

CONTESTING THE FUTURE OF THE *CAMPO MEXICANO*:
FOOD SOVEREIGNTY AND THE CULTURAL POLITICS OF TRANSGENIC CORN

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ABSTRACT

ALICE BROOKE WILSON: Contesting the Future of the *Campo Mexicano*:
Food Sovereignty and the Cultural Politics of Transgenic Corn
(Under the direction of Dorothy Holland)

This dissertation analyzes the social-spatial knowledge practices that have emerged in the controversy over genetically modified (GM) transgenic corn in Mexico. This controversy is embedded within a broader struggle over the future of global food production and consumption, as the idea of agrobiotechnology as a techno-fix to global climate change and hunger increasingly takes over the popular imagination. The concept of food sovereignty, as developed within the *Vía Campesina* social movement, has emerged as a powerful discursive alternative on this terrain. Mexico is one of the most active sites of dispute over the future and meaning of maize and small-scale farming in North America.

Through ethnographic and discursive engagement with the key social movement network that has emerged "in defense of maize" in Mexico, this dissertation analyzes the practices that have worked to generate autonomy and alternative geographies of territory and justice in the struggle over transgenic maize between the years 2009 and 2014. The complexity of intertwined cultural and biological processes that give rise to agrobiodiversity make studying the cultural politics of maize and the rearticulation of agrarian progress particularly relevant in maize's "center of origin."

This project describes and analyzes three specific, concrete sets of world-making practices taking place at different sites of struggle against transgenic corn in Mexico: testing, mapping, and the international Permanent People's Tribunal. These practices emerged in

moments of crisis—of contamination, of defining the centers of origin of maize, and of state impunity—within the larger discourse of crisis that frames rural Mexico as under "attack" by the Mexican government, starting with the neoliberal reforms of the 1980s. Each site of struggle and cultural politics has changed the terms of resistance through multiple experimentations, specifically generating practices of autonomy and multiplicity.

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LIST OF ABBREVIATIONS

CECCAM	Centro de Estudios para el Cambio en el Campo Mexicano
CENAMI	Centro Nacional de Ayuda a las Misiones Indígenas/National Support Center for Indigenous Missions
CONABIO	Comisión Nacional para el Conocimiento y Uso de la Biodiversidad/National Commission for Knowledge and Use of Biodiversity
CONASUPO	Compañía Nacional de Subsistencias Populares/National Company of Popular Subsistence
CIMMYT	Centro Internacional de Mejoramiento de Maíz y Trigo/International Maize and Wheat Improvement Center
CNC	Confederación Nacional Campesina
EZLN	Ejército Zapatista de Liberación Nacional/Zapatista Army of National Liberation
GATT	General Agreement on Tariffs and Trade
LBOGM	Ley de Bioseguridad de Organismos Genéticamente Modificados/Biosafety Law for Genetically Modified Organisms
LVC	La Vía Campesina
NAFTA	North American Free Trade Association
PAN	Partido Acción Nacional/National Action Party
PRD	Partido de la Revolución Democrática/Party of the Democratic Revolution
PRI	Partido Revolucionario Institucional/Institutional Revolutionary Party
PROCAMPO	Programa de Apoyos Directos al Campo/Program of Direct Payments to the Countryside
PROCEDE	Program of Certification of Rights to Ejido Land
SAGARPA	Secretaría de Agricultura, Ganadería, Desarrollo Rural, Pesca y Alimentación/Secretariat of Agriculture, Livestock, Rural Development, Fisheries and Food

SEMARNAT	Secretaría del Medio Ambiente y Recursos Naturales/Secretariat of the Environment and Natural Resources
TPP	Tribunal Permanente de los Pueblos/Permanent People's Tribunal
UNAM	Universidad Nacional Autónoma de México/National Autonomous University of Mexico
UNORCA	Unión Nacional de Organizaciones Regionales Campesinas Autónomas/National Union of Autonomous Regional Peasant Organizations
UNOSJO	Unión de Organizaciones de la Sierra Juárez de Oaxaca
WTO	World Trade Organization

INTRODUCTION

This project started with an overarching set of questions about competing worldviews—agrobiodiversity versus agrobiotechnology—in the debate over transgenic corn in Mexico. I wanted to understand the practices that made these categories and conflicts meaningful, and how they are lived. I predicted that the differing conceptions of progress and the future that inform the practices of everyday life would be a key analytic realm. From the start, I aimed to explore why and how certain agrifood practices come to be desired, or valued as more “sustainable,” through being embedded in landscapes of human and non-human actors linked through relationships of food and care.

Understanding the complexity and values of small-scale production, which are considered from a “modern” viewpoint to be outdated, challenges a linear model of the future of agriculture characterized by ever-increasing agribusiness and integrated world food systems. This approach instead opens up other ways of being-becoming and new potentialities. The fight against transgenic corn in Mexico is embedded within the emerging struggle over the future of global food production and consumption. But it is also taking place on the cultural terrain of Mexico’s post-colonial history and specifically in terms of *milpa*,¹ a complex set of human/non-human relationships that depends for its meaning on cycles of planting and eating maize.

¹ From Nahuatl *Milli + pan*: "On the cultivated field," what is planted in the field (often translated as *sobre la parcela*). It signifies a way of life based on cultivating and consuming an

One thread of Mexican social movement discourse frames transgenic corn as the latest, and highly symbolic, threat in 500 years of colonial attack against *campesinos* and the milpa²—attacks which the milpa has survived. Crucial to this approach, and an argument that will be made over the course of the dissertation, is an understanding of the milpa as a figured world, fundamental to the conditions of possibility for autonomy.

Maize is the traditional symbol of Mexico, linked to its place as the crop's center of diversity and domestication. At the same time, growing corn has long been associated with poverty and indigenosity in Mexico. Recently, however, and especially since the 2001 discovery of transgenes in traditional maize in rural fields in Southern Mexico, growing locally adapted landrace varieties of corn has also come to be seen as a political act, preserving diversity and representing a holdout against neoliberal globalization. The rural economic crisis and massive urban migration mean that what was previously seen as a marker of cultural identity and a self-evident truth—that “campesinos grow maize”—has been thrown into question, along with the value and meaning of corn.³

Struggles over corn in Mexico embody both the historical and current contradictions of industrial agriculture. The earliest experiments of the Green Revolution started in Mexico in the early 1940s, and the country was the testing ground for economic structural adjustment and free trade policies starting in the early 1980s. The recent history of Mexican agriculture mirrors the

² Following the Chicago Manual of Style, 16th edition, frequently used non-English words will not be italicized after their initial introduction, unless necessary for clarity.

³ The historical construction of the category of “campesino” will be analyzed in greater detail in Chapter 4. I deploy the word in a way that reflects its common usage among social movement actors, summed up nicely as, “Campesino may be in origin a homogenizing and, in many ways, repressive category that effaces differences, but it is also a category people can sometimes use to express their difference. Its invocation has meaning and power” (Joseph and Nugent 1994, loc. 7910).

history of globalized industrial agriculture in general, which could be described as “agriculture without campesinos,” as machines and agrichemicals take the place of human labor and farmer knowledge. But 29 million Mexican campesinos (in 2015) still depend on the land for their livelihood. The complexity of intertwined cultural and biological processes that give rise to agrobiodiversity make studying the cultural politics of maize and the rearticulation of agrarian progress particularly relevant in maize’s “center of origin” (a problematic term I will examine in Chapter 6). Mexico today is one of the most active sites of dispute over the future and meaning of corn and small-scale farming in North America.

This analysis is taking place at a time of intense debate in the global north, guided by conventional understandings of development, about how to “feed the world.” This debate is often really about “feeding the global south,” amid concerns over population growth, climate change, and resource scarcity. People in the global south are at best objects in the debate, and at worst they are invisible, extraneous abstractions. This dissertation engages these crucial debates about the future of agriculture in part through the lens of food sovereignty, which provides a tactical way of talking about the struggle in Mexico and linking it with other unique place-based food and agriculture struggles around the world, acknowledging both the analytic potential and limits of the concept.

Fundamentally, this study illuminates social practices of multiplicity that generate autonomy and alternative geographies of territory and justice. These practices challenge the reductionist techno-fixes offered by dominant approaches to agricultural development, and create alternatives to the uni-dimensional future implied by contemporary agro-biotechnology, that is, the industrial monocultural practices and herbicide use that come along with planting transgenic corn.

METHODS AND FIELDWORK

Andábamos sin buscarnos pero sabiendo que andábamos para encontrarnos.

We travelled without seeking each other,
but knowing that we travelled in order to find each other.

Julio Cortázar, *Rayuela* 1963
Motto of the Tribunal Permanente de los Pueblos, Mexico Chapter, 2014

Like many feminist and minority scholars, my project emerged from an attempt to come to terms with dynamics affecting my own life, specifically my experiences as an activist and small-scale vegetable farmer in the United States, heavily involved with the local food movement for the decade of 1998-2008 (Sparke 1996, Rose 1997). My Master's thesis (2006) focused on a small organic farm in North Carolina that depended on undocumented Mexican labor, highlighting questions about class and race in the local food movement, as well as the dynamics that brought people from farms in Mexico to work on farms in North Carolina.

After a decade of food activism in the United States, and frustrated by the uncritical embrace of a de-politicized spatial logic around the concept of "local" (Wilson 2008, 2009; Allen and Wilson 2008), I focused my dissertation research on a social movement in Mexico that was taking a different social-spatial approach—within the same North American food system dynamics—to challenging the problems of industrial agriculture.

In Mexico, I found a complex set of social movement practices that generate a critique of industrial agriculture that refuses a separation between the political, social, economic, and cultural realms. These practices enact a politics of place centered around a defense of diversity and difference, in contrast to the U.S. local food movement's tendency to focus on geographical boundaries and consumption practices.

I approached the project explicitly in terms of trying to understand how activist

knowledge-practices work, using a “relational mode of engagement” and a dialogic approach to work alongside movement actors (Casas-Cortés, Osterweil and Powell 2008, 27). Based on the social movement network’s main activities and narratives about themselves and others, my main focus became documenting and analyzing the spatial and temporal practices, which (in their words), fundamentally revolve around generating and maintaining the interdependent notions of “autonomy” and “territory,” with the corollary of “justice.” These embodied notions are the horizons of meaning against which people act, and as such they represent frameworks of understanding which people are struggling to create and maintain—what Holland et al. (1998, 2008) have called “figured worlds,” which can be defined as “collectively imagined worlds in which people and groups ‘do’ movement action.... Collective identities form in relation to a figured world” (Holland, Fox and Daro 2008, 101). In this sense, I have framed the project in response to the priorities of the stories I have heard people tell about themselves and the social movement. This project—from the discussion of agro-biotechnology to Mexican history and economics—reflects the ways in which this particular social movement actor has constructed a deeply place-based discourse to make sense to itself.

I have taken a “topological approach” to my position as an activist-researcher, embracing my ever-changing positionality and the obvious contingency of my own experience, with corresponding implications for the situated, partial, embodied nature of knowledge generally (Braidotti 1994). Movements also generate knowledge that is concrete and embodied in practice, and thus situated (Casas-Cortés, Osterweil and Powell 2008, 45). My experiences with shifting positionality resonate with Rose’s (1997) argument that transparent reflexivity requires inherently problematic assumptions and demands too much analytical certainty that “self” and “context” can ever be either fixed or transparently understandable to a reader (Rose 1997, 318).

A focus on practices allowed for “the field” to be outlined in terms of specific objectives and a politics of location, and not in terms of naturalized people or places (Sparke 1996). This also emerges from the assumption that “sites” do not pre-exist ethnographic investigations (Marston et al. 2005, Latour 2005).⁴ Nor does a “struggle” exist in terms of hegemony and resistance between pre-categorized “powerful” and “oppressed” groups of people—instead, participants may be seen to be configured and redefined in terms of the characteristics of the struggle (Holland and Lave 2001, 23).

My fieldwork can thus be described as an attempt to engage in the coproduction of knowledge at the contested site of transgenic corn in Mexico. The investigation focuses on the social-spatial practices that coalesce into possibilities for difference and multiplicity; crucially, many of these are already in existence, emerging dynamically between traditions and collective memory and emergent possibilities. One key part of the contest over GM corn is a process of contesting and redefining the meanings of progress and agricultural development. In the rupture created by the crisis of transgenic maize in Mexico, the social-movement actor is not calling for a return to an idealized past or essentializing tradition, but instead is working dialogically between the past and the future to generate spaces of emancipatory possibility.

The opening quote by Cortazar speaks to these practices of possibility, “We travelled without seeking each other, but knowing that we travelled in order to find each other.” The line describes a methodological approach rooted in contingency, possibility, the unexpected, and transformation. It also may be seen to provide an escape route from the circularity of knowledge:

⁴ “Sites thus require a rigorous particularism with regard to how they assemble precisely because a given site is always an *emergent* property of its interacting human and non-human inhabitants” (Marston et al. 2005, 425, italics in original). This approach could also be seen as conjunctural.

by not looking in a specific place, or fixing specific questions, one may get more than just the answers to the questions that are asked.

Basic research path: My research took place over the course of five extended research trips between 2008 and 2014, with an 18-month period of field research between 2011-2013 that bridged the *sexenio*, the six-year term, of Mexican presidents Felipe Calderón and Enrique Peña Nieto. This time period provided a specific focus on the process and contestations over the legalization of transgenic corn: the 5-year period starting when GM corn first was approved for experimental release in 2009, through 2013, when a judge imposed a new, albeit temporary, moratorium on planting. My preliminary research started in the summer of 2008, when I interviewed a dozen people involved in the movement against transgenic maize, in Guadalajara and Mexico City. In summer 2009, after an intensive study of Nahuatl, I stayed with a family in the rural Huasteca region of Veracruz, hours from the nearest main road, becoming immersed in the rhythms of rural life in that region.

I returned to Mexico in January 2010 for 18 months of fieldwork as a participant-observer in La Red en Defensa del Maíz (The Maize Defense Network, hereafter generally referred to as La Red). La Red was the first national network to organize around the issue of transgenic maize in Mexico, and has been active ever since; as such, it has fundamentally helped shape the social movement. La Red directly links together base communities in rural, mostly indigenous areas all across the country. In 2014, it was active in 23 (out of 31) states and the federal district of the capital, uniting over 1,000 indigenous and campesino communities, and connecting these communities with urban-based activists, students, teachers, and union members across Mexico (see Works Cited for complete list of member groups). Since its inception, the network has been linked with La Vía Campesina, an international union of self-described

peasants dedicated to food sovereignty, which will be discussed in detail in the next chapter. The membership is clustered in areas that mirror the distribution of landrace maize varieties in the map below.

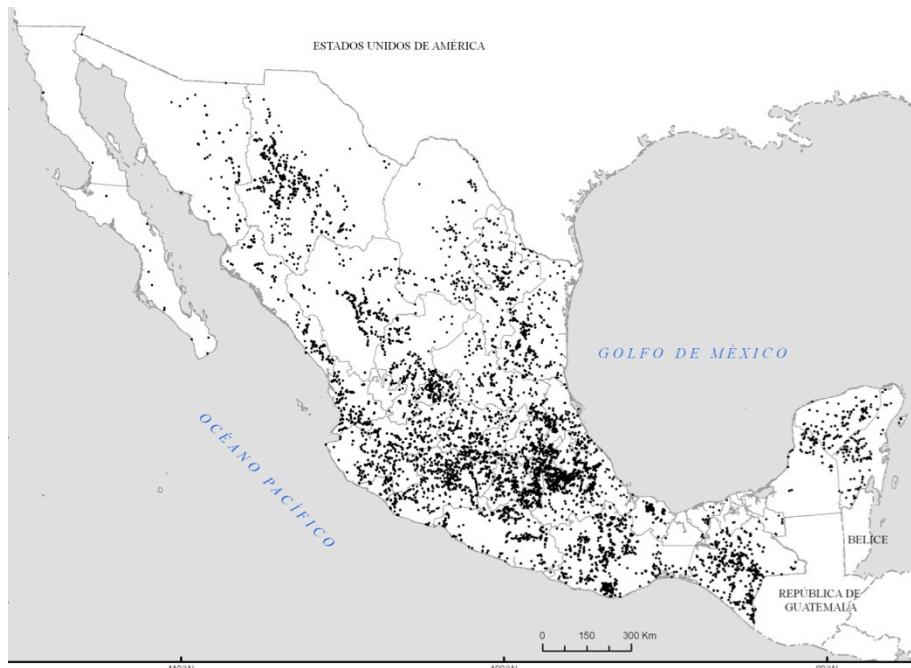


Figure 1.1: Distribution of native maize in Mexico (CONABIO 2011).

In the years since its founding in 2002, La Red has organized or collaborated on hundreds of workshops and dozens of national and international marches and public fora, and has been part of spreading information about transgenic corn in a variety of ways, including books, pamphlets, maps, talks, workshops, and marches. From the beginning, it has articulated a critical link between GM corn technology and the privatization and corporatization that characterize neoliberal globalism and its approach to intellectual property rights.

I affiliated with one of the founding members of La Red, the independent think-tank *Centro de Estudios para el Cambio en el Campo Mexicano* (Ceccam/Center for Studies of Rural Change in Mexico), based in Mexico City. The Ceccam formed in 1992 to work with grassroots actors to monitor and analyze the changes in rural Mexico brought about by free-trade

agreements and the land redistribution. A model of ethical research work, the group describes itself in this way (my translation):

- The Ceccam is a point for linking and exchanging experiences and research in the service of campesino and indigenous organizations in Mexico and other countries, which, despite cultural and geographical differences and different economic and political systems, share and face the same challenges that modernization poses to rural society.
- The Ceccam is linked to the needs of the organizations and emerged in response to their need to be able to depend on a center specialized in the problems of the campo, from a campesino perspective. The Ceccam was conceived as a think-tank for campesino organizations. Rural, peasant and indigenous social organizations are its scope of action and influence.
- It is also an area of convergence for different actors in the rural world, with the capacity for advocacy. Since 1992, the year of its formation, the Center has produced materials for reflection and analysis and has led meetings and seminars—national and international—in which experts, representatives of farmers' organizations and scholars bring together their experiences. The Ceccam supports collective intellectual production and linked actions, seeking to produce approaches and strategies for the benefit of the rural sector.⁵

Six people work in the office, located in the Colonia Florida, in the south of Mexico City, not far from the university. I joined in the daily activities of the small office over the course of 18 months. I started out mapping the nodes of the network, attending public meetings, and working in the archives. I set out to understand the national movement against GM corn, and how the Ceccam works with La Red, to horizontally link grassroots communities, and, in its own words, “build a social response to the contamination of the DNA of native corn and prevent the advance of experimental and commercial planting of GM corn” (ibid.).

My qualitative data are drawn from traditional ethnographic methods: participant observation at dozens of meetings, workshops, forums, and marches; semi-structured and in-depth interviews; and discursive analysis of maps, archival documents, campaign material, newspapers, and video. I went on eight research trips to different parts of the country, attended

⁵ <http://www.ceccam.org/organizacion>, accessed March 15, 2015.

four network workshops, participated in 13 international forums, three mega-marches and two smaller ones, and helped support the process of the International People's Tribunal, through the pre-trial meetings in the capital and the penultimate hearing in Oaxaca in April 2013. Over this time, I gathered interview data from over 30 individual social movement actors, meeting with a core of around ten people multiple times.

At the same time, my focus on social-spatial knowledge-practices defied a neatly planned research agenda. Instead, I found myself trying to understand, and theorize, a constantly unfolding series of not-knowing and things-that-didn't-happen.⁶

KNOWLEDGE-PRACTICES

This project called for analyzing the concrete practices that give rise to new political-cultural identities and new ways of relating within the social-movement space of the anti-GM corn movement in Mexico. In this way, the project builds on the significant theoretical work on knowledge practices and social movements, much of it articulated by the University of North Carolina at Chapel Hill Social Movements Working Group (SMWG), that approaches social movements as knowledge-producers and world-makers. To analyze the spatial component of these autonomy practices (a part that has been less well developed within SMWG), I draw on Wendy Wolford's (2004) "spatial imaginaries," a notion that exemplifies using the spatial constitution of the social to analyze how particular understandings of space influence the formation of social movements, in this case the MST in Brazil. Wolford defines spatial imaginaries as the "cognitive frameworks, both collective and individual, constituted through the

⁶ See Appendix A for a fuller discussion and excerpts from my field notes.

lived experiences, perceptions, and conceptions of space itself.”⁷ The center-of-origin spatial imaginary is fundamental to the social movements in Mexico.

Casas-Cortés, Osterweil and Powell (2008) make a compelling argument for approaching social movements as subjects or actors that are knowledge-producers in their own right, from the stance that “knowledge” is embodied, concrete, lived, and situated (ibid., 20). In this way, social movements can be seen as “spaces and processes in which knowledge is generated, modified and mobilized by diverse actors,” (ibid., 45). They propose a methodology that starts by analyzing a movement’s own narrative explanations and knowledges, from stories, songs, and ideas to theories and analysis. The “creation, modification and diverse enactments” of these narratives are what they identify as “knowledge-practices” (ibid., 21).

More than twenty years ago, Arturo Escobar and Sonia Alvarez posed a series of fundamental questions about the category of “social movement” that are still relevant. They suggested that studies of social movements involve a complex epistemological process that starts with identifying an agreed-upon frame of reference for what counts as the “social” or “political” (Escobar and Alvarez 1992, 6). The essential part of a social movement is that “actors recognize the stakes in terms of a cultural project; in other words, what is at stake for a social movement is itself, not merely organizational forms, services, means of production and the like” (Escobar 1992, 71). A corollary of this approach, relevant for this project, is the shift to approach social movements in terms of movement networks or areas, instead of movements per se, from the understanding that “social movements bring about social practices that operate, in part, through the creation of spaces for the production of meaning” (ibid.,73).

Holland, Fox and Daro (2008) develop the concept of collective identity in social

⁷ Wolford found that people in the north and south of Brazil joined the MST based on different spatial imaginaries, which explained their contrasting post-mobilization actions.

movements, specifically in terms of collective action. They take a dialogic approach to collective identity formation, understanding it as an always-changing cultural production that is continually “emerging, forming, and reforming between people and groups in multiple sites and places of contentious practice” (ibid., 99). They call for a decentered (following Wolford 2009), dialogic approach to the study of emerging collective movement identities in particular places, and they define the collective identity of a social movement as “participants’ shared sense of the movement as a collective actor—as a dynamic force for change—that they identify with and are inspired to support in their own actions,” (ibid., 97). Collective identities develop within imagined or figured worlds, the “realm of interpretation and action” in which the shared activities and commitments of movement actors outline a terrain of struggle, including the powers of the opposition and the possibilities for remaking the world (ibid.). Through this analytic lens, movements are better seen as multiple sources of cultural discourses competing to inform the everyday actions of movement participants, not as relatively unified actors (ibid.).

MILPA AS FIGURED WORLD

The complex material-symbolic ways that “milpa” is brought to life by social movement actors makes approaching it as a figured world a particularly useful approach. The figured world of the milpa can be seen as an arena of meaning-making through improvisation and action around sites of conflict, from long-term clashes with the Mexican government over land rights to the newer terrain of conflict over transgenic corn. The new practices that come to life through these conflicts, and even more vividly the practices that emerge through the transforming conflict into affirmations of diversity and difference, generate new kinds of situated, embodied knowledge. This approach builds on the theoretical tools developed by Holland and Lave (2001) and Holland, Lachicotte, Skinner and Cain (1998) that analyze the dynamics of how social

change becomes embodied and practiced. I approach the milpa as a figured world where collective social movement identities in the fight against transgenic maize in Mexico take shape. Crucial to this approach is an understanding of the milpa as a component of, and arena for, working out contestations over the conditions of possibility for autonomy. As such, the milpa can be seen as a figured world in which autonomy and territory are key features of the landscape.

SHIFTING POSITIONALITY

While presenting my project to people in Mexico, I often explained it in terms of trying to understand knowledge-production practices and the collective identity within the social movements against transgenic corn. This explanation—which intentionally puts social movement knowledge on equal ground with academic knowledge, following Casas-Cortés et al. 2008—resonated with many different kinds of people who had no interest in non-committed academics trying to do “objective” research. I made clear that I see GM corn as representing a fundamentally different worldview (modern, “progress” driven), and, from my position as someone from the country dominated by GM corn, I wanted to try to weave together an understanding of the movement’s epistemic project, that is, their contestations over what maize could and should mean in the world. I also drew upon Sarah Whatmore’s (2002) work on geographical practices of hybridity, and her understanding of the knowledge practices of everyday life as performative, not cognitive, what she calls “thinking through the body.”

Important challenges to “knowledge production” as a way of organizing understandings of the emergence of new ways of being and alternative worlds include Marisol de la Cadena’s (2007) critique that the categories of both “knowledge” and “production” are modern conceptions—and I would add “imagination,” born during the Enlightenment, to this list of risky modern concepts (Kant 1965, 112)—which threaten to embed assumptions of rationality or

legitimacy within spaces where they do not necessarily belong; that is to say, modern worlds produce modern knowledges, eliding complexity and multiplicity.

However, the social movement actors themselves have identified (embodied, situated) "knowledge" and knowledge practices as a key terrain on which the struggle over transgenic maize in Mexico is taking place, as the practices that will be analyzed in Chapters 5-7 clearly demonstrate. La Red did not choose the fight or the terrain; the arrival of transgenic maize brought with it an epistemic engagement over the meaning of maize and the shape and future of rural life in Mexico. As Escobar (2008) emphasizes, looking at the articulation between knowledge and resistance that movements themselves identify provides a critical way to develop understandings of how new ways of living in the world come into being, particularly through the production of collective identities.

Thus, in addition to analyzing knowledge production and what knowledge-practices reveal about this particular movement, I also aimed to examine what the movement's practices say about patterns of social transformation more broadly. "Autonomy" quickly became apparent as a vital horizon of meaning. I have found a distinctively post-dialectic pattern: in each of the three case studies that will be analyzed (testing, mapping, tribunal), movement practices revolve around generating new, autonomous ways of being, frequently drawing on collective memory. These practices are not framed solely in terms of being anti-transgenic corn, or against neoliberal economic policies (although they also do those things), but instead they work to generate, and establish through creative experimentation and repetition, new ideas and new types of relationships. Transgenic corn represents a new organizing logic for these practices; that is, transgenic corn is fundamental to understanding how and why new collective identities and relationships of resistance and difference are emerging in this conjuncture.

RETHINKING THE SPACE OF THE CAMPO

Approaching social movements as knowledge-producers and world-makers allows for new ways of thinking about both the particular struggle against transgenic corn in Mexico and struggle in general, particularly in terms of the relationality of social and spatial practices. The co-constitutive dynamics of the past and future in the present, the global in the local, and the presence of the rural in the urban are key examples of this (non-binary) relationality. I have found, and found myself engaged in, a brisk debate over whether the Mexican campo is weighted down by the past, or is instead a kind of "reserve" or "preserve" for the future, a place where different ways of being, knowledges, and social relations are practiced that will become necessary in a future already characterized by conjoined social-economic-ecological crises and climate instability.

In Mexico, increased rural narco-violence since 2006 has greatly intensified the urban-rural dynamics. In Mexico City today, one in three people was born in the campo, and another one in three has a parent who was born in rural Mexico (TPP 2013). Significant empirical and theoretical work has been done to break down the urban-rural dichotomy, notably from the perspective of critical globalization studies and recent work on transnational peasant organizing (Borras 2008, Edelman 2008, Desmarais 2008). Anthropologists and geographers working in Mexico have amply documented the complex linkages that make urban-rural distinctions increasingly difficult to draw, particularly given large-scale migration. More fundamental challenges to the urban-rural dichotomy come from theoretical work in feminist critical geography and network ontologies, all of which challenge *a priori* categorizations of localities (Massey 1994, Rocheleau 2007, Latour 2005). An additional challenge emerges from the broader critique of capitalocentrism: "Pervasive urban-rural dichotomies derive from understandings of

the development of capitalism as a linear process. For many on the left as well as the liberal right, dispossession from the land is an inevitable part of the creation of an urban, industrial working class” (Hart and Sitas 2004, 35).

Clearly, agrarian issues are not contained within rural areas—everyday experiences have different patterns in urban and rural areas, but the dynamics are inseparable. And these dynamics have diverse, uncharted effects. One relevant example is the emergence of *comunalidad* as a key way to understand the dynamics within the social movement against transgenic maize. As a leader of the *Movimiento Urbano Popular*/Urban Popular Movement in Mexico City described,⁸ “With the migration from the campo to the city, the cities started to get full and people started to organize to defend their space and territory. Much of the organizational question in this process, what gave it the flavor it has, comes from the fact that the people who came from [outside the city] brought a communitarian experience with them into their new territories. They brought *comunalidad* with them to the city (Rello, pers. comm., 2013).⁹

Comunalidad has been described as the set of logics and collective practices that guide the reproduction of rural and indigenous communal life in Mexico, rooted in collective labor and

⁸ By their own request, most people are identified by their real names, and statements made in public are attributed by name. Conversations that took place in workshops with multiple participants, or when anonymity was requested, are cited by date and location (workshop participants are identified in the interview list, see Works Cited). Place names are also real. This transparency aims to make the project a relevant contribution to the on-going contestations over transgenic corn in Mexico. Moreover, many people I consulted with are public figures, intellectuals and movement leaders, and easily identifiable to people familiar with the movement landscape; their unique contributions to this disputed field are recognized accordingly. All photos are my own, unless otherwise attributed.

⁹ “*Con migración del campo a la ciudad, las ciudades empiezan a llenarse y la gente se organiza para defender su propio espacio y territorio. Mucha de la cuestión organizativa que ese proceso adquiere, del sabor que adquiere, viene del hecho que la gente proviene de diferentes estados y traen consigo una experiencia comunitaria de trasladan a sus nuevos territorios. Traen la comunalidad a la ciudad*” (Rello, pers. comm., 2013).

land. The concept has come to be seen as an “alternative model of political practice and co-existence with the natural and social worlds” (Martínez Luna 2010, cited by Worthen 2012). Communally held land and the practices of collective labor (*tequios* and *cargos*), communal governance (assemblies), and celebrations (fiestas) are the key elements of *comunalidad* (for additional discussion, see Worthen 2012).

TRANSGENIC MAIZE AND SOCIAL MOVEMENTS IN MEXICO

GM corn in Mexico is a well-documented controversy. Much research has focused on questions about the presence and movement of transgenic corn germoplasm around the Mexican countryside.¹⁰ There has also been a good deal of attention to social movements and the politics of science by English-language researchers (Otero McAfee 2008, Wainwright and Mercer 2009, Bingham 2008), including three recent full-length ethnographies. Abby Kinchy’s science and technology studies (STS) approach in *Seeds, Science, and Struggle: The Global Politics of Transgenic Crops* (2012) analyzes the way Mexican social movements use scientific discourses and have made a social critique of science, arguing that the rule of experts and scientification is a major barrier to “democratizing agricultural governance.” Lauren Baker’s case studies of alternative consumption networks generated in response to GM corn in *Corn Meets Maize: Food Movements and Markets in Mexico* (2012) develops an argument for looking at the global food system in terms of “biocultural agrifood relations” in order to see the interrelationships between ecology, culture, and politics. And anthropologist Elizabeth Fitting’s *The Struggle for Maize:*

¹⁰ Key texts include: Quist and Chapela (2001) showed evidence of transgenes fragmenting and becoming redistributed in landrace varieties of maize in Oaxaca; Alvarez Buylla (2004) spearheaded the Commission for Environmental Cooperation report and documented the lack of adequate research to ensure the protection of the complexity of the milpa; Serratos et al. (2007) documented a number of transgenes present in the landrace varieties found in Mexico City; Dyer et al. (2009) modeled the greater threat posed by seed exchange than pollen; and Mercer et al. (2012) analyzed GM corn as a poor adaptive strategy to climate change for Mexican campesinos.

Campesinos, Workers, and Transgenic Corn in the Mexican Countryside (2010), based on research in a *maquiladora* (industrial factory) and farming community in the state of Puebla, takes on the effects of migration and the intergenerational transfer of farming knowledge. Fitting develops an argument for the “neoliberal corn regime,” in which Mexican policies have dismantled support for smallholders in order to promote export-oriented fruit and vegetable production, with the effect that Mexico’s main rural export is labor. As Mexican analyst Ramon Vera put it, “The principle export from rural Mexico, the most profitable, bringing back the most returns to the country, is the only one that was not negotiated in NAFTA: the migrant labor force,” (Vera Herrera, pers. comm., 2012).

My project builds upon this strong base of prior work, bringing together concerns that emerge in work in both Spanish and English. I turn the focus specifically to social movement knowledge-practices. While these previous studies effectively mapped out the landscape on which the anti-GM corn social movement in Mexico takes place—the scientism and the pro-expert, anti-peasant policy regime—my project analyzes the way social movement actors are generating practices of autonomy, territory and justice, in an affirmation of diversity and difference (see Zibechi 2012). The following chapters will analyze three specific examples of social movement knowledge-practices and the new kinds of relationships that are emerging from these practices.

TRANSGENIC CONTEXT: CURRENT LEGAL STATUS OF GM CORN IN MEXICO

From 1998-2009, there was a de facto moratorium on planting transgenic corn in Mexico, on the grounds that more research was necessary to ensure the absence of harmful effects. The framework for legalizing GM corn was established in 2005 with the Law on the Biosafety of Genetically Modified Organisms (*Ley De Bioseguridad De Organismos Genéticamente*

Modificados, LBOGM by its Spanish acronym), popularly known as *Ley Monsanto* (Monsanto's Law) because it created a process for legalizing transgenic corn. Most crucially, the law required an official designation of the centers of origin, which did not yet exist at that time. Beginning in 2009, limited permits were approved for pilot and experimental planting, and on November 17, 2011, the government agencies responsible for agriculture (SAGARPA¹¹) and the environment and natural resources (SEMARNAT¹²) released the first official map of maize's centers of origin. Approximately 40 percent of the country was not included in the designation, meaning GM corn could (potentially) be legally cultivated in those areas. Activists against transgenic maize have led a discursive push to define all of Mexico as the center of origin—pointing out that even places where corn cannot be grown (that are too steep or too wet, or where the elevation is too high), are vitally important to the crop's diversity (see Chapter 6 for expanded discussion).

Catching nearly everyone by surprise, even the people who filed the lawsuit, in October 2013, a federal judge reinstated the moratorium against issuing permits for pilot and experimental plantings of GM corn. Mexico-City based activist and agroecology expert Adelita San Vicente, who leads the *Semillas de Vida* (Seeds of Life) non-profit organization,¹³ was the first named plaintiff in the lawsuit, filed in the name of 20 organizations and over 50 individuals, including famous artists like Francisco Toledo and Jesusa Rodriguez, and international activists

¹¹ *Secretaría de Agricultura, Ganadería, Desarrollo Rural, Pesca y Alimentación*/Secretariat of Agriculture, Livestock, Rural Development, Fisheries and Food; roughly equivalent to the U.S. Department of Agriculture (USDA).

¹² *Secretaría del Medio Ambiente y Recursos Naturales*/Secretariat of the Environment and Natural Resources; roughly equivalent to the U.S. Environmental Protection Agency (EPA).

¹³ She is also a member of the Union of Concerned Scientists in Mexico (UCCS), and one of the founders of the *Sin Maíz, No Hay País* campaign.

like Vandana Shiva, who wanted to lend their name-recognition to the case. It is the latest lawsuit in a legal strategy going back to 2005 that was quietly winding its way through various courts. The lawsuits were largely designed to establish a record and demonstrate the government's lack of support for civil society's demands. Instead, this time, Judge Jaime Manuel Marroquín, of the Civil Division of District Court 12 in the Federal District of Mexico City, reinstated the moratorium that is still in place at the time of this writing (spring 2015). It is a temporary and limited restriction, pending further proof that harm from contamination can be avoided, but it is still a great social movement success. Moreover, the underlying dynamics that make up the bulk of the research for this dissertation have not been altered—all the elements are still in place, just on hold, and this research remains relevant to understanding what will happen after this moratorium has been lifted.

CHAPTER OVERVIEW

The first four chapters of this dissertation provide an overview of a different layer of complexity that intersects in the struggle over transgenic corn in Mexico: the contemporary social movements, Mexico's history and economics, the issue of transgenic corn, and anthropological history. Each of these chapters can be approached metaphorically as separate layers of geographic information system (GIS) data, which, when overlaid, provide an integrated literature review. Chapter 1 traces the contours of the contemporary social movement landscape in Mexico, highlighting ways the Zapatista uprising in 1994 is fundamental. This chapter focuses on The Maize Defense Network/La Red, and ethnographically analyzes the intersections between La Red and its important dialogic interlocutor, La Vía Campesina. I also turn to the disappearance of 43 students from Ayotzinapa, Guerrero on September 26, 2014, showing how this recent crisis has altered the history of Mexico and how it speaks to questions of maize, the

campo, and the future.

A chronological Mexican history section (Chapter 2) comes next, arranged around various key junctures, and told through the lens of how these events have been deployed by social movement actors to construct a movement logic, from the Mexican Revolution of 1910, to the Green Revolution, the Mexican peso crisis of 1982, GATT, and the implementation of the North American Free Trade Agreement. Next comes a brief overview of the issue of transgenic corn, the politics and history, and the policies affecting corn in Mexico (Chapter 3). The following section (Chapter 4) brings together additional background theory, specifically the role of Mexico in the birth of contemporary North American anthropology and the context of the “peasant question.” As such, Chapters 2-4 can be read straight through, or in bits and pieces, as background linked to specific ethnographic chapters. This section aims to outline the multiple ways dialogic encounters with historical circumstances have shaped what social movement actors see as the range of possibilities, and show ways that “history” is lived through practices.

The second half of this dissertation consists of ethnographic chapters corresponding to specific practices tied to three key ways social movement actors involved in the movements around maize in Mexico have organized the discursive terrain of struggle: autonomy, territory, and justice. I will examine the intersections around the following knowledge-practices:

- a) Testing: milpa practices and campesino diagnostics are foundational for generating autonomy (Chapter 5);
- b) Mapping: alternative mapping practices generate complex understandings of territory, making abstractions visible and experienced, e.g. the location of GM corn planting permits made visible on the map (Chapter 6); and,
- c) Tribunal: the Permanent People’s Tribunal transforms abstract notions of justice into embodied social practices, specifically around the concept of “desviación de poder” (abuse of power) (Chapter 7).

A series of final thoughts and conclusions makes up Chapter 8, specifically analyzing the social-spatial effects of La Red’s embodied knowledge-practices.

CHAPTER 1 SOCIAL MOVEMENT LANDSCAPES

LA RED EN DEFENSA DEL MAÍZ

While the size, shape, and structure of this network is interesting and important to this project, I have struggled against the oversimplification necessary to create a narrative base for understanding its organizing practices. Objectifying the network risks fixing it at a certain time/place, assuming its goals, or opening it up to judgment as a success or failure—reducing its complexity, and the surprise, disruption, and emergence inherent to that complexity (Price 2009). Moreover, it makes it seem like something to be *understood*—not one of its goals. I cannot over-emphasize the complexity and contingency, the individual personalities, conflicts, random events, hidden things, and feelings that are vital to this story. But here's one version, a part of the narrative.

In response to the sense of emergency generated by the clear evidence¹⁴ of transgenic corn in fields grown by smallholder farmers in remote areas of Oaxaca (Quist and Chapela 2001), a group of urban activists, environmentalists, and campesino farmers organized the First Forum in Defense of Maize in Mexico City in early 2002. The organizational support came from environmental groups (like Greenpeace Mexico) and groups like the Ceccam, long active in rural and campesino issues. Approximately 300 people attended, and one outcome was the formation

¹⁴ The evidence *was* clear, and has been repeatedly confirmed. But that did not stop an all-out smear campaign, later shown to have been orchestrated by Monsanto, against Dr. Ignacio Chapela, the UC Berkeley professor who led the original study (pers. comm. 2013). This controversy has been written about extensively; for examples, see Acedo 2011, McAfee 2008, Fitting 2011, and Kinchy 2012.

of La Red en Defensa del Maíz (as noted in Chapter 1, The Maize Defense Network, referred to as La Red).

In addition to La Red, the anti-GM corn movement also began coalescing around the non-profit-led “campaign” *Sin Maíz No Hay País* (No Country without Corn), which was especially active in the years after it started in 2007. Despite philosophical tensions and differing approaches to organization and leadership, together the “network space” and the “campaign” created a strong national front against transgenic maize in the 2000s.

There are two key elements to understanding the uniqueness of La Red: it was built on already existing networks of trust and direct relationships (not membership in an organizational structure), and it works through an indigenous-campesino assembly logic of cooperation, solidarity, and mutual assistance. Trust is crucial—though the individuals involved at any given time may vary, each person can generally be directly tied to someone else who is known to be trusted. People from professionalized non-profits, governmental, or development organizations are not included, nor are academics, with the exception of a few who are known for their commitment, who come to teach workshops or give reports. There is no strategic plan, campaign, or political agenda. Membership is not something that is earned, given or taken away. It is not recognizable as a social movement in a conventional or centered sense. Participants describe it as a network, or a process, not a movement.

In a reflection workshop on La Red, one participant said, “La Red is not like old forms of relations and organizations, where there is a secretary of the organization—here we have lots of chances for people who know different places to get together, we know a mountain of things and this gives us a lot of force—the communities know what they are doing, and how to defend

themselves.”¹⁵ During the same roundtable, another person made the wry observation that “this is one of the only free spaces in the country, no one is a *dirigente!* [leader/union boss].” Someone else said, “this is not something organized around financing for a project—this is about communication in our language and communities,” (pers. comm., CENAMI 2010).

The relationships throughout the country between campesino and indigenous farmers that built La Red have roots in the rural struggles of the late 1970s and 1980s. The fight for fair grain prices in that decade became one of the principle axes for rural movements in Mexico. The fights went beyond grain prices, however, and changed the terrain of organizing, to include the fight for land and community control over production, in the analysis of a producers’ union organizer during those years (de Ita 1994).

To understand this terrain, I was told, one has to understand the power imbalances between campesinos and *coyotes*, the local intermediary traders who buy and sell corn and other agricultural goods (for example, coffee) directly from small-scale producers in remote rural areas. These traders had (and in some areas continue to have) tremendous power to set prices, since they provided the only marketing and crop transportation option for the majority of campesinos during that time.¹⁶ One of the main explanations I was given for the creative strength of La Red is that it connects groups that, since the 1970s, self-organized into independent producers unions to break the market monopoly held by coyotes.¹⁷

¹⁵ “[*L*]os pueblos saben que hacen, como defender,” (pers. comm., CENAMI workshop 2010).

¹⁶ See Fox 1993 for analysis about the design of CONASUPO in response to these dynamics.

¹⁷ Campesino market dynamics are complex, with prices fluctuating widely based on supply and demand—during the harvest, coyotes would only buy coffee or surplus food at very low prices. A key tactic for challenging the coffee coyotes in particular was to ensure everyone in a community had enough maize to satisfy their own basic alimentary needs, so they were not

The heart of La Red's work (during the period of my participation) took place when a few representatives from nodes in each region gathered at least once a year for closed-door workshops, lasting at least two days, at the Centro Nacional de Ayuda a las Misiones Indígenas (CENAMI), the National Support Center for Indigenous Missions in Mexico City. The CENAMI has supported the "integral autonomous life projects of indigenous peoples" in Mexico, from the *pastoral indígena* (indigenous ministry) movement within the Catholic Church, for the nearly 30 years of its existence. The CENAMI keeps a low profile, rarely mentioned in the media or involved in public pronouncements. Instead, it plays the crucial role of a highly trusted facilitator of long-term connections within and among indigenous communities throughout the country.

The CENAMI center sits behind an anonymous metal gate, like every other one in the industrial working-class neighborhood where it is located near the northernmost metro stop in Mexico City, close to the shrine to the Virgen de Guadalupe. The mission is a three-story structure built in the 1990s, approximately 50,000 square-foot, nicely designed on the model of a residential school. The structure is organized around a large covered patio that extends the length of the main floor, with a kitchen and dining hall on the left side of the ground floor, approximately 20 shared dormitory rooms separated by gender on opposite halls, a handful of shared bathrooms, a dozen small classrooms, and a larger assembly room with chairs for about 100 people.

Attendance of La Red assemblies at CENAMI ranges between 50-80 people, the majority indigenous campesinos, about 75 percent men and 25 percent women, mostly middle aged, though with a handful of youth and elders present. There is a mix between people returning to the meeting and people attending for first time; the loose model is that attending the meeting is a

forced by hunger and desperation to accept the low prices offered by the intermediaries who monopolized the market (de Ita and Hernández Navarro, pers. comm. 2011).

rotating job in the communities that form nodes. People go to meetings for the first time with someone who has been before, to learn where it is and how to get there, and then they bring someone new to the next gathering. People who attend spread the information from the gathering within their communities. Through a grant from a foreign foundation, the Ceccam reimburses people for their travel on public buses to get to the city and to the CENAMI (the travel time, even for people from adjacent states, is often more than 12 hours, considering the distance to get to the nearest bus station. People from states farther away may have travelled for 2 days). The CENAMI provides room and board, simple meals, and beds in shared rooms. The systems for cooperating to do the chores at the CENAMI are well established, as the center, run by a handful of people, regularly hosts gatherings and provides lodging for people within the indigenous liberation theology network, at times hosting several hundred people (sleeping on the floor in the halls and classrooms; there are beds only for around 40) in the case of large gatherings or marches. Upon arrival, people are registered at the front office and given name tags¹⁸ distributed evenly on different colored paper (pink, yellow, blue); each color corresponds to a permanent work rotation assignment, posted in the main hall, for meals and dishes (e.g., blue tag means your team serves lunch on Monday and cleans up after breakfast on Tuesday, etc.). Sharing work is a fundamental part of the CENAMI, and creates a dynamic of care between people and for the place.

These assemblies play the key role of bringing people together in person. I observed how people told stories about what was happening in their communities, saw patterns in these stories, and connected these patterns with information provided in educational workshops from think-tank activists and intellectuals. People organized and synthesized ideas in the assembly, and used

¹⁸ This registration form was the first time my “indigenous group” had been requested alongside my name.

the gathering to generate an analysis and shared framework for identifying and confronting the issues surrounding transgenics and maize. The network then generates a statement during the final part of the meeting, highlighting the key information and the agenda until the next gathering, in a written document for people to take home and spread. Knowledge-practices are explicit: “*guardando y cuidando el conocimiento,*” keeping and taking care of knowledge.

The gatherings have a spiritual texture—the first task, before the sessions start, is to build an altar in the central patio from the many varieties of maize and other symbolic items (beans, squash seeds, acorns and other wild foods, mezcal, copal) people bring. The gatherings open and close with mystic ceremonies. The meetings are crucial for activating new people in the network, through education, support, and connections of friendship with others across the country.



Figure 2.1 Altar created for the Permanent People’s Tribunal Hearing, Oaxaca, April 2013.

WHAT IS LA RED EN DEFENSA DEL MAÍZ?

While built on shared experiences and a shared history of organizing, La Red is different from previously existing network. Its newness can be attributed to the crisis that transgenic technology kicked into action, forcing new ways of analyzing science, technology, patents, free trade, and governmental policies. In addition to these new analyses, La Red is also organizing new, non-conventional ways of interacting, an “alternative model of being and relating” that has gained traction by challenging fundamental modern assumptions about the political, economic, social, and spiritual role of food and agriculture, and what role the campo will play in Mexico’s future (Price 2009, c.f. Piven 2006). Small-scale farmers who were previously connected with each other as a “class,” demanding fair market prices for their goods and fighting corrupt grain traders, have reorganized to articulate a defense of a way of life built on the milpa.

Movement actors describe the milpa as having withstood decades of assault in the 20th century. Beginning around 1970, the rural credit bank (BANRURAL) started to condition credit access on the utilization of technological packets to increase yields. These packets required the use of modern hybrid seeds, fertilizer, agrochemicals—all of which favor monocrops and thus threaten the milpa, a fundamentally diversified farming system. But despite the technology and all the many other attacks, the milpa still exists. The milpa is “*una realidad, es un hecho,*” (it is a reality, a fact), not a movement.

Observing the development of the network’s understanding of itself over the years, beginning with the first event I attended in July 2008 through the dozens of gatherings I participated in through 2014, the following points become clear:

- Maize is the core symbol, the organizing principle for the set of relationships between people and the land that provides an identity for the movement. People who are intimately involved in planting and tending milpas are united with students and urban residents who are far removed from working in the fields, in

the fight for the autonomy, territory, and justice that depends upon maize. Milpa/maize is a collective identity (not individual);

- the movement very firmly maintains that maize is not a thing, “*no es una cosa*,” it is a set of relationships; and
- People explain their motivations for action with an unwavering sense of responsibility to *humanity in general* to defend maize, based on an expansive, global logic.

At several gatherings, self-analysis of La Red came up, and I observed one extended workshop on the topic (CENAMI, June 15-16, 2010). The agenda topics demonstrate the approach to the question: analysis of reality; the processes of La Red in relation to the different regional social actions against transgenics; experiences of the regional and territorial defense of the pueblos of maize; and perspectives on the future of La Red (what needs to be reinforced, what needs to be done). Some key patterns that emerged in this discussion included the fact that the network process started before contamination was apparent, through connecting the existing networks of indigenous and campesinos that already existed. La Red exists as part of a long-term process, it can even be thought of as a permanent process.¹⁹ La Red is the “response of the pueblos to transgenics,” and it exists to diagnose and spread awareness about the problems of GM corn. The characteristics of the network were described as deepening the understanding of transgenics and giving recognition to the rights of indigenous people. Perhaps most significantly, the community’s authority was repeatedly invoked and strengthened—“there is nothing from outside [no resources or experts] that is needed to fix the problems [of GM corn], but instead, in the assembly, a collective understanding can be reached to resolve the problems.”

La Red is one of the key member organizations of La Vía Campesina in Mexico, and the following section will provide a discussion of the network and analysis of an interaction involving gender.

¹⁹ “[L]arga plaza, un proceso permanente,” this quote and the others in this section from workshop at CENAMI 2010.

HISTORY OF LA VÍA CAMPESINA

Despite the regular death knell of the “peasantry,” coming equally from the left and the right sides of the political spectrum, people with land-based livelihoods persist all over the world. My framework for thinking through the situation of campesinos in Mexico, and the social movements they have launched to defend themselves, have been shaped by the rise of La Vía Campesina (LVC or La Vía), a transnational movement that:

brings together millions of peasants, small and medium-size farmers, landless people, women farmers, indigenous people, migrants and agricultural workers from around the world. It defends small-scale sustainable agriculture as a way to promote social justice and dignity. It strongly opposes corporate driven agriculture and transnational companies that are destroying people and nature. (Vía Campesina 2011)

Emerging in 1993 during the golden age of Washington Consensus neoliberalism, when global-south nations were busily withdrawing state resources from agriculture and subjecting farmers to the creed of comparative advantage, La Vía Campesina rescued the "peasant" concept from the mire of the Lenin-Chayanov debate (see discussion of the "peasant question" in Chapter 4). Decades-old Russian polemics never fit comfortably in post-colonial Latin America. La Vía Campesina reconstituted the terms of debate and reclaimed the “peasant” identity, in the context of the challenges posed by free trade agreements to small-holder farmers all over the world, with special focus on indigenous people. The influential role of the Zapatista movement during the early stages of LVC is credited with helping frame the importance of seeing distinctions between and among indigenous and peasant peoples, not lumping everyone together (Gómez Flores, pers. comm., 2012).

My understanding of La Vía Campesina's history is informed by conversations with Desmarais and her 2007 book, as well as interviews with LVC leaders and members in Mexico. Desmarais’ contribution as a technical advisor during the founding of LVC, and her ongoing

expert-participant role, gives her a particularly valuable perspective.

The very existence of La Vía Campesina, and the “refusal of peasants to be disappeared,” is evidence that a new form of global collective action has emerged (Desmarais 2007).

Desmarais frames an investigation into what has made the movement so successful against seemingly impossible odds, and how it contributes to building alternatives to neoliberal economic globalization (ibid., 7). Reporting the movement’s own narrative, Desmarais locates the official birth of LVC in Mons, Belgium in May 1993, after an initial meeting the year before in Managua, Nicaragua. At this time, free-trade agreements were being worked out all over the world, particularly the Uruguay Round of the General Agreement on Tariffs and Trade (GATT), which became the World Trade Organization in 1994.

The birth of the Vía Campesina movement at the same time that a particular form of neoliberal globalization was taking shape through free trade agreements is key to understanding the movement’s international organization, operation, and effects: like crops and pests, they co-evolved. The common enemy among LVC's disparate constituencies was the neoliberal model, and LVC represented an “internationalization” of peasant and small farmer resistance to neoliberal globalization. La Vía Campesina frames the conflict as between two “diametrically opposed models of social and economic development,” the corporate-dominated, profit-driven vision, versus a socially/ecologically/farmer-driven model based on a “re-discovered ethic of development” (Desmarais 2007, 33, quoting the 1992 Managua Declaration).

The core principal is an embrace of difference and diversity—“unity through diversity” is the rallying cry. Tremendous differences of gender, class, ethnicity, culture obviously exist among and within members in different countries, each with complicated agrarian histories including colonialization and exploitation.

Another key feature is the active exclusion of professionalized non-governmental organizations and a skeptical view towards becoming objectified for academic study. Membership in LVC is restricted to producers who are part of a larger organization—individual people cannot join, only people who are members of a network or producers cooperative. This distinguishes LVC as a “people’s” movement, with accountability and decision-making mechanisms that go back to the members—not funders. Desmarais describes how development non-profit organizations, project-driven and dependent on funds from private donations, governments, corporation or international institutions, have a tendency to become de-radicalized or co-opted, making it hard for these organizations to think outside the established parameters (Desmarais 2007, 23). As LVC founder Paul Nicholson said in a 2013 published interview, “We have been successful because we adopted a strategy of confrontation against the neoliberal system because this system destroys our ability to be peasants, peasant men and women. We had a confrontational strategy and a non-negotiation strategy. With the WTO, the World Bank and the IMF, we decided that there will be no conversation, no negotiation. I think that one of the things we are clear about is that lobbying and advocacy failed. Advocacy efforts failed because just having arguments, good points in the big conferences, that is not enough. That model is limited in itself. We mobilize” (quoted in Desmarais 2013).

The paradox of an international grassroots movement or “a transnational movement defined by place” (Desmarais 2007, 198) causes many varieties of tensions to emerge. Geographically, the Operational Secretariat, the head office, was based in Latin America in the beginning (Honduras 1996-2004), and the movement has historically been strongest in Latin America, from the name (in Spanish) to the dominant imagery of raised fists, green handkerchiefs, and the presence at every gathering of the type of mystic ceremonies that reflect

Latin American sensibilities (ibid., 184). The Operational Secretariat moved to Jakarta, Indonesia (2004-2013), and in 2014 moved to Zimbabwe.

The *Vía Campesina* works through its International Coordinating Commission (ICC), which includes one man and one woman from each of its nine regions: North America, South America, Central America, the Caribbean, two regions in Africa, Europe, South Asia, and Southeast/East Asia. The ICC meets twice a year and is responsible for ensuring that decisions that are made at *La Vía Campesina*'s international conference (held every four years) are carried out (Desmarais 2009).

Creating a “collective identity” is a clearly articulated practice in *La Vía Campesina*, and it has explicitly taken “peasant” as a globally meaningful identity to organize resistance to the industrial food regime and the brutal effects of neoliberal globalization. LVC has succeeded in generating a “shared sense of the movement as a collective actor—as a dynamic force for change—that [participants] identify with and are inspired to support in their own actions,” (Holland, Fox and Daro 2008, 97). McMichael (2014) further describes LVC's “peasant” identity as strategic essentialism, and he highlights the way that *La Vía* has flipped the traditional “peasant question” (see Chapter 5 for additional discussion) upside down by reframing peasants in terms of their own agency.

Holland et al.'s (1998, 2008) work on collective identity, conflict, and the dynamic relationships between identity and agency helps explain the emergence of the “peasant” identity through the work of *La Vía Campesina*. This collective identity and coherent international voice is especially challenging to build from the wide diversity of members from 164 organizations in

73 countries.²⁰ Members of La Vía “are thus forced to reinforce their identities through the use of a constant referent: the routine of their everyday lives grounded in planting and harvesting. This rootedness—in all its various connotations—is being used both to imagine and to present an alternative present and future, an alternative modernity that embraces innovation and global interaction while not obliterating tradition and the importance of locality” (Desmarais 2007, 199).

Another description of how La Vía uses cultural identities, discourses, and practices comes from LVC founding member Francisca Rodriguez,²¹ “La Vía Campesina has an identity and it is the identity of our struggles. We understand that agriculture and the loss of agriculture is not a problem of peasants. It is a problem for the country, of the nation. It is a problem for human kind, therefore it comprises us all,” (quoted in Desmarais 2013).

A key cultural artifact for organizing the collective identity of La Vía Campesina is the notion of food sovereignty.

FOOD SOVEREIGNTY

The concept of “food sovereignty” is fundamental to LVC’s alternative model of agriculture (Desmarais 2007, 34). The organization created this discourse-changing concept over the course of its early years, and officially developed it in 1996 at the LVC meeting in Tlaxcala, Mexico, in advance of the World Food Summit in Rome that year. It gained force and recognition during the 2007-2008 global food crisis, and has become profoundly influential as a conceptual framework. International food policy, namely through the United Nations, has

²⁰ As of June 2013, according to <http://viacampesina.org/en/index.php/organisation-mainmenu-44/our-members-mainmenu-71> accessed November 2, 2014.

²¹ Rodriguez is a member of the National Association of Rural and Indigenous Women of Chile (ANAMURI) and the Latin American Coordination of Countryside Organizations (CLOC).

traditionally focused on food security, ensuring that a population has access to a sufficient amount of food, regardless of the quality or source. Food sovereignty, in contrast, focuses on the politics of the production, distribution and consumption of food.

The LVC defines food sovereignty as:

The right of each nation to maintain and develop its own capacity to produce its basic foods, respecting cultural and productive diversity, the right to produce our own food in our own territory, and the right of peoples to define their agricultural and food policy.
(Vía Campesina, 2000, quoted by Desmarais 2007).

Bringing together questions of territory and autonomy, food sovereignty implies transforming the industrial agrarian system—a “head-on collision” with the free-market system, in the words of the MST leader Joao Pedro Stedile (quoted by Desmarais 2007, 34). Food sovereignty requires shifting the conception of the food system and putting small farmers at the center. Democracy and diversity are the defining characteristics, and LVC has made a clear, unequivocal rejection of patented genetic engineering, as being incompatible with these principles and a threat to the pillars that support campesino life: seeds, land, water and air. Fundamentally, LVC does not reject modernity, technology or trade out of hand—instead, it calls for ethics and cultural values to be prioritized while rejecting privatization and embracing local knowledge and struggle (Desmarais 2007, 38-39). LVC frames the food sovereignty discourse as flexible and non-prescriptive, making it amenable to a variety of political struggles.

Desmarais poses a key question: is LVC in danger of “reifying community—engaging in a romanticized notion of its roots and rejecting modernity—at the cost of proposing concrete social alternatives?” (Desmarais 2007, 37). She invokes the movement’s principles of diversity and difference to counter this critique. Based on the lived experiences of LVC members, the organization approaches communities as sites of conflict, difference, and division, not as sites of artificial unity. Colloredo-Mansfeld’s work (2009) also supports this approach to community as

sites of conflict. Based on research on the “complexity of community power” embedded in the “radical pluralism of indigenous society” in highland Ecuador (Colloredo-Mansfeld 2009, 210), he found that Ecuadorian indigenous people have transformed the political links among their communities into instruments of development that underpin a national movement. Conflict is central to the process; in fact, working together precisely in the absence of a broad consensus of what is right and good is a key feature of pluralism.

"FOOD SOVEREIGNTY" CONCERNS

Many recent studies on agrarian change have focused on questions of food sovereignty, and the great hope that it provides. Indeed, I have no doubt that food sovereignty is a vitally important concept; one McMichael (2014) has recently suggested is *the* definitive way to understand the global food system in the current conjuncture of entwined ecological/political/social crisis.

But at this point, after drawing out the complexity of the situation in Mexico, this dissertation creates a slightly different argument. My concerns are not those of Marc Edelman, who recently lobbed a bunch of questions at food sovereignty proponents about the “scope of the food sovereign’s power and how it will be consolidated, maintained, and enforced” (Edelman 2014, 10). Nor those of Bernstein, who posits an intrinsic inability in the food sovereignty framework to address the political economy of capitalism, though I do agree that detailed analysis of the conditions of reproduction of peasantries is vitally important--though not only through a socio-economic lens, which is Bernstein’s primary concern (Bernstein 2014, 27).

Food sovereignty is not the answer to the problem of GM corn in Mexico, and the heart of my concern lies in the very ease with which it comes to mind—bringing with it the serious risks of oversimplification. The advantages of the food sovereignty lens are numerous: It is a

concept that resists simplification or co-optation; it cannot be imposed, even though well-intentioned investments from outside resources and outside money can be helpful. It is fundamentally democratic. Diversity is embedded within it. The idea came from Mexico; Edelman successfully debunks the founding myth of food sovereignty at the Vía Campesina meeting in Tlaxcala, Mexico in 1996. He links the phrase instead to agrarian upheaval during Mexican President Miguel de la Madrid's administration in the early 1980s. Regardless, it is an idea that has been actively appropriated and reinvented by La Vía Campesina (Martínez-Torres and Rosset 2010).

La Vía Campesina has explicitly taken "peasant" as a globally meaningful identity to organize resistance to the industrial food regime. McMichael (2014) describes this as essentialism. He highlights the way that La Vía Campesina has flipped the traditional peasant question upside down by reframing peasants in terms of their own agency. Holland's work to establish the dynamic relationships between identity and agency helps to deepen the analysis of the powerful emergence of peasant agency: "identities mediate individual behavior and interpretation, by the ways in which they inform the development of social movements and mediate popular responses to state and institutional projects and to changing social and economic conditions" (Holland and Lachicotte 2005, 33).

However, both the potential and the problem with food sovereignty are wrapped up together in the way the concept is deployed as an extremely effective example of strategic essentialism. As such, it runs the usual risks of oversimplification: historical amnesia, helping crooks get off the hook, limiting analysis, and reifying the current power structures and ways people experience the world. And in this case, food sovereignty risks providing a too-easy answer when applied to a complex conjuncture like transgenic maize in Mexico.

LA VÍA CAMPESINA IN MEXICO

Mexican social movements against transgenic corn and La Vía Campesina have shaped each other. Their histories are deeply intertwined, and the cross-pollination of knowledge-practices over the past 20 years has pushed both sets of movements forward. Mexico is the physical location of three events key to understanding the current shape of La Vía Campesina: the second-ever international meeting took place in Tlaxcala, Mexico in 1996, where the concept of food sovereignty was developed; the 2003 LVC actions against the World Trade Organization meeting in Cancun, where Korean farmer Lee Kyung Hae publicly stabbed himself to death in protest, contributing to the halting of the WTO negotiations; and the first major public deployment of the climate justice discourse “Peasants Feed the World and Cool the Planet,” at the December 2010 United Nations Climate Change Conference COP 16 meeting in Cancun.

Based on my interviews with leaders and participant-observation in the planning and support of a number of international actions mobilized by Vía Campesina in Mexico,²² I see three intersections that are key to understanding these mutual dynamics: 1) the influence of the Zapatistas and the San Andres negotiation process on LVC and Mexican social movements; 2) the influence of LVC on the *altermundistas*/alter-globalization activities (Seattle 1999, Genoa 2001, Cancun 2003, etc.), and the World Social Forums, where LVC had the effect of pulling them to the left; and 3) the influence of LVC on the political processes of transformation and the so-called “turn to the left” in Latin America in the 2000s (e.g. Evo Morales is a founder of LVC and now is a president of a country, Hugo Chavez’ Venezuelan government provided financial support to LVC and a home for its autonomous agroecology university). I expand on the first element below.

²² FAO Guadalajara 2010, COP 16 2010, Food Sovereignty 2012; see interview list in Works Cited for detail.

The 1994 Zapatista uprising put indigenous campesinos as social movement actors on the world stage and put “rural” problems squarely on the agenda for national and international debate. It decisively altered the traditional dynamics of rural Mexican social movements, and provided Vía Campesina with a foundational orientation towards indigenism. The Zapatistas demanded the “*derecho de ser diferente*,” the right to be different, and to have their autonomy as a people and community recognized, along with their rights to territory. These demands caused a shudder across rural Mexico, both among the *dirigentes* (powerful leaders) of campesino groups and the local, state and federal governments, which feared the movement would expand to other regions in the country. Previously, the job of campesino dirigentes tended to revolve around the traditional demands of access to land, credit, and market support, and primarily connected rural campesinos and the outside world, bringing in resources, technical assistance, and marshaling political unity. Although there were rumblings of disaffection with this status quo—specifically the founding of the autonomous Unión Nacional de Organizaciones Regionales Campesinas Autónomas/National Union of Autonomous Regional Peasant Organizations (UNORCA) in 1985,²³ which became the home base for LVC in Mexico—the 1994 uprising in Chiapas disrupted the general rural dynamics that had held sway since the 1940s. An additional factor was the 1994 peso devaluation, which brought mid-and large-scale industrial farmers, whose debt spiraled out of control in the crisis, to organize into the El Barzón debtors’ union (Perez Uribe, pers. comm., 2008). This union met with the Zapatistas, and together they played a crucial role in highlighting the crisis facing rural Mexico, across all sectors, and basically tied to the effects of free trade. Facing pressure from all sides as the Zapatistas garnered broad national and international support, the Mexican government was forced to the negotiating table with the

²³ <http://www.unorca.org.mx/> accessed March 2, 2015.

EZLN. The center of national debate moved to San Andres, the tiny town in the Los Altos region of Chiapas where the negotiations took place and were signed in 1996. The articulation of autonomy, recognition, and indigenous rights was profoundly influential, helping shape Vía Campesina as well as countless other international social movements (Andrade and Gómez Flores, pers. comm. 2010). In the negotiations, the Mexican government made a momentous promise: it would amend the Mexican Constitution to include an explicit recognition of the rights of Mexico's indigenous population.²⁴ The government failed to fulfill its promise, and its failure to do so changed the way social movements have seen the Mexican state ever since: not as a democratically contingent set of institutions capable of being reformed, but rather as an obstacle to the goals of autonomy and democracy. The ongoing effects of the Mexican government's betrayal of the San Andres Accords can be seen in the process of the Permanent People's Tribunal, formally concluded in 2014 (as will be further discussed in Chapter 7).

At the same time, the presence of La Vía Campesina in Mexico started to change the dynamic of campesino groups, putting the issues of free trade, transgenics, and global warming onto the agenda. LVC introduced a new element to the dynamic, and, crucially, tried to transform and construct new collective identities, so that campesinos began to see themselves as a vanguard of the environmental movement: “we cool the planet, we defend biodiversity, we protect the natural environment.”²⁵

GENDER AND LA VÍA CAMPESINA

“Gender” is not a primary lens for the movement discourse against transgenic maize in

²⁴ English translation of the San Andres Accords: http://flag.blackened.net/revolt/mexico/ezln/san_andres.html accessed April 5, 2015.

²⁵ “*Nosotros enfriaremos el planeta, nosotros defendemos la biodiversidad, nosotros defendemos el medio ambiente.*”

Mexico, although gender dynamics are, of course, always present and negotiated.²⁶ The Zapatista gender revolution on the 1990s, in which women took formal responsibility within their communities, taking over cargos and making their own life-decisions, played an influential role. At the same time, the active embrace of the indigenous approach of *comunalidad*²⁷ within groups like La Red means that "gender" as a category per se does not tend to be a dominant organizational category within the movement. This approach contrasts with the politics of equal gender representation practiced by La Vía Campesina, in a tension illustrated by the following ethnographic story.

La Vía Campesina held an “International Internal Seminar on Public Policy for Food Sovereignty” in Mexico City, September 28-30, 2012. I arrived on time to the very bare-bones hotel in downtown Mexico City where the conference was held, and registered as an observer, meaning a pink nametag—about half the approximately 150 attendees were observers. LVC delegates attended from over 30 countries (blue nametags for delegates, and orange nametags for the technical support team). I greeted my office mates from the Ceccam and started catching up with people I had met at previous meetings. We gathered around the coffee, careful to step over the many cords going from the microphones to the translation boxes set up in the back of the windowless, low-ceilinged hotel salon. As the morning rolled on, the posted start times started to pass—no *mistica* at 9am, no opening remarks at 9:30, no first roundtable at 10:15—but, it is not

²⁶ For example, the people who travel from rural areas to attend the meetings of La Red average 70% men and 30% women. Among the urban-based activists, women slightly outnumber men. Communication and organizing within the network tends to operate in a utilitarian manner, with people contributing to the best of their ability, with some egalitarian principles built in, although patriarchy and privilege certainly operate, as these processes do everywhere.

²⁷ As discussed in Chapter 1, *comunalidad* is based on the horizontal space of the assembly, characterized by participatory democracy, plurality and consensus; see Martínez Luna 2010 and the works of Mixe intellectual Floriberto Díaz for a fuller discussion of *comunalidad*.

uncommon for these meetings to start late, and a member of the technical support team appeared at some point in front of the microphone and asked forgiveness for the delay. But then, a whisper crossed through the room that “the women are boycotting,” in protest of the fact that the opening comments were all being given by men and, as the clock passed 11am, a feeling of tension began to build. Someone came out of the room where the women delegates had called an emergency caucus in the morning, when the all-male agenda was posted, and explained that they were near a decision. Finally, the women's caucus sent out a written statement declaring they would boycott the opening plenary, but would attend the rest of the day's sessions. However, they would remain in official silence, not saying a word during any of the public discussion sessions (though they were conversing normally with everyone, it was not a vow of silence). The women would resume official participation the second day (of a 3-day gathering). For me, as someone wearing a pink "observer" nametag, the experience was powerful, and initially rather stressful (should I have walked out in solidarity, as a women? The other female observers remained in the salon, we all just kept drinking the surprisingly good coffee, so at least that question was clarified). Moreover, I really felt sorry for the beleaguered head organizer, a good-natured man, not power-hungry, and someone with whom it is easy to have a nice rapport. He came and sat down with the Mexican observers (with whom I was sitting) during the walk-out delay in the morning, and just shook his head, shoulders hanging low—the names of the speakers for the opening session had been submitted by the delegate regions (although, he admitted, two of the four men had been his suggestion, but he was asking people he knew could speak expertly to the issues and would be available and willing to come for free, i.e. based locally). He did not think to reject speakers on the basis on their gender. "What can you do?," he asked semi-rhetorically—feeling bad, no doubt it was a mistake and it *was* his responsibility, but, more than anything, he seemed resigned

to the unfolding controversy.

After the women delegates returned, the most unexpected element to me was the overall good-natured, pleasant vibe. The women's caucus issued their statement, outlined their actions, and then rather jovially rejoined the day. There was a sense that, yes, well, *that* had to be done, to make the point clear, but there was not a sense of individuals feeling personally angry or offended. The LVC is well known for its strict policies of representation—each country, region, and continent has exactly two representatives, one man and one woman.²⁸ Given this context, the deployment of a gender-based boycott made sense, and especially given the *machismo* that still dominates Mexico, demanding recognition of gender equality is highly valuable.

The protest did not set out to challenge binary categories of gender, nor propose radical alternatives to representational politics. It was, instead, an example of an unplanned, on-the-fly space of authoring, requiring the construction of a collective identity, and drawing on reserves of previous experiences and expectations. In this sense, it was a clear example of Holland and Lave's (2001) model of how historical structures of privilege rooted in class, race, gender, and other social divisions are brought to present moments of local, situated practice, what they describe as the unpredictable and asymmetric relationships between history-in-person and enduring struggles. Faced with the all-male opening agenda (contentious local practice), the women delegates called upon their collective experiences and expectations of gender parity in Vía Campesina (history-in-person) and opened up a dynamic confrontation with the patriarchal structure (enduring struggle). The boycott created a memorable impression on everyone present, and certainly its effects will be felt, at the very least, in future agenda planning.

²⁸ “Our objective has been to attain genuine equality between women and men, including equal democratic participation. An obvious target to move us towards that goal is to have equal numbers of women and men at all levels of the organization and in decision-making conferences,” (Wiebe 2013).

STUDENTS JOINING CAMPESINOS

When the Mexican presidency changed in December 2012, it was widely predicted that the outgoing president (Felipe Calderón) had made an agreement to fully legalize transgenic corn as his parting favor to the economic interests represented by big agrichemical companies. But intense pressure from all over the country, and every sector of society, prevented the full legalization, although he did manage rewrite a key proviso allowing SAGARPA (USDA equivalent) to disregard the advice of its own experts and issue permits for experimental plantings of transgenic corn.

Protest over the presidential election created new dynamics in the social movement against GM corn, and brought an influx of students into the movement. The first wave of the new dynamics was felt after the random, brutal murder of the son of the prominent leftwing poet Javier Sicilia, in Cuernavaca on March 28, 2011. Sicilia publicly renounced poetry²⁹ and started the movement “*No + Mas Sangre*” (No More Blood), gathering unprecedented numbers of supporters from all over the country, across class and party lines, gathering under the meme “*Estamos Hasta la Madre*,” (“we have had it”)—including support from the EZLN. I attended a march of over 20,000 Zapatistas, announced two days before, in Chiapas on May 7, 2011; it was the Zapatista’s first public mobilization in over five years.

²⁹ Sicilia’s last poem:

El mundo ya no es digno de la palabra/nos la ahogaron adentro/como te asfixiaron/como te desgarraron a ti los pulmones/ y el dolor no se me aparta/ sólo queda un mundo.

Por el silencio de los justos/sólo por tu silencio y por mi silencio, Juanelo/el mundo ya no es digno de la palabra, es mi último poema, no puedo escribir más poesía... la poesía ya no existe en mí.



Figure 2.2 Zapatista silent demonstration to support No+Mas Sangre, May 7, 2011, San Cristobal de las Casas.

Thus, the connections and social media networks from No + Mas Sangre were in place when an incident on the presidential campaign trail ignited a wildfire, and young people across the country joined in the formation of #YoSoy132. On May 11, 2012, presidential candidate (now President) Enrique Peña Nieto’s campaign had a scheduled stop to meet with students at the Universidad Iberoamericana, the country’s top conservative private university. Expecting a sympathetic audience of business students and friendly photo ops with supportive young voters, Peña Nieto was instead met with questions about the deaths of two unarmed protesters and the multiple women who were raped in police custody in Atenco, when the presidential candidate was the governor of the State of Mexico. The students’ questions turned into accusations and chants of “murderer.” The candidate’s security team hustled him into hiding in the bathroom, to the great amusement of the students, who were live tweeting and instantly uploading video of the “bathroom retreat,” noting his panic when confronted by a completely non-violent group of unarmed students, whose greatest threat was asking hard questions.

Peña Nieto’s PR team responded that the people challenging him were not really students, but hired provocateurs, to which students at the university responded by posting a

YouTube video stating their names and showing their student IDs – there were 131 students in the video, leading to the Twitter hashtag “I am #132” (i.e., the next person, anyone and everyone—an oblique reference to the Zapatista refrain “Todos somos Marcos/We are all Marcos”). The meme took off and defined the moment. Even after the elections, parts of the movement have stayed active, notably forming interest groups around environmental issues (#YoSoy132Ambiental) that got explicitly involved in the anti-GM corn movement (see Appendix B for the students’ statement on GM corn).

The emergence of the new student movement in 2012 was directly related to the blatant corruption in the government,³⁰ and students joined with teachers, union members, and traditional campesino groups to create new progressive alliances, in ways that long-time social movement activists described to me as “both new and old.” These groups were brought together, more or less, under the banner of anti-neoliberalism, ignited by resistance to the return of the PRI political party and the “imposition” of President Enrique Peña Nieto. Before 1982, I was told, students always stood alongside campesinos and popular urban movements—the support of students was a “constant” in the social movements emerging after the student repression of 1968. But in the neoliberal age, rural issues went out of fashion among students—they saw the rural as “it’s old, it’s ugly,” (Hernández Navarro, pers. comm. 2012). Rural studies disappeared from curricula, replaced by classes in economics and development. Although students have been hugely important supporters of the Zapatista movement since 1994, there was not a sustained

³⁰ The story of the 2012 student movement is beyond the scope of this current project. The students, centered in the dozens of universities in Mexico City but also active across the country, were heavily networked through social media. They made a sophisticated political decision to focus energy in advance of the elections on the media “duo-poly” of Televisa and TV Azteca, where the vast majority of Mexicans get information. After the elections, they have continued to remain active, segmenting and creating or joining existing environmental, social justice, and anti-drug war groups. They remain connected (via social media) and seem likely to re-emerge in force at some future conjuncture.

space where social movement groups were informing each others' agendas.³¹

The social movement landscape shifted fundamentally with the protest to the 2012 elections. The students decided to join the movement against transgenic corn in 2012, based not just on the importance of corn in the cultural imaginary, but specifically because of the role of GM technology (Andrade, pers. comm. 2013). These new networks, jump-started by the students, greatly affected the struggle against GM corn in Mexico in 2012-2013. In the following section, I use an excerpt from my field notes to indicate the shifting dynamics and sense of possibilities opening.

THE MARCH

Marches are a time-honored way to interact with the government in Mexico, from regular marches to remember historic tragedies (such as Tlateloco 1968), to celebratory, dress-up gay/lesbian/bi/trans-pride parades, to unions (campesinos still united through the old PRI political-machine union, the Confederación Nacional Campesina, teachers, industrial workers) whose members can be counted on to turn out in large numbers to support candidates or express dissent (often in exchange for, as the old saying goes, “50 pesos y una torta” or \$5 USD and a sandwich). But the changes in the social movement landscape around the 2012 elections created new dynamics, with implications for the practices of autonomy. My participant-observation, detailed in field notes below, provides some insights.

³¹ These dynamics play a crucial role in the International Permanent People’s Tribunal; see Chapter 7.

FIELD NOTES: LA MARCHA CONTRA EL MAÍZ TRANSGENICO - JANUARY 31, 2013



Figure 2.3 Poster produced by LVC for the march, January 31, 2013.

The feeling in the air was extraordinary. The streets were buzzing with energy, a different, more positive energy than previous campesino marches I have attended, which I mostly attribute to the concrete focus of the march, here and now, against transgenic maize in Mexico, instead of, as at the last march, the abstraction of global climate change.

The march took place on a Thursday afternoon, with the start time set for 4pm. Like most marches in Mexico City, this one started at the Angel of Independence and followed the main artery Avenida Reforma for four well-trodden kilometers—about two hours of slow-paced marching—to the Zocalo, the seat of national government. The march transforms the geography of the city: the amazing experience of Reforma as a pedestrian street, and the distinct feeling of the city taken over by the country, or the country meeting with the city.

From the offices of the Ceccam, where we met in the morning, I helped gather the various banners and quilted "maize people"—elaborately dyed and stitched life-sized cloth puppets of humans emerging from cobs of maize, representing the sacred origin story from the Popul Voh, donated by a textile artist—that have accompanied practically every march over the past decade. Moving through the city is always a challenge, especially in a group of people—negotiating the crowds in the metro, making sure everyone switches and gets off the metro at the right stop—

made even more complicated by the bulky (although light-weight) “maize people” and the large rolled up banners, printed on heavy plastic tarp material, weighing at least 25 pounds. I ate lunch with my office mates before the march and we walked the final blocks to the Angel, where half of Reforma was already closed. Dozens of tour buses, rented by the peasant unions UNORCA and La Via Campesina to bring their members in from the countryside for the march, were parked end to end for at least 10 blocks. The winter sun was bright against the brilliant blue sky, angling sharply against the eyes, and the thermal inversion in full effect as the sun began setting over the hazy, smoggy city (it’s always worst that time of year, as the cold air from the thermal inversion keeps the contamination trapped in the city). As groups of marchers found each other and organized into units, getting banners situated, the sounds of marching bands filled the air, as at least 3 separate bands, consisting mostly of young people in matching band uniforms, struck up tunes. Members of the Movimiento Urbano Popular, the remnants of the Luz y Fuerza union, and members of the democratic teachers union, the CNTE joined the campesinos.

The discipline of the campesino and urban union members was a sharp contrast to the students, who began to show up in waves, coming as they finished classes from different points all over the city and converging with the other marchers. The students were unified by their use of mobile technology—all around me, students were getting phone calls or texts from friends, trying to figure out which metro station to exit in order to meet up in the march, as well as, significantly, social media—this surely was the first campesino march to have been so fully covered on Twitter, as well as constant filming and recording, at literally every turn there was a young person with smart phone taking photos and uploading to social media.



Figure 2.4 Ceccam colleagues with “corn person” and rolled banners, start of the march.



Figure 2.5 Student marcher, January 31, 2013. Sign reads, “Youth are not only the future, we are the present.”

The march coalesced and continued down Reforma, through the part of the march that always gets a bit long and tiresome (feet hurt, stop to take a pee at Sanborns—a privilege urban residents take advantage of, while others squat in the park next to Bellas Artes), before the energy of the centro takes over and reinvigorates the march—the narrow streets shadowed by

the intricacy and decadent collapse of 17th and 18th century buildings, every step providing a new, unexpected glimpse of a gargoyle or hidden window. Many of the streets and buildings in the medo downtown have been taken over by billionaire Carlos Slim's foundation for historic preservation, so in between the decline are increasing sprinkled gorgeously redone buildings, restored beautifully to a simulacra of what they previously were. Block by block, the streets in the centro have been replaced, wired for high-speed internet, buried electric lines, and updated plumbing. As each block is updated, the street covering is replaced with simulated paving stones, giving the new blocks a shiny, historic veneer. It would be a Disney-world, except for the fact that it is still the old centro, and the chaos is uncontrollable despite the best efforts of urban redevelopers to create pedestrian streets and add new planters with trees and benches.

The march, given its size of around 100,000—big for this kind of march, enough for a casa llena or full house at the Zocalo, but not on the grand-scale—bottlenecks as the streets narrow, crossing the intersection with Eje Central. The traffic police stop the march to allow the electric trolley buses to cross the Eje, and the march splits onto two parallel streets to make its way through the downtown and converge on the Zocalo. The two streams, with marching bands on each side, speed up and the noise reverberates off the buildings. The stench of backed up sewers still wafts out, despite the Slim foundation's best attempts to cover up the sinking, stinking city. After the blocks of separation, the two groups of marchers converge in the tremendous Zocalo—among the world's largest, each side measuring 780 feet (240 meter) long—and triumphantly we move to the large stage and sound system that has been set up on the far side of the plaza, flanked by the great Cathedral to the left and in front of the National Palace. Speakers start as night falls, and I try to get closer to hear what is being said. By this point, everyone is

tired, tired feet, tired lungs from the polluted air, and the main metro stop is right in front of us—the only way to escape from the Centro when the streets are all closed off from the march.

The subway beckons home, for those of us who live in the city—for the union members who came in by bus, it is better to wait until after the traffic subsides to leave the city, so they will leave at 9 or 10pm. Many people plan shopping trips or visits to the dentist or doctor around their visits to the city for marches. (A particularly memorable example was the pair of Huichol farmers who came down from the mountains in Jalisco, beyond Guadalajara. The men, dressed in stunningly colorful traditional outfits, carried traditional, elaborately embroidered cloth bags, slung across the body and hanging at the hip. From their bags, the men pulled out their satellite phones, comparing makes and models, as they organized their shopping trip--for replacement batteries and repairs--to the area of the centro where every imaginable electronic item is available).

As the march concluded and the speeches took over, the original group of us set about finding each other and gathering up the banners and the textile icons from the various people who had been carrying them. The textile artist who made the corn people had come in from her studio in Cuernavaca for the march, bringing along another handful of elaborately dyed and quilted icons (butterflies, birds, Aztec goddess, more maize). Due to her advanced age, she had left the march before the congestion of the Zocalo, entrusting the quilted figures to us, her "trusted" (de confianza) friends at the Ceccam. As the exhaustion of the march began to settle over us, the question came up of who would trek all the banners and quilted stuff back to the office. No one had a car downtown, of course, and it required at least two people to carry everything. At this moment, one of the extra benefits of having the students join the march became clear! Besides the excitement and fresh energy they brought, they were young and

strong, and as we were all dreaming of getting home to bed or family, they were all heading down to the university for an all-night planning meeting for the anti-GM maize forum they had organized the following week. The perfect solution was quickly agreed upon—the students would carry ALL the banners and maize people back to the university, for display and decoration at the upcoming forum. We would drive to the forum at the university, where we could easily collect everything and return it to the office in the car. What a relief to have sorted out the stuff—a literal handing-over of the material artifacts that help give shape to the collective identity of the movement! (End of field notes excerpt).

The connections that were forged between young people in #yosoy132, and the rejection to violence that brought people from across the country together in No + Mas Sangre, intersected and joined with older social movement networks like La Red and La Vía Campesina. These fertile connections in the social movement landscape were activated when the next crisis hit the country.

AYOTZINAPA

As I finished this project, the Mexican campo received a spectacular blow, this one from nefarious forces aligned both with the state and the narcotics trade.

On September 26, 2014, narco-police in the state of Guerrero viciously attacked a group of peaceful students from the rural teachers training college in Ayotzinapa, leaving six people dead, 25 wounded, and 43 students disappeared. They were last seen being kidnapped by the local police, apparently on the orders of the mayor. The students, all campesino boys between the ages of 19-21, are presumed to have been massacred shortly thereafter, although no physical traces of their bodies has yet been found, over six months since their disappearance, with the exception of one scrap of DNA, identified by a lab in Austria from bone fragments submitted by

the Mexican government. Moreover, the search for the missing 43 students has uncovered dozens of other mass graves surrounding the town of Iguala.

On November 7, 2014, six weeks after their disappearance, the federal Attorney General Jesus Murillo Karam declared the students officially dead, based on the confessions of three (of the over 80) people in custody. In an explanation that satisfied no one, he presented a carefully orchestrated demonstration of the massacre and said that every scrap of evidence was burned, and the ashes spread in a river. The bone fragment with the identifiable DNA was supposedly all that could be recovered from the riverbed. However, no citizen or international observers witnessed the discovery of the bone fragment, and many questions remain about the provenance of the fragment. The DNA belonged to the student Alexander Mora.

The chain of public corruption has been clearly exposed, linking the local and state government, police, and army with the cartels. The links to the federal level of government are only slightly less clear, or have not yet come fully into focus—it is simply not possible that people in the federal government did not know what was going on in Guerrero.³² The veils have fallen away and the narco-government can no longer be hidden. The governor of Guerrero was forced out of office. The town mayor and his wife, the daughter of a cartel leader, were captured after a month on the run. The Attorney General was eventually replaced (although it took almost five months). President Enrique Peña Nieto's inefficacy has been put on display; his presidency will be irrevocably linked to this massacre. The rural self-defense/community police groups, the *autodefensas*, have the only remaining moral authority in rural Guerrero, despite years of

³² The PRD mayor of Mexico City, Miguel Ángel Mancera, widely perceived as the least-effective opposition mayor in recent memory, has been linked to the PRD in Guerrero, and images of him sharing drinks with the Iguala mayor have circulated. But as one student survivor was quoted in the press as saying, everyone in Mexico is implicated in these crimes through complacency and complicity, if not outright collusion and participation.

attempts by the government to insult and undermine their legitimacy by linking them to cartels—and even these groups are increasingly split into factions and caught in internal conflicts.

The Mexican government has failed in the attempt to portray the massacre as a local incident, especially as the search for the students' bodies had turned up one barely hidden mass grave after another. The numbers are staggering—by official count, which is known to be an undercount, an estimated 80,000 people have been killed in Mexico since the Drug War started in 2006, with an additional 26,000 disappeared, and nearly 300,000 people in conditions of forced work or slavery, mostly involving drugs and sex work. But this time, the student massacre unleashed a national outpouring of grief and rage, and the country entered into its greatest crisis in nearly 50 years, since the 1968 massacre of students at Tlateloco.

As one leading opinion columnist recently wrote, Ayotzinapa is a giant mirror, reflecting Mexican reality: the collusion between narco-traffickers and the government and police at all levels, the moral corruption and complicity (both in action and by omission) from all the political parties, the hatred and prejudice on display against youth, campesinos, and indigenous people, and the impunity with which the assassins operated, confident they would be able to get away with the crime because no one cares about these boys (Ribeiro 2014). The message from the state to the campo was: you are expendable, disposable; your children are like garbage to be burned. The atrocity in Iguala scrubs the patina of bureaucratism from the official governmental message and underlines it: a vision of a campo without campesinos, of campesinos made redundant. But instead, the country erupted in protest, bringing hundreds of thousands of people into the streets, even months after the disappearance.

AN ATTACK AGAINST THE CAMPO

All the approximately 500 students at the school come from low-income campesino families, the majority also indigenous. The school is part of a network of teacher-training colleges across the country, created after the Mexican Revolution and enshrined in the 1917 Constitution. There are 16 still open across the country, down from 49 (CK #), as they have been systematically closed down since the 1970s. These competitive residential colleges are free and provide room and board and an extremely modest stipend to the students (around \$1000 pesos/month, leaving the students \$50 pesos a day to live on, or around USD\$3.50 for three meals a day; Hernández Tejero 2014). Upon graduation, students from the normal schools are assigned a job as rural teachers. The students are trained as bilingual teachers (indigenous language/Spanish) and given training in art and music instruction as well as basic elementary education training. The students are vital links in the continuity of the possibility of rural life, and the rural normal schools are seen as places where the ideals of the Mexican Revolution are still alive, and students emerge with a progressive formation and respect for the revolutionary history of the country. Students from the *normales* tend to join the more radical rural divisions of the democratic teachers union, the Coordinadora Nacional de Trabajadores de la Educación (CNTE), formed in 1979 to fight against the corrupt and autocratic practices of the Sindicato Nacional de Trabajadores de la Educación (SNTE).³³ Ayotzinapa is known as an especially political campus—the state of Guerrero was heavily affected by the country’s dirty war in the 1970s, with up to half of all the people who were disappeared during those years

³³ Elba Ester Gordillo was recognized by Forbes as one of the 10 most corrupt people in Mexico in 2013, itself one of the two most corrupt countries in Latin America. Gordillo ruled the SNTE with an iron fist, playing a key role in the party machine by delivering the votes of millions of teachers, until her imprisonment on charges of embezzling \$200 million from union dues—her long-term abuse of funds was widely known, so her arrest is widely believed to be tied to a series of political miscalculations, making her a liability for the political machine. See <http://www.forbes.com/sites/doliaestevez/2013/12/16/the-10-most-corrupt-mexicans-of-2013/> Accessed November 26, 2014.

thought to have come from that state. The intense pressure from the narco economy coupled with the long-standing corruption from the tourist economy and port in Acapulco makes the state one of the most violent and corrupt regions in a violent, corrupt country. It is widely accepted that the rural schools have been systematically targeted by the federal government because they are “cradles” for the left.

Education has become the most recent battlefield in what is generally framed as the fight against neoliberal economic policies in Mexico. When Enrique Peña Nieto (Peña, as he is commonly referred to, or by his initials EPN) took over the president’s office in 2012, he promised a series of reforms to “modernize” the country, featuring the privatization of the national oil company Pemex, and changes to labor laws and the education system. While the need for changes in the country is clear, Peña’s approach has been met with deep distrust.

WRITING NOT TO FORGET

On the night of the disappearance, around 100 students from the rural teachers college, the *Escuela Normal Rural Raúl Isidro Burgos*, were making a routine trip down from their mountain campus in the village of Ayotzinapa, in the municipio of Tixtla, to the closest town, Iguala, about two hours away. The southeastern coastal state of Guerrero has for decades been an important corridor for moving drugs through the country, and the state’s vast, isolated rural areas, long known for marijuana production, have more recently become zones for harvesting opium poppies and producing some of the world’s highest-grade heroin. There is only one major road, a toll highway that runs across the state, connecting Mexico City to Acapulco, a four-hour drive.

The Ayotzinapa students all participate in various cooperative work committees at the school, and the two committees in charge of transportation and fundraising (by tradition, made

up of first year students) went to Iguala to solicit donations and arrange for buses to transport them to Mexico City for the annual October 2 memorial demonstration to honor the students massacred by the state in 1968 at Tlateloco. The students fundraising activities are normal parts of the accepted social contract—not entirely unlike students in the United States soliciting donations for uniforms and transportation for school programs or sports teams. The students had already arranged to use two buses from a local commercial bus company, which had been sitting on campus for a couple days; the buses are often described as “stolen” or “borrowed,” but the process is pretty well-established, as the students pay for gas and typically pay the driver around the same amount as his regular salary to drive the bus, and the driver alerts the bus company that he has been pressed into service to drive the students. The two student committees boarded these buses for the trip to town, with plans to bring back another four buses, and raise money via donations for snacks for the field trip to Mexico City a few days later.

But this time, things spun completely out of control. The students apparently commandeered a bus whose driver refused to cooperate, either out of fear or mistaken identity, or, as some reports have indicated, because the bus was already loaded with a large drug shipment. At any rate, late in the evening of September 26, the driver of the bus the students decided to take locked them on the bus. Their fellow students started trying to break the door or a window to get them off, and a fight ensued that apparently involved the police. The students called a press conference at midnight to denounce the fight, and chaos ensued, as apparently the narco-cartel-police started rounding up the students and opened fire on the buses they were on, killing 2 students and in a separate attack, perhaps of mistaken identity, shooting another bus of high school students and killing one student. Two other people, a taxi driver and his female passenger, died in the crossfire. The body of another student, who ran away at the time, was

deposited the following day on the street in Iguala, with the skin of his face peeled off and his eyes gouged out, a widely understood narco-message. A total of six people died and 25 were wounded.

All four of the buses drove off in different directions during the firefight. Two of the buses escaped, and about a dozen students succeeded in finding places to hide through the night. But the other buses got captured, with 43 students on board who were kidnapped and disappeared. There are reports from their final panicked cell phone calls to parents and friends, asking for help in the midst of the shooting, before all cell phone contact ceased. A federal Army base is located three kilometers from where these events took place, but the Army was apparently nowhere to be found when the students most needed protection. Some reports say they watched and even impeded hospital access for wounded students.

Apparently, police apparently attacked the students at the command of the Iguala mayor, José Luis Abarca, and his wife María de los Ángeles Pineda Villa, who had plans to replace her husband as the next mayor. She had been hosting an official public charity event, and some media reports have suggested she was angry the students had disrupted it; other sources have questioned whether the students could possibly have had any idea who the mayor even was, considering they were first-year students who had only moved to the campus, two hours away, a few weeks before. There were reports that the students had been rowdy when they were soliciting in town a few days previously. And perhaps most importantly, there was a history of police repression against the Ayotzinapa students. Four students from the school had been killed in two separate political protests, in 2012 and 2013.

The mayor and police in the town of Iguala were allied with the Guerreros Unidos drug cartel, one of the estimated 16 smaller cartels that splintered off after the leaders of the Beltran

Leyva cartel were assassinated and control of the territory was lost. The mayor's wife is directly connected to the Beltran Leyva cartel; she is the daughter of one of the slain top bosses, and her brother and brother-in-law were both killed in cartel violence. These cartel ties were well known throughout the state, which is recognized as having a network of cartel-affiliated mayors who ensure safe passage for drugs through the region, receiving payouts reported to average \$250,000 USD every two weeks, with which they bribe the people necessary to maintain control over the region. Both the mayor and his wife are in jail and refusing to speak.

Nos quieren enterrar, pero se les olvida que somos semillas

(They wanted to bury us but they didn't know we were seeds)
—protest meme during Ayotzinapa marches,
Mexico City fall 2014

As Mexican writer Elena Poniatowska said to a crowd of hundreds of thousands of protesters gathered in the Zócalo on October 26, 2014, one month after the disappearances, “*Así como se dice ‘Sin maíz no hay país’, sin los jóvenes no hay nada*” (“Just as its said, ‘no country without maize,’ without the youth there is nothing”).

The disappearance of the Ayotzinapa student was a watershed event in Mexican history, and the country is still in the process of re-shaping and re-arranging after the disruption.

CHAPTER 2

MEXICO: CONSTRUCTING AN HISTORICAL NARRATIVE

The unraveling of the Mexican state's pro-agrarian policy, enshrined in the Constitution, was crystallized on January 1, 1994. At the stroke of midnight, NAFTA went into effect, and the Ejército Zapatista de Liberación Nacional (EZLN; Zapatista Army of National Liberation) launched its open revolt against the Mexican government, explicitly placing the government's rural policies as a key complaint. The Zapatistas chose their name in honor of Emiliano Zapata, the agrarian hero in the 1910 Revolution, and the appeal to Zapatismo implied a critique of the contemporary neoliberal Mexican state, suggesting that it had betrayed indigenous people and campesinos. The following chapter will outline social movement approaches to analyzing the policies that affect maize in Mexico (rooted in the Mexican Revolution), as well as the effects of the Green Revolution and the economic background, arranged around the shocks of 1982, '86, and '94.

EJIDOS: EMBATTLED LEGACY OF THE REVOLUTION

The 1910 Mexican Revolution was a highly complex conflict, involving diverse economic interests competing for control in the wake of the collapse of Porfirio Díaz's long dictatorship. But one animating force was the agrarian zeal of southern smallholder campesino and indigenous farmers, who came to be led by Emilio Zapata. They fought against the large landholding interests that had dominated land tenure since Spanish rule (Wolf 1968), and were bolstered by the vicious anti-indigenous campaigns of Díaz. Zapata and his allies, including his radical comrade from northern Mexico, Pancho Villa, managed to enshrine land reform and

support for smallholder farming in the 1917 Mexican Constitution, whose famous Article 27 set up the ejido system, in which land is owned by the State and usufruct rights—which can be inherited, but not sold or mortgaged—go to the people who work the land.

After the revolution, and especially under Cárdenas in the 1930s, large land-holdings were broken up and redistributed through the ejido system, which became the primary organizing framework for social relations and land in rural Mexico. Built from the intersection of pre-colonial approaches to land use and tenure under the Nahuatl monarchy with Spanish colonial systems, the ejido emerged as a unique form of land tenure. Article 27 states in part:

The property of all land and water within national territory is originally owned by the Nation, who has the right to transfer this ownership to particulars. Hence, private property is a privilege created by the Nation. Expropriations may only be made when there is a public utility cause. The State will always have the right to impose on private property constraints dictated by "public interest." The State will also regulate the exploitation of natural resources based on social benefits and the equal distribution of wealth. The state is also responsible for conservation and ecological considerations.

Over half of the land in Mexico (105 million out of 197 million hectares) is held communally, either in ejidos (whereby the state owns the property, but *ejidatarios* have usufruct rights) or *comunidades agrarias* (indigenous lands). Inside ejidos, there are three types of land: *solar* (family residential), *parcela* (farming plot), and *uso comun* (common use, such as forests; these lands are inalienable).

The ejido system's capacity to function as a form of political control (albeit uneven) was clear from its inception. The ejido system was simultaneously an "instrument of political control, a means for the organization of production, and a body of peasant representation" (de Janvry et al. 1994, 1). According to the analysis of de Janvry et al., there was a debate from the beginning of agrarian reform about whether the ejido would be a temporary arrangement leading to full private ownership, or a unique form of permanent collective property. The ultimate compromise

defined the ejido as “a form of common property with private appropriation” (ibid, citing Cordova 1973). As Hewitt writes, “an erstwhile proletariat was given a new form of community self-government designed to increase local decision-making authority at the same time that it allowed integration into a hierarchy of regional and national pressure groups” (Hewitt de Alcántara 1984, 16).

The system of corporatism has defined the relationship between the State and the campesino sector in post-revolutionary Mexico (de Ita 1994). The primary objective of the corporatist relationship is to guarantee a social base to legitimize the policies defined unilaterally by the state.

In important ways, post-Revolutionary land reforms can be read as a move to increase efficiency in extracting labor power from the campo, to provide cheap sustenance to the emerging cities.³⁴ The Mexican Revolution created a legacy of offering indigenous farmers a measure of state protection after centuries of attacks. But it should not be romanticized—it was also a way of re-organizing the economy to generate wealth for those with the most political power (Redclift 1980).

Ejidos tied people to the land so that wealth could more easily be extracted and used to fund the Mexican State projects of "progress" and industrialization. Resources, and labor extracted from rural Mexico built the cities, including one of the biggest city in the world.

The post-Cárdenas (1940), pre-1982 crisis period of Mexican agriculture is complex, characterized by both a strong corporatist protection of, and support for campesino production,

³⁴ Half a century later, the Chilean dictator and neoliberal zealot August Pinochet would wipe out most of the reforms made by his socialist predecessor, but keep in place most of the land reforms, which had entailed breaking up large haciendas into smaller, more manageable chunks. The result was an agricultural-export boom, because the smaller holdings proved more efficient and friendly to innovation and the self-exploitation of smallholders.

as well as the highly destabilizing effects of the Green Revolution, which put downward pressure on crop prices and upward pressure on input prices, favoring large-scale operations over small campesino operations.

GOVERNMENT SUPPORT FOR RURAL MEXICO

In addition to ejido land reform, campesinos eventually managed to get the post-Revolutionary Mexican state to support the rural productive economy, most importantly in the form of price supports to ensure overproduction would not lead to devastating price plunges—much like what happened after the Great Depression in the United States, during the golden years for farmers of supply management, which effectively ended in the early 1970s. The Mexican government “backed up [the rural economy] by technical assistance, credit, supply of seeds and, more broadly, improvement of rural education, medical care, roads and other facilities. The ejido thus was not only a form of organization of production but also a mechanism of political control and peasant representation” (Assies 2008, 43).

The details of how the ejido structure worked through a hierarchical set of mechanisms to coordinate control through intersecting legal, political, and social frameworks provide an interesting window into everyday state interventions into rural life, as de Janvry et al (1994) demonstrate. All decisions about land use, boundaries, dispute settlement, credit, and community decision making happened in formal ejido assembly, which required the presence of an official state representative of the Ministry of Agrarian Reform. Public resources were controlled by the state: credit was provided by the federal government, with additional credit from commercial banks in the 1970s, with all individual members of the ejido held co-liaible for the loans.

From the 1960s until its demise in 1999, the federally funded *Compañía Nacional de Subsistencias Populares* (CONASUPO/National Company of Popular Subsistence) provided

price guarantees for maize and other basic food producers, and subsidies for urban consumers (specifically tortillas), as well as access to subsidized food to rural consumers through the DICONSA stores and warehouses. CONASUPO bought 12 crops at a guaranteed, fixed price, and part of the repayment of credit was through guaranteed sales to CONASUPO. Fertilizers were produced and distributed by the partially state-controlled FERTIMEX, which also managed credit. Funding and permits for irrigation also came from the government. There were parastatal enterprises that managed the supply chain of coffee, cocoa, sugarcane, tropical fruits, and other specialty crops. The state also was present in rural life through Ministry of Education (Secretaría de Educación Pública/SEP) and social welfare services (health, housing, food aid, roads, ethnic issues, etc.). And politically, the state controlled access to public goods and services, by requiring that ejiditarios belong to the Confederación Nacional Campesina (CNC/National Peasants' Confederation), which was directly controlled by the PRI (de Janvry et al 1994, 3-4).

The program Apoyos y Servicios a la Comercialización Agropecuaria/Agricultural Marketing Support Services (ASERCA) replaced CONASUPO in 1999, but provided much more limited subsidies, and only to regions which historically produced a maize surplus. The Programa de Apoyos Directos al Campo/Program of Direct Payments to the Countryside (PROCAMPO), now administered by SAGARPA, began in 1993 with the explicit aim of supporting small farmers negatively affected by NAFTA. Instead of subsidies tied to production, PROCAMPO provides fixed payments based on acreage planted.³⁵

Mexican policy has taken two approaches to rural development – economic and social. Economic development approaches have been almost exclusively aimed at mid-to-large-scale producers. Economic development approaches have been almost exclusively aimed at mid-to-

³⁵<http://www.sagarpa.gob.mx/agricultura/Programas/proagro/procampo/Paginas/Antecedentes.aspx>

large-scale producers. Poor producers have been targeted with social programs. The two economic programs designed to address agricultural production are Procampo and Alianza para la Producción. Procampo is a direct subsidy to all producers, regardless of size and decoupled from production. Alianza is a subsidy to help farmers transition to the types of agriculture the government has identified as good for rural development, namely high-end fruits and vegetables for export and commodity crops. Two additional federal programs to combat poverty affect rural areas: are Oportunidades and the health program Seguro Popular. Oportunidades is a conditional cash transfer program (CCT) that provides benefits to families who send their children to public school and use health services; it has been copied in many other countries (Fox and Haight 2010, 13). Payments go to the poorest segments of rural society, and have been estimated to increase family income by 30 percent (ibid.). Especially significant in Mexico, the assistance is designed to bypass political patronage relationships. As analyzed in a recent Woodrow Wilson Mexico Institute report, Oportunidades is not designed to create jobs or affect the economy – instead it is focused on bringing families out of poverty in the short term and improving the chances for children to have better lives. The lack of quality education and adequate health services complicates the success of the program. Oportunidades has also been critiqued on the grounds that it maintains oppressive traditional gender relations and furthermore uses “women as mediums to implement state policy” (Berumen 2012).

Moreover, the benefits of Oportunidades are basically canceled out by the regressive agriculture subsidy structure that not only disproportionately benefits large growers but also actually increases inequality. A recent World Bank report on Mexican agriculture found that 50 percent of subsidies go to the richest 10 percent of farmers (cited by Fox and Haight 2010, 15). The simplest explanation for this disparity is the lack of a cap on size of landholdings or an

effective ceiling on payment funds received, as well as the per-harvest payment structure, instead of per-year, meaning those with irrigated lands and two harvest/year get double payments (ibid). Government policies clearly favor large producers. The Mexican government's approach to subsidies has effectively worked to increase inequality. Even Procampo, the most pro-poor of the subsidies, adds to this inequality, specifically by providing double subsidies to those farmers who irrigate and can thus get two plantings in per year (Fox and Haight 2010). The result of these policies has been a generalized decline in agricultural profits, decreased incomes for campesinos, increase in rural poverty, and increases in migration.

Furthermore, governmental policies have privileged the importation of food over the stimulation of national production. Resources have been concentrated in the support of large-scale agricultural producers and the export market, to take advantage of Mexico's "comparative advantage" (weather, easy access to U.S. consumers, and cheap labor) as a source for year-round fresh fruit and vegetables.

The social movement framing of the rural crisis is made very clear in this extended quote, from an interview with rural analyst and social movement actor Ramón Vera, who explained to me:

The country has become the world's principal exporter of labor (in terms of portion of the population). The people who negotiated NAFTA knew this would occur. According to them, this was necessary to modernize the country; the goal was no more than 30% rural population. The techno-bureaucrats made assurances that the free trade agreements would stimulate enough growth to generate new jobs. They decided it was more efficient to provide aid to poor campesinos in the big cities than in their rural communities. They said that importing basic grains and oilseeds from the U.S. would benefit Mexico, because it is cheaper to produce them in the U.S. They promised that Mexico's comparative advantage in semi-tropical production – the most profitable market niche – would generate enough wealth in the countryside to make up for purchasing food from abroad. None of this happened. Rural production barely modernized, the economy did not grow sufficiently, and it did not create sufficient jobs. Programs to combat poverty in the cities and support for services in poor neighborhoods in the big cities deteriorated. The price of basic grains rose on the international market and Mexico had to import them at high

prices. The harvest of tropical products like coffee or cacao stagnated. We were left without self-sufficiency in food and without comparative advantages. The campo was converted into a huge factory for poverty that expelled the youngest, most entrepreneurial or searching for education. (Vera Herrera, pers. comm. 2012)

As Vera further explained, these conditions made the countryside fertile ground for growing illegal drug crops and laundering money. In irrigated zones, where neither commercial banks nor government programs offer sufficient credit, “financing for planting and harvesting has become the regular way in which to launder money from illegal activities,” he said. “There are plenty of narcotraffickers who like to present themselves as ranchers. And there are plenty of campesinos who have decided to plant illicit crops that are more profitable, even if more insecure. Of course, the cultivation of poppies and marijuana precedes free trade, but the sector has grown exponentially. A campesino can make with one ‘unconventional’ harvest the equivalent of ten years profit” (Vera Herrera, pers. comm. 2012).

These complexities pushed the question about the appropriate role of the state onto the agenda for rural organizations in Mexico, with two divergent positions: should the state stop intervening in rural affairs and turn over its functions to the producer organizations? Or does the state have a responsibility to the campo (de Ita 1994, 147). The reform of Article 27 represented the end of State responsibility to agrarian land redistribution. The reform—putting ejido land into the market, increasing private investment in the campo—kicked off a political crisis. The reforms destroyed the space that existed for dialogue between the state and the campesino organizations, disarticulating the traditional institutions without creating a new framework.

Over the decades, as the Mexican state "modernized" and made peace with the Washington Consensus—which meant, as shown above, essentially withdrawing state support for campesinos and subjecting them to the whims of a global market stacked in favor of large subsidized producers in the global north, making them, in effect, redundant—social movements

in turn began to move away from the state itself, regarding it as a proxy for capital and the powerful oligarchs who had taken over the Mexican economy. The goal began to create new social organizations outside the state. Rather than participate in electoral politics with a goal of grabbing control of the state, the goal became to seek autonomy beyond its reach. The concrete practices that this project involved will be discussed in Chapters 5-7. Further background discussion on the Green Revolution, below, provides context for how social movement actors understood transgenic corn as the latest front in the long-standing attack on the campo.

GREEN REVOLUTION

One early shock to the Mexican campo was the Green Revolution, a U.S.-led program that began as an effort to placate and stabilize post-revolutionary Mexico during World War II, in the wake of the nationalization of the oil industry and the expropriation of US petroleum interests in Mexico (Cleaver 1972).

What we now call the Green Revolution can be traced to the rise of mechanization on U.S. farms in the 1920s (Fitzgerald 2003). Pushed by government and university researchers, U.S. farmers ramped up production dramatically. The result was a collapse in prices and a "paradox of plenty"—millions of farmers driven to ruin, or near ruin, by low prices, alongside millions of consumers unable to afford enough to eat (Cullather, 2010).

Mechanization contributed to developments in plant breeding and chemical inputs. The Rockefeller Foundation—already major funders of agricultural industrialization in the United States—initiated the project in Mexico in 1943.

The Green Revolution originated at the height of World War II, shortly after Mexican President Lázaro Cárdenas expropriated the Rockefellers' Standard Oil business in Mexico in 1939. The U.S. government decided against a military response to Mexico's expropriation.

Entangled in events in Europe, U.S. decision makers did not want to risk turning Mexico, and its oil, into an asset of Japan and Germany (Roberts 2008, 39). Instead, to expand friendly relationships between Mexico and the United States, the Rockefeller Foundation funded a joint “development” project with the Mexican government, the International Center for the Improvement of Corn and Wheat (CIMMYT) in Northern Mexico. By the beginning of the Cold War in the 1950s, the Green Revolution morphed into an explicit anti-Communist tool, based on the argument that hungry people were more likely to reject the capitalist system and answer the call to communism (Cleaver 1972, 1-6).

In 1941, when the Rockefeller Foundation sent its first set of technologists south of the border, Mexico was a net food exporter, sending vegetables, fruit, cattle, and coffee to the United States. The USDA had deemed it "largely self-sufficient" in food and fiber, and population, while growing, was less geographically dense than that of the United States (Cullather, 2010).

Green Revolution technologists were looking beyond the nation's borders from the start. Cullather quotes Norman Borlaug himself, later celebrated as the father of the Green Revolution, on his experience on the ground in Mexico: "We were consciously, and very early...discarding those things that fit only one environment," (Cullather 2010, 44). Instead, the team looked for grand, one-size-fits-all "solutions" for agriculture. Crucially, though, the initial fixation was not on boosting yields just for their own sake. Instead, the foundation at first sought to stabilize rural areas by "raising incomes and living standards for farmers," (ibid., 45) The vision was a kind of "mini-New Deal" for the Mexican countryside, one that other 'backward countries' could emulate.

The Iowa agriculturalist and former USDA secretary Henry Wallace was the U.S. vice president at the time (under Franklin Roosevelt), and he convinced the Rockefeller Foundation to

focus on crop yields. Wallace had toured the Mexican campo in 1940 and came away impressed by the ingenuity and diligence of the small-scale farmers he observed (ibid.). But he found their productivity to be shockingly low, and concluded that they needed "improved seeds" and other agri-technologies then taking root in Wallace's native Iowa. Urged on by Wallace, the Rockefeller team pivoted, and the new mission became to dramatically ramp up the productivity of Mexico's farmers. This new path led Borlaug and his team to what would become known as the "Green Revolution package"—hybridized "dwarf" grain varieties, bred to produce bumper crops when given large doses of fertilizers, pesticides, and irrigation.

Borlaug's innovations in Mexico, however impressive as they were technologically, focused on problems that didn't exist and ignored ones that did, in the process exacerbating them. At that time, although Mexico growing sufficient food for its population, agricultural policies favoring the use of foreign exchange to import corn, beans, and wheat from the United States, which drove crops prices steeply downward for Mexico's small-scale farmers. In response, they "switched to the more profitable export crops and shifted grain production onto marginal lands: the steep hillsides Wallace had seen" (Cullather 2010, 57). As farmers switched from corn to export crops, Mexican food production declined, causing a vicious cycle: The government had to import even larger grain quantities the following year. Thus, Mexico's food problems, insofar as they existed, did not stem from lack of US technology or scientific know-how. They resulted from unequal land distribution and domestic economic policy.

And the Rockefeller effort to ramp up production in the countryside only accelerated those trends. Crop prices fell as yields rose, pushing peasant farmers off the land. By the 1950s, US policy analysts were fretting about what they called the "wetback problem"—1.5 million migrants crossing the border each year in search of gainful work. The Mexico Agricultural

Program's additional downsides included the: "narrowing of [domestic agriculture's] genetic base, supplanting indigenous, sustainable practices; displacing small and communal farming with commercial agribusiness; and pushing millions of peasants into urban slums or across the border," (ibid., 68). None of them stopped the Rockefeller Foundation from presenting its Mexico program as a successful model for future ones in Asia. As for Borlaug, future Nobel laureate and putative savior of India's famine-stalked masses, he learned in Mexico to "see modernization as a transition from lower to higher levels of soil nutrients," i.e., energy-intensive, soil-degrading synthetic fertilizers (ibid., 61)

The Green Revolution provided the technical base for industrial agriculture, and geopolitical economic initiatives justified and promoted its global spread. Based on an inherent belief in progress, technology, and efficiency, the Green Revolution's productionist, utilitarian view of agriculture applied the logic of factories and industrial technology to agriculture (Thompson 1995, 49). From this perspective, very large farms that employ extremely cheap labor have a comparative advantage over smaller, "less efficient" farms. Efficiency, however, can be measured in a variety of ways, and in the well-known "inverse relationship," time per acre and output per acre are nearly always inverse (van der Ploeg 2010, 15).

The global rise of industrial agriculture through the 1970s marked the beginning of an extended rural economic crisis. The technology of the Green Revolution enabled widespread, intensive market integration for farmers around the globe. A feedback loop started: as small-scale farmers adopted new methods which required cash investments, they needed capital to buy irrigation wells and pumps, hybrid seeds, fertilizers and other inputs, so they geared more and more of their production to maximize volume for sale into the market—with "profound and unintended socioeconomic consequences on small-scale farmers" (Rhoades 2005, 67).

The social movement understanding of the meaning of transgenic maize is directly tied to the Green Revolution. As I was told in an interview, “It is hard to understand the role of transgenics today without seeing them as part of the model of industrial agriculture and the battle for control of seeds that has been going on for years. You cannot understand what is going on now without having a sense of this history. The goal of transgenics, just like hybrids before them, is to erode seeds, expand patents, impose a certification and criminalize the free exchange of seeds. The Green Revolution was the first step,” (Vera Herrera, pers. comm. 2012).³⁶

RISE OF IMPORT SUBSTITUTION/AGRICULTURAL PROTECTIONISM

And yet, post-World War II Mexico's policy of economic growth by import substitution, complemented by the ejido system, which engendered a broad base of smallholder farmers, provided a countervailing force against the pressures of the Green Revolution. In a broad sense, the post-war economic plans succeeded. Between 1960 and 1980, per capita GDP grew 3.7 percent annually, and living standards—measured in life expectancy, literacy, education levels—rose dramatically (Weisbrot and Ray 2012; if Mexico had sustained this growth rate over the decades since, it would have "European living standards" today, they calculate).

For campesino farmers, a price-support system for maize offered smallholders stable—though often inadequate—income, providing a buffer for commodity prices that had been depressed by Green Revolution technologies. Subsidies for tortilla production kept adequate nutrition within reach of most urban residents. Meanwhile, the import-substitution regime

³⁶ “*Es difícil hacer que se entienda el papel de los transgénicos ahora si no ponemos en perspectiva el intento por imponer un modelo industrial de agricultura y la batalla por el control de las semillas que lleva años sucediendo. Para nosotros, estábamos haciendo el recuento o la historia de la procedencia de procesos que ahora no se entenderían en toda su dimensión si no entendemos de dónde vienen.*”

privileged national self-sufficiency in food crops, (mostly) protecting farmers from foreign competition.

'82 PESO CRISIS/GATT '86

Things changed in 1982, when the Mexican government announced it could no longer service its foreign debts. The Mexican debt crisis had little to do with the import-substitution regime. Rather, it stemmed from exogenous shocks: a simultaneous plunge in global oil prices, which accounted for a third of state revenues, coupled with a surge in global interest rates, driven up by the U.S. Federal Reserve in response to that nation's own inflation crisis. In response, the Mexican government cut a deal with the International Monetary Fund: in exchange for bridge loans that allowed Mexico to make its debt payments, Mexico agreed to scrap import substitution and open its economy to foreign (in effect, U.S.) imports and capital, as well as slash spending on social programs, including in rural areas. Mexico's post-'82 policy shift can also be read as the laboratory for neoliberalism in the Global South: an updated version of the classical liberalism that justified colonial expansion in the 19th century with the ideology of free flows of capital and goods. Modern neoliberal economic policy can be characterized by a push for limited regulation, reduced taxes, and elimination or severe reduction of checks on capital and trade.

Mexico's economic fragility, especially rural Mexico's, is directly tied to neoliberal socio-economic policies in the United States. David Harvey links the move towards neoliberalization to the Organization of Petroleum-Exporting Countries (OPEC) price hike after the embargo of 1973, which created huge new amounts of money and power. OPEC countries invested this money through U.S. banks, apparently under U.S. pressure to prevent a military intervention to restore oil flows and low prices. These investment banks, mostly based in New York City, in turn made huge profits from the interest made on loaning the oil money to

“developing” countries, which were more profitable than domestic loans given the low U.S. interest rates (Harvey 2005, 27). These countries, which previously had only limited access to credit, were eager to borrow OPEC cash from U.S. investment banks, which were looking for places to invest it.³⁷

Between 1976 and 1982, during the term of President López Portillo, Mexico wracked up approximately forty billion dollars (some observers estimate as high as one hundred billion dollars) in external debt, secured by its oil reserves, while domestic inflation surged at times over 100 percent. The country had become the fourth largest global oil exporter by 1981, as exports tripled within five years. López Portillo inherited financial instability from the previous administration of Luis Echeverría (1970-1976), and the seemingly endless boom in oil prices of the late 1970s allowed him to increase spending (and corruption) to dizzying new heights. But, starting in 1981, the world oil market began to saturate, and prices dropped quickly. By 1982, Mexico was spending nearly 45 percent of its export earnings to service foreign debt. López Portillo decided to devalue the peso in February 1982. Combined with falling oil prices, high external debt, and, significantly, rising interest rates in the United States, international investors pulled out their money. This shift put the economy into full crisis, causing López Portillo to nationalize the banks in September 1982, before leaving office in disgrace in December.

Meanwhile in the United States, Reagan’s 1980-88 administrations waged a “campaign against big government” by deregulating industries. Simultaneously, the head of the U.S. Federal Reserve, Paul Volcker (appointed by President Carter at the end of his term in 1979, where he stayed until 1987) began raising interest rates to unprecedented levels to attack the stagflation

³⁷ To protect the main New York City investment banks that held Mexican debt in 1982 from serious losses, Reagan (through James Baker, his Secretary of the Treasury) “breathed new life” into the IMF, according to Harvey’s analysis (Harvey 2005, 73).

leftover from the 1970s. The combination of high inflation and unemployment should never have happened according to Keynes' economic theory.³⁸ The subsequent increase in interest rates, known as the Volcker shock, was the final straw, forcing Mexico to default on its foreign debt in 1982-84, making it the first of many countries to do so.

Mexico's economic crisis became the testing ground for the economic policies that came to be known as structural adjustment. The International Monetary Fund (IMF), founded at the Bretton Woods conference in 1944, framed its function as developing and stabilizing the global economy to prevent depression, seen as a significant component of the rise of fascism and World War II; critiques presented at the time have only expanded over the years (c.f. Illich 1971, Sachs 1992, Escobar 1995). The IMF operates based on votes allotted according to the percentage of monetary contributions made by each country; as the largest contributor, the United States effectively has veto power over IMF decisions.³⁹

To fight inflation, structural adjustments prioritized cutting back social spending, thus pioneering the neoliberal agenda of shifting the burden of fiscal mismanagement onto the majority low-income population.

Harvey writes that what happened in Mexico showed the "key difference between liberal and neoliberal practice: under the former, lenders take the losses that arise from bad investment decisions, while under the latter the borrowers are forced by state and international powers to take on board the cost of debt repayment no matter what the consequences for the livelihood and

³⁸ Some form of stagflation has been the norm in the Mexican economy since 1982; it is notable that Keynes' theories had little room for "dependent" economies.

³⁹ When Nixon took the United States off the gold standard in 1973, the IMF's role of monitoring and stabilizing currency values became less important, and the organization's relevance was unclear until the debt crisis of 1982-84 showed that the IMF could effectively force macroeconomic changes onto countries to maintain capital flows.

well-being of the local population” (Harvey 2005, 29). Throughout Latin America’s so-called “lost decade” of the 1980s, the poorest 75 percent of the population of the region experienced a decrease in their incomes, while the top 5 percent of the population maintained or increased their income—this period also represents a new phase of social movement (Alvarez and Escobar 1993).

Between 1982 and 1996, real wages in Mexico decreased by approximately 80 percent. In 2014, the highest regional minimum daily wage in Mexico was raised to 67.29 pesos, about \$4.95 USD, up from 62.3 pesos/\$4.60 USD in 2012. The 2005 minimum wage was \$48.65 pesos or about \$4.50 USD.⁴⁰ For Mexico's smallholders, the new regime meant a slow withering away of price supports and protection from the import of foreign food commodities. Mexico's sharp neoliberal turn, led by its budget director, the Harvard-trained economist named Carlos Salinas, The Mexican government adopted an export-oriented agricultural development strategy that favored large agro-exporters (Gonzalez 2010).

In a key moment of this period, in 1986 Mexico joined the General Agreement on Tariffs and Trade (GATT), a multinational agreement to break down barriers to international trade, which grew out of a United Nations effort that later became known as the World Trade Organization (WTO). GATT membership entailed a gradual lowering of trade barriers. Ostensibly, it shielded the campo: GATT acknowledged Mexico's right "to manage its agricultural policy in accordance with the national interest of improving production, maintaining the ejido as a system of land ownership, and defending the income levels and jobs of the population working in agriculture"(de Ita 1998). In practice, though, the government used GATT to enact a "neoliberal program of modifying agricultural policy to diminish state intervention,

⁴⁰ http://www.conasami.gob.mx/nvos_sal_2014.html accessed November 2, 2014.

strengthening the role of the market, and opening up agriculture to commerce and investment," (ibid.)

Mexico's neoliberal push gained force with Salinas' ascension to the presidency in 1988, in an election now officially acknowledged to have been stolen from Salinas' leftist opponent, Cuauhtémoc Cardenas (Thompson 2004). Salinas lost no time in taking advantage of his ill-gained win to begin promoting NAFTA.

1994 NEOLIBERALISM IMPLODES, BRINGS MORE NEOLIBERALISM—THE PESO CRISIS AND NAFTA

During my fieldwork in Mexico, references to the events of 1994 were constant. Eventually, a colleague at the think-tank told me that I simply would not be able to understand anything about rural Mexico if I did not focus on 1994—it is the hinge on which contemporary rural Mexico pivots. Thus, I threw myself into reading and trying to make sense of how and why these events of 20 years ago remain so relevant and vividly alive.

With Mexico still reeling from the structural-adjustment policies of the 1980s, the surprise 1994 Mexican peso devaluation wreaked havoc on an already fragile domestic economy and quality of life. Mexican immigration to the United States has a long history, going back to the establishment of the contemporary U.S.-Mexico border in the mid-19th century, but the economic crisis of 1994 affected the rate and flow of Mexican immigrants to the United States more than any other event in post-Revolutionary Mexico.

In 1990, Mexican President Carlos Salinas began working to pass the North American Free Trade Association (NAFTA), building on proposals going back to Ronald Reagan in the

United States in the 1980s.⁴¹ The treaty established a schedule for reducing or removing trade barriers between the three countries, carefully covering economic sectors including agriculture, textiles, automobiles, pharmaceuticals, entertainment, electronics and transportation, but does not discuss labor. Salinas, Bush, and Mulroney each signed the agreement in their own countries on December 17, 1992, and then it went to each country's legislature for approval.

Meanwhile, between 1990 and 1994, Mexico was again attracting the attention of international investors, in the context of the so-called "emerging markets" boom, starting after the 1989 fall of the Berlin Wall and decline of communism. Emerging markets became a magnet for investors looking for higher returns than could be found in the then-stagnant financial markets of the U.S. and Western Europe, whose low interest rates and sluggish stock markets constrained returns on investments. By the time the Mexican stock market, called the Bolsa, got caught in the post-Cold War emerging market boom, Mexico had scrapped its import-substitution policies, opened up its stock market, and strongly courted foreign direct investment. The market was ripe for investors to swoop in, buy securities (in the form of company stocks and government bonds), and inject massive amounts of capital. Thus, the Mexican market boom began in earnest; in the language of Wall Street, the "Mexican miracle" flourished between 1990-1993.

To sell Mexicans on NAFTA and the neoliberal agenda of opening markets, privatization, and deregulation, President Salinas (in office 1988-1994) and the PRI party put in place a strong peso policy.⁴² The inflated currency made imported foreign goods cheaper, even though the peso

⁴¹ The treaty was negotiated during the presidencies of U.S. President George H. Bush and Bill Clinton and Canadian Prime Minister Brian Mulroney, Kim Campbell, and finally Jean Chrétien.

⁴² A strong currency policy means a government will defend its currency by buying it on the open market, thereby propping up its value. When a currency floats freely on markets, the

had already been tremendously devalued between 1975 and 1988, when the peso went from trading at 12.50 Mexican pesos (MXP) per dollar, to 2650.00 MXP per dollar.⁴³

He used easy credit to boost consumption, calculating that if people had the means to buy more, they would be willing to embrace the logic of the free market. The large volumes of capital flowing into the country led to a consumption boom, and in combination with a rigid exchange rate, resulted in an overvalued peso and a serious deficit for current accounts (Edwards 1997, 97).

On the ground, the economy did not seem like a “miracle.” Between 1988 and 1994, the Mexican economy performed very modestly: real growth averaged only 2.8 percent, productivity growth was almost flat until 1993, exports did not expand much, real wages barely reached their 1980 level, the real exchange rate appreciated significantly, private savings declined, and poverty rates and income inequality maintained high levels (Edwards 1997, 98). Nonetheless, Wall Street hailed President Salinas as a hero willing to make the “tough” decisions to modernize Mexico’s economy.

The peso crash of November 1994 must be contextualized within the dynamics of the passage of NAFTA and the election of Mexican president Ernesto Zedillo of the PRI political party. Zedillo became the PRI candidate in the midst of tremendous scandal after Luis Donaldo Colosio, the front running PRI candidate who favored reforming the party, was assassinated on the campaign trail. A reading sympathetic to Zedillo says that despite mounting evidence that the

government can intervene in two ways to affect its value: either by buying or selling the currency on the open market, or increasing interest rates to attract foreign buyers. Between 1990 and when it abruptly ran out of dollars in 1994, Mexico was going into world currency markets and buying pesos with dollars, effectively tightening the supply of pesos and keeping their value high.

⁴³ During Salinas’ 1988-1994 term, the peso devalued another 100 percent from 2650.00 Mexican pesos to 3600.00 Mexican pesos (or 3.60 new Mexican pesos, after he adjusted the system by dividing it by a thousand to obscure the effects of devaluation).

economy was nearing a crash, President Salinas did not take corrective action in 1994 out of cynical, election-year, political considerations, combined with the over-optimism of the world markets. A financial crisis and peso devaluation every six years, coinciding with a new presidency, has practically become a feature of Mexican politics, commonly—and spectacularly in the case of Salinas—attributed to the outgoing president looting the country’s economy for his family and friends. An alternate analysis blames Zedillo’s inexperience and shaky political support for failing to rescue the economy. The fact is that the peso devalued another 50 percent in December 1994, moments after the end of the inglorious *sexenio* of Salinas, which began with a stolen election, ended with a highly suspicious political assassination, and imposed economic misery on millions of Mexicans.

Notably, right up to the day of the crash—even through November and December of 1994—the majority of major investment banks deluded themselves into a continued optimism about Mexico, even after Wall Street discovered Mexico had no strategy to deal with the peso overvaluation and its gaping current account deficit (Edwards 1997, 102). When Zedillo took office on December 1, 1994, the PRI lacked sufficient dollar reserves to maintain the status quo by propping up the peso, despite mounting evidence of the need for corrective measures. The Salinas government had been issuing large amounts of risky *tesobonos*, short-term government bonds tied to the dollar, which the PRI shuffled as they came due. Zedillo presented the situation in such a way that he had no choice but to let the peso float freely, what became known as the “December mistake.” Practically overnight, investors around the globe panicked, sold off billions in peso-denominated securities, and the peso lost 50 percent of its value. Hope for a “managed” peso devaluation (e.g. a move from defending the peso at six-to-\$1 USD to eight-to-\$1) after the election were dashed because Mexico did not have the foreign currency reserves to make a soft

landing. The crisis in Mexico set off a wave of selling throughout all the emerging markets, especially affecting Russia and Brazil, in what came to be called the “Tequila Crisis.” Wall Street banks and investors lost a lot of money, and Mexico’s domestic economy went into free-fall.

The peso collapse triggered a serious debt crisis. After years of easy credit, the government had to raise interest rates to attract foreign investment and stabilize the peso. Interest rates spiked, which rippled throughout the system as a growing banking crisis. Mexican banks were left with billions of dollars in bad loans to domestic borrowers, which they had no choice but to write off as debtors unions organized; large- and mid-sized farmers organized under the umbrella of El Barzón (as discussed in Chapter 2; their support for the Zapatista uprising played an important role in expanding the critique of free trade across different agricultural sectors). The expansion of the middle class went into reverse, credit dried up, and real wages and employment plummeted. *La crisis* affected Mexican farmers directly, as credit for farmers became almost non-existent and markets collapsed when flooded with cheaper imported commodities, and indirectly, as the economic crisis rippled through every sector of the economy.

Ten days after the peso plunged, Clinton and Greenspan engineered a massive bailout for investors exposed to the peso meltdown, offering an initial forty billion dollars, which climbed to fifty billion dollars by the time the deal was settled February 25, 1995 (and many observers say it was worth nearly double that amount in the end).

The exact relationship between the passage of NAFTA and the peso devaluation remains in dispute; what is clear is that the two events reinforced each other’s effects, creating a feedback loop that negatively affected the quality of life for nearly everyone in Mexico. The devaluation had a dramatic effect on migration and remittances. As one contemporary analysis noted, “the

peso devaluation, by raising the peso value of wages earned by Mexican migrants in the United States by about 40 percent, increased the prospect that vast new numbers of Mexicans would seek illegal entry into the United States” (Bean and Cushing 1996).

In exchange for the 1995 bailout, Mexico played by the International Monetary Fund’s rules, and embarked on a massive austerity program, meeting severe budget deficit targets. This meant slashing public spending across the board; the Mexican government kept a tight monetary policy, which meant high interest rates; and it increased the pressure to privatize everything. Real wages plunged around 24 percent—Mexican wage growth was nil in the first decade of NAFTA—unemployment rose, at the same time that people had limited access to personal credit in the form of credit cards, car loans, or mortgages. As the stock market recovered, the general quality of life for most people in Mexico declined or stagnated after the peso crash. A massive petty crime wave enveloped the country, centered in Mexico City.⁴⁴

This era of austerity in Mexico coincided with the huge economic boom of the 1990s in the United States, increasing the pull for Mexican migrants. The cheap peso helped fuel a rise in Mexico’s export markets (e.g. steel, cement, *maquiladoras*, and foreign-owned car manufacturing, at least until China took over this market share in the early 2000s), but this export boom had little-to-no ripple effect on the economy, because it was mostly financed by foreign direct investment, so profits returned to those foreign companies.

REJECTING OVERSIMPLIFICATION: NAFTA AND MEXICAN CORN

First, however, I want to frame the political stakes of the debate in terms of a key area of contestation over the dynamics between the United States and Mexico with respect to free trade and the changing rural landscape.

⁴⁴ The narco-violence now gripping the country makes those days look quaint, as the capital has become the safest place in the country as rural areas have gotten caught in narco wars.

The North American Free Trade Agreement (NAFTA, or the Tratado de Comercio Libre, TLC, its acronym in Spanish) reached twenty years of existence in 2014. The milestone inspired widespread reflection, much of it focused on NAFTA's effects on the Mexican countryside, its campo. The analysis emanating from critical observers in the United States and Canada tends to repeat a simple narrative: not long after then-Mexican President Carlos Salinas signed the infamous pact, U.S. cheap food policy, in particular corn subsidies, crushed Mexican corn farmers, forcing untold millions of campesinos into the migration stream. The received wisdom, summed up in the following quote, offers an appealing narrative neatness:

The cultivation of maize, or corn, has defined the lifestyle, legacy, and landscape of the Mexican territory for thousands of years. But after NAFTA passed in 1994, corn from the United States—genetically modified, mechanically produced, and heavily subsidized—began to flood Mexico's markets and the country's maize agricultural system was gradually dismantled. Mexican producers simply could not compete with cheap American corn. (Deuschle and Elachi 2014)

A widely read and still influential Oxfam report made before the WTO conference in Cancun in 2003 reads:

The Mexican corn sector is in acute crisis because of the influx of cheap subsidized corn imports from the U.S. Poor Mexican farmers cannot compete against U.S. producers, who receive \$10bn a year in subsidies...Far from operating on a 'level playing field', small farmers in Chiapas and elsewhere in Mexico are at the wrong end of a steeply sloping playing field which runs downhill from the U.S. Mid-West. They are competing not against U.S. farmers, but against U.S. taxpayers and the world's most powerful treasury. It is difficult to think of a starker illustration of unfair trade in practice. (Fanjul and Fraser 2003)

This interpretation framed my early approach to understanding the situation, and I still hear it repeated frequently in the United States. The connection between NAFTA, corn dumping and the loss of small farms in Mexico has been presented as a direct line of cause and effect. But, this argument is not made in Mexico, and my research confirms what Mexican observers have been noting for years – the relationship is far more complex and has much more to do with decisions by the Mexican government than with the implementation of NAFTA itself. There is no doubt

that the *campo Mexicano* is in an extended crisis, and that imported U.S. corn contributes to the problems. But even though NAFTA opened the market for corn between the three countries, it did not push Mexican and U.S./Canadian farmers into direct competition for the same products in the same markets.

I see the NAFTA explanation from U.S. observers as more than just an oversimplification or benign heuristic device. Instead, it represents fundamental misunderstandings of recent Mexican history, the complexity of agriculture and commodity markets, and, crucially, of the Mexican government's own role in immiserating the campo. Moreover, it is a narrative that implies that Mexico had, and has, no agency: it is the poor victim of decisions made by U.S. economic superpowers. This obscures the perpetrators and beneficiaries of the policy decisions.

Actors across Mexico's agrarian social movements have a different interpretation of the history—one that directly implicates the Mexican state in Mexico's farm crisis. Understanding the Mexican analysis is crucial to understanding the social movement response to the issue of GM corn in Mexico. This narrative sees governmental responsibility for rural Mexico as a fundamental part of the national identity, tied to the 1910 Mexican revolution and rooted deep in the country's post-colonial history (as will be discussed further in the next chapter). The issue of GM corn cannot be separated from the broader political economy of maize in Mexico, which in turn cannot be separated from the set of relationships between plants, humans, and the natural environment, expressed by the milpa.

I am not proposing that the Mexican government deserves total responsibility, but I am highlighting the neo-colonial mind-set, of seeing Mexico as a hapless victim, that obscures complexity and leads to simplistic analysis. Contrasting the dominant US narrative—that of

"poor Mexico," and subsidized corn—with the Mexican narrative of placing the blame on corrupt governmental decision-making, highlights the dangers in oversimplification.

To put the social-movement critique bluntly: the Mexican government made the intentional, strategic decision to destroy the domestic corn economy. The effort can be tied to the post-1982 decision to transform the economy along market lines. Seven years before NAFTA, in 1986, Mexico joined the General Agreement on Tariffs and Trade (GATT), a multilateral agreement de-regulating international trade, which grew out of a United Nations effort that later became known as the World Trade Organization (WTO).

Ana de Ita, a leading agricultural analyst and social movement actor, was the first researcher to document how the Mexican government broke the promise it made under NAFTA to protect domestic corn production. After Mexico joined the GATT in 1986, the country's economy began an accelerated process of opening up to international markets through deregulation and privatization. But the government went far beyond the GATT's relatively minor strictures:

As of 1989, the Mexican government decided to modernize the countryside "with some prodding kicks and blows from the market." It promoted a neoliberal program of modifying agricultural policy to diminish state intervention, strengthening the role of the market, and opening up agriculture to commerce and investment. The agricultural reforms (1989 to 1994) radically transformed relations in the countryside, defined a new framework of action for the peasants and their organizations, and culminated with the signing of NAFTA, which is the barrier that prevents moving back from the reforms. (de Ita 1997, my translation)

As it did after the signing of GATT, the Mexican government used the onset of NAFTA as the impetus for taking measures to impose austerity on the countryside that went well beyond the treaty's requirements. Under NAFTA, corn enjoyed "extraordinary protection" compared to other traded products, a status that was scheduled to last until 2008 and meaning that only 2.6 million tons of corn could be imported from the US and Canada duty-free; above that level,

imports were subject to a 189 percent tariff. But starting almost immediately, the Mexican government periodically decided to flood the market with US corn anyway. The most notorious example came in 1996, when the government—with no input from or warning to domestic corn farmers—allowed 5.8 million tons of corn to be imported duty-free, more than twice the NAFTA-imposed limit.

Moreover, the highly subsidized US corn that entered the country was priced below U.S. producers' own cost of production, making it technically a case of "dumping," although I propose the word "flooding" would be more precise—a breach of both international trade law and NAFTA itself, but put into action by Mexico.⁴⁵ As a result, domestic corn prices plummeted as much as 23 percent, and overall rural incomes fell as well. Meanwhile, the government simultaneously reduced its own (modest by U.S. standards) subsidies to corn producers by 10 percent, thus amplifying the shock of plunging prices.

In de Ita's (1997) analysis, very influential at the time, the government's move had two main goals. The first was to boost the budding industrial-livestock industry—to replace small- and mid-scale, diversified livestock production with large-scale, specialized facilities contracted directly with large meat packers, on the model innovated in the United States after World War II. For such concentrated-animal feedlot operations (CAFOs) to thrive, they need easy access to cheap feed corn. At the time, the nation's peso crisis had pushed domestic interest rates on loans to finance its debt to 30 percent. To buy the huge cache of U.S. corn they required, the government allowed large meat interests to tap a line of credit from US President Bill Clinton's 1996 Mexico bailout that let them finance corn purchases at less than 8 percent interest. Nearly

⁴⁵ Mexico also allowed the duty-free importation of significant amounts of South African corn, even though the country has no trade agreement with Mexico and thus should have been subject to high tariffs

half of the corn imported that year went to the livestock sector, which included the Mexican subsidiaries of U.S. agribusiness giants Cargill, Pilgrim's Pride, and Purina, as well as domestic industrial-livestock players including Bachoco and Lala.

If this initiative had come from the United States, the Mexican government could have sued them for dumping. The problem is that it was the work of the Mexican government to favor imports. The imports permitted and encouraged by the government not only artificially reduced the price of grain in the national market, but also supported private financial business interests. In the international market, producers have mechanisms against these kind of unfair practices. In the domestic market, the producers' complaints were met with repression. (de Ita 1997, my translation)

The flood of U.S. corn that has entered Mexico since 1996 has gone mainly to large-scale livestock interests, which have flourished. As recently as 1991, nearly 90 percent of Mexican pork production took place on small, often backyard farms, with the rest taking place in large-US style facilities. By 2003, the industrial share had quadrupled to 40 percent—a trend that has continued since (Batres-Marquez et al. 2006). Similar trends have occurred in poultry production, which doubled between 1994 and 2013 (Arenas Reyes 2014).

The second, related goal, in de Ita's view, was to push campesinos off their land—both to provide labor for the manufacturing-export sector, and to open the land's considerable natural resources to exploitation. Making a play on words in an interview in Spanish, she said that the Mexican government has tried to turn the *campo* into a *camposanto* (cemetery), while the campesinos themselves are working to preserve the *santo campo* (holy, or blessed, land) (de Ita 2014). These goals were basically explicit among Mexican policymakers. In 1994, while serving as secretary of agriculture under then-President Carlos Salinas, Luis Tellez infamously told a *New York Times* reporter that "within a decade or two ... about half of the rural population will most likely be forced to move," a remark that was widely repeated in the Mexican press at the time (Golden 1991). In 1994, Tellez published a monograph called "The Modernization of the

Agriculture and Forestry Sectors," in which he argued that it would be a "highly desirable phenomenon" if the "rural population could be absorbed by the industrial and service sectors" (quoted in Fox and Haight 2010).

However, Tellez's vision never came to fruition. At the dawn of NAFTA in 1994, Mexico's campesino population numbered 28 million—and that number has held steady since. Half of the nation's land remains in the hands of campesinos. "Some people say campesinos have abandoned the campo, but nothing is further from the truth—the government has abandoned it," (de Ita 2014). To survive under the relentless pressure of reduced prices, government-authorized dumping of subsidized U.S. corn, and the withdrawal of rural supports, campesinos have pursued a strategy of out-migration and remittances: in the post-NAFTA decades, nearly a half-million people per year leave the Mexican campo for work in the United States, sending home an average of \$22 billion in remittances annually. This flow of cash has provided people the wherewithal to survive, if not thrive—70 percent of the nation's food 28 million people who lack access to sufficient food are campesinos (Meneses 2014).

The conclusion social movement actors have reached: while the government declares the campo to be dying and abandoned, campesinos put this claim on its head and show that the only thing that has abandoned the campo is the government itself. And this is not a coincidental abandonment: the campo is full of natural resources, water, timber, minerals, oil, as well as renewable energy, solar and wind, and tremendous biodiversity. But lots of campesinos stand in the way of access to these resources.

2000-2012 PAN GOVERNMENT

The 2000 elections represented a historic change: the PRI lost the presidential election for the first time in 71 years. Vicente Fox took the presidency for the National Action Party (PAN),

the conservative, pro-business, pro-Catholic political party. The election was generally not considered to be blatantly rigged, and the change was seen to indicate the degree of popular resentment of the PRI in the wake of the financial crisis.

The July 2, 2006 elections provide insight into the next phase of Mexico's economic program. After an intense and often dirty campaign, the left-leaning Party of the Democratic Revolution (PRD) candidate Andrés Manuel López Obrador (popularly called by his initials AMLO) was essentially tied with conservative National Action Party (PAN) candidate Felipe Calderón, each with about 35 percent of the popular vote four days before the election. Calderón made a surprising comeback from last place by running a series of negative ads accusing López Obrador of being soft on crime and likely to bankrupt the country with his grand plans for social spending, explicitly comparing his policies to those that led to the crises of 1982 and 1995, and calling him a danger and threat to Mexico. Roberto Madrazo, the candidate of the Party of the Institutional Revolution (PRI), which held the presidency for 70 years, trailed in the race, with less than a quarter of the vote. López Obrador seemed to be taking a slight lead before the elections, but the elections were incredibly close: 243,000 votes gave the election to Calderón, though López Obrador supporters identified three million uncounted or miscounted votes and numerous instances of likely fraud. On these grounds, the Federal Elections Institute (IFE by its Spanish acronym) refused to certify the election, and López Obrador called for a nation-wide recount. Meanwhile, Calderón declared himself the winner, Madrazo quickly capitulated before the final votes were even in, and U.S. President Bush officially acknowledged Calderón as the winner, again despite the lack of an official tally. Two months after the election, and one day before the federal deadline to certify election results, a seven-judge election tribunal unanimously declared Calderón to be the winner.

In terms of the effects on rural Mexico, the PAN governments (2000-2012) essentially ratified and deepened the problems in the campo. The PAN administration dismantled important parts of the rural support program. The foundation of the relationship between the State, the market, and campesinos further unraveled—the narrative that Salinas declared war on the campo through the constitutional reforms to Article 27 in the 1990s, has expanded to include the narrative that the PAN broke the battered old corporatist pact between the State and the campesino movement, and has not substituted a new one. In doing this, “they kicked at a hornet’s nest,” in a recurrent metaphor. The official explanation of this discontent was that those groups whose traditional sources of financial support had been removed were “kicking back” against the government, and there are certainly cases of actions by those threatened with the loss of their political power or privileges (not actions that genuinely are reflective of rural change). But the fact remains that a profound rural discontent simmered during the PAN years.

ROLE OF THE CAMPO IN THE FUTURE OF MEXICO?

Mexican governmental policies have been fairly explicitly anti-campesino since the six-year presidential term of Miguel de la Madrid (starting 1982), when public investment in rural areas started a steady decline, and definitively neo-liberal since the administration of Carlos Salinas de Gortari (starting 1988). The Mexican government has taken a very clear stance over the past three decades that the campo does not contribute sufficiently to the gross domestic product GDP, and has taken active steps to reduce the number of people involved in agriculture, at the same time that it has increased the amount of subsidies—agricultural subsidies in Mexico are the highest in Latin America, with over \$20 billion US dollars (2009 dollars) in direct cash payments to producers from 1994-2009. Yet despite these subsidies, the number of jobs in the campo decreased by 20% during this period (Fox and Haight 2010, 7).

The 1982 debt crisis presented a major challenge to the dependence of Mexico's rural development strategy on the state (de Janvry et al 1994, 10). Research suggests the inefficiencies and corruption involved at every level of the state's intervention into the countryside started to erode the authoritarian political control maintained through the ejido system. The decrease of both state institutional control and economic subsidies to rural Mexico "created an exceptional opportunity for convergence" between free-market economic policies (de Janvry et al 1994, 10). Although perhaps not premeditated or promoted by the government, the convergence of political and economic liberalization created "an institutional vacuum," as state enterprises were privatized amid widespread financial crisis. This primarily came to be felt in the removal of the system of price guarantees (with the exception of corn and beans), and the legal reform of Article 27 of the Constitution, in 1991-92, which further dismantled the model of political control of the Mexican countryside.

In December 1991, then-president Carlos Salinas de Gortari reformed Article 27 of the Mexican Constitution to allow for the private ownership of ejido land. A debate exists over the relationship between the land reform and NAFTA, with many U.S. observers tending to see the reform as part of the lead-up to NAFTA, while Mexican analysts tend to see it as the culmination of the Mexican government's policies towards the campo throughout the 1980s, starting well before NAFTA was on the horizon. I observed the debate being discussed between social movement actors (in a discussion of how to frame the argument for the Tribunal Permanente de los Pueblos, which will be discussed in Chapter 7), who reached the conclusion, "The result of NAFTA on agriculture had been the intention of the political elites to dismantle the programs that protect rural existence. The goal of putting ejidal and communal property in the market predates NAFTA. The land reforms were not done to facilitate NAFTA, rather NAFTA was the

lock on the door, locking in the reforms that they wanted to do. Others, like deregulation or privatization, complemented the reforms. Blaming NAFTA for the conjunction of structural reforms is a grave error. It was part, not all” (de Ita, pers. comm. 2012).

The reforms affected approximately 100 million acres, removing restrictions on the sale of land. The Program of Certification of Rights to Ejido Land (PROCEDE) was created to manage what was expected to be a large land transfer. To the surprise of market-oriented observers, very little former ejido land has been privately titled over the past 20 years, and when it has, it has tended to be on land adjacent to expanding urban areas for housing development (Gutiérrez González, 2009). The Mexican government expected that ejidatarios would be happy to have private land titles, on the grounds that they would be eligible for credit and mortgages. But, the effects of the changes to Article 27 have not been as dramatic as predicted, and in fact a powerful argument has been made that the counter-effect has been “land reform from below.” The vast majority of agricultural lands have been registered with PROCEDE (over 90 percent; only around 2,700 of the total 31,000 *nucleos agrarios* were estimated to be unregistered in 2014), but that does not mean people accepted the reform. As Ana de Ita and Luis Meneses (2014) explained:

Registering does not mean privatizing. People said, ‘ok, we are obligated to enter into PROCEDE, I will follow the government’s new requirements—but I am going to title the land as common use.’ Over 70 percent, more than 70 million hectares of ejido lands, are titled as *propiedad de uso comun*, which maintains the original character of ejido land, meaning it can’t be seized, it is inalienable, and it is non-transferrable. All of the land in common use is maintained as if there was no reform! An effect of the great project to privatize the campo Mexicano had been the unexpected consequence that instead of selling their land, the campesinos followed the rules, and the result was a kind of agrarian reform from below.

This complex communal land re- (or non-) reform is vital to understanding the social movement landscape.

CHAPTER 3 MAIZE POLITICS, ECONOMICS, AND BIOLOGY

This chapter provides a broad overview of maize biology, agro-biotechnology, and some public policies affecting corn in Mexico.

MAIZE DOMESTICATION AND BIOLOGY

The land mass occupied by present-day Mexico overlaps with the site where corn was first domesticated thousands of years ago. For that reason, it contains by far the greatest concentration of genetic diversity for corn, the globe's most prolific grain (FAO 2014). Mexico harbors 59 officially recognized varieties and many thousands of local landraces. It is a highly productive annual grass with large seed heads (ears or cobs), *Zea mays* ssp. *mays* L. Mexico is maize's center of diversity, with 59 recognized varieties, and tens of thousands of landraces, or locally adapted farmer-selected varieties adapted to specific microclimates—estimates range between 20-30,000 distinct varieties. Following the convention of English-language writers on this topic (such as Fitting 2012), I will use the words maize and corn almost interchangeably, but with the tendency to use the word “corn” to describe a commodity crop that cannot be eaten by humans, but instead is used for industrial refining (corn syrup, animal feed, biofuels, etc.), and “maize” to refer to the food eaten by humans.

Corn kernels are attached to the cob in paired rows, so corn rows are usually even in number. The plant is very green, with the chlorophyll absorbing sunlight. Corn comes in a wide variety of colors; the darker red, blue, and black corns absorb extra heat, and so are well adapted to cooler climates (high elevation or shorter day length).

Corn reproduction works as follows: the male part of the flower (pistil) is the tassel, at the top of each stalk, while the female part of the flower (stamen) is located inside the tiny cob, which will turn into an ear of corn after fertilization. Each male tassel produces 14-18 million grains of “sperm,” although each individual kernel on the cob only needs one grain to grow. There are generally between 400-800 kernels per cob, so there are tens of millions of extra pollen grains per plant, which explains why maize is called a “promiscuous pollinator.” This pollen can be blown long distances by the wind, or distributed by bees, making corn particularly susceptible to cross-pollination. Timing is key to the fertilization of each kernel by a tiny particle of pollen; each individual kernel grows a strand of silk at the exact moment that the pollen is ready. It takes two to four days for the bundle of silks to emerge from the tip of the cob, and the silks are sticky, to hold the single grain of pollen each kernel needs. Once the pollen hits the silk, “conception” takes about 24 hours, with the sperm dividing itself into two tubes, one for the sperm to slide down to fertilize the egg and the other to form the endosperm of each kernel. The silk changes color from green to reddish brown to indicate fertilization (Fussell 1992, 62-63). Despite its promiscuous pollination and high productivity, corn is not capable of self-propagation, due to the tough husks covering the seeds—thus, as Warman (2003) said, it is a nature-culture “bastard,” since “wherever it grows, it is grown by man.”

Mexico is the home of a wide variety of wild relatives of maize, the teocintle, which continue to contribute to genetic diversity. There are various species of annual and perennial teocintles throughout Mexico. The Multi-Centric Theory of maize domestication proposes that different species of teocintle, situated in different parts of the country, were domesticated independently at different times. This approach best explains the tremendous variety of maize in Mexico (Kato 2009, cited by Ceccam, Hernandez Baltázar 2014). The single origin theory, in

contrast, suggests that one species of teocintle (*Zea mays* ssp. *parviglumis*) is the progenitor, which would make the Río Balsas basin the sole center of origin. The political implications of these different approaches will become clear in Chapter 7; the multi-origin theory is well supported by recent botanical studies, as well as diverse archeological evidence suggesting domestication in multiple locations and times (ibid.). As such, it is widely accepted.

The threat exists of the “unintentional movement” or contamination of transgenes into both wild and cultivated populations. Although gene flow from domesticated maize to teocintle (*Z. m.* ssp. *mexicana*) occurs at low rates, “alleles from cultivated varieties have introgressed into teocintles over generations,” and there is clear evidence that varieties of hybrid commercial maize have introgressed into local landrace corn varieties, even when separated by significant distances (Alvarez Buylla 2004). Apparently, teocintle easily pollinates corn, but corn rarely pollinates teocintle because corn pollen is not ready when teocintle plants require it for fertilization. There are many documented cases of smallholder farmers in south-central Mexico sending landrace varieties to be planted for a season in fields full of wild teocintle to “re-invigorate” the seed (Nabhan 2008, 149).

Both teocintle and maize landraces are heavily threatened by industrial monocrop techniques, which depend on hybrid seeds and agrochemicals—herbicides, such as Roundup, are designed to kill weeds. These weeds, of course, often include wild teocintle. Because monocrops are especially vulnerable to outbreaks of pest and disease, conserving the diversity of related species means conserving potential sources of pest/disease resistance. Contamination of landrace varieties by transgenic maize seed represents merely the next phase of threat to agrobiodiversity, albeit a threat of a different magnitude and with much more serious potential consequences. But industrial hybrid seeds, already in widespread use in the country, currently present a serious,

immediate threat to agrobiodiversity.

The dynamic nature of maize cultivation and seed exchange in Mexico⁴⁶ explains the additional threat posed there by transgenic maize, as Mexican biologist Alvarez-Buylla (2004) notes:

Once transgenic varieties grow in proximity to local wild and cultivated varieties, gene flow and introgression of transgenes into these local varieties is expected. Furthermore, the individual teocintle and maize plants that carry newly introgressed transgenes can function as natural bridges for introgression into other varieties. Also, the exchange of seeds among peasants in Mexico can cause the areas in which gene flow and introgression of transgenes occur to be larger than would be expected if gene flow via pollen were the source of transgenes coming into native populations.

Farmers have the single greatest influence over genetic diversity through their seed choices (SIAP 2008). Farmers in Mexico have an estimated 33,000 varieties of *maíz criollo* or landraces, based on the seeds currently held in Mexico's two main seedbanks (SIAP 2008, 76). If farmers have access to hybrid or transgenic corn varieties and they choose to plant these varieties based on a perceived benefit, the genetic distribution of landraces will be quickly disrupted.

As Fitting persuasively argues, “The future of in situ maize conservation depends...on the livelihood practices of rural Mexicans. Maize biological diversity is affected by the social relations of production and reproduction among growers” (Fitting 2011, 5).

Generalizations about production have to take into account some key variables: irrigated (*riego*) versus rain-fed (*temporada*), north (industrial-scale farming in the U.S. style) versus south (subsistence and trade), and monocrops planted for market versus diverse milpas planted with corn and a variety of other edible plants. In conventional development terms, the driving

⁴⁶ Corn is grown very differently in the United States, and there are many documented cases of transgenic contamination that have cost individual farmers thousands of dollars (Food and Water Watch 2014). In 2014, several corn breeders announced early successful trials—using traits from teocintles—for organic varieties bred to block pollen and thus greatly reduce the risk of GM contamination (Roseboro 2014).

question would be: which system is more productive—that is, which delivers higher crop yields? The answers are more complicated than it might seem. The most productive corn fields in terms of bushels per acre are the irrigated, mechanized, monocrop fields in the north of the country and the Yucatan peninsula—where farmers grow corn/soy rotations as in US Midwest (often with GM soybeans, which are legal to plant). These areas are characterized by industrial production for industrial purposes: mainly feed for Mexico's booming concentrated animal feedlot operations (CAFOs), many of them owned by transnational corporations like US/Chinese pork giant Smithfield and US meat giant Tyson.

The highest concentration of corn producers, however, is in the mostly indigenous southern states. In fact, the majority (an estimated 70%) of corn in Mexico is grown by smallholder subsistence farmers for home-consumption and local markets.⁴⁷ And far from being grown in monocultures with a single rotation mate (soybeans), corn in the south is grown in a highly diverse milpa arrangement that includes beans, squash, chiles, and a variety of semi-domesticated herbs. Unlike the industrial-scale cornfield, the milpa produces food directly for human consumption.

The US environmental scholar Jon Foley (2013) has articulated a critique of the U.S. industrial corn system that applies to the regions of Mexico where it has taken hold:

The average Iowa cornfield has the potential to deliver more than 15 million calories per acre each year (enough to sustain 14 people per acre, with a 3,000 calorie-per-day diet, if we ate all of the corn ourselves), but with the current allocation of corn to ethanol and animal production, we end up with an estimated three million calories of food per acre per year, mainly as dairy and meat products, enough to sustain only three people per acre. That is lower than the average delivery of food calories from farms in Bangladesh, Egypt, and Vietnam.

⁴⁷ Approximately three million families are employed directly in farming, with an average of 5-6 people per household. In total, the livelihoods of an estimated 15-18 million people are dependent on farming approximately 7.1 million hectares of corn and producing between 18-24 million tons annually

Crucially, GM corn offers no advantages to *milpa* corn growers. The traits on offer—herbicide resistance and resistance to certain insects—generate at best marginal improvements, because weed and pest pressures are minimized through biodiversity. GM corn is an industrial tool for industrial agriculture: monocultures provide ideal, vast habitats for pests and weeds that flourish in contact with a particular crop, and GM traits create a temporary solution to these problems. (Temporary, because weeds and pests eventually evolve resistance to these tools, as has happened in the US GM corn/soybean duopoly; Benbrook 2012).

White corn for human consumption accounts for 94 percent of the corn grown in Mexico, while 6 percent is yellow corn for animal feed and industrial uses. There are two seasons for corn harvest, spring-summer (PV by the Spanish initials primavera-verano) and fall-winter (OI for otoño-invierno). The spring-summer planting, which is sown starting in April and harvested by December (depending on the weather and other variables) takes place during the rainy season and is over three times larger than the fall-winter planting. The fall-winter planting is sown in October and harvested by the following June. The state of Jalisco has the largest rainy season spring-summer crop, while the largest rain-fed fall-winter harvest comes from the state of Veracruz. The state of Sinaloa produces 77 percent of the winter crop, by far the largest share, as maize in that state grows on large-scale, irrigated industrial farms.

Mexico occupies a unique position of being both a major exporter and a major importer of corn—the United State produces the vast majority of the world's corn, with 40 percent of total global production, followed by China (19 percent), Brazil (6 percent) and Mexico (3 percent). Meanwhile, Mexico is the third-largest importer of corn, after Japan and Korea (SIAP 2008, 11, 94).

AGROBIODIVERSITY

According to the UN Food and Agriculture Organization's (FAO) definition:

Agrobiodiversity is the result of the interaction between the environment, genetic resources and management systems and practices used by culturally diverse peoples, and therefore land and water resources are used for production in different ways. Thus, agrobiodiversity encompasses the variety and variability of animals, plants and micro-organisms that are necessary for sustaining key functions of the agro-ecosystem, including its structure and processes for, and in support of, food production and food security (FAO, 1999a). Local knowledge and culture can therefore be considered as integral parts of agrobiodiversity, because it is the human activity of agriculture that shapes and conserves this biodiversity.⁴⁸

The number of domesticated plant species decreased dramatically (estimates ranging from 75-97 percent loss) as agriculture industrialized in the 20th century. During the thousands of years that crops have been under cultivation, “new crops...found their niche because they survived low fertility, environmental fluctuations, varying soil types, and pests and diseases” (Fowler and Mooney 1990, 22, 25). Notably, during that process, crops evolved to resist insects and bacterial and fungal pathogens. Though new hybrid varieties are superior in some respects, namely yield, they lack the breadth of resistance, or traits like cold tolerance, that landraces have. Simply put, landraces would not have survived as long as they had under harsh conditions without fertilizers or pesticides if they had not been adapting effectively, which is why they got selected and passed down through generations (Fowler and Mooney 1990, 46).

A series of epidemics in modern varieties have proven the importance of agrobiodiversity, such as the Irish potato famine in the 1840s, the coffee rust in the 1870s in Sri Lanka, cotton pest epidemics in the U.S. in the 1890s, stem rust in U.S. wheat in the early 1900s, the brown spot disease that devastated Indian rice in the 1940s, oat blight in the United States in the 1950s, corn blight in the early 1970s which, combined with a major failure of the Soviet

⁴⁸ <http://www.fao.org/docrep/007/y5609e/y5609e01.htm>, accessed September 23, 2014.

wheat crop, led to the Russian grain deal and a decisive shift away from supply management in American farm policy.

BIOTECHNOLOGY

Corn has been central to genetic understanding. American scientist Barbara McClintock had some of the earliest insights into genetic complexity from her work on transpositions, or jumping genes, in corn.⁴⁹ Corn was also key to the development of transgenic plant technology.

Biotechnology can be broadly defined as manipulating biological processes. Genetic biotechnology uses various methods to identify and transfer genes among or between species, creating intra- or trans-genic genetically modified organisms. A new series of legal rulings allowed for patenting biological materials, from the plants created to the genes themselves, and also regulatory changes, pioneered in the United States, that allowed for the production and commercial distribution of these plants (Fowler and Falcon 2002). The new methods provided the tools to identify patent infringements, and the legal structure gave patent holders a way to enforce the private holders' rights to the material under patent, and even non-patent ways, such as genetic trait control, to identify intellectual property right infringements. Together, the new technologies, property rights, and institutionalized regulatory protocols allowed for the emergence of a new property regime over plant genetics and, as I have previously argued, a new enclosure of the agrobiodiversity commons, as the inhibition of the free flow of genetic material across borders and the concentration of control for this genetic material in the hands of a few major multinationals (Wilson 2010, Nonini 2007).

⁴⁹ McClintock's discoveries in the 1940s were so far ahead of the time that she was ridiculed to the point that she stopped publishing in 1953. In 1983, she won the Nobel Prize for her contributions to genetics (Kloppenborg 2005).

Historically, the legal framework established by the federal Plant Patent Act of 1930, which gave U.S. plant breeders patent protection for asexually reproduced plants. Notably, patents at this time did not extend to the second generation of seeds (Kloppenburg 2004). In general, prior to World War II, most basic and applied seed technology originated as a public good from the non-proprietary sector, such as agricultural colleges. Hybrid maize was the exception to this; it was the first commercially available hybrid crop, marketed by Henry Wallace in 1926 by Pioneer Hi-bred in Des Moines, Iowa. Establishing property rights over seeds was key to encouraging private investment and therefore commodification. It allowed the seeds to be turned into a commodity through biological manipulation.

In 1970, the Plant Variety Protection Act gave formal intellectual property rights to seed breeders. They still, however, could not patent the second generation of the plant under this act. This changed when the U.S. Supreme Court decided the case *Diamond vs. Chakrabarty* in 1980, finding that Chakrabarty's claim to patent an oil-eating bacterium that he had developed through biotechnology was constitutional. This case was a major turning point for intellectual property rights. The Supreme Court found that a plant that was created through gene-transfer technology was patentable (Kloppenburg 2005). Six years later, in 1986, the Coordinated Framework for Regulation of Biotechnology was established in the United States. This framework provides the policy rationale for regulating GMs under existing regulation for other, similar organisms based on their function—for instance, regulate Roundup Ready corn as a pesticide like Bt, not as an entirely new organism. This decision rests on the logic that if two organisms are biochemically the same, they should be subject to the same regulation, even if they are genetically different. Despite the fact that little scientific research has been able to determine with certainty the effects of GMs in the food supply or on the environment, transgenic plants were given the official

“generally regarded as safe” (GRAS) designation, based on their substantial equivalence to already existing things. The intellectual property protocols designed in the United States have been widely adopted globally, often urged on by the US government, as the Wikileaks release of US State Department cables revealed.⁵⁰

The Chakrabarty verdict and the new regulatory framework resulted in what Fowler and Falcon (2002) have compared to a biological “land grab,” and there was an explosion of biological patent applications for transgenic plants, often with multiple patents involved in a single genetic transformation, in the 1990s. Another important point is that although intellectual property is regulated nationally, through international institutions like the WTO and the Trade Related Aspects of Intellectual Property Rights agreement, countries that did not previously have such laws were required to enact them, or find themselves in violation of trade agreements and thus subject to sanctions.

MONSANTO

Monsanto started as a chemical and pharmaceutical company in St. Louis in 1901. The company became famous for manufacturing products like 2-4D, the primary ingredient in the defoliant Agent Orange, dioxins, and PCBs, the company’s work in this area has been linked to more than 50 EPA Superfund sites (Barlett and Steele 2008). Monsanto started the move away from chemicals and toward transgenics in the 1970s, likely a response to mounting legal liabilities for the toxic effects of its chemicals, as well as to the reduced pricing power in a fast-commoditizing industry (Daniel 2003). In 1982, Monsanto won the race to genetically modify a plant cell. Roundup Ready (RR) corn was the first commercially successful transgenic plant technology.

⁵⁰ http://documents.foodandwaterwatch.org/doc/Biotech_Report_US.pdf, accessed March 21, 2015.

Although it moved away from industrial chemicals, Monsanto continued to manufacture agrichemicals, most notably the herbicide Roundup,⁵¹ made from the chemical glyphosate (*N*-(phosphonomethyl)glycine), which stops a plant's production of the growth enzyme EPSP synthase. Since practically every plant requires this enzyme to grow, glyphosate kills all plants it touches, except those genetically modified to withstand it, marketed as "Roundup Ready" or Herbicide Tolerant (HT). Thus, instead of weeding, farmers using Round-up Ready (RR) seeds can spray their entire fields with the wide-spectrum herbicide glyphosate, and only the desired crops should be left standing. However, despite the company's claims that weeds would not become resistant to the herbicide, within the first few years of regular exposure to glyphosate, resistance emerged in some weeds. Given this advantage, these resistant weeds reproduced quickly. Getting rid of these so-called "super weeds" requires either applying increasingly toxic chemicals, physically burning the weeds, or intensive hand-labor to pull them out. In 2014, Monsanto succeeded in gaining USDA approval for varieties of corn and soy that can withstand the much stronger herbicide 2-4D (essential component of Agent Orange), marketed under the brand Enlist, for planting in areas where weeds have become resistant to Roundup (Philpott 2014). This chemical intensification will surely lead to the emergence of even stronger super weeds. Meanwhile, in 2015, the International Agency for Research on Cancer, which operates under the World Health Organization, declared glyphosate a "probable carcinogen" after reviewing the relevant toxicology research.⁵²

⁵¹ Although Monsanto's patent on Roundup expired in 2000, it remains one of the company's most famous products. In Mexico, Faena is the most common brand name under which glyphosate is marketed, and like "Roundup" in the States, is a generalized name for herbicide.

⁵² <http://www.thelancet.com/journals/lanonc/article/PIIS1470-2045%2815%2970134-8/fulltext> accessed March 21, 2015.

In addition to HT/Roundup Ready corn, the other main class of genetically modified maize is “Bt,” achieved by inserting the soil bacterium *Bacillus thuringiensis* (Bt) into the plant. The *CryIAb* gene produces a Bt protein that is targeted at killing the corn borer insect when it eats the plant. Now, many maize seeds are “stacked” with both Bt and HT traits. And of course, resistance to the insecticide has emerged, and rapidly; by 2013, resistance had been reported for five of 13 major pest species previously controlled by Bt, compared with resistant populations of only one pest species in 2005 (Tabashnik et al. 2013).

Since the late 1990s, Monsanto has aggressively purchased existing conventional seed companies, with the goal of vertically integrating seed and agrochemical production. Then expansion of intellectual property rights facilitated the creation of new products and technologies, which led to second wave of investment in biotech startups. The plant biotech industry ended up dominated by six firms by the end of the 1990s: Monsanto, Aventis, Dupont, Seminis, Dow, and Syngenta.

In addition to the intense concentration into the hands of a few major companies, patent restrictions significantly reduce the possibility for public-interest research. Because Monsanto controls plant and gene patents, any research institution that wants to use traits they have patented has to have a commercial relationship with them. Their focus on profitability has meant that the research that does happen on new types of seeds is focused on innovations that tie seeds to inputs (as in Roundup Ready products). And, these companies also patent non-GMO plants, so that they have the ability to withhold competing seeds from the market, which increases their profit margins and seriously impacts biodiversity.

From the first commercial introduction of transgenic corn in 1996, the rise to market dominance was explosive—within 10 years, the corn and soy market in the US was respectively

over 60 and 90 percent transgenic (USDA ERS 2014). By 2014, over 90 percent of U.S. corn production was genetically modified (ibid.).⁵³

NAFTA AND MAIZE IN MEXICO

Before NAFTA took effect in 1994, commenters on both sides of the issue—activists, academics and politicians, both those in favor and those against it—agreed that the free trade agreement would greatly affect the domestic corn sector. And in fact, the country’s dependence on food imports has increased dramatically since 1994. Since 2005, an average of 40 percent of the required annual corn supply has come from imports (Appendini 2013). In 2011, the year of the climatic double-punch of a late freeze and drought, almost 50 percent (8.7 million tons) of the annual supply of corn was imported, including a significant portion, likely transgenic, from South Africa.

So, despite the fact that Mexico has spent literally billions of dollars on farm subsidies in the years following NAFTA (more than half of which went to the richest 10 percent of producers; Fox and Haight 2010, 15, citing the World Bank 2009), the country has been dependent on corn imports from the United States since the mid-1980s (Barkin 1987). The majority of the imported corn is used to feed animals, not for human consumption.

At the same time, despite soaring imports over the last 20 years, the total national area planted in corn has remained steady at approximately 7.8 million hectares. The annual average production between 2009 and 2011 was 20.2 million tons of (mostly white) corn, an increase over the 1990 production of 14.6 million tons. This increase was primarily achieved through expanded irrigation.

Given the tremendous quantity of corn imported from the United States and considering

⁵³ <http://www.ers.usda.gov/data-products/adoption-of-genetically-engineered-crops-in-the-us/recent-trends-in-ge-adoption.aspx#.VCHELLwwKaZ>, accessed September 23, 2014.

that transgenic corn was first planted commercially in the United States in 1996, the presence of GM corn has long been a reality in Mexico. Thousands of hectares of GM corn are estimated to have been planted both intentionally and accidentally throughout the country, even before permits for experimental plantings were granted (Rosenberg 2008).

THE AGRICULTURAL CRISIS OF 2011: A GLIMPSE OF THE FUTURE?

In 2011, the Mexican government's withdrawal of support for its own campo and the growing reliance on imported US corn for livestock intersected with a force that scientists expect to become increasingly common as climate change proceeds apace: erratic weather. The result was disastrous: a food crisis that received little attention in the US press. Frost, flood, and drought ravaged crops and ranches. In February, a frost (the coldest temperatures since 1956) in Sinaloa harmed about 800,000 hectares, of which 520,000 was corn, just before the harvest in the fall-winter crop cycle. Growers scrambled and patched together credit to replant 320,000 hectares, for which they had to consume more water, exerting extra pressure on the dams (the reservoirs were at about 40% capacity – replanting required “robbing” water that should have gone into the following spring-summer 2011 planting cycle). The freeze caused production to go down from approximately 5 million tons to 3.5 million tons for the fall-winter 2011 harvest. The dams did not refill at any point in 2011 because of the drought, which became the worst drought in over 70 years, affecting more than half the country.

Because of this water scarcity, only two-thirds of the land normally under cultivation was planted in the 2011 spring-summer crop cycle. Again, production took a dramatic loss—down by half, to 2.8 million tons, instead of the usual average of over 5 million tons (Valdez Cardenas 2012). The majority of corn produced in Sinaloa is non-GM white corn for human consumption, and the 5-6 million tons normally harvested supply about 20 percent of the Mexican market in a

good year.⁵⁴

Sinaloa was not the only area to suffer agricultural problems due to severe weather in 2011. Late frosts hit Veracruz and Puebla throughout the mid-summer planting season. All told, around one million hectares, one-seventh of the total, was lost to bad weather in 2011.

The erratic weather severely damaged national agricultural production. The total corn harvest for 2011 barely reached 17.6 million tons, the lowest in a decade. The United States also suffered major losses in production due to drought that year, causing price spikes on the international market and increased speculation in commodity food markets (Kaufman 2010). As a result, millions of Mexicans were priced out of the tortilla market and pushed into cheaper, less nutritious substitutes, including U.S.-made junk food.⁵⁵

⁵⁴ Mexico currently consumes approximately 28 million tons of maize per year, growing 21-23 million tons, and importing the rest.

⁵⁵ http://www.theecologist.org/trial_investigations/1051194/mexicos_poor_suffer_as_food_speculation_fuels_tortilla_crisis.html accessed March 21, 2015.

CHAPTER 4 ANTHROPOLOGY AND RURAL MEXICO

Questions about the future of the campo have framed Mexican politics since the 1910 Revolution. Social movement actors have framed the debate over GM maize as the latest iteration of a century-long question: Will the peasantry disappear? What will the rural campo look like? This chapter addresses the co-development of Mexican and U.S. anthropology and the so-called “peasant question.”

The history of Mexican anthropology is relevant for this project because the questions motivating my research are directly implicated in this context—their emergence as questions to be thought or asked depends on this context. Additionally, the story of Mexican anthropology is fundamental to understanding the history of the discipline as it developed in North America in the 20th century.

An additional theoretical underpinning for the inclusion of this discussion of background is the insight that the state is always connected to social problems, and the topics (and perceptions of topics) people choose to study are established and sustained by concrete actions of the state (Krotz 2006, 90).

By approaching rural Mexico as a spatial imaginary (Wolford 2004), this section aims to highlight the complex power dynamics at work in anthropological knowledge production in Mexico, both historically and in contemporary times. The *campo Mexicano* can be analyzed as a collective cognitive framework through which questions about progress, social change, and the relationships between individuals and the state come to be understood. My negotiation of these

questions, and the problematization of research subjects and objects, were indicated in the methodology section in the Introduction. The subsequent section will discuss the peasant question and conclude by linking both parts to questions of agriculture and development.

ANTHROPOLOGY AND MEXICO

The work of three key social scientists provides parallel support for this section: Mexican anthropologists Guillermo Bonfil Batalla (1935-1991, INAH director) and Esteban Krotz (Universidad Autónoma de Yucatán), and American sociologist Cynthia Hewitt de Alcántara (at the Colegio de Mexico, in Mexico since 1966).

Hewitt de Alcántara's work *Anthropological Perspectives on Rural Mexico* (1984) is a meta-analysis of 20th century anthropology through the lens of Mexico.⁵⁶ Hewitt de Alcántara's original project to analyze the anthropological and sociological literature on changing livelihoods in the post-revolutionary Mexican countryside shifted to become a map of the epistemological structures within which 20th century anthropological research took place in Mexico—a history of ideas, the “evolution of non-peasant perceptions of critical aspects of rural life” (Hewitt de Alcántara 1984, xi).

Changes in anthropological theory led to significant changes in the analytical categories through which social scientists perceived the experience of rural life, with direct effects on the Mexican government's rural policies. Hewitt focuses especially on the perceived failures of each explanatory framework to “reconstruct the course of social change in the countryside” (ibid., 5). The fundamental question running between the various analytic frameworks for looking at rural Mexico has been the relationship between urban and rural, particularly notable through the

⁵⁶ This book followed on the heels of her 1976 report to the United Nations, which blamed the Rockefeller foundation's focus on irrigation for the decline of the ejido and food self-sufficiency; with this critique, she personally angered Borlaug (Cullather 2010, 68-69).

framing of the “peasant question.”

Larger theoretical debates within anthropology can be seen playing out on the stage of Mexico. Hewitt explores how ideas about social change were projected onto rural Mexico, including the relative importance of the mental versus the material in determining society, and how perceptions of progress as unilinear and inevitable shaped the framework of social science questions.

In the colonial context, the “confrontation of the civilizations” brought by the Spanish invasion meant the debate about the status of the indigenous population was present from the beginning (Krotz 2006, 93). The Mexican War of Independence (1810-1821) initiated the liberal discourse of independent Mexico. This discourse did not include a distinction between citizens based on ethnicity, with the effect that indigenous/mestizo people got subsumed into the “rural” population. For 19th century anthropologists in Mexico, “culture” was understood basically on the terms of the “complex whole” as defined by Tylor in 1871 (whose trip to Mexico in 1855 to recover from tuberculosis inspired his interest in anthropology).⁵⁷

Bonfil Batalla’s best-known book *El México Profundo: Una Civilización Negada* (1987) analyzes the history of Mexico since the arrival of the Europeans as an unending battle between the Western and Mesoamerican civilizations (Krotz 2006, 97-98). He makes a fundamental argument about colonialism, through which the category “indigenous” was created. His argument that there is a “profound” Mexico, with deep roots in the pre-colonial era, and an “imaginary” Mexico (of modernity) is often misinterpreted or romanticized as an *a priori* analysis of indigenous equals good; modern equals bad. But Bonfil makes a more complex, non-binary argument about the foundational plurality of the Americas. The most important part of

⁵⁷ http://en.wikipedia.org/wiki/Edward_Burnett_Tylor accessed November 24, 2013.

Bonfil's book was re-orienting the "indigenous problem" not as an obstacle caused by the backwardness of a demographic minority, but instead as a challenge to the national model (Krotz 2006).

INDIANS BECOME CAMPESINOS

Increasing pressure, largely from agrarian crises, ignited the Mexican Revolution. A key theoretical underpinning of the Mexican Revolution (1910-17) was a liberal faith in progress (Hewitt de Alcántara 1984, 9). After the revolution, the government saw the indigenous population as something to be integrated as quickly as possible into a homogenous nation-state, and the new field of anthropology, with its focus on "culture," was the means to this end. Under the idea of progress, positivism, and unilinear evolution, the answer to rural problems was agrarian reform and industrialization (ibid). The "indigenous" question did not emerge as separate from the "rural" question until the post-1968 opening of identity-politics in the country, which faded in the 1980s when the push towards economic neoliberalization. Indigeneity emerged in a fundamentally different way after 1994, when the indigenous themselves demanded attention on their own terms, as the Zapatista rebellion so clearly articulated (Krotz 2006, 99). The events in Chiapas in 1994 fundamentally changed the discourse over the campo (de Ita 1994, 174).

The dominant 20th century conception of culture in Mexico, and alongside it cultural relativism, emerged from the influence of Franz Boas, who personally founded the first school of anthropology in Mexico in 1909 (quickly closed by the revolution).⁵⁸ Cultural relativism stood in

⁵⁸ The first anthropological institution in Mexico was the National Museum of Natural History, Archeology and History, founded in 1865.

opposition to the then-prevalent Western conception of race as inherently hierarchical.⁵⁹

Elements of this approach can be found in post-revolutionary Mexico's 1917 constitution (still in effect today, though modified many times), which was the first constitution in the world to establish social rights, not just individual rights. Unique in Latin America, it established agrarian reform (Article 27) and a progressive educational policy (Article 3). Indigenous populations were not mentioned in the constitution; however, these two articles became the “principle axes around which indigenous activity would spin” (Krotz 2006, 94).

Post-revolutionary Mexican anthropology, despite its earlier roots in Boasian relativism, was deeply shaped by the idea of progress. Manuel Gamio, Boas' student, started the first major post-war anthropological project at Teotihuacan in 1917, integrating archeological excavation of the ruins, ethnography with the local inhabitants, and community development to improve their living conditions. The local people worked under exploitative conditions on haciendas producing food for sale in Mexico City (Hewitt de Alcántara 1984, 11). Gamio analyzed the problems in Teotihuacan as related to culture—the population's “outdated” way of life had to be changed so the people could become incorporated into contemporary modern life. This initial project set the course for the future of anthropology in Mexico, fundamentally integrating assumptions about social improvement and progress into the research agenda. Anthropology in Mexico was applied from the beginning, with the goal of “improving” the lives of indigenous.

⁵⁹ In the broadest terms, functional anthropology (following Malinowski) was a response to the colonial/imperial logic of placing groups of people on the scale of progress, ranging from savage to civilized. Cultural relativism approached people's behavior as inherently sensible and functioning through an internal logic—they were not simply child-like or uncivilized people waiting to become westernized. But functionalism tended to hold people in a static moment of time, apart from colonial history, for example, and made a priority of harmonizing every component of culture. Thus the perception of relative conflict versus harmony is directly connected to the perspective of analysis—an anthropologist influenced by Marxism would see conflict over power, poverty and resource distribution, whereas another anthropologist looking at the same situation through the lens of cultural relativism would see harmony and simplicity.

EDUCATION

Education was seen as the key to creating the cultural change necessary to improve people's lives. To this day, the importance of teachers and the education system to understanding events in Mexico cannot be overstated. As Hewitt de Alcántara writes, rural schools became the “laboratories for experimentation in socioeconomic change, and rural teachers were to serve the interests of the whole population, rather than limiting their contribution to the traditional field of formal instruction, in order to raise living standards and incorporate rural/indigenous people into the mainstream,” (Hewitt de Alcántara 1984, 14). The near-total triumph of this approach can be seen by the fact the government completely replaced the anthropology directorate with the Ministry of Education in 1925.

The next key shift came with the presidency of Lázaro Cárdenas (1934-40), who fundamentally transformed Mexican society. With respect to rural Mexico, Cárdenas broke apart large land-holdings and redistributed land through ejidos, as discussed in Chapter 3. “Indigenismo” (first tested at the Teotihuacan site over a decade before) expanded under Cárdenas, with the guiding framework that the many dozens of indigenous groups in Mexico—there are 62 officially registered languages—were “culturally distinct” and required individualized study in order to understand how to best fix their livelihood problems, either through complete incorporation or through the preservation of some useful cultural elements (Hewitt de Alcántara 1984, 13). Contemporary Mexican anthropology can be directly traced to this project, with Cardenas founding the National Institute of Anthropology and History (INAH) in the late 1930s and the national school of anthropology and history (ENAH) in 1942.

MEXICO, MARX, AND THEORIZING THE PEASANTRY—ERIC WOLF

In the 1950s, American anthropologist Eric Wolf undertook a highly influential big-picture analysis of the changing forms of “sociocultural integration” in Mesoamerica, from pre-Conquest to the present, drawing on the empirical work of anthropologists in the 1930s and ‘40s that emerged from Robert Redfield’s foundational work on acculturation and “folk” taxonomies and the subsequent challenges coming from Ralph Beals, Oscar Lewis and Sol Tax on one hand, and George Foster, among others, on the other hand.

Wolf built on the “cultural ecology” methodology his advisor Julian Steward developed in the 1940s, adding significant insights from Marx. His overarching contribution was to challenge the understanding of capitalism as a mode of production and instead approach it as a “culture,” based on Steward’s understanding of “culture” as an “adaptive system developed by particular groups of people confronting particular ecological and historical situations,” (Hewitt de Alcántara 1984, 93).

He defined “peasants” in terms of a structural relationship (replacing Redfield’s “folk”) and described the Latin American peasantry in terms of seven ideal types, most famously describing the open versus closed “corporate community.” A closed corporate community is characterized by “relationships...bounded by a common structure,” namely, the need to control the land required for survival, leading to endogamy, territoriality, and religious ceremonies that mandated high levels of ceremonial expenditures, all to level society, keep outsiders separate, and promote village autonomy (Wolf 1955, 463).

Wolf identified the economic depression of the seventeenth century as the most significant element in creating the two dominant social structures in Mesoamerica, the hacienda and the “Indian community” (as he called it, and which I will echo in this section). Both

represented processes of ruralization and retrenchment to ensure subsistence in the face of the economic crisis. This approach represented a major shift in the focus of anthropological research, which previously had tended to approach the social and cultural organization of indigenous communities as reflective of a “timeless harmony of interests among members of isolated rural settlements,” (Hewitt de Alcántara 1984, 74). Instead, paralleling the work of Aguirre Beltrán in Mexico, Wolf showed the symbiotic creation and interdependent coexistence between indigenous institutions and the surrounding Spanish or mestizo economy and society (ibid, 75). Wolf pointed out the simultaneous coexistence and dynamic of capitalist and precapitalist modes of production, as the hacienda could not survive without the labor of the Indian communities, and vice versa.

In his later work, the influential *Peasant Wars of the Twentieth Century* (1969), Wolf further analyzes the roots of the 1910 Mexican Revolution in the organization of labor put in place by Spanish conquistadores to force indigenous people to work on haciendas. He writes, “More than any other revolution of the twentieth century, therefore, [the Mexican Revolution] grants us insight into the conditions of imbalance which underlie a revolutionary epoch,” (Wolf 1969, 26). On haciendas, both indentured workers and workers from adjacent Indian communities were often paid with the use of land they could farm for their own subsistence; additionally, indigenous communities recalled the limited protections they had under the Spanish colonial rule, when communities were granted land under communal administration (Wolf 1969, 4). He writes, “The Spaniards had reinforced the cohesion of the Indian communities by granting them a measure of land and demanding that they make themselves responsible collectively for payments of dues and for the maintenance of social order [through the cargo system]...Power was thus less individual than communal,” (Wolf 1969, 16). Tensions rose after the 1810

declaration of independence from Spain, particularly when the 1856-7 reform laws changed the ownership structure of agricultural land, breaking up church property and also the communal lands held by indigenous communities, allowing haciendas to expand by taking communal land. He writes, “Land was thus turned into a marketable commodity, capable of being sold or mortgaged into payment of debts,” (Wolf 1969, 16). Drawing on Polanyi and Mexican anthropologist Angel Palerm, Wolf saw the global confrontation between capitalist and peasant sociocultural systems as inevitable and basically tragic for peasants, leading to instability and, in consistent patterns, to revolution.

Wolf’s interpretation of the impact of the culture of capitalism on the livelihoods of the peasantry in general influenced all future scholarship on these questions—although in Mexico, it took almost two decades and the major crisis of 1968 for his approach to have an effect on the generally conservative Mexican anthropological institutions. As Hewitt de Alcántara points out, “It is ironic that a paradigm so indebted to scrutiny of the Mexican experience was employed by only a small minority of the anthropological profession in that country...”(ibid.,95).

After the rupture of 1968, critiques of the previous approaches to Mexican anthropology began to emerge. Marxism, and specifically dependency theory—most broadly, approaching local issues through global processes of exploitation and domination—became the dominant theoretical framework for critical Mexican anthropology (Krotz 2006, 96). Indigenismo was denounced as an unacceptable instrument of “westernization and modernization” of the indigenous. However, the use of a global-class lens for analysis had the (unintended) effect of making indigenous people again invisible—indigenous people ceased to be an object of study, replaced by the study of the peasant population. Orthodox Marxism was short-lived in Mexico, as the multiple relations of exploitation and oppression in effect in the countryside were not

explainable by strict frameworks, although it had a profound influence through the late 20th century. Orthodox Marxists “refused to recognize in non-capitalist forms of production anything except pre-capitalist survivals and they objected to the multi-lineal model of evolution, contrasting it...with the idea of the necessary conversion of the peasant and indigenous population into proletarians” (Krotz 2006, 100).

At the same time, the 1970s was the time of rapid urbanization, when the country became majority urban, and many anthropologists began to work on urban and labor issues, in search of the new social subjects that would bring about a longed-for social transformation (ibid.). The search for new models meant the work of Gramsci played an influential role, following the Spanish translation and availability in Mexico of the *Prison Notebooks* in the 1980s. Under the influence of Gramscian Marxism, the word “culture” and particularly “popular culture” reappeared in Mexican anthropology during this period, as a way to connect micro-scale studies with global frame of analysis from a class perspective (ibid.). Mexico was also, crucially, a place that collected political exiles and refugees from around the world, many of them heterodox or renegade leftists from all over South America and Europe, greatly influencing understandings of social change.⁶⁰

THE “PEASANT” QUESTION

As discussed the section above, modernity and the birth of the Mexican nation-state are deeply intertwined with both the roots of North American anthropology and the theoretical landscape in which the particular form of the “agrarian question” took shape in Mexico. The

⁶⁰ President Cárdenas gave asylum to Leon Trotsky in 1936, along with tens of thousands of Spanish refugees during the Spanish Civil War, including Luis Buñuel. Other famous exiles include Pablo Freire, Ivan Illich, and Che Guevara. Mexico was a magnet for a long list of writers, artists, architects, musicians, and intellectuals of the left throughout the 20th century, including Andre Breton, the American Beat poets, and Roberto Bolaño.

extended 31-year dictatorship of Porfirio Díaz (1876-1911) was characterized by the state's focus on anything declared to be progress, particularly visible in the rapid urbanization of the last decade of the Porfiriato before the revolution. That is to say, urbanization can be seen to have brought the rural question into existence. This question has been posed explicitly in terms of progress and the "future" throughout the twentieth century—both the future of the nation-state, and the future of the revolution, has been seen as dependent on what happens in the countryside.

The agrarian question was a preoccupation for both liberals and socialists; the liberal position saw "rural 'backwardness' a basic impediment to progress," whereas socialists saw rural suffering as a consequence of the exploitation of capitalist agriculture (Hewitt de Alcántara 1984, 8). Neither perspective recognized indigeneity, although the notion of "culture" was an inherent part of the discourse of race, through the lens of the colonial caste system based on differentiating "Indians" from mestizos and creoles (ibid).

As Bernstein and Byres (2001) note in a definitive literature review of the "peasant question," the emergence of the transition to capitalism as a research object in the 1970s and 80s is intimately tied to the post-colonial landscape. In Mexico, the agrarian question took form in the debate between the *campesinistas* and the *descampesinistas*. The *campesinistas* (led in Mexico by Roger Bartra) followed the Chayanov analysis that peasants would not need to become proletarians to become revolutionaries, whereas the *descampesinista* (led by his cousin Armando Bartra) followed the Marx/Lenin analysis that proletarianization through industrial labor was necessary for the consciousness-raising that would end in the revolution.

THEORETICAL BACKGROUND: THE QUESTION OF THE STATE

Answers to the "peasant question" depend upon a theory of "the state"—the question can be reformulated as, what role do peasants occupy in modern/modernizing societies, based on

differing conceptions of the state?

Lenin (1870-1924) published *The State and Revolution* in 1917, one month before the October Revolution, in an “excavation [of Marx]...to bring undistorted Marxism to the knowledge of the masses” (Lenin 1951, 89). He also intended to challenge the liberals, the bourgeois, and all others who would distort Marx to suit their own class interests. In this pamphlet, whose writing was interrupted by the Russian Revolution, Lenin extensively quotes and contextualizes Marx’s writings about the state, setting his prime task: “to *re-establish* what Marx really taught on the subject of the state” (Lenin 1951, 12, all italics in original). The following discussion is heavily paraphrased from Lenin, quoting Marx and Engels:

The state is not a power forced on society from outside, but instead it is “the product of a society at a certain stage of development” (Lenin 1951,13). The state is an instrument for the exploitation of the oppressed class, and though it is seen as a power standing above society (to moderate relations between classes with conflicting economic interests), in reality it is:

the product and manifestation of the irreconcilability of class antagonisms. The state arises where, when, and to the extent that class antagonisms objectively *cannot* be reconciled. And, conversely, the existence of the state proves that the class antagonisms are irreconcilable. (Lenin 1951, 14)

If “[t]he state is an organ of class *rule*, an organ for the *oppression* of one class by another,” then liberation of the oppressed class is only possible by a violent smashing of the state machine (Lenin 1951, 15). This necessarily violent revolution against the state will first result in the replacement of the armed bodies (armies, prisons) that serve the state (the army enforces the ‘order’ required by the state, which legalizes and perpetuates the state’s oppression by moderating the conflict between classes) by the armed masses (led by the proletariat). What follows is a transitional dictatorship of the proletariat, which is vital to completely abolish all exploitation, that is, the interests of landlords and capitalists.

The next phase will be the “withering away of the state” since the state’s very function is the oppression of one class by another, when a classless society has been achieved the state necessarily will crumble.⁶¹ Lenin claims that some commentators have misused the “withering away” of the state as a means of toning down revolution: this is a misconception. Instead, the proletariat needs centralized and organized state power “both to crush the resistance of the exploiters and to lead the enormous mass of the population—the peasantry, the petty bourgeoisie, the semiproletarians—in the work of organizing socialist economy” (Lenin 1951, 43). This conception of the state is a key component of Marx’s theory of the revolutionary role of the proletariat in history. Lenin cites the brutal crushing of the 1871 Paris Commune uprising as an example of why the dictatorship of the proletariat is essential; the capitalists will stop at nothing to reassert their control, and the proletariat must be prepared to defend itself using violence.

The mechanistic, deterministic aspect of Marx’s theory cannot be overemphasized: at every step, there is only one path, the rule of the bourgeois can *only* be overthrown by the proletariat, the revolution can *only* be violent, and it is “only the proletariat—by virtue of the economic role it plays in large-scale production—[that] is capable of being the leader of *all* the toiling and exploited masses” (Lenin 1951, 42). The proletariat will form a dictatorship, which will abolish exploitation and upon victory necessarily begin to wither away. Lenin writes, “So long as the state exists there is no freedom. When there will be freedom, there will be no state” (Lenin 1951, 152).

Antonio Gramsci (1891-1937) began writing around the time Lenin published *The State*

⁶¹ This idea is widely quoted and customarily adulterated (as Lenin puts it), and it’s a key distinction between Marxists and anarchists. Anarchists believe the state must be abolished, but abolishment is meaningless in Marxism, since the state is meaningless without class antagonism; instead the state withers away as it increasingly becomes meaningless (Lenin 1951, 27-30).

and Revolution, and his work reflected the split that had emerged within the socialist movement between those who expected an imminent global socialist revolution (touched off by Russia) and those who favored reform strategies. Gramsci set out to understand the collapse of the European left after 1920, how capitalism stabilized itself, and how the working class could win power (Forgacs 1988, 24).

Gramsci agreed with Lenin's broad analysis that the state must be smashed and replaced by a socialist state, not reformed (or collaborated with, as he put it). His analysis of the state is more dynamic than Lenin's, as he aims to deal with the particularities and recent history of the Italian state, not "the state" per se.

Gramsci writes that Marx's theory of revolution was "contaminated by positivist and naturalist incrustations" (Gramsci 1988, 33). Because of Marx's pre-determined path to revolution, Gramsci writes that in Russia, Marx's *Capital* was "more the book of the bourgeoisie than of the proletariat"—the Russian bourgeoisie justified their own existence as an essential step to the revolution, since the capitalist era had to come into being "before the proletariat could even think in terms of their own revolt" (Gramsci 1988, 33).

Addressing the "peasant question," Lenin defines the "people" as made up of the proletariat and the peasantry, united by the fact that the "'bureaucratic-military state machine' oppresses, crushes, exploits them" (Lenin 1951, 65). The bourgeoisie oppress the proletariat less than the other masses; however, only the proletariat (not the peasantry) is capable of "waging an *independent* struggle for their emancipation" (Lenin 1951, 43, italics in original).

In "Beyond the Agrarian Question in Latin America" (1993), anthropologist William Roseberry critiques the assumptions behind this theory of peasants' inability to affect revolution, especially in the context of how it was applied to Latin America in the 20th century. Roseberry

argues that scholars have largely superimposed a theory of peasant political economy derived from a particular historical location—pre-Revolutionary Russia—onto Latin America. In doing so, they have told a story about Latin America that fails to understand the “manifold ways whereby peasants have continuously engaged their political worlds” (Roseberry 1993, 318, 320). While Roseberry’s critique clearly implicates Marxist scholars, it also applies to non-Marxists who, as Roseberry proves, are part of the same transhistorical peasant discourse.

The context for much of “the agrarian question” can be found in the wake of the 1959 Cuban Revolution, when Cubans encouraged the emergence of rural *guerrilla* movements in various Latin American countries, knowing their revolution required regional support to survive. Both left- and right-wing observers generally accepted the existence of a rural crisis—the left hoping for the emergence of the revolution from the countryside; the right hoping for rural and urban development without revolution. From the beginning, diverse revolutionaries and developmentalists were motivated to study the agrarian question by opposing theoretical frameworks.

A key element is the debate about whether peasants were independent of the capitalist sector or were a class within different modes of production. This debate basically takes place within the competing frameworks of Russian thinkers Chayanov and Lenin. The Chayanov model is more interested in the internal dynamics of peasant agriculture, thus its focus on peasant decision-making. The Lenin model appeals to those interested in proletarianization.⁶²

⁶² Neither Lenin nor Chayanov’s studies of the Russian countryside could have taken place outside the Russian land reforms of 1861, which replaced the junker estates with household and community (*mir*) landholding. By the 1870s, local assemblies (*zemstvos*) began collecting census data, which provided information for the late-nineteenth century peasant question raised between two groups of Marxists: populists who saw the peasants as a bridge to socialism (which could bypass the capitalist stage, as analyzed by Polanyi), and another group who saw that the same laws of capitalist development working in Russia would require the end of the peasantry.

The very act of applying Lenin or Chayanov's flawed universal historical models to Latin America is a problem, Roseberry argues. The agrarian question was political and arose from a threatened, or hoped-for, socialist transformation, but there were important differences between the Russian and the Latin American histories and social structures. The "agrarian question" was actually a number of questions—but it was fundamentally "a political question that was given a primarily economic answer" (Roseberry 1993, 336).

THE MEXICAN REVOLUTION AND THE MEXICAN STATE

When Mexican rebels toppled the government of Porfirio Diaz in 1910, they achieved the 20th century's first major revolution. But for all its populist energy and campesino foment, the Mexican Revolution did not, in the end, fully empower the peasant or working classes, at least not in any clear or durable sense. "Campesinos" emerged from the Revolution as a semi-protected political class within the state apparatus (intentionally absorbing "indigenous" and other differences into a single category, as will be analyzed in the following chapter in greater detail), with gains in terms of land access and tenure; but they gained little traction in the process of post-Revolutionary state formation. As the state evolved in the post-revolutionary decades, an emerging political elite, flush with oil revenue, began to view campesinos as a relic of a pre-modern past—and campesinos' claims to state protection began to be subordinated to those of large-scale agribusiness, along the Green Revolution model of maximized production and monocrops (Assies 2008, 44). Mexico is the only country in Latin America whose every major revolution has been linked to "popular rural upheaval," which in each case, "resulted in the formation of states where campesinos (and urban workers) played a subordinate role" (Joseph and Nugent 1994, loc. 693, citing Katz 1981). The paradox that motivates much study of the Mexican Revolution is how a "popular" revolution gave birth to an authoritarian state apparatus

and dominant political party, the Institutionalized Party of the Revolution (PRI), which managed, in the end, to subordinate peasants and workers in new ways.

The revolutionary legacy is relevant to contemporary dynamics of interactions between social movement processes and the state. During my research, I repeatedly heard references to the “birth of Mexico in a campesino revolution,” with the implication that the countryside is a source of social change, and the power of campesinos to launch another revolution should not be underestimated.

Although I refer colloquially to “the Mexican State” in this text, reflecting the everyday usage of the term, I want to clarify that is a shorthand to refer to the “practice” of state formation (Foucault 2009). The “state” is not a thing or an object to be studied; it is a set of social relations, and a form for regulating power. The state is “an ideological project (rather than an agency that has such projects),” (Sayer 1994, loc. 7815). From this perspective, “State formation [is] above all a cultural process with manifest consequences in the material world,” (Joseph and Nugent 1994, loc. 862).

Historian Gilbert Joseph has critically analyzed the Mexican Revolution decade by decade through the twentieth century, as it became embedded in and came to define the practices that make up the Mexican State. Between 1910-1920, at least one million (and perhaps 1.5 million) people died in the revolutionary struggle. With the success of the Constitutionalists by 1920 (Obregón and Calles), the Mexican State began to consolidate, and local conflicts over land, labor, political control, markets and natural resources, as well as the “shape that ethnic and gender relations, and citizenship itself, would take” became official projects of state and nation formation (Joseph and Buchenau 2013, 198). During the decade of the 1920s-1930s, the Mexican Revolution was used for “political incorporation, commitment to social reform, and the cultural

politics of nation-building,” exemplified by the land redistribution of the Cárdenas years (ibid.). The 1940s saw the nation moving to the right, and the “business of the Revolution literally became business” under Miguel Alemán’s developmentalist regime. The wealth created by the oil boom and import-substitution industrialization policies allowed the Mexican State/PRI to maintain the “perfect dictatorship,” through political patronage and social spending, and allowed the dominant power elite to weather the crises of 1968 and the Tlateloco student massacre. The economic crisis of 1982 represented the end of the PRI’s commitment to “revolutionary stewardship,” and the 1982-1992 decade brought the privatization (at bargain prices to political allies) of telecommunications and banks, and the reform of Article 27 of the Constitution, officially privatizing land previously held collectively (Joseph and Buchenau 2013, 200).

Over the course of these decades, Wolf observed, “The government party has become as much an instrument of control as an instrument of representation,” with the executive branch playing regional interest groups off each other. The Mexican Revolution produced “a new and stable center of power, from the manifold contradictions and oppositions of the past,” (Wolf 1969, 46).

Joseph et al. attribute the seven decades of PRI rule to its cultural projects rooted in the discourse of the Mexican Revolution, which encompassed control over education, art and museums, and the media (through subsidies and censorship), although the violent reality of authoritarian rule was always present and should not be underestimated (Joseph and Buchenau 2013, 200). The project of national unity drew on a “shared mythology” that brought Mexicans together through connecting to the Revolution, which in turn changed the formation of the Mexican state: “It has been the revolutionary state’s partial incorporation of insistent popular demands that helps distinguish Mexico” (ibid., 204).

Joseph and Nugent (1994) present an analytic framework for studying the effects of Mexican Revolution through the relational dynamics between popular culture and state formation; this approach is helpful to understanding the contemporary dynamics between social movement processes and the state in terms of structure and (collective) agency. They reject an understanding of the revolution as “an event” and instead approach it as a culturally complex, historically generated “process.” They aim to combine the “views from above and below,” what they call “bringing the state back in without leaving the people out” (Joseph and Nugent 1994, loc. 836). Their project emerges from an attempt to reconcile the two main conceptual approaches that have dominated research on revolutionary Mexico, what they designate as “revisionist” vs. “neo-populist” (or “post-revisionist”) (which both exist in contrast to the older, orthodox view; *ibid.*, loc. 737). Revisionist interpretations, exemplified by the work of people like John Womack and Gilbert Joseph, “appeared in large part as a response to the historical crisis of the Mexican state after 1968” (*ibid.*, loc. 759), and argue the revolution was quickly taken over by “aspiring bourgeois” who “co-opted and manipulated the masses of peasants and workers” (*ibid.*, loc. 737). The revisionists were important in connecting the political-economic context of the Mexican revolution in regional and world systems terms, but the critique Joseph and Nugent put forward is that the revisionists were unsuccessful at seeing the grassroots. Knight (1986) and Gilly (1971) are two of the key neo-populists, both of whom highlighted the importance of “popular” armies and social movements both in the Revolution and in the post-revolutionary era. Invoking the uncritical power of “the people,” however, “come[s] dangerously close to resuscitating the romanticism so characteristic of the early studies of the 1920s and 1930s,” Joseph and Nugent (1994) caution (*ibid.*, loc. 792).

Both approaches, however, “seek to articulate popular culture, revolution, and state formation in the analysis of modern Mexico” (ibid., 804). Revisionists focus on the political dimension and the connections to the global political arena. The neo-populists (note the influence of James Scott, 1985), on the other hand, highlight the involvement of popular classes in the Revolution and the importance of social consciousness and the dynamics of popular culture. Joseph and Nugent (1994) argue that state formation is intertwined with popular culture, in Hall’s (1981) sense: sites where popular subjects are formed as distinct from ruling groups, where the new state engaged the popular “symbols and meanings embedded in the day-to-day practices of subordinated groups,” (ibid., loc. 921).

With the debt crisis of the 1980s and the subsequent neoliberal economic restructuring, the protection pact between civil society and the Mexican state crumbled, as did Revolutionary-era commitments to land reform and other hard-won campesino gains, including, eventually, protection from competition with subsidized, industrially produced US corn. And this meant, in an echo of Wolf (1968), “the end of any hope of balancing out social inequalities through direct petitioning of the State (for land reform, etc.)...Long characterized by a corporatist State that managed internal dissent through co-optation (turning to coercion and repression when co-optation failed), the Mexican State found itself increasingly limited in its capacity to finance hegemonic social pacting after the debt crisis of the mid-1980s,” (Speed and Reyes 2005, 54, citing Collier 2000).

CHAPTER 5

TESTING: MILPA, CONTAMINATION AND AUTONOMY PRACTICES

“Mientras haya comunidades indígenas que quieran seguir siendo indígenas, el maíz va seguir resistiendo. Es parte de la cultura de los pueblos. El maíz morirá el día que muera el sol. Mientras haya gente que lo quiera, que lo defienda, que lo siembre y que lo coma, el maíz ahí va a estar presente.”

“As long as there are indigenous communities that want to continue being indigenous, maize will continue resisting. It is part of the culture of the pueblos. Maize will die the day the sun dies. As long as there are people who love it, who defend it, who plant and eat it, maize will be with us.

—Aldo Gonzalez, indigenous campesino leader, Oaxaca, June 2014

“We must move from the paradigm of maize to the paradigm of milpa.”

—Bartra 2010⁶³

In sharp contrast to the United States, where farmers account for around 1 percent of the population, Mexico remains to a large degree a nation of smallholder farmers. More than 28 million people—nearly a quarter of the national population—live as campesinos, that is, people who live off of what they grow, both as subsistence and as a source of cash income. Campesinos, many of whom are also indigenous, form the backbone of Mexico's social movement against GM corn.

MILPA PRACTICES

To get a sense of the physical labor the milpa requires, below is a description in the words of Joel Aquino, an indigenous campesino leader in Oaxaca (extended quote, my translation):

A good maize planting, on a parcel to cultivate a really good milpa, means that you have to start work in September, by taking out the weeds and preparing the soil for planting

⁶³ “[D]ebemos pasar del paradigma maíz al paradigma milpa,” (Bartra 2010).

(*rozar*). At the end of September, you hand plow, using the draft animals (*se le mete la yunta*), to conserve the moisture in the soil. Sometime in October or November, you make the second pass with the *yunta*. Before the end of November, or at the very beginning of December, you make the third pass. With this, you lock in the moisture. With this, you can produce squash, chile (which is worth the most money, a kilo will get you 100 pesos at least). With this moisture sealed in, you can start to work in December. Then, when the rainy season begins in May, you plant maize, intercropped with beans and other products...

Aquino continued,

Indigenous identity is reproduced thanks to the milpa. The milpa lets you comply with your duties to the community. When you finish a *cargo* [community service obligation], and you've done a good job, you're filled with satisfaction. You're strong morally, spiritually. When the maize germinates, people are filled with happiness, because their grain has germinated. When they cultivate the land, they get stronger, even without any money, the milpa grows. When the maize tassels (*espiga*) and it is raining, people are filled up with joy, because the rain has made the milpa flower and pollinate. And then, when the *xilote* appears [the young ear of corn before the grains have fully formed], this is a special moment. And then, when the ear of fresh corn is ready (*elote*), forget about it! (*¡pues no se diga!*). You start collecting the corn to make *tamales de elote*, *atole de elote*—this is the best for a Zapotec family, this gives life to being a Zapotecan, it fortifies the understanding of life. There is no other strategy to survive in dignified conditions beyond the milpa. By now, many have tried other paths. People who have dedicated themselves to making money and have traveled from one place to another, and they have made a lot of money, but their families have evaporated. The father dies, and everyone separates. In contrast, those who have maintained their milpa are still together. The children, grandchildren, great-grandchildren are all still there. They maintain and provide service. They give life to the community, participating in everything...

Resistance to transgenic maize has emerged from many groups, all over the Mexico, but Oaxaca is unique in the continuity of community-based resistance, starting with the first documented identification of native landrace varieties of corn contaminated with transgenes in 2001 (Quist and Chapela 2001).

A small nucleus of people had been raising concern over the narrowing genetic diversity of maize, from the rising use of hybrids in place of landrace varieties after the Green Revolution (Gonzalez 2001). But the Quist/Chapela study turned their concern into a red alert. This thread of resistance, based in the Sierra Juarez, grew from a grassroots base in rural communities into a

state and national movement. Resistance was originally organized around sharing information and performing localized testing to document contamination, a strategy that became foundational in the national Red en Defensa del Maiz/Maize Defense Network which the Oaxacan groups helped found in 2002.

This section will identify and analyze the main discourses used by social movement actors in the defense of maize in Oaxaca.⁶⁴ Two themes emerged consistently in the following series of interviews with indigenous campesino leaders in response to the question of why Oaxaca is the leader in the national movement against transgenic corn: 1) the strength of the indigenous communities 2) the state's unique agrarian history. These interviews returned again and again to the tight link between territory, maize, and culture in Oaxaca, driving home the point that "in the pueblos, the entire culture, reality, and aspiration revolves around maize."⁶⁵

La Red fundamentally challenges the assumptions that allow food to be approached as a commodity, and in this way represents a threat to the dominant model of industrial agriculture. The network has developed a concrete set of practices around seeds and milpa that challenge these assumptions. I will describe a series of workshops I attended as a participant-observer in which these practices were developed. All revolve around establishing and maintaining the community's ultimate capacity to respond to the challenges that may arise, without depending on external people or resources.

TESTING AND AUTONOMY PRACTICES

One immediate priority when La Red formed was to confront the widespread fears of GM contamination in the milpa. No easy, available kit for transgenes testing in maize existed in 2002

⁶⁴ Interviews conducted between June 25-28, 2014 in Oaxaca City through my colleagues at the Centro de Estudios para el Cambio en el Campo Mexicano (Ceccam). All translations my own.

⁶⁵ "En los pueblos, toda su cultura, su realidad y su aspiración, gira en torno al maíz," (Aldo Gonzalez, June 26, 2014, Oaxaca).

(nor today), and the testing options were limited, especially given limited funds. The few scientists who ran the handful of labs in the country that had the capacity to run DNA testing “did not miraculously open their doors so people could bring in maize samples for free testing,” as one person said to me (Hernández Baltazar, June 11, 2010, Mexico City). Instead, people cobbled together different options—some expensive kits came from Germany, then some cheaper ones were found, but the results were not considered “scientifically valid.” Testing for transgenes is complex, and the politics of “expert” versus “campesino” knowledge gets foregrounded (see Kathleen McAfee 2003, 2008 and Abby Kinchy 2009, 2012 for extended discussions).

During the first few years after 2002, researchers affiliated with La Red visited communities and took samples of maize leaves to send to a lab (mostly using the cheap kits). “Scientific” evidence of transgenic contamination was discovered in 22 farming communities in Puebla and Oaxaca, although some people challenged the methods and results. By 2013, La Red reported finding the presence of three or more transgenes in native maize in 25 states, both in visibly malformed plants and plants that appeared normal (TPP 2013).

Early on, however, La Red increasingly started to take a critical view of the entire premise of testing and the sets of assumptions that make up laboratory science, on the grounds that “lab tests exclude participation and communication with the pueblo,” (Hernández Baltazar, June 11, 2010, Ceccam office; following quotes from this interview). By 2008-2009, through discussions in workshops (starting at the Tlaxcala meeting at that time), the members of the network sought to come up with an alternative “campesino diagnostic” (“*diagnostico campesino*”), one that would show the effect of GM corn on the milpa and would help people educate each other about protecting the maize seeds that are planted and exchanged between

communities. The realization that the GM technology of glyphosate resistance (Roundup Ready) could itself be used for testing was key. A simple test was conceived: apply the herbicide glyphosate, sold under the brand-name Faena in Mexico, to a selected plot of growing maize plants (perhaps in a grid, or only on plants that appear deformed), to see if the plants die. Since glyphosate kills corn (and every other plant) unless it has been modified to withstand the herbicide, if the plant dies, it has not been genetically modified. Thus, the test requires killing the plant to prove it is free from genetic modification, although the amount of necessary herbicide is very little, just a small amount on a handful of plants per plot, on perhaps 10 plots in the community—“one bottle of Faena lasts at least two years,” Hernández Baltazar said. The test requires killing the entire plant because applying glyphosate just on the leaves is usually not sufficient (although that will sometimes kill the plant anyway). The poison has to be taken up in the metabolism of the plant. Usually, the plant will die within 2-5 days, sometimes taking up to 10 days.

The key part of developing the campesino diagnostic was coming up with a low-cost way people could test their own milpa for contamination, by applying glyphosate, and letting the plant’s death confirm that it was free of RR genes. This “unscientific” method had the advantage of being cheap and instantly available, and it served both to educate and to reassure people that their milpa was safe from contamination. “Scientific” sampling was never the goal.

Another component of the testing process is close-observation workshops (*talleres de super-observando*), particularly during the days after applying the glyphosate test: “people should pay attention and look carefully at the leaves of the plants in the test plot, are they full and green, or spotty/yellowing?” Hernández Baltazar said. Close-observation is a practice that can be encouraged to take place anytime, regardless of whether the glyphosate test has been

administered.

La Red then faced the question of how to collect and what to do with the results of this low-tech/low-cost testing for Roundup Ready genes. In another workshop, they came up with plans for a community survey, including what kinds of questions to ask (it was the only survey I saw during the 18 months I worked at the Ceccam). I interviewed one of the people who was involved with its creation, and who described its objective as “expanding the knowledge of the actual situation of the indigenous communities and campesinos that participate in La Red.” Broadly, the survey aimed to solicit information on: the diversity of campesino agriculture, the conservation and defense of native seeds, obstacles in the cultivation of maize, and threats to campesino agriculture, with the goal of helping “the integral and territorial defense of the pueblos of maize.”

The survey was short, and the responses that came back at the next meeting of La Red (which I attended) came from two men who had conducted the survey between January 29-31, 2009, in the *municipio* of Chicontepec, in the state of Veracruz. Overall, the respondents answered the survey in a way consistent with what they know the people who generally read surveys want to hear: assurances that they are using modern farming techniques, meaning weeds have been eradicated with herbicides, and insects had been routed with insecticides.

The 34 responses came from individuals in five separate *comunidades*. The questionnaire asked three categories of questions: 1) information about the piece of land plot (*historial del predio*), including whether the planting was monocrop or diversified; conventional, agroecological, or traditional; and types of pesticides and herbicides applied; 2) number and type of insects (*muestreo y conteo de insectos*) and finally, the question for which the survey was designed, 3) Glyphosate (Roundup) resistance (*resistencia al glifosato*), on an 8-point scale,

ranging from “no change” to “bleaching” (mild to severe/complete) and “death.”

Every single one of the Chicontepec surveys had the boxes checked for both “monoculture” and “traditional”—making clear the concept of monoculture was meaningless. As members of La Red, it is certain the respondents all have small-scale, diversified milpas on ejido land, and grow for subsistence as well as sale into the local market. The categories of monoculture and traditional are incompatible.

Each survey response declared the use of pesticides and herbicides. The pesticides are named by brand: Taman, Foley, and Lorsban. The herbicides are Faena, Gramosoni, and Dragoson. The section of the survey designed to ask about insects follows standard norms for farmer questionnaires, including check boxes for both insects and parasites [*depredadores* or *parasitoides*], described in the standard way as chewing, burrowing, or sucking insects [*masticadores*, *barrendores*, *chupadores*]. On all of the surveys, this section is left blank, with a note scrawled in the observation section that there are worms [*gusanos*] but “*no hay insectos, ya que está fumigado*”—that is, there are no insects because the land has been fumigated.

The data seem meaningless in the final section of the survey, about the glyphosate resistance test. The boxes are checked consistently in the middle, and it seems clear that the respondents did not understand the question was supposed to be answered after applying glyphosate to test plots in the fields for herbicide resistance.

Although this survey was designed for different purposes, the survey format fits into decades of experiences small farmers have had with government forms, required at every turn. The correct answers are often attached to accessing farm credit. The men responding to the survey were trying to fulfill what they interpreted as the expectations behind it, to fill out every box and demonstrate that there were no bugs, and that yes, they were using “modern” pesticides

and herbicides.

However, these survey results highlight exactly why the goal of the survey was never to collect “scientific data. In fact, it was not really intended to even be returned.”⁶⁶ Instead, the goal was to educate and be useful for people in rural communities, and create an opening for each assembly to discuss and decide what to do with the results of the glyphosate tests. There have been some practical results—according to one report, twelve communities in Chiapas made agreements to prevent the planting of unknown seeds, based on their experiences with the survey. Or the campesino diagnostic process may cause shifts in understanding more in the theoretical and spiritual realm; at a meeting several years ago, one person said to me, what is the goal of testing, because what happens if you find transgenes in your field? “When you find out your child has tested positive for cancer, you do not kill your child. Instead, you embark on a mission of healing, and in this case we are healing the genome” (Villa, pers. comm. 2008, La Red meeting). As another person said, “We say no to laboratory analysis of corn, because we can heal it with our own knowledge, within our community—in fact, that is the only way this healing could happen” (pers. comm., 2010 CENAMI workshop).

During a round-table reflection on the process of the 2008-2009 community survey (at the 2010 workshop where the survey results discussed above was returned), the dominant themes that emerged focused on the experience of sharing and conserving knowledge, and the incredibly strong exchange of experiences (“*el intercambio tan fuerte de experiencias*,” pers. comm., 2010 CENAMI workshop). The network is engaging in practices that are “not just resistance, but also a process of defense that involves knowledge, including technical and biological” (pers. comm.,

⁶⁶ The misunderstandings that characterized the data gathered in this example of the survey are revealing of the respondents worldviews, nonetheless—for example, surveys are to be filled out, and “monocrop” seems like something that should be checked off.

2010 CENAMI workshop). One person made a parallel between the campesino diagnostic process and the diagnosis process that traditional (not hospital trained) doctors use, pointing out the many ways of seeing problems that are not just molecular-chemical: “We have to care for maize, however it is, if it is contaminated, if it is sick, we are going to care for and heal it,”⁶⁷ by putting “diagnosis in the hands of the people” (“*el diagnostico en la mano de la gente*,” pers. comm., 2010 CENAMI workshop).

Alongside the rejection of laboratory science and the development of the campesino diagnostic process, La Red has also rejected the idea of saving seeds in official seed banks, for several reasons. At the time of network’s founding in 2002, in the months after scientific proof of contamination emerged, there was a sense of existential threat, “we are losing our seeds (*estamos perdiendo las semillas*)”, and some people in the broader movement against transgenic corn made a call for collecting seeds into a bank. But, “we realized that is not how people wanted to think about seeds, like money, that you keep in a bank,” one network member explained to me (pers. comm., 2010 CENAMI workshop). After discussion, the network decided to reject seed banks and all regulation whatsoever of seeds, which it announced in a public statement:

We do not have to certify or register [our seeds] with anyone because we have had them since before the existence of the State of Mexico. It is an unalienable right that no one can take away, and that we will continue to exercise in an autonomous manner. These seeds are the future hope of everyone.⁶⁸ (La Red 2008)

And at a more fundamental level, La Red articulated a critique of conceptualizing “seeds” on their own; as one person put it, “in the heart of maize, there is no difference between the grain

⁶⁷ “*Tenemos que cuidar el maiz ‘sea como sea.’ Si está contaminado, o está enfermo, vamos a cuidarlo y curarlo.*”

⁶⁸ “*No tenemos porque certificar ni registrar ante nadie porque las tenemos desde antes de que existiera el Estado mexicano, es un derecho inalienable que nadie nos va a quitar y seguiremos ejerciendo de manera autónoma. Estas semillas son la esperanza del futuro de todos.*”

and the seed.”⁶⁹ Instead of saving seeds in official seed banks, La Red came up with a strategy they called the “custodians of maize” monitoring network, based explicitly on what was described as “community authority.” This approach stems from the conviction that agreements at the community level (not from outside or an external authority) are the only way to actually create and maintain zones free of GM corn.⁷⁰ In the workshop, people developed the idea that local assemblies could designate individuals to communicate with everyone in the community to prevent unknown seeds from being planted in the area, and to prevent the “theft” of seeds by outsiders (e.g. to put in a seed bank). In the last resort, the community authority may have to resort to a “community rescue” (“*rescate comunitaria*”): physically destroying suspect seeds (pers. comm., 2010 CENAMI workshop).

Overall, these examples of “campesino diagnostics” and the strengthening of “community authority” knowledge-practices provide concrete examples of community autonomy being generated in action. They also are fundamentally connected to the underlying role of the milpa in creating a base for community autonomy and authority, as can be seen in this quote from Oaxacan indigenous campesino leader Joel Aquino:

Milpa gives substance and cohesion to communities. It is what allows communities to renew their system of government each year. The community service obligations, *tequio* [public works maintenance and construction], *topiles* [assistants/gophers], *vocales* [spokesmen], and community police all must be filled each year. Every year we need 150 men to enter into community service, and they have to work for free. What will they live on? Of course, from the production of their milpa. The milpa determines everything.

⁶⁹ “*En el corazón del maíz, no hay diferencia entre el grano y la semilla,*” (pers. comm., 2010, CENAMI workshop).

⁷⁰ “*...acuerdos al nivel de comunitaria para una ‘zona libre’ de transgenicos*” (pers. comm., 2010, CENAMI workshop).

Therefore, when the food self-sufficiency of communities deteriorates, the community's autonomy is in danger.⁷¹

MAIZE HAS FEELINGS

The industrial production of corn is fundamentally different from milpa—the motivations, meanings, and results are different on social, political, and economic levels. Only industrial producers grow maize alone, which is a practice that makes maize “feel lonely,” as one person explained to me.⁷² Other feelings attributed to maize include happiness and pleasure at being seen. Every activist gathering features mystic opening and closing ceremonies, with people from all over the country bringing small offerings of maize to display on an alter constructed for the occasion. At one of these gatherings, an organizer explained to me (in the way that obvious things often had to be explained to me) that maize is “proud and happy” on the alter because it “likes to travel and see people.”⁷³

Another example comes from the routine in rural villages, where women generally walk together around the same time each day to the local community mill, carrying the maize they soaked overnight to be ground mechanically and taken home to make tortillas, because maize “likes to be seen.”⁷⁴ Multiple elements intersect in this routine, including the chance to leave the house and socialize, as well as the moral importance attached to the visibility of each family's food supply (that is, women observe each others daily maize ration, opening up conversation as well as gossip)—the walk does many things beyond making maize happy. But the consistency

⁷¹ “...*Por eso, en la medida en la que se deteriora la autosuficiencia alimentaria de las comunidades está en peligro su autonomía*” (Aquino, pers. comm., 2014, Oaxaca).

⁷² Muciño, pers. comm., January 2012, Ceccam, Mexico City.

⁷³ Hernández Baltazar, pers. comm., March 2012 CENAMI, Mexico City.

⁷⁴ Doña Cruz, pers. comm., July 2009, Tepecxitla, Veracruz.

with which people attribute “human” emotions to maize merits attention. Notably, in communities like Tepecxitle, Veracruz, where I joined in the daily rhythms of grinding maize and making tortillas, I was taught that maize is not considered to be a form of individual wealth, (although it can translate directly into chickens, as it provides feed, and more rarely, into hogs) but instead more of an integrated part of household and community life—thus, its public presence would not be considered an explicit display of wealth. It can be seen to circulate as a form of currency among women, who “pay” others for help with cooking—for an event, for example—with maize that has already been nixtamalized (soaked overnight in lime) and is ready to be ground for daily tortillas. I observed the same kind of exchange between a needy family, who regularly sent one of their young adolescent children, either a girl to help in the kitchen or a boy to help in the field, to another family’s house when they needed extra maize for tortillas.



Figure 5.1 Nixtamalized maize, ready to be ground for tortillas. La Huasteca, Veracruz, 2009.

VIOLENCE AGAINST THE MILPA

The shift to understanding the milpa as a complex association between a diversity of plants and humans—instead of simply a corn patch—explains the feelings of violence, fear and

violation that I repeatedly heard in response to GM corn, and helps explain why hybrid corn never mustered such strong defense. Connected to the feelings of maize discussed above, Bt corn was described in this way, “transgenics have lost their originality, they are disfigured, they have lost their soul...they have a little piece of DNA in every one, invented in a laboratory, with a bacteria that kills insects” (Villa, pers. comm., March 20, 2010).

The chemical weed-killer glyphosate elicited this reaction: “If you throw chemicals to kill everything except the maize, you kill the milpa! The goal of [Roundup] is to kill the milpa.”⁷⁵ Weeds are an essential component of the milpa. Highly nutritious wild plants such as *verdolagas* and *quelites* (lamb's quarters and purslane—also extremely common in fields in the United States, but rarely consumed) are prized. These plants—semi-wild because they aren't actively planted, but they are adapted to grow in the disturbed soil of cultivated fields, and thus would be called weeds in English—would be the first casualties to herbicides like Round-Up.

Transgenic maize is widely considered to have come from the corn imported from the United States for livestock feed, and distributed through the government-backed Diconsa stores, which provide slightly subsidized basic products to rural areas throughout the country (previously supported by CONASUPO, now under SEDESOL, the Secretary of Social Development—many people still refer to Diconsa and Conasupo interchangeably in conversation). According to one widely cited report, the Unión de Organizaciones de la Sierra Juárez de Oaxaca (UNOSJO) took samples from a Diconsa store in Ixtlán, Oaxaca, and sent them to a lab, from which more than 30 percent of the corn turned up positive for transgenes.⁷⁶

⁷⁵ Muciño, pers. comm., June 2013, Mexico City.

⁷⁶ González, pers. comm., June 2014, Oaxaca; also see Dyer et al. 2009.

BACKGROUND FRAMEWORK FOR RESISTANCE

Landrace seeds are open-pollinated, meaning the kernels they produce, when planted as seeds, grow "true," that is, they reproduce the parent variety. Hybrid seeds, by contrast, don't produce kernels that grow true when replanted—instead, they produce unpredictable offspring that contain a collection of random traits from their parent lines. The modern seed industry is based on hybrid seeds that don't produce offspring that can be replanted—farmers must buy new seeds every year. The issue of contamination of the landrace varieties was already in the collective consciousness of the pueblos of the Sierra Juarez of Oaxaca because of their experience with hybrid corn seeds, which began to displace native seeds. The "culture of use, work, and relationships with maize" was disrupted in Oaxaca in the decade of the 1990s, according to campesino political leader Hugo Aguilar, who provided the following narrative.

High export prices for coffee in the late 1980s triggered an increase in coffee production, displacing a significant amount of maize in the region. When the cost of coffee fell dramatically in the early 1990s, people returned to maize production, at which point many campesinos realized that they no longer had seeds for the landrace varieties best adapted to the various conditions of the mountains of the Sierra Juarez (elevation, heat, cold, etc.). Not every seed is good for reproduction: "you have to select the biggest, the best, from the most important harvest."⁷⁷ From this realization, the growers began to "*hacer consciencia*," to become conscious, of the effects of using hybrid seeds, which have to be purchased new each year, "leaving people in a difficult position. They no longer had the seeds to keep reproducing the harvest."⁷⁸ This analysis was echoed in a separate interview with another indigenous campesino

⁷⁷ Aguilar, pers. comm., June 2014, Oaxaca.

⁷⁸ Aguilar, pers. comm., June 2014, Oaxaca.

leader: “When people saw the price of coffee skyrocket, it became easy for them to stop cultivating maize. Then, when the coffee crisis came, they did not have a reserve of seeds to plant maize and survive. Whereas, those who had maintained the tradition of planting maize did not have the problem of how to feed themselves.”⁷⁹

After those experiences in the 1990s, the tidal wave of transgenics hit Oaxaca, “And that is when people began to resist,” (*“Y allí la gente comienza a poner resistencia”*).⁸⁰ Those people who had already had bad experiences with hybrids were especially aware of the potential problems posed by transgenics. The Unión de Organizaciones de la Sierra Juárez de Oaxaca (UNOSJO) started a campaign to spread information. As UNOSJO leader Aldo González said, “Lots of people thought we were crazy, that we were talking about something very strange. They thought this was not a certain thing. But then, with the passage of time, some Mexican scientists and foreign scientists confirmed the situation, and then the people thought, ‘Wow, those crazies were right!’ This caused a lot of individuals and organizations to start paying attention to the problem of transgenic contamination. Today it is very common, in many communities, that people at least have heard about the topic, and they say, ‘I do not want to plant transgenics.’”⁸¹

The most basic strategy for defending maize is “to plant it and eat it,” says González. The UNOSJO came up with the phrase, “planting and eating native seeds is a political act against neoliberal globalization.”⁸²

⁷⁹ González, pers. comm., June 2014, Oaxaca.

⁸⁰ Aguilar, pers. comm., June 2014, Oaxaca.

⁸¹ González, pers. comm., June 2014, Oaxaca.

⁸² González, pers. comm., June 2014, Oaxaca.

OAXACA: EPICENTER OF RESISTANCE

As indigenous campesino leader Hugo Aguilar said, “One of the places where Zapata’s aspiration of having land crystalized during the Revolution was Oaxaca. The 1917 constitution gives the power and autonomy to make decisions about the land, natural resources and the cultivation of our food. But, since the counter-reform of Article 27 in 1992, we are defenseless (*desamparados*).”⁸³ Another leader said, “Oaxaca is the epicenter of the defense of maize because of the indigenous people—there are more than 13,000 indigenous communities that plant corn. There is a millenarian tradition, and some of the oldest samples of maize ever found come from Oaxaca, the first maizes ever produced in the history of humanity, dating from over 10,000 years ago. All of this history is present and alive in the indigenous communities of Oaxaca. Here people still sow maize despite all the economic and social problems that exist in the state.”⁸⁴

YALALAG

Yalalag, in Oaxaca’s Sierra Norte, harbors at least six distinct landrace varieties of maize, especially adapted for conditions including high altitude, temperate, tropical, long-season, and short-season. Community leader Joel Aquino explained that people in the pueblo clearly understand that the agricultural cycles will vary greatly, with good years mixed in with droughts and floods. Based on this instability, “the tradition is clear—maize does not need to be taken to the market. People sell maize only if there is a lot of excess.”

Yalalag has been hit by the current drought, stretching into its third season in 2014, with people getting only around 40 percent of their expected harvest. “This maize, the product of

⁸³ Aguilar, pers. comm., June 2014, Oaxaca.

⁸⁴ González, pers. comm., June 2014, Oaxaca.

drought, is acclimatized to suffer the worst of times—it is a maize that you will not find in any other part of the world. This experience is replicated in community after community,” Aquino said, adding “Over many centuries, the communities have succeeded in building a strategy to resolve the issue of self-sufficiency in food provisioning. There are communities where they keep a seed grain reserve for four years. This is how the tradition works, you have reserves for six months, a year, two, four or five years. Whenever the time is right, then you can sell something into the market.”

An extended quote from Aquino’s (2014) interview highlights the connection between milpa, community responsibility and autonomy:

In Yalalag, it is hard to find a municipal president who meets all the traditional requirements. It should be a man of high morals, who has covered a range of *cargos*, he should be financially solvent, in good health, and intellectual, even if he did not go to school. Now it is difficult because young people do not want to commit to the milpa. School has contaminated their mentality, plus working in the United States (*el bracerismo*), plus all the influence of television. Those who maintain the milpa are generally older, an occasional young person... This was the result of *bracerismo*—the parcels of land that people loved so much, and worked so hard, were abandoned. There were massive migrations to Oaxaca City, Mexico City, and the United States.

EFFECTS OF MIGRATION

The old system based on milpa and landrace corn has come under severe pressure in recent decades. The origin of the crisis is commonly attributed to out-migration and the de facto dollarization of the economy that resulted from it. In the 1960s, corn prices were high and land for housing in villages was cheap, meaning that a young campesino family could build a house from the proceeds of a good harvest. As Joel Aquino described, “The price for maize used to be

very high—you could sell one or two *costalóns*⁸⁵ of maize and with this buy a parcel of land. If you sold three or four *costalóns*, you could get a piece of land to build a house on (*solar*).”

But then, “Oaxacans, the Mixtecos and Zapotecos, all started to go to the United States, beginning 30 or 40 years ago, and at that moment everything began to change. Because then, land for homes (*solar*)⁸⁶ started to be bought in dollars.” He continued: “Now it is impossible to sell maize and buy a *solar*. A *solar* will cost you 100,000-200,000 pesos now, depending [\$8,000-20,000 USD]. To buy land, you would have to sell many *costalóns*. Before, the price of maize was managed. You worked two days, and they gave you an *arroba*.⁸⁷ Now, it is reversed – you work one day and they give you two *arrobos* of maize. It’s been devalued.” Aquino continued, “The entrance of dollars has badly affected the milpa. Children send dollars and say, ‘Papa, you don’t have to plant now, it is so much work.’ Effectively, the milpa involves too much work.”⁸⁸

Aquino (2014) contrasts the steady sustenance provided by the milpa with the boom-and-bust cycles associated with an economy tied to migration and remittances.

The milpa leads you to live in austerity. A community, to keep being a community, has to learn to live simply. You can have no cash money, but you still have your *costales* of maize, beans, pumpkin seed, and you keep yourself busy working in your milpa, and planting some sugar cane, and you produce the bare necessities, and you make it through.

⁸⁵ The costal as a unit of measurement is like an English “bushel,” a bag ranging between 20 and 50 kilos—a *costalon*, or big bag, would be the high end of this range.

⁸⁶ *Solar* implies land for a residence with room for a kitchen garden and domestic animals like chickens—women tend to be responsible for care for the solar, while men care for the milpa, although a great deal of work is required for both, and labor divisions are not strict.

⁸⁷ Approximately 25 pounds or 11.5 kilos – comes from the Arab word *arrub*, meaning a ¼ of a *quintal*, which is 46 kilos.

⁸⁸ “*La entrada de dólares le afectó a la milpa gravemente. Los hijos mandaban dólares y decían: ‘papá, ya no siembres, es mucho trabajo.’ Efectivamente, la milpa implica demasiado trabajo.*”

But the moment that a Chinanteca or Zapoteca [or other indigenous] family gets stuck on the idea of having money in cash, the culture splits at this moment and they leave. There are hundreds of empty houses in the sierra. If you go to [the local pueblo] San Francisco, you will find lovely houses with no one living there. There are communities that are like vacation retreats. They have houses that are built with dollars.

Aquino's observations draw attention to the complexity of the Oaxacan campo. He identifies outmigration and remittances as forces that undermine the milpa, and yet in important ways, they also sustain the milpa. As de Ita (2014) and others have shown (see Appendini 2008, Fox and Haight 2010), the fall in market corn prices and the withering away of government rural programs have left a massive economic void in the campo, one that has been partially (but only partially) filled by the remittances that Aquino laments. The way he analyzes the situation bolsters his determination to defend, promote, and sustain the figured world of the milpa and the autonomy it offers. But it is one among other ways of making sense of the effect of migration on the campo.⁸⁹

Aquino (2014) and members of his community express the idea that the milpa is a bulwark against the introduction of diet-related maladies:

When chemical substances arrived, the harvest improved. But now people are discovering that the communities that use insecticides and chemicals in the *milpa* are suffering from illness as a consequence. Before, there was no diabetes in the communities in the Sierra. Now, there is an enormous amount of diabetes and even some people with cancer. . . .Diabetes and all the other illness that are related to the maize that comes from outside.

Taken together, this section illuminates the understanding of milpa as crucial to community autonomy.

⁸⁹ Much research attention has been paid to the complexity of gender, migration, and remittances, far beyond the scope of this section. Worthen (2012) found consistent evidence of milpas in the community neighboring Yalalag, despite a nearly complete economic dependence on remittances.

CHAPTER 6

MAPPING: COUNTER-MAPPING THE CENTERS OF ORIGIN

Maize is not a thing. Like the land, it is a set of relationships. The current offensive against maize is an attempt to erode the social web that has enabled Mexican peasant farmers to survive for centuries. It is an attack on the small farmers who still make up the majority of the world's population, and feed most of the people on the planet.

Ramon Vera, 2004

In Mexico, the struggle over the place of genetically modified corn in the nation's agricultural system has become situated in the concept of "center of origin"—that is, the region where a particular crop is considered to have been originally domesticated. The struggle has become in many ways a fight over maps—the power to define which spaces are crucial repositories of corn biodiversity, and which are not.

A crop's center of origin is associated with high levels of genetic diversity—as it evolves over millennia, a crop develops countless landraces and varieties in relationship to its wild relatives, adapting to a wide range of ecological and agricultural conditions, and co-evolving with pests and diseases. This genetic heritage is crucial not just to the campesinos who continue planting corn and generating agrobiodiversity, but also to farmers everywhere who plant corn, and the global systems that rely on corn and these relationships for sustenance, from animal feed to ethanol. Within Mexico's landraces, which have evolved at various elevations under a great diversity of climate conditions, traits exist for tolerance to drought, salty and low-fertility soil, heat, cold, varying day-lengths—any or all of which could turn out to be crucial as climate change upends established weather patterns. The concern is that since corn is a prolific

pollinator, and because campesinos often experiment with planting various types of seeds,⁹⁰ pollen and seeds from transgenic corn can easily find its way into landraces, compromising biodiversity, and potentially even putting the farmers who plant the seeds at risk of violating patents owned by multinational companies.

The center of maize domestication is roughly congruent with Mesoamerica, a region that encompasses present-day Mexico and much of Central America. When the Mexican government imposed a moratorium on GM corn planting in 1998, they invoked the need to protect the crop's center of origin.

GM proponents—the same international set of industrial agriculture players, featuring Monsanto, and those in various levels of the Mexican government furthering those interests—came to realize how the "center of origin" framework could be used to legalize planting transgenic corn. The idea was simple: define the "center of origin" so it excludes regions conducive to industrial corn production (concentrated in north- and west-Mexico and the Yucatan peninsula), thus opening those areas to GM plantings. A 2005 law established the legislative framework to enable legal planting of GM corn outside of official "centers," based on the areas where native varieties were collected.⁹¹ Permits for experimental plantings began to be issued after further legislation in 2008 and 2009, as will be discussed in greater detail below. These laws later formed part of the accusation against the government for misuse of power, in the international Permanent People's Tribunal (TPP 2014).

This chapter will show, following the arguments made by social movement actors in

⁹⁰ In the largest and most rigorous study to date, Dyer et al. (2009) modeled transgene survival and dispersal via seed exchange, finding seeds to be by far the most likely source of transgenic germplasm found in landrace seed supplies.

⁹¹ http://www.biodiversidad.gob.mx/usos/maices/grupos/mapas/d_m_2010_gw_1.jpg accessed March 20, 2015.

Mexico, that the agricultural origins and a crop's genetic integrity are much more complicated than the formal approach being taken by the GM industry and its allies in the Mexican government. After briefly setting up the background and theoretical framework, I focus on interviews with two key activist mapmakers, and engage their analysis of the theory and politics of counter-cartography.

BACKGROUND

In 1998, the scientists who make up the Comité Nacional de Bioseguridad Agrícola (CNBA, the National Committee for Agricultural Biosecurity) established a *de facto* moratorium against the planting of transgenic corn, pending regulation strong enough to guarantee the protection of the population and Mexican biodiversity from the inherent risks of new genetic technology.⁹² Mexico had committed to protect biodiversity when it ratified the 1992 UN Convention on Biological Diversity.⁹³ This decree brought to a halt the early experimental plantings of GM maize in Mexico, made between 1992-1998.

However, as activist Álvaro Salgado said at the time, the moratorium merely signified “a closing of the windows,” and was insufficient to constitute a State policy against transgenics.⁹⁴

⁹² The CNBA, which later became the Subcomite Especializado en Agricultura (SEA - Specialized Subcommittee on Agriculture) was established in 1989, after the first formal entry of transgenic plants in the country in 1988, in the form of the transgenic tomato FlavSavr, experimentally planted in Sinaloa, www.senasica.gob.mx accessed November 8, 2014.

⁹³ Convention on Biological Diversity (CBD) was signed at the Earth Summit in Rio de Janeiro, Brazil, in 1992 and took effect on 29 December 1993. It is the first global agreement to cover all aspects of biological diversity: the conservation of biological diversity, the sustainable use of its components and the fair and equitable sharing of benefits arising from the use of genetic resources. <http://www.cbd.int/secretariat/> accessed November 8, 2014.

⁹⁴ Mexico is open to transgenic agrobiotechnology in general, with widespread plantings of GM soy and cotton, but the cultural importance of corn and the center of origin presents a more complex dilemma. It is also important to keep in mind that the industrial hybrid corn already planted throughout the country represents a significant threat to agrobiodiversity.

For example, the moratorium did nothing to slow the importation of GM corn from the United States, which Mexico came to depend on in the 1980s (Barkin 1987), and where GM corn became legal in 1996 and quickly rose to market dominance. The fact that GM corn was imported and distributed without restriction meant that it was being planted, both accidentally and on purpose (Appendini 2008). Campesino observers and activists have long connected the diffusion of GM corn seeds through rural Mexico to its subsidized distribution through the federally supported Diconsa/CONASUPO stores. Academic researchers have confirmed this likely source (Dyer et al. 2009).

Thus, despite the moratorium, evidence of contamination unsurprisingly began to emerge in reports from various parts of the country. A number of well-known scientists and civil society actors, particularly the autonomous campesino union UNORCA, came together in 1998 to denounce this contamination to the Procuraduría Federal de Protección al Ambiente (Profepa – Federal Attorney for Environmental Protection), the government agency charged with monitoring transgenic organisms. This became the first in a long series of volleys between civil society and the Mexican government.

CENTERS OF ORIGIN—A CONTESTED CONCEPT

Parallel with new approaches to understanding human evolution and diversity, the domestication of food crops began to be understood through the concept of centers of origin in the nineteenth century. The key figure in this field of research was Nikolai Ivanovich Vavilov (1887-1943) who presented the theory that agriculture developed independently in eight global regions in a 1926 essay. Vavilov traveled the world collecting seeds, creating one of the world's first seed banks in Leningrad to preserve them (Nabhan 2008). His views became increasingly unpopular with Russia's agriculture ministry under Stalin, led in large part by Trofim Lysenko.

Lysenko viewed plant genetics through the lens of the Soviet political project, rejecting Mendel's understanding of genetic inheritance and instead embracing Lamarck's theory that environmentally induced changes would be inherited biologically in the next generation. This view fit into the Stalinist ideology of progress, which rested on the twin pillars of agriculture and industry, and echoed the understanding that communism was an evolutionary improvement that would be passed down to successive generations (Nabhan 2008). Vavilov was arrested in Ukraine in 1940, and died of starvation in jail three years later. The scientists who worked at the seed bank went to great lengths to protect it during Germany's 28-month siege of Leningrad (1941-1944), surrounded by seeds while suffering from extreme starvation, from which two of them died.

American plant geneticist Jack R. Harlan (1917-1998) was a friend of Vavilov's and built on his legacy, focusing on the threats to agrobiodiversity from the increasing use of hybrid seeds and monoculture plantings. Harlan also shifted the understanding away from "centers" of origin, instead making a more complex argument for regions of domestication. He credits Vavilov with identifying three "bulls eyes," Peru, Oaxaca, and Palestine, which are in the dead center in three of Vavilov's eight centers, and agrees that agriculture did evolve independently in China, SE Asia, and Ethiopia (Harlan 1995, 237). However, Harlan eventually completely rejected the core idea that "centers" could ever be identified, writing shortly before his death:

We will not and cannot find a time and place where agriculture originated...because it did not happen that way. Agriculture is not the result of a happening, an idea, an invention, discovery or instruction by a god or goddess. It emerged as a result of long periods of intimate coevolution between plants and man. Animals are not essential; plants supply over 90 percent of the food consumed by humans. The coevolutions took place over millennia and over vast regions measured in terms of thousands of kilometers. There were many independent tentatives in many locations that fused over time to produce effective food production systems. Origins are diffuse in both time and space.

(Harlan 1995, 239-240)

In an idea popularized (and often mis-credited to) the popular food writer Michael Pollan (see also Bruno Latour), Harlan furthermore suggested that plants domesticated people as much as people domesticated plants, given the complete symbiosis between domesticated cereals and modern humans.

Thus, instead of “center,” Harlan proposes “mosaics of flanking activities” to encompass the complex geographical and cultural diversity over time and space from which domesticated plants and animals emerged. Recent scientific study, aided by advances in DNA testing, has further undermined a strict reading of Vavilov’s theory, and a consensus has emerged that “center” is an inadequate way to understand crop domestication and diversity (Harlan 1995). This consensus, however, did not stop the Mexican government from adopting “centers of origin” as its primary strategy to deal with genetically modified corn in the first decade of the 2000s.

MAPPING MODERNITY

Maps—in all their great diversity, always contingent and embedded in social structures—produce and reflect different ways of thinking about land, power, and social relationships, both through what they hide and make visible. Over the past 500 years in the Americas, mapping territory has often, though not always,⁹⁵ been tied to complex political projects involving colonial domination. Mirroring the shift in critical anthropology that threw positivism into question, decentered the subject/object dynamic, and highlighted the colonial context (Clifford and Marcus 1986), critical cultural geography emerged with the influence of post-structural theory in the 1980s, as a backlash against the empiricism, quantitative focus, and environmental

⁹⁵ Not all maps are colonial projects, of course, and a long history of diverse non-colonial projects mapping exists. The mapping project discussed in this section is a direct, however, is an explicit intervention in the dynamics of power and mapping.

determinism that had become dominant in the U.S. academy.

This shift can be tied to Lefebvre's "detonation" of neo-Kantian/Cartesian approach to abstract space (Lefebvre 1991, 25-26). Instead, he argues space is an ideological construction, socially produced; in Lefebvre's famous phrase, "(social) space is a (social) product." Understanding space as socially produced forces the conception of space as static and abstract to be rejected. Lefebvre's interest lay in how capitalism has survived by "occupying space, by producing space," in large part through the concept of everyday life. Everyday life ("leisure," which negatively defines work, family life, etc.) is the space where capitalism reproduces itself, and also where resistance potentially emerges. Lefebvre develops a conceptual triad to analyze the relative autonomy of space under capitalism: spatial practice, representations of space, and representational spaces (Lefebvre 1991, 33). This triad is necessary to analyze the sites of political possibility within everyday life. That is, the present practices of everyday life in fact disclose possibilities for the future (Grossberg 2010).

Building on this perspective, different notions of space lie behind, and bring into being, different kinds of maps, and practices around the production and use of maps "constitutes a critical site for understanding how relations of power are negotiated and contested spatially" (Bryan 2011, 41). Geographer Joe Bryan (2011) outlines the assumptions of critical cartography: Mapping is a social process; power works through maps (being careful not to oversimplify power/the State); maps do not represent reality, instead "maps 'encode' perception of the space within which reality transpires...that in turn shapes behavior" (Bryan 2011, citing Wood 2010).

Thus, maps of physical locations impose certain ways of thinking about territory and representing space (regardless of how participatory or cooperative the process in which they were made). These ways of thinking about space are frequently inextricably linked to

Eurocentric notions, particularly of property and rights, which depend on displacing other ways of thinking (Escobar 2008, 56).

The power relations underlying modern cartography can be seen to have a constitutive effect on reality, what geographer Matthew Sparke (1998) calls the “recursive proleptic effects—the way maps contribute to the construction of spaces that later they seem only to represent” (Sparke 1998, 466). Sparke, drawing on post-colonial scholars Edward Said and Homi Bhabha, develops the concept “contrapuntal cartographies” to describe the multiple, counterhegemonic effects (or potentiality) of cartography, built on the recognition that cartography can work both for and against colonial projects, and identifying the potential for cartographic destabilization through remapping. The state-effects of mapping have been explored in Mexico by geographer Raymond Craib (2010, 2004), who outlines the processes by which the Mexican state came to be both envisioned and produced via the cartographic processes of mapmaking and surveying. Craib (2004) especially focuses on how indigeneity was incorporated into the post-Independence state via mapping, especially the strategic use of place names, as a way to claim a pre-colonial unity.

Critically tracing the connections between different mapping practices and the power dynamics they represent—nation-state, gender, ethnicity, economic, etc.—offers a way to see meaning-making practices in action. The categories of social-spatial-temporal-power relations represented on a map, and the practices that created it (from on-the-ground collaborative or participatory map-making to remote satellite), has the potential to reveal things outside the dominant epistemological system (e.g. indigenous knowledge systems or women’s work, Rocheleau 2007, Massey 1994).

Feminist geographer Doreen Massey (building on arguments by Lefebvre, Stengers and Latour) argues that different ways of conceptualizing the spatial imply different ways of politicizing space. She draws out the social geography of knowledge production, and the implications for the question of what

is understood by representation, what she calls “spatializing the story of modernity” (Massey 2005). Telling stories from different positions has dislocated the old way of understanding modernity as something that rolled out smoothly alongside European colonialism, “the history of Europe’s own adventures.”⁹⁶ Recognizing positionality has the effect of decentering, for example, Europe as the driver of modernity and globalization, and instead directs the focus to geographical embeddedness. This focus allows for an understanding of the “spatiality of the production of knowledge itself” (Massey 2005, 63). Re-thinking space not as a smooth surface but as the “sphere of coexistence of a multiplicity of trajectories” implies a profoundly political postcolonial project (Massey 2005, Hall 1996).

CRITIQUES OF PARTICIPATORY MAPPING

Participatory mapping, which seeks to involve community members in the process of defining and representing space, has been one challenge to the outdated concept of the map as an empirical, objective representation of a particular territory. However, participatory mapping can unwittingly reinforce the very power structures it seeks to escape.

Critical geographers Joel Wainwright and Joe Bryan⁹⁷ (2009) confront the paradoxes of

⁹⁶ Anthropologist Arturo Escobar and his collaborators have identified this framework of epistemic difference as modernity/coloniality/decoloniality (MCD—there is no modernity without coloniality; modernity can be traced to 1492 with the “discovery of the new world,” thus difference is a constitutive part of modernity-coloniality. He points out the plurality of “alternatives to modernity” that may begin to be revealed by “thinking other thoughts for other world constructions” (Escobar 2009, 163-170).

⁹⁷ Both were instrumental in bringing attention, as requested by the UNOSJO to the ethical problems in the “Bowman expeditions” human terrain mapping projects, particularly the failure to disclose the funding for the “México Indígena” project in Oaxaca led by University of Kansas professors Peter Herlihy and Jerome Dobson and funded by the U.S. Army Foreign Military Studies Office (FMSO) and Radiance Technologies, a military contractor specializing in intelligence and operational logistics. The project was initially explained as a participatory mapping project to see the effects of PROCEDE on privatizing ejido land in the Sierra of Oaxaca, without mention that the design and data would go to the U.S. Army FMSO. See Wainwright (2012) for additional discussion.

participatory mapping, based on their personal experiences creating maps to help indigenous groups involved in litigation over territorial rights, which contributed to the “community land rights” movement, setting international legal precedents establishing property rights based on indigenous customary practices. To be made visible, these cultural practices required mapping, in ways that may be understood by international lawyers and judges—what Wainwright and Bryan call the “cartographic-legal” strategy. They identify three key paradoxical effects of this strategy: differential empowerment (exclusion of women and monolingual people), increased boundary conflicts and land privatization, and, most damningly, increased state power over the lands and people. Fundamentally, they argue that embarking on a legal process to get state recognition of territorial rights, which requires certain kinds of legible maps, risks reproducing precisely the forms of (colonial) hegemony that it tries to challenge. In an echo of Massey and Escobar, they say effective indigenous counter-maps must destabilize the “very categories that constitute the intelligibility of modern power relations” (Wainwright and Bryan 2009, 170).

Roth (2009) argues that potential problems in participatory or community-based mapping such as those outlined above, from increased State regulation to epistemic violence to fixing a false notion of a bounded “community,” can be seen broadly as the result of putting complex spatiality into abstract space (Roth 2009, 208). She proposes that mapping a more complex spatial imaginary—showing space as dynamic, multiple, overlapping, and flexibly bounded, what she calls “dwelling space” in a reference to Ingold—has the potential to address the negative potential of counter-mapping. Following Lefebvre, Massey, and Rose to emphasize the multiplicity of space and the production of space through networks at every scale, she sees inspiration in the potential of digital mapping technologies like GIS to render spatial complexity more legible, by restructuring data in a myriad of dynamic ways (Pickles 2004, Schuurman

2006).

These critiques, taken together, help bring into focus the potential of the activist counter-mapping process in Mexico: instead of forcing indigenous territory to become spatially legible within the modern juridical system, for example, Mexican movement actors are using the state's own hegemonic spatial language and organizational categories to reveal the "coexistence of a multiplicity" that is already present (Massey 2006, Escobar 2003). The contemporary Mexican counter-cartographers are effectively "disrupt[ing] the game by playing it—by inserting their claims into the terms of the dominant discourse" (Sparke 1998, 489).

The explanation of the mapping process, how the maps are brought to life and used by movement actors, and their own analysis of the process will support this argument.

CENTER OF ORIGIN: BIRTH OF AN ACTIVIST DISCOURSE IN MEXICO

The 2005 passage of the federal Ley de Bioseguridad de Organismos Genéticamente Modificados (LBOGM, Biosafety Law for Genetically Modified Organisms; called Monsanto's Law by activists because it put in place a framework for legalizing GM corn) required, among other things, for an official map of the country's "centers of origin" of maize to be produced before permits for pilot and experimental planting of GM corn would be considered. The issue was left in regulatory limbo (during politically charged years), until a presidential decree on March 6, 2009 allowed for these permits to be issued under a "Regimen for Special Protection of Maize," ending the de facto moratorium in place since 1998 (Gutiérrez González 2009). The Mexican government began issuing the first legal permits for experimental plantings of genetically modified (GM) corn, in the states of Sinaloa, Sonora, and Tamaulipas. However, the official maps still had not been produced or released.

In what represented a significant policy shift, Mexico's food and agriculture ministry

SAGARPA, along with SEMARNAT, the natural resources ministry, released the first map of the official centers of origin on November 17, 2011. The permits for experimental planting were renewed, and permission for pilot plantings (the second stage, prior to commercial release) were approved for the spring planting in 2012.

Since the center-of-origin designation was the first step in the bureaucratic process of soliciting permission to plant GM corn, the 2011 announcement effectively mobilized the regulatory framework to legalize the planting of GM corn (until a temporary moratorium was put back in place 2013, as discussed in the Introduction).

Unlike in the United States, because of the restrictions on the planting of GM corn, the permitting process (for pilot or experimental plots) directly involves the local government. In this process, the companies (Monsanto, Syngenta, Bayer, Pioneer) make a request to a municipality deemed outside a center of origin for “*uso del suelo*” (land use permission). Once a company gets its solicitation approved, it makes a direct contract with an individual farmer to grow the pilot or experimental plantings—that is, the companies ask the government for permission, and then they convince the *agricultores* (farmers) to plant. Given the blunt technology of GM corn, requiring widespread herbicide application, only farmers who already produce large quantities of industrial corn for the commodity market (thus by default not campesino or indigenous farmers) would be involved in such a contract.⁹⁸

In the first official map, over 25 percent of the country was outside a designated center of origin, meaning GM corn could be legally cultivated in those areas. As one social movement expert put it, the “problem with classifying centers of origin and diversity is that it implies that

⁹⁸ The process works in a way that may seem surprising to people familiar with the system in the U.S./Canada, where individual farmers buy transgenic seeds and sign a technology contract with Monsanto/Syngenta/et al. at the time of purchase which restricts, among other things, reuse of the seeds.

other regions are not. Maize is a cross-pollinating crop, making it ineffective to delimit borders that the wind and insects do not respect. Nor is it possible to put a stop to the exchange of seeds and knowledge between people—the very processes that drive agricultural diversity” (Ribeiro 2011).

CARTOGRAPHIC ANALYSIS

The Ceccam produced a critical analysis of the official determination of the centers of origin of maize, released Nov 17, 2011 by SAGARPA and SEMARNAT. The determination of the centers opened the door to issuing permits for the pilot and experimental plantings; within a month and a half of the release, approximately 100 hectares were approved. The following section outlines the Ceccam’s critical analysis.

The official maps were based on the collection of native maize made between 1991-2010 (excluding the two previous collections), and the collections of teocintles (the collective name for the direct wild ancestors of maize) and *Tripsacum* (broader category of native grasses) made since 1970. The country was divided into “cells” of around 5,000 hectares (7 kilometers wide by 7 kilometers high). There were five official criteria for the maps: native maize observed growing in rain-fed area (not irrigated); presumed areas of maize, where rain-fed agriculture was practiced within a distance of 1 or 2 cells; land bridges that connect areas of observed and presumed maize; species of teocintles observed or presumed; and observed species of *Tripsacum*. There were two complementary criteria: excluded were all areas that are more than 60 percent irrigated or within the official Irrigation Districts, areas that are not surrounded by other cells, cell that are at the exterior limit of the centers of origin. The regions that were classified “difficult to access” were included in a center if there was at least one locality with indigenous presence (where more than 75 percent of the population speaks an indigenous

language) within a two-cell area.

Once the above information was collected, the map showed 38.2 percent of the country to be outside an official center (see Figure 6.1). The north of Mexico is where the largest areas are excluded from a center of origin, mostly because the collection did not have seeds from those areas or because they are in an irrigated zone.

The Ceccam produced a map that included locations for all the 22,931 samples (of which 938 were missing adequate longitude/latitude so could not be mapped) in the combined official CONABIO collections from 1927-2010. This map highlights the parts of the new official map where samples exist but are not included in the 2011 government maps. Notably, ten samples in Baja California were not included, as well as several dozen more across the five northern border states (from west to east: Sonora, Chihuahua, Coahuila, Nuevo Leon, Tamaulipas; see Figure 6.2). A total of 301 samples in the official collection were collected in areas considered outside an official center of origin. Furthermore, even from *within* the 1991-2010 collection, 75 samples were considered outside centers. Another nine were found to be located less than a kilometer (in one case, merely 200 meters) from the border of an official “center.”

The next set of cartographic arguments comes from an analysis of where permits for experimental and pilot plantings were approved between March 2009 and November 2011. These maps show that in several places, permits have been approved in areas that are supposed to be within a center of origin (concentrated around the municipio of Marín in Nuevo Leon as well as in parts of Sinaloa and Chihuahua).

Another set of comparisons involves indigenous territory and land protected for natural areas (*áreas naturales protegidas*, nature reserves). In both cases, significant areas are found outside of centers of origin—in the case of indigenous areas, 2,840 areas (pertaining to 34

separate linguistic groups) are located outside official centers, in 17 states. In the nature reserves, no planting of any GM crop is allowed; however, portions of the northern states and the Yucatan peninsula reserved for natural protection areas are outside the centers.

Ejido land is also analyzed; a good part of the land that is not considered a center falls on property communally owned in ejidos or comunidades agrarias. The members of these communities are required by law to make decisions (about land use and everything else) with a 2/3 majority vote in a public assembly—meaning permits for planting transgenic maize would technically have to be approved by the assembly. A minimum of 4,535 ejidos intersect with land that is not considered a center of origin—over 33 million hectares in total.

Taken together, these maps make the argument that, according to the Mexican government's own standards and information, all of Mexico could be considered a center of origin. The government's decision to make determination of centers of origin a bureaucratic requirement, allows industrial agriculture and the interests of transnational biotechnology companies to take priority over the interests of citizens.

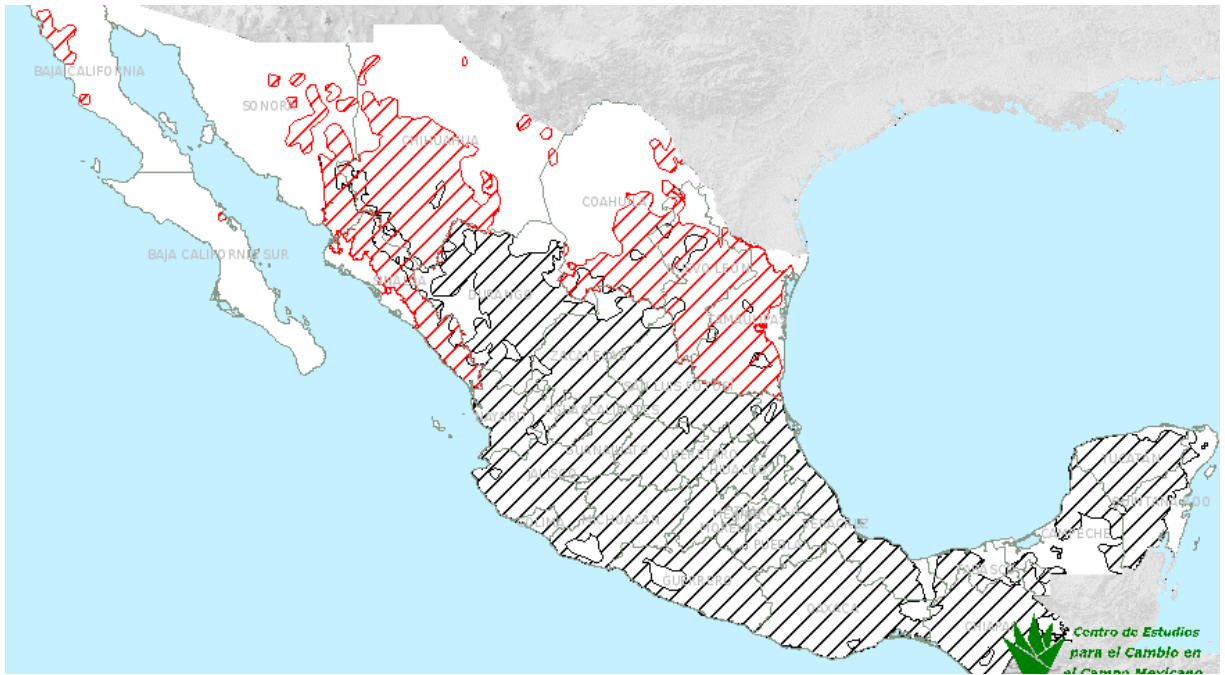


Figure 6.1 Territory outside the centers of origin and genetic diversity of maize. The centers are hatched (the red, north was the first set of official “centers” released, the black, in the rest of the country, was the second set released). The non-shaded parts represent non-centers.

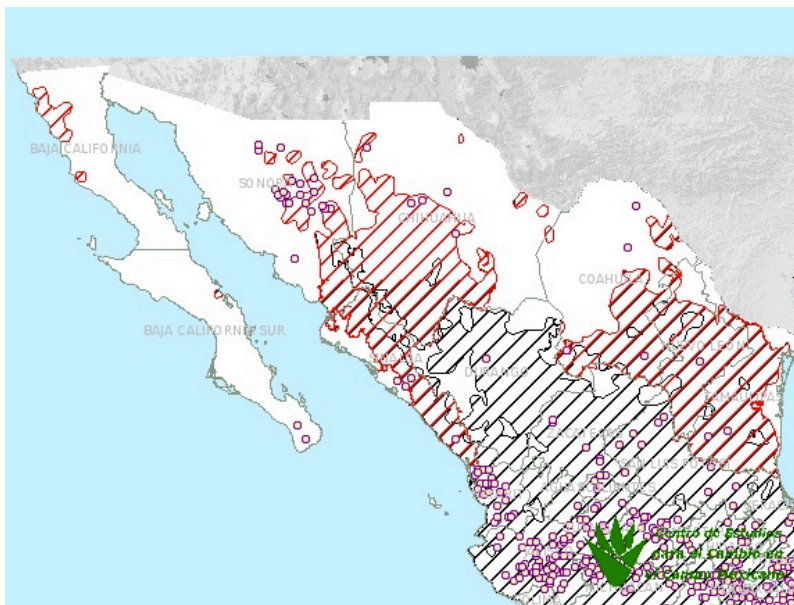


Figure 6.2 In this close up of northern states, the circles show places native corn samples exist in the expanded version of the official collection (beyond the 1991-2010 collection used for the official map).

DE-CENTERING THE CONCEPT OF ORIGIN

La Red en Defensa del Maíz made the strategic decision to maintain the entire country as the center of origin of maize, rejecting the idea that there are certain places that are centers and others that not. It's important to highlight that “all of Mexico is the center” (“*todo México es el centro*”) was part of the network's foundational position when it officially came together in 2002—almost four years *before* the federal government announced its decision to base transgenic corn planting permits on center of origin maps. And so, when the federal government started mapping the centers, social movement actors had already united a discourse around the entire country as “the center” of origin. And, crucially, La Red had already begun the complex process of creating its own maps, which quickly morphed into efforts to counter the state's official cartographic narrative.

MAIZE REGISTRIES AND THE MECHANICS OF MAPPING

After the 1910 Mexican Revolution, agronomists became interested in recording the diversity of maize races. In the 1940s, as the Rockefeller Foundation began its work on the Green Revolution in Mexico, samples were collected specifically to be taken to the United States, where they served as the early basis for breeding hybrid corn varieties. Agronomist Efraím Hernández Xolocotzi (1913-1991),⁹⁹ the key Mexican figure in the Green Revolution, systematically worked to collect landrace varieties, and in 1953 took over the national agricultural university at Chapingo, located in a former hacienda in Texcoco and home to the Green Revolution seed bank held by the Centro Internacional de Mejoramiento de Maíz y Trigo (CIMMYT; the International Maize and Wheat Improvement Center).

⁹⁹ Hernández Xolocotzi was born in Tlaxcala, Mexico and immigrated as a child with his parents to New York City, where he later studied agriculture at Cornell. He returned to Mexico, and during World War II worked as a technical advisor at the U.S. Embassy, at which point he began working for the Rockefeller Foundation.

In order to begin mapping the “centers” in 2005, the Mexican government started by compiling a new registry of maize samples. This registry includes the approximate longitude and latitude, or at least the place names, where the samples were collected. Based on these locations, the state cartographers projected a polygon to designate an official center. However, this seemingly straightforward process depends on a number of questionable assumptions, and even on its own terms—setting aside the theoretical problems with the very concept of a “center of origin” as outlined above—the government’s mapping process is fraught with potential problems.

The national registry of maize samples is divided into three official collections: 1927-1940, 1960-1966, and 1991-2010. Importantly, the first collection took place before the Green Revolution and the advent of hybrid corn. The Comisión Nacional para el Conocimiento y Uso de la Biodiversidad (CONABIO/National Commission for Knowledge and Use of Biodiversity),¹⁰⁰ known for a slightly more expansive approach to biodiversity conservation, integrated the 1927-1940 samples with the 1991-2010 samples to come up with the official number of 64 maize varieties—59 native to Mexico, the other five collected in adjacent countries.

But to make the official government maps, SAGAPRA (Secretariat of Agriculture, Livestock, Rural Development, Fisheries and Food) and SEMARNAT (Secretariat of Environment and Natural Resources) only used the samples from the most recent collection period, 1991-2010, which has only 52 varieties.¹⁰¹ By reducing the number of samples, zones

¹⁰⁰ CONABIO was formed in 1992 after Mexico ratified the UN Convention on Biological Diversity after the Rio Earth Summit, directed since its inception by Dr. José Sarukhán Kérmez.

¹⁰¹ For CONABIO’s official description of the elements required for a center of origin designation, see: http://www.biodiversidad.gob.mx/genes/pdf/proyecto/Elementos_2011_2.pdf

that could be considered centers are erased.¹⁰²

COUNTER-MAPPING

In 2004, La Red decided to embark on a maize-diversity mapping project for the movement. The process for making the maps emerged from collective discussion in the network and began with a collaboratively designed and taught four-year cartography workshop, involving people from research and advocacy organizations based in Mexico City that support La Red, particularly the Centro de Análisis Social, Información y Formación Popular (CASIFOP/Center for Social Analysis, Information and Popular Formation). The workshops were generally hosted at the Centro Nacional de Ayuda a las Misiones Indígena (CENAMI/National Support Center for Indigenous Missions, based in Mexico City). The workshops met at least twice a year between 2004-2008, split between technical and theoretical themes. Although many people attended the early workshops, over the years it consolidated into a project-working group based at the Ceccam.¹⁰³ As Ivan Hernández described, the idea came from “wanting to give people an image of the diversity of maize.” The workshops explored “different ways of seeing territory—for example, we learned the idea of how to locate ourselves in space (*ubicarnos en el espacio*) and we learned the idea that there have been very many forms, in diverse societies, to understand space and live in territory,” he continued.

Thus, when the LBOGM federal law establishing the process to legalize transgenic corn and mandating the need for official maps was passed in 2005, a series of alternative maps and a

¹⁰² Daniel Sandoval and Ivan Hernández interview, May 14, 2013, CECCAM office.

¹⁰³ Ana de Ita, Ceccam director, helped develop the overall project and found international foundation funds to pay for map production and printing. Ivan Hernández Baltazar, Ceccam’s research coordinator, helped shape the project, and Daniel Sandoval, a student finishing his undergraduate degree at the UNAM, did the technical work to elaborate the maps. Critical economist Andres Barreda was one of the key people who organized the initial workshops.

counter-discourse on the politics of mapping was already underway. Three separate phases of the mapping project have taken place over the past decade.

The social movement's first map, begun in 2004, showed where different varieties of maize were concentrated, based on the early 20th century registry of Xolocotzi's collection of pre-hybrid-corn samples. "At that time, there was still not a strong debate over the centers of origin, but there was a need to express that all of the territory [of Mexico] was maize, so people could visually see the diversity, the *mazorcas* [varieties of corncobs]," according to Hernández Baltazar.



Figure 6.3 The Ceccam's first map, in use in a workshop.

The second round of maps was framed as a red alert after permits began to be granted for pilot and experimental planting. Ana de Ita, Ceccam director, is credited for publicizing the fact

that SAGARPA and SEMARNAT had made the list of permit requests for planting transgenic maize available. These “red alert” maps, issued in 2010, focused on the areas where permits for pilot and experimental planting were being solicited. The mapmakers described the government agency as having no desire for transparency—solicitations for permits came in with the bare minimum of required information, oftentimes impossible to read or make a scan, making the locations of the experimental plantings hard to identify, even though they were required to be collected in the official database. The project work team combed through permit information from each state and created a series of databases to answer basic questions: which companies were soliciting permits, what type of permits, how many hectares, and where. The goal was to keep getting more specific, and cross-reference all the available information, in order to identify the actual locations permits were being requested and granted. The permits were solicited at the level of the municipalities, to protect the location of the experiments, so the mapmakers had to work at the general level.

The third, most complex mapping project, released in late 2012, expanded on the both previous ones, involving nearly a dozen separate layers of GIS data,¹⁰⁴ which can be interactively layered. The layers start with the official center-of-origin locations, and then add other available datasets that were identified as important in workshop discussion, such as designations of indigenous territory, nature reserves, and irrigation districts. Although all the maps and analysis are all available online at www.ceccam.org (under the “cartography” link on the homepage), the

¹⁰⁴ GIS LAYERS: Reference points (Municipalities, Ejidos); Maize and society (Indigenous territories, Maize varieties, Teocintle varieties, Transgenics); Sites solicited for the unrestricted planting transgenic maize (Polygons solicited for liberation of transgenic maize (experimental, pilot); Polygons solicited for commercial planting in 2012, Polygons solicited for commercial planting in 2013); Centers of Origin and Genetic Diversification of Maize (CODGM) (First official proposal of centers, Second official proposal of centers (published in the Official Federal Registry)).

information was also diffused through printed versions of the maps, including a 25-page full color version that includes many variations of ways the data layers can be overlaid.

From the beginning of the process, the cartographers aligned with the social movement made the key decision to only work with official information, in order to make visible the contradictions and flaws in the center-of-origin argument, on its own terms. They built the maps using exactly the same data used by the government to make the official map—the same databases of maize samples, the same census counts, designations of indigenous territories, and the same cartographic information. They also worked with the same extension of the country’s territory: “These maps are not a mix of official information and information we have generated or elaborated—this is all public information about the centers of origin, from the government,” as the head mapmaker Daniel Sandoval said.¹⁰⁵

After collecting the data and bringing the inconsistencies under control, the technical procedure for creating the alternative maps was painstaking and complex. The registry of samples included thousands of vertices, the intersections of the edges of lines projected out from the location where a native maize sample was collected. Working by state or region, the database of longitudes and latitudes was entered into a Microsoft Excel spreadsheet and then projected, in this case using the program Admap, to make a computer-generated map. As Sandoval described, “The databases are so large, [they government agencies] just leave it a mess, like SEMARNAT—they leave the work to students doing their civil service to sort out, INEGI [census] all the government institutions do this—in fact, I did it for my civil service, that’s how I learned mapping [*laughs*]. They give you the databases, and the focus area, and you just do it a few hours a day for the 6 months you have—there’s no interest in doing a really quality job of

¹⁰⁵ All subsequent quotes from interview on May 14, 2013, CECCAM office, Mexico City. Translations my own.

managing the information.”

An additional problem with the recent inventory is that samples were only taken from places investigators could drive to. In many states in Mexico, roads reach a small fraction of the rural areas, and significant numbers of indigenous communities are accessible only after hours of traveling off road, hiking or on pack animals. Furthermore, many samples in the most recent inventory do not include latitude/longitude, but only the names of pueblos. This omission is particularly puzzling, given the expanded accessibility of mobile GIS mapping technology, and gives rise to additional doubts about the government’s dedication to collecting information properly. As Sandoval explained,

If you look at the projection of points and overlay a map of the roads, you see that they only have samples of places that they could get access to by pickup truck, on the existing roads. This is a problem that they [the government cartographers] themselves present, they admit it – they are not presenting the samples (*muestras*) as representing every single place in the indigenous zones, they accept they are leaving part of the territory outside of consideration for centers. In some of the workshops, the people [in La Red] recognized that, in the area they are from, there were not any points, even though they know there are landraces (*razas*) and they have not been registered in this map, like where they left empty polygons [area deemed outside a center] in Guerrero, between Chiapas and Oaxaca. We realized, so these spaces, these holes on the map – they are not considered centers because there are not any roads to the area?

The process also illuminates another set of issues: different Mexican government agencies use different official boundaries. The census bureau INEGI has its own designation of the borders within the national territory, projected in a 1992 population map, which are different from the boundaries used by CONABIO or other agencies. So a big part of the process, the mapmakers explained, was figuring out which boundaries were being used with each data set, combining the information, and standardizing the boundaries to the same ones that SAGARPA/SEMARNAT used for the official centers of origin map. If the locations are based on different boundaries, the points will be off, and the entire projection will be wrong.

MOVEMENT SELF-ANALYSIS

The map-making process was conceived as a critical intervention, emerging from an understanding that maps are complex political objects that *do* things, that have effects, and that cannot be separated from their historical, political, economic context. The maps are used to show relationships: “*Para lo que nos sirven los mapas, es para pensar en relaciones. Te permiten vincular información, y ya juntandola, entonces se te ocurren muchas otras cosas,*” (“What maps are good for is thinking about the relationships between different problems. They allow you to connect information, and once it is together, many other things stand out”), Sandoval said.

By taking the precise information used by the official government cartographers and making a series of alternate interpretations, the mapmakers showed the flaws in the government’s official discourse around space and place, on its own terms. The maps were accompanied by a sustained political discourse. One key effect was making the map-space concrete and embedded/embodied, not abstract.

A key part of the process was intentionally creating an alternative set of discourses. As Hernández Baltazar said, “*el discurso que acompaña el mapa es fundamental para el trabajo*” (“the discourse that accompanies the map is fundamental to the work”). The maps were approached as something to be “careful” with, as a powerful force that, once unleashed, could be used in very different ways to serve different agendas. The maps needed to be presented as part of a case for seeing something in a certain way, an argument or tool for a specific worldview. Hernández Baltazar continued, “*Ningun mapa es ‘todo la realidad,’ entonces hay que ver que ese mapa nada mas es un imaginario*” (“No map represents ‘reality’, so you have to see a map as nothing more than an imaginary”). The mapping project was conceived as explicitly political, as Sandoval said, “the maps support arguments that we are convinced about, we take a political

position, and that is what the maps are good for, to support the argument.”

Part of the maps’ power comes from this firm theoretical grounding. From the beginning, La Red clearly articulated the discourse that the entire country is the center of origin. As one activist pointed out, even the places where corn is not able to grow are key to the crop’s diversity—these limits were found through experimentation with planting at the highest possible elevations, in the hottest tropical coastal areas, and in the driest desert regions (Villa, pers. comm. 2011). As the counter-mappers identified, built into the government’s centers of origin map is the idea that there are places that are not centers of origin. Once these non-centers are identified, they can be opened up to GM corn planting. The government’s official maps were accompanied by the argument that transgenic planting would involve little or no risk if planted outside the centers of origin. The groups that came together in La Red rejected this approach by declaring the entire country is the center of origin, and thus should be protected from transgenic corn.

After engaging deeply with the official data over the last ten years of the mapping process, the movement cartographers have developed a core critique that the government removes what they call the “social” from its analysis. These dynamics are especially explicit in the category of irrigation. The government took the approach that if an area requires irrigation, than by default, it is unlikely to have been a center of origin. But the movement viewed the same information differently, pointing out the agribusiness interests at work. GM corn technology is most economically viable under conditions of steady water access. Major irrigation infrastructure was installed in the agricultural regions of the core eight northern states, stretching from Sinaloa on the west coast to Tamaulipas on the east coast, starting in the 1950s, with significant governmental subsidies. Not coincidentally, this area was the first region of Mexico to get its

“centers of origin” mapped in 2011.

When the social movement cartographers overlaid a projection of the areas deemed to be outside the center of origin with a map of irrigation districts, it was nearly an exact overlap—and pointing out the potential for economic interests to have influenced the mapping process. Hernández Baltazar said, “So, even though there are races of corn in one area, if there is more than 70 percent irrigation in that area, than it will not be considered a center of origin.”

Another arena of discursive conflict came to light when the counter-mappers made an overlay of the projections of nationally recognized indigenous territories¹⁰⁶ with the official centers of origin, and discovered many gaps. The movement actors argued that every indigenous territory is a center of origin, and the government’s own indigenous affairs commission recognizes this as a fact. Thus, the mappers pointed out, “the self-same government, in the actualization of its own work, omits information that they themselves produced—the government transfigures the information and presents its work as ‘a rigorous scientific study,’ but in reality they are removing the elements that allow for an adequate understanding” (Sandoval). As Hernández Baltazar said, the government mappers “keep themselves busy with the points, the biological part, which eliminates the social context... We do it the opposite way – we make arguments about the biological, but give more value to the social part. If there are indigenous communities, then they have maize, they live because of maize (*viven de maíz*) – we do it the opposite way, putting the social aspect first.”

¹⁰⁶ Indigenous territories in Mexico are recognized based on the concentration of speakers of non-Spanish languages. The boundaries are much less strict than in the United States, for example, where indigenous territory is tightly restricted to “reservations” and tribal membership depends on establishing lineage.

USES OF THE MAPS

Among the multiple, varied ways the maps have been taken up and used by social actors, one example from Oaxaca is especially emblematic. One of the members of La Red took an early version of the map from Mexico City to present at a workshop with the *Colectivo Oaxaqueño*.¹⁰⁷ The people in the workshop identified their communities on the map, and realized that parts of their territory fell outside an officially designated “center”—despite the landraces they knew to exist in those places. So, the collective started a process to inform the public, collected evidence and a series of supporting documents, then went to a judge and got a legal act of protection (*amparo*) against the lack of respect for their community rights. They realized that because the area was not considered a center, then permission to plant GM corn could be granted. They organized their own study to identify local landrace varieties, and presented the data to CONABIO, demanding recognition of the landraces. They succeeded in pre-emptively getting the area declared a transgenic-free zone.

Such successes are being multiplied as the maps proliferate. "The maps provide a solid argument on which to demand a rejection of the companies' claims," Hernández Baltazar said.

ALTERNATIVE GEOGRAPHIES, OTHER WORLDS

The center of origin concept presumes the power to make maps and mark out territory as having contained, since pre-historic times, certain crops and their wild relatives. As I have shown above, this power rests on a spectral, arbitrary basis; it displays a scientific certainty, but has no scientific basis. The creation of maps with a well-marked and rigorous border between the "center of origin" and its opposite—for the purpose of deregulating GM crops—is a power play.

¹⁰⁷ See endefensadelosterritorios.org for more information at this collective, formed in 2009 as a “diverse and plural space” for civil society and community organizations to organize around environmental and human rights issues in the state of Oaxaca. It works to network popular movements and share information.

It maps out a path to a future of industrialized transgenic corn farming in Mexico, one that the movements see as a future in which the campo is emptied of people and readied for capital accumulation by dispossession.

The mapping projects I have described mount a direct challenge to this power grab. They convincingly refute the state map's logic on the state's own terms, and posit an alternative map that is at least as scientifically rigorous, and no more arbitrary, than the state's project: that the entire Mexican territory lies within corn's center of origin. And it points to a future of territorial autonomy—one where seeds and germoplasts belong to the people who create and tend them, not to shareholders in agricultural firms.

CHAPTER 7

TRIBUNAL: CARTOGRAPHY OF JUSTICE

In this chapter, I will analyze the 2011-2014 process of the Permanent People’s Tribunal in Mexico in terms of the socio-spatial justice practices it generated by bringing together disparate crimes under the rubric of the “violence of free trade and structural adjustment.” Instead of accepting that justice is impossible within the Mexican state, La Red contributed to a new process of grassroots-global legal analysis and review. A new dynamic was generated in the process, whereby people who previously had been individualized as victims of a diverse range of crimes in Mexico came together and—instead of exacerbating or increasing their sense of victimhood—generated a new sense of collective identity through the articulation of community rights. Specifically, I show how the emergence of the concept “*desviación de poder*” was a key shift in the knowledge practices of the social movement actors, representing a decisive shift away from seeking justice from the Mexican legal system and instead seeking alternative justice horizons from the Tribunal. “Desviación de poder” is a complex concept, which I’ll tease out below; literally, it means “power drift,” or “power deviation.”

TPP - TRIBUNAL PERMANENTE DE LOS PUEBLOS

In a display of defiance against the paralyzing effects of the crises confronting Mexico, a group of social movement and civil society organizers—with a key role played by the Maize Defense Network—succeeded in getting the state of Mexico put on trial in the international court of public opinion, the Permanent People’s Tribunal/Tribunal Permanente de los Pueblos

(hereafter referred to as the TPP, its Spanish acronym, or the Tribunal).¹⁰⁸ Although less famous than its official counterpart, the International Criminal Court in the Hague, the Tribunal arguably holds even higher moral authority, precisely because it has less jurisdiction (and thus is less beholden to various state interests).

Crucially, the Tribunal is designed to judge states, not individuals, for crimes against humanity. Given the Mexican state's high level of impunity, the TPP's testimony and documentation of human rights and environmental abuses represents the best hope for justice: displaced into the future, and out of the hands of the Mexican state. Like so much of the work of La Red, the resort to the TPP is a condemnation of the Mexican state—it operates on the assumption that the state is a dead end, impermeable to popular demands not backed by weighty financial instruments.

The history of the tribunal is key to understanding how and why it works. The original idea is attributed to Bertrand Russell and Jean-Paul Sartre, in the wake of France's war to preserve its colony in Algeria, built on the claim that state crimes in one country involve the complicity of other state governments. As such, international dynamics are fundamental to the tribunal, and state impunity is the crime the TPP process is specifically designed to address. Before World War II, European states generally functioned without interference, but the Holocaust changed this dynamic. The Nuremburg trials established the complicity of the Nazi state in war crimes against humanity, and passed judgment against the German state.

Inspired by the Nuremburg trials, Russell and Sartre launched the TPP's first War Crimes Tribunal (also called Russell Tribunal) to investigate the role of the United States in the Vietnam

¹⁰⁸ This section draws on Andres Barreda 2 Feb 2014 interview, Ramon Vera debate at Asturias focus group, my attendance at the Oaxaca TPP pre-audience in May 2013, and seminars and debates at the Casa Lamm and UNAM in May 2013.

War. Taking place in 1966-'67, it investigated U.S. involvement going back to 1954, when the French were forced out of Vietnam and the country was divided into North and South.

The Tribunal uncovered much of what is now publicly known about U.S. atrocities in Vietnam. It established that the "crimes in Vietnam in 1965 are crimes of the North American state," Barreda explained (this and the following quotes from 2014 interview). "The tribunal has been guided by the idea that ethics is a patrimony of the people," he continued. It's notable that *Lázaro Cárdenas*—who as Mexican president in the 1930s presided over the expropriation of foreign oil interests in Mexico and led one of the most serious land-reform efforts in its history—was the Mexican representative to the Vietnam tribunal.

After the Vietnam trial, the tribunal came to Latin America, and had a base in Mexico with Gonzalez Casanova as a judge. The Universal Declaration of the Rights of Peoples¹⁰⁹ in Algiers in 1976 recognized for the first time the destruction of human rights at the hands of transnational economic forces. The key argument was that protection against violation at the hands of economic forces could only be found in collective, not individual rights (Barreda 2014). To date, approximately 40 tribunals have been held around the world. The lawyer Lelio Basso is credited with being the founder of the TPP and making the headquarters in Rome, based on his participation in the Russell Tribunal.

The process of getting Mexico accepted into the tribunal started in 2008-2009, and it took three solicitations over two years. Initially, 50 organizations in Mexico signed the petition; by the end, there were almost 300. In 2009, the secretary general gave a workshop on how to organize the tribunal in Rome, and the petitioners from Mexico took inspiration from the model in Colombia: a three-year process with various audiences on different thematic issues.

¹⁰⁹ http://www.algerie-tpp.org/tpp/en/declaration_algiers.htm accessed November 12, 2014.

The key challenge was convincing the judges that there was a case to be made against the Mexican state for crimes against humanity. Outside of Mexico, the country has a reputation for being a democracy and known for its historic embrace of refugees—over 100,000 Spanish refugees came during the Spanish Civil War, the country took tens of thousands of people escaping the dirty wars from all over South America, and many Eastern European Jews were offered asylum during World War II. But starting in the 1980s, when Mexico got involved in structural adjustment, and especially after 1986 with GATT, “free trade began to destroy the community ties, the destruction of the national market and the campo, national industries, the gasoline production in Pemex. There was a scaling up of the levels of corruption in the government, and increased influence of narcotics, increased flow of migration. The new levels of violence became normalized. From the outside, Mexico may look like an asylum for political refugees, but inside it is a different story,” (Barreda 2014). The TPP complaint covers the specific time frame of 1982-2014.

There is a body of “guarantors” in Mexico, people considered to be of the highest moral authority, as required by Rome.¹¹⁰ Many others also helped with the process, writing documents, organizing workshops, giving advice, participating as judges – approximately 1700 people participated in the preliminary hearings. “We are not trying to include every problem that exists, but instead ones which real organizations are responding to, fighting against the aggressions occurring in our country,” Barreda explained.

¹¹⁰ Guarantors in Mexico are: Magdalena Gómez Rivera, Obispo Raúl Vera López, Javier Sicilia, Jorge Fernández Souza, P. Clodomiro Siller Acuña, Gilberto López y Rivas, Andrés Barreda Marín.

The final audience took place November 12-15, 2014 in Mexico City, and the verdict was “guilty” for the state of Mexico for crimes against humanity. The overall framework for the trial was Free Trade, Violence, Impunity, and the Rights of the Pueblos in Mexico. This case represents the first time the TPP has focused explicitly on free trade and the structural violence and impunity that has accumulated from it. As one activist testified, “There has been an insistence on something that might appear banal to the planners, but the central crime of this trial is the desire to dehumanize life, quantify it, put it on the market. This may sound ideological but it is not, it is brutal. The attacks on maize and the pueblos that cultivate it are a direct attack against the relationships that have permitted life on this earth for at least 10 million years” (Vera 2014).

“In the view of this Tribunal, impunity is not only an absence of punishment, but also a mechanism which attempts to avoid acknowledging and accepting responsibility. In the case of Mexico, which tries to dilute responsibility between municipal, state and federal authorities, the mechanisms for ensuring accountability, such as official human rights commissions, are sadly ineffective” (TPP Final Ruling, 2014).

To establish the violence of free trade, the trial was originally organized under seven main axes, with several transversal axes added later:

1. *Guerra Sucia* (Dirty War/Drug War)
2. *Feminicidio* (Femicides)
3. *Laboral* (Labor)
4. *Migración* (Forced Migration)
5. *Maíz* (Maize)
6. *Ambiental* (Environmental Devastation)
7. *Desinformación* (Media censorship)

La Red played a key role in articulating “violence against maize” and the countryside as one of the seven areas, putting rural issues and the threat of GM corn alongside the violence from

the drug war, femicide, migration, forced displacement, media censorship, workers-rights violations, environmental devastation, and indigenous rights. The TPP created a new process where each of these movements informed the agendas of the other, bringing issues that had previously been treated individually together into one framework.

Leading up to the official proceedings, there were five pre-trial hearings on "violence against maize": The Collision between the Campo and the City (Tepoztlán, Morelos, November 23, 2012); Transgenic Contamination of Native Maize (San Luís Beltrán Oaxaca, April 26-27 2013); Territory, Subsistence, and Vida Digna/Dignified Life (San Isidro, Municipio de San Gabriel, Jalisco, June 28-30, 2013); the Politics of Extermination against the Maya Pueblo (Mani, Yucatán, November 9-10, 2013); and the Preliminary Scientific Hearing on Transgenic Crops: The Case of Mexico with Emphasis on Maize (November 12-14, 2013, México, Distrito Federal). More than 1600 people representing pueblos, communities, collectives and organizations that base their existence on the cultivation of maize and taking care of their territory contributed testimonies illustrating the violations and attacks at these hearings. Based on evidence presented at these hearings, the TPP found the presence of three or more transgenes in native maize plants in 25 states, and 71 scientifically supported cases.

In the final opinion on the violence against maize, the TPP found (my translation):

First offense: the attempted extermination of maize and the cultures, worldviews and ways of life that were created along with it, equaling the rupture of a civilizational matrix.

Second offense: the systematic attempt to destroy the territories which are integral to the spiritual and concrete life of the pueblos, through processes of fragmentation, breakdown, reduction, privatization, exploitation and pollution, in processes of dispossession.

Third offense: the clear and systematic intent to destroy and end the ability of people and communities to autonomously ensure their livelihoods and ways of life.

Fourth offense: the destruction of native peoples and the organizational fabric of communities, their assemblies and cargo systems, instead being replaced with terror and distrust.

All the aforementioned grievances make a multifaceted, systematic and intentional attempt to end the existence of the peoples of the Mexican campo. (TPP 2013).

The discursive construction of violence against maize as a community-based human rights violation is a direct example of how ideas about the future affect contemporary social practices—people are documenting what has been destroyed, and the social movement is explicitly producing knowledge that forms a sense of a collective subjectivity deserving of justice, albeit justice delayed into the future, and not coming from the Mexican state.



Figure 7.1 Vandana Shiva serving as a judge at the TPP hearing in Oaxaca, April 2013.

DESVIO DE PODER

A concrete example of the mechanics of critical knowledge production practices comes from my observations of how the concept "desviación de poder" (power drift, abuse of power) was collectively developed. The concept first started to take shape publicly at an international meeting organized by La Red, La Vía Campesina, and the Asamblea Nacional de Afectados Ambientales in Guadalajara in March 2010. It was a counter-summit timed to coincide with the official UN Food and Agriculture conference, taking place in the same city at the same time. The

FAO was seen to be giving a stamp of approval to corporate agriculture and biotechnology interests by holding a technical conference, co-sponsored by the Mexican government, the World Bank, and others, called “Agricultural Biotechnology in Developing Countries,” with the agenda of showing how biotechnology can be used to “face the challenges of food insecurity, climate change and natural resource degradation.”¹¹¹ The timing of the FAO conference was especially offensive to Mexican social movement activists, coming on the heels of the government’s approval for experimental plantings of GM corn only a few months before.

The counter-summit, called “*Los Transgénicos Nos Roban el Futuro*” (Transgenics Steal Our Future), was organized as a public trial to collect testimony in front of an internationally recognized human-rights lawyer, Magdalena Gómez, about whether “privatizing life” and transgenics are a crime against humanity. Framed as a “campesino and popular trial of transgenics” (“*juicio campesino y popular a los transgénicos*”) the goal was to collect evidence about GM contamination that could be the formal legal base to make the case that GM corn in Mexico is a crime against humanity.

Over the course of several days of testimonies, themes of anger, disgust, and mistrust of the Mexican government emerged repeatedly. People testified to their experiences of being deceived by the passage of laws that have the veneer of protection for the community, but actually serve as a cover for corporate interests. In particular, the regulation to “protect” native corn in fact created the framework for undermining it, and allowing for the legal planting of GM corn. As a Vía Campesina coordinator said, “why aren't there laws to benefit the poor? Because the laws benefit the powerful” (Gómez Flores, pers. comm. 2010). Another activist said, “The FAO came to Mexico to dance and be complicit with the Mexican government... We must denounce the

¹¹¹ <http://www.fao.org/biotech/abdc/conference-home/en/> accessed March 15, 2015.

Mexican government and the FAO jointly. We have no faith in the Mexican government, it has failed the people at a historic level...the government is harmful to the people,” (Vera, pers. comm., 2010).¹¹² "Desviación de poder," a juridical phrase, was proposed as a way to denounce the Mexican state for using the law in a way that subverts the interests of the people.¹¹³ As the judge, Magdalena Gómez said at the 2010 Forum, “the State of Mexico is giving up its own power [to private interests]—how can we make the government defend communities?”

The absence of trust in the Mexican government signified that activists would look outside the country, at the international level, for the moral authority to make a judgment against the Mexican government. The hearing formed a key part of the bid for Mexico’s acceptance to the Tribunal. One participant proposed the metaphor of an umbrella to describe the goal of getting the attention of the international tribunal, saying, “We can use it as an umbrella to protect us, while we do the daily actions that protect maize,” (de Ita pers. comm., 2010).

At a workshop at CENAMI in Mexico City a few months later, the concept of “desviación de poder” was further developed and debated. After a morning of presentations from the invited experts, there was an open discussion about the purpose and goals of the Tribunal among the approximately 50 people present. The guiding questions were “what is the purpose of the Tribunal, how can we use it, what will the official complaint be, and who are those responsible?”

The point that emerged most strongly in the discussion was a reaffirmation of community expertise—although the Tribunal is an international body, and the testimonies are formalized, it is the communities that are the carriers of knowledge (“*portadores de saber*”). Communities, not the government, NGOs, or investigators, are the experts: “Do not think that anyone else knows

¹¹² “...*una falla historica en contra de la gente...el gobierno es nocivo contra la gente*” (Vera, pers. comm., 2010).

¹¹³ “...*el Estado mexicano utiliza de manera facciosa el derecho*,” (Gómez, pers. comm., 2010).

more,” (pers. comm., 2010 CENAMI workshop). Crucially, the TPP conceives of rights as collectively constructed (see the 1976 Algiers Declaration Universal Declaration of the Rights of Peoples¹¹⁴), framing human rights as dependent on community rights to exist and be defended (Barreda pers. comm., 2012). At the end of the 2010 workshop, the TPP organizer said, “This is the TPP;” although the official opening was more than a year away, the workshop discussion is itself already part of the process (Barreda 2012, CENAMI). He described the TPP as “a space to start imagining new forms of things. It’s not going to start later. We have to belong in the tribunal, it is a grand process, not an event.”

People at the meeting decided to organize gatherings and workshops in their regions, to prepare the lawsuit. They agreed together on the best questions to ask back in their home communities, and came up with: “what are our rights? What is being destroyed?” and reaffirmed that the goal is to “say in our own words how things are affecting us.”

The group returned to the concept of “desviación de poder” and further articulated the idea as “how people have used laws not to protect the pueblo or maize, but instead to introduce GM corn...the government has used laws not to protect people but to harm community life.” A legal framework has been used to “keep power away from people and people out of power” (Villa, pers. comm., 2012).

The TPP was discussed as an opportunity to put maize on the agenda of the other six working groups: “the tribunal allows multiple themes to come together, show the complexity of the problems...it’s a pretext to sit down and talk and reduce our weakness (“*debilidad*”),” (Robles, pers. comm., 2010).

¹¹⁴ http://www.algerie-tpp.org/tpp/en/declaration_algiers.htm accessed March 15, 2015.

The wording of the final ruling of the TPP,¹¹⁵ released in late 2014 (this quote is from the official English translation, released in 2015), reflects the importance of the power drift (“desviación de poder”) concept:

All decision-making power has thereby been taken from the institutions which represent the interests of the Mexican people. The space occupied by public law has disappeared. **The State has become the promoter and certifier of investors’ private operations. The law thereby loses its role as a protector and becomes a means of diverting power, expropriating it from the Mexican population and vesting it in trade agreements, pressure from transnational corporations and the interests of the economic elites.** That ‘abuse of power’ has been described as a transformation of the State apparatus which, whilst reinforcing, subcontracting and updating an awe-inspiring punitive capacity, is definitively abandoning any concern for the well-being of the population, **using public power to further private interests, thereby encroaching upon every one of the historic gains achieved by the peoples in their long struggle....** Although that process is, to one degree or another, common to many modern states in neoliberal contexts, Mexico’s is undoubtedly an egregious case given the level that abuse of power has reached, the degree to which the State’s representative and social functions have been hollowed out, in keeping with the fact that it has feigned business as usual, unlike the dictatorships where those functions are explicitly abandoned. It is that, amongst other factors, which has masked the gravity of what has happened in Mexico. (TPP 2014, emphasis added.)

The Tribunal found four actors legally responsible for the crimes against humanity in Mexico:

The Mexican State, transnational corporations, third countries (such as the United States and Canada), and international institutions (specifically the WTO, the IMF, and the World Bank).

Thus, by seeking justice internationally, the TPP process subverted the legal discourse and challenged the spatial boundaries of justice within the nation-state. These two moves represent a reformulation of the notion of justice on the terms of practices of autonomy and truth-seeking.

As Speed and Reyes (2005) showed in an analysis of Zapatista appropriations of legal discourses, the legal framework can be reappropriated in ways that “represent radical reformulations that challenge rather than reinscribe existing power relations.” The TPP process

¹¹⁵ <http://www.tppmexico.org/final-ruling-permanent-peoples-tribunal-chapter-mexico/> accessed March 20, 2015.

was designed to integrate complexity. The systematization of these crimes in terms of their connection to free trade is absolutely novel. The judges at the final hearing declared they see this framework as representative of a historic shift in global justice initiatives.

CHAPTER 8 CONCLUSIONS

“The space of knowledge is a space of struggle; it is forged in resistance and feeds on searching and subversion. It is constructed in the process of resistance against all types of colonization, particularly in the face of those that attempt to alienate the self-generation of other visions of the world. The place of knowledges is a place of a sense of self and of daily life accompanied by traditions that also change through those daily practices” (Ceceña 2012, 121).

The previous chapters have outlined some ways some people have collectively approached a perception of agrarian crisis by intentionally creating both alternative narratives and alternative possibilities. A dynamic sense of collective identity and agency is crucial to creating the sense, and concrete experience, of social change as a lived, embodied possibility. These types of collective action, when approached as “broad and distributed,” throw into question the assumption that “collective” means like-minded people working together, and that “action” implies a consciousness, distinct from thought (Gibson-Graham 2006, 165). Instead, the social-spatial imaginary of the origin of maize and the figured world of the milpa together work to expand the future realms of possibility, bringing together collective traditions and memories.

Drawing conclusions during an ongoing, evolving set of crises is difficult. As discussed in Chapter 2, the Mexican campo has been under steady pressure, reflected in then-Agriculture Secretary Luis Téllez’ statement in a 1994 interview, that it would be a “highly desirable phenomenon” if the “rural population could be absorbed by the industrial and service sectors”

(Téllez, 1994). However, when NAFTA went into effect in 1994, Mexico's campesino population stood at 28 million; as of 2015, it stands at 29 million.¹¹⁶

To understand the interlocking dynamics of crisis and hope, in Chapter 1 I analyzed the dynamic nature of the social movement landscape in contemporary Mexico. New ways of organizing within groups united by traditional identities (like campesinos, students, and union workers) have begun intersecting with many kinds of individual protests mobilized against the impunity and violence that has come to dominate Mexico, crystallized since the disappearance of 43 students from Ayotzinapa. In Chapter 2, I outlined ways social movement actors have framed a strategic understanding of 20th century Mexican history. The conflict with the Mexican state over transgenic maize has been waged in terms of autonomy and territory, in a rearticulation of concepts tied to the Mexican Revolution. Chapter 3 laid out why GM corn is a crucial matter of biological and economic concern to social movement actors in Mexico, and outlined the legal framework for authorizing transgenic maize in Mexico. From this constellation, social movement critiques of GM corn have emerged on the terms of privatization, corporate control, and neoliberal economics has emerged. Chapter 4 situated the emerging discipline of anthropology within processes of post-Revolutionary state formation in 20th century in Mexico, exploring how different theories of the state constituted different approaches to the rural issues and the “peasant question.”

The final three chapters described and analyzed specific, concrete sets of world-making practices taking place at different sites of struggle. These places have become sites of experimentation. I have ethnographically traced how each of these practices emerged in moments of crisis: the crisis of contamination, the crisis of defining the centers of origin, and the

¹¹⁶ The total population has increased from 93.5 million in 1994 to 115.5 million in 2015, so the percentage of the rural population is less; however the rural population remains a steady fact.

crisis of state impunity, framed within the larger discourse that the government's aggressive push to bring GM corn into Mexico is part of an "attack on the campo" that specifically started with the neoliberal reforms of the 1980s.

In each of the responses to these crises, social movement actors reached clear moments of rupture, where they actively refused to play by the same rules or within the same time horizon as the dominant players, and instead changed the rules entirely to play a different game—on its own terms. In effect, the network has moved from “resistance against domination to the affirmation of difference,” (Zibechei 2012, 211).

A key implication is that the campo Mexicano will not disappear, despite great challenges. This dissertation has shown in detail how new knowledges, understandings and ways of being are emerging in the struggle against GM corn. Furthermore, La Red has consistently generated new collective identities that are articulated around ways of being and understanding the world that are not caught in a dialectic of resistance. These emergent processes of social change are challenging binary distinctions like rural-urban and traditional-modern.

- 1) Instead of accepting dependence on expensive testing by outside experts or external resources, network members developed a deep sense of community authority and understanding of their own role as caretakers, the only ones who can actually protect and heal maize and maintain the milpa. These knowledge practices led from laboratory testing to campesino diagnostics.
- 2) Instead of accepting that maize is a “thing” with an identifiable center of origin, La Red—through engaging and transforming official maps and governmental and GM seed industry discourses—generated a collective identity in which not just all of Mexico is the center of origin of maize, but also maize is the center of origin of the people of Mexico. These knowledge practices led from the government’s mapping of “biological” centers to maps integrating layers of cultural, economic, and political elements.
- 3) Instead of accepting that justice is impossible within the Mexican state, La Red has generated a new mode of grassroots-global legal analysis, connecting across struggles to create a new collective identity as communities deserving of justice. The knowledge practices led from looking for justice from within the Mexican legal system to seeking alternative international justice horizons from the Tribunal.

I do not romanticize the social movement networks that have risen to "defend maize" in the age of transgenic corn. But the historical fact of the perseverance of campesinos and indigenous people—against the government's stated goal of clearing the campo and the myriad of challenges the campo faces—cannot be denied. The apparent massacre of the Ayotzinapa students has unleashed new and unpredictable forces in Mexico, from the campo to the cities and from government offices and narco-mansions. But despite what atrocities may be yet to come, all evidence suggests that the campo will continue to reinvent itself, persevering by creating new practices that generate and protect the figured world of the milpa.

The campo will likely do more than persevere. In a statement released ahead of the Tribunal in 2012, La Red, in conjunction with La Vía Campesina and more than 1,000 indigenous communities, declared that “the attacks on maize and the peoples who cultivate it are attacks not only on the most ancient strategies, but on those that offer humanity its best possibilities for the future.”¹¹⁷ That line of thinking is echoed in La Vía Campesina’s slogan, "peasants cool the world"—that is, smallholders farm in ways that sequester carbon in the soil, mitigating climate change and making land more resilient to floods and droughts.

While these claims may sound exaggerated, a growing consensus of international agricultural development experts concludes that a robust global food supply in an era of rapidly changing climate depends not on the ever-expanding dominance of GM seed purveyors like Monsanto, but rather a "rapid and significant shift from conventional, monoculture-based and high external-input-dependent industrial production towards mosaics of sustainable, regenerative production systems that also considerably improve the productivity of small-scale farmers," as a

¹¹⁷ http://www.grain.org/es/bulletin_board/entries/4462-the-reasons-of-maize accessed April 2, 2015.

2013 report from the United Nation's Conference on Trade and Development put it.¹¹⁸ Mexico's milpas, long derided by the Mexican state as the outdated residue of a pre-modern past, may yet prove to be the best hope for a prosperous future.

This analysis resonates with what van der Ploeg (2010) has called re-peasantization, or the re-emergence of peasant farming in the 21st century, which he identifies as a response to the global agrarian crisis and a crucial part of world food security for the future. He critically identifies this rupture with the trend towards modernization in farming, as farmers actively re-articulate the meaning of farming and reject the industrialization of agriculture (e.g., GM seeds), increasing yields and profits at the same time. Crucially, resistance is embedded into production practices, “resistance resides in the field” (van der Ploeg 2010, 16), that embrace diversity and autonomy—precisely the kinds of practices documented in this dissertation.

A final note on food sovereignty, as discussed in Chapter 1. The concept, as it is now used by La Vía Campesina, grew directly out of social movement encounters. La Red participants have embraced its power as a tool for global thinking—a framework through which Mexican campesinos can connect with smallholder farmers engaged in other specific struggles in other places around the world, through a fundamental analysis of power and politics in the global food system. But in the Mexican context of the fight against transgenic corn, as this dissertation has shown, food sovereignty is not central to the way social movement actors in La Red articulate the struggle. Instead, La Red is keeping alive a fight that has gone on for generations: the power and right to till land and plant their own seeds. The fight is for autonomy and territory, and the right to be different.

¹¹⁸ http://unctad.org/en/PublicationsLibrary/ditcted2012d3_en.pdf accessed April 2, 2015.

APPENDIX A:

Field notes and thought experiment on SEEING BEYOND POTENTIALITY—THINGS THAT-DIDN'T-HAPPEN AND NOT-KNOWING

My research has found a set of interesting, successful, and theoretically complex practices around food, sovereignty, autonomy, and justice. I found a deep source of hope, in the struggle for diversity and the myriad of already existing multiplicities. But also, as soon as I hit the ground in Mexico, inevitably, I was struck by all-around, encompassing ethical dilemmas, in part from the sheer volume of everyday suffering in Mexico. The question I am calling “where to look,” and when to look away, came to the forefront. And I realized that it is not the job of people negotiating terrible situations to provide hope for the future by showing the emergence of new forms of social life—and especially not for privileged academic tourists who have dropped in to volunteer, as earnest and warmly embraced as they may be.

In Mexico, the “illegal” is everything and everywhere. The extreme corruption, inequality and impunity in Mexico, with its attendant violence and lawlessness, expands the range of illegal maneuvers to touch upon most aspects of everyday life, for everyone, starting with the most basic necessities for survival, food and water—the few cents you tip the boys who deliver water help them pay their required ‘taxes’ to the narco-mafia that controls the neighborhood (even in the extremely safe middle-class neighborhood near the university when I eventually settled in Mexico City). A “bite” is taken out at every point in the sale and purchase of food, whether you cook at home with groceries from Wal-mart or from one of the dwindling public markets, and especially if you eat in cafes or restaurants. Every illegal thing in the country moves through the *centrales de abasto* (wholesale food exchanges) via food and beverage shipping. Utility companies, now privatized, are renowned for their impunity and corruption. Although not always the default the way it used to be, traffic law violations tend to be bribed away, and the legality of vehicles is always in flux. Likewise with what seems like vital paperwork in the United States, house deeds, wills/testaments, or taxes, these things are constant negotiations. Calling upon public services like police or ambulances involves an entirely different organization of payments and bribes. There are very few crimes for which calling the police is even momentarily considered.

The visibility of everyday suffering could be considered one of the defining characteristics of Mexico. Suffering is inescapable, in humans, animals, natural environments—these displays are constant, practically within every line of sight, even before the literally breath-taking casualness of narco-violence.

Taken together, what I’m calling the “illegal everyday” and the depth and breadth of everyday suffering increases the analytic challenge to theorize how and why alternative worlds emerge in Mexico, and the social and ethical responsibility that comes along with them.

Anthropologist Elizabeth Povinelli’s (2011) analysis of the conditions in which new forms of social life emerge provides some ways to think through this set of complexities. She is particularly interested in the idea of time, and tense, specifically the future anterior – how people use the idea of the future to justify what is happening in the present, and in the process deflect the social and ethical responsibilities of right now.

Like the people Povinelli writes about in *Economies of Abandonment* (2011), the wide range of people caught in the struggle against GM corn in Mexico reflect a vibrant potentiality, emerging from the conditions in which they find themselves situated. These conditions could be characterized as so harsh as to be practically unbearable; they are also generative of surplus

meaning and excess, in the Gibson-Graham sense of possibility and over-determination (Gibson-Graham 2006, xxxiii). But this is not a position these people chose—they did not decide to drop out, or represent other worlds, or fight against the hard edges of the neoliberal economic system for survival—they do not necessarily *want* to embody potentiality. They are “not trying to overthrow capital, but to live otherwise within its seams” (Povinelli 2011, loc. 1460). Povinelli suggests that seeing *only* potentiality is an ethical lapse, and she demands the recognition of the exhaustion and endurance that goes hand-in-hand with potentiality, and that may, in fact, “provide the possibility of being otherwise.”

She levels a serious challenge to those who find themselves “theorizing” alternative world-making practices yet narrowing their view to only see potentiality: by “return[ing] to some transcendental fixed point, or a set of normative, even if revisable, horizons,” one risks avoiding the nature of the given world when it most needs to be theorized. Indeed, Povinelli argues that:

To be the same, to be durative, may be as emancipatory as to be transitive. To live the present as if it were this future demands that a social world learn how to maneuver illegally. Those who do must hide out within this environment, appearing to be in a time they are not even as they must go on heightened alert because the time they are in is a time no one wants to recognize” (Povinelli 2011, loc. 1695-1696).

Another way of thinking through the ethical dilemma I describe as “where to look” comes from John Law and Marianne Lien (2013), who call for paying attention to the invisible relations—the things that do not thrive, that do not fit, “the hinterland of practices that do the ‘losers’... In a relational world, control and ordering are impossible without lack of control and disordering. Like flowers and weeds, each implies the other (Law and Lien 2013, 369; referencing Bauman, 1989).

This suggestion resonates with the idea of the negative dialectic—that is, given the myth of progress, what gets taken up in the synthesis is the failure of imagination and hope, yet the residues of these possibilities “tinge” the world as we know it, and possibilities emerge from getting out of synch with the current times; this is Bloch’s non-synchronicity and forward-dawning (1959).

Like most people living and working in Mexico, I have consciously tried to not-really-see the narco-crime in the country. *Not-knowing* is what is done, I quickly learned, and there are so many things I do *not know*—which cartel controls this region, which “alternative” crops are grown or processed here, what kind of pressure (economic? Or la chiva/AK-47?) ensures the harvest of these crops, and the silence, the impunity? No one knows whose daughter is in hiding after she was kidnapped and ransomed. Something I do know, because everyone has to, is that you must not go to that part of this town, or this part of that town, or really anywhere in that state, because it is disputed territory—“*fuera de juego*,” offside, in the soccer slang. The cartels are getting things back in line, working out the discipline amongst themselves, after the wrong people were doing the wrong things in the wrong places, disputing the rights to the *plaza* (territory for doing business). In practice this could mean that the local businesses either did not pay their protection money (or could not pay it to all the various groups that demanded it), so anyone who sets foot there is in danger of being caught in cross-fire, or worse. I repeatedly changed my plans to avoid areas that became too chaotic and thus dangerous—places that were under control and thus basically fine, with the right people, during my pre-dissertation work in 2008-2009, were off-limits by 2011-2012. A group of family farmers I had met in one of those

areas, who had become friends, told me they were on edge all the time, *not-knowing* when the men with guns would show up, to demand protection money, or, again, as always, worse. For example, the northeast border state of Tamaulipas has effectively become a narco-paramilitary base and training zone in its entirety. In the past five years, landowners have been forced at gunpoint to sign over the deeds and titles to hundreds of thousands of hectares of ranchland and cattle herds, which go to feed the paramilitaries. To be clear, I never put myself personally in danger, exactly, but my presence in certain places created an extra layer of fuzziness, an additional, different set of complex things to negotiate for the people around me. Besides being more complicated all around, it did not feel ethical to insert my presence.

When I started this project, I assumed there was a high level of tacit knowledge about all *that*, the bad stuff, but I came to understand that really, people do *not-know*. Asking can be very dangerous, the media is silenced, and people have to get through the day. In this way, not-knowing may be seen as a tactic, in the Scott (1985) sense, a creative work-around to strategies of narco-domination. But, more relevantly in terms of practice, not-knowing is also experienced physically, a bodily feeling—one's attention just slips, there is a cloud, an emptiness, a glaze. There are places—whole states, like Veracruz, home to the...—where the topic is so off-limits it isn't even said aloud. At least in the north, in places I have been in Sinaloa and Chihuahua, it's on the table, through euphemisms of course, the "situation," the "problems," "*las cosas*" (the "things"). But it is a fact, people can say it—hey, you need to get off the street and get locked inside, an hour before dark, because of "the situation." When knowing is too risky, *not-knowing* takes shape as a key social-spatial practice.

APPENDIX B:

EXCERPT from Pronouncement of Jóvenes Ante la Emergencia Nacional and #YoSoy132ambiental against transgenic corn and in defense of native seeds and food sovereignty (translation by Alice Brooke Wilson)
July 1, 2013

TO ALL THE PEOPLE OF MEXICO AND THE WORLD

TO THE INHABITANTS OF THE COUNTRY AND THE CITY

National Emergency in Mexico: Transgenic Corn

For over three decades, the various governments of the country have been engaged in a series of economic, political and social reforms that, instead of improving the quality of life of the Mexican population, have created an extremely precarious situation. The current illegitimate and repressive government of Enrique Peña Nieto intends to privilege this model, putting the interests of national and transnational companies ahead of the interests of the population of the entire country.

A clear example is that, as of today, agribusiness companies Monsanto, Dow AgroSciences and Pioneer-DuPont, the principle seed distributors in the world, are seeking to plant GM maize commercially on about 2 million 400 thousand hectares in the states of Sinaloa and Tamaulipas. Only the federal government can grant the required permissions, as reported by the Secretary of Agriculture (SAGARPA). This represents serious threats in several respects: the health of consumers and producers, through the use and contact with the chemicals needed to cultivate GM seeds and the lack of studies showing that transgenic foods are safe for human consumption; risks to the capacity for food production, as industrial agriculture creates a strong dependence and subordination of producers to agribusiness companies; the environment, through the loss of ancient maize varieties by crossing with transgenic plants; the environmental devastation that industrial agriculture represents as a whole (land use change and expansion of agricultural land, loss of soil fertility, pollution of bodies of water, loss of biodiversity, etc.); in addition to the fact that planting transgenic corn is an attack against the most profound cultural traits of Mexico, the people and place (*pueblos*) of corn.

...

About neocolonialism, or how they take away our knowledge, our seeds and our lands

We must understand this as the continuation of the process of destroying the Mexican countryside, unleashed in the early eighties when our country began a new era of integration into the world market. This began with the implementation of structural adjustment policies, neoliberal style, promoted by international agencies like the World Bank, the International Monetary Fund and the World Trade Organization. Policy in this area was rapidly reflected in measures such as the dismantling and / or privatization of state enterprises, the beginning of a strong deregulatory policy, the establishment of large transnational agribusinesses; constitutional reforms concerning land tenure (Article 27 of the Constitution), as well as the beginning of broad trade liberalization, which culminated with the signing of the Free Trade Agreement (NAFTA) in the mid-nineties. Over the decades, this has placed the Mexican countryside in a situation of

extreme weakness, seriously deepening various problematics, ranging from increased poverty and social exclusion to the sharpening of different migration processes (rural-urban or across borders), de-agrarianization processes, environmental degradation, and a serious food crisis and dependency at the national level.

As if the ghost of General Zapata were chasing them, now more than ever those who find themselves in power seek to sweep up the last crumbs of the peasant victories of the Mexican Revolution and deliver the land and its products to the capitalists.

...

Science for the People, and not as an instrument of domination

As future scientists, academics and professionals, and members of the Movement Yo Soy 132, we raise our voices against the imminent looting of the nation by these companies, in collusion with federal, state and municipal officials. We know that these industries make scientific knowledge a political and economic instrument that only serves to generate millions in corporate profits, stepping on anyone who gets in the way and violating basic human rights such as food, health, a clean environment, freedom of information, and legal protection.

We are aware, as men and women engaged in science with ethics and conviction, but also as citizens of a country with immense culture and tradition, that any research and technology development must be accompanied by deep historical knowledge and social commitment. Our job is for the working people of Mexico. From diverse backgrounds and strata, the university and college students signing this statement agree that any progress, however efficient it may seem, can not be considered beneficial nor presented as a solution if it serves the immediate interests of a handful of capitalists and belittles the legacy of thousands of generations (and the future inheritance of many others).

...

As with maize, the more diverse and creative the resistance is, the more likely it will be to stop this onslaught: We must act together and not stop until the eradication of transgenic maize in Mexico can be ensured.

The attack on corn is a profound attempt to assassinate Mexico: Any government agency that is complicit in this attack will be condemned as an ENEMY OF THE PEOPLE.

DOWN WITH THE BAD GOVERNMENT OF PEÑA NIETO AND HIS REGIME OF DEATH!

PIONEER, DOW AGROSCIENCES AND MONSANTO-OUT OF THE COUNTRY!

WE DO NOT WANT TO EAT TRANSGENIC CORN!

IT IS TIME TO UNITE AND ACTIVATE THE INDIGNATION AND FRUSTRATION AGAINST NEOLIBERALISM AND IN FAVOR OF FOOD SOVEREIGNTY!

If we do not burn together, who will illuminate this darkness?

In the seeds of maize is written our history, the origin and the present of our people.

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INTERVIEWS AND PERSONAL COMMUNICATION

Includes semi- and unstructured interviews and formal and informal statements made at public and private gatherings. Notes in possession of the author. All interviews conducted in Spanish unless otherwise noted. Translations that of the author.

Andrade, Guillermo. Student representative of #YoSoy132. April 29, 2013, Casa Lamm, Mexico City (forum, interview).

Andrade, Jesus. La Vía Campesina Mexico. March 2-3, 2010, Guadalajara (forum, interview); December 8, 2010, Cancun (forum, LVC march); September 12, 2012, Mexico City (LVC forum, interview).

Appendini, Kristen. Professor, Colegio de Mexico. March 2010. Mexico City (interview, in English).

Aquino, Joel. Oaxaca indigenous campesino leader. June 15, 2010 Mexico City (CENAMI); April 26-27, 2013 Tribunal Permanente de los Pueblos, Oaxaca (forum); July 20-23, 2014 (research trip).

Álvarez-Buylla, Elena. Professor, UNAM and UCCS. March 2, 2010 Guadalajara (forum); April 27, 2013 Tribunal Permanente de los Pueblos, Oaxaca (forum).

Barreda, Andres. March 2-3, 2010, Guadalajara (forum, interview); November 30, 2010, Mexico City (LVC forum); December 6, 2010, Cancun (forum); February 29, 2012 (CENAMI);

July 8, 2012 Mexico City (group interview); April 26-27, 2013 Tribunal Permanente de los Pueblos, Oaxaca (forum); May 1, 2013, UNAM Mexico City (forum); February 2, 2014, Mexico City (public interview on TPP conclusions).

Castro Soto, Gustavo. Otros Mundos. April 30, 2011, San Cristobal de las Casas (lecture).

Chapela, Ignacio. Professor, UC Berkeley. April 26-27, 2013 Tribunal Permanente de los Pueblos, Oaxaca (forum).

Cruz de la Cruz, “Doña.” July 2009, Tepechitla, La Huasteca, Veracruz (interview and tortilla-making lessons).

Desmarais, Annette. Professor and founding technical supporter of La Vía Campesina. April 3, 2009, UNC-Chapel Hill; August 13, 2009, Zacatecas; February 2011, Mexico City (informal discussion).

Díaz, Eutimio. March 2, 2010, Guadalajara (forum, interview).

Godoy Berrueta, José (Pepe). July 10, 2008, Mexico City (forum); July 24-25, 2008, Guadalajara, Jalisco (interview); March 2-3, 2010, Guadalajara (forum, interview); regular informal discussions at the meetings of La Red 2010, 2012, 2013.

Gómez, Magdalena. March 3, 2010 Guadalajara (forum);

Gómez Flores, Alberto. Coordinator, La Vía Campesina North America. June 15, 2010, Mexico City (workshop); April 12, 2011, Mexico City (Interview on TPP and LVC strategies); December 5, 2012, Mexico city (planning meeting); February 7, 2013 (forum); informal discussions at marches and meetings of La Red 2010, 2012, 2013.

Hernández, Soledad. Director of Operations of Green Corner. August 6, 2008. Mexico City.

Hernández Castillo, Aída. Professor, CIESAS. Nov 16, 2011, UACM Mexico City (conference).

Hernández Baltazar, Ivan. June 11, 2010, Ceccam office, Mexico City (interview); May 14, 2013, Ceccam, Mexico City (interview). Regular informal discussions 2010-2013 including all the meetings of La Red 2010, 2012, 2013..

Hernández Navarro, Luis. August 14, 2009, Zacatecas; February 5, 2010, Mexico City; July 8, 2012, Mexico City (group interview). Additional informal discussions 2010-2013.

Hernández Vera, Virgilio. La Huasteca, Veracruz, interviewed in Mexico City February 27, 2012 (interview); January 23, 2013 (interview).

de Ita, Ana. July 8, 2012 Mexico City (group interview); April 5, 2014 Mexico City (public interview); Regular informal discussions 2010-2013, including all the meetings of La Red.

López Alvarez, Manuel. Instituto Universitario Latino Americano de Agroecología Paulo Friere. April 8, 2010, Mexico City (interview).

Montecinos, Camila. GRAIN, Chile. March 28, 2012 (CENAMI).

Mooney, Pat. ETC Group. July 10, 2008, Mexico City (forum). March 2-3, 2010, Guadalajara (forum, interview); April 29, 2013, Casa Lamm, Mexico City (forum, interview).

Muciño, Roberto. June 17, 2013, Ceccam, Mexico City (interview); Regular informal discussions 2010-2013, including all the meetings of La Red.

Meneses, Luis. April 5, 2014, Mexico City (public interview).

Pérez Uribe, Matilde. Journalist, *La Jornada*, rural affairs beat. June 28, 2008, Mexico City (interview).

Quintana, Victor. July 10, 2008, Mexico City (forum).

Regino, Adelfo. Lawyer, Oaxacan indigenous leader. May 20, 2010, Casa Lamm, Mexico City (public interview).

Rello, Jaime. Leader. Movimiento Urbano Popular, Mexico City. January 17, 2013 (CENAMI).

Robles, Evangelina. July 10, 2008, Mexico City (forum); July 24-25, 2008, Guadalajara, Jalisco (interview); March 2-3, 2010, Guadalajara (forum, interview); July 8, 2012 Mexico City (group interview).

Ribeiro, Silvia. July 10, 2008 (forum), 2010, 2011, 2012, July 8, 2012 (group interview).

Rodriguez, Jesusa. July 10, 2008, Mexico City (forum).

Salgado, Alvaro. July 10, 2008, Mexico City (forum); June 15, 2010 (CENAMI); February 27, 2012 (CENAMI); March 28, 2012 (CENAMI); January 17, 2013 (CENAMI); July 8, 2012 Mexico City (group interview).

San Vicente, Adelita. July 10, 2008, Mexico City (forum).

Sandoval Vázquez, Daniel. May 14, 2013, Ceccam, Mexico City (interview).

Suarez, Victor. August 2, 2008. Director, ANEC. Mexico City.

Vera Herrera, Ramón. July 10, 2008, Mexico City (forum); July 21, 2008, Mexico City (interview); June 15, 2010 (CENAMI); February 27, 2012 (CENAMI); March 28, 2012 (CENAMI); July 8, 2012, Mexico City (group interview); January 17, 2013 (CENAMI)

Villa, Veronica. July 10, 2008, Mexico City (forum); July 21, 2008, Mexico City (interview); June 15, 2010 (CENAMI); February 27, 2012 (CENAMI); March 28, 2012 (CENAMI); July 8, 2012, Mexico City (group interview); January 17, 2013 (CENAMI); Regular informal discussion at Tribunal forums, 2011-2014.

Zepeda, Raul. Radio comunitaria, “La Voz de los Campesinos” 105.5 January 27, 2013 (CENAMI).

Group Interview:

July 8, 2012–Calle Asturias

La Red en Defensa del Maiz Workshops at CENAMI (private):

June 15, 2010

February 27-29, 2012 (10th anniversary of La Red)

March 28, 2012 (TPP planning)

January 17, 2013

Research trips:

July 2008 Guadalajara and surrounding area, Jalisco

August 2009 Tepecxitla, Chicontepec, La Huasteca, Veracruz

August 2009 Jalapa surrounding rural area, Veracruz

March 2010 Culiacán, Sinaloa

May 2010 San Cristobal de las Casas, Chiapas

March 2011 Tlacolula and Teotitlan, Valle de Teotitlan, Oaxaca

April 2011 Caracol Oventic, Zapatista territory, Chiapas

May 2011 San Cristobal de las Casas, Chiapas

Public Marches/Forums:

July 10, 2008 La Red en Defensa del Maize public forum, Mexico City

August 13-15, 2009 World Food Crisis conference Zacatecas

March 2-3, 2010 La Red/FAO forum “Los Transgénicos Nos Roban el Futuro,” Guadalajara

November 30, 2010 La Vía Campesina (LVC) Summit and March, Mexico City

December 4-10, 2010 COP 16 LVC Encampment, Forum and March (Dec 7), Cancun

May 2010 Otros Saberes encuentro, Lima, Peru
May 20, 2010, Casa Lamm Seminar on rural auto-defensas, Mexico City
May 7, 2011 No Mas Sangre silent Zapatista march, San Cristobal de las Casas, Chiapas
Nov 16, 2011 UACM Cultural Studies conference, Mexico City
December 7, 2012 SAGARPA tortilla protest, Mexico City
January 23, 2013 LVC March “Contra el Maíz Transgenico,” Mexico City
February 7, 2013, UNAM Forum, Mexico City
April 26, 2013 TPP Audiencia Oaxaca Oax
April 29, 2013, Casa Lamm TPP/Student Seminar, Mexico City

Members of La Red en Defensa del Maíz, 2013:

Comunidades indígenas y campesinas: Pueblo Wixárika, Pueblo Rarámuri, Tribu Yaqui, Pueblo Mayo-Yoreme, Comunidades Pure’pecha, Comunidad Totonaca de la Sierra Norte de Puebla; Comunidades Campesinas de Los Tuxtles, Veracruz; Comunidades Campesinas del sur y del norte de Veracruz; Comunidades Zapotecas de los Valles Centrales de Oaxaca; Comunidad Tlapaneca, de Tlapa, Guerrero, comunidad mixteca de San Juan Mixtepec, Oaxaca, Comunidades campesinas del sur de Tamaulipas.

Organizaciones Indígenas y campesinas: Unión de Comunidades Campesinas del Norte de Guanajuato (UCANG), Organización de Agricultores Biológicos, AC, Oaxaca; Centro de Derechos Indígenas Flor y Canto AC, Oaxaca, Unión de Organizaciones de la Sierra Norte de Oaxaca, UNOSJO; Centro Regional para la Educación y la Organización (CREO), Los Tuxtles, Veracruz; Radio Huayacocotla, Organizaciones de la sociedad civil: Centro Nacional de Apoyo a las Misiones Indígenas AC (CENAMI); Centro de Estudios para el Cambio en el Campo Mexicano (Ceccam); Grupo de Acción sobre Erosión, Tecnología y Concentración (Grupo ETC); Centro de Análisis Social, Información y Formación Popular (CASIFOP); Colectivo por la Autonomía (Coa AC); Comité de Derechos Humanos Sierra Norte de Veracruz; Consultoría Técnica Comunitaria AC (CONTEC), Chihuahua; Grupo de Estudios Ambientales (GEA AC), Unidad de Apoyo a las Comunidades Indígenas (UACI-Universidad de Guadalajara), Jalisco; Centro de investigación y producción de tecnología ecológica para la vivienda (CIPTEV) Jalisco; Grupo Cultural Nivi Nñuu; GRAIN, Chile.