes and along with it, an implied threat to their cultural reproduction. In Rio Verde, Goiás they didn’t find the most fertile land, nor the cheapest, but guided by an auspicious omen in the form of a flooded roadway that blocked their tour route, emotional and spiritual appeals by members of the group, and strong local infrastructure, they chose Rio Verde as the site of their new colony.

The community purchased 10,000 hectares of Cerrado land that, until then, had been considered too worthless even for pastureland. Locals, according to interviews with Mennonites, thought the newcomers had been fools, as Charles Funk recounted the difficult early years to me at his son's kitchen table. Charles' family had 960 hectares at the start. Unlike some other Anabaptists, and reflecting changes from communal to household property following Mennonite migration to North America (Longhofer 1986), Holdeman Mennonites hold land as individual property, "every man for himself," Charles told me. At that time of the land purchase there were 3 very large owners – their descendants are still major landowners in the area and "quite rich." Brazilians, according to Charles, said the land wasn't worth anything but pasture for anteaters and armadillos. "They're gonna die of hunger," Charles remembered their neighbor's attitude, but "they were happy to sell so that they wouldn't have to pay taxes on the land anymore."

With a laugh, Charles' son Wilson remembered locals thinking they were taking advantage of the Mennonites, but then got offended when the Mennonites did well. One Brazilian farmer, he remembered, was so offended he wouldn't talk to the Mennonites, but he later became an admirer. Charles' interrupted to add that the Mennonites were "leading things" (meaning that they had the most productive yields and most profitable farms) until 1975 when Southern Brazilians started to settle the area.

According to Charles, the area's climate was amenable, but the land required amendments to be made productive, "The good lord picked us up and set us down in Promised Land." In the first years they added a large amount of lime and Nitrogen fertilizer to plant rice. The members from Georgia had learned to use lime and fertilizer on Georgian Red Clay soils, which are similar taxonomically to latosols. Georgia Red Clay is an ultisol (agrisols in Brazilian taxonomy), similarly weathered and infertile, but less acidic than Cerrado soils (USDA, Natural

Resources Service 1999). They added soil amendments and planted rice which grew well, only Charles complained, “you can’t make a living on rice.” They tried to grow corn but it came up with yellow streaks and only grew to knee-height before dying. They added more lime and fertilizer and the corn grew better.

The Mennonites arrival in Rio Verde pre-dated the founding of Embrapa. Embrapa is credited for developing new plant varieties and soil fertilization strategies which farmers used to convert the Cerrado to farmland. Charles, Wilson, and other Mennonites claim some credit for developing the practices that converted the formerly “worthless” Cerrado into a productive global breadbasket and have a good deal of pride in their role. With little research on how to make Cerrado soils “productive,” farmers in the region considered the Mennonite farmland to be unsuitable even for pasture. Nonetheless, Mennonites quickly learned to cultivate rice by applying high amounts of fertilizer to improve the soil fertility and lime to raise the soil pH. They credit their “seriousness” for knowing to apply high amounts of fertilizer and knowledge of acidic Georgian soils for knowing to apply lime. Two to three years after planting rice, which while not profitable, added valuable organic material to the soil, they began to successfully plant soy. Soon, local farmers began to visit the Mennonite colony, first out of disbelief and later to learn Mennonite farming practices.

Charles gives some credit to newly developed hybrid seeds which increased yields as well. But, according to him, they were only “passed up” years later when a Brazilian government program, PRODECER, provided rural credit to farmers to expand into the Cerrado. Gauchos from the south of Brazil used this credit, and the practices developed by Mennonites, to expand soy production in Goiás. The Holland Dutch came a bit later, “by hook and by crook” (they overpaid for land) and the Dutch and Gauchos “got ahead” of Mennonites in technology after

1975. Along with the pride in pioneering industrial soy production in the region, Charles expressed resentment at the perceived regression of the colony in comparison with neighboring farmers, implying often that the Mennonites succeeded through hard work and know how, but others did so using capital, technology, and leaning heavily on government support (which the Mennonites declined). As the region filled up land went from \$2.50 to \$600 per acre to \$4-5,000 per acre today.

As Charles recounted, locals thought Mennonites weren't better farmers, just bigger liars, they were mad about the land deal and getting beat out. Decent farming practices, primarily the intensive use of fertilization and beginning their rotation with rice and transitioning later to soy, brought them up, but later on they "got passed up" by southern Brazilians who brought with them more advanced technology and more capital. Mennonites "aren't so materialistic" and therefore more conservative in their pursuit of profit and progress. In his words, "they stole a march on us."

In the 1970s and 1980s the Mennonite colony provided a model of farming that was widely copied. By the early 2000s, the relationship between local Brazilian farmers and Mennonites changed. Brazilian farmers had adopted no-tillage in order to reduce production costs and to preserve soil moisture and organic content. Mennonites continued to use tillage. Brazilians adopted improved seed varieties, while Mennonites continued to save seed for planting from year to year. Brazilians began to implement a safrinha (a short-season crop of corn after soybeans) to increase profits and increase soil organic matter, Mennonites continued to plant soy only. Throughout the last fifteen years this has begun to change as the colony has almost wholly adopted no-tillage, genetically-modified seeds, and use of safrinha. Although the rainfall amount in Goiás is sufficient for a safrinha, most Mennonites did not adopt this practice

until the 1990s and some still have not adopted it. Charles, one Mennonite who does not implement safrinha recognizes that Brazilian farmers have shown it to be profitable but argued that it seems “a bit like cheating” to squeeze in a second crop, and not necessary. Mennonites have also begun to engage more with field research demonstrations to understand new seed varieties and farming methods.

Holdeman Mennonites model what Roessingh and Boersma call “selective modernization” (Roessingh and Boersma 2011), adopting aspects of modern agriculture that they find supportive of their community, theology, and economy, and forsaking those that are not deemed supportive. Thus, they found that working with the Cerrado land required certain agronomic practices of fertilization and crop rotation, then later found that supporting their household economy required lowering production costs using GMO seeds, no-tillage, and for some safrinha.

While Mennonite theology creates ample space for an environmentally-sustainable land ethic (Redekop 2000), Loewen found that in practice their often intimate relationship with the land did not translate to sustainable practice. Research on Mennonite farming practices “may not exonerate Mennonites and other Anabaptist groups of environmental mismanagement, but they will reveal a culture deeply and significantly inter-related with the land. The absence of a deep-plough or animal-draft culture did not mean that Mennonites took land for granted or that they ignored a religiously and historically informed ethic of land stewardship (Loewen 2005, 161–162). A dissertation by Jenkins previewed this finding, identifying a disequilibrium between “historic Mennonite ideology/values (proscription) and their farming practice (prescription) which reduced difference between Mennonite and worldly farmers, and exposed Mennonite farmers to the same circumstances of farm financial crisis in the 1980s (Jenkins 1986, 228).

Chatting by his tractor, Peter Claasen, Aldo's brother explained his idea of a good farmer with reference to yield, clean fields, and materialism. Good farmers, for him, are judged by "having few weeds, managing weeds, having clean machinery, that kind of thing, having a high yield" The idea of a good farmer, 'depends on your outlook on life.' He offers his brother-in-law as demonstration of what a good farmer is not. His brother-in-law "had new machinery, lots of land and disparages others who drive around in old machinery and have less land...But that's not the most important thing." He remembered a deacon visiting from Kansas who explained that in Kansas asking a neighbor their yield was like asking how much money they had in their bank account, but in Rio Verde "they're free about it, tell everyone. Same with head of cattle." For Peter, a good farmer is able to attain a high yield, keep fields clean, and keep machinery clean, but does not get caught up in the material aspects of new machinery, land accumulation, and petty rivalries with neighbors. A good farmer is open with information about yields and livestock numbers, but refrains from bragging about them or disparaging others.

Peter went on to complain about the high costs of chemicals – fungicides and insecticides, mentioning several pests by their Portuguese names. "Chemical costs are extensive", he remarks, "one of the biggest limiting factors." He tied increasing chemical costs to the arrival of soybean rust with drastically increased their need to spray fungicides. He struggled to remember when rust arrived, I suggested it was around 2000, and his nephew Herbert confirmed that.

Curious about how GMO crops affected this increasing pesticide cost, I asked, to mostly blank stares. I rephrased to say "RoundUp Ready" instead of "GMO" and Peter, Aldo, and Herbert nodded their heads. RoundUp, which allows farmers to spray RoundUp (glyphosate) on soybeans to kill broadleaf plants but does not affect the soybean plant was controversial in the

colony when it arrived, but it was quickly taken up by all the farmers, “it’s basically 100% [adoption] now.” We talked about the chemical treadmill, of the phenomena of pesticide use begetting more pesticide use and higher pest pressure, and he responded that they’re going to have to plant non RoundUp Ready beans this year because the resistance is getting too high - plants like “wandering Jew” (he apologizes for the name, but says that’s what they call it) have gained resistance to RoundUp. He brought up Bt, another kind of genetically-modified seed to say it’s also expensive and also has resistance. He complained about the cost of all GMO seeds, but continues to use them. Herbert added that one reason they can’t escape the chemical treadmill is that weeds are just part of it, “you can’t get out.” He related this to God’s expulsion of Adam and Eve from Eden in which they were sent to toil the land where thorns and thistles grew.

In a conversation with Charles Funk he noted that they started doing no-till in about 2000, they claim to be the first family to adopt it (others also claimed this title), but “they weren’t really sure what they were doing.” They learned how to do it from Brazilian neighbors and continued with the practice until they quit farming in 2005. A lot of people in the community resist any change, he reflected, they “stick with the tried and true” no matter. “People were disking up their fields just a few years ago,” he says dismissively. They started implementing Safrinha around 1993, but had little success with it, “we were never great farmers.” They always had “dirty” fields because of the weeds they brought in using custom farming – often spray-resistant weeds. They would always have some great patches “to brag about,” but their average yield was always lower than their neighbors. They went bankrupt shortly after, around the time rust showed up in the area.

I asked him about RoundUp and he noted that everybody adopted it around 2003. The

problem, in his opinion, was that buyers didn't accept it for a long time, or when they did it came with a payment reduction because of concerns about how GMO soybeans would sell on the global market. He also complained about the technology fee you'd pay for the seed. Also, at that time a lot of people saved seed, this was around 2002-03, and so people were worried about replanting resistant seeds and not being able to get rid of volunteers. Very few people here still save seeds, or stopped just recently in the last three years.

I asked him about controversy around RoundUp and he said "Oh yes, people worried about having it in their foods or playing God, but it never got so bad here, Brazilians were never that worried about it." His son Wilson worried at the time primarily about saved seeds. They always used to buy seed until they stopped in 2003 (later his wife corrects him it was 2005-06).

The people on the colony, Wilson suggested, "are very conservative, adopt practices and technology, several years after Brazilians." In the past they didn't try to learn or understand agriculture. Wilson was the first to bring out an agronomist for agronomic advice, he hired them for advice and soon others did it too, now people are more likely to hire a crop advisor. They've gotten more involved in meetings and crop demonstrations. "People had serious problems (when rust arrived) but didn't understand why and didn't know until it was too late." Brazilians found out in real time and responded quickly. Now people hire advisors, go to meetings, "they don't mind asking anymore."

Farmers on the Mennonite colony have not adopted all aspects of the "great transformation," suggesting that the package of social, agronomic, and financial practices of farming is negotiable. While they incorporate genetically modified seeds, no-tillage, and safrinha, they do not use advanced farming technology such as GPS-guided tractors, nor have they fully embraced full commodification of labor. Many insisted in interviews that the most

important thing for farming is to provide for the family. Not only is the use of advanced technology and hired workers often regarded as unnecessary luxuries, they are frequently regarded as leading to a loss of humility for farmers – something that colony members find antagonistic to community life. Further, use of technology and hired labor is frequently used to separate “real farmers” from farm managers. Their engagement with the Cerrado is a negotiation of the material realities of the Cerrado, the agricultural know-hows of Mennonite farmers, and the acceptability of certain practices to the theology of the community.

Mennonites adapted farming practices developed for Georgian clay soils to the clay, arid soils of the Cerrado using lime, high fertilization rates, and a rotation progression from rice to corn to soybeans. Using these methods they converted what locals had used for pasture to productive soy production farmland. Southern Brazilians later came to the area and learned practices from Mennonites and Embrapa. Later, Brazilian farmers and agronomists developed practices to conserve the soil and production costs and to maximize production - safrinha, hybrid seed, and no-till. Due to what they call their conservative nature, they only adopted these practices once they saw them as necessary to their economic survival in the Cerrado. Thus, their practices were the product of local agro-ecologies, farming know-hows, advanced agronomic research, economics, and theology - an assemblage that emerged in relation with the land, scientists, other farmers, religion, and their past lives. These results support Drew’s thesis on the connection between faith and ecological encounters (Drew 2017), but also there are spaces of disequilibrium as noted by Jenkins (Jenkins 1986).

Encounter #2: Family farmers and the Cerrado

Midwestern family farmers migrated to Brazil in two phases. The first group migrated in

the 1980s in response to farm financial stress in the United States. The second migrated in the early 2000s in search of cheaper land. Both groups do not specifically name things like adventurism, but often recall having a sense of excitement about the idea of going to the agricultural frontier of Brazil and building – often explicitly connecting this to their family’s migration histories from Northern Europe to the Great Plains. These groups primarily settled in Western Bahia, which at the time was an active site of frontier expansion. They often state that they chose Bahia due to its cheap land, good infrastructure, and cheap labor, but the guidance of a tour guide who directed farmers to Bahia and the presence of a growing expat community also attracted farmers to the area (Ofstehage 2017a, 2017b).

In sharp contrast to the Mennonite colony, family farmers in Bahia arrived in Bahia at a time that farmers and agronomy researchers had generally come to a consensus regarding the “best practices” of soy farming in the Cerrado. These include a cotton-soy-corn rotation, use of genetically-modified seed, and no-tillage. They generally embraced these practices, with few exceptions and their reliance on Brazilian farm workers and managers considerably eased their transition. In contrast to the small Mennonite farms (30-160 hectares) which employ few laborers, North American family farmers manage farms of 10,000 hectares or more and employ 50-100 workers. With this business model, they depend on Brazilian know-how and know-what to implement farming practices.

I often asked farmers what their most difficult challenge was with farming in Brazil. All responded that their main challenge was governmental regulations: either labor regulations, environmental regulations, or both. Agricultural practices, on the other hand, were easy. One farmer recounted thinking the biggest challenge of farming would be learning plant names, insect names, learning best practices, “but that’s easy. You have crop scouts, agronomists, managers,

and farmworkers that know everything here and tell you all you need to know, know how to operate machinery. The most important thing is city work – paperwork, legalese, culture. You need a good scout, a couple tractors, a couple good tractor drivers, and everything else is easy.”

Dennis Foster’s explanation of differences in farming practices in Brazil and the United States were particularly informative on the process of decision making related to farm practices.

We’re between years, we still have corn in the field for various reasons but the soybeans are harvested. The seasons are delineated by the rainfall because it’s a tropical region. The temperatures are always there but it’s the rainfall. The rain stops around March, April, May and then it keeps tapering off. By the 1st of May, for 4 weeks it didn’t rain at all. Almost arid dry from then until August September when it starts to go the other way slowly increasing. All around Brazil they have different seasons. In Mato Grosso they start in August to plant soybeans but we don’t start till November, it’s all based on the, when the rain starts. The patterns are generated out of the Amazon. Start planting around the beginning of November, November 15. Crop grows then till March when you harvest. Besides the corn that is to be harvested we have 1800 acres of pasture, rented, to turn into cropland. For the next 3 months we’ll be disking, applying lime. Applying a little lime to other fields too. Have to reapply some lime every year. We do soil samples every year. Last year we applied a small amount of lime. When you start out you add 2 tons for 1500 acres. Last year a ton and a half, probably need to add another ton to some areas. Takes 2 years of liming to bring it up. Need to probably reapply every 3rd or 5th year. Depends on the soil sampling. In the US we sample every 2 to 5 years, but in Tocantins we do it more frequently, needs to be taken care of.

He went on to explain tillage and seed selection:

[We did] direct seeding after first year, no till everything except the new farm. In that region no-till is necessary because temperature is so hot, ranges from 90 to 105, usually 95. Leave organic matter on soil to protect soil. Usually use RoundUp Ready. Some varieties that aren’t GMO are developed locally and sometimes we use that. My agronomist doesn’t like RoundUp Ready, thinks there is a yield drag, just like how people reacted locally [in Illinois]. This is probably real because the fact that the breeding process takes a while so you’re using older genes... We have terraces on most of our farm, but they are farmable terraces. Trying to bring them back down. We have terraces on most of our farms to some extent. It’s a lot more difficult to farm there. The level of technology that is applied at the agronomic level is much higher in terms of just balancing the soil, micronutrients, and then we’re doing multiple applications of chemical, of fungicide. We’re doing foliar fertilization. We’re doing stuff that here the top end guys are experimenting with and it’s a fact of business in Brazil that you have to do it. And it’s, it depends on where you’re at. If you’re in the south of Brazil where they’ve been farming for 50 years it’s more so than here. Here [in Tocantins] the soils are so weak that you have to spoon-feed the soil. You can’t afford to just throw fertilizer on

it. And then you're dealing with issues of fungicide so it's a lot more complicated to farm there.

Portuguese is not among the challenges of farming in Brazil for Jacob Miller, he has acquired more than a working knowledge of the language. Neither is it the actual process of farming, he hired consultants and learned more appropriate agricultural techniques (e.g. implementing no-till farming systems on some of his fields and adopting a cropping rotation that better suits the soils and the crops). Rather, the most difficult element it is the process of making land 'productive.' 'The clearing,' he said, 'is really the easy part, it's the development that's the hard part, it takes a lot of time, it's an expensive process.' Once workers clear the land one adds lime, gypsum, and phosphorous to increase the pH level of the soil, thereafter one continues to build the soil with mineral amendments and no-tillage farming. Development of the land, he said, "takes years, it's not even a matter of just adding fertilizer, it takes years to build up the fertility and soils and, and build 'em up to the point where you produce optimal yields so we kinda learned about that the hard way."

The Miller's faced challenges in both disease pressure management and producing cotton. Although fungicides are rarely used in Iowa, in Bahia they typically apply insecticides and fungicides to soybean five times annually. For cotton they applied seventeen rounds of insecticides and fungicides, using forty-one different insecticides. Cotton production was entirely new to the Millers and required a large capital investment for machinery and for a cotton gin, although not all farmers in Bahia own their own gin.

Of the North Americans I interviewed, the Carters had the greatest difficulties with the actual production process. In their first year in Roraima floods prevented most of their planting and the little that they could plant was seeded too late to fully mature. Adding to this difficulty, a fifteen-day drought during a key moment in the maturation process prevented seeds from fully

filling out. For what was planted, they harvested 60% of the expected yield. The year after, the family again experienced a series of untimely dry periods and heavy rain periods, which prevented planting of some acres, forced them to plant later than hoped, or forced them to replant hundreds of acres. At the time of research they were expecting a 50% of expected yield. This experience has led the Carters to consider moving to a more corporate-style of farm organization and to consider merger options in order to reduce personal financial risk.

When asked about the region prior to their settlement, Ian responded that “before we came, there was nothing.” It was unproductive, had no decent roads, and no real infrastructure. Part of the effect of their conversion from Cerrado to farmland was to contribute to the agrarian and economic development of the region. The Hansons developed the land by adding large amounts of lime and gypsum the first year and then supplementing with phosphate, potash, magnesium, nitrogen, and lime thereafter.

Although production does not even register in Ian’s list of top challenges of producing soy in Brazil, the regulations on land use do (along with uncertainty, lying, capital, weather, theft, and culture). He states that American farms that fail either fail to adjust to the culture of Brazil (saying that Brazilians will say what they think you want to hear) and do not come with enough capital. His main complaints fall on environmental protections (saving land that is worthless), worker protections (seen as unnecessary and inefficient), and foreign land laws. He continued:

They have regulations on everything, labor regulations, I think we are actually trying to stay within the laws, but the laws are so detailed that, they can literally come in and measure your living space and be really anal about that. But we provide housing, and during the week, a lot of times, they’ll spend the whole week on the farm. We provide transportation, if they need transportation out to the farm we provide a car and we provide meals, three meals a day for them, and all of that is required. And then there’s tons of laws in terms of workers ... We have an accountant in São Paulo that does all that, to make sure we’re staying in line with the regulations.

Among the most intrusive protections, according to Ian and other farmers, is that all cotton and soybean plants must be removed from agricultural fields by September 1st of every year; the cost of infraction is a \$15,000 fine. This law is meant to reduce disease, pest, and fungal pressure on crops by removing hosts from the agro-ecology, but Ian sees this as a prominent example of government intrusion on farmers' day-to-day operations. Seen as less intrusive, but no less costly is the required 20% Cerrado Legal Reserve in Bahia, intended to preserve native Cerrado land.

The farmers' decision to not incorporate no-till fully is based partially on their on-the-ground observations, as characterized in the following fieldnote excerpt:

He points out to me that the cotton, still standing in a no-till field being planted into soy, has lateral roots. The tap root is not able to penetrate compacted no-till soils and so it goes sideways. A problem in dry years when it needs to reach deeper for moisture, I add it's also a problem when there is a lot of rain, falling stands. He says they're not planning on planting cotton into no-till anymore. Later in the day he shows me an addition to the planter. It is a set of spinning shovels that dig up the ground behind the wheels. It's a new thing they're trying, never used it before, but they hope it can reduce compaction. He thinks, kicking at the dirt that it should help.

Farmers' ideals of farming were technocentric and dismissive of Cerrado biodiversity. One farmer responded to my question about local wildlife that there was none, although during that trip we saw a maned wolf, a crane, owls, and what American farmers call emus (rhea). With another farmer after a rain shower I mentioned off-handedly that I like the smell of the rain, as it had just rained. Then we drive through a haze of chemical. He said, "I love the smell of 2-4-D, it means the weeds are dead."

Midwestern family farmers managed soil fertilization, pests, and climate using local workers and expertise - even with technically more difficult cotton fields. As one farmer said, "It's a dream to farm in Brazil, the difficult side is in the city." By this, he means seed selection,

tillage, harvesting, and all the agronomic aspects of farming are simple and easy, but the challenging issues correspond with business in town and the government officials there - complying with worker and environmental protections and foreign land laws; managing investors and business partners; and negotiating with workers and agricultural input dealers.

Landscape

While farmers engage with the Cerrado via farm practices, they also engage in a kind of “war of position” with it (Gramsci 1996; Holmes and Castañeda 2016). North Americans’ productivist agrarian visions of Cerrado land reflect this statement below, which in turn reflects the research and work of Philip Warnken (Warnken 1999):

The cerrado area has been defined as a wasteland with stunted twisted trees. The cerrados are not rainforests. The soils of the cerrado are highly acidic, saturated with aluminum, deficient in phosphorous and have low water-holding capacity. Early on, many felt that the land in the cerrado could not be cultivated. Contrary to popular belief, the soils in the cerrados proved to be deep and well drained with excellent physical characteristics suitable for mechanized crop production. About 234 million acres or 46 percent of the cerrados are suitable for large-scale crop production. By comparison, the U.S. produces about 75 mil. acres of soybeans. It is clear that there is a potential for large increases in crop production in the cerrados (McVey, Baumel, and Wisner 2000).

North Americans in Brazil repeat the narrative of bringing unproductive land into the productive economic sphere, a narrative that is common among soy producers in Bahia and other soy frontier regions of Brazil and Bolivia. They also repeat the narrative that is alluded to in the quote above, that the Cerrado is neither nature worth preserving (as the Amazon is), nor is it fertile land demanding to produce. US farmers in the Brazilian Cerrado re-configure meanings of the land as modern or traditional, mirroring agrarian change elsewhere in Brazil (Sérgio Sauer 2012), and echoing agro-industrialist discourse in the soy frontier of lowland Bolivia where low-biomass forests are less valued (despite high ecological value) and are ‘easily, and relatively

cheaply, cleared with heavy machinery' (Hecht 2005, 278).

Land is framed in formal frames of expertise and knowledge (J. E. Goldstein 2016; S. B. Pritchard, Wolf, and Wolford 2016) to cast certain landscapes as desirable and others as worthless, a modernization model that experts have worked to export from the Brazilian Cerrado to the contested "frontier" of Eastern Colombia (Jenss 2017). A productivist framing of land that reflects framing of land in the Northern Great Plains of South Dakota (Gewertz and Errington 2017).

The construction of the Cerrado and other 'non-productive' lands mirrors statements by Brazilian immigrant soy producers in Paraguay (Albuquerque 2005) and Brazilian farmers in Bolivia (Valdivia 2010) and reflects what Gidwany and Reddy refer to as the corollary of value – waste. Opening up production frontiers, settling where there was 'nothing,' and juxtaposing the Cerrado against Amazonia constructs non-productive land as waste - as the other of capitalist value. This in turn lends legitimacy and even heroism to large-scale soy production as well as forging a link to European ancestors who opened up the plains by homesteading. This perception of the Cerrado stands in contrast to local perceptions and use of the Cerrado (Bizerril 2004; Welch 2014).

For Midwestern farmers, Mennonites, and Brazilian farmers, the Cerrado is a wasteland, neither productive nor pristine, which, through hard work, can be made productive. The experience does differ between those who purchased native Cerrado land and those who purchased cleared or developed land. Those who cleared native land often expressed special pride in that action. This development of land is also frequently tied to the so-called development of Luis Eduardo Magalhães as seen in the towns' growth, the expansion of infrastructure, and lowered unemployment. The town has grown from little more than a truck stop in the early

1990s to the “Capital of Agribusiness” and a clean and orderly refuge for Southern Brazilian Gaúchos in Bahia (Brannstrom and Brandao 2012). The Cerrado itself is frequently seen as something that does not require protection. It is something that should be excluded from discussion of wildlife conservation, despite the rich biodiversity that is present.

Although the ‘development’ of land can take years and farmers are under threat of crop pests, drought, and flooding, few farmers include production practices among the most difficult aspects of producing soybeans in Brazil. As I will show in the following section, the nature of agricultural work shifts from work in the field to work in the office. Farm work by US farmers is generally limited to decisions on which seed variety to plant, whether to use no-tillage, or when to spray a field – and these decisions are made with support from farm managers and agronomists. Farmers have experience with soy production and general farm management, but depend on local expertise, at least in their early years in Brazil, for producing cotton and responding to higher pest pressure in Brazil. While North Americans perceive the land as a wasteland in need of development, they are able to outsource the management of the land to local agronomists and farm managers, leaving the management of workers as the primary difficulty. The Cerrado acts as a “landscape of power” in which tensions of power and materiality in which “Development projects are often imposed on communities in the name of modernization or poverty reduction, fashioning local subjects as technically and morally deficient and thus to blame for their own misery and lack” (Powell 2017, 11–12).

Paul Miller recounted the dreamlike soy landscape of Brazil and contrasted it with the infertility of the land and stunted, valueless natural landscape. After he and his son came back from their farm tour he was really impressed with the “size and scale that was potentially possible there.” Brazil seemingly had the necessary resources for industrial soy production in the

area. “In Western Bahia there is an escarpment, like a wall. The wall creates consistent rains, very flat land, and drainage from rivers. [The Brazilian farmers they saw on the tour] were clearing trees and brush. It was Cerrado, pasture and shrubs. Not much besides 10 feet trees, grassland.” Paul noted that there was a nearby limestone quarry for pH amendments and that without amendments, the “corn would grow a foot tall and die” because “there was no fertility” and the “soil profile goes down 100 feet deep.” To change the pH they started off with four ton lime application.

He shifted our conversation from the infertility of the soil to his impressions of the scope, which he called “impressive.” You could “see the horizon in all four directions” and see “guys (farms) as far as you can see.” Based on these impressions he predicted that someday Brazilian agriculture was going to “look like what we have here” (in Iowa) once they have proper infrastructure, but that “with the technology that we have it was going to happen a lot quicker.”

These ideas remain today and are shared by the Mennonites in Rio Verde. On one trip with Washington Dyck we traveled through his land which had recently been cleared of native Cerrado and planted into millet. He noted in passing, offhandedly that he had no permit to cut it down. In the next breath he noted that the millet was coming in okay, but that he was worried about plant diseases and wasn’t satisfied with the soil preparation he’d done. The Cerrado itself had little value to Washington as did the environmental protections that regulate forest removal. This cavalier attitude towards regulations was more common among Mennonites than Midwestern family farmers, perhaps because they were under less surveillance than the larger farms or perhaps because of their attitudes towards the legitimacy of government power, but both groups were dismissive of the need for these protections.

Considering this valuation of the Cerrado in distinction with the value of farmland,

farmers label environmental protection efforts as backwards and silly. After asking about the challenges of farming in Brazil, Dennis Foster quickly listed regulations as the most difficult aspect, particularly the environmental protections known as the “forest bill.” He explained that the forest bill sets up a forest reserve of 35% in Tocantins and 20% in Bahia (and Goiás). “It was widely ignored until around 2000.’ Until then, rural parts of Tocantins had no reserve, no trees, “no nothing” and “there was an abuse of [the forest bill]. Then,

In the last couple years, at least in our city, it’s tightened up. They use satellite technology and they do multiple passes. You hear stories about catching people and huge fines for deforesting where you shouldn’t. This bill legislates how much needs to be in reserve, trees, and streams. Environmentalists have fought this bill [a reform of the forest bill] all the way through, ag lobby has supported it. [Our Tocantins] senator has been one of the best, finally got it passed after years. Now the president [President Dilma Rouseff] vetoed major portions of it. They were trying to make it work better.

He then proceeded to note in detail his vision of what was justified deforestation and what wasn’t.

I’ve been to the Amazon before on vacation and you see guys on the river who are doing real slash and burn agriculture, that’s how the process starts with guys like that. Not always, sometimes it’s the bigger ones. Then somebody next will come in and buy it up, the first guy sells his plot to someone else who has a cattle farm. They’ll sow grass and then raise cattle out there. Then 10,15, 20 years later a soybean farm will come in and say I can farm here and he’ll start a soybean farm. So the first guy, you know they can’t get it legalized, they wanted to get people back into compliance, legal, and let people continue without these huge penalties. Get back under the law and do some reforestation. So you know how laws go, the environmentalist won’t support anything, I don’t believe in deforestation, but I also don’t believe that the WWF (World Wildlife Fund) and Greenpeace that they have the best interests of the people at heart. This was prairie here, we converted it, but the WWF, Greenpeace didn’t exist. Not many Brazilians involved, besides the government environmental organization.

Here, Dennis highlighted the issue of what counts as valuable natural space. He notes that slash and burn agriculture in the Amazon should be stopped because the Amazon should be protected and implies that slash and burn is an illegitimate land use strategy, he then authorizes land use in the Cerrado because “this was prairie here” and “we converted it.”

The farmers' war of position against the Cerrado resembles the phenomenon of wastelanding (Voyles 2015) in which landscapes are defined to advance political arguments about land use and control as well as politics of waste and development (V. Gidwani and Reddy 2011; Yeh 2013). In orienting the land as a landscape of development, it becomes territorialized by capital (Sérgio Sauer 2010), yet by describing native Cerrado as wasteland or "nothing" farmers confuse difference for deficit. It also allows them to claim authorization to clear land and authority over it as job creators, developers, and farmers. While the construction of landscapes is often arbitrary and not based on material realities of the site (Voyles 2015), low-growth forests are perhaps more frequently subject to discourses of waste (G. Oliveira and Hecht 2016) as supported by the work of Cunfer (Cunfer 2005) and Unger (Unger 2017) who find a lack of concern for conservation of the North American prairies and contradictions of conservation and production in the South Dakota prairie (Gewertz and Errington 2017).

It can be found in the celebration of denuding the Cerrado in Brazil by the Economist (Economist 1999, 2010). This long process of commodification, simplification, and colonization of prairie in the U.S. (Cronon 1983, 2009) has obvious parallels in the Brazilian Cerrado. Cerrado dwellers' perceptions of the land is starkly different. Indigenous children perceive the Cerrado with affection and deep knowledge (Bizerril 2004) and local populations depend on the Cerrado for both livelihoods and cultural reproduction (Graham 2009).

Indigenous activist Top'Tiro marks the destruction of the Cerrado as not only a loss of diversity, but of a set of knowledges and practices essential for life.

The Cerrado is where we hunt, where we harvest our foods; it is where the spirits reside and where we make our rituals. It is also the location of the Village of the Dead. The Xavante world is the 'Ró, the Cerrado. The Cerrado is made up of many parts, which we call marã, itehudo, ambu, apê, and so on. It is all part of a single complex whole. As we go through certain rituals, we acquire greater knowledge of the Cerrado, and when we get older we have even more knowledge. But for our knowledge to continue, the Cerrado

cannot disappear. How can we be good hunters if we don't have Cerrado animals to hunt? How can we be good healers if we don't have Cerrado herbs with which to cure? How can we be good warriors if the spirits of the Cerrado don't have a place to stay? Our marriage ceremonies and ear-piercing rituals that transform boys into adults, all of this—everything—comes from 'Ró, the Cerrado' (Top'Tiro 2009).

Agents of the state and of capital have invented and applied ideologies and practices of modern progress in the people and land of the North American Prairie, working to displace indigenous ontologies and uses of the land (Biolsi 2018), aligning with similar processes of development, modernization, and colonization as racial, economic, and political processes in Australia (Moreton-Robinson 2015).

Despite violence and hostility directed at those who protect the land (Allard 2016) and in recognition of the importance of self-determination of diverse, meaningful, and sustainable foodways, the Standing Rock Nation in North Dakota has taken an active role in reconnecting tribal members with traditional means of food procurement, preparation, distribution, and consumption (Ruelle and Kassam 2013). At the Pine Ridge Reservation of South Dakota, Lakota households work against policies that limit their land access and implementation of resilient and ecological practices by encouraging intergenerational transfer of knowledge to local youth (Sherman, Lanen, and Sherman 2010). These projects work towards the survival of indigenous ontologies of land, relations, and people that, once lost, restrict the possibilities for other ways of engaging with the world (Berkes 2017; Blaser 2010; De la Cadena 2015).

The framing of land as waste and farming as productive can be traced to early colonial projects. In colonial Amazonian Guiana, Hugh Raffles finds, "the value of the region derives not just from the temporary stay of colonial depredation but, equally, from the lack of industry of native people. When...the English achieve their brief settlement of the Oiapoque and Amazon it is...to turn the soil, to plant tobacco and sugar, and to undertake manurance" (Raffles 2014, 95).

Following Ogden's view that "landscapes are assemblages continued by humans and nonhumans, material and semiotic processes, histories both real and partially remembered" (Ogden 2011, 35), the transformation of the Cerrado and Prairie share a history in the experience of emergence out of conquest, colonization, and modernization, but also of possibilities other than extractivist productivism and limitations in the extent to which the visions of landscapes can be enacted in isolation.

Models and meshworks

Proponents and detractors of the Brazil Model of farming, notwithstanding their contestations of the impact, agree that science, capital, and farmers are dominating the Cerrado. Proponents argue that seed breeding, soil fertilization, and farming practices have transformed the Cerrado from "nothing" to a global breadbasket and thriving regional economy capable of improving the national wellbeing and global nutrition, all without destroying anything of importance (including local indigenous communities and the Cerrado itself). Detractors counter this development thesis, arguing that soy production is destroying the Cerrado, uprooting local communities, and feeding a destructive extractive economy. The meshing together of land, farmer, scientist, and capital, however, does not support either thesis. (Voyles 2015; Yeh 2013; Kawa 2016; Ingold 1993, 2011; Tsing 2015; Raffles 2014)

The encounter between farmers and Cerrado created changing practices as farmers adapted fertilization, tillage, seed selection, and pest management to Cerrado agro-ecology and Brazilian environmental regulations. They changed value as they used the differences between U.S. and Cerrado soils as evidence of deficit and claimed a role as developer and producer of value. Their work became valued as transformers of wasteland to valued farmland. This elevated

farming from livelihood to hero work. Their work with and creation of the Brazil Model fine-tuned it and prepared it for export back the United States or Mozambique. And finally, their work with the land altered it in permanent ways, but also in ways that require constant maintenance. As the environmental scientist at the beginning of this chapter noted, the Cerrado is always trying to re-take land. Farmers are in a constant tug-of-war over the territory in both material and social terms. Strathern notes that transforming the meaning of objects transforms identity (Strathern 1990), I would add that this is a two-way process. In transforming the Cerrado, farmers also transform their identity as good farmer, their idea of aesthetically pleasing landscape, and their idea of what constitutes work.

Farmer have had to adapt their farming practices - changing fertilization and tillage practices, seed selection, and pest management – to engage with the Cerrado. Because of the differences between Midwestern soils and Cerrado soils, farmers have come to see the Cerrado as a wasteland, which they have helped turn to a breadbasket. This work has also created a model of new farming practices and business practices with soil scientists and Brazilian farmers to be packaged as a model for agricultural expansion in Mozambique, other parts of Brazil, and Colombia (Pereira et al. 2012). Soy production has left significant changes on the Cerrado, but not without near constant pesticide and fertilizer use, this change (Cerrado to farmland) is not static, but calls for constant work to maintain, recalling Klink and Machado's note that the resilient Cerrado is always working to re-claim itself.

Their encounter is also marked by difference between the two groups - Mennonites farm using a conservative view on adoption of farming practices and acceptance of risk while Midwestern family farmers adopt new practices readily in search of profit margins. Their scale, relations with the land, and experiences are mediated by these differences. They are both, in fact,

selectively modernizing. They base their decisions not on agronomic evidence alone, but on the role of theology, experience, know-how, doubt, and knowledge of their agro-ecologies.

On reflection, one can doubt if the Brazil Model is in fact a model at all. Practices are always mediated by materiality of local agro-ecologies and in states of becoming. The positive agency of things - farmers, seeds, soils, plants - restrict any model from being perfectly implemented as planned. While a useful analytic, be it prescriptive, or historical, it is revealing in what it excludes (people, land, difference) and in its assumptions, but the generative effects of things becoming and the enduring substance of things in relation with each other will always complicate this and its enactment. Wendell Berry had reason to be concerned, for it excluded people, community, nature, but the enactment of the South Dakota State Model would face constant pressure from those very things excluded. The Brazil Model as I have identified is similarly notable for making nature, people, and violence invisible, but falls apart on further inspection as a materially-existent thing. Yet socially it exists as a prescriptive mode of change for Mozambique and elsewhere, but here too it would surely come up against opposition from human and non-human actors. It also exists as an artifact of assumptions, desires, and aesthetics of desired agrarian change.

As Polanyi found that capitalist economies are not self-perpetuating, but rely on constant upkeep and enforcement (Polanyi 1957), so does the systems of soybean production in Brazil depend on support and enforcement. In 2015, the Brazil government passed legislation to “Promover o desenvolvimento agropecuário do território Matopiba” (Abreu 2015) with stated goals to improve infrastructure, support technological innovation, and strengthen the middle class in the rural sector in terms of social mobility and employment. The program, however, was ended by the Temer administration as the responsibilities for the project were shifted to the new

agriculture minister, Blairo Maggi, also known as the King of Soy and winner of Greenpeace's Golden Chainsaw Award (Lacerda 2016).

The Brazil Model was designed to address two distinct problems - first, how to farm in the Cerrado - to address this farmers added lime and fertilizer, used Embrapa seeds, and changed crop rotation. Though there is variation based on precipitation, aesthetics, and knowledges, there indeed seem to be a prescriptive set of practices that are necessary to coax soybean production out of the Cerrado. Second, how to farm as a business - Midwestern farmers distance themselves from work and the land itself, take on management roles and farm workers, and use email more than a tractor, yet here the Mennonites differ in their adoption of the model because they are not concerned with running their farm as a business. The Brazil Model can be divided into two parts, the business side and the agronomic side. The Model generally suits both agro-ecological zones and was mostly adopted agronomically by both communities, but the two communities differed greatly in social terms and differed in their adoption of the business aspects of the Model.

Farming models do require a particularization of things in place and a deterritorialization of place - what Halsey calls a "machinic thought" process (Halsey 2005, 50). Yet, models are enacted and resisted through networks of power, (Rocheleau 2015, 2016), they must reconcile with "rooted networks, relational webs, complex assemblages, and emergent ecologies, reconciled with territories" (Rocheleau 2016, 229).

What then is the necessity of models? They are mechanistic blueprints and products of design thinking - but once they are enacted they must leave the world of blueprints, simple cause-and-effect relationships, and determinism to enter the living world. This is why we look at meshworks. Meshworks as a framework remind us to consider life, improvisation, histories, and trajectories. In her work on "friction," Anna Tsing (Tsing 2011) demonstrates how development

is shaped by local conditions, sometimes hindering it and other times re-enforcing it. Similarly, we find that the Brazil Model is shaped by cultural and social life of the farmers and the material reality of the Cerrado. Further, the encounters shape the entities involved, for better or worse.

Design is a concept imbued with ideology, power, and meaning; it is created by designers and worked, re-worked, and re-designed by users (Bürdek 2005). Design is a field of limitless hope, in the next product, the next public policy, or the next technique, however it is also a thing of destruction and hegemony. Chapman writes that design without thought for the environment leads to environmental destruction and calls for an “emotionally durable design” (Chapman 2005). Papanek goes further in calling design destructive and phony and that few professions are as destructive as design (Papanek 1984). Broadly defined, design encompasses product design, architecture, and even policy planning. Within this framework, one can analyze the violence and ecological destruction of the soy boom as a failure of policy-makers in their role of encouraging soy production, farm managers in their design of the industrial farm, and transnational corporations in their design of genetically engineered seed and agrochemicals. More interestingly, however, may be the use of this design and the differential responses to design. Design theory is particularly useful because of this very aspect – it lends itself as a way of considering designer, user, and user as designer.

The soy boom in Brazil has roots in political economy and governmental planning. The model has faith in both science and its objectivity in determining the best farming practices and in development as a tool in “modernizing” the region. It calls for an injection of capital to improve infrastructure and technology to speed the process of globalization and modernization in the region.

In his research in Santarem, Brazil, Ryan Adams found that gaúcho farmers from

Southern Brazil brought their own set of assumptions, values, and knowledges to work in the region. They saw themselves as “missionaries of modernity” in their role of bringing science and development to the region and they designed their farm accordingly. Expansive tracts of land, the newest production technology, and liberal land rights.

The soy boom in the Southern Cone is a devastating example of the consequences of hegemonic neoliberal globalization. This is hardly in doubt. However, a nuanced understanding of the impacts of the soy boom requires a better understanding of how different farmer and non-farmer groups are experiencing this massive change.

Following on Berry’s assessment that models make parts of agrarian life invisible, what assumptions, areas of ignorance or invisibility, and people are made clear by this model? On the agronomic side of the model, we can see it is based on the invisibility of ecosystems and communities that predated soy production in the Cerrado as well as alternatives to industrial agriculture. On the business side, it erases the non-market aspects of farming - the farm is no longer a site of family reproduction, farming is no longer a lifestyle, and farm work is no longer a source of pride or identity. The Brazil Model falls apart, yet that does not really matter. What is important is that its construction reflects ideologies of control, business, and neoliberal progress and that packaged as a model, it can be made part of development projects to be exported to other countries.

In asking how transnational farmer engage with the Brazil Model of industrial soy production and the Brazilian Cerrado, we find that they work to enact farming practices and farming values, but adapt these in relation with conditions in Brazil. They adopt new farming practices and bring along old ones to co-design farming know-how with the Cerrado, Brazilian farmers, and Embrapa. They carry with them ideas of good farming, but these too change as they

encounter new worlds of farming. Finally, both groups develop a productivist and oppositional perspective towards the landscape of the Cerrado, defining it as a wasteland. This acts to authorize their work in Brazil, excuse deforestation, and link their work with long histories of settlement and colonialism.

INTERMEZZO 1

THE MOTO

I purchased my Honda XRE 300 motorcycle on March 18, 2015 from a friend, Vinicius, in Rio Verde. I had met Vinicius via a mutual friend, Camila. After a dinner at Vinicius' home on night, Camila brought up that Vinicius had been looking to sell his moto. I asked him about his price and looked at the moto; it was in good condition. He asked for 9,500 reals. Shopping around, I had seen lower-end models for around 6000 used and 10000 new, so thought this was a fine deal and later bought the moto.

About one month later, on April 17, the moto was stolen. My friend, Ricardo, took me to the police, first the highway police, then the police station by the pecuaria (the rodeo arena) to make a report. They took the details and said they'd probably find it, I doubted this very much. In the next couple of weeks, two friends had me talk to their friends in the police department about finding the moto, saying that without doing that there was little hope it would be found. I did so, which made it three visits to the police. Around May 1st I got a call that the moto was found. Ricardo and I went to a spot in front of an elementary school near to where the moto was stolen and identified the moto, found by the police. They took it in to the station and said we'd get a call in a couple of days to pick it up. I had to go to the police that afternoon to file paperwork.

After a week there was no news so I went back with Camila to the police to ask about it, they said it wasn't ready yet but they would call. A couple days later they called to say I could pick it up, I went and they said I needed to get my transfer notarized to get the moto. I didn't

quite understand this, so went back in a week later to ask about it. As it turned out, because the moto had been stolen before I had transferred the title I could not collect (liberate in the terms of the local police) the moto.

I thought the situation was impossible until I remembered that Artur, a friend of Vinicius', had procuração (power of attorney) for Vinicius, so I got the transfer notarized with his help, which took a couple of weeks. I then liberated the moto on August 18th. That step was quite easy. I had them deliver it to a garage of Camila's mom's clothing shop. Then a week or so later I had a moto mechanic pick it up. Work only took about a week, and cost 1,300 Reais.

From there, I had Pedro pick up the moto to take it to Detran (the state transportation department in charge of vehicle licensing). He picked it and got that process started. Around late-September he said that it couldn't be transferred because the police still had it identified in their database as stolen. So that afternoon I visited the police again (8) and asked that they take that restriction off the moto.

I waited a week or so for Pedro to get back to me and then visited him, he said it wasn't open yet but that he could talk to someone about it. Over the next two months, I went in about once a week to ask about his progress and he always said to come back in 2-3 days. He had no updates until the last week of my research. I broke things off with him, paid 110 reais, and visited the policia de pecuaria – they said it was not restricted at all. At that point I could only have time to sell it direct from Vinicius to the buyer (who had agreed to pay 6200 reais). This process turned out to be impossible without documents of Vinicius.

By that time, my stay in Brazil had ended. Before leaving I left keys and documents with Artur and had arrangements to have the moto moved to Camila's mom's shop. Later, my friend, somehow, was able to sell the moto and wire me the money after taking a well-deserved cut.

I bring up this frustrating experience for a number of reasons. First, it is easy to dismiss the complaints of U.S. and Brazilian soybean farmers about legal infrastructures and government bureaucracies in Brazil (which we will see emerge in the following chapters). In this process I learned about bureaucracy through my inability to retrieve the bike earlier and inability to transfer because of the restriction. This affair occupied an inordinate amount of my research time and an even greater amount of my energy some days. In going through this process demonstrated to me the difficulty of seemingly simple bureaucratic matters and allowed me to experience the deep frustration that it engenders. It also demonstrated to me what many American farmers called “the Brazilian way of doing things.” That is, that one does not simply file a police report, but checks in with police, mobilizes social connections, and makes personal appeals to hasten work. Multiple pathways, following the social networks of friends in Rio Verde, and patience were necessary components in the realization of the moto recovery and eventual sale.

CHAPTER 4 BECOMING BRAZILIAN

Midwestern family farmers, mostly educated (holding BScs, MScs, and even PhDs among them), young, unmarried men, migrated in the late 1980s and early 2000s in response to land inaccessibility in the United States and hopes of profit and adventure in Brazil. They encountered dreamlike landscapes of large tracts of flat, cheap land; a cheaply-remunerated work force; and seemingly boundless and easy opportunity. They purchased large tracts of land with capital from land sales or investors and now around thirty American-owned farms operate tracts of soybeans and cotton and manage teams of farm workers. They rarely live on their Brazilian farms, preferring instead to live in Luis Eduardo Magalhães, the “city of agribusiness,” and center of industrial farming in Western Bahia or even in their home states of Illinois, Indiana, or Iowa. Most have mastered Portuguese language (though some still struggle). However, they quote land area in acres (not hectares, used in most of Brazil) and monetary value in US Dollars (not Brazilian Reais or the more common measure in Brazilian agribusiness, sacks of soy). They host Thanksgiving dinners, but replace turkey with chicken, watch American football games in Portuguese, and have both *maracujá* and pumpkin pie for dessert. Their work represents both a rupture from rural life in the U.S. Midwest and a desire to farm and continue family farming legacies by any means necessary.

The previous two chapters demonstrate a kind of convergence (Mignolo 2013) for transnational farmers around farming practices and migration patterns. Each group experienced a different kind of crisis at different physical and temporal positions before converging around the

act of migrating to the soy frontier of Brazil. Similarly, they began from different standpoints of agronomic know-hows and know-whats (Varela 1999), but, notwithstanding persistent differences in tillage and crop rotation, converged around a set of farming practices (e.g. soil fertilization) necessary for industrial soy production in the Cerrado. The coming chapters point to areas of divergence for the Mennonite and family farmer communities: community, identity, value, and work.

As Stephen Gudeman observes, the economy consists of both community and market, “for humans are motivated by social fulfillment, curiosity, and the pleasure of mastery, as well as instrumental purpose, competition, and the accumulation of gains (Gudeman 2001, 1). The (dis)connection between economy and market is an enduring question of social science. In his *Economic and Philosophic Manuscripts of 1844*, Marx argues that capital estranges workers from nature, society, and even their own body and work. “With the increasing value of the world of things proceeds in direct proportion the devaluation of the world of men. Labor produces not only commodities; it produces itself and the worker as a commodity” (Marx and Engels 1978, 71).

Georg Simmel recognizes Marx’s concern for the separation of workers from the means of production and estrangement from social and natural life, but adds “The ‘separation of the worker from the instruments of production’ appears as only a quite specific economic instance of a general tendency to shift the...emphasis of culture away from human beings and onto the perfection and self-sufficient development of objects” (Simmel 1997, 49). Consequently, both the worker and capitalist are estranged from society, nature, and themselves. Karl Polanyi contributes the concept of fictitious commodities (land, labor, and money) to establish both the estrangement of people from work, but also the denuding of land from “organizations of kinship,

neighborhood, craft, and creed – with tribe and temple, village, guild, and church” (Polanyi 1957, 187) by processes of commodification.

Theorists dispute the completeness of the rupture between community and market. Gudeman (Gudeman 2001), argues that “realms” of market and community are sometimes “separated, at other times they are mutually dependent, opposed or interactive” (Gudeman 2001, 1) and even the most profit-oriented entity or capital-resistant community engages with both realms. The market does not exist and act on its own, but is performed by actors (D. Miller 2001) and enacted through everyday life (Mitchell 2008). Language which places the market and profit-driven action in a privileged and visible position compared to non-capitalistic action, contributes to both the de-valuation of non-capitalistic life and further entrenches capitalocentric discourse, action, and value (Gibson-Graham 2006). It is by this process that wage labor gains a privileged position compared to, for example, child care (though of course gender plays a role in this process as well). An emerging perspective on economics establishes that community and market have never really separated, though they indeed create near constant friction which, as Tsing (Tsing 2011) reminds us, is the same force that gives traction to the wheels of a railcar and sends the railcar over its tracks.

A critical economic perspective means moving away from simplistic analyses of the force of the market (and the state) and shifting towards the study of the “materialidad de lo cotidiano y de la existencia” (Paredes, Sherwood, and Arce 2015, 17). My previous research with quinoa farmers and intermediaries (Ofstehage 2010) began as a study into why farmers continued to sell to predatory middlemen despite the presence of market channels that offered significantly better prices. Interviews, observations, and “following the thing” (Cook 2004) complicated this question. Market price for quinoa is but one factor in the complex, multi-channeled domestic

quinoa economy. A quinuero may sell the majority of their quinoa to their local cooperative, but reserve a small quantity to sell itinerant middlewomen to trade for household goods, credit, or cash. They may also agree to sell to a particular middlewoman because she financed a local celebration, acts as godmother to their children, or is known to be an honest and hardworking partner. On the other hand, they may choose to sell only to the cooperative as an act of solidarity with those who built the quinoa economy and protect the dignity of *quinua boliviana* (Ofstehage 2012). Some farmers eschew both middlewomen and cooperatives in search of a path which fully protects and recognizes their intimate connection to the pseudo-cereal through farm work, history, and ethnicity (Ofstehage 2011). Conflating market with economy mistakes capital for life (Braun 2015; Paredes, Sherwood, and Arce 2015) and masks the integral role of community as arbiter of economic life.

Feminist economic anthropologist Sylvia Yanagisako provides an excellent model for the empirical exploration of how capitalists come into being. She frames her study on family businesses as follows.

An abstract model of collective class interests may be useful in understanding why and how the bourgeoisie or any of its fractions takes political action to protect its interests, but it does not help us understand how and why people come to be interested in accumulating capital and reproducing capitalist firms. An abstract theory of bourgeois class interests has only limited usefulness for understanding the subjectivity and practices of a historically specific group of capitalists... If we acknowledge... that the bourgeoisie is not a homogeneous, undifferentiated group, then we cannot assume that they naturally share a set of common interests. Instead, we need to investigate whether and how particular interests come to be viewed as the common interests of the bourgeoisie as a whole (Yanagisako 2002, 8).

Her study finds that family capitalism depends on both access to capital and desire to participate in capitalist ventures. “The Como silk industry is the result of the continuous generation and regeneration of family capitalism by people whose desires for capital accumulation have been incited by sentiments of family unity and communalism, but also by

sentiments of individualism, independence, and competition” (Yanagisako 2002, 11) And so, “As capitalism entails more than mere commodity production and the pursuit of profit—it has at its core the relation between wage-labor and capital— it follows that capitalists must have both the capacity and the desire to own and control the means of production” (Yanagisako 2002, 13). As Yanagisako notes, a focus on the ways capital is produced over time naturalizes “capitalist desire and action,” (Yanagisako 2002, 16) much as J.K. Gibson-Graham (Gibson-Graham 2006) note that capital-centrism reifies capitalist motivations to the exclusion of non-capitalist actions and ideas. This chapter, in looking at the changes in identity, value, and community in the community of transnational soybean farmers of Bahia, addresses questions of how and why people become capitalists and how this transformation impacts and is impacted by values of farming, structures of farms, investor capital, and personal desires.

A Community in Transformation

Community is neither static, nor homogenous, nor apolitical. Definitions and practices of communities change. Migrant Triqui and Mixteco peoples in California shift both practices and identity to fit their adopted social and ecological environment. Rather than replicate reified indigenous farming practices, they adapted planting and irrigation practices to fit the local landscape and agroecology and integrated farming practices learned while working as farm laborers. Intermixing through work on industrial farms and on their own community garden, the distinct ethnic groups began to forge a new pan-Oaxacan identity based on solidarity over difference (Minkoff-Zern 2012). Similarly, in Bolivia, Okinawan settlers involved in soy production became Japanese in search of a tangible and prominent alternative to becoming Bolivian (Suzuki 2006) just as British migrants “get to be British” in Portugal by forming

schools, clubs, and churches.

While continuing to change, communities (re)produce difference internally between outside entities. Arce illustrates the production of difference within communities and in relation to the market (Arce 2009). In a small Guatemalan village, coffee producers fracture along lines of class, gender, and value as they pursue market alternatives that support their household and personal needs. While women pursue a coffee roasting and direct trade relationship with consumers in the United States, their husbands decry their distraction from gendered work. At the same time, men fracture according to their visions of progress for the community and the market alternatives that would support these visions. Communities fight, both in terms of internal conflict and conflict with outsiders (Colloredo-Mansfeld 2009) as they work towards personal and collective visions of progress for the community.

Market and community are not only two realms of the economy, they are intertwined and often inseparable sets or relations. I will argue over the next two chapters that market and community co-construct each other through work and practice, much as landscape and farmer co-construct each other through farm work. I bring these ideas together through Dorothy Holland's concept of figured worlds (Holland et al. 2001) and David Graeber's anthropological theory of value (Graeber 2001, 2013).

Large-scale producers throughout Latin America (Valdivia 2010; R. Adams 2010; Bobrow-Strain 2007; Hoelle 2012; R. Adams 2008; Mackey 2011; Eakin, Bausch, and Sweeney 2014) demonstrate interwoven rationales and values for their work, including reproducing family legacies of farming, improving local economies, ushering in rational and efficient modern agriculture, and of course profit accumulation. Despite possessing technologically-advanced machinery, operating within financial structures, and participating in globalized soy markets US

farm families also struggle to uphold non-monetary agrarian dimensions of success, including daily work autonomy, opportunities for achievement and reward, and spiritual connections to nature and to agrarian work (Barlett 1993). Farmwork is subject to both capitalist and agrarian regimes of value. I propose that U.S. farmers' work in Brazil entails a transformation toward a set of values and practices associated with the Brazil Model of farming, but also the reproduction of farmers' own identity, culture, and work. I argue that the social values of soy production emerge out of economic and agro-ecological conditions and as well as contestations over the relative importance of action, or work.

Value has been conceptualized anthropologically in three ways (Graeber 2001); as a system of values (for example family values, progressive values, or conservative values), as maximized economic pay-off, and linguistically as meaning of symbols. David Graeber's theory of anthropological value collapses these meanings into one unified theory of value. Action is the subject of value realization and contestation and the product of that negotiation (Graeber 2001). Value, as the importance of action, is subject to legitimation as actors defend their know-how and their work, thus entailing a process of 'people-making' in two senses (Graeber 2013). He writes that "we have to place ourselves back in that original tradition: one that understands human beings as projects of mutual creation, value as the way such projects become meaningful to the actors, and the worlds we inhabit as emerging from those projects rather than the other way around" (Graeber 2013, 238). Actions both establish one's status as a legitimate social actor and re-make actors as they tie emerging actions to articulations of the self and community. Value and action are co-creative in that changing forms of work or action redefine socially valued forms of work and action while social constraints around what is considered legitimate, honorable, or valuable action constrain and define permissible behavior. Farmwork emerges out

of the material realities of production – political economy and agro-ecology – but also out of social imaginations of what constitutes good and legitimate work.

Using Marx’s labor theory of value, Sodikoff finds that labor and landscape are re-and de-valued according to both discourse and regimes of environmental conservation in Madagascar. “Devaluation of manual conservation labor relative to intellectual labor, and relative to the endangered, endemic species themselves, enhances the global value of endangered biodiversity, even though it thwarts the goal of preventing eventual extinctions due to habitat loss” (Sodikoff 2012, 9). Labor and land, then experience valuation and devaluation continually with changes in the market and community.

The concept of figured worlds similarly connects value with work, though described in terms of meaning, norms, and practice (Holland et al. 2001). Figured worlds are “historical phenomena” in which actors are recruited and in turn are changed by actors through change and continuity in processes and traditions of practice. They are “social encounters in which participants’ positions matter” (Holland et al. 2001, 41) and are organized and reproduced socially through cooperation and conflict. Finally, figured worlds distribute actors’ selves by dispersing them over landscapes of practice. Changing meanings and norms of practice make up collective figured worlds in which practices are shared, disputed, forgotten, and emergent. And the generation of figured worlds challenge, build upon, and integrate wider narratives of value and meaning - “The generativity of cultural practices and their importance in establishing and developing alternative subjectivities introduce uncertainty - wild cards of a sort - into the careers of local contentious practice and through them into struggles over national institutions and widespread cultural discourses (Holland and Lave 2001, 19).

Daily practice is an essential aspect in the emergence of figured worlds - in her study of a

British enclave in Portugal, Jean Lave finds “it is sturdily and tightly woven together in the activities of the families who make it up” (Lave 2001, 291) - they speak English as their first language and attend British clubs, churches, and schools. They maintain Portuguese families at a distance, even while integrating them into British institutions. Their British identity is maintained through daily performance of that identity, but also undergoes change as they become more British than even the British in Britain.

The framework emerges from the work of Bakhtin (Bakhtin 1981) and Bourdieu (Bourdieu 1977), and is connected with Arce and Long’s Actor Oriented Approach (Arce and Long 2000a) in terms of focus on actor and community level social change and connected to Graeber in its connection between value (meaning in terms of figured worlds) and work (practice in terms of figured worlds). Together, figured worlds and the anthropological theory of value connect work and practice to community formation or conflict and market production.

This notion of value and action is useful in understanding the integration of the U.S. farming community into Brazilian worlds of soy production. One can observe how the practices of the Brazil Model (i.e. hiring labor, use of GMOs, and no-tillage) become valued as efficient, rational, and economic across diverse groups of producers. It also allows one to ask how farmers from different cultural or socio-economic classes re-affirm their identity and difference through practices and discourse on practices. This is visible in how Brazilian and North American farmers adopt practices associated with the Brazil Model and then use these practices to define themselves as economically progressive farmers. It becomes apparent in how North Americans use practices that are separate from Brazilians to self-identify as bringing American values or know-how to Brazil.

Writing on elite landholders in Chiapas, Bobrow-Strain states that landowners’

calculations of costs and benefits of defending their estates against Zapatistas ‘were not the disembodied rational calculations of *Homo economicus*. Rather, they were painful struggles over identity in which uncertain landowners grappled with the upending of the once reliable categories of nature, race, development, good government, and masculinity’ (Bobrow-Strain 2007, 208). This experience of embodied struggles, reflecting non-capitalocentric behavior (Gibson-Graham 2006; Miller 2001; Mitchell 2008), defies liberal, rational calculations and emerges in other studies of elite landholders.

Ranchers in Acre, Brazil, for example, connect their migration from southern Brazil to family legacies of migration from Europe and to nationalist discourses on taming, colonizing, and developing Amazonia. They also defend their work as contributing to national food security (Hoelle 2012). Brazilian landholders and soy producers in Bolivia also make claims on their work as development or improvement (Li 2007); in the words of one farmer, ‘We came with money, we put in technology, it was really a win-win relationship. We all win, the Brazilians won, Bolivia won, and the Bolivian producer won’ (Mackey 2011, 20). Soy producers in Bolivia juxtapose themselves against the Morales government as moral compasses of capitalism (Valdivia 2010). Gaúcho farmers in Santarem, Brazil explain their move to the Center-west as a response to high land prices in the South and increasing land concentration in Mato Grosso, but also refer to their roles as missionaries of modernity and highlight family histories of migration and farming (R. Adams 2010).

Informe AIBA & ABAPA, the official magazine of the two major trade federations of large scale farmers in Bahia, the Associação de Agricultores e Irrigantes da Bahia (AIBA) and the Associação Baiana dos Produtores de Alagadão (ABAPA) celebrates soy and cotton farmers as the real protectors of the Cerrado (Informe Aiba & Abapa 2018c), that they save the rivers of

the region (Informe Aiba & Abapa 2018b), and that they are improving the infrastructure of the region (Informe Aiba & Abapa 2018a). AIBA's annual report for the 2015-2016 crop season announces soy farmers contribution to employment opportunities, contributing to increase in the Human Development Index of Brazil, and environmental sustainability (Associação de Agricultores e Irrigantes da Bahia 2017). Each of these cases demonstrates both economic and non-economic objectives. Profit sits alongside pursuit of individual and collective desires, pleasure, and freedom as objectives for landowners in Latin America.

I present three farmers' career histories as integrated narratives in order to show the inter-relatedness of socio-economic processes in Brazil and the United States and to show the gradual transformation being done on farmers, even as they themselves transform practices and the land in Brazil. These career histories, chosen for their ability to represent difference and sameness among the research group, narrate personal moments in actors' lives that are indicative of both sameness among North American soy producers in Brazil and difference in farm practices, social relations, and social values. In concert, the career histories tell a situated story of agrarian change (Colloredo-Mansfeld 2009). In presenting integrated realities, I hope to establish also the difficulty of interpreting any one of these farmers as a purely liberal subject. Each is caught up in multiple projects, some collective and some more personal. Two of the career histories follow North Americans in Brazil's Cerrado and a third career history follows a US farmer in Roraima.

I divide the remainder of this paper into two sections. First, I review literature on a general farm crisis in the United States and an expanding commodity frontier in the MaPiToBa region of Brazil in order to show the inter-connectedness of these processes. Second, I analyze the social values of work that are produced and reproduced through transnational soy production. I propose that thinking through figured worlds and actor oriented approach along with Graeber's

theory of value work can be seen as a mediator of capital, community, and value. Work sits between community as source of labor, arbiter of value and political economy (market). This chapter asks how processes of social fulfillment and belonging as well as work and profit interconnect and cross-fertilize to create new formations of community and work.

I will begin to illustrate this cross-fertilization of community and market through work and practice via two ethnographic vignettes.

Vignette 1: Land titling in Bom Jesus

On a Monday morning I took the hour-long bus from Luis Eduardo Magalhães to Barreiras. Along the way we passed the outskirts of town, the world famous Bahia Farm Show grounds. As we watched sertenejo music videos in the bus, the landscape transformed from the dusty urban streets and buildings of Luis Eduardo to flat fields of soy and then to patches of Cerrado brush, eventually ceding to large tracts of non-agricultural land, broken up only by the large Chinese-owned tree plantation with its square blocks of tall, straight eucalyptus. I was meeting Frank Green in Barreiras to accompany him on a quick trip to Bom Jesus, Piauí. Frank, began his career as an agricultural economist at a large public university and came to Brazil to start a farm and capitalize on favorable farming conditions in Bahia. Since arriving he had endured associations with failed farming enterprises and stuck around to salvage his move. At the time of interview he owned and operated an English school in Barreiras, owned a small banana farm outside of town, managed by an ex-MST worker, and managed a mixed use farm in Piauí for a Belgian retiree. He once remarked, “I’m like the A-team,” before conceding that he was not on the run from the law.

Frank drove three and a half hours to Bom Jesus to check on the farm where two trusted

workers kept the farm in operation and, more immediately, to handle bureaucratic and legal business related to the farm. For years, Frank and the Belgian land owner had been working to wrestle control of their farm from another North American who had first gained the trust of the retiree, then allegedly misused farm finances and assets for his own profit. On the side, he had allegedly also purchased a plateau of native Cerrado land to convert to charcoal production without environmental license.

The business of the day in Bom Jesus was to fire a lawyer who had been working for the land owner. Frank strongly suspected the lawyer was working for the interest of the other North American and needed to be removed. Unfortunately, their replacement, a lawyer from Belem, had also proved largely ineffective and would also need to be removed, but that was business for another day. In order to fire the lawyer, Frank had to file papers in person, have them signed by a judge, and receive a copy of the signed document. Bom Jesus hosted a special agrarian court which had been set up specifically to handle agrarian court cases, primarily land disputes. Coming from Espirito Santo, the judge had body guards and wore a bullet proof vest out of fear of violence, a common precaution in land frontiers of Brazil where the state has reduced presence and land owners have competing and overlapping claims on land.

Having filed the papers with the young judge, we drove next to the land titling office to ask questions related to removing the other farmer's name from the company's documents – an issue that had so far prevented Frank and the land owner from effectively taking control of their own assets and finances. The government worker explained that Frank needed to go to the capital, Brasilia, to arrange the paperwork. Frank countered that he has already been there and they told him to come to Bom Jesus. She offered the name of a specific official in Brasilia and Frank was satisfied with that progress. On the return trip I brought up another farmer's comment

that farmwork in Brazil is fifty percent office work. Frank countered that it's more than that, often significantly more.

Vignette 2: Fly by farming

Ian picked me up at 7:15 and drove us to the LEM (Luis Eduardo Magalhães, as many U.S. farmers referred to it) airport just out of town. The airport is nothing more than a short runway and a small hanger for fixed wing aircraft. We boarded the plane and he began to go through two checklists to assure the plane was ready for flight, and we took off. The plane is small but new and expensive. Take off was very light, and the flight itself was very smooth and easy. On the roughly thirty-minute flight (compared to a nearly two-hour drive) from Luis Eduardo Magalhães to the farm we first passed circular fields of dark green that indicated high-value, irrigated crops, then the landscape transformed to a mix of soy and cotton fields, bright green and dark black grass seed fields, and green Cerrado forest.

Ian had taken two pilot training courses since 2012 in the U.S., the first for an older model and a second for a new model. The plane is expensive, but the mileage is about the same as his pickup (14 miles per gallon), besides saving him time in transit. I suggested that this gives him more time to work and is a better use of time, he responded affirmatively and added that it gives him more time with his family at home too (suggesting this is more important to him). At the end of the flight he passed his farm, while identifying fields and farms, and passed over the escarpment, a sharp drop of in elevation at the border of Tocantins and Bahia. Farmers credit the escarpment, as earlier noted, for the productivity of the region, causing high and regular precipitation close to the escarpment – a phenomenon that fades with distance from the escarpment and is associated directly with higher land value. His fields are almost as close as

you can possibly get. As we neared the farm he pointed out a tractor planting soy and indicated that it's a Texan farmer driving a John Deere tractor with John Deere implements, on land owned by an Illinois farmer.

We landed at this old farm which has since been sold to the person from whom he had originally purchased it. The farmer had decided he was too spread out and wanted to consolidate. He offered a good price and he was "someone I could trust." Also it was a safe deal because the farmer had money coming in from the sale of his other pieces of land, could pay Ian as the money came in. He had a red pickup there and we took that out to visit corn planters. The first thing we did when we arrived at the site of the cotton gin and now the main farm property of the farm, was to wash the pickup. I helped, brushing off some dirt with a soapy brush, and he sprayed it down. I told him about how a farmer had explained how in the U.S. you want to have a dirty pickup to show how hard you've been working, but in Brazil you want a clean pickup to show that you haven't been working too hard. He laughed, said he'd never thought of it that way, and agreed to the statement. He brought up then too Peter Fleming's book on life in Brazil (Fleming 1957) and said again that it reflects very much Brazil today, not much has changed. He explained this in depth in our first interview, it's mostly about hearing half-truths, unexpected situations, always having problems, things like that.

As soon as we were on the road, in fact before we washed the pickup, Ian was asking about planting progress in the field and finding out what's going on. He made some planting decisions, where to plant today, and took stock. He also chit-chatted mostly with Silas, the Texan farmer in the John Deere tractor, over the citizens band radio. He asked too if it had rained, how much, where, etc. He had been getting more regular rain than a lot of farmers, as he is closer to the escarpment. We spent the rest of the morning checking on planting progress. He stopped

each planter to ask about progress, the status of planting, and at almost every stop he found a planter stopped for one reason or another. He helped to determine what the problem was and got dirty fixing the machinery. At each point it was something different, all mechanical issues. When there were workers to do the task, he let them do it, but he also got his hands in regardless, especially on mechanical issues.

When we load Silas' planter he operated the small tractor to lift the large seed containers over the planter. Ian stopped every planter regardless of the situation, some were stopped already, others not. One he drove by, saw excessive black smoke arising, notified the planter, and explained that there are two filters, he probably needs to replace one. He demonstrated quite extensive knowledge of machinery, a kind of bricoleur knowledge (Levi-Strauss 1966) that all farmers have. He was able to determine the problem and fix most issues, often using a fair amount of force, using hammers and sledge hammers throughout the day. He also demonstrated a fair amount of agronomic knowledge by checking seed depth in every field, advising planters to plant deeper or shallower, and considering factors such as compaction (if there is little to do about it because it is not the fault of the planter and the row is different for every pass). While checking seed depth he also looked at the frequency of planting, making sure it's not too dense or too sparse. He also had a discussion with Silas on whether or not they could apply DuPont Classic, he thought they could not spray it after beans emerge, and they just had on that field, Silas thinks they can, said they have before anyways. He looked up in a massive book, he calls the bible, and it said they cannot. They followed the directions and made sure they did not add it to the cocktail of glyphosate, pre-emergence herbicide, and insecticide.

I asked at one point if weeds are much of a problem, he responds that they very much are. I asked if white fly is also a problem for him, he said it is not any worse than it had been in the

past, it is bad, not worse though. “Two years ago was a very bad crop year, last year was one of their best.” Each time he stops a planter he knew the operator’s name, seemed to be on quite friendly terms with them. They are not shocked when he helped, were not dismissive when he provided recommendations, directions. When we were in a former cotton field he showed me the root structure of the cotton plants to demonstrate how, with no-till, the land is too compact for the tap root to penetrate, so it goes sideways. “It’s a problem when there is little rain,” he said, “because it’s not seeking out deeper water.” I added that it is also bad if it rains too much, easier to fall over perhaps. He said it is not a problem for corn because of its root structure but didn’t say anything about the soy plant having problems. I pointed out that there’s very little debris, he said that cotton plants do not produce much to leave.

Throughout the morning and afternoon, he showed the know-how of farming – checking seed depth by hand, kicking the dirt to check compaction. He similarly demonstrated his know-what of farming including chemical application, planting rates, and mechanical issues. He was also willing and I think excited to get his hands and clothes dirty working.

For lunch we went back to the farm; workers have their lunches brought to them, and we ate feijoada and pasta and water. We ate quickly, then Ian headed to the main building to check emails. I could also hear skype messages incoming. We stayed there for a about an hour, mostly while he emailed, checked emails, messaged, and chatted a little with people passing through the office.

After lunch we went back out to the fields and continued to check on progress. We continued this checking and conversing over the radio until 4:30 when we flew back. Betty, his wife picked us up at the airport with their kids and they drop me off at my place. His daughter had schooling here too at the place she has been going since one year old, neither of the kids are

particularly impressed with the plane, he said they just sleep on the way.

Becoming Brazilian is Hard

Together, these vignettes tell a story of farming in Brazil that stands in sharp contrast to traditional farm work in the United States. Barlett (Barlett 1993) outlines traditional American farming as supporting family decision making, connections with the land and spirituality, autonomy from the state and market, and oriented towards family reproduction over market production. This shift can be identified in communities throughout the Midwest and touches on practice, technology, value, and community (Nordin and Scott 2005; Salamon 2014). But the concept of farming and specifically farming is continually in flux. Burton (Burton 2004) finds that British farmers align their measures of good farming, including straight rows and fields clean of weeds and insects, with productivist visions of agriculture. Straight rows suggest mastery over tractor driving, but also are necessary for industrial machinery to efficiently move through a field with minimal damage. Clean fields show mastery over insect pest management and close attention to weed management, but also achieve heightened importance under regimes of industrial monocultural agriculture where natural impediments to weed growth are largely eliminated. Farmers on the High Plains, meanwhile, form identities of good farming around tillage practices and observations and discourses around farming practices. Roadside farming, recognition and denunciation of other farmers' practices, and recognition and justification of their own practices create socially vibrant and dynamic ideals of good farming (Strand, Arnould, and Press 2014). At the same farmers seek to separate themselves from what they perceive as inferior farming practices and values. In a 2016 article, the then president of the Missouri Farm Bureau took offense at Mark Bittman's praise for peasant modes of farming, possibly in this

article (Bittman 2013):

“Industrial” farmers have the nasty habit of adapting tools to replace hand weeding and the like. Peasants don't expect to better their working lives, and that will be a good thing when agriculture takes the forms that meet the approval of *The New York Times*. Perhaps we can get a pat on the back when we have a particularly good beet or quinoa crop. We couldn't expect to send our kids to college on peasant-like earnings, but college will just make farmers uppity, and we can't have that. We'll have the satisfaction of knowing that we're raising things in the way the rest of the world does, and that will be enough (Hurst 2016).

The other side of this representation of industrial farmers, often seen on television dramas, is that of profit-driven, individualistic, businessmen (Specht 2013). Farmers of greater Soylandia participate in the hegemony of industrial productivism centered on capital, technology, improving society and nation through industrial capitalist production and the moral superiority of productivist agriculture (Valdivia 2010). This closely mirrors the valuation of work by Wall Street bankers in arguing that their work, though maligned by the press and public, actually serves a greater good by making the economy work more efficiently (Ho 2009).

While these apparent changes occur in the situations of U.S. and Soylandia farming communities, the process of migration also induces change in both practices and values of farming. Gaúcho farmers from Southern Brazil migrated to Paraguay in search of cheap arable land following the encouragement of the Straussner regime and over time developed an outward appearance of domination over Paraguayan economy, landscapes, and populations despite often experiencing their own marginalization and lack of land access (Blanc 2015). Elsewhere, Oaxacan migrants to California develop new relations to crops, foods, and community through displacement and settlement (Minkoff-Zern 2012) while highly capitalized farmers from southern Brazil claim to carefully balance environmental and economic concerns and histories of migration and farming (Hoelle 2012) while also claiming the role of “missionaries of modernity” in bringing capital and technology to agrarian production (R. Adams 2010). Farmer migration

and even global engagement with farming implies at least a partial decoupling of farming, farm, and place (Cheshire, Meurk, and Woods 2013), a process that mirrors what Gudynas calls the Great Transformation in South American agriculture (Gudynas 2008) in which not only are farming, farm, and place decoupled, but also the farmers themselves, allowing what Teubal calls “farming without farmers” (Teubal 2006) and as one Argentine puts it “soybeans can be grown by email!” (Lapegna 2016a, 36).

In the brief vignettes above we see the decoupling of farmer, farm, farming, and place. Frank lives in Barrieras and his primary work is the administration of his English school. His primary loci of farmwork is in the office or pickup, working primarily to ensure legal documentation for the farm he manages. He does not live on the farm, perform farm work, nor even own the land, but rather works as a one-man A-team making sure the farm continues to run properly. Similarly Ian travels by plane from his home in Luis Eduardo Magalhães to his farm near the escarpment and, when at the farm, primarily checks in on workers to see to the smooth day-to-day functioning of the farm. Over the next few pages I will illustrate these changes and decoupling of the farm lifesphere through three career histories.

Jacob Miller’s biggest difficulties are labor regulations and managing labor. Workers have ‘no skill and no training’ and, according to him, they are coming from Southern Bahia and some have backgrounds in small-scale agriculture, but little experience with large-scale soy production or high technology machinery. On labor laws, he said, ‘it’s not very, it’s not fair for the employers, it’s not practical...I can understand it to a certain extent cause I think, there is a huge index, a difference between rich and poor and the rich do, or have a history of exploiting the poor in Brazil, but I don’t know, it’s just... But it’s unfair to those that are trying to do what they can.’ Partially for this reason, the pushback from workers and labor laws, Jacob has

dismissed previous concern for providing work and training for Brazilians; several farmers claimed an intent to bring jobs and opportunities to Brazilian workers until finding out that workers in Brazil had the backing of relatively strong labor laws and the farmworker federation. Recalling Mauss' theory of the gift, the apparent rejection of their job opportunities as gifts, farmers were somewhat offended and felt liberated from responsibility (Mauss 2000). Jacob perceives his role and the role of North Americans in general in the development of Brazil by saying, 'I think we've added, just, added to the community just from the fact that we pay our bills on time and conduct ourselves in a serious business-like manner [different from Brazilian farmers].' The statement is at once less grandiose than the Santarem Gaúchos' claim to be "missionaries of modernity" (R. Adams 2010) and less interested.

The Carters, on the other hand, chose to invest in long-term employee relationships. The family pays over market price for labor with the understanding that they expect long-term employment. They employ a foreman who manages the farm, one or two operators, and seasonal help, a huge difference in total numbers compared to the typical Brazilian farmer. Brad, the youngest active member of the family also mentioned that receiving payment in sacks of soy, what other North Americans often deride as bartering, is a way of engaging with the local farming community, and rather than a sign of backward business practice, an indication of real farming experience in Brazil. The Carters employ what Brad calls objective-driven management, meaning that they intend and are required by investors to produce an economic profit, but that their management decisions are driven by an interest in treating workers well and being stewards of the land. In the synopsis of a book by Caleb Carter, he explains

Born into a farming family in Indiana, [Caleb Carter], along with his wife and family, has been a missionary and agricultural businessman in South America since 1987. Challenged by the difficulty of dealing first-hand with decisions pertaining to bribes, extortion, threats, unfair bidding processes, political favoritism, blackmail, kickbacks,

and other unethical practices, [Carter] realized that the Daniel of the Bible, in all probability, faced these issues also (Edwards 2009).

The Hanson's farm employs eleven managers and 165 workers; the work crew is cut to fourteen workers in the off-season. The workers labor in teams such as soil fertility, harvesting, and public relations and live in on-farm housing and typically leave the farm once every two weeks for three days. The workers represent one of Ian's greatest frustrations. Ian explains that Bahia isn't a traditional agricultural region and so workers are not used to the odd hours and the realities of agrarian production. In his eyes they are uneducated, untrained, and often lazy. Compounding this perceived shortcoming of Brazilian agriculture are the labor laws. Labor laws, which regulate firing of workers, housing requirements, and workdays, are seen as both intrusive and as superfluous. In response Ian has worked around labor by adopting new technologies to replace labor force and reduce the risk of offending labor laws.

Ian makes farm decisions based on market trends and climatic trends, but also on minimizing his use of farm labor to reduce "hassle" and risk in regards with worker protections. He explained once that he cut back cotton production drastically because "the market is not calling for cotton." They had about 5% in cotton (4693 ha of soy, 3685 ha of corn, 382 ha of cotton) and were not running the gin, saying there wasn't enough around to justify operating it for other farmers. This allowed him to reduce labor force from 140 to 40. Besides the cost savings, and implied less hassle of dealing with workers, this allowed him to "cut the fat." Keep on the good workers who he trusts and get rid of those who aren't trusted, good workers. He had to pay unemployment for those laid off, but you have to do that with anyone eventually, he says.

He has also hired a PR firm and a team of lawyers. Ian compares the current situation with the situation prior to the arrival of large scale agriculture, saying 'when we came down it was commonplace for employees...to live in plastic tents you know out in the Cerrado... and

now you can get a fine if you don't have the right brand of fire retardant.' For Ian and his family, the farm has many different objectives. For Ian, the role of Americans is to bring some degree of rationality or business principles to Brazil. Workers, he often complained, do not understand that farm work is not a nine-to-five occupation, yet workers, fitting their position within capitalist agriculture and legislation which controls how long workers can stay in the fields, have adapted to the capitalist constraints of time, eschewing agrarian temporalities (Edward P. Thompson 1967).

The main difference between North Americans and Brazilians, he says, is that Brazilians have a higher level of debt and more of a penchant to barter. What Ian brings is an understanding of the market and business principles. The immediate objective of the farm, however, is to function as a business and to make an economic profit as well as serve as a means for him to stay involved in agriculture. For the older generation the farm expansion provides an opportunity for nieces and nephews, sons and daughters to find on-farm employment and to continue to strengthen the family farm. One of Ian's struggles in this regard is to encourage the older generation to see the value of working in the office serving business needs rather than driving a tractor in the field. For Ian, farming is not about sitting in a tractor; it is a business to be managed.

Dennis explained his approach to business and role in farming in his Tocantins farm;

I learned early on to, sometimes I try to push something, but, what I bring to the company is more of the management, cost control, financial management, sale, the company does the marketing, the way we do that we use a more North American style I guess you would say. I do believe that they're backward, at least in our region, they want to use everything in terms of, by identifying how many sacks per hectare this is going to cost, or how much they need to get in return in sacks per hectare, a lot of things in sacks per hectare. And that's really a backward way to, ah, work. So we tend to ignore that and just focus on bottom line, return on investment, in terms of managing companies. But, agronomically, there's, in terms of machinery technology, at least in our region, I don't know about..., there's times that there experimenting with things that we've already used

and gone through. Bean buggies, for example. Sometimes they want to do things like that and we don't agree. But in terms of agronomics, honestly, I don't really think that I bring much to the table there. I rely on our agronomist to tell me what he thinks we should do and my overall knowledge of agriculture just to say, yeah that makes sense.

Of particular interest is Dennis' note about "sacks of soy." The term refers to the market value of 60 kg of soybeans. Thus the monetary fluctuates with the market price. Purchases between Brazilian agribusinesses are often quoted in "sacks of soy," especially for large-sum purchases like machinery or land. One also has the option of delivering literal sacks of soy as payment. A search of "sacks of soy" on Google Scholar on February 2, 2018 returned fourteen results (one of which is my own discussion of the term in a published paper), even a search for the Portuguese term "saco de soja" returned only 108 results - it is not a widely used term in agricultural studies or markets, yet it is part of common speech in Brazil. The term was first introduced to me in an interview with Kurt Carter, who proposed I make it part of my study: "One of the things, it's your research and your thing, but I'd just like to put a bug in your ear, I'd be interested if you talk to people who've invested in Brazilian agriculture, I'm guessing they'll give you information in dollars, If you talk to people who are operating in Brazil I'm guessing they will tell you sacks, hectares, and that type of thing and if that's seems like it's not a big piece of information I think it's *huge*. Because of the way they measure success, the way they measure results, the way they measure stuff." True to his lead, most American farmers responded poorly to "sacks of soy" and rarely used the term, in fact more often using it as an example of the backwardness of Brazilian farmers.

Besides farming scales which require hired labor, cash flow and capital play important roles in process of becoming managers. Most U.S. farmers in this community are financed by investors, who also often happen to be farmers themselves. A brochure advertising the sale of land, farm machinery, and other farm assets by a U.S. farmer in Tocantins displays this

financialization of the farm. Expecting perhaps a description of the topography, climate, and soils of the farm, the brochure focuses instead on industry background, shared production investments, investment performance, machinery assets, and returns on equity investments. Not until the last notes does the reader learn about production history, and then only in terms of yield averages. Farmers' movement from the field to the office is often explained in terms of cost-benefit. They are better positioned in the office and also better remunerated to make business decisions and direct labor and hire out labor work. Not only do farmers need to remain in the office to order fertilizer, seeds, and direct labor, they also need to produce investor reports on the financial and agronomic health of the business. Asked what practices they would take with them if they happened to farm in the United States, farmers often reported this style of farm management and a shift towards office work as the most important.

Investors report their interest in investing in South American soy production for two primary reasons. First, like farmer investment in ethanol plants, this counts as an investment opportunity, but is seemingly less abstract as it is related to farming and something that they can understand in real terms. Second, some reported making investments as a means of accessing investor reports and a kind of insider knowledge of Brazilian soy production – a useful bit of information for making planting and marketing decisions.

Irrational Regulations and Lazy Workers

A farmer based in Luis Eduardo, with a farm a few hours away explained the differences between US and Brazilian farming in terms of transitioning to a managerial role.

The biggest challenges are culture, regulations, agronomics. Culturally, one has to learn Portuguese, and learn to be flexible, patient, be tranquilo. Many who failed here got burned out, frustrated, and left. You need a longer term, more patient mindset – change your mindset. Brazilians will take money from you if they can, it's not seen as a bad

thing, just business. Need to understand that. Agronomics are easier to solve – there are different conditions, but Brazilian workers help with this. Labor ministry and the Instituto Brasileiro do Meio Ambiente e dos Recursos Naturais Renováveis (IBAMA) are difficult and expensive to deal with – that is a challenge. Weather is also a challenge – often too much or too little, not perfect like you hear in the news.

They have a lawyer (50%) and an agronomist (50%) as well as 6 scouts who manage 27-60 employees. Tractor drivers, education and training are low – “primitive team, illiterate, but now they are trained, educated, many can read.” “Positive aspect of Americans is the training of workers, employment of workers.” “One has to become a manager,” he says. “Usually in the States you might have five employees, often are family members, here you’re not an independent farmer, but a manager of people, land. That’s a different job entirely.” When they came down it was to make a profit, start a business, avoid the high prices in the US, but also see themselves as trailblazers, pioneers. He describes “massive change,” which I read as “improvement” since their arrival. When I asked about changes, he describe lower unemployment rates, more education, and better infrastructure.

However, the concept of a good farmer in Luis Eduardo moves beyond local gossip on yields and straight rows. While tasked with ensuring timely planting and harvest, managing pests, and keeping in line with government regulations, farmers must also satisfy investors, lest they lose their investment, or worse, have their investment moved to a competing farm. One farmer explained his good treatment of workers as something demanded by investors:

Many investors would be upset, angry if you mistreated workers. They prefer better people, better pay, to maintain workers and reduce turnover. [You] can’t afford not to – to have too much mobility, turnover. Investors aren’t necessarily interested in the workers improvement, but in the negative – do no harm. You also have to maintain a good reputation to reduce turnover, attract better workers.

“Investors,” Chad Davis said, “need to see return on investment, but they are also interested in yield as a benchmark, cost structure, critical success factors ... they want to do

things the right way.” The farm is not just run as a business, but as a financial asset to satisfy investors. Farmers are in direct competition with each other for not just land, but also capital and they compete by demonstrating their ability as managers of capital. Following other farmers’ suggestion that strong worker federations and worker protection gave them license to become disinterested in worker welfare (saying that they had protections and did not need help) I asked Chad if he felt worker relations were bureaucratized and not a social obligation, but a legal one - he responded affirmatively while recognizing that some especially good workers did become socially close. Bolt suggests that protections, contracts, and formalization make farm workers real (Bolt 2017); it’s possible they also make them socially-invisible.

Ian complained of labor protections as both unnecessary and inefficient.

Labor laws are unbelievable, they’re so invasive, they’re checked on the punishments, it’s a way to regulate, to increase income to the government without raising taxes, there’s fines. To give you an example, we’re required to provide shoes, you know full clothes and shoes for all the employees, so down here cotton hoeing, actually being out there with a hoe and taking out weeds is still common practice because labor is cheap enough and there were enough weeds that it made sense and so every year we’d hire some temporary workers, 100, 150 guys who would come out for a couple months and they would hoe. Well two years ago we were out hoeing and the ministry of labor shows up and uh there are two guys out of the 102 out there that did not have their shoes on, and these are temporary workers, they had been given shoes we had proof that they had been given shoes, one guy said that they had just heard us, he just had worn sandals all his life, he’s from a different culture and he just didn’t like em he was wearing his sandals and another guy had a hole in the end of his and he wasn’t wearing his, he was wearing sandals and so they went to our parts department out there to get another pair of shoes for this guy and we said we don’t have any extra pairs right now, we do have the order here, we have the order but we don’t have em in yet.

He continued,

So that’s a fine of uh, it’s 5000 R for infraction and it’s up to the auditor out there for the minister of labor, whether they want to multiply that times the number of infractions or the number of employees working for you, so they took 5000 times 102 so that’s a half million, that’s insane. So that’s how it starts and then you go, these guys have a quota that they have to give out so many fines, if they don’t meet it they have to go back to school, go back to training before they get back to auditing. So I mean you’re out there with them and you’re like this, you know it’s obvious that this is ridiculous and they’re just like,

you'll fight this, you'll put your defense together and fight this later. So yeah you'll go and put this big defense together and uh and you, things are so slow down here, it may be 5, 10 years down the road when a decision is made on it, but it's you know a liability, there's big liabilities out there that you don't know if they'll materialize or not. They settled out of court.

Management and worker relations have an effect on how the farmers see themselves in relation to previous generations of farmers. Ian felt this especially in relation with older generations of his family;

I know my grandpa sees it as, a legacy and he wants us grandkids to continue on with, uh, and my dad and uncle understand that we're stronger together than we are apart with our size we're able to make some bolder moves than we could do all by ourselves. But the, they were, what made the farm grow and prosper when they were my age is different than it is now, like you said it's changed for your dad. They had to work a lot of hours and do it in a tractor, I mean they had to be out there doing physical labor and now with the size the farms grown to, it's a disadvantage to have that feeling that you need to be out in the tractor every day because you need to be managing people because you've got all these employees and you put yourself in a tractor you reduce yourself to one person instead of multiplying and so they both they both realize the importance of like of what I do, but they don't really, they don't enjoy that work, managing people, they'd rather, they'd like us, I think, I think they'd like to see the farm grow up and grow around them rather than them grow up. And that's been a big, a big transition we're currently working out on, for them labor and ownership are the same thing, my father, my grandfather they all worked hard every day and then got, divided everything up in thirds, and now, they still, they own a third, but if they need me to manage something I can't just do that for free, just for fun, so they've gotta divide up management, divide up labor from ownership and that's a whole new concept and for my grandpa, it seems so simple for him, you know you can't just go in and buy yourself a little bit and everybody will work together and just divide things up like we always have and it'll be like we always have.

The generational differences in ideas of good work and good farming extended to their ideas of what the farm was to the family: whether a business or a continuation of farming traditions and site of family reproduction.

You know, my dad and uncle, they have very like-minded, both have the same goals in mind, both work as hard as they can to buy more, own more farm ground that's what it all came down to and their close in age, have the same household, a lot of similarities, but now this next generation, I'm 18 years older than my younger brother, and my uncle has kids, I have an aunt that's not involved in farming who has a kid that wants to come back to the farm. So we all were raised in different households, have different experiences, different abilities and we came into farming at different times so we have different levels

of experience and knowledge and you can't just, this argument that fair isn't equal. Just because it worked for Dad, David and grandpa to be equal owners and divide everything up equal it's different now that you have a different number of people who are brought up in different situations with different life experiences. So that's what we're working on right now is trying to decide the best way to do all that. There's never been one way, Brazil's been different because I'm the only one down here, I like being here cause I'm the boss and I can say what we're gonna do, but up there, they've never agreed well I'm responsible for this and you're responsible for that and you know, and let's measure the performance of the different, you know the grain compared to the hogs. They never did that, they just worked and divide up everything at the end of the day. That's not, you know it works to a point, but to reach the next step, if you run this thing like a business, cause that's what the competitors are doing, and so we you have to make that decision, is this a lifestyle or is a business? If it's a lifestyle, well there's enough land we can run it like this hippie... So we can run it like that and there will be enough money, but if you want to be a business and you want to be able to grow and bring in new generations in the future then you can't run it like a lifestyle."

I interjected, "So you have different goals?"

Yeah, I'd say that probably. They're certainly aggressive in that they want to grow, they want to make things bigger, they want to make places for family to come back in. Ah, but they don't want to manage the people to be able to do that. Now there certainly is a, there's an importance to all that. I did all that that my dad and uncle, I drove the tractors and I understand the agronomic side, I can do all those things, but I decided my time is more better spent on the management side. And there's importance to knowing that other side so you can, you know you hire other people to do it but you have to be able to question what they're doing. And if you haven't done it then you don't know enough to question. It's hard to even hire a person like that if you don't know what you're looking for. I've probably spent, uh, no more than 5 days a year in a tractor now. I don't have the, I don't have a passion for tractor driving like my uncle and dad do, doesn't, like what really makes them feel good to go out and turn the dirt and stuff, I don't get the feeling that they do.

Now, I think farms based here in these frontier areas of Brazil are run more like I knew it than it is in the U. S., they're bigger in size on average and the owners simply can't...it's impossible for them to be out doing all the labor, like they are at home. So really I think in a way the Brazilian farmers are better prepared than the U.S. farmer for the way I think agriculture's gonna head in the next 10, 20 years. We see hogs, dairy, poultry all becoming integrating all becoming much bigger, I think we'll see the same thing in this row crop agriculture. I think the Brazilians are more, these larger Brazilian farmers are looking at this like a business and looking at the margins and understanding the business better and trying to take advantage in that. I think, kinda, the advantage I have now, back in the U.S., there's not many people like me that have had this experience of large, very large scale with lots of employees and lots of money moving around and trying to manage risk. So many people at home, they don't even figure up the numbers to see if they've made money or not, so how are you gonna know how much you can pay to rent a

farm if you don't know...

Section 31.23.5.1 of Brazil's regulatory laws of agricultural work is the target of many North American farmers' contempt: 'Worker housing must: have beds with mattresses, separated by at least one meter, when bunk beds are used must be limited to two beds in height, and have at least 110 centimeters in height between bunk beds' (Moraes 2013, translation by author). For North Americans like Ian and Jacob, rules like these are both overly constrictive and illogical, opinions that are repeated by Brazilian farmers in the regions. Others, like Caleb Carter, see these restrictions as well as restrictions on firing/hiring of employees as forms of protection that are difficult to deal with, but valid. Despite many complaints about Brazilian regulations and the relative strength of the union of rural workers, few U.S. farmers participate in negotiations between farmer and rural worker union negotiations. Most avoid political involvement altogether. For example, while many Brazilian and some U.S. farmers supported a national farmers' protest in June 2005, several U.S. farmers openly derided the protest during interviews. Labor and environmental regulations receive the ire of North American farmers who adapt practices to work with and against them, but a more transformative regulation is the recent judicial decision to restrict foreign land ownership to x% in each county. Currently-owned land has been grandfathered in, but new land purchases are severely restricted – this has not only limited the expansion of U.S. farms and the migration of U.S. farmers to Brazil, but also led some farmers to consider selling their farms or parts of their farms as their business model and cash flow depend at least partially on land speculation and the gradual accumulation of land.

The mixed feelings of workers can be summed up by one farmer's statement that landless workers were thieves who try to get something for nothing, but at the same time admitted that were he in their situation he would participate in land occupations. The portrayal of farmworkers,

especially Baianos, as quick to take advantage is widespread among both U.S. and Brazilian farmers. Several farmers claimed an intent to bring jobs and opportunities to Brazilian workers until finding out that workers in Brazil had the backing of relatively strong labor laws and the farmworker federation. However, not all farmers expressed such aversion towards Brazilian workers. Almost universally, interviewees reported that becoming a farm manager and getting used to working with Brazilians was the most difficult part of farming in Brazil. Again, one farmer reported he thought ‘learning plant names, insect names, learning to farm here’ would be hard, but ‘that’s easy. Crop scouts, farmworkers know everything here. They tell you all you need to know, [they] know how to operate machinery.’ The difficult part is becoming a manager.

In becoming a manager of labor rather than a manager of land, most North Americans are taking steps towards the Brazilian model of farm management as elaborated by Gudynas. This role allows many North Americans to claim that farming is easy in Brazil, it’s getting used to Brazilian culture and regulations that are difficult. Farmers sit in tractors only rarely, and then only for agricultural tours or ethnographic interviews. Most of their time is spent in an office ordering delivery of inputs, securing sale contracts, and meeting with farm managers. In the Hanson family this has led to a conflicting idea of what a good farmer should do, the older generation preferring to be in a tractor demonstrating their hard work and technical skill, the younger generation demonstrating their business savvy from the office. Several younger farmers mentioned that this management style is one element of Brazilian agriculture that they would implement on farms in the Midwest. However, as we seen in all three narratives, there are elements of other visions of agrarian development that persist. The older generation on the Hanson farm still long for time in the tractor, the Miller family proposes that they can introduce US models of accounting into Brazil, and the Carters seek out objective-driven worker relations.

One farmer published a detailed defense of his family and corporation's responsible farming and business practices in Brazil. They include, Principle #1: Promoting Environmental Sustainability; Principle #2: Respecting labor and human rights; Principle #3: Respecting existing land and resource rights; Principle #4: Upholding high business and ethical standards; Principle #5: Reporting on activities and progress towards implementing the principles and promoting the principles.

North American soy farmers' work overlaps with models for industrial soy production in Brazil as well as the tendency for large scale U.S. farms to depend on farm workers and decry workers and labor regulations yet looking at their on-the-ground practices reveals an even further distancing from farmer and farm work. It is useful here to distinguish between productive work and financial work. I'll define productive work as that which is related to the managing of the farm (directing machinery work, planting, agro-chemical application, harvesting, etcetera). Financial work, on the other hand, is work related to managing capital. Clapp identifies the distancing of farm and labor as an aspect of farm financialization (Clapp 2014). But to what extent is this change due to financialization and what is just a reflection of Soylandia/heartland? It is not just a process of distancing farmer from labor, but a re-centering of work around finance work - filing updates, communicating with investors, and managing investment funds.

Farmers regularly send investors agronomic updates on field conditions, rotation decisions, planting or harvesting progress, pest pressure; economic updates that cover markets, politics, and infrastructure; and general farm updates on decisions about land sales or purchases, calls for investment, and things of that nature. For example, a 2010 update begins with a detailed new machinery purchases with reasoning for their necessity, a new hire for the operational management team, and changes in their gin management structure. The following section

describes field conditions for soybeans and cotton, detailing pest pressure, stands, required replanting, and general conditions, illustrated with photos and a chart of recorded rain. The update ends with charts on market prices in Brazil compared to United States, estimated yields compared to past years, and an update on upcoming situations. Other farmers manage blogs to keep their investors updated, which also may raise their public profile and aid in courting investors. Besides this work of reporting up to investors, farmers make investment pitches, host farm tours, respond frequently to newspaper reporters, manage websites, and formalize mission-vision statements.

American farmers adopted commodified and corporatized managerial practices similar to the Brazil Model and large-scale farms in US, but also devote time to tending to investors and capital. It's a mix of both productive (checking seed depth and choosing seeds) and financial (talking with investors and writing farm updates), just as farm land is at once a productive asset and a speculative one (Fairbairn 2014). Financialized work practices now more directly reflect the pursuit of capital accumulation. Farmers abandon the tractor seat in favor of a pickup cab or swiveling desk chair as they manage workers and handle bureaucratic and logistical matters to keep the farm in operation. While traditional notions of family farming can be framed as self-exploitation as farmers tighten their belts, reduce profit margin, and endure hard times, this work is more clearly characterized as the exploitation of farm workers labor. They also become capitalists in the political and economic sense as they come to see their role of providing work as a rejected gift and take an opposition role to workers and depend on workers for producing capital. They have also undergone a further hierarchical structure which places financiers in a position of authority over decision making processes. Thus, farmers must report to them, court them, and compete for them.

Family farmers embrace aspects of the Brazil Model that Mennonites shun. For example, nearly all interviewees held bachelor degrees or above, all lived in the nearby town of Luis Eduardo Magalhães and travelled to the farm, and all personified the shift from farming to managing. When asked how they would farm in the United States if they returned, all stated that they would enact a more managerial role and spend their time in the office rather than the field. Following Gudynas' they often explained this decision in terms of commodified labor. Why work in the field, when you can hire cheap farm labor and earn more per hour in the office? Indeed, North American farmers in Bahia spend 50-60% of their working day in the office and the remaining time is spent checking in on workers. The rare minutes spent in a tractor are often to impress visiting agricultural tourists or farm investors.

Despite the family farmers warm embrace of the Brazil Model, some do find space to distinguish themselves from Brazilians. They do this not by claiming they are better farmers, but that they are better managers. It is common in Brazil to quote prices for land, machinery, and high-expense items in units of sacks of soy. Thus, if the price of soy changes, so does the price of the asset in question. Upon paying, the buyer can provide the listed amount of soybeans, or the cash value of the soy. Some North Americans interpret this as bartering and interpret bartering as something backward and unwelcome in business. They claim then, that they are indeed better at managing farms than farmers under the Brazil Model.

As North Americans work has become re-oriented away from farm work and towards office work, so have their valuations of that work. Having disaggregated themselves from farm work and the farm itself, they have come to place greater value on economic efficiency (seeing their work in terms of capital cost-benefit) and being a good manager of labor and regulations. This change has not been limited to their sense of value, but in fact is an integral part in the

formation or disaggregation of their community.

While describing how a soy farm in the Brazilian Cerrado fit into the legacy of his Illinois family farm, Ian explained that his grandpa, uncle, and father saw the farm as a legacy for the grandkids to continue, being stronger together. However, in his opinion, they had to learn to distinguish the farming lifestyle from the farming business.

Farmers like Ian often framed their work and business as progressive and forward-thinking in distinction to the romantic and naïve way farming is done “back home.” They argue that farming is a business, not a lifestyle and thus a good farmer is one who efficiently and profitably manages the business. However, the concept of a good farmer in Luis Eduardo moves beyond local gossip on yields and straight rows. While tasked with ensuring timely planting and harvest, managing pests, and keeping in line with government regulations, farmers must also satisfy investors, lest they lose their investment or worse, have their investment moved to competing farm.

In her ethnography of family businesses in Italy, Yanagisako notes the common saying, “Il nonno fondo, i figli sviluppano, i nipoti distruggono” or “The grandfather founded (the firm), the sons develop it, and the grandsons destroy it” (Yanagisako 2002, 1). She elaborates that the absence of women from this patriarchal lineage is not accidental.

It leaves out history. Fathers, sons, and grandsons play out their generational destinies in a timeless tale of succession detached from any historical context. Second, and perhaps most obviously, it leaves out women. The exclusive concern with male productive force and its dissipation over time reflects a monogenetic theory of procreation, in which males alone supply the creative force that produces succeeding generations and, in this case, capitalist firms. It replicates in the profane world of business the cosmological model of male reproduction embodied in the sacred origin myths of Christianity. Finally, the adage leaves out gender. Not only are there no women in this tale, but the goals of the three generations of men are ungendered. Indeed, the self-evident character of men’s ambitions forecloses the possibility of asking why fathers would want their sons to develop the firm in the first place (Yanagisako 2002, 1).

Campbell et al note similar gendered lineages on U.S. family farms.

But even the most familiar and accepted country boys have their invisible sides. A common and celebrated icon of the rural masculine is that of the farmer struggling to survive against all odds, heroically staving off the bankers and the weather through plowing, planting, and harvesting for days on end without sleep. In these narratives, the farm survives against the odds because of a tough kind of farming masculinity that endures—and goes on enduring—hardship. Of course, embedded beneath the surface of these narratives are also the stories of the family members who must live with this version of farming masculinity, and who accommodate and support this lonely drama on the prairies. It is the man who typically claims the title “farmer,” even on a family farm where the “farm wife” and the “farm kids” labor both in the fields and in the home on tasks essential to the farm enterprise: feeding livestock, driving grain wagons to the elevator, balancing the books, washing the clothes and dishes, cooking the food, and acting as reserve drivers. But every farm typically has only one “farmer” (Campbell, Bell, and Finney 2006, 5).

Communities of antagonism

Regardless of the persistence of family farms, farm families and rural communities have long been recognized as becoming increasingly subordinate to capital (Hedley 1981). Changing social relations during the 1980s farm crisis reinforced bifurcation of farmers into capitalist and yeomen groups (Barlett 1993) and sowed division within rural communities as farmers became victims of foreclosure, dispossession, public shaming, and suicide (Dudley 2002). Farmers compete for productive farmland, pitting neighbors against each other as they balance accumulation and farm survival (M. M. Bell 2010). At the family level, the dynamic of decoupling farms from families (J. H. Adams 1988) has redefined the family farm itself (Johnsen 2004), particularly in transnational (Cheshire, Meurk, and Woods 2013) and corporatized farms (B. Pritchard, Burch, and Lawrence 2007). In Brazil as well, despite the continued existence of reciprocal economic relations at even the most capital-driven agribusinesses (Wesz Junior 2016), unincorporated farms are a rare sight along rural roadways.

Thanksgiving 2014 found me in the unenviable position of choosing between two

competing invitations. One was from Frank who hosted an annual Thanksgiving celebration in his capacity as director of the English-language school. This was a moment for children and parents to take part in a celebration of American cultural traditions, receive certificates of achievement, and meet English teachers. The second came from Ian who hosted several other U.S. farmers and their (mostly Brazilian) partners at his home. I chose the second--partially to introduce myself to some farmers who I had not yet been able to reach, and secondly to finally see how they interacted together. Until that moment I had never seen more than one in a single place.

When I arrive, Betty and Ian are there, Matt Jenson, his brother Miles and friend Andy, John Wright (Ian's Chief Operating Officer) and his Brazilian girlfriend, Silas and his Brazilian girlfriend, and Ian's kids. Hank Petersen arrives around 5:30. Most of our conversation is about planting. Matt is renting land in Tocantins, from Wilson Funk of Rio Verde, and so people are curious about that. When Hank arrives, they ask a lot about their harvest in Indiana (his family operates a mixed-use farm there). Hank recently had a trip to West Africa as part of an Indiana leadership board, says, 'It's a dump', really bad there. Not much "serious agriculture." They have land here and Indiana and he comes and goes from Brazil a lot.

I was really interested to see who was and was not invited. A lot of people who I might have expected to see were not there. This gathering has been held since their first year here, first at a church, then Gregory Roberts', then Ian's. There were a lot of fond memories of Gregory as host, for his participation in a foot race, for trying to throw a football over his house. There's a decent amount of discussion about macho things – who can kick a 40-yard field goal, etc. Women do most of the cooking, bring out food, beers, dessert, etc. It happens to be segregated by both gender and nationality, as most partners are Brazilian and women remain for the most

part in the kitchen while American men remain in front of the television in the living room. We eat buffet style. There is cheesy green bean casserole, potato dish, chicken, something made with pecans, sweet potatoes. For dessert there is pumpkin and cherry pie (Betty brought down both cans), a chocolate dessert, and maracuja (the only really Brazilian dish) and Ian's birthday cake.

While another farmer suggested this evening would be primarily a discussion of profit, business negotiations, and other business matters, it more closely resembled a typical holiday gathering in the U.S. It was surprising primarily in who was invited or not invited. Beginning my research I had assumed this would be a general gathering of Americans and possibly Brazilians, what I found was a distinct separation of the community in terms of who belonged and who did not.

Perhaps more illustrative of the sense of community is discussion of an ongoing legal dispute involving several farmers in Brazil and investors from the U.S. Midwest. Frank explained his feelings towards Gregory Roberts passionately: "[Gregory Roberts] hired thugs to beat workers, the third one finally confessed to stealing a light bar from a tractor. The thugs were civil police. The worker is now in jail and [Gregory] brags about it. [Gregory says] 'They were fucking thieves.'" Frank claims Gregory hired publicity interns to get interviews, publicity and started doing local philanthropy for children to gain attention. "A lawyer that was reviewing the books to prepare to go public found gross fraud. She reported this and was fired. She reported this to the investors, sued Tyler for the firing, and can now collect his property – if she could find it."

Frank also remembered the case of "Fazenda Illinois" in which a commodity broker bought land sight unseen for \$25 and brought in neighbors.

They didn't check anything, just started farming. Their first year was rice, did really bad, third year they brought [Frank] in. Need[ed] to save the farm, blamed on theft. [Frank]

needed to see irrigation work, they promised that the irrigation guy had bought into the project and was committed. Turned out he sold them all bad parts, had very little pressure, could not even keep up with evapotranspiration. Needed a lot of money to make it work. During that first year IBAMA showed up and said they had to stop and leave the area – it was a federal nature reserve. He called one of the main investors and turns out it was the second time they had been notified by IBAMA, nobody had informed him though. So the investor knew irrigation didn't work, knew IBAMA was on their case. Several of the other farms had some land in federally reserved spaces too.

He went on to describe the case of the Osters: When Leon and Sarah Oster arrived in

Luis Eduardo Gregory agreed to sell them a tractor,

Leon paid and Gregory said he'd deliver when he was done planting. [Gregory] planted late and didn't get the tractor to Leon until it was much too late to plant. Ruined the year for [Leon]. Leon had only 400 hectares, could have planted in a few days, but Gregory didn't care, kept the tractor. Removed the dual tires too. [Gregory's] company went bankrupt because of the domino effect of planting late, losing the crop. When they were planning to come down, Betty told Sarah how great it was down here, then told her it was awful after she arrived. Nobody was friendly, made fun of Leon behind his back, especially Gregory.

In one prominent and oft discussed case, a farmer once located in Luis Eduardo Magalhães is being sued by investors, who are predominantly friends, family, neighbors, and acquaintances. Plaintiffs allege that the farmer misrepresented costs and returns in making an investment pitch, providing low estimates for rental contracts, materials, and fertilizer. While soliciting \$5 to \$10 million, the farmer raised \$1.3 million, but did not communicate this to investors. In investment pitches, the farmer identified the main risks to investment as political risk, currency fluctuations, and weather, before countering that Brazil is stable and pro-agriculture, maintains controls over inflation, and weather is not a factor in production. Projected returns of 25% to 40% and possible returns of up to 50% to 60% were calculated, plaintiffs allege, without a full accounting of costs of production and risks of farming in Brazil. After the first year of production, investors received high returns on investment, though it is believed by plaintiffs that payments were made from new investment monies, not profit from actual farm

operations. Investors in the second call for investment were paid in turn, plaintiffs argue, by a third call for investment instead of profits from farm operations. Plaintiffs argue that these investment cycles essentially amount to a pyramid scheme, caged in misinformation about profits, costs, risks, and production. The case was recently settled out of court and the defendant has agreed to pay settlements to the plaintiffs.

This lawsuit is indicative of a number of phenomena one can observe in the family farming community. It shows the growing antagonism and distrust within the community of farmers and investors, the shift towards legal means of settling internal disputes, and the primacy of capital in creating and dissolving community connections.

On a trip back from Frank's farm in Piauí, much of our discussion was centered on Flint Williams, Bill Brown and Jose Oliveira. Work still has not begun on the farm and there is no money to pay for inputs or wages. The workers, Fernando and Luis, are allowed to accept cows as payment with the promise that they will be paid when possible. They also have a garden and food paid for by Frank. Much of the work is just to keep the cattle and horse alive and, presumably, to keep possession of the farm. He shows a lot of resentment towards Flint and Bill and to other American farmers. When he warns investors, "other farmers of Flint and Bill, people laugh at him and say he's stupid/naïve and just doesn't understand how it's done or is too much of a 'pussy' to do things how they're done in Brazil." He has also separated from management of the school, leaving daily operations to Manuel. Currently, Jose, Flint, and Frank are all suing each other over land disputes at and near Santa Marta. Frank is also working to get Flint's name removed from the legal documents and remove him completely as manager of the farm. Until then, they have little control over finances or anything. Bill, on the other hand has also been confronted by the Dutch land owner and Frank, but still has control of the bank account. His

charcoal scheme, in a nature preserve, has been put to rest as local communities started a protest over his illegal charcoal production and road construction. He still operates his Pita Pits (a regional fast food chain) in Salvador. Frank has thought of creating a new company, leaving everything else, just in order to gain rights over their accounts again, although losing the old ones.

“Americans screw each other over here, no cooperatives, no hanging out, not like other immigrant communities.” He feels more a part of the Brazilian community, with the English school, going to weddings and funerals, being friendly with workers. He “expected more community with other farmers here.” He used to ask people if he could bring anything back, nobody responded. He brought back maple syrup until someone reminded him that nobody does that for him. He also mentions that there isn’t much community action here – no neighborhood watch, nothing like that. He says Flint’s father was a “grilagero” (cricketer) and was on the wrong side of a land war. The local agrarian judge later ruled against all parties in the suit, finding that the original seller did not have legal rights to sell the land.

I was first introduced to this antagonism at a birthday party for one of the Americans in Luis Eduardo Magalhães. After some Americans left, a farmer pulled me aside, let me know that they refer to one that had left early as “the retard” because of his social behavior and fact that “he doesn’t know what he’s doing” while his dad was a sharp guy. Particularly, he added, because he managed to extricate himself from a working relationship with another American farmer who “took royalty money under the table for land deals” and then organized a machinery cooperative but operated it as a fraudulent scheme.

The role of antagonism within the community appeared in lawsuits and Thanksgiving celebrations as well as in everyday conversation. I heard numerous offhand ethical comments

about farmers being too “greedy and self-centered” or being “too nose-y in another’s business”, reporting back to investors in the U.S. on relative progress in farm operations. I even heard allegations that one farmers’ girlfriend was a lesbian, though I have never fully understood the significance or repercussions of the allegation. One of my longest recorded interviews was an extended explanation of the immorality of another farmer. But not all comments on other farmers were negative. For example, Frank commended one group for their ethical work; “South American Soy is doing good work, not all done for ego, coming from a different place. Long-term goals, slow growth.” Yet, the overarching feeling and atmosphere was of competition, mutual dislike, and distrust. I asked one farmer what he thought of the following quote on English migrants in Brazil in the 19th century: “...whenever I hear a foreigner complain that he has failed in the Brazil, and rail against the people and their institutions, it is proof positive to me that the country has every right to complain of him - in fact that he is a 'ne'er do well,' that he drinks, or is an idler, he is incorrigibly dishonest; or finally, to be charitable, that he is an impossible man.” (Freyre 2011, 126). Frank thought it fit this group well.

To understand this turn towards antagonism, it is helpful to remember that without a strong local social network or strong ties to religion (Gill 2005) the community of mostly single young men had little social infrastructure to check behavior. Left alone and unmoored, perhaps changes in practices, community, value, and identity were accelerated. Following Graeber (Graeber 2001, 2013), changes in farming and business practices likely helped frame value and identity in new ways. As farm work was mechanized and outsourced it lost importance as a measure of a good farmer, just as Midwestern farmers now say that “Roundup Ready beans make a good farmer lazy and a lazy farmer good.” This rhetoric is echoed in the deskilling of farm work under GMO cotton production in India (Stone 2007). More important now is the

management of investors, contracts, and workers and this shift is reflected in how farmers value a good farmer - he is now a farmer who makes money, creates returns on investment for financiers, and wins negotiations. This change has created changes to in the figured world of the community (Holland et al. 2001), but the question remains if it is changed or rejected wholly. This disconnection may suggest that the farmers have not coalesced around a figured world and rejected the formation of a community, yet I argue that they have in fact formed a figured world, but one defined by individuality, greed, and entrepreneurship. Despite attempts by Frank and others to create a close-knit community, they remain divided and antagonistic, yet linked together.

This antagonism is not new to rural American communities. Kathryn Dudley found an entrenchment of the entrepreneurial self (Dudley 2003) and a disintegration of rural communities into antagonistic networks of blame, resentment, and perceived injustices. One Minnesota farmer recounted resentfully the failure of justice during the 1980s farm crisis: "I know guys that had big debt write-offs in the '80s. Who had to pay that debt write-off? I did! Through higher interest rates. My theory on that is, anybody that gets a debt write-off better be sold out. [KMD: Why?] Why? Who's paying his debt write-off? The rest of the farmers. Who's running up the cash rent [on farmland]? The guy who just got a big debt wrote off. You're subsidizing the guy that's competing against you!" (Dudley 1996, 52). Responsibility, justice, and praise are expressed in individual terms in response to individual action or inaction, thus, the market, government, and agribusiness are located at the periphery of debates of value, merit, and justice and individuals are placed at the center. Dudley finds that in post-crisis Minnesota, individuality is not contrary to community, but constitutive of it. In Brazil too, we find a community that is not so much disbanded, but reconstituted on a foundation of mistrust, blame, and competition. In Luis

Eduardo, the process of individualization of the farmer continued, but like young, wealthy, out-of-place bachelors in Dubai (Ali 2010) and Saudi Arabia (Menoret 2014), they do so with access to capital and time while isolated and unconstrained by strong social and kin networks.

Decoupling farm, farmer, and farm work

Yanagisako's Italian family capitalists regenerate both family unity and communalism on one hand and individualism, independence, and competition on the other as they generate and regenerate both capital and family (Yanagisako 2002). Similarly, large-scale farmers struggle between a degree of autonomy (or freedom) and power. I use the concept of value as the importance of action to connect narrative of the soy boom as political phenomenon and cultural phenomenon by proposing that their migration to Brazil is a decision based on a confluence of material realities of soy production in Brazil, crisis in the United States, and personal and collective values and identities of work. In addition to this, new values are emerging as farmers engage with local forms of production, local actors, Brazilian culture, Brazilian legal regulations, and as they take on new roles as transnational farmers and as managers of labor.

In Western Bahia, interviewees frequently turned my questions on agricultural practice and landscape transformation around on me to say some variant of "farming is easy in Brazil, it's getting used to Brazil that's difficult" or as one North American caricatured his fellow migrants in an echo of a long-standing Brazilian joke, 'they say Brazil is great except for the Brazilians.' Farmers point to stories of North Americans who came to Brazil as fully competent farmers, but quickly went bankrupt due to worker conflicts, misunderstanding of labor or environmental regulations, or simply because they failed to adjust to the way things were done in Brazil. Patience, they said, is the key trait of a successful farmer in Brazil, next to rationality. The North

Americans' recognition of the difficult process of becoming good Brazilian farmers, dismissive as it may be, reveals the importance of understanding the lived-in realities of the soy boom.

North American farmers bring with them collective and personal meanings of land, production, and good farming. These meanings and imaginaries are mobilized to legitimize, even celebrate their work in Brazil. Their very presence in Brazil is rarely explained by economic language itself, but also through pursuit of good work (be it evangelical, entrepreneurial, or agricultural) and the survival of family farming legacies. In looking at these non-economic forms, globalization, through its articulation in the soy boom, can become less abstract and possibly less indisputable (Cravey 2003).

This ethnographic data finds that North American farmers in Brazil, like their elite landholding counterparts in Chiapas, Bolivia and Santarem, are working for more than economic profit and their work is unfolding in relation with (not domination over) land, workers, political economy, and crisis. North American farmers remain neither fully autonomous in their engagement with soy production nor powerless against the forces of agrarian change; rather they are semi-autonomous as their work emerges out of an entanglement of regulations, expertise, meanings of work and land, worker relations, and political economy. For North Americans, then, producing soybeans in Brazil has many faces – it is the end of the US family farm and its continuation; it is an escape from the conditions of production in the US and their reproduction; it is production for the market and the making of people.

The very notion of farmer, farm, and farming are disaggregated. Cheshire et al argue that globally engaged farmers experience a decoupling of farming, farm, and place (Cheshire, Meurk, and Woods 2013). By this process, farming may no longer be central to an agrarian identity, the farm may no longer be the central economic and social unit, and place may no longer be a matter

of importance. In their study, they found globally-engaged Australian farmers selectively detaching from farm, farming, and place as they reconfigure agrarian identities around farm, place, business, and farming. Similarly, family farmers in Bahia have decoupled from farm, place, and farming. The act of farming has ceded importance to the act of doing business or making profit, place holds little importance, and the farm itself is not something to which one holds attachment, but rather a productive commodity to produce economic profit. While decoupling from farming, farm, and place, farmers have assembled new values of agrarianism which include efficiency, profit, and development.

At the same time, as farmers have removed themselves from home communities, they have created a sense of antagonism, competition, and disregard within their new community. This can be explained as much by lack (of existing social connections) as by heightened presence (of capital and competition for investors). Together, changes in work and practice have reconfigured the community's valuation of land and labor and also created new figured worlds of practice.

Difference exists within the notions of value and identity in Luis Eduardo. Some U.S. farmers change practices and business organization in an intentional turn towards industrialization rather than a forced adaptation driven by government policy and markets (Barlett 1986). In Luis Eduardo as well, some have eschewed industrialization and tried to implant "American-style" farming. Leon Oster, for example, brought his family, lived on his farm, conducted his own farm work, and in general worked to recreate the North American farmstead. A couple from New Zealand, though not part of the study group, supports this difference. The couple moved from New Zealand in response to perceived over-intrusion by the government in terms of taxes and protections. They worked on a Nevada ranch and then a

Ukraine farm owned by an American before moving to New Zealand in 2005 to buy land and start a ranch. At the time of research they had cattle, sheep, and grow a large garden and alfalfa hay. They live on the farm, raise their young daughter on the farm, and rarely visit the city, complaining of the hustle-bustle when they do so. Thus, the change to industrial values is not inevitable and not all farmers are motivated to become capitalist farmers.

CHAPTER 5

GELASENHEIT IN GOIÁS

The previous chapter helps us understand how farmers create flexible farming livelihoods out of place. Mennonites tell a different story - their work, life, and community recall agrarian ideals of autonomy, hard work, and social connectedness and rootedness in place. It seems obvious on its face that Mennonites should maintain this agrarian ideal as popular conceptions of the Amish and some other Anabaptists are based on rejection of modernity in favor of tradition. Yet, even a cursory reading of the Holdeman Mennonites' story in Goiás complicates this narrative. They applied cutting-edge farming practices upon arrival in Goiás, work actively with local Brazilians to spread their gospel, and one of their main concerns that motivated their migration was the future of their children and community - which was threatened by changes in the socio-cultural surroundings in the United States. This suggests, as proposed by Bottos (Bottos 2008) that this group is not concerned primarily with conserving, preserving, and maintaining, but with creating. He writes, "The repeated migrations and schisms... can be interpreted as the concrete ways in which different imaginations of the future were being accepted and rejected, what conditions were deemed suitable for the appropriate reproduction of the Old Colony moral order, and which were not" (Bottos 2008, 192). Through migrations, excommunications, and shunning, Bottos argues, Mennonites actively work towards a future that more wholly reflects their worldviews. Winland finds that Mennonites do not simply undergo "gradual erosion of cultural, ethnic and other particularistic bases of identity, as some Mennonite scholars argue, but rather the continuous renegotiation of the boundaries and meaning of a

'universal community of believers' (Winland 1993, 131) and as Good-Gingrich notes, migratory lives provoke confrontation and Mennonite migration may act as a counterculture to social and environmental systems of capital (Good-Gingrich 2013). So what are they creating? And how do they do so in negotiation within their multiple inter-connected and overlapping boundaries?

Midwestern family farmers have embraced the social transformation of farming identified by both Gudynas in Brazil (Gudynas 2008) and Dudley in the United States (Dudley 1996, 2002). On the other hand, Mennonites seem to replicate our traditional idea of a farmer. They live on their farms, believe in the value of hard work and providing for the family, and remain a tight-knit community. How do they replicate this image and how do they stand as an alternative to dominant industrial agricultural development models of Brazil. Or alternative modernity (Arce and Long 2000a). Loewen notes that Old Order Mennonite communities survive through keeping account of informal land ownership and informal community borders, organizing work groups for road maintenance, providing mutual aid for the poor, mediating conflict, keeping community records, maintaining community insurance schemes and cooperative businesses, and maintaining strong connections to the land (Loewen 2016).

Many in agrarian settlements implement contrasting strategies: either scaling up farms and technifying them, the route of the mechanites in Belize and Paraguay, or by supplementing or abandoning farm income by pursuing wage work, often in construction or dirt work. Those who embrace technification do so carefully, sometimes with regret of environmental destruction, and within limitations of experimentations, for example refraining from planting rice because of its perception of being “antithetical to their sensibilities as traditional grain and cattle producers, even though it was supported by religious leaders” (Loewen 2016, 114). They also limit inequality by restricting either formally or informally the accumulation of land by one family.

Seeking Autonomy

Holdeman Mennonism was founded in the United States by John Holdeman in 1859 and split off from the conservative Old Order Mennonites. Holdeman believed that Mennonism had strayed too far from its roots and Mennonites needed to re-dedicate themselves to non-resistance, the idea of one true church, shunning, evangelism, and traditional dress. Holdeman Mennonites are somewhat of an anomaly as most Mennonites are not evangelistic (P. G. Hiebert and Hiebert 1989).

Holdeman Mennonites defended this autonomy through migration, but in Pemberton-Piggott's study they also defended it using the system of law. In 1978 Holdeman Mennonites sued the Canadian government for approval of independent schools (Pemberton-Piggott 1992). This case is interesting for two reasons. First, Mennonites perceive matters of state (e.g. voting in elections, running for office, using the court system, etc.) as engaging with "worldly matters" rather than spiritual ones and so often avoid using the system of law, appealing for police protection, etc., this also allows scholars to refer to them as being trans-state subjects. The second interesting point is that education for this group is considered paramount – it is a matter of heritage, faith, and influence. It is possibly for this reason that the Mennonite colony in Rio Verde is open to outsiders in every facet except the school system which is closed to outsiders. What remains to be seen is if farming is only a means of supporting educational autonomy and the financial sustainability of the colony, or if it is subject to the same kind of value judgments as education.

The nature of autonomy desired by Mennonites is often taken for granted and left under-theorized. Autonomy is read as a wholesale separation from "modern" society, however the differences that exist between and within Mennonite sub-groups dispels any supposed common

fight for autonomy. Urry has found a rich history of political engagement of Mennonites in Canada, suggesting a relation, not only separation between Mennonites and the Canadian state (Urry 2006). Others have celebrated the role of Mennonites in developing and improving the agrarian economy in Paraguay and even of bringing Paraguayan peasants and indigenous groups into Mennonism (Stoesz and Neufeld 2008). It is clear that Mennonites do not seek a total separation, but rather engagement with worldly society, albeit a selective one with terms of engagement.

The repeated migration and self-separation of Mennonites can be read as purely seeking autonomy, but in comparing their case to that of James C. Scott's analysis of Zomia (Scott 2010) we can find elements of difference that deepen our understanding of Mennonites and of our conceptualization of autonomy. James C. Scott's contribution to the understanding and theorization of agrarian politics is deep. In 1976 he theorized the elements of rebellion in agrarian societies and concluded that peasants did not act as economically rational actors. Instead, their collective decision to revolt was based on a moral economy in which a minimum level of subsistence was required in exchange for labor. When a population is refused a basic level of sustenance and political power, they will rise up violently. (Scott 1976). Following this work, Scott theorized that resistance need not take the form only of outright violent uprisings. In *Weapons of the Weak* Scott shows that peasants can resist structures of power through everyday forms of resistance which subvert or reduce power (Scott 1985). Finally, in *An Anarchist History of Southeast Asia* Scott shows a third route to resistance – escape (Scott 2010). He shows that groups have fled state power – taxes, conscription, corvee labor, and servitude – in order to maintain a level of cultural and everyday autonomy. Besides the act of escaping state power, groups practice forms of agriculture (termed escape agriculture), use oral forms of

communication, and take refuge in ungovernable (or at the least less governable) agro-ecologies.

Scott shows here that peasants make use of creative forms of resistance to evade, counter, or at least subvert state power, however Mennonites show a slightly different dynamic. In the research reviewed, Mennonites do not evade the state so much as they seek out concessions within the state. Additionally, there is evidence that Mennonites actively engage with the state to defend their institutions (in the Manitoba law case) or to support their livelihoods (in Brazilian farming support). Mennonite migration is, I argue, a fight for autonomy, but an altogether different one from what Scott describes. More useful, I think, is the concept of counter-work, elaborated by Alberto Arce and Norman Long (Arce and Long 2000b).

A counter-work is a political maneuver in which a group does not evade or fight power, but rather re-works it or transforms it to fit another situation or sphere of value. So, instead of rejecting a court system altogether, Manitoba Mennonites can use the Canadian court system to argue for their own cultural preservation. Instead of opposing all forms of state power, the Goiás Mennonites can use the Brazilian state to guarantee their exceptional situation within the laws of Brazil. Besides perhaps fitting this context better, this frame also provides for a more relational dynamic of power. We can move from a concept of state versus peasant to one in which each is fighting for concessions and victories, but in doing so find also partial connections and points of mutual benefit.

The difficulty of this complex and dynamic frame, however, is to lose the analytical clarity of more traditional concepts of power and resistance. For example, we can return to the question of what Mennonites are indeed fighting for. In other words, if they can concede and cooperate in order to support political visions of the future, what remains that is essential to their cultural survival? What is beyond compromise? I suggest in the following section that it is forms

of work and concepts of land that are beyond compromise for this particular group and these make up the key components of their imaginations of the future.

Holdeman Mennonites', as well as Hutterites' suspicions of acquisition of capital and pursuit of mutual aid and sharing suggest that they are not in pursuit of the protestant work ethic (Weber 2001) as suggested by some scholars of Mennonism as they fear that over-accumulation of capital places them too close to worldly concerns (Barclay 1969). Bottos captures the employment of this fear in his frame of "imagination of the future." Imagination of futuring, or futuring, "incorporates the ideals of how life ought to be lived, which constitutes the Mennonites' basic orientations in their reproduction over time." It is "maintained and transformed through processes of internal enforcement and contestation, appropriation, external impositions, and from the application of abstract ideals into practice" (Bottos 2008, 2). Following this, this chapter asks if Mennonites in Rio Verde pursue conservation and preservation of social order and life, or rather, practice direct action which proactively creates the conditions of life they want to engender. If the answer is the former, then their actions may be similar to peasant and working class struggles against capital and the state (E. P. Thompson 1971; Scott 1976, 1985, 2010).

Gelassenheit, Work, and Stewardship

In the following section I use two concepts to consider how a Mennonite theology might frame farming practices – Gelassenheit and Stewardship. Calvin Redekop defines Gelassenheit as yielding, "it means that the Christian must yield to God's will" (Redekop, Ainlay, and Siemens 2001, 88). Mennonite scholar Sandra Cronk expands this by adding that "by working hard a member shows he is more concerned with others than with his own comfort...work is thus

transformed into a service of love for others. It is not primarily a way of gaining personal wealth, power and prestige” (Cronk 1977, cited in Redekop, Ainlay, and Siemens 2001, 88). Funk adds that *Gelassenheit* is emphasized through discipline within the community, church as community, and willingness to suffer (Funk 2012). Work, then, is more than profit accumulation; it is a means of submission to God and a service for the community.

Dana and Dana show the value of *Gelassenheit* in action in their study of agrarian development in a soy-producing Mennonite colony in Paraguay. A Mennonite-founded cooperative functions as a seller of inputs and as a primary buyer of agricultural products. Instead of distributing dividends to farmer-owner as is typical, dividends are distributed through a mutual aid program that provides health care or to people in need. One colonist reflected that with the cooperative, “Instead of looking for markets, we can focus our energy on the work itself” (Dana and Dana 2008, 72). When the balance between individual and community shifts too dramatically, in the eyes of Mennonites, actions can be taken against the offender. For example, some Mennonites on the Rio Verde Colony have been shunned for accumulating too much land and restricting access to his neighbors. A Holdeman Mennonite is cited in Redekop’s work on *Gelassenheit* as claiming that above anything else, a vocation must aid people and avoid risk. Both situations suggest that *Gelassenheit* does structure the way that Holdeman Mennonites conduct work or at least structure the way that work is subject to value judgments and negotiation.

Moving from ideas of work to ideas of stewardship, Mennonite scholars have used the concept of *Gelassenheit* to propose that Mennonism can provide a sustainable development ethic. For example, in a collection on Mennonite experiences and perspectives on development (Yoder, Redekop, and Jantzi 2004), Susan Classen suggests that a more just and fair future is possible

through yielding to a higher power (Classen 2004). Calvin Redekop argues that Mennonites in Paraguay have been role models of survival in the Chaco, and are “helping as much as possible to make the Indians self-directing and independent” (Redekop, Graham, and Stoesz 1980, 83), a characterization that Miller rightly calls “blatantly paternalistic” (E. S. Miller 1982, 481).

In a more recent collection (Redekop 2000), Redekop and others propose that Mennonism provides the framework for an environmental ethic. This ethic stems from the recognition that the world is an expression of God and an established order between natural and human worlds. Redekop suggests that the restoration of this order is a primary concern of Mennonites and should also be a secular concern. Together with the developmental ethic set out by Gelasenheit, the environmental ethic of Mennonism suggests that Mennonites work according to a different model, or perhaps alternative modernity than what is often presented in studies of soy landowners in Brazil. The concepts of stewardship and Gelasenheit roughly fit the typology that Peggy Barlett defines as agrarian values - a connection with the land, multigenerational decision making, emotional attachment to work, and the embeddedness of spiritual realities in farm work and farm life (Barlett 1993).

However, Mennonites continue to struggle with interpretations of Gelasenheit as they integrate themselves into worlds of business and are left to determine the extent to which business and Mennonism are allowed to overlap (Roessingh and Boersma 2011; Roessingh and Schoonderwoerd 2005). Mennonites in Spanish Lookout, Belize pursue a selective modernization and in fact promote their interpretation of modernity as well as their role in “growing Belize” (Roessingh and Boersma 2011). A crux of this question is whether Mennonites who have migrated undergo a process of change, preservation, or something in between. Good-Gingrich and Priebish (Good-Gingrich and Preibisch 2010) argue that Mennonites who migrate

in order to preserve their culture, community, and religion voluntarily and involuntarily undergo loss of that which they seek to preserve. Higdon supports this thesis in relation to agriculture, arguing that migration and farming necessitate change to at least the agricultural practices of the community to fit their agroecosystem, though certain changes in terms of machinery, diversification, and scale of production may conflict with community egalitarian ideals (Higdon 1997). Cultural reproduction goes beyond the Mennonite community as well. For example, a Mennonite community in Curitiba, Brazil reproduces itself through education and ethnic schooling (Sahr and Lowen Sahr 2000).

Good-Gingrich and Preibisch demonstrate how a Mennonite colony in Mexico has been induced to send men to Canada to seek wage labor in order to financially support the colony (Good-Gingrich and Preibisch 2010). This move, they write, is intended to preserve the feasibility of the colony and its cultural traditions, but paradoxically leads to changes in gender relations on the colony and a re-ordering of legitimate work. This, they write, is the paradox of preservation by change. Loewen's comparative study of Mennonite communities' responses to rural disjuncture in North America demonstrates a similar dynamic (Loewen 2006). A group that founded a colony in what is now Spanish Lookout, Belize originally migrated in order to preserve communitarianism and conservative principles, but these principles were reformulated to favor exclusivity and to become radicalized as extremely conservative. Colonists constructed new moral explanations for their move and re-framed their migration as "separating the grain from the chaff," they also ended opposition to government support in favor of state protection, used agricultural commodification to support the colony, and reduced restrictions on mechanized agricultural implements to become what locals term "mechanites." Both cases suggest that Mennonites' attempts to preserve cultural traditions, social relations, and values induces change

– change in ideals of work, change in who belongs in the colony, and change in how the state is perceived, or used.

Importance of work, providing

Herbert Claasen is the son of Aldo, who had been on the initial tour in search of cheap, productive farmland. He now lives in a house a few hundred feet from his father's home. His home is comfortable and recalled for me, like many of the Mennonites' homes, the homes of aunts, uncles, and grandmothers in South Dakota. Outside of the home, the family had a mechanical milking apparatus, a pen for small farm animals, a larger enclosure for milk cows, and a still larger enclosure for cattle. Behind the home and past the pasture flowed a stream, dammed by the family for energy production. On warm days the children played in the artificial pond created by the dam.

Herbert owns ten hectares of land, previously planted to soy, but Herbert preferred hay and milk cows because he is “not much of a soy person” and also does not have enough land to make it profitable. He also believes hay is often more profitable than soy. Herbert can get the equivalent of 60 sacks of soy per hectare (converting his yield to cash terms, expressed in sacks of soy) on his hay fields, and gets six harvests per year. He planted six years ago and has had to till up a piece but has not had to replant. He sells to the county which manages a horse-riding program for children with handicaps, and to the farmer syndicate, as well as private horse owners. Aldo had warned him to avoid getting involved in a luxury crop, but Herbert argued that it is not an issue if the end use is luxury, because he is just producing it.

One of his brothers has four broiler hen barns, each with 24,000 hens. His brother sells to Perdigão, a regional chicken production conglomerate (and target for the ire of many area

Mennonite and Brazilian farmers), but is resentful of the relationship. There used to be another buyer, but Perdigão bought them out or merged and now are one of few options. Perdigão was drawn to the area by fiscal and financial incentives provided by federal, state, and city governments and access to grain for feed and farmland for the disposal of manure. In his dissertation on its local impacts, Borges finds that Perdigão has provided employment opportunities, increase local herds, solidified the industrial work culture, and consolidated meat agribusiness in the area (Borges 2006).

As Herbert sees it, buyers force farmers to take loans from them and implement specific practices with specific machinery, then change these practices now and then so that farmers have no options but to re-invest and remain in debt. Some fight back, resist impositions; most have to accept the terms. Aldo has 160 hectares of soy – “a respectful living.” He enjoys farming, likes to plant seeds, run the combine, and till the fields before they converted to *plantio direto* (direct seeding, or no-till).

Aldo has two employees in the hen barns, and hires temporary workers during very busy times, but avoids hiring full time laborers as much as possible. He did have some other full-time workers a few years ago, but not anymore. He does not like to hire labor. When he goes to town he “almost feels embarrassed by the amount of land he has” because of how much land Brazilian farmers have. While helping Herbert and Aldo do maintenance on a tractor, I asked if farming is an important part of being a Mennonite, Aldo said no. “What’s important is providing for the family. The majority Mennonites are in the service industry, it’s even becoming that way in Brazil.” He continued, “If you don’t provide for your family you’re worse than an infidel.” Herbert interjected to say that it says as much in the scripture and that “you work by the sweat of your brow.” I later looked up the relevant Bible scripture for reference, “Anyone who does not

provide for their relatives, and especially for their own household, has denied the faith and is worse than an unbeliever” (1 Timothy 5:8).

From his thirty dairy cows Herbert gets 690 liters of milk per day, milking them twice a day. “It makes more sense to sell hay and buy silage” because you can get one metric ton of silage for the price of 200 pounds of hay. In the past he did intensive rotational grazing with cows on each plot for twenty-four hours, now it is all silage. He also has about six beef cows, mostly managed by his children. They are trying to get a pure-bred line of a South African cattle (bonsmara). They also have six sheep, from a gift that his daughter takes care of, a goat that was a gift, and sell energy to their neighbors. His brothers have 650 hectares of soy production in Mato Grosso.

He plants Tifton-Bermuda and early on fed it to his cows, but had a surplus so sold it. He was the first in the area, but now he has more competition. Now, he has to be more competitive, and it helps that he has history with his clientele, a good reputation, and contacts. However, he is at a disadvantage because a lot of business deals are made at a bar or over beer somewhere and he cannot partake because he is a “church-going fellow.”

They have had their own dam since the 1980s, built by Aldo. It serves all of their energy needs and they also sell a certain amount to neighbors. There are occasional mechanical issues, but it is low maintenance. They also have a small well on the farm and a deeper well near the chicken farms for all of their water needs.

He also sells propane to neighbors and for a while had a grocery store which he closed due to concerns about boys and girls mixing and getting overly friendly. They closed the store even though it was a “good business” and “kind of fun to see people.” They opened it to make some money, but also to see their Mennonite and worldly neighbors. One issue was credit –

having to ask people to pay and occasionally having a conflict. They “didn’t work much with cash.” Another issue was the girl working there – “some boys would stop by and hang out with her and dating is not allowed.” He spoke to the boys several times, but they continued to linger. So that made him want to close it. He thought he could have his daughter work there too, “but she’s pretty” and it would be the same problem. He considers re-opening it if he can have it open full time and have full time help. It was also illegal, not registered and he did not pay taxes on sales.

They work in a “kind of cooperative except that most cooperatives are built around a common economic activity and don’t care about ideology or religion.” Here they are built around a religion but have different kinds of economic activity. “The economics don’t matter, it’s the religion that matters.” What’s important, to not be worse than an infidel, is to be productive and provide for the family. Looking for how *Gelassenheit* was expressed in Rio Verde via ideas of “hard work” one of my recurring questions was about the importance of hard work and farming to the community. Herbert picked up on this tendency and pointedly, and somewhat annoyed, countered my frame. “You’ve said a few times about working hard, that’s not part of our teachings.” It’s about being productive and supporting your family, not about working hard. “What is working hard? My brother works in the press. Is he working hard?”

Wilson Funk is the son of one of the original settlers of the colony, Charles Funk, though not one of the original tour members. He lives in a small house, also a few hundred feet from his parents’ home. He lives with his wife and operates a dirt working business. His father owns hundreds of hectares of land and several years ago Wilson purchased a large tract of land in Tocantins, an area where a number of Mennonites have purchased land in response to either expensive land in Goiás or in some cases their being expelled from the community. For various

reasons, Wilson's investment in Tocantins farmland has resulted in severe financial and mental distress, leading him to rent the land out to Matt Jenson from Iowa, who lives in Luis Eduardo Magalhães, and stay home in Rio Verde to operate a dirt working farm.

The business consists of several large tractors, dirt moving implements, and two young Brazilian Mennonite employees. Before my arrival in the community, business was brisk as the region was expanding and builders needed strong foundations for their construction sites. Since arriving, the slowing economy and probes into construction led to a near-complete work stoppage at large construction sites. Wilson continued to work on smaller projects, for example building or reinforcing dams on private property. He also purchased machinery to repair and sell.

Like Herbert, Wilson profited from the reputation of the Mennonite community and his own personal reputation as a good and honest worker. However, this also led to trouble. Wilson insists on the importance of contracts in business and preaches their importance to community members. However, Wilson places importance on contracts as a means of formalizing and clarifying the roles and responsibilities of each member of an agreement, not as a legally-enforceable artifact. Though Wilson is not a Mennonite (meaning he has not been baptized), he lives in the community, his family is Mennonite, and he follows many of their customs. He would not seek legal remuneration for broken contracts (often in the form of non-payment for services rendered) for two reasons. First, as a pacifist, Wilson perceives lawsuits to be violent and counter to personal and community values. Second, lawsuits depend on the state as arbiter of justice, and Wilson and the community prefer to place community above state as arbiter, and God above community.

While interviewing Rio Verde Mennonites, the topic of Brazilian farmers and American farmers in Bahia often came up, typically in relation to their farming practices. Mennonite

farmers often argued that Brazilians and Americans in Bahia were “hitched to the satellite,” meaning they both had access to GPS technology, guided tractors, and precision agriculture. They also depended on these technologies. Suggesting that depending too much on these technologies led a farmer to forget how to farm. They often challenged other farmers in their identification as farmers, questioning how one could be a farmer without “actually farming.” In my generally enjoyable and friendly conversations with Mennonite farmers, the heartiest laugh was shared over the ridiculousness of the technological-intensive and farmer-less practices and near endless flat fields of Bahian farmers. But their critique went beyond identification or mis-identification as farmers, touching on matters of religion and value. Charles, Wilson’s father, makes fun of farmers using satellite, falling asleep in their tractors and calls them “hooked to the satellite,” meaning they are unable to farm without GPS technology. “As they say, ‘prosperity breeds individuality,’” Charles often said.

Wilson’s best guess on total land of the Mennonite colony was 3,000-4,000 alquieries, his family has 120-30 alquieries (a Goiás alquiere is 4.84 ha) and they are the biggest. Their six neighbors average around 30 alquieries each. I took this opening in the conversation to bring up a pitfall-strewn question. I asked about community restrictions on land, having heard of Mennonites being expelled from the community and fleeing to Tocantins as a result of owning too much land. Tentatively he responded, “there’s no certain limit.” He continued, “We don’t want people to focus too much on economics in place of God.” There are no real limits, besides sensing someone becoming too worldly. “In Brazil there is so much status around farming, you can tell who is who, in the US rich farmers wear work clothes and get dirty, here, peoples’ vehicles and clothes set them apart. If there is a problem, for example someone wearing a bright red shirt, or a sleeveless shirt, or a bright red car, you ask, ‘what’s wrong?’” And ask the person,

“Why do you look to these things to bring you satisfaction?” because something must be missing.

This prompted him to reflect. His adopted cousin went on a mission, was a “good Mennonite kid, but bought a big silage cutter, a New Holland brand, and started making up to 40,000 reais per day. He got really big, bought a pickup, got involved with girls, separated from his wife. He wasn’t an American, but a decent Mennonite [often when talking about Brazilian Mennonites, they would clarify if they were good or bad Mennonites]. But the worldly way of life tore his life apart, personally, economically, and socially. He lost his family and now his business isn’t as good as it had been.” They put a lot of credence in Matthew 19:24: Again, I tell you, it is easier for a camel to go through the eye of a needle than for someone who is rich to enter the kingdom of God." If you’re rich it is easy to put all your trust in money, not God. With religion, and here he mentions again that he is not religious (though he is) problems make you humble. “Prayer humbles you.” When they went through economic problems they turned to prayer and worked their way out of it. So, “don’t just go for money and land.” He mentions another Brazilian Mennonite who went big in agriculture with the result that his children left the church.

“Mennonites in the US can be rich,” he reflected, one in Georgia who they call “Oil Alfred,” “has oil fields and he’s a millionaire, but it’s fine there because he’s humble, wears simple clothing...Money makes it easy to not trust in God, you won’t bother with prayer. I’ve noticed that in myself, though not a religious man. You can’t buy your way out.” A couple years back Wilson’s family was in bad shape trying to renegotiate debt, negotiate their position and they turned to prayer.

The strict enforcement of norms and limits on land and capital, he explained is “not to

keep people down, but to protect them from pitfalls of being wealthy and not needing anything.” Wealth and land aren’t frowned upon. “They’re not worried about worldly, buy and sell life, it’s a religious standpoint.” He contrasts their positions with their neighbors.

Brazilians farm a huge amount of land, rent, make money, have an owner, a team of gerentes, each has a core part of the farm, and sub foreman, who have workers. Each is in charge of planting, harvesting, cattle, cotton, etc. From a central office in town the manager visits farm once in a while, Gerente go out once a day or so, each monkey on his limb. Each worker has a work card with a specific job, task and don’t do any other kind of work.

He has problems with this. In his dirt work business, workers won’t do anything besides their task. Truck drivers won’t unload the truck, because their job is to drive. “Us Americans like to do it all, but [Brazilian workers] find it strange to see a boss doing any work. Just stand aside to let them have fun, then get back to work when they’re done playing.” He tells of a “lady engineer” who was at a work site and could not move some material because they did not have a forklift driver. Wilson asked if he could do it. She asked if he knew how, if he had training. He said no training but “It’s the opposite here and it’s not really admired.” Time is worth more to farmers, he says, and labor is a fraction of the cost and “workers here really know what they’re doing, they’re beating us.” “A farm in Mato Grosso could stretch fifty miles in any directions and it’s easy to manage, expand, just hire trained experts to manage it and you can expand into something you don’t even know – like cattle. So people become managers. But, “he could do [the work], and she was very surprised.” He enjoys the work and likes to set an example.

I mentioned American farmers in the Midwest who have part time jobs, he laughed and says that would never happen here. “No farmers here are satisfied, always want more land. Americans are more satisfied, [sell] land even, which would never happen here. Here you always get bigger, never smaller. In U.S. people feel more confident with who they are.”

“The sad thing is when someone wants to impress by buying a car, or a Hollister tee shirt.

Maybe that will take another generation and it'll be less like that.” He talks about how he avoided selling his Tocantins land and his father’s land to get out of debts; that was very important to him. “Mennonites will buy land for a few cents an acre and say ‘this is enough for me to farm and my kids.’”

Community Divisions and Continuity

The Holdeman Mennonite colony near Rio Verde fights like a community (Colloredo-Mansfeld 2009) in that they present a unified force outwardly in self-defense and dispute internally what it means to be a member of the community. Dyck writes of Mennonite communities in diaspora, “Mennonite encounters with Mexicans did not weaken the immigrant group’s ethnic and religious identity. Instead, these interactions in the marketplace, in times of conflict, and in interpersonal relationships served to create a communal Mennonite identity and strengthen their self-perception as an ethnic minority living on foreign soil” (A. Dyck 2007). Yet church membership is also a powerful dividing factor within Mennonite communities in diaspora, writes Hiebert, “Church membership for Holdeman people is not a peripheral but an integral part of life. This commitment to God and to each other is their *raison d'etre*” (C. R. Hiebert 1971, 397).

Processes of ethnic integration and mixing operate alongside processes of distinction and exclusion in diasporic Mennonite communities. In a comparison of Mennonite communities in Brazil, Wiens finds the evangelism of the Holdeman Mennonites motivated them to integrate into the local community.

With the North American missionaries and with the Holdeman Mennonites, this aspect of acculturation did not take as long. The motivation of the missionaries to learn Portuguese was stronger than that of the immigrants as they came to evangelize and assist Brazilians. This task made language acquisition essential and urgent. In the case of the Holdeman

Mennonites, their purpose in migrating to Brazil was not unlike the German-Russian immigrants. However, their identity was less ethnic and more religious. Although they possessed European ancestry, they had lived for at least four generations in North America and so had less loyalty to culture, whether European or North American. As a result, Portuguese language learning began almost immediately, as did attempts to reach Brazilian neighbors and integrate them into their church (Wiens 2003, 299).

Yet, while working to integrate with the surrounding community, they also fight among themselves over who belongs in the true church, which according to Holdeman Mennonites is:

1. Those who have repented from their sins— amending one's life by forsaking the "old way of life" and walking in newness of life.
2. Those who have been baptized upon such an experience, symbolizing thereby the inward change that has come to them.
3. Those baptized persons who have covenanted together to be a brotherhood and, in this relationship, to follow specifics with reference to conduct. This implies readiness to give and to receive counsel from each other in order to gain maximum Christian maturity and unity as a church.
4. Those who observe feet-washing and communion together in true spiritual unity.
5. Those who are married "in the Lord" and refuse divorce and remarriage.
6. Those who are nonresistant in their response to enemies regardless of the abuse meted out to them.
7. Those who have pastors teaching sound doctrine and filled with the Holy Spirit (C. R. Hiebert 1971, 398).

In her analysis of multi-lingualism on the Rio Verde colony, socio-linguist Heloisa Brito de Mello found a high-functioning level of multilingualism, but a divided community (Heloisa Augusta Brito de Mello and Silva 2011; Heloísa Augusta Brito de Mello 2012). When asked about the importance of Portuguese and English, some reported that English was the most important and should continue to be the primary form of communication on the colony because they were American and remained close with family and friends in the United States. Others reported that Portuguese was the most important and should become the primary means of communication as they had adopted Brazil as their new home and had received special permissions from the state. Still others reported that neither language was really important because they were neither Brazilian nor American. They were Mennonites, or simply Christians

and would continue to identify as such.

In defining the unifying forces and the sources of internal disputes, then, we look to how the community engages with the surrounding population of Brazilians, how they negotiate the meaning of being Mennonite, and the importance of holding on to American artifacts of language, custom, and social connections and of adopting Brazilian aspects of life. Additionally, we look to the question of what really matters within this. To say that members disagree on whether they should speak English or Portuguese is less meaningful than if group membership is dependent on the answer. As often came up in conversations, group membership could be disputed or granted based on language, religious beliefs, ethnicity, and sexual orientation.

Among our most heated topics in several days spent with Herbert, was a discussion of how the community should be identified. “The people who stick around have no pride in American ways. They adopted Brazilian kids. [We need to] focus on the community and church, not being American or Brazilian.” Most think it is about being Christian, though some have heated arguments about whether they should be American or Brazilian. “It’s not either,” he said, “it’s being Christian.” He has thought about speaking only Portuguese in the house to support this viewpoint. He wants them to be known as Christians, not the “American colony.” At the Tecnoshow one year he was eating at a dinner booth and somebody asked if he was American. “Well I was born and raised in Rio Verde, I speak Portuguese.” The friend responded, “You’re still American. Do you pray in English?” “Well yes,” he conceded. He laughed and said he understands it is complicated, but remains upset that they’re known as Americans.

There also remained divisions according to who was Mennonite and who wasn’t. Herbert once responded to my mentioning of talking with Wilson by saying, “Wilson is a different folk, not a church member.” To me, this suggested that he was uncomfortable with my talking to

Wilson about the Mennonite community because he lacked authority in that area; he was not a member.

One of the most jarring experiences I had on the colony occurred on a ride into town. The driver and his son were asking about who I had interviewed and who I was planning to talk to, I mentioned that I had met a young Brazilian man whose family was Mennonite, but that he was not. I had talked to him in town and then gone to his family's home to spend the day. "That's a sad story," the son replied. Knowing of a vaguely referenced story of the young man's father being convicted of shooting and killing a local pastor over a debt dispute, I assumed this is what he was referencing. I mentioned what I knew about it. After explaining that the man seemed like a good man, not religious, but good natured, the father in the pickup explained they meant about the son. The son had been "out" as gay since being a teenager, had left the church shortly after, and moved to the state capital a few years later. In this case, the father's conviction for murder could be explained away, but the son's sexuality was inexcusable and grounds for exclusion.

Within the community, then divisions remain around how they should be identified (as Americans, Mennonites, Brazilians, or Christians) and groups are excluded from membership outright due to diverse issues as sexuality and land ownership.

Forming institutions

While division remains in terms of identity, work, and sexuality, the community also provides certain common goods. They operate their own school system, perform church services, operate a press for evangelization, and construct and maintain their own road systems. They also have installed several small hydro-electricity dams and their own Wi-Fi tower. One Mennonite used the internet to check on his wife's medical diagnosis, another researched a potential

aquaponics project for his farm, one child used it to play video games and call family. One uses the internet to collect news from the US and uses it to publish a newsletter for the colony, though Herbert once remarked that he was too “distracted” by the internet.

After spending a morning and early afternoon interviewing and hanging out with Herbert, we left the house to pick up his kids (two girls and three boys) from school, the trip featured aspects of many of these provided services.

Roads are a piece of pride. “Before we came,” gesturing to the road, “this was just a dirt road” it’s now a straight, well-cared for gravel road. They have their own gravel pit, have a road committee that does the work, they ask for minimal help from the government, only materials. Like Ian Hanson of Luis Eduardo, they are proud of their roads and people in the area talk about the “American roads” as good roads. They had to bring down a road grader from the U.S. because they do not have them here.

The school is community-run. Each class encompasses several grades, depending on the demographics of the student population, and includes students and teachers either born into the community or baptized into it. The school is clean, well kept, although a little faded by years. There are four classes and one each for Portuguese and English (Brazilians take English courses and vice versa). The teachers were all women and all under 30. School goes through eighth grade and is not sanctioned by the government. Students can take the equivalent of a Graduate Equivalency Degree if they want. According to Herbert, the government at times has tried to get them to go to public schools, but those are in town. Some rural ones exist but are awful, according to him, and most Mennonites see their classes as superior both morally and practically. Inside the school on the walls is a U.S., Brazilian, and world map displayed with about the same prominence and size.

Social control of women in Old Order Mennonite communities demonstrates separation of the world through informal and formal control of clothing (Arthur 1997). One of these is the forms of expected work in household or farm (sacred), which give preference to work in the fields or the home - nursing and teaching, which are seen as “less stressful” are not ideal, but acceptable forms of work for women (K. D. Schmidt 2001). This was reflected in the makeup of the school teachers in the colony as well as their absence from off farm and out of household work.

They play softball, tee ball, soccer, and different running games. The school committee is made up of five community members who serve five-year terms. Each year one person completes her/his term and a new person is elected. The positions are unpaid, though the teachers are paid wages. Among the committee are different positions, secretary, grounds keeping, chair, etcetera.

The printing press is next door to the school. In the printing press area is a small map of Mozambique, “one of their more dynamic missions.” Herbert mentioned at one point that since they took religion out of school is when the school shootings began in the United States, he says the connection is obvious.

Herbert’s brother works in the press, mostly translating works from Mennonites in the States and some from the colony (contemporary pieces) into Portuguese to be sent to other missions in Brazil and a mission in Mozambique. In the entry they have a small bookshop, with bibles, children’s’ books, and smaller books that address different religious themes. They also have Christian post-cards. In the large room to the left there is a large work table, two different printers, shelving. From there one enters either the brother’s office or continues down the hall to storage rooms and bathrooms. The workers in the press are also paid wages. To emphasis his

point about hard workers, he says that his brother sits at his desk, “is that hard work?” (his brother and I exchanged an awkward glance). He says again, the important thing is to support your family. Primarily the press makes fliers to be handed out throughout the country, stocked at gas stations, handed out, whatever, and small books that may be sold or given away. These are more contemporary works than works by Menno Simmons or John Holdeman. We said our goodbyes and went to the school to pick up the children.

Taking the same road back, the last 100 yards were rough and we almost hit a fence post or two, but we made it safely back. His father earlier in the day was grading that road, or possibly it was the road beyond that 100 yards. There is no road committee anymore, more of just people doing their own work, maintaining roads when they see fit. He said his father enjoyed doing working on the roads, most likely he sees it as a kind of opportunity to get in the tractor and work the dirt.

Engaging with local community

Old Order Mennonites in Bolivia maintain distance from local communities by learning little Spanish and restricting transportation to the horse and buggy and restricting even bicycle use or rubber tires on tractors - these restrictions both fulfill their perceived need to act as the Bible prescribes and limits young people’s interaction with worldliness. Just the same, Belizean Mennonites restrict cell phones to do the same, even if most own one anyway. At the same time, they lament lost trade opportunities due to their isolation and some Old Order Mennonites in Bolivia allow the use of buses and taxis to visit family because “they are willing to use them if colony life is strengthened in the process (Loewen 2016, 166). In many cases, this distance is encouraged through intentionally sustained language barriers and breeds disconnection and

ignorance, which encourage misconceptions and distrust between Mennonite colonies and their surrounding communities and even conflicts over land claims even if some are able to create good-willed business relationships. Often, however, the greatest source of conflict is Mennonites who have declined to be baptized, been shunned by the colony, or otherwise are outside of the spiritual center of the colony (Loewen 2016).

I once shared a joke told by one of Ian Hanson's farmworkers about Americans which was that Americans in Bahia are rich, but look poor, and Brazilians in Bahia are poor but look rich. Wilson responded that he dresses poor and looks poor, laughed and said the joke is pretty accurate. He reflected that when he is seen in town with dirty clothes, older pickup, people notice that he looks different. Most of his Brazilian farmer friends wear nice pink or white shirts and nice jeans and do not get dirty at all when they do go out to the field. This opened up a richer discussion about the differences between American Mennonites and Brazilians in Goiás.

We talked about how Brazilians and Americans differ in style. As he saw it, Americans (Mennonites) "hang on to traditions...try to hold on to old machinery...do the work themselves" while "Brazilians want to try whatever is new, have little attachment to tradition, and hire workers." He did not see these differences in a negative light but explained that he thought it made sense to hire laborers because they were cheap and it makes sense to buy machinery before it breaks down because it saves wasted time at important times like harvest or planting. However, he does not do this because prefers to be doing the work. He added that he cannot completely trust his workers to do the tractor work because they aren't as familiar with machinery as he is.

Talking to people in Rio Verde about the Mennonites I received one of two reactions: surprise at the idea, having never heard of the group before, or more often, a statement on how

they are hard-working, honest, and friendly, though also closed (fechado). An interview with an agronomist at the local agricultural cooperative, Comigo, supported this passing observation.

According to the agronomist, Mennonites do not join Comigo and have not had a role in the founding, but they do come to the offices relatively frequently. The agronomist was not exactly sure why this is – some norms, or also maybe because of financial obligations – liability of the cooperative needs funds. A farmer later explained to me that they do not join Comigo or the rural syndicate because they are not supposed to associate with unbelievers and they have a policy of non-resistance, which the legal and political action of the organizations violates. If the syndicate “stands up for farmers’ rights” it cannot be non-resistance. They do however sometimes buy soy meal, mineral, or other products, and do sometimes participate in events.

In terms of reputation, he noted that as farmer, and as people, “in every way” they’re well respected. They are seen as very isolated, but good people. In terms of practices, he said they’re the same, they use the same techniques and technology, although this was contradicted by other interviews with farmers and Mennonites. When they first arrived, he added, they used more advanced techniques – fertilization techniques, and machinery – but now they’re mostly equal. They attend technology demonstrations to learn, but seldom participate. They do not necessarily add their point of view but come to learn. They welcome others to the colony, though.

The region adopted no-till in the mid-1990s, but the Mennonites made the change a little later (he agrees it was about 10 years ago, putting it around 2005). In the 1970s and 1980s most of the region wasn’t “technified” and the Mennonites brought more advanced techniques. Before they arrived, there was farming on the good land, but “nothing” where the Mennonites settled. Their settlement and success were both big surprises for the Brazilians. The Mennonites and the gauchos came and brought new ideas of fertilization, that is to “construct fertility, to correct

soil.” They had learned these in southern Brazil and in U.S. “They transformed unproductive land into fertile land. Before they came the land had virtually no value, now it’s 40,000-50,000 reals/hectare. People thought the Mennonites were crazy.”

The agronomist noted that Mennonites have a reputation for being serious and honest. When they apply for credit they are the only ones who actually read the contract, they look through it carefully and know what they are signing before they sign it. I ask about their future in the area, “tem future” (they have a future). He says some have to leave because families are expanding, the population is growing (economically), and the Mennonites cannot afford new land. But some can leave for Tocantins where the land is cheaper, and others can stay here on land they already own.

An interview with another Mennonite who operated a dirt-working business supported the reputation of Mennonites as honest and good with contracts. Recently he had been looking at buying a used tractor. On the phone they said cash or nothing, no flexibility. Later, he saw the owner, mentioned the tractor and the owner had not realized who he was. He is friends with him and his family and said he can take as long as he needs to pay. People in the region trust “the Americans” and give better terms.

Wilson supported this, saying that Mennonites have a good reputation for negotiating and making payments, following through on contracts. But their non-resistance principles place them at risk of being taken advantage of, he added. “People break [contracts], but [Mennonites] never sue, people know they won’t sue. It’s against their religion, but also a personal preference, they think most of the money goes to lawyers and is counter-effective.” “It happens fairly often here,” and he claimed he once he had a gun set on him, called police, and the guy left. He once had a guy say he had prepared the soil and Wilson could do the rest, Wilson said he preferred to do it

all, guy said he knew more than Wilson ever did about it. So he did it, and when Wilson was working the dam started to crack, the guy said that is normal and just kept having to put more dirt in it. Finally, they tore it all out and redid it. Wilson was only paid the original amount, but they do not regret the decision because wanted to have it done right.

Despite strong reputations, divisions also exist between the colony and the general population of Rio Verde. I present here their relations through two participant observations: an annual rodeo and a farm show.

The Goiás Tecnoshow began in 2002 as a way of showcasing agricultural development, technology, and production in Goiás. In 2015, when I attended, the farm show had 540 exhibitors, 104,000 visitors, 1.1 billion reais commerce negotiated, 1000 animals on exhibition, and 1.3 million downloads of their mobile app (Tecnoshow 2016). It is one of the largest agricultural fairs in Brazil and one of the primary goals of the 2015 Fair was to promote “technologies and solutions to increase production and competitiveness of Goiás agribusiness in the global market” (Goiás Agora 2015).

For weeks before the show, when I asked people about the farm show, they explained that every stall has models from Sao Paulo and that they are used to entice business. It is well known that prostitutes frequent the farm show and local bars, and restaurants. They are, however, known euphemistically by my interlocutors as “models”, young women who will prostitute for a brief period to pay for college, or clothes, or other things, not as a long-term profession. Agribusinesses also host parties with complimentary alcohol and prostitutes.

The ads on the way to the farm show are a few on highway 060 (advertising the farm show itself and some protectants) those closer to the farm show primarily advertise agrochemicals or pesticides--not much for large machinery. Near the entrance and in the

secondary parking lot I smell the sweet manure of cattle, reminding me of a county fair, and near there is a luncheonette with fried bread that has the smell of cooking oil that also reminds me of a county fair. Besides that, the air is fresh and clean.

I arrived early to a full schedule of speakers. When the speakers arrived, a commotion of photographers and videographers rushed to get shots of the people in the first four reserved rows and the speakers who filed into the stage. Photographers pushed each other out of the way, everyone ignoring and shouting, ignoring others around them, standing on the stage and physically blocking the announcer from the crowd. The men on the stage (three of thirty-five are women) do not all speak, but most are either thanked in a way or speak briefly. The beginning is very chaotic.

Globo is the broadcaster and main publisher of stories, and Comigo is the organizer. Bradesco, Caixa, Sicoob, Banco do Brasil, Governo Brasil (Patria Educador), and Rio Verde are the main sponsors. These are represented well on materials and in the auditorium, but otherwise little signage at the show.

The announcer begins the opening of the show by announcing that they believe in Goiás, they have a responsibility to inform, generate agribusiness. They show a video with dramatic music-information about the farm show with shots from previous shows. There are shots of animals, machinery, technology, and cultivars.

After very quick introductions of everyone in front, they play the national anthem. During the anthem there is a choreographed video which shows scenes of nature (planting trees, trees, running water, birds, macaws), animals (cows and horses), products of Comigo, Comigo workers and infrastructure, farmers and ranchers. It closes with a shot of the Comigo brand and then a cut to the Brazilian flag flying.

The President of Comigo, Antônio Chavaglia, was the first to talk. He noted the important role of technology in farming, that producers need the market to help them make decisions, to guide them (big applause), that producers want better technologies, and more than anything need credit (bigger applause). They need people with knowledge and he has a concern for small farmers.

Next the mayor of Rio Verde, Juraci Martins spoke about the importance of agriculture to Goiás. He wanted to demonstrate the strength of agribusiness in southwest Goiás. “Brazil is one of the most productive nations.” They have confidence and trust in work of women in the economy, big applause. However, Rio Verde needs some things. Energy (big applause) this would help Rio Verde develop, which helps Goiás develop, which helps Brazil develop.

Next Vinicius Largas, minister of tourism, speaks. He talks about the role of agriculture in the Brazilian economy and argues that they need to keep growing. Tourism and agri-business go together, he reminded us and there is opportunity in Goiás, for business people and for workers.

The Minister of agriculture, Katia Abreu notes that Comigo “is a friend to all.” U.S. has many credit unions for farmers to find credit, they know farmers and farmers know the bankers. Need that here. She re-iterated that President Dilma was bringing revolutionary changes and that the administration was going to announce a new farm plan on April 29 which would increase credit availability to artisanal and large farmers. They are working for the growth of the middle class. 8% of producers produce 70% of the grain. Rio Verde is one of the most productive parts of the world, but high inequality, tech and credit can change this. The U.S. has an agricultural law (farm bill) and Europe has one, now Brazil needs one. “We are competitive and need an agricultural law now.” We want to plan. In four years Dilma increased resource availability, rural

credit increase by fifty percent (light applause). “We won’t reduce resources, but maintain them...Don’t worry, Dilma’s helping.”

Ministério de Fazenda, Joaquim Levy, announces an augmentation of credit, growth of the middle class and says farm economy in Brazil, and especially in Goiás is based on technology. It is the most competitive agricultural economy in the world, but needs technology and research. Rural insurance is also necessary. He goes on to say “we’re going to construct a better country” Cada vez melhor.

Most booths have coffee-shop like set-ups with tables, chairs, something that resembles hardwood, and an automatic coffee machine. All have at least one man wearing the official branding and at least one model. Some have more of one or the other or both. Corn is a heavy presence, with decorations, many show plots, probably because of the timing of the show, after soy harvest. There is one plot of sorghum, one of sugar cane, and a few of soja. There are some decorations of corn. And some plots of corn and soy have the leaves stripped off. It’s mostly young white men. There is a very low presence of Mennonites, I only saw one family of five Mennonites in a five or six hour period. Signage at the cafeteria says “produtores alimentam cidades.”

In their spatial and social analysis of the Bahia Farm Show, Brannstrom and Brandao (Brannstrom and Brandao 2012) note that the main themes are: Displays of power, Promotion of Bahia culture and the mixing of Bahia and Gaucho culture, Reconciliation of farming and ecology, and Sociotechnical relations as argument for large-scale farming. I propose the themes of the TecnoShow are: Technology as necessary component of development and progress (not necessarily as sign of development and progress), Sustainability as a goal, within the existing agricultural system (much more so in formal materials than in actual speeches), The celebration

of the role of the success, development of Rio Verde in the progress of Goiás and Brazil (speakers all mention this, progress in Rio Verde builds the nation), Credit as a necessity for farmers, a lack (physical presence of banks, physical presence of goods that require credit, sponsorship by banks), and Sex (models, prostitutes, this being the first thing people mentions when talking about the Tecnoshow).

The Rio Verde Expo is an annual fair held in Rio Verde. Lasting several days, the highlight is the two-day rodeo. I had heard mostly from a friend that the Expo is a more local experience and more about cowboy culture than agriculture. After about a 40-minute walk, I arrived, paid 10 reais for a student ticket and entered. At that time there were very few people, mostly people who were tending to the livestock and workers, but there were a few visitors. I walked through the cattle stalls, mostly brahman-type but some Holstein, no pure angus cattle but some hybrids. It was mostly cattle, but a few donkeys, mules, horses, and goats. In total, about as much livestock on display as at the Tecnoshow. And similar types of animals, though the Tecnoshow had only cattle. Near the cattle enclosure was a block of shops and governmental service booths, including an “Indian” handicrafts booth. There were two more blocks of food stands and restaurants as well as perhaps an acre of amusement park rides, mostly for young kids. These cost extra. At the back of the pecuaria was the rodeo arena.

People dressed overwhelmingly in cowboy gear – cowboy hats, cowboy boots, jeans, button up plaid shirts and the like. More men than women, but also some women. The people were much louder than they had been at the Tecnoshow, more jovial and friendly. The livestock workers were also much more present and visible than at the Tecnoshow where they were rarely seen. People were more racially diverse, reflecting more directly the racial makeup of Rio Verde than the Tecnoshow. There were many more kids and many fewer Mennonites. I saw no

Mennonites, possibly because they are discouraged from participating in or attending sporting events.

The rodeo kind of began at seven, but was still mostly sound checking, no people checking for tickets. I entered for free because there was no one to check and found a seat. The mutton busting began at 7:30 and lasted about an hour. During that time, mostly parents filtered in, then more general public and it slowly filled. Around nine they started the main event, mostly speechmaking on how this was the greatest rodeo in Brazil and how great the contestants were, and over-the-top announcements of the rodeo competitors, including four who were lifted into the air with pyrotechnic bull heads. The introductions included names, locations, and recent winnings. They also announced rodeo clowns, judges, and spent time recognizing the sponsors. Not being able to handle the buildup (pyrotechnics, fireworks, introductions, announcing), with little payoff, I left after a few barrel racers had run. It was mostly a frustrating experience, I had intended to see the rodeo, but after three hours of waiting and guessing it would be at least another two hours before it started, I left at ten by taxi.

Mennonites who espouse simple living, speak with members about wearing brightly colored clothing, avoid sporting events, and tend to be punctual

In many ways, the theme of the Expo and Tecnoshow run counter to the values of the colony. The Expo highlights cowboy culture, pyrotechnics, while the Tecnoshow highlights finance, technology, sex, and development. Though the two agricultural fairs highlight two different cultures of farming and ranching in Rio Verde, neither is palatable to the values and interests of the Mennonite community.

Looking forward in Rio Verde, Tocantins, and Mato Grosso

The Comigo agronomist told me the Mennonites “tem futuro” they have a future. Asking

a similar question to a Mennonite farmer he said, “Mennonites are unable to compete with Brazilian farmers for expensive land, unable to expand. Their young people need to go elsewhere or adopt new work. Also, no longer pull for Mennonites to come down.” This perspective, that Mennonites had a future in Rio Verde, but not on the same terms as Brazilian farmers, was common among both Mennonites and Brazilians in the region. They say they are staying, talk wistfully of failure in Tocantins, hopefully about Mato Grosso, and disdainfully about those who have returned to the United States. However, one could still argue that they have preserved some autonomy, continually reproduce their community, thrive as a community and claim role in development and history of region. So, is the story of Mennonites one of success? Resilience? Resistance? Or something else?

To return to the future of the community, we need to explore issues of land and technology. The community is suffering from a land deficit, made worse by lack of capital and the continual dividing up of farmsteads. Land prices in Goiás are now near farmland prices in Iowa. One family, the Claasens, reported dividing their land of 160 hectares into a ten-person holding in which people can only sell to the other members, keeping the land in the family, but leaving each with only sixteen hectares of land. I ask Herbert if selling land out from the colony is a problem. He says yes. “The Pewer family sold their land and left for Tocantins but didn’t see fit for any young Mennonite families to farm the land.” They set the price too high for any Mennonites to buy and sold to a Brazilian, according to Herbert. Now they see outsiders harvesting or planting the land “right behind the church on a Sunday.” This is problematic as reducing the productive base for the community in the form of land lost, but also in terms of losing control over the ways farming is done. For Herbert the sight of Brazilians farming within ear shot of the community church on Sunday mornings highlights the loss of control over norms

of farming and a sign of the erosion of the community. Yet, the Brazilian farmer is less to blame, from Herbert's perspective, than the family who sold the land. While it is custom to offer land to anyone within the community first and then open it up to outsiders afterwards, some land has been sold outside the community. The land around the church was sold to an outsider, "I don't know why he sold it to an outsider" being on church land made it particularly offensive. Recounting this tale, as when Herbert spoke above, he does not sound angry, only perplexed.

Though Wilson would much prefer to farm than to operate a dirt-working business, he appreciates the connections between the types of work. He also seamlessly integrates notions of Mennonite value to work and business practices.

Another farmer, Washington Dyke, supported this claim that selling land outside of the community is undermining their preservation. A lot of younger people are leaving or working on something other than agriculture. Washington has 150 acres but makes a living from dirt work. His neighbor does dirt work along with Wilson, and his brother is currently doing contract work in Texas and does not own land. "Nobody can afford to expand here so they're getting into different work," moving to Tocantins or Mato Grosso.

When asking an older farmer about the community's future, he says it is in Tocantins. They cannot stay in Rio Verde because farmland is too expensive, so the young people will have to go to Tocantins or somewhere else. Several Mennonites have already started a church there.

The framing of land and capital in the Mennonite community are reminiscent of the defense of peasant communities (Wolf 1969, 1959) against the intrusion of outsiders, divisive social fissures along unequal access land and capital, and loss of a land base. Barclay has noted the tendency of Holdeman Mennonite and Hutterite communities to minimize unequal land access, over-accumulation of wealth, and sales of land to outsiders (Barclay 1969); we can see

this in the Rio Verde community in the community's aversion to public displays of wealth, consumerism, or materialism and in their avoidance and annoyance at land sales to outsiders. Yet, this is not necessarily a conservative, protective measure against change, but as I argue, a proactive means of recreating the values and practices of Holdeman Mennonism.

Across families, land access, one of the issues that first brought them to Rio Verde, is now a prime deterrent for them to stay in farming in Goiás. The land they own is either divided among family members or contentiously and perplexingly sold outside of the community. Unable to finance new land purchases, they are left to either make do with small acreages, find new work, or move elsewhere.

Community members also describe "falling back" as problem for competing with Brazilian farmers. Wilson recounted, "five years ago things started to get bad on the colony, falling behind." They responded by adopting some technology from the Brazilian and no-till. No-till is now used by almost everyone and is an advantage for economic reasons and for reducing erosion. Before no-till he says, "they would have gulleys that you could fit a full-size pickup in, now there's hardly any [erosion]. They also use gmos today as well. Most have adopted "modern" techniques and technologies but some haven't." "Some still save seed from year to year," he says flippantly. While they are adopting technologies and practices to improve yield and profit, they remain "behind" Brazilian farmers who passed them up in the 1990s and are unable to compete.

As a tour operator recounted, Mennonites are collective, work together, stick with their religion (but do not promote it), collectively buy and sell, integrate themselves into the local culture (even if they do not agree with it), but they do not adopt the most technologically advanced techniques. "This is not sustainable," he said, but it is more effective than the family

farmers of Western Bahia who he thought had little future there.

In response to land prices and falling behind, Mennonites have followed three paths: migrating to other farming frontier regions of Brazil (Mato Grosso and Tocantins), staying in Rio Verde but leaving farming, or going back to the United States. The majority, however, remain in the community.

Wilson had purchased land in Tocantins before my research. The benefits of Tocantins land are that it is near Belem highway, has a good airport, Palmas is nearby, good roads, ports at the end of Belem highway, good farmland though not as consistently good, “you put a hand down on a map of Mato Grosso and all fingers will be on good farmland, do the same in Tocantins and one or two fingers will be on good land”. Twelve to thirteen years ago he bought 3400 acres for \$416/ acre, now \$6,000/acre in Tocantins. Tocantins was a frontier for farming, cheaper land, but also a few people there he knew. Not too isolated. And “didn’t need to wait for 30 years for infrastructure like farmers in Mato Grosso who still do not have roads or power.”

Another farmer who does not own land, but frequently visits recounted, the Tocantins colony was actually a colony in 2000-2005, but shortly after most people spread out. Now there is one farmer at that site, but the other nine or ten families are spread out through the state. Some north of Palmas, some near Porto Nacional. They meet in the middle near the original colony for church, lunch. Washington goes there often for church, dirt work. They bought land in 2000, started work there, first harvest in 2005. Washington says he wants to save enough money to buy land in Tocantins. He sees older men work on the farm and then have lots of time off and build something. He wants that. He desperately wants to be a farmer but just can’t afford it now. And he’d rather be a few thousand kilometers away from home and be near friends than to be alone, 500 kilometers from home. He desires community, farming, and farming lifestyle.

Mato Grosso is similarly a destination, one Mennonite bought Mato Grosso land cheaply, though “he was living pretty poorly”, but now he is well-to-do, even if he is still cheap. He has 500 head cattle and hundreds of hectares of soy land. They have founded a church there and begun to create a community of young Mennonites.

While some leave for frontier farming regions, others leave the country entirely. Herbert explained, “A lot go back. Land brought a lot of people down and many found success quickly.” They successfully established the church, school, community, everything, but then continue to “insist on being Americanized...those that insist often do go back.”

He continued, “Some people would say, ‘I brought my children up to be American so I brought them back to the U.S.’” but he does not want to be identified as Brazilian or American, wants to be seen as a Christian. (He says Christian, not Mennonite or Holdeman). “Peace, that’s what we strive for.” There’s some divide over whether they should become more Brazilian, speak Portuguese, or become more American and speak English. He says “nationality has no meaning, shouldn’t have any meaning, it’s Christianity that’s important.”

“Here,” he explained life in the early years, “lots of people didn’t buy shoes, successful farmers even. People would not set aside weird practices, in the first few years there was a scandal when someone was in the church with no shoes. But Harold Holdeman bought a piece of land, used good business principles, and was very successful. But one-by-one his boys left in their teens for the states.” The reason, Herbert thinks, is that they never had any challenges, it was too easy. “They could just pay in cash for anything, never had any debt, they were totally Americanized” (or rather never Brazilianized). They married American girls, “stuck to American culture.” Herbert’s family always had to work hard, did building work when they needed to. This taught the kids to meet challenges. Harold’s sons still own land in Rio Verde and rent it out, but

live in Iowa, Georgia, Missouri, and another in Georgia. “It’s funny, one of them went back and has a chicken farm.” So the family was successful, but had no challenge, had very American children.

The people who stick around have no pride in American ways (which is not to say they have shame). They adopted Brazilian kids, focus on the community and church, not being American or Brazilian. There are no new people coming; young women are the only real new members here. Young men will move to other colonies (US, Canada), find a girl, marry and bring her back. Wilson’s cousin, for example just did that. Also, men from Canada will come to Rio Verde and bring girls back there.

Still others, like Washington and Wilson have left farming altogether in favor of dirt work, an occupation that involves similar rhythms and practices of work as farming but is only ever recounted as the next best option. Another Mennonite family used to own a burger place, closed it because it got to be too much. It was always very busy. Another currently owns a restaurant. They also sell weekly at the local feria, providing peanut butter, pies, and other “American” goods which tend to sell quickly.

For the Mennonite colony, then, land prices and inability to compete economically with Brazilian farmers is leading to new paths. While some stay to farm, others move to service industry work, others continue to farm, but do so in neighboring states, still others leave Brazil altogether.

Mennonites left behind land and other occupations and community in search of autonomy from worldly matters. They engaged with new land, created new practices, retained values, and created a new community with Brazilians.

Mennonites in Rio Verde Goiás migrated to Brazil to escape the encroachment of

worldliness into their lives, yet their work, community, and identity are better described as the positive creation of lifestyle and livelihood conditions that they seek than as resistance to worldly influences. They are not opposing worldliness in the United States, nor in Brazil. While they have outward facing evangelist missions, they are seeking to bring outsiders into their church rather than preach, criticize, or intervene in outsiders' business. Their work on the colony reflects this. They have work committees to build roads, teach school, and publish religious materials while in the field they demonstrate the power of hard work and non-material values.

Their interpretation of *Gelassenheit* reflects this as well. They do not place emphasis on the act of hard work, though they do make light of those who they see as shirking work (being hitched to the satellite). They do, however see a man's support of his family as the most important measure of one's worth, more important even than belief in God. This is reflected through their quotations of Bible passages, deterrence of acts that do not support this model of family reproduction.

However, conflict remains in the community. There are disputes over who belongs - those who have been baptized into the faith alone? Or also those who were born into the community, but have not yet been baptized? There is also fractures along lines of those who are baptized into the faith, but Brazilian by birth and those who are baptized and born in the colony or in the U.S. Ethnic Brazilians are doubted as full believers at times. Additionally, those who were born into the community are exiled for not properly acting out their faith or for homosexuality. Here there is a strong correlation with "fighting like a community" in that the community fights for an outward expression of itself while also fighting internally over issues of identity, belonging, work, and value.

On Mennonite livelihoods, Royden Loewen writes, "[Mennonites] locally constituted

institutions have addressed a wide range of concerns, while their locally structured economies have produce livelihoods close to nature that rely on family and neighborhood networks” (Loewen 2016, 128) and “Their stories of adaptation illustrate a flexibility required to maintain the local community” (Loewen 2016, 129). Besky finds fixity remains a significant aspect of capitalist accumulation. Fixity, “persistent association between race, ethnicity, place, and work...intergenerational stability formed in inheritance: a sense of belonging and rootedness, in place and to other people, that give s meaning to work” (Besky 2017, 620), and “the routine maintenance of houses and other elements of infrastructure...what feminist economic anthropologists call ‘generative work’” (Besky 2017, 620) highlights for Besky the tensions in capitalism between work and life. It also operates in conjunction with Loewen’s “flexibility” needed to maintain local Mennonite communities. This tension recalls too Yanagisako’s findings on family capitalist enterprises in Italy in which “continuous generation and regeneration of family capitalism by people whose desires for capital accumulation have been incited by sentiments of family unity and communalism, but also by sentiments of individualism, independence, and competition” (Yanagisako 2002, 11).

A story of Mennonites withdrawing from worldly matters to preserve and reproduce their lifestyle is an interesting story in itself, but that narrative does not fit this community. They engage with their local community through evangelization and farmer trainings and take pride in their role in “developing’ the agricultural economy of the region. Their draw to Rio Verde was not isolation from worldliness, but rather semi-autonomy from worldliness. They gained exceptions to educational standards and military service, but many on the initial tour were drawn to Rio Verde because it was a fairly substantial city at the time.

Looking at their work in Rio Verde, Tocantins, and Mato Grosso too, we see Besky’s

generative work to create not only infrastructure and houses, but also churches, presses, and schools. They form work committees to manage roads, schools, and missionary work; they welcome neighboring Brazilians as guests or even baptized members or adopted children; and they engage with agricultural technologies or repeated migration in order to maintain their community. They pursue a strategy of flexible fixit in which they dwell (creating rooted, vibrant, and permanent communities), but make tactical decisions to adopt new practices or move elsewhere when necessary. Returning to Bottos' "futuring" perspective on Mennonites, the community actively works to create the living conditions they value - they enforce ideas of *Gelassenheit*, engage with local communities, and re-create an agrarian ethic informed by Holdeman Mennonite theology. Their work, then, isn't to escape or isolate, but to create and engage with their world. Their flexible rootedness has not only resulted in the reproduction of their values and practices, but also allowed them to successfully maintain a presence in Rio Verde for fifty years despite comparative disadvantages in capital and technology.

What the Mennonites seek is not a complete separation from the state, but to find space to continue to work and farm in what they deem to be a socially-valued way – that is collectively, without self-interested motives, and using acceptable technologies in acceptable ways. The economic situation of 1960s U.S. made this mode of production difficult or impossible; thus the colony sought out a more suitable place for the reproduction of these modes of labor. Interestingly, this is a mirror position to that of James C. Scott. For Scott, peasants adopt certain practices that are productive of autonomy. Here, peasants seek refuge in order to re-produce existing practices. Practices and work, for Mennonites is not the means for autonomy, but are the arena for which autonomy is sought. They seek space that supports their imaginations of the future including an engendering of *Gelassenheit*, community, and semi-autonomy, but not

disconnection from worldliness.

CHAPTER 6 FLEXIBLE FARMING

Upon contacting a reliable conversation partner in Luis Eduardo before my return trip and beginning of primary dissertation research, I was informed that many farmers were no longer in the area. Some had sold their farms, others had lost control of their farms to investors, and still others were reportedly evading lawsuits. I was an ethnographer with a disappearing community. Research with this group of transnational farmers had always been tricky as they moved easily across borders and never settled in place for long. Yet now, several farmers disappeared from the site altogether. Naively, perhaps, I had expected that I could conduct this research in place, at a physical site, despite that the farmers themselves were out of place and never fully grounded in Luis Eduardo. The well-financed, technologically-advanced family farmers of Bahia were returning to the States or seemingly disappeared after less than ten years, but the small-scale, “backwards” Mennonites were grounded with firm roots in Rio Verde, still after more than forty years (Ofstehage In Press). This chapter returns to the question of how to address a community seeming to be simultaneously disappearing from the Bahia landscape and Luis Eduardo community and thriving in terms of capital and technology. Is this the culmination of a failed strategy to continue farming legacies? A change in strategy due to changing circumstances? Or in fact the culmination of a flexible farming strategy which fundamentally re-orders rural life?

A 2010 court ruling and support by then President Lula placed limits on foreign land ownership. While restriction did not affect existing ownership, it did severely limit farm expansion of foreign-owned farms. While this has recently been in discussion of being reversed

by the Temer administration (Lisandra Paraguassu 2016), it impacted many farmers' decisions at the time of research. In my first interview with Dennis Foster in Illinois he listed land ownership regulations for foreign owners as one of the main limitations for them.

When we started there was an attorney general from back in the 1980's, that interpreted for a number of years, there have been regulations for years, I have a visa, I have limitations of buying near borders mostly limitations on how much you can buy, how much you can buy in one region, most Americans set up a Brazilian limitada, owned by American company. A couple of years ago they reinterpreted the rule, during an election actually, so there's definitely a connection, they issued a new rule that if you operate on more than 51% foreign capital your company is not a Brazilian company, it's a foreign company. So now we have to abide by the original rules, they say we're grandfathered in, but, we're barely over the limit. They are very confusing limits, it's by county, that's supposed to be the limit nationwide so technically we can't buy any more land, I would guess that all the groups down there would be limited from buying any more land. You would need written permission from literally, the senate. So as far as changes, we're renting new farms and opening new farms without outside investors. We have our hands full this year, but we're looking at, next year planting 4,000 hectares and probably the following year around 5,200, 6,000 range, depends on what happens.

By the completion of my research he had sold his farm in Tocantins.

When I asked Ian about his plans for the future in 2012, he said, he wants to get better before he gets bigger. He would like to have it in a place where if he left, the workers and managers would be able to pick up everything. He has worked on outlining a mission and vision for this purpose. He wants everything in place so people will act like he wants without input.

When I visited the next year, they were operating under the same plan as before, to not expand but make sure they do really well on the land they have. He says this despite obviously downsizing. They operate the farm they manage for an agricultural firm, Silas' farm, and their own land. Foreigner laws are preventing them from buying any land, he says. Again, despite having sold land recently. They were expanding the Illinois farm to suit the need to accommodate the 6 families who want to be involved: his father, uncle, two cousins, himself, and sister. None have expressed any interest in working on/taking over the Brazil farm. They all

want to be involved in the Illinois farm where they are expanding the pig operation.

The Millers had sold options to BMX, a publicly traded company, who owned a 70% share of their farm. BMX then sold the farm and the Kruse's had no choice in the sale because they had a minority stake. Jacob now works in Brasilia as a consultant. A year before I had asked his father about his future and how they fit into the legacy of the family farm. His statement made clear that the Brazilian farm itself was not an enduring aspect of the family or even of his son's occupation, but that it opened up possibilities otherwise closed to them. It allowed the family to capitalize on Brazilian agricultural growth and provide Matthew with agri-business credentials.

Legacy of farm? If you're a farmer and you have that type of mentality, you just think in a particular way. I don't know if I can describe the legacy part of it. When I told him I was going to start a farm he was shocked, he never saw me in that way. I understand business, and experience with the international side. Then Matthew, he is in a unique situation. There aren't many people with his experience, if he wanted to do something else he could do anything. Cargill would be knocking at his door. At the same time I anticipate that he might come home and take over here. He has adapted well. One investor said that his biggest surprise was Matthew. He was either going to succeed or go down in fire. He's culturally and business wise adapted there. I've always found good people to work.

I began this dissertation by arguing that these stories of migration and land foreignization arose out of crises for the Mennonite and family farming communities. I will end by asking if these crises have been mitigated or ongoing. I will begin by outlining the recent trajectories of each community. Each has experienced a measure of fragmentation/fissure/rupture as community members have left and others have remained but shifted away from agrarian livelihoods. I will relate this to larger questions of resilience and vulnerability of agrarian households and close with a framing of the situation around flexible agrarianism and its limitations.

Marx noted that primitive accumulation began with the "expropriation of the agricultural

producer, of the peasant, from the soil” and “is the basis of the whole process” of capital accumulation (Marx 2008, 365). The process of flexible farming similarly distances the farmer from the soil, but by a different process. Rather than the means of production being forcibly or coercively expropriated from the farmer, the land is twice expropriated. First from local communities through a long process of settlement of the *gerais* (commons); and second by the financialization of land by which ownership and control is dispersed between investors, farmer, and farm workers. Transnational farmers become both parts of Marx’s transaction - both the free laborer who is neither “part and parcel of the means of production,” nor owner of the means of production and the “owners of money, means of production, means of subsistence , who are eager to increase the sum of values they possess” (Marx 2008, 364). They distance themselves from the soil in terms of not engaging directly with it through farm work and by adopting a more commodified meaning of land which has little room for personal connection, family history, or shared memories. Thus, both materially and socially they disconnect themselves from the land.

Li argues that, in the case of Indonesian farmers enclosing the commons and adopting cacao as primary cash crop, farmers made a free choice, but this choice did not open up options, rather it placed them on a pathway. This pathway led from regular, but autonomous trade with the coast and relative food security and sovereignty to not being able to afford to produce their own food, dependence on markets, break down of social relations, land inaccessibility, and being caught up in new networks of social relations. Capitalist relations are not imposed upon them, but have caught them up. Likewise, Brazilian peasants (Nelson and Finan 2009) find efforts to create resilient farming communities through acceptance of government assistance leads them into unsustainable paths that undermine the community they seek to protect.

Through flexible agrarianism, farmers have embarked on a new pathway paved not by

groundedness, family, and community, but on movement, capital, and business savvy. For many, this path is a dead end. At the time of research, one family was actively downsizing their land in response to strong foreign land ownership laws that limited their expansion. At the same time they were expanding the Illinois farm to suit the need to accommodate the six families who want to be involved. None have expressed any interest in working on or taking over the Brazil farm. Another has sold, another went bankrupt and is being sued in the U.S. and Brazil, still another is in Brazil, but without land. Another is considering leaving, still another has long since bankrupt. Few are coming to Brazil. They cite falling returns, land law, climate, and general exhaustion. Yet most reflect that they were able to farm, make money, gain experience, and have a Brazilian adventure.

The farmers' pattern of crisis, decoupling, re-encounter, and re-engagement with temporalities and subjectivities of farming mirror migration of southern Brazilians to the Cerrado, Bolivia, or Santarem (R. Adams 2008; Hoelle 2015; Valdivia 2010) and trajectories of Soylandia (G. Oliveira and Hecht 2016) and the U.S. Midwest. This subjectivity contrasts with anxieties over belonging in place (Middleton 2013) as farmers reject landed and rooted notions of being and farming in favor of a transient farmer subject that sheds fixed connections to people, land, or plants. Temporality of farming livelihoods becomes distanced from seasonal time-frames and from the daily rhythms of a family farm, structured more by worker protections that regulate working hours than farm tasks.

Over the years the vision of agrarian life has changed in the United States Midwest. In the late 1980s and early 1990s scholars perceived a change as farmers adopted monetary measures of success, distanced themselves from nature, and eschewed agrarian work in favor of industrial lifestyles (Barlett 1993). Rural communities fractured in the face of farm foreclosures,

suicides, and pointed fingers (Dudley 2002) and the family farm itself was redefined as economic unit (Rosenberg 2015). Farming masculinities have become measured in business terms as field work, autonomy, and the farm as a social unit loose importance (S. E. Bell, Hullinger, and Brislen 2015). Changes in farming practices, farm work, farm business management, and crop selection transformed farming and the memories of my childhood became artifacts of another era - our farm abandoned chicken and hog production in the face of changing economies of scale and stopped using bean barring and bean walking as RoundUp Ready seeds eliminated the need, though the wild turkeys remained undeterred by the changes around them. Yet, despite the drastic changes afoot in US agriculture, I did not expect how starkly this change would appear in American-owned soybean farms in Brazil. Transnational farming was a radical step in itself, but the managerial approach to farming, distance from land and farm, and commodification of crops suggested that I was witnessing a rupture of rural life. Rural Latin America's transformation may be even more drastic than Midwestern agrarian change as commodified production practices and means of production, physical separation from farms, and "MBAization" of farming became typical (Gudynas 2008); even allowing the phenomenon of "farming by email" (Lapegna 2016a).

Globally-engaged farming requires a decoupling of farm, farming, and place (Cheshire, Meurk, and Woods 2013) while Soylandia itself is a disambiguation (explain) of rural life in which commodification, technology, and MBAs gain greater importance than soil, climate, or productive yield (Gudynas 2008). To understand this situation, along with changes in U.S. and Latin American rural spaces, I propose the analytic of flexible farming. Flexible farming is a strategic response to crisis, in which farmers mobilize capital and their bodies to create resilient farming livelihoods out of place. This reproduction entails both a strategic decoupling of farmer

from land, labor, and crop and, in turn, an emergence of new materialities and subjectivities as movements and things endure and are created through this encounter. The farmers' initial migration highlights the role of mobility and capital in this emergent strategy and their employment of land, labor, and crops produce flexible farming livelihoods. Nonetheless, emerging and enduring materialities, connections between farmers, land, farm workers, crops, capital, and climate, and subjectivities of flexible farming, the shifting parameters of what it means to be a farmer, ground practice in temporalities of farming, social relationships, and material assemblages, re-constituting the farm, out of place.

Flexible farming is distinct from related processes of settler colonialism/imperialism (Voyles 2015), plantation agriculture (Johnson 1971), and neoliberal agriculture (McMichael 2012). Despite being imperialistic by nature, it is disinterested in settlement of places. Despite simplifying agriculture to vast monocultures, it lacks the static and social connections of plantations. Despite reducing land, labor, and crops to exchange values, embodied memories, legacies, and temporal frames endure and new material assemblages of land, labor, and crops emerge. While distinct from these related processes, it also consolidates and builds upon their logics and infrastructures just as plantation agriculture consolidated disparate species, forms of labor exploitation, and spatial logics (Haraway 2015). It is also related to the phenomena of flexibility in farming (W. M. Adams and Mortimore 1997; Aase, Chaudhary, and Vetaas 2010; Holmelin and Aase 2013) in two ways. First, it is inversely related in that flexible communities find resilience by abandoning their base of place and land, rather than using flexibility to maintain these. Second, it expands upon the concept by adding that it is characterized not only by flexible use of the means of production, but also entails flexible farming subjectivities as they place their work within histories of farming and migration. It is, in other words, farming out of

place (Douglas 2003) in both the sense that it is out of place within reified notions of farming and out of physical place as “farming” becomes detached from place and attached to subjective agricultural careers and legacies. Flexibility becomes the corollary to fixity (Besky 2017) in that it avoids persistent associations between work, workers, and place and eschews a sense of stability, belonging, and rootedness of place and people.

Crisis or development?

The scattering of the two communities and their gradual movement away from soybean production portends a feeling of renewed crisis in Brazilian soybean production. But this is not how the sector is portrayed. A meandering interview with a Foreign Agricultural Service (USDA-FAS) functionary in Brasilia revealed a narrative of continued growth and progress in Brazil.

What do you see in the next 10 years?

Let me step back. Ridiculous prices, like \$5 a hectare and now, that expanded there in Mato Grosso. And then in the 50's, 60's the government was trying to encourage development, migration from the coast, a big part of the population lives on the coast, it's always been that way. And there's a huge expanse of land, it's bigger than the 48 contiguous states and they didn't have enough people in the middle of the country and that's one of the reasons Brasilia is here to encourage that kind of spread, to help out with infrastructure. And they wanted the land developed opened up so you're coming at an interesting time. In the 60's when the first development decree was put out, people were told to go out and they could open up, they could deforest 50% of the land and put into productive land and 50% had to be kept in native preserve forest...So at that time you were encouraged to go out and develop land. This came at a cost to the government and in many ways because, you have farmer you have groups going out to plant and you couldn't, the crops didn't do so well, the prices weren't always high enough to make money so a lot of government money went to this development over the years and then in the 80's we had a lot of bad cycles of needing to bail out the farmers from bad crop price years. Even as recently as 19...2005-2006 when they had a really big crop and prices tanked here, farmers had to go to the government and you know request assistance, more assistance and so you have a cycle here in Brazil, every 3-5 years there's a big push from the agricultural community to make a big push for assistance because, the debt grows too great for the farmer and so basically what happens in terms of debt, payments either get

re-financed or in some cases the government absorbs this debt for expanding into these areas and is just absorbed into national debt. And this is to the tune of 50-60 billion dollars of debt that's still rolling and that's either national or in the hands of farmers. So there's costs of developing Brazil. Currently, in the last 5 years I've been here it's been a very favorable cycle. A lot of the farmers I talk to you know, in 2008-2009 year was really hard and in 2009 when I came here the crop was really good, prices were really favorable so 2 even 3 years of consecutive years in which a farmer has been able to pay down his debt and he actually has a good amount of cash and is looking to invest. What that has done, if you look, is it's not as easy for the American farmer to come down and farm anymore because of appreciation so in the 3 years I've been here it's probably appreciated 25% year.

Where are they expanding to?

The frontier regions right now, well first in the 60s it was Paraná and then in the 70s and 80s where you'd go was, Luis Eduardo Magalhães was just a gas station in 1983, now 70,000 people and big, boom metropolis, just because of agriculture, this is the plateau region and the rains are good the closer you are to the state line. It's a big escarpment, a big cliff essentially that creates a big updraft for convection for rain, the best land on the plateau region is closest to this area. You'll see once you drive, you'll see on the bus when you get to the state line you'll go up the hill and it will just be flat, flat land and excellent farmland. This is considered Cerrado as well, the guys are gonna be Walter Jorita, he was one of the very large producers in the region. By large I mean 80,000 hectares, big guys, or maybe over 100,000 hectares. So those guys slowly expanded, he was... some of the savannah has lots of trees but this was basically grassland, very easy to clear, and start planting. Everyone ran into struggles at first, growing their crops. Guys in Western Bahia they ended up having issues with soy, it was hard to get soybeans going and to correct the soil, they bet their farm on cotton production, said okay well we'll just shift to cotton. It's higher value, you get better returns, so they bet the farm on cotton and for the most part they were successful and you knew this. They would claim, most of the guys, say you have to be a much better farmer to farm cotton because you have to correct the soil, you're in the field everyday it just takes more time and management to grow cotton than soybean or cotton. These guys started going up to Piauí, this area is still an area of expansion. Even up in Golsas it's expanding, some are growing soybeans way up here at 50 meters altitude, usually they do best at 800 meters above soil. There are different varieties across the area. In soybeans it's important to have varieties adopted to the region, corn it's not it's not an issue. Mato Grosso is sort of like three fingers of plateaus, I mentioned Sorriso and you can see how far it is from Santos the port and some of that goes by truck and some of that goes by rail. Some truck it down and then go by rail and then by barge, it's a complicated system. It seems to, there able to make it work. What they've done in Mato Grosso, because they have a tax system, when you cross state borders you have to pay a 12% tax or something like that, it doesn't really favor transporting grains, it doesn't pay to transport, but if you're transporting crushed which in this state is expensive. So crushing plants is encouraged, by Cargill and others to build their own crushing plant, so that actually helps alleviate some of the pressure on infrastructure, you still have long lines to the crushing plant. So Mato Grosso basically

internally crushes about half the soybeans produced. Mato Grosso is the largest agricultural state, it's huge, like 4 US states and it's responsible for like 30% of ag production, #2 is Parana and then third is Mato Grosso do Sul, ...but yeah these three plateau type fingers that go up this whole area is what's being developed in the Querência area and here it's really poor here, it's asphalt. When the guys develop the land it's pretty amazing they farm it themselves you know, they put up their own electric pools, their own electrical wires, they can't rely on the government to help, it's sort of very pioneer.

We are left to make sense of these competing narratives. FAS tells a story of progress and near unlimited opportunity. Family farmers in Bahia narrate a stagnating situation in Bahia leading them to go bankrupt, sell out, or simply maintain their current situation. On another plane, where does this leave us in terms of narratives of migration? Were the two communities successful in their exodus from crisis? Have they resisted or simply contributed to the continuation of crisis and frontier expansion? At the end of the story, what remains of the livelihoods and communities they sought to reproduce? In search of answers, I turn to long-standing questions of the future of agrarianism in the context of the march of capitalism.

To understand how these issues of change, persistence, resilience, and vulnerability fit together, I turn to classic iterations of the agrarian question. Marx proposed two pathways for the peasantry (Akram-Lodhi and Kay 2010). The first is largely a transition from peasantry into wage labor with a few land owners rising to a new "rural middle class" and "completing the transition to a fully capitalist mode of production." The second, would be a gradual coalescence of peasants into a collective unit of agricultural production on a national scale. This duality – to become either capitalists or remain peasants – is repeated in the later Chayanov-Lenin debate (Bernstein 2009). Here, Lenin argues that increasing commodification of rural life will eventually lead to specialization, prominence of the market, farm expansion and consolidation, and innovation for a few large entities and death or wage labor for the remainder of the peasantry. Chayanov, on the other hand, argues that the peasantry will reproduce itself through

collectivization, possibly in the form of farmer cooperatives, and will maintain the household unit of production as well as elements of rural life.

While the agrarian question today has expanded into diverse issues as food regimes, political ecology, gender, and decoupling of agrarian life from general economic life (Kay 2008), the original question of what become of rural life remains prescient and un-answered, perhaps even unanswerable.

As noted in Chapter Two, family farmers from the U.S. Midwest have purchased large tracts of land in the Brazilian Cerrado, clustered primarily in Western Bahia. However, this move was made only partially as a proactive effort to accumulate profit. Farmers left the United States in response to a farm crisis which made farming unprofitable, inaccessible, and insufficient as a livelihood (Ofstehage 2017b). Record farm land values, lack of land available for sale, and falling commodity prices left young farmers with few choices beyond incurring large amounts of debt or leaving behind their farming livelihood. Their move to Brazil was motivated as much by profit-seeking as by finding space to reproduce farming livelihoods and values of farming. In the early 2000s, farm land prices had fully recovered from the collapse of the 1980s farm crisis and had reached new highs, leaving young farmers with limited opportunities to buy new land. While some farmers reported simply perceiving higher profit margins in Brazilian agriculture, many saw transnational farming as a means of farming in other conditions. One farmer reported wanting to farm after finishing his agricultural economics degree but didn't like his options in his home state of Illinois. He could have purchased land for \$3,000 per acre and new farm machinery but didn't want to begin farming deep in debt. He could have asked for gifts of land from his family, but he didn't want to ask. He could also, of course, have left farming altogether and pursued work as an agricultural loan officer at a bank, work with the USDA FAS or any

other number of waged farm-related positions. But, he reported, “I’ve never, I grew up farming and...I never had any doubt I was gonna farm.” So for him, and dozens of others, farming in Brazil became the best option to farm without going into excessive debt. Another farmer realized that he was going broke farming in Idaho and, after touring soybean farms in Western Bahia, Brazil, narrowed his choices to going broke farming in Idaho or possibly going broke in Brazil. He sold his land and migrated soon after.

As Tania Murray Li argues, even Lenin’s mechanisms of commodification of rural life are mediated by culture, ecology, and household (Li 2014a). In her research with rural New Guinea farmers, entry into new markets, technologies, and products is nominally a free choice, but a choice that leads to new pathways which may be difficult to avoid. Likewise, Nelson and Finan (Nelson and Finan 2009) argue that short-term efforts to remediate crisis and improve resilience can undermine long-term resilience and create dependency; a point that is even more significant considering the effects of Amazonian deforestation on Cerrado climate (D. Lawrence and Vandecar 2015). Precarity of industrial farmers (B. J. Gray and Gibson 2013)

Flexible Farming

Flexibility has been a focus of anthropological study since at least the 1990s. Aiwa Ong finds fungibility in the materiality and narration of genes, ethnicity, and “Asia” itself in the practices and discourses of genomic testing in Singapore (Ong 2016) and flexible citizenship in the work of Asian businesspersons (Ong 1999). Fu finds flexibility in employment and work arrangements in Japan where workers are assembled and dispatched by staffing agencies in a way that detaches workers from temporal and spatial frames of work - making workers flexible and in so doing detaching them from their work and from modes of worker power (Fu 2013). Isik

finds entrepreneurial carpet-weavers in Turkey make themselves flexible in relation to the market economy (Isik 2010). Colloredo-Mansfeld finds flexible market strategies in the highlands of Ecuador where market middlemen preserve livelihoods and commercial diasporic communities through an integration of local market habits and channels of credit with global flows of textile goods (Colloredo-Mansfeld In Press). Nicaraguan women in the Fair Trade Zone in Ciudad Sandino, Nicaragua seek out “dignified work” by rejecting fair trade labels and existing norms and conventions of a local moral economy to generate alternative work and agrarian ethics (Fisher 2018). The body is flexible in its responses to pathogens, diseases, viruses, and vaccines (Martin 1995).

Harvey argues that the global economic has shifted from a Fordist-Keynesian system to a flexible accumulation of capital (Harvey 1989). This transition entailed a movement from Fordism in which “the new kind of society could be built simply through the proper application of corporate power. The purpose of the five-dollar, eight-hour day was only in part to secure worker compliance with the discipline required to work the highly productive assembly-line system. It was coincidentally meant to provide workers with sufficient income and leisure time to consume the mass-produced products the corporations were about to turn out in ever vaster quantities” (Harvey 1989, 126). In turning towards flexible accumulation, it became identified as

[M]arked by a direct confrontation with the rigidities of Fordism. It rests on flexibility with respect to labour processes, labour markets, products, and patterns of consumption. It is characterized by the emergence of entirely new sectors of production, new ways of providing financial services, new markets, and, above all, greatly intensified rates of commercial, technological, and organizational innovation. It has entrained rapid shifts in the patterning of uneven development, both between sectors and between geographical regions, giving rise, for example, to a vast surge in so-called 'service-sector' employment as well as to entirely new industrial ensembles in hitherto underdeveloped regions . . . Has also entailed a new round of what I shall call 'time-space compression'. . . in the capitalist world -- the time horizons of both private and public decision-making have shrunk, while satellite communication and declining transport costs have made it increasingly possible to spread those decisions immediately over an ever wider and

variegated space (Harvey 1989, 147).

Inda expanded this frame to say not only is the economy becoming flexible, but also the worker. He writes,

[I]t is not just capital that has become flexible. Individuals, too, have developed flexible practices in order to meet the exigencies of new times...flexibility reigns not only with respect to capital, but also with respect to how people live their lives...a notion of citizenship that goes beyond legalistic definitions to encompass the more informal aspects of how people are integrated into their cultural milieus, which, in this case, are at once inside and outside the nation. To some effect, everyone lives in a flexible world, not only as it pertains to capital, but also with respect to how people maneuver through the spaces they inhabit (Inda 2000, 86–87).

More recently, scholars have turned to flexibility in farming, particularly interesting work is being done by the “Global Countryside: Rural Change and Development in Globalization (GLOBAL-RURAL)” group and their affiliates. Cheshire, Meurk, and Woods find that globally-engaged farmers decouple from farm, farming, and place, then recombine these traditionally rooted aspects of agriculture in new ways (Cheshire, Meurk, and Woods 2013). Family farms are increasingly pressured to adapt to forces of globalization by engaging with global markets through entrepreneurial activities, mobilizing internationally (global migration), and resisting (Woods 2014), a process which mirrors Chinese immigration to Australia in the early 20th century (Woods 2018). Farmers are increasingly mobile as they travel for both tourism and business (Cheshire and Woods 2013). To understand the new pathways embarked upon by both Mennonite and family farmers in Brazil, as well as their implications for the agrarian question, I propose the concept of flexible farming, situated at the interface of flexible crops and flexible citizenship.

Their migration took advantage of comparative land values and infrastructure. They left the United States at the peak of farm land prices and entered Western Bahia at a time when land title claims had been mostly clarified, primarily through a bloody period of land claims and

counter-claims which left at least one early American farmer dead. When they arrived, a John Deere dealership was in full operation and several market options existed, yet farmland prices remained low. After some initial clearing and developing of land, road construction, and building construction, they could cheaply begin new farms at the soy frontier, mirroring processes of frontier expansion (Moore 2012).

This narrative does not fit neatly into reified ideas of resilience. It is a story of farmers abandoning land, community, and farms in response to capital and crisis. This story seems to mirror memories of poor migrants desperate to flee poverty and famine in Europe and seek out new hope in the American Prairie - a story that many of my research subjects drew direct comparison to. And yet, their migration is part of a strategy to work with crisis to create resilient livelihoods using capital and mobility, with little regard for specific pieces of land, distinct culturally-significant crops, or traditional socially-valued forms of farm work. Despite farmers' narratives connecting this move to legacies of migration, farming, and settling of the American Heartland, this phenomenon may be more closely related to the British aristocrats who settled in Iowa and Kansas, but found the work distasteful and the climate unbearable (Harnack 2011; Pagnamenta 2012).

Flexible farmers seek to maintain the social order they find in occupational identity as farmers, but changes around them engender little concern. Indeed, changes occur in nearly every facet of their livelihood, but they maintain their claim to farming identities and while this reaffirms the global tendency towards capital-labor separation in agriculture (Cochet In Press), farmers' narratives of crisis suggest this separation is at least partially a move towards livelihood resilience. Their work acts simultaneously at the scale of capitalist social relations and at the scale of actor improvisation and agency. In contradistinction to common themes of resilience

studies, this is not resilience from capital, but rather resilience with and of capital.

The concept of flexible farming is influenced by literature on flex crops and Aiwa Ong's pioneering work on flexible citizenship. Flex crops and flex commodities "have multiple uses (food, feed, fuel, fiber, industrial material, etc.) that can be flexibly interchanged while some consequent supply gaps can be filled by other flex crops" (Borras et al. 2016, 94). The flexibility and multipleness of flex crops allows producers and corporations to quickly respond to changes in market price, public policies, and production possibilities by re-directing economic production. Critics of flex cropping argue that the process exacerbates food security and over supply crises, ties agri-food systems to financialization and decouples them from nature and labor, and takes cover under discursive politics of holistic economic and ecological fixes (Gillon 2016). Gillon argues that under crop flexing, exchange value gains prominence as use value is further subordinated. Along with the subordination of use value, labor and nature become secondary factors to market prices in terms of production decisions (Gillon 2016). Flex crops are not only materially flexible as they are re-directed to different products and uses, but also discursively flexible as they are strategically used to support arguments for sustainable development and progress (Hunsberger and Alonso-Fradejas 2016).

Beyond crops, flexible farming involves flexible citizenship (Ong 1999) of the people themselves in quickly and easily crossing and strategically using borders. Flexible citizenship is a strategic blending of profit accumulation and migration strategies. Like flex crops, flexible citizens respond quickly to changes in market prices and public policies and are able to pick up and re-locate either permanently, over the short term, or cyclically. It is both a product and condition of capitalism and a path that is hard to follow for non-elites – refugees and workers. It is by this "strategic transnationalism" (Gardner 2008) that farmers use borders to their advantage.

A key difference between migrant farmers, whether the generations of European settlers who colonized the American Prairie or Latino farmers who are now starting farms in the U.S.

Midwest (Minkoff-Zern 2018), is a question of permanence. Whereas migrant farmers come to see homesteads and farmland as parts of their family, flex farmers maintain distance between themselves and labor, land, and crops.

Flexible farming integrates livelihoods (flexible use of land, labor, and crops), resilience (based on capital and mobility), and socio-material encounters. Flexible farmers respond to crises at home and an interest in continuing or preserving farming livelihoods by mobilizing capital and their own persons. Consequently they decouple from land, crops, and work. While the traditional notion of a farmer is bound up with land, work, and community, flexible farming requires at the very least a decoupling from land, but it also likely requires decoupling from community and work (Cheshire, Meurk, and Woods 2013). This is not an entirely new process - as Tsing argues, one connection between ecology and economy is “the history of human concentration of wealth through making both humans and nonhumans into resources for investment” (Tsing 2015, 5) by alienating them from place, making them mobile assets, defying distance, and exchanging for other displaced assets. Landscapes are reconfigured around simplified commodity production, redefining all else as “weeds or waste” and left behind living-space entanglements become inefficient relics of the past.

Topography and crops, along with forms of social structure and subsistence strategies constitute “escape agriculture” which allows peasants to evade state power and detection, remaining invisible when possible and quickly fleeing when necessary (Scott 2010). Hilly, rugged landscapes create cover from detection; crops such as taro, sago palm, and yams require little care, grow at high elevations, and may be left in the field for storage; foraging strategies

and shifting cultivation are possible for mobile communities; and loose-fitting social structures allow people to decouple and recouple as they flee, regroup, and flee again. While hill societies of Zomia position themselves to evade the state, flexible farmers position themselves to maintain their occupation using flexible land, flexible labor, and flexible crops. These properties allow capital as well as farmers to move quickly between sites of production and livelihood strategies - enabling a different kind of escape.

Flexible agrarianism depends on flexible or fungible forms of land, labor, and crops. Flexibility first requires alienation from social and physical relations, meaning a reduction of material differences (e.g. in soil profiles, task skills, or seed phenotypes) and a concomitant severing of social relations with persons and things. This turn away from connection and relational existence allows for the second aspect of flexibility: exchangeability. Work, land, and crops must be made exchangeable by becoming commodified (expressible in market terms), liquid (added or removed from a farm's repertoire with little cost), and replaceable. Land must have soil that is amenable to green revolution technologies to enable agricultural simplification through monoculturalization and flat topographies to enable extensive use of large farm machinery. Land must also have the infrastructure to be accessible to markets and modes of communication, including transportation of agricultural inputs to the farm and commodities off the farm as well as access to the internet to allow for easy communication. Ideally they sit at commodity frontiers where land prices remain comparably low, infrastructure is in place, and land values are expected to rise (making land speculation a reliable option). Labor must be cheap, replaceable (by other workers or by machines), subject to minor labor regulations, and outsourced. Flexible crops require little long-term investments, have little non-market value, and can be replaced easily depending on commodity market swings. Together, flexible agrarians use

these forms of land, labor, and crops to minimize long-term rigidity of practice and to maximize their separation from and interchangeability of the means of production.

Flexible Land

We may have reached a point at which the cultural significance of land has disappeared and land has been reduced to its productive qualities, a commodity without social status or meaning (Schutter 2011), but what is land? Tania Murray Li stresses that it is a material thing with a social character which exists in an assemblage with other actors, pulled together to be made coherent. Its socio-material existence and placement within assemblages changes as new entities are introduced (for example new cash crops, new property arrangements, or new farming practices). The process of land grabbing, she finds is an act of:

assembling farmland as a resource for global investment [which] has been the work of many actors who draw on discourses, inscription devices and modes of calculation that are already to hand: the map, the grid, the survey, the statistical picture or graph and images captured in photos or conjured with words, like rows of tractors, the deep dark jungle of Borneo or an African woman laboring with a hoe in the hot sun. Pulled together, these devices produce an expanded capacity to envision ‘underutilised’ land as a globally important asset capable of producing food, profits and a reduction of poverty as well (Li 2014b, 600–601).

Thus, globally-invested land is not necessarily an erasure of past memories and practices with the land, but a transcription of those relations and a translation into capitalist terminologies and frames. She continues:

When investment funds land somewhere, they inevitably encounter people on the spot who must be excluded, but may also be enrolled...If promises of high returns do not materialise, investors might lose interest. Perhaps licenses and funds cannot be secured, the intended crop does not grow well or suffers from ecological or price collapse. The land would still be there, or more accurately, the ground would still be there, but it would no longer be a global ‘resource’ of the kind that attracts investor attention (Li 2014b, 600–601).

Despite this translation work, then, the land is still full of life and movement. The sight of

seemingly endless fields of soybeans was a highlight for many farmers' first agricultural tours of the Brazilian Cerrado, starkly contrasted with "small," non-contiguous fields of their home states. This flat, easily accessible, and relatively cheap land was everything they had sought out and couldn't find in the U.S. Agronomists and farmers alike describe the Cerrado as a wasteland. Agronomists regard it as "barren" (Hosono, da Rocha, and Hongo 2016) and sparsely habituated and of little value (N. E. Borlaug and Dowsnell 2003) while American farmers unfailingly responded that prior to their arrival and agricultural development there was "nothing" in the area, ignoring of course non-productivist values of the land (Top'Tiro 2009; Bizerril 2004; Klink and Machado 2005) and the massive scale of environmental destruction at work (Brannstrom et al. 2008; Campelo 2017), but it is amenable to green revolution technologies, especially with Brazilian-bred soy varieties. This flat, amenable landscape allows for a simplification of production. Flat topographies allow large farm machinery to easily pass through a field; large swaths of agro-ecologically consistent land encourage monocultural practices; and amenability of the land to green revolution technology allows both the implementation of industrial farming practices and a programmatization of farming tasks. My interest in differences in farming practices in Brazil were often greeted with disinterested answers as farmers explained that they farmed the same way their Brazilian neighbors did. Farming was easy, they argued, especially after you hire managers, agronomists, and farm workers. "Developing" the land, which entailed clearing it of native vegetation, adding lime and other fertilizers, and implementing a crop rotation, took time, energy, and capital, but after that it was simple; it is the business side they worry about.

In addition to the physical characteristics of the soil, land value, liquidity, and speculative prospects assure at least reap a speculative profit if not a productive one. Further, contiguous tracts of cheap, but marketable land with access to infrastructure enable access to agricultural

commodity markets as well as farm real estate markets. A brochure advertising the sale of land, farm machinery, and other farm assets by a U.S. farmer in Tocantins displays this marketization of the farm. While the reader may expect a description of the topography, climate, and soils of the farm, the brochure focuses instead on industry background, shared production investments, investment performance, machinery assets, and returns on equity investments. Not until the last notes does the reader learn about production history, and then only in terms of yield averages. Ideally for flexible agrarians, land can be bought at commodity frontiers where land is cheap and infrastructure is improving. As commodity frontiers advance and the region around their farm becomes incorporated into the national economy, land value rises and farmers can sell land for speculative profit (Fairbairn 2014). Flexible land must be commodified, but also liquid to enable quick and easy entry and exit from the region. Also necessary for this turn is a social disconnection from the land and farm. Farms here are units of economic production, not social production. While my childhood farm was open and mixed-use market and social uses - the barn sheltered hogs and hay, but also echoed children's voices at play - these farms are centralized, sterile, and protected by guards and fences. Farm workers live there, but not their families.

Soy farms are disconnected from transnational farmers in terms of both distance and social connection. With few exceptions farm families live in urban areas and commute only occasionally to farms; some even live in the United States and visit their farm every few months. Dennis, who has since sold his farmland, managed his farm from his office in Illinois, visiting a few times per year. Farms are physically separated from their environment by tall, reinforced walls, armed guards, and heavy gates, indicating a hard separation from the land, the farm family, and surrounding communities. Ian's farm, for example, is separated from the countryside by armed guards and barbed-wire fences. Early on in my research, I visited the farm. We arrived

by pickup at the gate after driving through a road with cotton fields on either side and rowed with coconut trees for the last hundred meters. At the end of the row of trees was a heavy metal gate with a strong guard dressed in black. A tall barbed fence surrounds the farm and was built after a series of armed robberies of chemicals on the farm. He explained, you cannot trust neighbors in the same way you do in Illinois, and robberies are common and so too does the fear of an invasion by MST. The farm has several rows of houses for workers, a workshop, a row of offices, a mess hall, and a soccer field.

Flexible land is commodified, flat, accessible, and amenable to green revolution technology. It is alienated from its physical environment by militarized barriers to entry and exit and the use of green revolution technology which minimizes agro-ecological difference. It is alienated from the social life of farming as a unit of economic production, not of social reproduction. This allows land to be more fully commodified (lacking deep social connections between farmer and land) and available to be bought or sold as the market demands. This commodification is similar to that identified by Yeh (2013) and Voyles (2015) in which past land use and history are made invisible, backward, or inefficient in order to authorize land use changes. Despite their claims for authorization of their presence, flexible famers do not hope for long-term settlement or territorialization. Rather, flexible land enables for a simplification of production practices, commodification of land as an economic asset, and a potential for speculative profit.

Flexible Labor

Ian worked to further separate himself from the day-to-day farm labor by creating a mission statement to clarify the goals of the farm. Their slogan is “tradition breaking borders.”

He hoped this would instill his work ethic and priorities regardless of his physical presence on the farm.

VISION STATEMENT

We want to be known and recognized for our operational excellence, for our rational use of assets, for our competency in agribusiness, for our professionalism in our commercial relationships, and for punctuality in meeting our obligations.

We want to be a business that is agile, lean, and competitive that utilizes the latest in proven technologies.

We want to be a business that values and betters the lives of our employees on their merit, always producing in an economical, rational, and self-sustaining manner when compared with other local and international agricultural producers.

Typically, they visit the farm a few times per week to meet with managers, check on progress in the fields, assure things are in working order on the farms, and make an appearance - otherwise they can be found in their office completing paperwork, communicating with investors in the United States or workers on their farm, and managing their office staff. Farmers operate farms from nearby urban centers or as far away as the United States. Farm work in my childhood required the involvement of all family members and structured our days. Yet here, farming can be done by email as farmers embrace the Brazil Model of farming and outsource the work to local laborers (Ofstehage 2018a). Work is alienated from the farmer by outsourcing the labor and a bureaucratization of worker relations which are governed more by minimal work requirements determined by Brazilian law than by reciprocal worker-capitalist relations common to plantation economies (Johnson 1971). Several farmers described losing interest in the well-being of workers because of the strength of the farm worker federation - that the workers were well-represented and highly organized allowed a kind of bureaucratization of worker relations. Workers are regarded as low-skilled positions and easily replaced by other workers or machinery. Turnover is high. Whereas a common topic of gossip I heard as a child was that so-

and-so had still not gotten into the field to plant crops or that our neighbor had let his field go to weeds, here rumors centered on management of the farm and of workers - sometimes about poor or unsafe working conditions for workers, other times about farmer treating their workers too well. Tracking the changes in practices and actions (Graeber 2013), farmers themselves came to value work in terms of managerial ability than in-field work - mirroring changes in notions of masculinity and business-farming in American farming (S. E. Bell, Hullinger, and Brislen 2015).

The farm workers can be divided into two groups in racial division of labor common among American and Brazilian operated farms in Brazil. White Sulistas (Brazilians from the southern states of Paraná, Santa Catarina and Rio Grande do Sul) operate heavy machinery and work in managerial positions, while local Bahians (primarily Afro-Brazilians) from the surrounding area and from south of Luis Eduardo Magalhães work as manual laborers. Of these two groups, the second is far more likely to be seasonally hired or released, replaced by machinery, and treated as unskilled workers. The few farmers who I worked with who were married employed their wives in their accounting office rather than engage them in day-to-day farm operations.

The farmers' framing of local farm workers reflected the treatment of Betsimisaraka workers in Madagascar who "came late to the job, quit without notice, absented themselves for days after being paid, took no pride in their tasks, were lazy, vulgar, and learned slowly" according to elites (Sodikoff 2012, 53), reflecting that "land, labor, and unequal relations of power are interlocked (Sodikoff 2012, 72). Similarly ethnic Chinese also tie land use, land, and laziness to backwardness (Yeh 2013). This framing of the worker as hopeless and lazy not only recalls descriptions of the Cerrado itself as a barren wasteland, it also identifies the workers as replaceable cogs in the farm operations. Flexible labor is outsourced, easily replaced, and

detached from place. It enables a flexible farmer to manage a farm without being physically present, reduces commitments to whatever is minimally required by contract, and distances the farm owner and farm family from in-field labor. Hiring on-farm managers, writing mission-vision statements, standardization of work, and lines of communication (i.e. e-mail, Skype, etcetera) allow the farm owner to “farm by email” (Lapegna 2016a).

Flexible Crops

Flexible crops are materially flexible in terms of uses and products and discursively flexible in terms of narratives of progress and development. Flexible crops, and soy specifically, is also flexible in terms of livelihoods. Small scale producers as much as large scale producers plant soy, and this production fits into both industrial and peasant livelihood strategies (Vennet, Schneider, and Dessein 2016; Mier y Terán Giménez Cacho 2016; Wesz Junior 2011).

Furthermore, the physiological condition of soy supports its flexible livelihoods uses. Soy is a legume and its nodules fix Nitrogen from the air, making it suitable for a variety of soils without Nitrogen fertilization. Soy is suitable as a flexible crop in terms of livelihoods which can be integrated into a variety of cultural, economic, and agro-ecological conditions. It is neither a long-term perennial like coffee or cacao that calls for a long-term investment and strategy, nor a crop that requires a narrow range of growing conditions and can only be grown in specific agro-ecologies like quinoa.

Soy, emblematic of globalized agriculture (M. Santos and Silveira 2001), exemplifies flexible cropping. The complex diversification of a single crop into products such as oil, meal, etc. and uses as diverse as livestock feed, shampoo, and diesel fuel encourages monoculturalization of fields and adds durability to soy economies and transnational

corporations involved in its agricultural, industrial, and household production (G. de L. Oliveira and Schneider 2016). Soy, to many U.S. farmers is invisible, a commodity, unlike corn which holds a deep social and cultural meaning for many farmers (Charles 2017).

Unlike certain heirloom crops, soy is, as Gudynas has argued (Gudynas 2008), as near perfectly commodified as any crop. Quineros in Bolivia produce quinoa for market reasons, but maintain strong social connections with the crop through shared histories, work, and political life (Ofstehage 2011, 2012). Tea in Darjeeling is not only a socially-valued crop, but a politically powerful one (Besky 2013). Likewise, Tartary buckwheat farmers in Yunnan, China maintain production partially out of concern for the cultural reproduction (Bulan et al. 2017) and the Ojibwe people of North America dispute the appropriation of wild rice which threatens their food sovereignty and traditional relationships with plants, animals, and landscapes (Raster and Hill 2017). Soy, at least in the context of North American farmers, does not hold the same value. Hetherington writes of a soy farmer in Paraguay who did indeed have an intimate connection with soy “‘Why don’t you plant something else?’ the policeman asked him, innocently. ‘Why don’t you plant corn?’ The soy farmer, beside himself with frustration, threw a tantrum. With his face twisted in rage, he yelled, ‘I only want to plant soy! I want to plant soy!’ before jumping in his truck and careening off down the road” (Hetherington 2013, 80). This passionate defense of soy did not arise from flexible farmers in Bahia. Farmers noted repeatedly that their crop rotations decisions were based primarily on market prices and trends and secondarily on agro-ecological dynamics (based on pest management, soil fertility, and restrictions of the growing season). None specifically placed value on soy as a valued thing in itself.

Farmers frequently shift rotations in response to market changes: one cut back cotton production drastically because “the market is not calling for cotton.” This allowed them to stop

cotton gin operations because there wasn't enough around to justify operating it for other farmers. This reduced labor force from 140 to 40. Besides the cost savings, and implied less hassle of dealing with workers, this has allowed Ian to "cut the fat." Keep on the good workers who he trusts and get rid of those who aren't trusted, good workers. He had to pay unemployment for those laid off, but you have to do that with anyone eventually, he says. Cotton takes much greater labor, attention, a totally different managing style. It is, he says, like raising livestock more than growing a plant. A common statement, is that "if you ask someone if there is anything wrong with your cotton and they say no, they're lying." They soil test all of their fields every other year on a grid and variably apply the nutrients, often adding micronutrients of which they had never heard of before coming to Brazil.

Soy is the ideal flexible crop. Unlike cotton, which is a perennial crop that requires access, if not ownership, of a cotton gin and often requires large amounts of pesticides and fertilizers, soy is an annual crop which fixes its own Nitrogen (though it still requires other types of fertilizers), requires less pesticide treatment (though still high), and is suitable for a wide range of agro-ecological environments. It holds little social value to farmers beyond its market price and can be easily added or removed from a cropping rotation. A flexible crop requires little long-term commitment, simplifies farming with monocultures and green revolution technology, and is subject to minimal social value outside of market value. This enables a farmer to switch crops quickly, simplify farm management, and respond quickly to market prices and climatic changes.

Finance has introduced a new dynamic to agrarian change. The impacts of agricultural financialization are well documented in terms of effects on farmers and the farm sector. Financialization for Krippner is a tendency away from "productive activities" and towards

“financial channels” (Krippner 2011, 4). Agricultural financialization manifests as an increased role of financial investment and logics of finance in the agricultural sector (Sommerville and Magnan 2015), mobilization of financial value and commodification of land (Knuth 2015), and the integration of finance capital and land ownership as a financial asset (Gunnoe 2014). Yet, the analytic of “financialization” remains in development (G. Lawrence 2015). It is a continuation of the financialization era in the juxtaposition of productive and speculative assets and economic action (Fairbairn 2014) and a distancing of actors and food through food abstraction (Clapp 2014). The line between food and finance is fading, reinforcing food retailers as dominant, intensifying exploitation of workers, and hitting small-scale farmers especially hard (Isakson, 2014). Literature on financialization richly describes the impact of finance on farmers, land, and the farm sector. However, the turn towards financialization as an agentive decision by farmers themselves is not well understood. Further, Stefan Ouma proposes exploring the “situated modes, processes and practices of financial economization that have reworked organizations, economic relations, labor and nature at specific historical conjunctures” (Ouma 2016, 83). This situated approach decenters financial investors and structures of finance to engage with the process of financialization at play in farm work, values, and social organization (Ofstehage In Press).

Family farmers forsook family-owned land, home communities, farming practices, even farming values, and even autonomy over farm decisions and cash flow in search of more resilient farming livelihoods in Brazil. They re-created farmer subjectivities around narratives of progress, efficiency, and development which were intimately connected to the new materialities of farming in Brazil (Cerrado land, markets, and finance).

For comparison, we can look at migrant farm workers as well. They left farming

communities in Oaxaca in search of work, gained work as farm workers and access to gardens for home production. In California they redefined subjectivity, work, and practices, but also reconnected with and preserved aspects of home farming communities (Minkoff-Zern 2012) while others turned migrant farm working careers into farming careers as they purchased their own homesteads (Minkoff-Zern and Sloat 2017).

Limitations to flex farming

Flexible agrarians alienate themselves from labor, land, and crop. Yet rural life cannot be totally alienated from social and material relations, nor can it be fully commodified. Even in an industrial, stripped down world where capital seemingly drives action and the rest is waste, life emerges unexpectedly from the ruins (Tsing 2015). What endures? What emerges from the ruins? In the following section I turn to the materialities that emerge from transnational farming encounters and to the subjectivities that endure, albeit transformed. Flexible farmers use flexible citizenship and crops to farm, but not without completely detaching, or adopting local practices completely. Flexible according to value (though this too changes) and limitations (value, economy, ecology, and capital). As Li argues in relation to Indonesian farmers adoption of cacao, the mechanisms of capital, “technical efficiency in production; determined access to capital or credit to acquire necessary inputs; economies of scale; usury/money lending; and extraction of surplus value from wage workers” did not operate alone, but “combined with the character of crops; habits and desires; local and global prices; droughts, diseases, and other elements to form the conjuncture at which capitalist relations took hold” (Li 2014a, 128).

In the Brazilian Cerrado, farmers responded with the soil, climate, and biodiversity of the land. They learned to implement minimum tillage practices to conserve soil moisture content in

dry Cerrado soils; they changed fertilization practices to make the acidic, ancient Cerrado soils “fertile”; and they increased pesticide use to make up replace tillage as a weed-killer and to combat vibrant insect and fungi populations. As noted by ecologists, the Brazilian Cerrado is both a fragile ecosystem with many endemic species and a resilient landscape with a tendency to reclaim lost land (Klink and Machado 2005). Farmers collaborate with the Cerrado to create new material assemblages of soy, practice, soil, and other life held together through farmers’ work and the Cerrado’s constant resistance to development. In collaborating, Cerrado and farmers create emergent ecologies of “used territory” (M. Santos 2005) marked by geological histories of soil formation, scientific research by Brazilian agronomists, labor of Bahian farm workers, capital of farmer financiers, and entrepreneurship of transnational farmers. Out of this industrial transformation emerges new practices, landscapes, soil profiles, and life.

Farmers frame the Cerrado as a redeemed wasteland, rescued from obscurity by soy farming - a claim easily dismissed with reference to the local communities that thrived in the Cerrado prior to the soy boom or to the many endemic mammal, insect, and plant species of the Cerrado, but to take it seriously allows us to connect this movement back to long legacies of farming and migration and forward to imagined futures of agricultural modernity. This temporality of farming, of transformative progress, endures flexible agrarianism. It also gives lie to the dual meaning of flexible agrarianism - a transformation of subjectivities of farming. Like trails of significance (Latour 1999), the apparent absolution of agrarianism hides enduring traces of rural life. Instead of abandoning the label of farmer in favor of the label of capitalist, entrepreneur, or businessman, they frame their work as the natural and progressive next step in legacies of farming and migration. Despite the radical transformation of rural life, subjectivities and materialities endure, even if changed. Despite the redefinition of work, land, and farming,

farmers' subjectivity endures through their reconceptualization of temporality of farming legacies. They place themselves within legacies of farming, migration, and improvement, yet claim to further this trajectory of change - connecting the past and future through their separation from romantic ideals of farming. They dominate land, yet adjust farming techniques to suit the soil, climate, and pests of the Brazilian Cerrado - resulting in not simply destruction, but emergence of new materialities. Haraway challenges us to rethink relationship of domination over nonhuman domesticated species as entangled, interdependent relationships in emergence (Haraway 2007). Besky and Padwe write that in gardens "plants and people together work against processes of de-landing and de-skilling under capitalism" (Besky and Padwe 2016, 19). I would argue that plants even under industrial agricultural conditions challenge processes of de-skilling as production conditions change.

As in Indonesian farmers' adoption of cacao, the mechanisms of capital - "technical efficiency in production; determined access to capital or credit to acquire necessary inputs; economies of scale; usury/money lending; and extraction of surplus value from wage workers" - do not operate alone, but "combined with the character of crops; habits and desires; local and global prices; droughts, diseases, and other elements to form the conjuncture at which capitalist relations took hold" (Li 2014a, 128). Likewise, transnational farmers had to reconcile their values of farm work with emerging practices and social relations (Ofstehage 2016). A good farmer makes money, returns on investment, meets his contractual obligations, and is not caught overstepping regulations. Meanwhile narratives of waste and development frame the Cerrado as valueless wasteland and fields of soy as developed, productive land; at the center of this transformation sits the flexible agrarian who resolutely defied crisis, found a wasteland, and improved it.

In Chapter Four, Ian explained the generational differences in values and meanings of farming. For his grandpa, farming is a family occupation in which a good farmer spends hours in a tractor doing physical labor. For Ian, that form of farming puts the business at a disadvantage and reduces the farmer to one person instead of multiplying his or her labor. On farming with the family, he said “I can’t just do that for free, just for fun.” Thus, he frames his way of farming, separating from land, labor, and crops, as the natural and necessary next step for the family. Leaving behind romantic notions of idyllic rural life allows him to thrive while others face crisis. And this path was marked not only by individual triumph, but also societal inevitability. Ian explained the difference between Brazilian and American farms on evolutionary terms. The Brazilian frontier farms are bigger, integrated, and run like businesses while on American farms “they don’t even figure up the numbers to see if they’ve made money or not, so how are you gonna know how much you can pay to rent a farm if you don’t know...”

So, what endures this agrarian transformation? For many it is this placement along a continuity and legacy of progress and change. They mark their work not as a separation from farming legacies, but a continuation. While farmers created flexible livelihoods by seeking out flexible land, labor, and crops, alienating themselves from the means of production, they maintained connections to legacies of farming by re-working temporalities of farming, re-defining progress, backwardness, and trajectories of farming. They frame those who remain connected to the material relics of farming as backwards hobby farmers and claim their own work as the necessary next step in long family histories of farming.

Flexible farming is a clear demonstration of the possibilities of the Plantationocene, which Haraway describes, as elaborated collectively by a group of feminist political ecologists (Haraway et al. 2016). Haraway describes the concept more fully elsewhere:

Scholars have long understood that the slave plantation system was the model and motor for the carbon-greedy machine-based factory system that is often cited as an inflection point for the Anthropocene. Nurtured in even the harshest circumstances, slave gardens not only provided crucial human food, but also refuges for biodiverse plants, animals, fungi, and soils. Slave gardens are an underexplored world, especially compared to imperial botanical gardens, for the travels and propagations of myriad critters. Moving material semiotic generativity around the world for capital accumulation and profit—the rapid displacement and reformulation of germ plasm, genomes, cuttings, and all other names and forms of part organisms and of deracinated plants, animals, and people—is one defining operation of the Plantationocene, Capitalocene, and Anthropocene taken together. The Plantationocene continues with ever-greater ferocity in globalized factory meat production, monocrop agribusiness, and immense substitutions of crops like oil palm for multispecies forests and their products that sustain human and nonhuman critters alike. (Haraway 2015, 162)

Yet, while fitting into the spatial and temporal logics of the Plantationocene, my flexible farmers highlight two missing components of the elaborated idea of the Plantationocene: that these disparate sites, things, and people are assembled for more than capital accumulation and that their assembly alters not only the things assembled, but also the farmer assembling them. The farmers in this narrative adopt this flexible farming strategy for capital accumulation, yet, but also partially to engage in a meaningful way with farming, as they see it. At the same time, their adaptations to this system generate new ideas of progress, good work, and even valued and wasteland landscapes.

Finance and flexibility

Farmers responded to farm crisis in the United States by migrating to Brazil and buying land using investment capital. They used flexible land, crop, and labor to alienate themselves from social and physical relations with production, but encounters produced new materialities and transformed subjectivities and temporalities of farming. Flexible farming is a tacit acceptance of commodification of rural life but is done in order to reproduce farming livelihoods and households. It is a strategic response to crisis which, while an effort to preserve farming

livelihoods, both necessitates a decoupling from certain aspects of those livelihoods and a re-definition of other aspects. This response is driven by changes in the agricultural economy, personal desires, and perceived possibilities at the soy frontier. The cost of flexible farming comes at a personal cost to farmers as they decouple from and abandon land, community, and/or family, they also embark on pathways, resembling industrial manufacturers' race to the bottom, from which it may be difficult to retreat. The cost to rural life is possibly higher yet. Flexible farming is only available to those with access to capital and willing to embark on a risky, unbounded path. Escape from rural crises enables a potential reproduction of household economies but avoids direct confrontation of the commodification of rural life in the United States.

It is possible that flexible farming is a dead end. For participants, it is helpful, but reinforces crisis and undermines resistance – refer to prologue. Nonetheless, while their privilege and access to capital provide new opportunities and pathways, both Mennonites and Midwestern family farmers demonstrate their own precarity (Li 2014a; Muehlebach 2013) and powerlessness.

While re-conceptualizing the current land grab debate in terms of resilience, transnationalism, and farming subjectivities, it also indicates a possible response to global climate change. Climate change and migration are often associated with migration from the global South to the North, but this movement may also suggest that North American farmers may respond to production disruptions in the U.S. by becoming transnational farmers elsewhere. It may not just be states and corporations that drive the global land grab; family farmers may lead the next global land grab. Adaptive strategies to climate change outlined by Roesch-McNally et al include changes in farm practices (Roesch-McNally, Arbuckle, and Tyndall 2017). Might farmers also use flexible agrarianism to escape this impending crisis.

INTERMEZZO 2

LUIS EDUARDO MAGALHÃES

Before we conclude, let's return to the beginning. The following is an excerpt from my fieldnotes on my first trip to Luis Eduardo during pre-dissertation research.

I arrived from Brasilia last evening at 5:30. The trip to Luis Eduardo Magalhães took about 8.5 hours, passing through the Distrito Federal, Goiás, and finally Bahia. Almost immediately upon entering Bahia, I noticed large tracts of farmland, signs for agricultural inputs, elevators, etc. Most of the land was cleared, I don't know of soybeans, corn, or cotton, and one could see red-colored clay for a very long distance. Other fields were apparently recently cleared of cotton, the neat bales appearing in a row along the edge or going down the center of the field. I passed Grupo Iowa farms, which I hope to visit while in town, and several other farms along the way. I also passed Bunge, Cargill, and cooperative elevators along the way. Nearing Luis Eduardo, the amount of input advertisements greatly increased – chemicals, seeds, implements, etc. – and the traffic of semi-trucks also increased. Upon arriving at the bus stop, most of the passengers alighted as I did. I searched for a taxi for a few minutes and then, after a stop to get a map to guide the way, I was delivered to the house. I'm staying with an agronomist who works at a local bank, named Diogo. I'll stay in a spare room on a small mattress.

Luis Eduardo is a town constructed by and for agribusiness. In fifteen years it's grown from nothing to 70,000 people, all are involved somehow in agricultural production and it is fairly obvious. The roads are filled with implement dealers, Bunge, Cargill, and John Deere have prominent stores, nearly everyone wears t-shirts or caps emblazoned with the marks of Cargill,

Syngenta, Monsanto, etc. No one, except for a few youngsters, is from LEM. Most are from the South, seeking cheaper land here, others are from the United States or Europe. The growth of the town is also obvious to see. There is no real waste treatment – just goes to a hole apparently, street signs are nonexistent, and most roads are unpaved. Houses, in this area I'm staying, would not be out of place in a Raleigh suburb, with manicured green lawns, tall fences, and plenty of barking dogs. Despite the newness of the buildings, a red dust follows everywhere and one is unable to escape the smell of the red clay's dust. Coming back from a short walk I was covered in a fine coating of dust, and vehicles show a red tint.

Overall impressions of the town are that it is a construction of agribusiness – each aspect of it reflects the rapidity of its rise and the wealth that agriculture has brought. It is a fascinating case of de-territoriality in that no one can claim this as their rightful territory – it is a constructed, liminal place.

CHAPTER 7 CONCLUSION

Arriving in Luis Eduardo Magalhães with a colleague and friend, I had a clear expectation of what I would see on American soy farms. I knew from reading newspaper and magazine articles that the scale and of course the site of production was different from the farm I had grown up on and what our neighbors' farms looked like. Yet, I expected to find something like a transplanted American farm - grain silos, a big red barn, a farmstead with a family, and perhaps a family garden. Instead, what I found was soccer fields, high barbed-wire fences, and housing for farm workers, but none for farmers. Little did I expect that this picture of Midwest farmstead was more or less what I would find in Rio Verde. There, small families lived on farmsteads with children raising goats, cattle, and chickens, family gardens, even if I did not see the children's book image complete with the red barn and grain silo. The difference between the Mennonite colony and Midwestern family farmers only begins with farmscapes. They attach different values to production, work, and community, practice industrial agriculture differently, and engage differently with community in Brazil and the United States. As much as anything, difference, crisis, and improvisation are the themes of this dissertation in terms of both the ethnographic methods employed and the findings elicited.

A driving interest of this work was my supposition, based on readings of Tsing and Escobar (Escobar 2008; Tsing 2011), of how differences in culture (in terms of value, know-how, and know-what) and environment (in terms of soil, climate, and landscape) marked Soylandia and how they emerged together through encounters. While concepts such as the Brazil

Model of industrial soy production, foreignization, land grabbing, and the soy boom itself usefully gather social experiences and material realities under operable frameworks, any supposition of homogeneity or linear movement is contrived. Farming practices in each group differed in terms of use of safrinha, use of no-tillage, crop rotation, and use of farming technology - each of these differences emerges from both environmental and socio-cultural differences in the two cases compared. Crop rotation, for example, in Rio Verde is generally different than in Western Bahia due to the higher precipitation in Rio Verde which allows for two crops and precipitation patterns in Western Bahia that limit farmers to one crop but create near-ideal conditions for cotton production. Yet, crop rotations in these cases are also related to fields of value. Mennonites generally avoid sugar cane production because of the high labor requirement, question alfalfa hay production because of concerns for idle horse raising, and in some cases avoid safrinha because it “seems like cheating” to raise two crops in a season. Midwestern family farmers on the other hand, often stray from a set rotation in favor of planting crops that have high market value.

Rotations and animal husbandry decisions do not remain as simple outputs or products of environmental and socio-cultural difference, they also create it. Midwestern family farmers who plant cotton come to see the Cerrado and the cotton plant as particularly fickle means of production, requiring a higher level of expertise, which they happen to have attained. The heightened pesticide and micro-nutrient requirements of cotton under monocultural production require a set of skills that allow the farmers who employ them to claim expertise. Likewise, Mennonites who own livestock as much for teaching their children concepts of hard work and responsibility as for market sales are producing values, community, and children. Differences in land, soil, culture, and community create difference in agriculture, as much as difference in

agricultural practice creates or entrenches differences in land and community.

As a researcher, I employed difference as analytic. In seeking out difference or divergence (as well as convergence) in these communities, I found my site of analysis and research. Difference told me what mattered to the two groups in social and material terms and difference directed me where to look.

Crisis also connects and differentiates the two groups under study. Both left the United States only after it became clear that their way of life was not socially or economically possible. Mennonites experienced threats to their cultural autonomy and pacifism as well as rising farmland prices; Midwestern family farmers desired farming lifestyles and their own farm and farmland, but neither could afford farmland prices nor were willing to incur great monetary or reciprocal debt to attain land. Their temporally and thematically different crisis experiences led them each to Brazil, soy, and the Cerrado. So too were some of my research decisions made out of experiences of crisis. Hearing from several farmers that my research in Bahia was a dead end, though ultimately ignored, drove me to seek out other research options only to find other groups of North Americans to draw into the study.

Finally, improvisation. In terms of migration, farming practices, and even community and value formation; actions and decisions in this study can consistently be called improvisations. The farmers always had plans, often seemingly good plans, yet crises and difference, as well as affect upended these plans and left them to improvise. So with my own research methods, was I led to improvise with both groups. Having never worked with elite farmers, I employed practices developed working with quinoa middlewomen (arguing that I could present their perspective) as well as learned new practices of ingratiating myself (employing agricultural knowledge, talking often about farm life, searching for points of agreement, and eschewing conflict when possible).

With Mennonites I found a natural rapport, but had to improvise my topics of conversation and jokes, and dress to retain credibility as researcher and agronomist and pass as an acceptable presence on the colony.

Reconnecting with the Soy Boom

The Green Revolution has perhaps never ended. The global evangelical agronomic project encouraged farmers to adopt hybrid seeds, chemical fertilizers and pesticides, and plant crops in monocultures; it also marked opposition to these practices as backwards. The project was nominally to end global hunger and politically to stem the advance of Communism in the “third world.” But, as Raj Patel argues, the Green Revolution is not over, it only has new features (Patel 2013). The “new green revolution” employs land grabs, patents on life, and nutritionism to create efficient market-based solutions to persistent food crises - the costs of these efficiencies are land dispossession, financialization of farm life, and commodification of more than just land, labor, and money. It is expressed in new modes of control of the land (Peluso and Lund 2011), in seed commodification (Gutiérrez Escobar and Fitting 2016), and narratives of commodity frontier expansion and land grabs as improvement and development (Liebman and Peller 2017). Even where proletarianization has not occurred in rural areas, capitalization has - in rural China, for example, input of capital per unit of land has increased, but with no concomitant rise in farm worker employment. Family farming, not capitalist agriculture, still predominates as the dominant mode of production but there have been no increases in farm employment or wages (Huang, Yuan, and Peng 2012).

This research supports this trajectory of financialization, commodification, and patentization of rural life, but with amendments. First, the expansion of soy production,

foreignization of land, and employment of destructive farming practices in both cases outlined in this dissertation are interconnected processes which are not confined to Brazilian borders, nor to a simplistic understanding of capital flows. To understand each case, one needs to take account of the experience of crisis that made rural life in the United States untenable for each group - these similar but distinct crises in the United States demanded a response from each group. Their responses depended on their willingness to become mobile farmers and their access to capital, but their mobility and access to capital did not determine their becoming transnational soy farmers. While the new green revolution with its features of land grabbing, financialization, and commodification may have some of its starkest appearances in Brazil, its affects in the United States and Europe should not be ignored or dismissed.

Second, while the soy boom operationalizes several processes of the new green revolution, the way in which they emerge is dependent on difference - difference in agro-ecologies, values of farming, and capital. The two groups differ in agro-ecological conditions - primarily different levels of precipitation- and this manifests itself in different crop rotations. The two groups differ in social values of farming and particularly 'good farming' - this emerges out of differences in work and also manifests itself in how work is conducted. While they adopt similar farming practices, they do so using different work forces, technologies, and different qualities attached to that work. They differ also in access and sources of capital. While Mennonites operate farms as relatively isolated and independent farms, with a yeomen farmer type of decision making process (family-centered), family farmers in Bahia depend on financiers and investors to approve of their decision making in some cases, or in others make decisions based on the eventual approval of investors in the form of new investments. Capital also places them on different pathways which lead to either rootedness in Brazil or flexible, but capital-

dependent farming careers.

Third, both cases demonstrate the generative power of actors engaged in the soy boom. Mennonites actively create the conditions for their Holdeman Mennonite theology to thrive in Rio Verde, helped develop practices that “made the Cerrado productive,” and create distinct values, landscapes, and practices of soy production in Goiás. North American family farmers in Bahia generate new ideas of good farming, which many hope to implement in the United States, and re-define family legacies of farming and migration. Their relations with the land, work, people, and value in Brazil is not only destructive, but generative, for better or worse, of new social and material realities in both Brazil and the United States.

In this dissertation I found the soy boom through an analysis of the convergence and divergence of practices, values, and communities in two groups of transnational farmers. In analyzing their motivations to migrate to Brazil, I found that they were both driven by crisis and opportunity, but their crises and opportunities were not the same. Mennonites experienced a cultural crisis in their fear of loss of autonomy over educational curriculum, military service, and raising of children - they perceived opportunity in Brazil in terms of space for cultural production and exemption from military service and educational standards. In analyzing their farming practices, narratives of landscapes, and values of “good farming” I found convergence around productivist ideologies, certain soil management practices necessary to coax industrial soy production out of the Cerrado, and their views on the Cerrado as a wasteland. And yet, they differed in their use of technology, capital, and land and even in the most basic aspect of the good farmer identity - what counts as a farmer. In terms of community formation and identity re-formation the groups differ extensively - Mennonites employ social control to maintain cultural practices and beliefs in the community centered around God, family, and community.

Midwestern soy farmers, on the other hand, turn to industrial values of farming and flexible farming strategies to incorporate mobility and capital fully into their farming. In looking at these points of convergence and divergence, Soylandia, the soy boom, and soyization become messy things. As noted by other scholars, the soy boom is a heterogeneous phenomenon with room for difference in terms of practices, values, and modes of production (Mier y Terán Giménez Cacho 2016; Vennet, Schneider, and Dessein 2016; Wesz Junior 2014). This dissertation supports these findings of difference and suggest that identifying the soy boom itself has become a tricky practice. Perhaps that is for the better. I embrace, then, an antiessentialist (Escobar 1999) take on the soy boom. It cannot be the same phenomenon in Luis Eduardo Magalhães, Bahia as in Rio Verde, Goiás, for the landscapes, soils, rainfall, histories, and people demand different adaptations. It cannot be the same phenomenon among Holdeman Mennonites and Midwestern family farmers, for they differ in know-hows, know-whats, beliefs, material relations, and social connections - these differences demand to be acted out. And yet, there is a real growth in soybean production in South America, a reality behind the name “Soylandia.” If we work to reconcile these two realities, of difference and thingness, we find life. The encounter of people, capital, land, non-human species, and public policy at the nexus of the soy boom gives it life.

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