OTROS CAMINOS: MAKING AN ALTERNATIVE AGRICULTURE MOVEMENT IN EVERYDAY CUBA

Justine MacKesson Williams

A dissertation submitted to the faculty at the University of North Carolina at Chapel Hill in partial fulfillment of the requirements for the degree of Doctor of Philosophy in the Department of Anthropology.

Chapel Hill
2017

Approved by:
Dorothy Holland
Rudi Colloredo-Mansfeld
Don Nonini
Todd Ochoa
Karla Slocum
ABSTRACT

Justine MacKesson Williams: Otros Caminos: Making an Alternative Agriculture Movement in Everyday Cuba
(Under the direction of Dorothy Holland)

For academics and activists interested in the possibility of moving away from the extractivist, capitalistic, and consolidated agricultural systems supported by the present global food regime, Cuba is a fascinating case. Since the onslaught of the Special Period and the economic scarcity that it produced, the Cuban state has arguably offered more political, infrastructural, and ideological support for local, diversified, and agroecological farming than any other. And yet, many farmers, technicians, administrators, political leaders, and everyday citizens continue to support and/or practice models of conventional agriculture, leading observers to wonder if agricultural transition will be reversed as the Special Period recedes into the past.

This dissertation, based on fieldwork conducted between 2011 and 2016, argues that the Cuban alternative agriculture movement cannot be understood merely as a reaction to the economic scarcity provoked by the Special Period. It describes the emergence of sustainable agriculture movements in one central province, revealing how promotion by non-state entities increased even after the Special Period was over. The dissertation identifies the permaculture network of the Antonio Nuñez Jiménez Foundation for Nature and Man (FANJ) as the most active source of alternative agriculture promotion in the province during the research period, and argues that by creating and reproducing a “figured world” of permaculture through situated communities of practice, FANJ has supported subjective shifts, which have further committed participants to sustainability-oriented practices. It describes these participants as motivated by an
entangled set of material and moral motivations, including a desire to escape a sentiment of frustration and disillusionment.

Thus, the dissertation depicts Cuban alternative agriculture as a set of enduring movements that are supported by non-state individuals and organizations. It underscores the importance of collective meaning, learning, and subjectivity in processes of agricultural transformation, and suggests that organizations able to form local communities of practice are well positioned to encourage alternative agriculture practices.
ACKNOWLEDGEMENTS

This dissertation is dedicated to those Cubans – farmers, gardeners, and otherwise – who materialize creative projects in their everyday lives. I have been deeply inspired, academically, professionally, and personally, by their work. I am enduringly grateful to the permaculturists, agroecologists, and agriculturists who allowed me into their farms, homes, and lives, and who generously contributed time and opinions to this project. I believe it is a great testament to the respect for and equity of education that exists in Cuba that these people did not treat me as a privileged, foreign interloper, but as a student engaged in the revered process of learning, and also as an ally in the movement for ecological sustainability and food sovereignty. Although I will not call them out by name here, there are some permaculturists and agroecologists, in particular, who supported me with repeat interviews, home-cooked meals, and advice. They are a tremendous part of my Sancti Spíritus community of friends and “family.”

This project would not have been impossible without the support of the Fundación Antonio Núñez Jiménez de la Naturaleza y el Hombre (FANJ). Dr. Reinaldo Funes Monzote was generous with his sponsorship of my proposal and visa; advice; and introduction to using the Biblioteca Nacional. The rest of the Havana staff made my Cuban residency a reality, and provided access to documents. Without the Sancti Spíritus office of FANJ, the community that I came to study in this ethnography would not exist. They helped with contacts, and in organizing and cooking food for the meetings I held in their offices. Gilberto García Castro had endless enthusiasm for accompanying me on long bicycle journeys to farms, introducing me to the permacultural community, discussing Cuban anthropology, and helping me fix my bike.
I am also grateful to the staff of the Provincial Archives in Sancti Spíritus, and the provincial library for assisting me in my archival review and providing friendly faces and conversation throughout the days spent in this sometimes-tedious work. Paula Quintana, Braulio Machín, Emigdio Rodriguez, Roger Santiesteban, and Ismar Garce were generous in lending their time to helping me understand the emergence of the agroecology movement in Sancti Spíritus. Their legacy in the various branches of this movement is admirable.

Many thanks to my friends in Sancti Spíritus; those who went dancing, shared drinks, cooked, and spent long evenings on balconies and in parks talking with me about things only distantly connected to alternative agriculture. They did not only make my “time in the field” fun, they also taught me much more about Cuban life than I would have known otherwise, and helped me to understand many of the themes and claims that fill these pages. You know who you are. I am told that I say “gracias” too much for Cuban sensibilities, but I am going to say it here.

I am also grateful to the anthropology department and community at UNC-Chapel Hill, and for their support of politically engaged research. My committee members provided essential guidance at all steps along the way – from Masters thesis and grant proposals, to final dissertation write-up. Rudi Colloredo-Mansfeld’s comments always helped make my writing more interesting and straightforward, and made my theoretical propositions stronger, by pushing me to defend them. Don Nonini encouraged me toward important critical considerations and key pieces of agrarian studies along the way, and provided strong support for politically engaged scholarship. Todd Ochoa has endlessly fascinating analyses of Cuban life and scholarship, and support for its pursuit. Karla Slocum provided sound advice on good writing, key resources, project elaboration, and Caribbean anthropology. I am grateful to fellow UNC anthropology students and alumni including Laura Gutierrez, Caela O’Connell, and Andrew Ofstehage for
providing companionship and collaboration in agrarian studies, and for commenting on various pieces of my project along the way, and also to the 2015 dissertation working group of the Environmental Anthropology section of the American Anthropological Society for reading early manuscripts.

I am fortunate to have had Dorothy Holland as an advisor and chair. Her dedication to activism, engaged research, and social practice theory helped convince me that academic ethnography was “worth it.” I am grateful to her for making my work more thoughtful and theoretical, and to always providing a good measure of both critique and encouragement in her feedback.

This research was made possible by a Doctoral Dissertation Improvement Grant from the National Science Foundation and Off-Campus Dissertation Fellowship from the UNC Graduate School. A Tinker Award from the Institute for the Study of the Americas (ISA) and Summer Fellowship from the UNC Graduate School made pre-dissertation fieldwork possible. ISA also funded a summer of writing, and the UNC graduate school funded a final year of dissertation completion.

Writing-up on the other side of the country from UNC, I was extremely lucky to find two additional intellectual and political homes. Jean Lave opened up space for me in the Slow Science Institute in Berkeley, and the community of social practice researchers there provided encouragement and camaraderie in the long, slow work of good research and writing, and fascinating conversation on social practice, ethnography, and the everyday. The Food First Institute for Food and Development Policy and Eric Holt-Giménez kept me grounded in the struggle for sovereignty, justice, and liberation in the agrifoods system.
I am thankful to my parents, Barbara MacKesson and Steve Williams for the love and encouragement that led me on the path toward an academic career and engagement in policy and politics. Instead of questioning the seven years I spent in school studying a rather obscure topic, they applauded it and were even brave enough to visit and keep me company in Cuba.

My partner, Devin McIntire, has been tremendously supportive, even when it has meant my life is characterized by long trips away from home, late nights, and limited funds. He has cooked food, read drafts, and taken care of our cat, Brahe, who has also made incalculable contributions to my mental health.

All of the limitations, omissions, or inadequacies of this work are, of course, my own, and they exist in spite of, not because of the many people who influenced it along the way.
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LIST OF ABBREVIATIONS

ACAO
Asociación Cubana de Agricultura Orgánica (Cuban Association of Organic Agriculture)

ACTAF
Asociación Cubana de Técnicos Agrícolas y Forestales (Cuban Association of Agriculture and Forestry Technicians)

ANAP
Asociación Nacional de Agricultores Pequeños (National Association of Small Farmers)

CAC
Campesino a Campesino (Peasant to Peasant or Farmer to Farmer)

CIC
Consejo de Iglesias Cubanas (Council of Cuban Churches)

CPA
Cooperativa Producción Agropecuaria (Agricultural Production Cooperative)

CCS
Cooperativa Créditos y Servicios (Credit and Services Cooperative)

FANJ
Fundación Antonio Núñez Jiménez por la Naturaleza y el Hombre (Antonio Núñez Jiménez Foundation for Nature and Man)

FAO
Food and Agricultural Organization

GAO
Grupo de Agricultura Orgánica (Organic Agriculture Group)

MINAG
Ministerio de Agricultura (Ministry of Agriculture)

MINAZ
Ministerios de Azúcar (Ministry of Sugar)

MACAC
Movimiento Agroecológico de Campesino a Campesino (Agroecological Peasant to Peasant Movement)

NGO
Non-governmental organization

UBPC
Unidades Básicas de Producción Cooperativa (Basic Units of Cooperative Production)
CHAPTER 1

AGRIFOODS SYSTEMS TRANSFORMATIONS: LOOKING TO CUBA

In addition to full-time employment in a local office of a state agricultural enterprise, Carlos\(^1\) runs a small-scale fruit farm on land that previous generations of his family owned, and is now lent to him by the state. He is one of the many Cuban farmers who are working toward agricultural transformation.\(^2\) To establish his orchard, he implemented a variety of alternative, traditional, and organic practices, and after seven years of hard work, he has begun to experience the economic and personal pleasures of a diversified, low-maintenance farm. When I interviewed him about the emergence and future of sustainable agriculture in Cuba, he explained that economic and material scarcity of the 1990s incentivized farmers to experiment, and ultimately gave them “greater awareness,” about the need to “protect nature.” As for the possibility to continue expanding the practice of sustainable agriculture he said:

> I don’t believe there are any limitations. [Alternative agriculture] is relatively new here. Everything is a process. I think that people are going to understand it, and that they will change their conceptions. I don’t have any doubt in the future of permaculture, or that it will continue to grow. I don’t have any doubt that agroecology will continue to grow... or that people will understand it more everyday.

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1 Following ethnographic conventions that serve to minimize the risk of negative or otherwise undesired attention and to protect interlocutors’ anonymity, I refer to participant-informants of this study by pseudonyms, except in the case of public figures.

2 Throughout most of this dissertation, I use the past tense, rather than the ethnographic present, to situate observations and anecdotes in the time they occurred, and to avoid a “synchronic” representation of the events and processes I deal with. However, this is not appropriate in all instances. For example, while Carlos may no longer run a small farm or be engaged in agricultural transformation at all future points when this dissertation is read, he was at the time of fieldwork and is at the time of writing, so it would be inaccurate and confusing to refer to Carlos’s work in the past tense. I compel readers to keep in mind, that in the few cases where the ethnographic present is used, it is referring to 2013-2017.
Over the past 25 years, farmers and agronomists like Carlos have been in dialogue with globally circulating discourses about environmental sustainability, natural food, and community-based food sovereignty. These ideas are simultaneously radical and familiar in Cuba. Though they counter the style of high-input, industrial agriculture that was prevalent in Cuba prior to the 1990s, they also resonate with traditional campesino values that farmers remember learning from their parents and grandparents, and with a national, cultural value of working toward a better future. Carlos’s comments are remarkable, not because they are unusual among Cuban practitioners of sustainable agriculture, but because they present a counterpoint to an assumption that is common outside of Cuba: that Cuban alternative agriculture paradigms are at risk of disappearing in the face of economic liberalization and expanding trade relations.

Ideas of low-input, localized, “alternative agriculture,” found traction in Cuba when the collapse of the Soviet Union threw the island nation into a period of economic turmoil. Not only did the country lose its primary source of imported food, fuel, and machinery, it also lost its export markets for sugarcane, Cuba’s most significant commodity crop. The situation worsened when the United States Congress acted to tighten the embargo against Cuba, first with the Torricelli Act in 1992 and then the Helms-Burton Act in 1996, both attempts to ensure Cuba’s isolation from the global economy.

Fidel Castro declared the country to be in a “Special Period in the Time of Peace,” and put in place a rationing schedule originally developed to be used in the case of war. Between 1989 and 1992, Cuba’s food imports were cut in half, and imports of agricultural inputs dropped even more significantly: petroleum by 53 percent, fertilizers by 77 percent, pesticides by 63 percent, and animal feeds by 72 percent. Although the agricultural sector initially had enough inputs stored to continue status quo production, reserves eventually dwindled. In 1994,
production bottomed out to half of what it was in 1989 (Wright 2009). During the worst years of the Special Period, Cubans reportedly consumed 30 percent fewer calories than they had during the 1980s; many lost significant amounts of weight and experienced related health problems (Rosset and Bourque 2002).

Although Cubans now trade stories and even joke about their experiences during this time, the struggle was extreme. Stories about getting by during this period range from the common lamentation of having to eat “steaks” of fried banana peels to tales of missing pet cats after neighborhood barbeques and scraps of rubber mixed into ground “meat.” I once heard a story about shredded latex from a condom found in place of grated cheese on street pizzas. While some of these stories may be hyperbolic, the sense of struggle, desperation, and the crumbling social support systems is authentic.

As Carlos remarked, the situation pushed Cubans to seek innovative solutions on a daily basis. It also prompted the state to make changes to agricultural production and food provisioning systems that leaders would not have previously considered economically feasible or desirable. Administrators turned to certain agronomists, growers, and scientists who had long critiqued the country’s high-input style of agriculture for advice. The nation scaled-down sugarcane production; prioritized the cultivation of vegetables, starches, grains, fruits and animal products; decentralized agricultural production to give workers and farmers more autonomy; implemented agroecological and organic techniques; and built a country-wide infrastructure for localized, urban farming.

As a result, Cuba – long watched by the international Left for evidence that “other worlds are possible” – rose to prominence in the transnational alternative agriculture movement. In 1992, an international scientific delegation and fact-finding mission visited the island to study
sustainable agriculture, and later released a book to report their findings. They described the Cuban state as moving away from the “Classical Model” of conventional agriculture and toward an “Alternative Model.” To conclude, they wrote: “The Cuban experiment is the largest attempt at conversion from conventional agriculture to organic or semi-organic farming in human history. We must watch alertly for lessons we can learn from Cuban successes as well as Cuban errors. And it behooves us to support this experiment, which is so potentially important for all” (Benjamin and Rosset 1994). Although Cuba never passed through a complete conversion to organic or even semi-organic farming, and growers remain split between conventional and alternative production, people have, indeed, continued to look to Cuba for lessons in low-input agriculture. Progressive international policy experts point to Cuba as a key case study, and activists give presentations on their visits to Cuban farms in order to inspire growers in their own regions.

Many journalists and scholars writing about Cuba’s agricultural transformations have framed them as functional responses to the scarcity provoked by the Special Period. For instance, Sinan Koont, an economist who has written about Cuba’s urban agriculture sector, commented to the press: “Organic agriculture was essentially forced upon Cuba” (Thomas Reuters Foundation 2016). Though this language accurately emphasizes the centrality of the Special Period in Cuba’s agricultural transition, it offers a limited lens for interpreting what has occurred in Cuba, or for analyzing why some farmers engaged in sustainable agriculture while others did not, and why some continue to practice it today, 20 years after the Special Period.

This dissertation argues that Cuban alternative agriculture projects, discourses, and movements should be understood as complex amalgamations of desires, ethical concerns, and expectations, and not simply as necessary reactions to scarcity. Based on an ethnographic study
of growers and farming organizations located in the central Cuban province of Sancti Spiritus, it shows how a loose network of Cuban organizations and individuals continued to promote alternative imaginaries of farming even after the political-economic impetus for the state to support them had declined. It presents a network and foundation of permaculture practitioners and promoters as a central force in the contemporary production of such imaginaries. In it, I reveal my research participants as ethically committed to sustainable agriculture techniques, which provide a sense of agency and optimism within a widespread cultural milieu of social frustration and disillusionment. I argue that Cuban permaculture is generative of such commitments because it offers participants a comprehensive figured world, intimate identities, and communities of practice in which to learn. Together these arguments emphasize the importance of intertwining structural studies of agricultural transformation with analyses of meaning and everyday practice.

**Research Motivations and Methodology: Food Sovereignty, Cuban Studies Binaries, and Close Ethnography**

Like many others, I too, was compelled by Rosset, Benjamin, and colleagues’ call to “watch alertly” for lessons from Cuban agricultural transition. Years before becoming aware of Cuba’s experiences in low-input agriculture, I had become personally and professionally committed to movements for agricultural sustainability, sovereignty, and justice. Before beginning graduate studies, I worked as a researcher and policy analyst for a grassroots and lobbying organization with a focus on these topics. I experienced a world in which activists and advocates struggle to get policymakers and the general public to respond to what we perceived to be the well-documented economic, cultural, and environmental challenges to food, water, and fishing
systems. The hard-won logic of the progressive policy advocacy community was that facts and nuance are unlikely to sway political processes, but that, if they are communicated effectively to the general public, it is possible to build a base of voters to which politicians are obligated to respond. Succeeding in such communications seemed to require poignant stories and compelling models.

I developed an interest in food sovereignty and autonomous food production practices, and learned that Cuban experiences in this field had become one such source of seemingly successful anecdotes and case studies. In 1996, Cuba joined La Vía Campesina (LVC), an international peasant organization that had begun to form, and to discuss the negative impacts of free trade agreements, neoliberalism, and agribusiness on small-scale farmers, during the same time that Cuba was entering the Special Period (Desmarais 2006). LVC had recently elaborated the concept of food sovereignty, “The right of people’s to healthy and culturally appropriate food produced through sustainable methods and their right to define their own food and agricultural systems,” as their organizing concept and cause (La Via Campesina 2011). Soon, Cuban movements for agroecology, permaculture, and urban agriculture had also adopted this concept into their work. Like they have for many others, the stories of these movements, and the practices associated with them, sparked my interest and gave me hope that they could “prove,” or at least convince, doubters that agrifoods system transformation is possible.

The pre-existing literature on the topic hinted at a rich set of meanings that Cuban gardeners and farmers had found in such alternative practices. An article by Miguel Altieri and colleagues reported that Cuban urban gardens:

…have helped to empower many individuals and communities. They have renewed solidarity and purpose within neighborhoods, sustaining morale during the ongoing economic crisis. The popular gardens have helped to build community pride; they clean up vacant urban spaces that had once been local dumps, replacing these eyesores with
greenery. To some people, the gardens also serve as a source of leisure, exercise, and relaxation (Altieri et al. 1999).

Additionally, research and “self-study” of Cuba’s campesino-to-campesino (farmer-to-farmer) methodology indicated that the spread of agroecology has been associated with social movement dynamics, a “high level of political consciousness,” changing gender and family dynamics, and a recognition of peasants as “repositories of farming practices and knowledge” (Rosset et al. 2011).

And yet other studies emphasized the fact that many Cuban farms still implemented conventional agriculture, and many Cuban farmers were not committed to alternative techniques. Nelson and colleagues (2009) suggest that although Cuba has been hugely successful in institutionalizing agroecology, that farmers themselves had not yet bought into it. They report that the farmers they interviewed saw agroecology as a pragmatic, rather than ideological decision, and suggested that “they may thus be susceptible to shifting back to conventional production if this option became politically and economically feasible” (Nelson et al. 2009, 233). Their work was based on limited data, but it resonated with Julia Wright’s (2009) finding, based on work conducted between 1999 and 2000, that 83 percent of interviewed farmers would have liked to use more chemicals, particularly fertilizers, had they been available. Laura Enriquez’s (2010) 1990s fieldwork similarly depicted attitudes regarding chemicals as highly variable.

In the process of encountering this body of work, it was striking to me how little of it addressed, in detail, either why Cuban farmers were split on their stances toward conventional and alternative agriculture, or the subjective and affective processes leading farmers toward their respective stances. This was true in part because of a general dearth in long-term, qualitative studies; qualitative, ethnographic research is still relatively unusual in Cuban scholarly paradigms, and foreign researches face sharp challenges in carrying out fieldwork in Cuba.
I would also suggest that this limitation in the literature was connected to the tendency for foreign onlookers – whether scholars, journalists, or visitors – to see Cuban agriculture, and Cuban society in general, as a state project, guided by the decisions of the Castros and instituted by the vast network of technocrats they have put into power. The very complicated dynamics through which individuals build agency and reproduce social systems in Cuba are often misunderstood, leading to a simplification of Cuban politics and everyday life (Gray and Kapcia 2008) that ignores the fact that states themselves are composed of and reproduced by their citizens (Mitchell 2006). This tendency to treat Cuba as a homogenous unit colors the foreign reports that have been released on Cuban alternative agriculture, and strips them of nuanced complexity.

This is further compounded by the Socialist/Capitalist binary, which continually constrains conversation about Cuba. Generally speaking, commentators on Cuban society tend toward either anti-Castro critique, or pro-socialist sentiments, which lead them to tailor comments regarding on-the-ground nuances and everyday complexities so that they are not misinterpreted as either excessively supportive nor unfairly critical of the state. This limitation in the discourse spills over into the treatment of Cuba’s experience in alternative agriculture, with socialist sympathizers often exaggerating the extent of agricultural sustainability in Cuba, and detractors using evidence of gaps in the transformation to insinuate that it is a lie intentionally crafted by the state in order to give a false impression of competence and progress.

What is needed to understand Cuba’s experience is a nuanced, actor-oriented perspective that deals with the complex relationship of people to their state and national dreams for progress. That this is largely absent is particularly interesting considering that for non-Cuban cases, both activist spheres and social theory regularly assume that the modern nation state, much like
capitalism, tends to threaten the progress of social movements and change (Scott 1998; Holt-Giménez 2006; Friedmann and McMichael 1989; Hall et al. 2015; Edelman 1999). And yet, colored by a wistful desire for a successful leftist model, depictions of Cuban agriculture by sustainable-agriculture supporters often treat it as a successful state project. Those who suggest the period of agricultural transformation will soon come to a close (whether they are supportive or skeptical) generally make this prediction based on their expectation of what the state and party leaders will do.

Although I was initially interested in the implications of and lessons from the Cuban experience for the rest of the world, it quickly became clear to me that Cuba is too richly complex to serve as simple “proof” that non-conventional agriculture can “work.” I became more interested in understanding how conventional and alternative paradigms co-exist in a country where both are highly developed. I took up this topic in my master’s thesis, which describes how official, national rhetoric in Cuba reflects these two competing impulses (Williams 2012). In order to understand how Cuban farmers, gardeners, agronomists, and policymakers engage with these discourses, I was then further drawn to explore the “knowledge practices” (Casas-Cortes, Osterweil, and Powell 2008) of the organizations and institutions known as promoters of alternative agriculture in Cuba.

To study these, I originally crafted a research plan, over the course of preliminary summer trips to Havana, Sancti Spíritus, and other potential research sites in 2011 and 2012, that was to begin with locating a generalized “sample” of farmers, then surveying and interviewing them about their engagement with alternative agriculture paradigms, while simultaneously conducting participant observation with three primary organizations promoting agroecology and permaculture. This design likely would have repeated the emphasis on institutional practices and
different orientations among farmers that other studies have demonstrated. In hindsight, I consider it fortunate for the originality of my research that I could not secure access to the records allowing me to identify such a sample, and I was not granted permission to conduct surveys.

Instead, I began fieldwork with the central organizations and actors in the agroecology and permaculture movements, asked them to identify sustainable agriculture practitioners, and then snowballed out to identify more participants. My early interviews allowed me (as will be discussed in Chapter 5) to quickly identify the permaculture network of the Fundación Antonio Núñez Jiménez de la Naturaleza y el Hombre (Antonio Núñez Jiménez Foundation for Nature and Man, FANJ) as what participants called the most “protaganistic” organization currently working to promote alternative agriculture in Cuba. Thus, my ethnographic work came to largely focus on their unusual pedagogical practices, and the ways in which study participants found meaning in the form of permaculture they promoted.

During a year of fieldwork in Sancti Spíritus in 2014, and month long follow-up trips in April and October of 2015, I conducted over 50 in-depth, semi-structured interviews with a mix of urban, suburban, and rural farmers, agricultural directors, promoters, and technicians. While these participants were all affiliated with alternative agriculture production, I also interviewed an additional small group of six conventional growers (tobacco, sugarcane, cattle and mixed vegetable) in order to contextualize and compare their experiences with those of alternative practitioners. The latter were selected for interviews primarily through introductions from my research assistant and other acquaintances that knew I was looking for participants.

Focusing on a relatively small group of research participants and their collective work, rather than employing a survey-based strategy, allowed my exchanges with them to become
deeper and more revelatory, and gave me greater insight into the complex personal pathways that lead people toward alternative agriculture, the contexts for personal transformation, and the economic and cultural factors that influence them. With most of the growers, I made an initial contact to visit their farm or garden and to *intercambiar* (chat and exchange) in advance of the interview. With all of the growers, except for three whom I was only able to interview in town or at other farms, I was led on a grower-guided tour of the site either before or after the interview. This important step allowed them to introduce me to the aspects of their farming operations that they found most important and compelling. I maintained ongoing relationships with the majority of the growers throughout the research period, meaning that I continued to see and talk with them during informal visits, follow-up interviews, and/or shared participation in events and meetings. Some became my friends and “extended family” in Sancti Spíritus. I also conducted “identity exercises” with 15 participants, during which I asked them to list on paper or to be recorded discussing their various identities. I conducted all interviews myself, but my research assistant – a retired professor and FANJ employee (working separately from the permaculture program) – helped to coordinate introductions and transportation, and was present for some interviews. He often interjected with his own questions or observations. Sometimes this derailed interviews, but other times it led them toward interesting discussions that would not have taken place otherwise.

Much of my research material comes not from interview data, but from participant observation that I conducted regularly at the local FANJ office; at permaculture workshops organized by FANJ and the Cuban Council of Churches; at national and international

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3 At the top of these worksheets, participants were prompted with the question “¿Qué y como es usted? Escriba aqui todas las identidades que pertenezcan a usted.” (What and how are you? Write down all the identities that belong to you.). Below this was written “Yo soy….” (I am…) at the top of a blank a page on which informants were asked to list their responses.
conferences organized by the Cuban Association of Agricultural and Forestry Technicians (ACTAF), the Indio Hatuey Center for Pasture and Forage Research, and by FANJ; on farms; and on a limited basis in the offices of ACTAF. During these events I met, informally interviewed, and conversed with many additional farmers and agronomists. Thus, I estimate that the research directly reflects my interactions with my interview participants plus approximately 150 additional actors in the Cuban agricultural system.

Additionally, my analysis of national sentiments that contextualize agricultural change is also derived from the everyday experiences and disclosures that inevitably occur during fieldwork. Encounters with friends and acquaintances led me to recognize that a wide swath of Cubans experience and struggle with feeling of frustration and disillusionment in their daily lives. As they revealed their sense that bureaucracy and centralized control limits their abilities to pursue creativity, interesting work, economic mobility, good health, and balanced lives, it became apparent to me that permaculture provided practitioners a way to combat or move beyond such feelings.

I held participatory meetings mid-way through and at the conclusion of the primary fieldwork period. Twenty and 25 participants attended these events, respectively, including growers who collaborated in the study; agroecology and permaculture promoters; affiliates of the ministry of agriculture; and university professors. At the first event I discussed my research objectives and preliminary findings and requested suggestions for additional research questions, interview subjects, and important factors to take into consideration. The feedback not only affected the focus of my remaining fieldwork months, but also helped me to tailor my conversations with participants to make my research goals more transparent and understandable.
At the concluding meeting, I presented my findings and asked for collaboration on constructing the timeline of sustainable agriculture events that is found in Chapter 4.

Finally, I also conducted a textual review of a variety of books, pamphlets, and training manuals shared with me by various participants, and also of agricultural news articles that appeared between 1990 and 2014 in Escambray, Sancti Spíritus’ official, state-sponsored newspaper. The latter, which was made possible by the staff of the Sancti Spíritus provincial archives, supported the initial draft of the timeline mentioned above, and allowed me to track shifts in formal agricultural discourses and state priorities over the years.

My research was carried out under the support of the Fundación Antonio Núñez Jiménez de la Naturaleza y el Hombre. FANJ is not only the support center for permaculture promotion in Cuba, it is also a research center for environmental history, with staff interests extending to geography and anthropology. Additionally, it is one of few institutes in the country in the position to sponsor foreign student researchers and to secure them temporary residency status and academic visas. My FANJ sponsorship put me in the potentially challenging position of being both supported by and ethnographically interested in the same organization; even more so as my research unexpectedly led me away from other agroecological programs and toward FANJ’s own permaculture program as the most active center of alternative agriculture in Sancti Spíritus. However, I found that the programmatic and geographic separation of the individuals working with me as academic sponsors (in Havana) and as research participants (in Sancti Spíritus) eased this tension.

Sancti Spíritus, a Field Site
I conducted this research from the city of Sancti Spiritus, the capital of a province of the same name, located in central Cuba. Although my research is intended to speak to national trajectories and tendencies regarding Cuban alternative agriculture paradigms, particularly the permaculture movement, it is based on an ethnographic account of imaginaries and movements in this part of the country. The province of Sancti Spíritus shares borders with Villa Clara and Cienfuegos to the west, and Ciego de Ávila to the east. As of 2012 (most recent statistics available), the population was just over 462,000 (La Oficina Nacional de Estadística e Información 2013). It is home to two of the earliest Spanish settlements in Cuba: Sancti Spíritus and Trinidad, which both celebrated their 500th birthdays during my fieldwork period in 2014. Historically, it is an agricultural province with a long history in cattle and dairy, as well as significant sugar and tobacco production, plus mixed crop cooperatives. As my research assistant once told me, “We are a province of cow milkers and yucca diggers.”

I chose to conduct my research here for several reasons. First, the city of Sancti Spíritus, which had a population of 138,504 in 2012 (La Oficina Nacional de Estadística e Información 2013), offered access to both city life and rural communities, allowing me to conveniently interview farmers in both settings. As is the case for all of Cuba, the large majority of the population in Sancti Spíritus is classified as “urban.” However, many rural cooperatives are easily accessible from the Sancti Spíritus city center via bike ride, shared taxi (either auto or horse-drawn) or bus. Second, I was interested in the dynamics of agricultural decision-making and alternative agriculture practices outside of Havana and the surrounding provinces, where research is most often conducted and the reach of national programs is strongest. Third, I found Sancti Spíritus to be a welcoming location to conduct research. It was just large enough that a foreign researcher’s presence was not completely strange, and small enough that people noticed and were interested in engaging with my work. The city offers a compelling blend of campesino culture, university life, and to a lesser but not insignificant extent, youth culture and activity. Most importantly, the city is also home to the second office of FANJ, which as previously
mentioned, is the organizing body in Cuba behind the promotion and support of permaculture. In Sancti Spíritus, FANJ was a route of access to the permaculturists who became the key informant-collaborators of my project, and also the site of many events that informed my research.

Image 1.3: Sancti Spíritus's Parque Central (Central Park), Source: Marie Aureille

Image 1.4: Urban farm stand in Sancti Spíritus, Source: Author
Image 1.5: Urban farm in Sancti Spíritus, Source: Author

Image 1.6: Countryside outside the city of Sancti Spíritus, Source: Author
I carried out the majority of my interviews within the city of Sancti Spiritus or the nearby suburban and rural areas. However, I also visited and conducted interviews in the towns of Banao and Tunas de Zaza, and the municipality of Fomento. Banao is located roughly 21 kilometers down the road from Sancti Spíritus’s city center at the base of several large foothills. This geography creates a microclimate that is several degrees cooler than surrounding areas and suitable for growing certain fruits and vegetable that do not do well in most other parts of the country. Thus, Banao has long been a center of vegetable production. The cooperatives here produce onions and garlic that are distributed across the country.

Further south of Banao, down a very long dirt road surrounded by mangrove swamp, lies the town of Tunas de Zaza. This fishing village, even though it produces valuable ocean fish and aquacultured shrimp for the tourist sector, is relatively impoverished and suffers from limited
access to fresh produce because of its salinized soil and water. Although the town is very poorly situated for agricultural production, isolation from mainland areas has motivated some residents to begin gardening, using composted organic material as soil, in order to improve their diets and food access.

Image 1.9: The coastline of Tunas de Zaza; many garden sites back up directly to the ocean, Source: Author

Image 1.10: A garden plot near the coast in Tunas de Zaza, Source: Author
Finally, Fomento is a mountainous, agricultural municipality 46 kilometers northwest of Sancti Spíritus city. Since the local sugar mill closed, farmers have turned primarily to mixed crops and some livestock (mostly dairy) production. Farmers also take advantage of the mountainous climate to produce coffee. Because it is not located along any major highway, Fomento remains fairly remote.

Images 1.11 and 1.12: Tillage by animal traction in Fomento, and an agroecologist shows his shaded areas for vegetable production, Source: Author

Agroecology, Organic Agriculture, Permaculture: A Note on Terminology

Before proceeding further, a clarifying point is needed on the terminology surrounding alternative agriculture. Broadly speaking, alternative agriculture is concerned with minimizing inputs and creating both ecological and social balance. A variety of terms used in Cuba fall under this umbrella including agricultura orgánica (organic agriculture), agroecología (agroecology), agricultura sostenible (sustainable agriculture), and permacultura (permaculture). Different
organizations and individuals have claimed these varying terms, often switching over the years as their institutional affiliation changes or thinking on alternative agriculture develops. The Asociación Cubana de Agricultura Orgánica (ACAO), one of the early protagonists of Cuba’s agricultural transitions in the 1990s, used the term “organic agriculture” in both their name and their publication, the magazine Agricultura Orgánica, and they advocated strongly for agriculture without chemicals. However, the agricultural science and theory they specifically advocated for is called agroecología (agroecology). This is also the terminology and associated set of practices that the campesino-a-campesino movement of the small farmers’ association (ANAP) adopted, and it continues to be the term most often used by mainstream Cuban organizations when they refer to non-conventional, “environmentally-friendly,” agriculture. As defined in a manual produced by ANAP:

Agroecology is a science or current in agricultural thought that is working toward the establishment of a model of agricultural production, which, in harmony with Nature and while protecting the environment, allows one to obtain stable production, does not poison with chemical products, and is economically very profitable; or it could be called a system of sustainable agriculture (Grupo Asesor Povincial 2001; present author's translation from Spanish).

A professor from the Agrarian University of Havana more briefly described agroecology as a “new paradigm [that] views the farm as an ecosystem, and blends the technological advances of modern science with the time-tested and common sense knowledge of traditional farming practices” (García 2001). The emphasis on agroecology, as opposed to organic agriculture, is in keeping with trends in Latin America. It is also reflective of an emphasis on what the practice is (in agroecology, a complex set of both traditional and contemporary practices derived from scientific research) as opposed to what it is not (in organic agriculture, dependent on chemicals).
FANJ, mentioned above, promotes the concept of “permaculture.” Cuban permaculturists explain their practice as similar to agroecology, but más amplia (broader), because it also takes into consideration how other social, ecological, and family dynamics, such as gender relations, impact a food-production system.

For most agroecologists and permaculturists in Cuba, sustainability is a goal of these practices, rather than a form of agriculture in itself. However, at the national level, institutions including ACTAF have begun to scale-back their support for radically alternative agriculture and are increasingly using the term “sustainable agriculture” to indicate that the methods they promote are not necessarily exclusive of moderate chemical-use.

In the following chapters, I discuss some differences between the groups promoting these various agricultural philosophies, and in chapters 6 and 7, I elaborate on the distinct sense of identity held by permaculturists. However, in parts of the dissertation in which I am not referring to a specific agricultural program or community, I use the term “alternative agriculture” (rather than specifying “permaculture” or “agroecology) to refer to a broader platform of activity in which permaculturists, agroecologists, and organic farmers overlap as they work toward shared goals of ecological resiliency, improved food access and diets, and well-being for growers.

Chapter Overview

In the following chapters, I re-examine the emergence of alternative agriculture in Cuba during the 1990s (which has been examined from other frameworks at length, in previous studies) and analyze the current social and cultural landscape of agroecological and permacultural practice and promotion in Sancti Spíritus, Cuba. In doing so, I reframe Cuban alternative agriculture as a
countercultural movement; argue that various imaginaries connected to ecologically sustainable agriculture and healthy food production have become meaningful within the context of widespread sentiments of disillusionment; and reveal how a foundation and network of permaculturists currently promotes it most compellingly in Sancti Spíritus through the reproduction of a strong community practice and associated identity.

Part I examines the emergence – or re-emergence – of paradigms of small-scale, diversified production in Cuba on a national scale. Chapter 2 provides an overview of the historical context framing agrarianism in Cuba, and outlines the organizations that were able to take advantage of a unique moment of economic and political flexibility in the 1990s to institute new programs in agroecology, organic agriculture, urban farming, and permaculture. While this chapter helps to situate later ethnographic chapters within the economic and political structures that frame them, Chapter 3 looks more closely at an aspect of the cultural milieu – structures of feeling – that comprise the cultural context in which alternative agriculture imaginaries are constructed. In it, I argue that Cubans across strata of society experience everyday sentiments of frustration and disillusionment, and introduce the idea that alternative agriculture provides a means to mobilize against these feelings, and a pathway to move beyond them.

Section II turns to look more specifically at alternative agriculture in my fieldsite of Sancti Spíritus. Chapter 4 examines the introduction of alternative agriculture practices and paradigms in this locale, arguing that associated imaginaries were developed and diffused here through the work of particular activists who worked beyond the requirements of their institutional affiliations to generate agroecological knowledge in the province. Additionally, it argues, based on the timeline of alternative agriculture projects in Sancti Spíritus, that interest in such paradigms does not correlate neatly with timelines of variable material scarcity or the
political-economic climate. Chapter 5 moves into the contemporary moment at which my fieldwork was conducted, 2014, looks at the urban farmers, rural campesinos, and household gardeners who associated with agroecology and permaculture, and analyzes the broad range of motivating factors that compelled them to explore alternative philosophies, practices, and lifestyles. The data show that despite coming into alternative agriculture practice for different reasons and various pathways, almost all now consider alternative agriculture to be a deep ethical and environmental imperative, and that most are connected to the Fundación Antonio Núñez Jiménez (FANJ) and are adherents of permaculture.

Thus, Section III turns toward FANJ and the permaculture community of Sancti Spíritus. Chapter 6 overviews the philosophy and practices of permaculture, and introduces a social practice of identity framework in order to describe how research participants form and have been formed in relation to a complex, locally-grounded, “figured world” (Holland et al. 1998; Escobar 2011; Satterfield 2002) of permaculture. Chapter 7 looks at the social and pedagogical practices that the permaculturists and FANJ use to recruit new participants and to maintain social ties within the existing network. It argues that – through horizontal knowledge exchange, appreciation that all learning is situated (Lave and Wenger 1991), a strong emphasis on promotion, and regular social exchange – FANJ and its members are able to create strong communities of practice that help to maintain the figured world of permaculture and its relevance in broader Cuban society.

Finally Section III, composed only of Chapter 8, turns to weave together the primary arguments of the dissertation, reflecting on the entanglements of need and desire in the Cuban food and agricultural system, and to answer two final questions: What is the transformative and political potential of the Cuban permaculture movement for Cuban society, and what might we
expect for the future of Cuban alternative agriculture given the transformations going on in Cuba? While agricultural transition has been supported by policy changes, certain state organizations, and post-Soviet scarcity, alike, the individuals, organizations, and projects currently involved in sustainable agriculture cannot be understood exclusively as agents of the state or straightforward results of its policy. Nor can they be interpreted strictly as reactions to the material scarcity they have lived through. Rather, their stories represent emergent efforts to forge a new type of progressive, ecological society, and they teach those of us working for alternative agriculture in other contexts to take seriously the importance of culture, identity and social learning in influencing agricultural practice and change.
PART I:

THE (RE)EMERGENCE OF ALTERNATIVE AGRICULTURE IN CUBA – POLITICAL, HISTORICAL, AND CULTURAL CONTEXT
CHAPTER 2

CUBAN AGRARIAN HISTORY AND A POLITICAL OPENING FOR ALTERNATIVES

La naturaleza inspira, cura, consuela, fortalece, y prepara para la virtud al hombre. Y el hombre no se halla completo, ni se eleva a sí mismo, ni ve lo invisible, sino en su íntima relación con la naturaleza

[Nature inspires, heals, comforts, strengthens and prepares man for virtue. And man is not complete, nor elevates himself, nor sees what is invisible, but in his intimate relationships with nature.]

- Jose Martí, 1882, in La Opinión Nacional de Caracas

Si el hombre sirve, la tierra sirve.

[If man serves the land, the land serves man]

- Jose Martí

To understand and explain important events and social processes, analysts – working from western/northern epistemological traditions – tend to seek clear causal factors, and to structure these into linear narratives of progress. Although the resulting stories can be helpful in grasping the basic outlines of a process, such narratives necessarily simplify reality in certain ways. They obscure the complex entanglements of influential factors and isolate events from previous historical and cultural processes. Often, they erase the plurality of motivations and trajectories that actually existed, if these elements complicate or derail the narrative. Moreover, this form of analysis and story-creation requires a specific moment of departure, and the fact that picking such a moment is neither a simple nor objective process is generally unacknowledged (see Coronil 1996; Fabian 2014; Wolf 2010).
The topic of agricultural transformation in Cuba is often treated as a story of structural change that began in the Special Period, the years of rationing and scarcity brought on by the collapse of the Soviet Union, which propelled the nation toward profound agricultural, economic, and social change. As introduced in the previous chapter, the sudden drop-off in imported food, agricultural inputs, and primary materials pushed both the Cuban state and the Cuban people to undergo a major re-examination of economic policies and practices, and prompted a widespread interest in decentralized agroecological practices, as well as an array of institutions, programs, and policies to support them. However, the circumstances of the Special Period alone cannot fully explain the transformations that took shape. The critique of industrial agriculture, interest in locally resilient systems, and ecological identities that developed during and after the Special Period all emerged from and in relation to both “pre-existing cultural materials” (Wolf 1999, 275) present in Cuban society, as well as newly emergent cultural formations developing through transnational conversation and influence. Furthermore, thinking about Cuban agricultural transition exclusively in relation to the Special Period encourages another reductionist trap; it leads analysts to consider alternative agriculture in basic, material terms, questioning whether people “wanted” to adopt alternative agriculture or simply “had to” as a response to scarcity (see Nelson et al. 2009). The importance of “moral” versus “material” incentives is an old debate in Cuban studies and socialist development (Mesa-Lago 1972). However, as various ethnographies indicate, this artificial dichotomy is not reflected in the actual, complex ontological entanglements of material reality with emotion, morality, and subjectivity in many facets of Cuban life ranging from religion (Ochoa 2010), to relationships (Fernandez 2010) and sexuality (Allen 2011).
This section, along with Chapter 4 of the following section (which shows how alternative agriculture gained prominence several years after the height of the Special Period), serves to complicate this narrative, seeking room for understanding Cuba’s alternative agriculture movements as part of an ongoing, complex process, by describing the broader, social, economic, and cultural structures within which the “working in” of alternative agriculture has taken, and continues to take place. Later chapters will go on to examine successful diffusion and adaption of sustainable agriculture practices as processes linked to the intimate subjectivities of growers, and the ability of agricultural discourses and the organizations promoting them to affect these.

The present chapter provides a brief overview of the history of agrarian ideologies in revolutionary Cuba; describes the policy changes implemented by the state to transform the agricultural sector after the Soviet Union’s collapse; discusses the major organizations that developed at the national-level in Havana to promote agroecology, permaculture, and urban agriculture in the 1990s; and contextualizes the results of all the above. I argue that the Special Period provided not the singular impetus, but strong political and material motivation for the state to (re)-open to earlier Cuban imaginaries favoring peasants and small-scale farming, as well as to the influence of international paradigms surrounding alternative food and agricultural systems and funding available for them.

**Cuban Agrarian History: The Vision and the Reality of the Revolution**

Long before the triumph of the Cuban Revolution, Cuban smallholders and rural dwellers had achieved the status of central protagonists in Cuba’s national struggle. Still today, *campesinos* (peasant farmers) are often referred to as *Guajiros* – a Cubanization of the English phrase “war
heroes” - because, along with *mambises* (guerilla fighters including ex-slaves), they were seen as the primary heroes of Cuba’s first war for independence in 1868. At times, they have been described as “*la clase más Cubana*” (the most Cuban class) for their deep connection to Cuban land and apparent contrast to foreign corporate interests (Wilson 2010). Throughout the 20th century, political movements rallied together to demand that land be taken away from international investors and given back to Cuban *guajiros*, the “legitimate owners” (Felipe Cordiés and Martínez as quoted in Wilson 2010, 1). The high-esteem given to small-scale farmers is also seen in the work of Fernando Ortíz, Cuban anthropologist, whose highly influential work *Contrapunto Cubano del Tabaco y el Azúcar* (Cuban Counterpoint, Tobacco and Sugar) contrasted small-scale Cuban tobacco farmers with large-scale, foreign sugarcane growers in order to describe what he saw as uniquely Cuban values of creativity, dedication, and hard work (Ortiz 1995).

Before Ortíz, José Martí, Cuba’s national hero, philosopher, and poet, who died during the war for independence against Spain, wrote extensively on the need for national sovereignty and on the beauty and value of nature. His quote “If man serves the land, the land will serve man,” now the slogan of the National Association of Small Farmers (ANAP), reveals his emphasis on harmony and cooperation between man, society, and nature. Even Fidel Castro reports that his own ethical formation was guided by Martí’s views on nature and agriculture; he cites the quote, “all the glory in the world fits into one grain of corn,” which emphasizes the awe-inspiring complexity of both the natural world and agricultural production, as particularly influential to him (as quoted in Ramonet and Castro 2008, 101).

Castro and his allies directly observed the extreme rural poverty, landlessness, and hunger that existed during the first half of the 20th century amidst vast and under-used tracts of
land owned by foreign, mostly US citizens and corporations. They used the outrage over these injustices, as well as cultural narratives heroizing Cuban campesinos, to garner support for their struggle to overthrow the government (Jiménez Núñez 1960; Valdés 2003). Ernesto “Che” Guevara argued that rural well-being would be achieved when people were enabled to be self-sufficient (Valdés 2003) and Antonio Núñez Jiménez, a revolutionary who became the head of the First Agrarian Reform, suggested – in the spirit of self-determination – that all agriculturists, including sugarcane workers, should have land available for their own self-provisioning. He also denounced Cuba’s dependency on sugar, which he described as ecologically and politically dangerous, and argued in favor of the diversification of both domestic crops/industries and international economic engagements, so that the country would not be dependent on a single foreign power (as it was first to Spain, and then the United States) or commodity (Núñez Jiménez 1954).

Thus, the revolutionary struggle was ideologically organized around a vision to reform land-holdings, stop rural poverty, and lift-up Cuba’s hard working and underserved campesinado. However, the post-revolutionary reality transformed these objectives. Upon seizing power over the state in 1959, the revolutionaries favored centralization of the market in order to oversee food distribution and control price stability (Benjamin, Collins, and Scott 1989). Fidel Castro made clear that his vision for ending rural poverty was less geared toward enabling impoverished campesinos to participate in smallholder agriculture, and more concerned with scaling-up, modernizing, and de-ruralizing. At the 1959 Asamblea de los Colonos, he spoke of the First Agrarian Reform – which nationalized and re-appropriated foreign-owned plantations and any tracts over 993 acres – saying: “The Agrarian Reform is also to technify agriculture. It is our interest to technify agriculture to produce at a lower cost, with the help of the most modern
methods… and not to try to produce in small plots.” (Valdés 2003, author's translation from Spanish).

Although it would not be until 1961 that Castro publically declared himself a “Marxist-Leninist” and the Cuban state a socialist one, his anti-imperialistic sentiments had always constituted an alignment with Soviet politics. And, as the United States became increasingly hostile to Castro’s government, Cuban relations with the Soviet Union steadily warmed. Adoption of a centralized Soviet-style economy was a pragmatic option, and opened a pathway for the revolutionary state to insert itself into international trade networks. Marxism had, of course, fragmented into many schools of thought by this point in time, some more closely aligned with industrialization and others maintaining a humanistic emphasis on autonomy (Jacoby 2002), but Castro’s statement revealed the influence of technocratic, pro-industry, Soviet rhetoric on the formation of a post-revolutionary Cuban state (Benjamin and Rosset 1994; Funes and et al. 2002). While Cuba may not have fully adopted the notion of peasants as a backward and stubborn class, which characterized the work of many Marxist scholars and leaders (see Scott 1998; Kautsky 1988), the Cuban state did adopt the vision that scientific updating and mechanization could save this class from burdensome agrarian toil, and lift them into modernity.

In 1961, the Cuban state created Acopio, a national food procurement and distribution system, and in 1962, the Ministry of Internal Trade instituted a ration system for all citizens. The Second Agrarian Reform came into law in 1963, further limiting the amount of land individuals could own to 165 acres, and pushing remaining smallholders to integrate themselves into collective formations and mentalities by joining together in agricultural cooperatives. Far from retaining their characterization as national heroes, small-scale landholders were increasingly viewed as petty capitalists, clinging to individualistic ideals of private property and labor
exploitation as the rest of the country moved forward (Wilson 2010). By the end the second agrarian reform, the state had secured control over 70 percent of land and – aside from ongoing informal and “black market” trade – dismantled the free market. Farmers were presented with the requirement to complete plans of production for agreed upon crops at the beginning of the season, and to sell these to the state at a set price (Wright 2009). Through these plans, which are still required of farmers and cooperatives today, the state is able to track and account for production and expected income. However, farmers have been constrained in the extent to which they can improvise and experiment. Thus, the Revolution’s vision of food security, rurality, and economic well being transitioned rapidly from the right to have land and grow food to the right to have work and receive food from the state.

As the category of “peasant” faded to the background in national ideology, and “workers” assumed the spotlight, Cuban agriculture become increasingly “chemicalized” and “tractorized” (Pérez and Vázquez 2002). Green Revolution techniques of high-producing seed varieties and heavy chemical inputs were well suited to the Soviet model of production, and in many ways, this strategy was successful. By 1971, the ration system provided citizens with 1427 of their daily calories, coming in the form of basic items such as beans, rice, and cooking oil.4 Cuba became one of very few “developing” countries with average life expectancy and mortality rates on par with those in “developed” countries (Garfield 1999).

However, this high-degree of centralization came at a price. It simplified agricultural production and food consumption into metrics legible to economic planners: tonnage produced and calories available. It became economically “rational” to dedicate the most fertile farmland to produce sugarcane for export and to import food from distant markets. In 1985, the Ministry of

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4 According to World Health Organization standards, this is over half of the calories required for a “well-nourished adult.”
Agriculture was producing only 28 percent of all nationally consumed calories. Over half came from abroad, and the rest from lands controlled by the Ministry of Sugar (Cassanova 1994). Food consumption revolved (as it does today) around energy-dense foods, such as animal fats, sugar, and rice (Muñoz 1989). Fresh vegetables and fruits were consumed at low levels. Onions, cucumbers, peppers, and tomatoes were the only vegetables outside of starchy tubers consumed with any regularity in the 1980s (García Roché and Ilnitsky, 1986). Furthermore, farmers complained of Acopio’s inefficiencies. Alvarez reports that in the years since 1980, 10-15 percent of available food had been regularly wasted because it was not picked up, delivered, or distributed properly (2004).

**Agricultural Transition 1980s-2000s**

By the 1980s, it was clear that Cuba’s food and agricultural strategy was in danger. Even before the Soviet Union was officially dissolved at the end of 1991, Cuba’s relationships with Eastern Bloc countries had been in decline for several years. Furthermore, there was a mounting awareness throughout the 1980s of the negative impacts of industrial-style agricultural production. Cuba had built one of the most input-intensive agricultural systems in the world, using even more chemicals and machinery per hectare than the US average (Funes 2002). The production levels that had been achieved this way were neither economically nor ecologically sustainable. Research revealed that at least 70 percent of land was affected by erosion, including on the most fertile agricultural lands; 25 percent of agricultural land was affected by soil compaction; and between 10 and 32 percent by salinization (Wright 2009; Director General de Suelos y Fertilizantes n/d). Researchers from the Food Nutrition and Hygiene Institute found a
positive relationship between the intensive use of nitrogen fertilizers and the incidence of stomach cancers. In 1986, they recommended limiting chemical fertilizers for this reason (García Roché and Ilnitsky 1986).

Studies like these are indicative of an increasing awareness of the negative impacts of industrial agriculture that began before the Special Period, even when the political will to act on it did not. As Fernando Funes, one of the founders of the Cuban Organic Farming Association (see section on ACAO below) puts it: “In the 1970s and 1980s, many Cuban scientists and farmers started searching for alternatives to high input agriculture” (Funes et al. 2001, 11). Moreover, even though the majority of agricultural land was consolidated at this time onto state farms and large cooperatives, there still existed small farms and self-provisioning plots, and on some of them campesinos continued to practice traditional, low-input techniques that had been passed down through their families. As one farmer (included in the analysis in chapters 5 and 6) reflected during an interview in 2014: “From one point of view, sustainable agriculture has always been practiced [on this farm]. Since the time of my grandfather… he has always done what is today referred to as ‘permaculture’.”

Farmers like this man’s grandfather and the researchers and state functionaries that supported him may have been in the minority throughout the 1970s and 80s, but the Special Period ushered in a period of agricultural experimentation. Even those farmers most embedded in the logic of conventional agriculture, and those state functionaries most ideologically committed to industrialization and modernization, were forced to consider other options, and to recognize low-input, ecological production as a strong alternative. As described in Chapter 1, the “alternative model” that began to emerge from these experiments not only differed from the
“conventional model” in moving away from mechanization and mono-production, but also entailed a focus on small-scale, diversified production (Benjamin and Rosset 1994).

Anthropologist Marisa Wilson calls this the “re-valorization” of Cuban peasants (2010). Prior to the Special Period, small farms, run by campesinos, were statistically less productive per hectare than large, state farms. However, when economic collapse took away the resources that had previously been prioritized for large farms, it became clear that campesino production was able to utilize limited resources much more efficiently, and the state looked toward them as a means to rescue the country from hunger and economic collapse (Wright 2009; Funes 2002).

The shift in official discourse on the campesino sector is reflected in newspaper articles published during the 1990s. In the early 1990s, the state had not yet reversed its position on campesino versus state production, and was exerting significant pressure on the campesino sector to produce more, and to become better contributors to society. For instance, in a newspaper article on the annual assembly of ANAP, the author wrote: “In essence, the assembly was a reflection of the shame of campesinos…” and went on to describe how ANAP leaders had to encourage campesinos to stop consuming so much of their own product (especially milk), so that it could be appropriately distributed nationally (O. de la Cruz 1992, translated from Spanish). By 1997, the state had formally recognized that campesino production actually was the most productive sector, and articles like the above came to be replaced with ones profiling particularly successful campesinos in praise of their productivity. For instance, one local news article in Sancti Spiritus quoted a campesino as saying, “my father was a campesino, and I have been one all of my life. I am not afraid of work, I get up at five in the morning and stop when it is dark.” The journalist added, “The fortune of [this] family is having the sombrero guajiro [campesino

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5 As described under the methodology section of Chapter 1, the research for this dissertation included a systematic content review of articles pertaining to agricultural and food published in Escambray newspaper between 1990 and 2014.
hat – emblematic of campesino identity] running through their veins. This generational continuity is the only thing that can truly save the Cuban countryside” (Luz Borrego 1997, translated from Spanish). This harkens back to ideas of campesinos as “the most Cuban class,” and to the visions promulgated by José Martí (in the struggle for independence from Spain) and revolutionaries like “Che” and Núñez Jiménez in 1959. Indeed, quotes from such figures are often used in presentations and materials prepared by those involved in alternative agriculture to lend ideological credence to the re-emergence of small-scale agriculture.

The many fascinating agricultural transformations brought on by the Special Period have unsurprisingly attracted much attention from a multi-disciplinary range of scholars. Julia Wright gives a particularly exhaustive overview of the policy changes and state-supported programs that were put in place during and in the wake of the Special Period (2009). Anthropologist Andriana Premat adds ethnographic detail to the emergence of urban agriculture and the entanglement of individual agency and grassroots creativity with state bureaucracy (2012), and Marisa Wilson
provides insight into the moral economy of food consumption and production after the Special Period (2014). Although their works generally include less “thick description” (ethnography has not been prioritized by Cuban academic institutions), Cuban scholars from the University of Havana, the Agrarian University of Havana, and other research centers fill in important details about on-farm transition from large state farms to worker-managed collectives, and the reactions of cooperative-members to these projects (Pérez Rojas, González Mastrapa, and García Aguiar 1999b; Pérez Rojas, González Mastrapa, and García Aguiar 1999a). Collectively, these works reveal the complexity of the so-called “agricultural transition,” which was driven by a plurality of projects in state, semi-state, and grassroots spaces. Rather than duplicate these scholars’ efforts here, the following sections briefly describes the current role of the state in Cuban food production, before the chapter turns toward a discussion of key organizations and associations in the alternative agriculture movement.

**The State in the Cuban Food Economy**

Although much has been said by North American and European press and think tanks (see for example Feinberg 2012) about the “liberalization” and market reforms that have taken place in Cuba over recent years, the state firmly maintains its position at the head of the Cuban economy, including its agrifoods system. Farmers and cooperatives (excepting urban farmers) must still form contracts with Acopio, which supplies food to state-run farmers’ markets and to bodegas, where citizens pick-up their subsidized food rations. These outlets constitute the most affordable food sources for Cubans, though they do not come close to satisfying all of an individual or family’s food needs. Farmers who produce high quality produce and other items can also
contract with Fruta Selecta, the state-run company that purchases items for state restaurants, hotels, and other tourist outlets.

After meeting their quotas, farmers are permitted to sell their additional output through private channels, including farmers’ markets. They may also sell to individuals or self-organized groups of individuals possessing licenses that allow them to sell food products from bicycle carts that pass through city and village streets. It is more expensive to buy food from these vendors than it is to shop at state markets, but these sources offer increased convenience and accessibility to fresh food for those who can afford it. Certain products – milk, coffee, and seafood – remain under state control, and it is illegal for growers to distribute them through private channels (although they are often sold through the “black” and “grey” markets).

Farmers who work on pooled and cooperatively held large tracts of land (see description of CPAs, below) have relatively little individual latitude in making decisions about production and sales outlets. These questions are worked out between the cooperatives’ elected directors and state agencies, which must answer to national economic planners. Farmers with their own land (see description of CCSs) have more flexibility in these decisions. However, to access seeds, fertilizers, and machinery, or to negotiate contracts with Acopio, they must go through a cooperative structure (the different forms of cooperatives will be explained further below).

Urban and suburban farms operate within a different regulatory structure than rural farms, and they exist as hybrids between independent operations and state projects. While farm managers generally hold individual land-access rights, make planting and work-plan decisions, and sell directly to the public, they are also part of the state ministry of urban agriculture, Agricultura Urbana, which requires them to meet certain guidelines, facilitates contracts with state institutions, and provides financial incentives to workers who exceed production
expectations. Based on their relationships with cooperative structures, state-buying agencies and the urban agriculture department, all Cuban growers must navigate, are constrained by, and are supported by, state structures on a daily basis.

### Policy Changes in the Agricultural Sector

During and following the Special Period, the Cuban state enacted a variety of legal and policy measures to re-orient the Cuban economy and agricultural sectors. Among the most significant of these were new policies related to the social structure of farm labor and land access. As mentioned above, the Cuban Revolution brought approximately 80 percent of the country’s farmland under state control (Funes 2002). Campesinos were allowed to maintain ownership over small farms, but they were heavily encouraged – and in some cases required – to join cooperative structures. Beginning in 1961, campesinos organized and were organized into Cooperativas de Créditos y Servicios (Credit and Service Cooperatives, CCSs). CCS members retain control and management over their individual plots, but are part of collective structures that oversee access to credit, inputs, equipment, and contracts with the state. Beginning in 1976, some farms merged together into a second type of cooperative structure: Cooperativas de Producción Agropecuaria (Agricultural Production Cooperatives, CPA). As opposed to CCS members, CPA members pool their land together to work it collectively. CPAs generally produce sugar or other commodity crops, whereas CCSs are more likely to have mixed crop and livestock production.

After the agrarian reforms, previous plantations were converted to large state farms, which remained in operation until the 1990s. Critics often point out that they were characterized
by overly bureaucratic layers of management and inefficiency. Although they were, before the Special Period, more productive than small farms, many analysts suggest that this was due to their prioritized access to fertilizers and input. When the Soviet Union’s collapse put these in short supply, it became clear that small farms had more of the flexibility needed to produce during a period of scarcity. In 1993, the state made the decision to transition more state farmland into private or collective ownership through the creation of Unidades Básicas de Producción Cooperativa (UBPCs, Basic Units of Cooperative Production), which are owned by former workers and new members through rent-free usufruct rights (Funes 2002). The hope of the Ministry of Agriculture (MINAG) and Cuban economic planners was that productivity and efficiency would increase if workers had greater ownership and autonomy over their production.

Ultimately, many of the UBPCs did not survive the transition. Cuban analysts note that it was difficult to transition workers to the “mentality” of ownership, meaning that they did not quickly accustom to being solely responsible for all planning, production, and rewards. Some also comment that the remaining bureaucratic structures of these farm organizations still continued to limit farmer/worker’s autonomy, preventing them from making necessary changes (Pérez Rojas and Echevarría León 1999).

Another significant effort implemented by state agencies was to “vincular el hombre a la tierra” (link man to the land) on UPBCs, state sugar farms, and CPAs. Whereas growers previously collectively worked large tracts of land, and rotated through in work teams assigned to specific tasks (i.e. preparing the land, planting seeds, spraying with pesticides, etc.), these reforms put individuals or groups of individuals in charge of all activities on specific sub-plots of the large land tracts. The idea was that they would become more invested in the success of this piece of land. MINAG and the Ministry of Sugar (MINAZ) also experimented with various
“economic stimuli” to increase production. For example, some farms transitioned from pre-determined salaries for workers/owners to wages based on metrics such as number of rows planted or final production output (Funes 2002; Wright 2009; Pérez Rojas and Echevarría León 1999). In addition, many farm members were designated areas within the cooperative or state farm where they could grow crops for their own sustenance. In this way, cooperatives and farms were tasked not only with increasing their output for the market, but also with building their own self-sufficiency.

Anticipating the potential downfall of the Soviet Union and possibility for international conflict, the Cuban state had taken measures in the 1980s to increase production of both pharmaceutical and pest management products. At the end of the decade, a national program for biological pest control was focused on the release of beneficial insects and the use of natural bacteria and pathogens to slow the growth of pest populations. Two hundred and twenty Centros por la Reproducción de Entomofagos y Entomopatogenos (Centers for the Reproduction of Entomophagens and Entomopathogens, CREES) were developed around the country, and their work escalated after the Special Period’s onset (Wright 2009). Additionally, Labiofam, the state’s center for pharmaceutical and agricultural product development and production, played an important role in making agroecological inputs available around the country. Further, various national research institutions including the Institute for Tropical Agriculture, the Indio Hatuey Institute for Pasture and Forage Management, the Agrarian University of Havana, the National Research Institute for Tropical Roots and Tubers, and the Cuban Association for Agriculture and Forestry Management began conducting and supporting extensive research on agroecological production techniques.
Perhaps the most internationally-recognized infrastructure and policy development was the creation of the Department of Urban Agriculture in 1994. The department ensures that all municipalities have a minimum number of operating organopónicos (raised-bed vegetable, herb, and fruit gardens) and incorporates household-level projects into the state infrastructure intended to support them. Staff make regular site visits to assess and offer advice to gardeners and farmers in urban and suburban areas. This department is tasked with providing a network of services within every municipality including a tienda (store) where farmers can buy limited equipment and seeds and ask for advice; a composting center that provides organic material for raised beds; and a seed production center. The municipal department manages urban farm contracts with preschools, schools, hospitals, and other community centers, and provides paychecks for their fulfillment through state funding. The formalization of urban agriculture has constrained some of its most creative participants, but it has also enabled the rapid expansion of a new important food source for Cuban society, as will be discussed later.

A later change, implemented shortly after Raul Castro assumed the presidency in 2008, was Decreto-Ley 259, which makes unused agricultural land available to individuals in 10 year, renewable periods under what are referred to as “usufruct” rights. To attain this land, interested parties must submit a request and a plan of production. If they are able to successfully put the land into production, which in many cases first requires extensive clearing of marabú, a thorny, invasive plant, then they are eligible to continually extend their possession of the land. Although some farmers complain that this form of land access is insufficiently secure because they cannot build a home on the land with a guarantee that it will remain their property into the future, the law did successfully prompt many new entrants into farming and allow existing farmers to scale-
up their operations. By July 2009, 690,000 hectares, or 41 percent of the land considered to have been idle before the law went into effect, had been transferred to new hands (Hagelberg 2011).

**A Rise in Non-State Directed Transformation**

Although accounts of Cuban agricultural transition often focus on state structures (see Simón Reardon and Alemán Pérez 2010; Wright 2009), the policy changes described above were both driven by and made successful because of complementary community-level activity that occurred throughout the country’s urban and rural landscapes. On a local level, as will be described further in Chapter 4 regarding Sancti Spíritus, passionate and persuasive individuals drove both on-farm ecological innovation and the social processes of diffusing it. In her ethnography of urban agriculture in Havana, Adriana Premat argues that this practice initially emerged as a grassroots response to hunger and scarcity. She describes participants as embracing both ecological sustainability and the notion that citizens possess the capacity to organize for improvement in local spaces. Eventually, the state came to incorporate these efforts through the creation of new state institutions, such as the Department of Urban Agriculture (Premat 2009) and through other “non-governmental” organizations, and organizations overseen by the state.

As will be revealed in following chapters, this latter group has been particularly active and effective in supporting agricultural change and providing organizational structure and support to the various community-based and grassroots activities taking place around the country. According to the accounts of my interview participants, as well as a review of previous literature, four Cuban organizations (listed and described below) – all formally categorized as non-governmental – played leading roles in supporting the development and promotion of
alternative agriculture paradigms in the 1990s and 2000s: one “association”; one informal non-governmental organization that later became incorporated into an older “association;” one non-governmental “council”, and one “foundation.” Prior to the Special Period, there were almost no NGOs operating in Cuba. Rather than promoting a separate civil society, the socialist party encouraged the formation of mass associations, such as the Federación de Mujeres Cubanas (Federation of Cuban Women, FMC), which were conceptualized as vehicles for people’s participation in social processes and politics. Although the state categorizes them as separate from the government, they are always closely connected to state apparatus.

In 1992, the Cuban constitution was revised to allow well-known Cuban cultural and academic figures to open private foundations in service of Cuban “patrimony” and social well being. This change came alongside various other revisions, prompted by the Soviet Union’s collapse and Cuba’s need to establish new foreign economic ties, to allow for certain types of foreign investment and enable foreign entities to form joint corporations in Cuba. These new foundations are allowed to receive foreign donations, and thus have become key conduits for capital in support of environmental, agricultural, and cultural projects, as well as key tools of the Cuban economy.

Anthropologist Marina Gold borrows from Janine Wedel’s analysis of “flex organizations” in post-Soviet Russia and Poland to characterize the complex overlap of governmental and nominally non-governmental structures existing in contemporary Cuba. Wedel writes that flex organizations “switch their status—from state to private—according to the situation, strategically maneuvering to best access state, private, and international resources” (quoted in Gold 2015, 46). Gold’s application of this term is useful in so much that it calls attention to the unique position that Cuban associations, organization, and foundations found themselves in
beginning in the 1990s. However, these Cuban groups are actually quite distinct from the post-Soviet organizations Wedel discusses, which are characterized by boundary blurring between the state and corporate interests (Wedel 2004). In fact, the Special Period did not actually introduce “flexibility” to the activities and goals of such organizations, so much as it brought new and regularly shifting grey area as to what could be considered appropriate actions for them to take in the battle to “sustain Cuban socialism.” As they navigated this shifting and contested space, pre-existing associations and new foundations found new opportunities to engage directly with international discourses and funding streams, and to start new projects with Cuban constituents, but their ability to do so was contingent on the savviness of their staff in justifying these projects to state ministries as socially and politically relevant.

Gold (2015) describes such organizations, which she calls “flex” and I will call “ambiguous,” as mechanisms used by the state to “co-opt” grassroots projects in agriculture, alternative health, and other types of community development. According to her analysis, the state allows non-traditional associations and foundations to exist and operate with limited autonomy because they bring newly emergent social activities under the surveillance and regulation of the state. However, she also recognizes that power and agency do not flow only from the state; affiliates of these organizations – such as urban gardeners – are able to align themselves with such groups, “in ways that best suit their own interests,” so as to strategically access resources and opportunities that will benefit their own personal projects (Gold 2014, 49). Furthermore, I would add that the staff members and directors of these organizations – who often find themselves at odds with bureaucracy and the status quo – can use their access to foreign donations in order to skirt the boundaries of state policies and support the interests of their membership.
The following sections describe the four organizations my research identifies as most central to the (re)emergence of alternative agriculture paradigms in Cuba.

**Consejo de Iglesias Cubanas (CIC)**

The Council of Cuban Churches was founded in 1941 to bring together “evangelical” (protestant) churches and religious associations in the country. It was and remains one of few formally recognized NGOs operating in post-Revolutionary Cuba. Beyond bringing churches into association, the CIC oversees various social projects, and has long worked to provide emergency relief in the wake of hurricanes and other natural disasters. At the time of writing, it has five major program areas, including the Program for Community Life and Health, the Program for Sustainable Development, the Ministry for Differently-Abled People, the Program for Ecclesial Infrastructure, and Humanitarian Assistance and Emergency Relief (EcuRed 2016a).

Although many urban farming and alternative agriculture advocates have acknowledged the role that CIC has played in the development and promotion of urban gardening and sustainable agriculture (Gold 2015; Premat 2012; Wright 2009), the organization’s history in this field remains under-documented and analyzed, particularly in comparison to the other three organizations described in this section. As relayed to me by the organization’s staff, the council became the first Cuban organización civil (civil society organization) to work on agriculture and gardening in the early 1990s. Their entrance into this area of work is illustrative of the increasing influence of foreign organizations and alternative development discourses opening up in this decade. CIC’s staff report that their organization was not thinking about issues related to agriculture until Bread for the World, a German Christian organization that funds and
collaborates with CIC, encouraged them to begin focusing on this topic. Bread for the World was also connected to organizations tied into growing movements around small-scale farming in Latin America, and saw local gardening and agricultural development as a path toward food security, better health, and self-sufficiency. CIC increasingly came to agree with them and, thus, in the 1990s, the group began supporting five alternative agriculture projects, including the ACAO (see below). Whereas community-based projects were not legally permitted to accept foreign funding and lacked access to bank accounts that would allow them to manage donations, CIC’s *Departamento de Coordinación y Asesoría de Proyectos* (DECAP) was able to provide these services on their behalf.

Over the years, CIC has partnered with other organizations and researchers to produce materials regarding sustainable agriculture, including books on community-based development and on gender equity in sustainable agriculture. They hire promoters around the country – including several of my non-religious interlocutors – to provide training and organization on topics including food preservation and appropriate technology for small-scale, sustainable agriculture. Their projects range from urban gardening in Havana for HIV-AIDS patients to peri-urban agricultural development in rural and relatively under-served communities outside the mountainous town of Fomento, Sancti Spiritus. As of 2014-2016, they are working extensively in the provinces of the Oriente (east) to support sustainable agriculture development in this relatively poor and under-resourced region.

Although CIC does not provide permaculture training courses, it does partner with the permaculture network overseen by FANJ (see below) and recommends permaculture techniques and trainings to participants. Many permaculturists see the alliance with CIC as a welcome opportunity for expanding sustainable agriculture and food sovereignty throughout Cuba.
Various of my non-religiously affiliated interlocutors have commented to me that – despite not being church members or Christians, themselves – they admire CIC’s work in local, sustainable development and believe it to be committed to bringing projects to all Cubans, regardless of religion, without proselytization. This belief is likely reinforced by CIC’s increasing participation in permaculture conferences held by non-religiously affiliated FANJ and by their hiring of non-Christian promoters and educators. In fact, as of 2016, several prominent members of the permaculture community of Sancti Spíritus (none of them church members) had been hired by the CIC to give trainings in other parts of the country where permaculture and agroecology were not yet as common.

Image 2.2: A group of men work together to restore a grey water filter during an on-farm workshop hosted by CIC. Source: Author
The Asociación Cubana de Agricultura Orgánica (ACAO) and Asociación Cubana de Técnicos Agrícolas y Forestales (ACTAF)

The ACAO, founded in 1992 by biologist Marta Monzote along with husband and agronomist Fernando Funes and other colleagues, was one of the earliest protagonistic organizations in Cuba’s movement toward sustainable and organic agriculture. They formed a civil organization that was not granted full legal status, and relied on relationships with established organizations, like CIC, for assistance with banking and donations. The group founded a magazine, *Agricultura Orgánica*, to promote organic agriculture, profile successful farmers, and answer readers’ questions. They established ACAO chapters around the country, and worked to set up “lighthouse farms,” where the efficacy of agroecological farming could be demonstrated.

In 1999, the ACAO was awarded a Right Livelihood Award (often referred to as the “Alternative Nobel Prize”) for its work. Just several months later, the government shut them down. Although ACAO was working toward goals that Fidel Castro had publicly declared to be national priorities – increasing food production without use of external inputs – it had overstepped the boundaries of allowable autonomy (Fairweather and Asquith 2010). As Funes will now publically declare at conferences and workshops, the state did not endorse their active commitment to fully organic farming. However, Funes was already a well-established researcher with contacts in many institutes, and he found a new state-approved institutional home within ACTAF, the association for agricultural technicians, where he was formally hired to work (Monzote, sadly, is no longer living). ACTAF adapted the investigation and promotion of agroecology as a core mission, and continues to support production of the *Agricultura Orgánica* magazine, which is now distributed to all ACTAF members. During this same time period, ACTAF was increasingly being developed as a conduit for exchanges with international researchers and funding streams, and the growing international interest in agroecology meant
that ACAO brought cache to its new organizational home. ACTAF’s provincial offices went on to successfully introduce agroecology and sustainable farming to urban and rural growers around the country (see Chapter 4).

Unfortunately, ACTAF, which was originally formed to serve a constituency of technicians, is somewhat ill-suited as the institutional home for a group founded to support growers. The association’s discourse is often highly technical and theoretical, and it can be unwelcoming to farmers. As one Sancti Spíritus woman described to me of her first encounter with ACTAF: “It was as if they were speaking Chinese!” Furthermore, the association has begun to scale-back their support for alternative agriculture and is considering shifting rhetoric from support for “agroecology,” which they fear is too heavily associated with “organic,” to support for “sustainable agriculture,” which they believe allows them to focus on long-term goals and the measureable impacts of various types of agriculture, rather than specific philosophies or purely chemical-free agriculture, which some current staff believe is too dogmatic. The transition has sparked some internal confusion and discord over organizational ideology and goals. While a provincial president reported to me that ACTAF promoted chemical-free agroecology, national leaders reported to me that they do not think of agroecology as exclusive of chemical-use. As of early 2017, the organization is undergoing a period of transition in leadership and goals.

6 This information was shared with me in discussions with a national staff member of ACTAF. Although he did not request anonymity in the interview, I have chosen to withhold his name to protect him from potential backlash.
Antonio Núñez Jiménez (mentioned at the top of this chapter) was a geographer who was well known before the Revolution for his critiques of Cuba’s reliance on foreign markets and the mono-production of sugarcane. He participated in the Revolutionary war, and afterwards, led the First Agrarian Reform. In the following decades, he continued to act as a public intellectual, writing extensively and organizing a canoe-based voyage from South America to the Caribbean to trace the migratory routes of the indigenous groups that eventually settled in Cuba. In 1994, he
took advantage of the change in the Cuban constitution allowing well-known cultural figures to open private foundations, and started the Antonio Nuñez Jiménez Foundation for Nature and Man (FANJ) with the purpose of displaying the many anthropological and historic artifacts he had collected over the years, and to promote environmental stewardship (Premat 2012, 23). Under the slogan *hacia una cultura de la naturaleza* (toward a culture of nature), FANJ began work in five major areas: (1) geo-historic investigation, (2) environmental education and biodiversity conservation, (3) local, sustainable development (which they have sense renamed the program of local, sustainable communities), (4) environment and consumption, and (5) patrimonial conservation (EcuRed 2016b). The main headquarters of the foundation was opened adjacent to Núñez’s home, in the elite Miramar neighborhood of Havana, and a second office was opened in Sancti Spíritus under the direction of Alejandro Romero Emperador, who is the son of another well-known Cuban geographer, the head of Cuba’s National Society of Speleology, and was also a participant in Jiménez’s canoe voyage.

A year before FANJ formed, a delegation of Australian and New Zealander permaculturists travelled to Havana to meet with planners of an urban agriculture project in Havana’s Parque Metropolitano. Here, they met with various project officials and participants in hopes of introducing them to and training them in permaculture – a system of principles developed in Australia for sustainable gardens, farms, and home-sites. Although most state representatives were hesitant to take on what they viewed as an unconventional approach, several project participants, including Caridad Cruz, were intrigued. When FANJ formed a year later, the Australian Conservation Fund (ACF) identified it as a well-suited partner for permaculture promotion, and the foundation hired Caridad and other staff to be trained as permaculture professors and promoters. They adopted the permaculture philosophy (see Chapter 6) to the
Cuban context and defined *permacultura criolla* as “a system of principles and methods useful for designing human settlements” (Cruz, Sánchez Medina, and Cabrera 2006; translated from Spanish). With initial funding from the ACF, and later support from the International Development Centre of Canada, OXFAM United Kingdom, and Bread for the World, FANJ was able to take on an influential early role in training and material support for urban farmers around Havana (Premat 2012). This combination of financial access and ideological respectability allowed the foundation to promote a philosophy that would not otherwise have been considered credible by the state.

Gradually, FANJ began expanding its reach by inviting participants from other parts of the country to attend their permaculture trainings and workshops. In 2003, they hired a new staff member to work out of Sancti Spíritus and oversee the promotion of permaculture from the central through the eastern provinces of the country. As their network expanded, FANJ also began to partner with other projects of ANAP and CIC to promote the use of permacultural techniques on small, rural farms. During my 2014 fieldwork period, the Sancti Spíritus branch of the foundation had recently secured a small piece of land about eight kilometers outside of the city where they were attempting to construct a demonstration permaculture farm and ecologically-constructed retreat. Additionally, FANJ has been able to work in several remote areas that conventional state programs have not successfully reached. In 2007, for example, they began work in Tunas de Zaza, at the request of community leaders and the Department of Urban Agriculture.

As described by Caridad Cruz, FANJ’s goal, through permaculture, is to support people in “*buscar otros caminos,*” (looking for other pathways). In other words, they are interested in
forging new paradigms in food production through grassroots outreach and local activity that will lead to greater human well being and environmental sustainability.

Image 2.4: Permaculturists gather at FANJ’s demonstration farm for a presentation during a national conference. Source: Author

The Campesino-a-Campesino Movement (CAC) and Asociación de Agricultores Pequeños (ANAP)

Along with ACAO/ACTAF, the small farmers’ association (ANAP) played a major role in Cuban agroecological promotion during the 1990s and 2000s through their support of the Campesino-to-Campesino movement. ANAP was formed as a mass, participatory association in 1961, in order to provide services to farmers with less than 67 hectares of land, and to
incorporate them into the state’s structure. As described above, the Special Period brought with it a “re-valorization” of campesinos as they quickly became the backbone of the new domestic, low-input food production sector (Wilson 2010). In 1996, ANAP representatives were invited to participate at a meeting of La Vía Campesina (LVC) in Tlaxcala, Mexico. As discussed in Chapter 1, LVC, a transnational association of peasants and peasant organizations, was working at the time to bring together a strong, international discourse around the concept of food sovereignty: “the right of peoples to healthy and culturally appropriate food produced through sustainable methods and their right to define their own food and agricultural systems,” and was also promoting both agroecology and small-scale, family farming (La Via Campesina 2011).

In the early 1990s, both ANAP and LVC had become aware of the “campesino-to-campesino” process, a learning methodology based around the premise that farming knowledge is developed in practice, and farmers, themselves, are the strongest repositories of this knowledge. In contrast to extension programs that attempt to solve agricultural problems through top-down, or “vertical,” transfer of technology and science, the CAC methodology starts at the farm, and recommends looking for solutions that are being developed through local experimentation. Then, it calls for “horizontal” exchanges between the innovator(s) and other farmers to demonstrate the effects and multiply them throughout the country or region. ANAP and LVC both believed that CAC could be a solution for spreading agroecological knowledge through Cuba, and making Cuban small-farms more resilient.

In November 1996, ANAP hosted delegates from Mesoamerica for a meeting on CAC in Havana, and decided to begin using the methodology on a trial basis. A year later, with funding from Bread for the World, ANAP began a “trial” in Villa Clara province with a workshop on agroecology and CAC methodology. By 2000, ANAP was facilitating the spread of CAC into
Sancti Spíritus, Cienfuegos, Holguín, Ciego de Ávila, Matanzas, and La Habana provinces. In each of these sites, trainings were held and local leaders and community members worked to identify farmers who could act as volunteer “promoters” of agroecological philosophy and practice. Additionally, cooperatives were encouraged to hire people to act as “facilitators” to deal with the logistics of setting up workshops and exchanges if they felt that the volunteer promoters and ANAP staff did not have enough capacity to do so themselves (Rosset et al. 2011; Machín Sosa 2002).

ANAP held the First National Meeting of the Program of Productive and Agroecological Campesino-to-Campesino Promotion in 2001, and ANAP president Orlando Lugo officially declared formal support for the program. However, he also voiced concern regarding the extensive time and effort required to establish CAC in each province and with the program’s reliance on external funding. He urged all of the actors involved to begin thinking of the program as a “movement,” and to find ways to become self-sustained. From this point forward it was officially known as the Movimiento Agroecológico Campesino-a-Campesino (MACAC) (Rosset et al. 2011). Although ANAP wanted to see MACAC become a grassroots effort, they also decided to invest additional resources into ensuring its institutional success. In 2002, the association’s national bureau decided to name MACAC coordinators to the ANAP staff at the national, provincial and municipal levels, so that groups of farmers organizing agroecological solutions in one location could be made aware of relevant activities and findings in other parts of the country. Additionally, the Centro Nacional de Capacitación Niceto Pérez, ANAP’s national training school, added agroecology to their program (Machín Sosa 2002). In this way, MACAC was simultaneously an institutionalized program – through its ANAP staff member coordinators, national trainings, and international funding – and a grassroots effort that was most successful on
the ground at sites with highly enthusiastic and self-organized *campesinos*. By 2003, it had been established in all Cuban provinces.

In 1999, after two years of CAC, the program had incorporated 200 farming families. By 2009, ANAP reports that it reached 110,000 out of a total of 350,000 families in the *campesino* sector. There were approximately 12,000 farmer-promoters by this date, 3,000 facilitators, and 170 coordinators (Rosset et al. 2011, 175).

![Image 2.5: A group of growers and agronomists from around the country gather for a presentation by a local ANAP leader and cooperative president. Source: Author](image-url)
Figure 2.1: The “Ambiguous Organizations” that catalyzed alternative agriculture in the 1990s-2000s

<table>
<thead>
<tr>
<th><strong>Consejo de Iglesias Cubanas (CIC)</strong></th>
<th><strong>Asociación Cubana de Técnicos Agrícolas y Forestales (ACTAF)</strong></th>
<th><strong>Fundación Antonio Núñez Jiménez de la Naturaleza y el Hombre (FANJ)</strong></th>
<th><strong>Asociación Nacional de Agricultores Pequeños (ANAP)</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>The Sustainable Development Program of the Cuban Council for Churches</td>
<td>The Organic Agriculture Group (formerly ACAO) of the Cuban Association for Agricultural and Forestry Technicians</td>
<td>The Permaculture network of the Antonio Núñez Jiménez Foundation for Nature and Man</td>
<td>The Agroecological Campesino-to-Campesino Movement of the National Association of Small Farmers</td>
</tr>
<tr>
<td>This NGO supports food security and sovereignty through gardening and farming projects in urban, peri-urban and rural locations across the country. Promotes agroecological and permacultural techniques, “appropriate technology,” food preservation, and gender equity.</td>
<td>This association of agricultural and forestry technicians is the home of the formerly independent Cuban Association for Organic Agriculture. It publishes a print/web magazine on agroecology, provides assistance to member growers, and organizes provincial and national-level meetings for agronomists and growers to present findings on sustainable production techniques.</td>
<td>This NGO supports local, sustainable development in urban, suburban, and rural areas through the promotion of permaculture. It offers permaculture courses, workshops, and conferences, and is the singular institutional home and source of support for Cuban permaculturists.</td>
<td>CAC works through the National Small Farmers’ Association to support horizontal diffusion of agroecological techniques, encourage experimentations, and promote farmer exchange. It seeks to make this a spontaneous and organic process, but also hires facilitators to encourage the process.</td>
</tr>
</tbody>
</table>
The results of the state policies and various programs described above have been widely lauded by agroecology and food sovereignty proponents. Statistics bear out a remarkable agricultural transformation even though the limits are controversial and subject to misreading according to the communist versus free world scripts. Some critics of the Cuban state, for example, point out that the country remains heavily dependent on imports, and is still far from reaching domestic food security. As Dennis Avery writes from the Hudson Institute’s Center for Global Food Issues:

The Cubans told the world they had heroically learned to feed themselves without fuel or farm chemicals after their Soviet subsidies collapsed in the early 1990s. They bragged about their “peasant cooperatives,” their biopesticides, and organic fertilizers. They heralded their earthworm culture and the predator wasps they unleashed on destructive caterpillars. They boasted about the heroic ox teams they had trained to replace tractors. Organic activists all over the world swooned. Now, a senior Ministry of Agriculture official has admitted in the Cuban press that 84 percent of Cuba’s current food consumption is imported, according to our agricultural attaché in Havana. The organic success was all a lie (as quoted in Altieri and Funes Monzote 2012).

Avery’s insinuation is that the Cuban organic movement was nothing but a communist state cover-up of ongoing food insecurity and scarcity. However, as internationally renowned agroecologists Miguel Altieri and Fernando R. Funes Monzote point out, the figure he quotes from the ministry of agriculture was actually a statement regarding the food available on the Cuban ration card; not the overall availability of domestically produced items. Based on an analysis of 2003 Food and Agricultural Organization (FAO) data, they suggested that Cuba actually only imported 16 percent of food stuffs (Altieri and Funes Monzote 2012).

In reality, it is difficult to quantitatively assess macro impacts of agroecology and low-input Cuban agriculture, because national statistics represent the result of a complex and
contradictory system. Throughout the Special Period and up to today, Cuban actors have carried out two agricultural paradigms: agroecology and industrial agriculture (Williams 2012; Altieri and Funes Monzote 2012). This means that the current state of food and agriculture is not a clear indicator of the success or failures of one of these projects, but of their co-existence. Nonetheless, it is relevant to re-examine national figures in order to more accurately portray the national food economy and to understand why those who do advocate for alternative agriculture see it as a productive and rational strategy.

According to my own analysis of statistics collected by the FAO, Cuba obtained between 30 and 40 percent of its available food, by tonnage, from imports between 2003 and 2011 (the last year of data availability). Whereas Altieri and Funes included sugar crops in their interpretation of the same data, crops that are both widely available and domestically produced, I exclude them based on the fact that they are not exclusively destined for human consumption (some goes to livestock) and do not provide significant nutrition beyond calories. Leaving them out of the equation reduces the percentage of food that Cuba produces domestically.

The greatest gains have been in the production of sweeteners, eggs, fruits, vegetables, and *viandas* (a category that includes starchy root crops, such as yucca, and also plantains), all of which Cuba is now almost entirely self-sufficient in producing. This is particularly notable considering that these crops (apart from sugar-derived sweeteners) were not prioritized by the state prior to the collapse of the Soviet Union, but are important elements not only of traditional, Cuban diets, but also of healthy ones. However, the nation remains dependent on imports for

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7 It is difficult to accurately calculate food availability and investigate food source in Cuba because of a limitation in publically available statistics. FAOSTAT does not have food balance sheets – the national calculations they produce for most other countries – available for Cuba. I have calculated the figures discussed herein based on production and trade numbers that resulted from trade queries run in FAOSTAT in 2015. It is important to note that they do not reflect waste or export (which should not be significant since sugar, coffee, and tobacco are Cuba’s only significant agricultural exports). Therefore, they reflect gross availability rather than actually-accessed or consumed foods. Additionally, the percentages are based on tonnage, which, in nutritional terms, is a less relevant metric for food availability than calories.
foods that are difficult to produce in Cuba’s tropical climate, but culturally important to the Cuban palette; Cuba imports 48 percent of its meat, 49 percent of its milk, and 75 percent of cereals. Additionally, because there is not major cultivation of oil crops, 83 percent of those consumed (as cooking oil) are imported. Perhaps most strikingly, 60 percent of rice, the most basic national staple, is imported (Cuba struggles to produce sufficient rice to feed the demand with limited rainfall and irrigation).

It is important to note that throughout the 1990s and 2000s, Cuba faced climatic instability and adverse weather events that greatly threatened its efforts toward food security. In 2008, for example, the country imported approximately $2.8 billion worth of food items in order to compensate for the losses caused by Hurricane Ike and two other storms. A farm survey conducted after Ike hit found that diversified farms lost only 50 percent of crops as opposed to the 90 and 100 percent losses on neighboring farms producing monocultures (Altieri and Funes Monzote 2012). Alternative agriculture advocates in Cuba consider this climatic resiliency and the increased diversity in domestic fruit, vegetable, and vianda production to represent the acute importance of sustainable production techniques moving forward. State officials also note these benefits. Even those who are most focused on the state leger and least inclined toward environmental discourse are unlikely to recommend complete abandonment of agroecology programs considering their success in these areas.

Since the Special Period, the state has prioritized three agricultural goals with the intent to establish food security and increase national income, thus securing the stability of Cuban society: to develop of food production zones near concentrated population; to substitute food imports (which are one of the country’s greatest costs); and to produce exports (in order to find a
funding stream for the country’s non domestically-securable needs). Alternative agriculture has unquestionably helped the first two goals. Prior to the Special Period, Cuba imported 57 percent of protein and 50 percent of calories from the Soviet Union (Instituto de Investigaciones en Viandas Tropicales ND). While it is difficult to calculate comparable figures today, due to the unavailability of import/production statistics in calories rather than tons, this degree of dependency has certainly declined significantly. Considering the growing international markets for organic sugar, coffee, and even tobacco, it could also help in the third goal. Reactions to ongoing dependence on rice, milk, and meat imports are varied. While some alternative agriculture advocates see this as a reason to continue dedicating resources to large-scale production, others consider it a sign that the national diet should shift away from these items, or that more hard-work and research should be put into continually investigating domestic, agroecological production of them.

Figure 2.2. Cuban domestic food supply in tons: imports vs. domestic production in 2011

![Bar chart showing domestic versus imported food supply in Cuba in 2011]

Source: Created by author based on FAOSTAT data queries

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8 As reported during an interview with Braulio Machín Sosa, founder of the campesino-to-campesino movement in Cuba.
Figure 2.3: 2011 Domestic food supply by category in metric tons

<table>
<thead>
<tr>
<th>Item</th>
<th>Imported</th>
<th>Produced</th>
<th>Total Domestic Supply</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cereals</td>
<td>2167970</td>
<td>732047</td>
<td>2832460</td>
</tr>
<tr>
<td>Fruits</td>
<td>8955</td>
<td>1966393</td>
<td>1917943</td>
</tr>
<tr>
<td>Oil crops</td>
<td>508847</td>
<td>69227</td>
<td>622974</td>
</tr>
<tr>
<td>Pulses</td>
<td>115419</td>
<td>133000</td>
<td>220419</td>
</tr>
<tr>
<td>Starchy Roots</td>
<td>25926</td>
<td>1445000</td>
<td>1470926</td>
</tr>
<tr>
<td>Sugar + Sweeteners</td>
<td>2936</td>
<td>1189300</td>
<td>710605</td>
</tr>
<tr>
<td>Vegetable Oils</td>
<td>70317</td>
<td>30973</td>
<td>101101</td>
</tr>
<tr>
<td>Vegetables</td>
<td>11305</td>
<td>2248096</td>
<td>2259263</td>
</tr>
<tr>
<td>Animals Fats</td>
<td>5915</td>
<td>7440</td>
<td>13355</td>
</tr>
<tr>
<td>Eggs</td>
<td>992</td>
<td>115280</td>
<td>116272</td>
</tr>
<tr>
<td>Fish and Seafood</td>
<td>18879</td>
<td>55373</td>
<td>66751</td>
</tr>
<tr>
<td>Meat</td>
<td>267866</td>
<td>292554</td>
<td>560420</td>
</tr>
<tr>
<td>Milk</td>
<td>579044</td>
<td>602907</td>
<td>1181951</td>
</tr>
<tr>
<td>Offals</td>
<td>1010</td>
<td>19633</td>
<td>20643</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>3785381</strong></td>
<td><strong>8907223</strong></td>
<td><strong>12095083</strong></td>
</tr>
</tbody>
</table>

Source: Created by author based on FAOSTAT data queries run in June 2015

**Conclusion**

The Special Period heralded a time of increased experimentation in agrifoods systems. Prioritizing food security as absolutely necessary to the maintenance of political stability, the state trialed new policies and allowed for a greater diversity of organizations and individuals to suggest alternative solutions. This chapter has revealed the Special Period to be the instigator of political openings that – while never allowing for complete autonomy – enabled “ambiguous” non-governmental organizations to embrace new projects and propel catalytic change that they had not previously been able to, while also drawing on pre-existing narratives of heroic campesinos in order to secure the Cuban-socialist ideological basis for these emergent paradigms. As has been shown, changing social and political structures allowed for significant –
if far from complete – transformation of the Cuban countryside and Cuban food production.

However, related cultural formations were also essential for creating a social atmosphere in
which alternative agriculture was appealing to certain individuals. The next chapter will discuss
these cultural structures, or structures of feeling.
CHAPTER 3:

FRUSTRATION AND DISILLUSION: STRUCTURES OF FEELING AND CUBAN FOOD AND AGRICULTURE

On a slow Friday evening, I sat in the quieter of Sancti Spíritus’s two central parks with a group of friends. As in Cuban towns and neighborhoods across the country, the parks are public gathering spaces where people of all ages pass by to sit, look for friends, or people watch. Children play, adults share rum and beers, and couples rendezvous. These spaces have both the banal familiarity of an outdoor living room and – at times – the festive excitement of a party. On nights when nothing is happening at one of the town’s few cafés and discotecas, or they find themselves without the cash to spend at them, young people come to the parks to sit together and wait for something to do. On this evening, no unexpected opportunities came along, and our group remained engaged in idle chatter. As we passed the time, Yandi, a young man three years through his college degree, began to tell me about life at the university. We chatted about exams, professors, festivals, and parties. He grew animated as he spoke, revealing not only his enthusiasm for the university, but also his conviction that it was something important for me to know about life in Cuba. Gradually, though, his tone changed. He confessed that he felt sad to think that his time at the university is already running out. By “sad,” I realized that Yandi did not mean mildly nostalgic for college life and anxious about adult responsibilities, as a US student might. He meant truly distressed, despairing, and even a bit fearful. “We go away to school excited to meet other people who are interested in the things that we are. Many people expect
that they will find their *pareja* (romantic partner). But then when we graduate it is all over. Many people become disillusioned.”

Free, high quality education is one of the hallmarks of Cuban society, giving an unusually high percentage of the population access to “professional” identities and qualifications. According to statistics reported by the state in 2015 (the most recently available at the time of writing), 73 percent of all “occupied” (employed) workers had achieved education beyond secondary school (Oficina Nacional de Estadística e Información 2015, 14). Students in Sancti Spíritus who score well on tests have the option to go away to school in the neighboring province at the University of Santa Clara, considered to be Cuba’s second best, where they spend five years earning their *Licenciado* (a degree roughly equivalent though more highly esteemed than a US bachelors degree) in a city known for its student culture, cafes, and art scene. Other students in Sancti Spíritus may stay close by to study at the local university, which has a well-regarded medical school, programs in information technology, psychology, teaching, and a variety of other degrees. As is the case at universities around the world, many students find the first few years simultaneously academically exhausting and intellectually exciting as they embark on the paths that they and their families hope will steer them toward success and good jobs – perhaps even opportunities for international work missions or travel. Those who are less scholastically inclined may choose to study at technical schools where they specialize in agricultural science, mechanics, accounting, or hospitality, or they could be selected for training in fine arts, dance, or music. Because education is provided freely by the state, access is much less constrained by class

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9 Students could apply to go to school at the University of Havana, which is considered the top university, but it is unusual for students to study so far from home. Although some students – like those from Sancti Spíritus that study in Santa Clara – live in dormitories, they typically travel home on weekends, to reduce living costs, and escape what they consider the uncomfortable conditions present in the dorms (over-crowding, poor sanitation).
position than it is in most of the world. Indeed, while many of the older participants of this study had not received higher education, most of their children had.

After their final year of school, graduates are required to spend two years in *servicio social*, an assigned, low-paid job in which they use their degrees toward the maintenance of state institutions and systems. It is the social contract of socialist Cuba: free education in return for public service. In many cases, students are sent back to their hometowns for their *servicio social*, or they may be assigned to more rural areas nearby. The model is widely admired for its success in generating a highly educated, professionalized population. But there is also an inherent contradiction in the system. Many students, who spend the five years of university developing intellectual creativity and feeling the world opening up around them, begin to observe it narrowing back in as their social service begins and they see the path laid out before them. The two years of low-paid work in and of themselves are not the exclusive concern of graduates; many see these years as the precursor for many more of the same – a career of slowly moving up the ranks and earning small salary increases in the same, or another similar state job, in which they fear they will be presented with limited opportunities for creativity, innovation, or reform.

I first came to understand the sense of disillusionment that exists in contemporary Cuban society from my Cuban friends who had graduated from or were attending universities. However, I soon began to observe it across other strata and generations of society, particularly as my interviews and contacts with research participants deepened. Yandi’s description of his feelings resonated with a sentiment that came up again and again in both formal interviews and the course of daily life during fieldwork. For instance, Francisco, who was in his late 50s-early

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10 This is not to say that class privilege has been eradicated from Cuban society or educational opportunities. The relevance of family history and educational achievement to students’ facility operating in academic environments still keeps educational attainment linked to structures of privilege (including race and class) that impacted past generations.
60s during the time of my fieldwork had started an urban farm, but worked previously as a teacher, agricultural cooperative member, and “guardian” (security person) at a bank. He described how he became “desilusionado” in his work at a Cooperativa Agropecuaria (CPA) when the president and administrators did not allow him to experiment with new practices he had learned while attending workshops at ANAP’s national training school. Yanelis, the housekeeper working for the family I first rented an apartment from, had a technical degree in accounting, but struggled through it, and never felt “smart” enough to work in any positions beyond the service level. She described her frustration with work opportunities available in the city, her disappointment that friends and family abroad did not support her, and her sense that her only good option was to find a way to migrate and start anew in the United States. Complaints about stymied plans and despair over the future cross lines of class, race, and educational attainment in Cuba, and are a persistent theme of daily conversations, where they weave together with tales of material struggle, economic deprivation, workplace conflicts, health struggles, and romantic woes, all of which further amplify and complicate each other. Monica, a young lawyer once said to me after complaining about both her job and love life, “There is no future here, Justine.”

The intellectual and existential disappointment of Yandi, who comes from an economically secure family, has parents in well-respected positions, and is academically successful, may seem trivial in comparison to more abject material struggles. Unlike Yanelis, who has no family members with a stable-income, his frustrations may not cause him to skip eating meat for a week. Unlike Francisco, an economic migrant from a rural part of eastern Cuba, he can fall back on the nearby and comfortable homes of his parents if his disillusionment ever propels him toward inactivity or unemployment. However, his feelings of disillusionment are indicative of the pervasiveness of this sentiment across class positions. Sancti Spíritus is a
comparatively middle-class province with greater economic equity than either Havana or the eastern provinces, and many parents – regardless of their own economic and professional backgrounds – expect that their children will at least attempt to achieve post-secondary education, whether university or technical. However, the sense amongst the population that even those who have university degrees and professional status – the supposed pinnacles of social attainment – still experience limited mobility and possibility instills a deeper sense of social frustration, and for some, a feeling that there is little to aspire to.

The socio-psychological impacts of post-Soviet scarcity and stagnation, the frustration they provoke, and the ways in which they relate to transitions in or movements for sustainable agriculture were not original topics of investigation for this research project. However, as these themes emerged repetitively in both my research activities and daily life in Sancti Spiritus, it became clear that it was not simply material scarcity or “underdevelopment” that constitute the most poignant challenges of contemporary Cuban life – but also the profound sense of frustration and disillusionment that accompany them. And if these sentiments, instead of just the material deprivation provoked by the collapse of the Soviet Union, constitute the reality of everyday experience in contemporary Cuba, then they also must also affect the adaptation and perception of alternative agriculture. Indeed, as I became more aware of this sentiment, I also began to notice a contrast in the affects of my research participants depending on the topic. When we conversed about their homes, health problems, and children, many would reveal their own experiences of frustration and concerns about the future, but when they spoke about or were engaged in the practice of agroecology and/or permaculture, they revealed that they also, in other moments, experienced optimism, hope, and satisfaction.
The previous chapter suggested that, while alternative agriculture practice and philosophy are closely entangled with conditions of economic and material scarcity, they cannot be reduced to it, because cultural narratives also affect them. In this chapter, I examine the emotional contours of living not only without resources, but also without a promising narrative of hope or progress, and I consider how this has impacted people’s interest in alternative agriculture. To develop this analysis, which emerged from ethnographic moments such as those relayed above, I discuss the role of cultural analysis in agrarian studies, employ Raymond Williams’s concept “structure of feeling,” look at the social meaning and opportunities of “work” in Cuba, and describe the findings of the few other anthropologists who have examined the topic of post-Soviet frustrations and disillusionment in Cuba. Although these sentiments may provide a challenge to social well being and progress in contemporary Cuba, they do not supersede all feelings of optimism, moments of agency, or efforts to construct new pathways forward. This chapter argues that the threat of disillusionment and the desire to move beyond it provides the context in which alternative agriculture becomes an appealing and meaningful option for practitioners – processes that are discussed in greater ethnographic detail in following chapters.

**Culture in Agriculture**

A long-standing debate in the fields of peasant and agrarian studies considers whether small-scale farmers are best understood as motivated primarily by interests associated with political economy, and their “rational” response to structural constraints (Popkin 1979), or by a collective “moral economy” (Scott 1977), comprised of their shared, culturally-constituted understandings of fair relationships and exchanges. Current research in agricultural economics and related fields
tends to resonate most strongly with the former perspective, and to assume that growers are largely guided by economic necessities and the push-pull of markets. Much of the research on conservation or sustainability practices from this field, for instance, suggests that farmers will only adopt them if they understand them as providing safe opportunity for profit (see for example: Cary and Wilkinson 1997; Hall 1998; Valentin, Bernardo, and Kastens 2004), and it identifies economic or material factors as the major barriers to the adoption of agroecological or sustainable farming practices (Cochran and Bonnell 2005; Madelrieux and Alavoine-Mornas 2012; Bowman and Zilberman 2013).

More holistic and theoretical fields, like critical geography, have also produced research on the economic contingency of alternative agriculture. Julie Guthman’s (2014) seminal research on California farmers surprised organic agriculture supporters with the finding that most farmers only converted to organic production methods in order to cash in on specialty markets and the assertion that they demonstrate little commitment to the broader philosophies behind organic production. Her work linking farmers’ motivations, expectations, and constraints to the larger structural systems shaping food and farming systems is in keeping with the broader field of critical agrarian studies, which in recent decades has produced a strong body of work on the political dimensions of agrifoods systems (Friedmann and McMichael 1989; Altieri 1995; Patel 2012; McMichael 2013). Some of these scholars have gone so far as to argue that “peasants” no longer exist, and that because all smallholders are now thoroughly embedded in global markets, their decisions are necessarily guided by them (Bernstein 2014).

Considering the data and arguments supplied by these politically- and economically-focused researchers, it is not surprising that many commentators on Cuban agricultural transformation understand it as a rational and materially/economically-intelligent response to
scarcity. However, this perspective and the analytic frameworks that inform it, while not strictly inaccurate, are far from complete. As various researchers have pointed out, agricultural practice cannot be understood only in relation to the structural conditions of political economy; everyday agency and differences in meaning must also be considered (Arce and Marsden 1993; Goodman and Watts 1997; Campbell and Dixon 2009). In other words, scholarship on agricultural transitions would benefit from greater attention to and analysis of culture. This is important because, as anthropologist David Meek points out, “Farmers must negotiate the intersection of larger structural constraints with those of personal and collective values, traditions, and local knowledge in shifting their agricultural practices (2015, 276). In other words, while structural conditions do shape farmers’ material reality and realm of possibility, cultural and affective elements guide how they receive and respond to economic and political events, or forge alternatives.

Indeed, a smaller body of anthropological and sociological literature on agriculture illustrates that farmers’ motivations are deeply enmeshed in both cultural meaning and personalized vocabularies of value and identity. It reveals that farmers sometimes take up what could objectively be categorized as economically irrational actions in order to protect their closely held constructs of tradition and morality (Dudley 2000; Barlett 1993). Following this work, we can see the possibility that Guthman’s Californian farmers are not just products of economic considerations, but may be motivated by cultural values and personal commitments that do not resonate with the imaginary crafted by the organic agriculture movement.

In her ethnography of a midwestern farm town, Kathryn Dudley (2000) asks why, during the 1980s US farm crisis, the town’s farmers continuously attempted to scale-up, took out loans that were increasingly impossible to pay back, and clung to conventional farming practices,
rather than take part in progressive farmer movements that might have helped them to form economic alliances and self-advocate for better agricultural policy. She explains how historically rooted, local cultural values of independence, hard work, and resilience were deeply entangled with farmers’ identities such that the they would not admit to looming disaster or take part in collective efforts to avoid it. In another ethnography of US farm communities, Peggy Barlett (1993) found that decisions about farm management in Georgia were not grounded only in questions of profit or feasibility, but also in farmers’ identifications with one of three culturally available understandings of farming masculinity, and the desire to live up to those identifications.

Research on Latin American and Caribbean agrarian movements also notes the relationships between cultural meaning and identity, and the political-economic structures that determine the economics of farming. Karla Slocum’s (2006) work with St. Lucian banana farmers, for instance, demonstrated that local cultural values and identities shaped farmers’ responses to changing global trade policies. Similarly, research on the Brazilian Landless Workers’ Movement (Wolford 2010), Via Campesina (Desmarais 2006), and Zapatismo (Collier and Quaratiello 2005) describe situations in which agricultural movements are prompted by economic constraints, but more deeply motivated by and interpreted in relation to both emergent and culturally-rooted desires for the future, justice, and cultural-political identities.

In this dissertation, I align with the perspective that although farmers and the organizations that represent them respond to “macro-structures,” they “actively process, translate, and transform messages about access to material resources, technologies, cultural repertoires and relations” from their situated positions in daily material life and existence (Paredes, Sherwood, and Arce 2015, 17). Thus in order to understand their practices, decisions,
and realities it is necessary not only to analyze political, economic and other structuring events and processes, but also the social and intimate processes by which they think through them in relation to their everyday lives.

**Structures of Feeling**

Cultural theorist Raymond Williams provides a language for discussing the lived, affective experiences that articulate with, but cannot be distilled to economic and political structures. According to Williams, each generation produces collective senses that emerge from the cultural amalgamations that exist, and the events that occur in particular time periods; he refers to these as “structures of feeling” or “structures of sentiment” (Williams 1954; Williams 2001; Williams 1977). Unlike Gramsci’s use of “common sense,” which emphasizes how hegemonic cultural and ideological formations constructed outside of individuals insinuate themselves into consciousness, structures of feeling develop in an intimate and dialectical process between the individual and the social milieu they live in. As Williams describes, these feelings are, at the same time, characterized by a degree of internal consistency, and in a constant process of transformation:

> We are talking about characteristic elements of impulse, restraint, and tone; specifically affective elements of consciousness and relationships: not feeling against thought, but thought as felt and feeling as thought: practical consciousness of a present kind, in a living and inter-relating continuity. We are then defining these elements as a “structure”: as a set, with specific internal relations, at once interlocking and in tension. Yet we are also defining a social experience which is still in process, often indeed not yet recognized as social but taken to be private, idiosyncratic, and even isolating, but which in analysis (though rarely otherwise) has its emergent, connecting, and dominant characteristics, indeed its specific hierarchies (Williams 1977, 132).
In *The Country and the City*, Williams (1975) uses structures of feeling, along with economic structures, and social structures, as part of a three-part framework for understanding cultural history and lived realities of the British countryside. Whereas he uses a fairly conventional Marxist lens of historical materialism to explain economic and social structures, he depicts structures of feeling as related to, but distinct from and not directly determined by, formal political, ideological, or social factors. For this reason, they are often more complex and contradictory than people’s formal beliefs, and can be shared across swaths of populations that otherwise disagree with each other. For instance, Cubans on distant ends of the spectrum between Party Member and dissident may share like feelings of disappointment or frustration in their everyday lives, but manifest these sentiments differently in their daily actions and political opinions. These culturally-constructed feelings are represented in the large collection of widely-popular Cuban music, comic sketches, art, and other popular media that joke about the realities of everyday struggles in Cuba (for instance accessing food and transportation, and maintaining homes amidst scarcity), using dark humor to highlight a sense of absurdity and the impossibility of moving beyond it (see Young 2007). That these works are not banned as “dissident” material is indicative of the understanding that acknowledging frustration is not equivalent to rallying for reform.

Williams (1975) reveals how seemingly-ephemeral structures of feeling materialize into economic, social, and geographic realities in his treatise on English rurality. Analyzing shifting structures of feeling across the 17th through 20th centuries, he describes how English society created mythological imaginaries of rural life that gave birth, first, to idyllic understanding of the countryside, and then a melancholy sense of loss and ruin in the shift to industrialism. Both structures of feeling, he argues, made the realities of centuries of labor, exploitation, and
dispossession that actually built rural landscapes invisible, and obscured the extractivism entailed in rural-urban relationships, thus allowing for the rollout of industrial capitalism to proceed unhindered and unquestioned.

Like romantic feelings about rural life that emerged as “lived, affective experiences which are shared intersubjectively among a social group” (Helms 2009), disillusionment and frustration in Cuba have the potential to transform landscapes and food systems as they shape Cubans’ dreams and daily pursuits. As will be described further below, they could, for instance, support a reactionary desire for the “first world” norms of consumption that lead to productivism and industrialization. On the other hand, they could give rise to desires for different types of autonomy, material creativity, and self-determination that support practices associated with agroecology and permaculture.

As Williams writes, it is impossible to fully understand a structure of feeling from a period to which one is not an insider. Describing sentiments of Cuban disillusion runs the risk of introducing misconceptions about these feelings. There is a danger that elaborating on frustration as ever-present and widely felt will lead to inaccurate assumptions about how these feelings reflect material realities or political positions. The intent of this chapter is to describe disillusionment as one of many structures of feeling existing in contemporary Cuba, in order to better contextualize later descriptions of the contentment and hope found in alternative agriculture. It bears repeating that this sentiment, while acute and important, should not be interpreted as representing a particular social critique or political orientation of those who experience it, or as preventing other, perhaps more positive sentiments, from being simultaneously felt.
In Revolutionary Cuba, *trabajo* (work) has been imagined as a moral obligation, a point of personal pride, and the glue that holds society together. This conceptualization has been driven, in large part, by Che Guevara’s concept of *el hombre nuevo* (the new man). The new man was the idealized vision of the citizen that would be produced by socialism and would contribute actively and selflessly to the needs of his country and the maintenance of the Revolution. Motivated by morality and interest in the public good, he would do this through participation in labor, clubs, and other participatory associations. Across the decades, the Cuban state promoted engagement in work as a patriotic action through various projects, including the literacy campaigns immediately following the revolution; the *escuela del campo* (field or country school), beginning in the 1970s, which, sends students to work in rural areas; the sugarcane cutting brigades beginning in the same period; and more recently, calls for citizens to contribute to the new economy, while still remaining focused on Cuban “culture” and society (Blum 2011). Although work is of enormous importance to cultural meaning and expression in many communities around the world (Colloredo-Mansfeld 2011), the decades-long emphasis on work has led many Cuban people, in particular, to understand their daily lives, livelihoods, and relationships to be acutely shaped by work; or if they don’t have it, its absence.

As Cuban anthropologists wrote in a proposal for a recent project to study new work cultures in the changing agricultural sector: “The centrality of work in social life grants to cultures of work the characterization as a structuring category in social identity, in dialectical relation with identities of gender, profession, and race. This identity matrix orients the sense of
social practices, and the perception of reality” (Rodríguez Ruiz and Sasonov, n.d., translated from Spanish). Their conviction of work’s centrality in Cuban identity is confirmed by identity exercises I carried out with research participants, asking them to either describe or list on paper the characteristics of their identity. Most respondents either immediately began with a professional title or account of their work history, or noted this after mentioning their family identities (mother, father, or spouse). The emphasis on work and contribution to the Revolution through it was particularly notable among those old enough to have participated in the Revolution and its immediate aftermath. One man started by explaining that he was retired from many years working in the aqueduct system, and then said that he was now working in the organopónico because “I don’t like not doing anything… I have to take care of my family… and we must guard the Revolution.” His compañero in the organopónico, also in his 80s, described coming from a “humble family,” and then listed the many sugarcane harvests he had participated in and medals he had been awarded for doing so. Another organopónico manager of tercer edad (senior citizen) first said, “I feel very Cuban and patriotic,” then described himself as a father of three children, and said he was proud of them for being “honest and hard-working.” Middle-aged people also listed their occupations and work engagements at the beginning of the exercise, and the one person under 30 who participated began by writing “Most of the time I am hardworking…”

Because work is of central importance in people’s daily lives, personal identities, and the way it impacts moralized impressions that others may have of them, people’s actual satisfaction (or lack thereof) with their employment feeds into the collective structure of feeling about the success of Cuba’s national project, and also into individuals’ feeling about the life projects that
they are attempting to pursue. Below, I will briefly describe the history of work in Cuba after the Revolution, and how it has transitioned throughout various eras.

After the Revolution, the vast majority of Cuban jobs were nationalized, and labor and trade organizations became state-sponsored associations. Between the Triumph of the Revolution and the 1990s, the only private employment that remained legal was small-scale agriculture, and even these farmers were and continue to be closely linked to the state apparatus through ANAP (the National Small Farmer Association) and their contracts with Acopio, the national food procurement agency. Most of the remaining farmers and farmworkers became employees on state farms, while non-agricultural workers and professionals were hired into positions in state offices, factories, and industries. Job assignment and hiring in Revolutionary Cuba has been determined through a combination of personal interest, skill, test scores, and the government’s appraisal of the country’s needs. During the 1960s and 1970s, many people worked tirelessly to build the new organizations and structures required of Cuba’s chosen form of national socialism, and by the 1980s, as global economic growth buoyed Cuba’s access to materials and markets, the effort seemed to have paid off.

In 1981, a decade prior to the onset of the Special Period, the state employed 91.8 percent of all workers (Domínguez 2008). Although pay, relative to international currencies, remained very low (thus prohibiting individuals from making regular purchases in the international free market), all citizens benefitted from entitlements to free education, childcare, and medical attention, as well as from heavily subsidized basic food rations, cooking implements, electricity, medicines, and bus fare. Those fortunate enough to be looked on favorably by their bosses sometimes also received state-supplied bonuses in the form of housing upgrades and new appliances. In the early 1980s, many Cubans lived more comfortably than they
ever had before, and they maintained the hope that the country would continue moving forward, through socialism, toward greater political and economic progress.

Of course, the comforts of state-benefits and plush jobs did not reach all citizens equally, and many people at both ends of the socio-economic spectrum were engaging in the black or informal markets in order to either survive or advance their economic standing. By the mid-1980s, it was apparent that the economy was beginning to stagnate (Domínguez 2008), which prompted criticisms by an increasing number of leaders and everyday citizens of the over-bureaucratization of daily life, and the abuses of power wrought by the class of technocrats administering the Cuban society and economy. In 1986, Fidel Castro initiated the Campaign of Rectification of Errors and Negative Tendencies, and declared that a new period of political consciousness-raising would be necessary in order to sustain progress (Gillespie 1990).

**Cuban Labor and The Question of Alienation**

Economic stagnation and new forms of class-distinction were not the only problems facing the Cuban system of work and labor in the 1980s. There were also questions regarding the quality of jobs and the autonomy of the workers. According to Marx, there are four types of alienation inherent to labor in capitalist societies. First, the division of labor in industrial systems and factories alienates workers from their own work practices. Business owners appropriate the labor of engineers, designers, and manual workers to create products that are ultimately valued in terms of exchange rather than use; a valuation that bears little relation to the work or thought actually put into the product’s creation. Second, because industrial production designates series of repetitive tasks to workers, they are deprived the gratification or fulfillment of having created
something from start to finish, and thus are also alienated from their own work products. Third, because workers in capitalist society rarely have the opportunity to engage in activities to which they are inclined, and because the nature of repetitive tasks prevents them from creatively working to noticeably transform the world around them, workers in capitalist society become alienated from their “species-essence,” which Marx described as the nature of humans to develop, grow, and act upon the world. Finally, the competition for higher wages pits worker against worker, alienating them from each other (Marx 1961).

This theory of alienation provided theoretical background and motivation for revolutionary movements, and the establishment of communist governments and socialist systems of work. However, a humanistic critique of existing socialism asks whether it has truly succeeded in overcoming alienation. Henri Lefebvre, for instance, considered the idea of “species essence,” the innate desires of people to shape the world, to have been left unaddressed by socialist projects:

“It is therefore in the fashioning of the object [the objective of work – physical need or beauty], that man really proves himself to be a species-being. Such production is his active species-life. Through it, nature appears as his work and his reality. The object of labour is therefore the objectification of the species-life of man: for man reproduces himself not only intellectually, in his consciousness, but actively and actually, and he can therefore contemplate himself in a world he himself has created” (Lefebvre 1992, 61).

According to this thinking, overcoming the human condition of alienation depends on a person’s ability to feel true agency in, ownership over, and engagement with their work and practices. However, he wrote, “We ask ourselves ‘What is socialism exactly? How does it intervene in everyday life? What does it change?’ And the answer is unclear.” He suggested that while socialism may eliminate certain negative aspects of society – including capitalist relationships of production – it does not necessarily add to everyday life in a way that will fulfill species-essence.
Cuba’s Soviet-influenced national economy and system of work have arguably reduced the alienation of workers from each other and the alienation caused by focusing on exchange-rather than use-value. However, it did not address the reduction of either species-essence alienation or alienation from work product. Or, as Rodriguez Ruiz and Sasonov (n.d.) describe it, Cuban theory and ideological practice has not sufficiently addressed the challenge of maintaining, without coercion, the dual-nature of work. When this is achieved, work produces both economic value, and a positive (presumably personally fulfilling) social consciousness.

Rather than shun industrial models of production, Cuba imported the Soviet model, which had embraced the Fordist rationale, emphasizing the importance of efficiency, productivity, and the division of labor. Moreover, unlike other contemporary leftist projects, such as Mondragon in the Basque Country of Spain (Latinne 2014) or Zapatismo in Mexico (Collier and Quaratiello 2005), which have emphasized the importance of participation and autonomy in cooperative work, Soviet and Soviet-modeled state projects did not give workers, employees, or even local heads of national institutions significant say in the direction that projects would take.

Local-level participatory processes carried out during the early years of the Revolution, combined with the sense that their labor was part of a collective effort to achieve national and cultural progress, may have initially allowed Cubans to feel that they were part of an active process, and thus, to be fulfilling the creative demands of their “species-essence,” even if some of their daily work tasks were monotonous. However, over the years, as work bureaucratization and centralization increased, many people’s sense that their labor was directly contributing to national progress declined, as did their faith that they were participating in rational, productive, and communally-beneficially systems.
Special Period: Economic and Existential Crisis

The Special Period interrupted the positive transformation that the Campaign of Rectification of Errors and Negative Tendencies could potentially have brought on. During this time, many Cubans’ experienced an implosion of their remaining faith and hope. As described in Chapter 2, the collapse of the Soviet Union dealt a devastating blow to the Cuban economy. Survival became a daily *lucha* (struggle) to find food, stay in good health, and keep homes livable. During this period, people found themselves forced to “invent” creative solutions – often outside the bounds of legal activity – in order to “resolve” the challenging material predicaments they found themselves in. As an informant reported to anthropologist Nadine Fernández, who conducted fieldwork in Havana during this time, “From the time I get up in the morning until the time I go to bed, practically everything I do is illegal” (2010, 129). New understandings and acceptance around black market activity – such as selling pasta stolen from a state factory – was integrated into the country’s “moral economy” and people’s definitions of acceptable or necessary behavior, due to the fact that it was indispensable to survival (Wilson 2014).

During the Special Period, people experienced a diminishing value of their state salaries, as it became increasingly difficult to find consumer goods or entertainment options priced in national currency. Moreover, to reduce transportation costs and fossil fuel expenditures, the state re-assigned many workers to new jobs located within or close to their own neighborhoods. These changes cut off daily routines and relationships that many people had developed over years, and in some cases placed them in new positions in which they felt unconnected and unqualified. As anthropologist Heather Settle describes, “Some left the workforce as a result, becoming housewives or small entrepreneurs” (2007, 21). Indeed, engaging in daily provisioning tasks or
in small-scale business activities (whether formal or not) proved a more remunerative, if not more fulfilling, activity.

This new economic reality was particularly painful to Cuba’s many highly-educated “profesionales” who were aghast that activities they considered less dignified were now much more highly valued (monetarily) than the careers they had long studied and trained for. Above all else, this was true of work in tourism – whether in hotels, restaurants, or hustling on the street – which gave people access to international currency that no other professional position could match.

Beyond the immediately present daily challenges of making life amongst scarcity, the Special Period also provoked widespread disappointment with and anger toward the government, which was widely considered to have let down its population by failing to shelter its people from such struggle. The Special Period eroded many Cubans’ faith that their country was steadily working toward a socialist Utopia (Settle 2008a), and forced them to re-evaluate the most basic structures and rationale of their society (Gray and Kapcia 2008). The period was nothing short of a nation-wide existential crisis. As one man in his seventies, an assistant to this research project, once explained to me, “Before the Special Period, I believed completely in communism. After that, I realized that a little bit of capitalism might be necessary.” He remained largely supportive of the state and proud of the country’s Revolutionary history, which he had participated in, and as he took on more odd jobs after the Special Period to make do in the limited economy, he took pride in them, like the organopónico workers described above did. However, other Cubans his age and somewhat younger experienced greater weariness and frustration as they began to feel that they may never reap the rewards that they were once promised in return for their decades of Revolutionary labor and activity (Gold 2015). My research assistant’s wife, for instance, had
spent her adult life working in a uniform factory, but now in her retirement, could barely work or leave the house at all because of a problem she had developed with her feet. She spent much of her time bored in her home and frustrated that her doctors could not resolve her problem or find her appropriate orthopedic shoes.

Although their reflections are still not widely available in print, groups of Cuban scholars and thinkers came together regularly during the Special Period to discuss the transition the country was undergoing and the need it was prompting for deeper reform. In addition to considering changes that should be made to the country’s economy, many debated the concept of “civil society” and considered whether a more robust and autonomous civil sector could have fortified Cuba to better withstand the Soviet collapse and the country’s new economic position (Gray and Kapcia 2008). Some of the volumes on this topic that did get published were heavily influenced by anti-regime Catholic or Miami organizations, but many conversations taking place on the ground were also guided by “organic” (Gramsci 1971; S. Hall 1992) attempts to reconsider the workings of Cuban society (Hernández 2002). Outside of intellectual circles, discussions about change were widespread, though in many cases they focused less on “civil society,” and more on the perceived need for a freer market and more competent state (as reflected by my research assistant’s comment regarding capitalism). That many of the reforms discussed during this time period are still yet to be realized – or have been implemented in hesitant fits and starts – has opened up significant frustration in the population (Domínguez 2008).
Life and Livelihoods in the 2010s in Cuba

In contemporary Cuba, the Special Period is considered to be an era of the past. Many people’s lives have regained a minimum sense of stability, and the acute material deprivation of post-Soviet scarcity has subsided. Nonetheless, access to basic good remains limited, and the struggle to attain them remains a consistent thread throughout people’s daily lives. Shampoo and toilet paper – purchasable at hard currency stores – remain indulgences for many people; repairing or adding on to a home involves weeks, months, and sometimes years of waiting for and negotiating access to supplies; and preparing a special meal can still involve a long day of travelling between distant points in town in search of ingredients. A widespread sense of disappointment and frustration is still present, as is frustration with the limited options for work and professional satisfaction. As mentioned above, 73 percent of all “occupied” (employed) workers had achieved education beyond secondary school in 2015 (22 percent having attended university or other “superior” national institutes and the other 51 percent having medio superior – technical or professional - training) (Oficina Nacional de Estadística e Información 2015, 14). However, only 6 percent of all occupied workers have directorial positions that allow them to put the knowledge gained through their training toward more challenging and higher-paid leadership roles. Further, the majority of workers who are in director positions are between the ages of 40 and 59, meaning that young professionals face a wait of at least 15 years before they can reasonably expect promotion (Oficina Nacional de Estadística e Información 2015, 15), a fact which further dis-motivated some young people from professional engagement.

Moreover, state institutions and departments remain highly centralized, hierarchical, and bureaucratic. For instance, as pertains to alternative agriculture, the Department of Urban
Agriculture was created in order to support and give structure to the urban farming projects that originally arose as grassroots reactions to the food scarcity of the Special Period (see Wright 2009; Premat 2009). Ironically, though, it has come to take on a hierarchical form that limits the spontaneity that first made these projects successful. Under the structures enacted by this department, each urban farm or plot is assigned to the jurisdiction of a local neighborhood or area leader, who sits underneath the supervision of the municipal head of urban agriculture, who is, in turn, under the direction of the provincial boss, who answers to the national office. Every farm is subject to regular inspections from each of these levels of organization in order to assure that they are adhering to a standardized set of guidelines that every operation, regardless of local climate or community needs, must adhere to. These regular “check-ups” take time and energy away from growers, and also prohibit them from making certain changes – such as redesigning their vegetable beds in ways that they find more efficient and easier to maneuver around.

More engaged and creative urban farm managers, workers, and local administrators do find ways to creatively experiment with more productive, locally-suitable, or enjoyable practices, but they are often stymied by higher-ups who take an “if it isn’t broke [or utterly failed], don’t change [attempt to improve upon] it” approach. Provincial heads of urban agriculture meet once a year to debate and revise the guidelines, based on the experiences within their province, but the hierarchical chain of command and communication poses a challenge to moving the perspectives of individual farmers or small-group leaders up through the three intervening levels.

In response to both economic imperatives and frustration with bureaucracy, many Cubans continue to explore alternatives to public sector employment. Whereas 91.8 percent of workers were employed by the state in 1981, this number had dropped to 76.6 percent by 2003 (Domínguez 2008), and as of 2014 (most recent available statistics) rests at 72 percent (Oficina
Nacional de Estadística e Información 2015, 11). Inline with these statistics, the majority of my acquaintances, colleagues, and friends in Sancti Spíritus earned salaries from the state in 2014. However, almost all earned additional income through participation in the informal economy, legal self-employment, and/or hard currency remittances from friends or family working abroad, and would have found their quality of life drastically reduced without these additional sources of income. The 2015 national census showed the average monthly salary for state employed workers in 2014 to be 614 pesos. This was a significant jump from the 487 pesos of the previous year, but was still just short of 25 US dollars (less than $25 a month) (Oficina Nacional de Estadística e Información 2015, 13). Although this is not broken down in the formal reports, the average is, according to my acquaintances who live outside the capital municipality, significantly lower in these locations.

Even with the basic entitlements provided by the state, Cuban residents must seek additional food items (since the ration book only provides for basics), and these can be costly. For example, for several months of my residency in Sancti Spíritus, I was waiting for a delayed delivery of grant funding, and had to set myself a budget of $10 CUC a week for all costs outside of housing. For $10 CUC, I could comfortably feed (skipping meat) and transport myself, and sometimes had enough left over for a couple beers on the weekend. $10 CUC a week, however, significantly exceeds the average Cubans’ income, and this does not even leave room for purchases of shoes and clothing, or home improvements and necessities. A plastic water tank for a house, for instance, which is necessary for any home desiring access to water beyond the limited hours when the municipal system runs, costs around $50 USD (two months salary), and a pair of shoes may cost anywhere between $10 and $50 USD. Many people also desire, or for work and school obligations may even require, items like cell phones and laptops, which –
because of the limited routes through which they enter the Cuban economy – are often priced above average international rates.

Being moderately comfortable requires income supplementation, and prompts Cubans to seek work outside of the fields they trained in or initially planned to pursue. For instance, a former professor and single mother in Sancti Spíritus left her university job to spend her days buying and selling domestic goods and furniture out of her house. A man in a leadership position at the municipal archives left his position to sell snacks out of his home. Others sell paper, cigarettes, or “paquetes” – low-price and widely consumed digital folders of international TV shows and movies – in addition to working their primary jobs. This work does not make them wealthy, but can allow for occasional indulgences like a trip to a café, beer, or saving for home improvement. Many Cubans see it as disgraceful that this type of unskilled labor earns more money than highly skilled work and state-employment, and they resent having to take up such activities when they have been educated for other professions.

Some who do have sufficiently paid state jobs to make do still complain that the work is too demanding for the level of fulfillment and income that it provides. Reinaldo, for instance, is a video and sound editor for a state communications company. During the period of my fieldwork, he was just beginning to study and practice permaculture. Not long after I returned from a follow-up fieldwork visit to Sancti Spíritus in 2015, I received a Facebook message from him. We had not been able to find a time to meet during my visit, because he had recently been working very intense hours. He wrote to apologize for his busy schedule, and complained that he had no time to work on his permaculture project, or for anything enjoyable or sociable:

It’s frustrating to work all your life just to have nothing in the end. That’s the bad that we have here… I’ll tell you – the worst is that you know that [working so much] is affecting your health, and that it’s for nothing. I’m sure you understand because you’ve lived here. In the end these situations stress you and you end up sick. I don’t like it
because I leave here [my office] late in the night knowing that I have to return early in the morning. No one could support this.

In other words, Reinaldo is deeply frustrated by the lack of balance he feels in his life, his limited time to engage in the activities he enjoys, and the sense that he is not able to maintain his health. These feelings are magnified by the sense – contradictory to the Cuban ideal of morally fulfilling work for the public good – that he is not even working toward what he would consider a meaningful goal or reward.

For this reason, many young people, including university students, are increasingly moving into the private sector, demonstrating their dissatisfaction with state employment and desire for something more (Settle 2007). In Sancti Spíritus, I encountered young people opening coffee shops, scheming to import artisanal products made in other provinces to resell at home, and hoping to open private electrician services (something that did not yet exist). While such opportunities are becoming increasingly feasible as the Cuban state and society make expanding room for private entrepreneurship, they are still limited by both complex regulatory processes and the need for capital investment, which the average young person does not have access to. I also knew young-middle aged people that did not work at all, that had state positions but lived off remittances from foreign relatives, or who were hoping to emigrate.

For instance, Yanelis, mentioned above, who worked as a housekeeper, studied for a technical degree in accounting. However, she did not consider herself sufficiently intelligent for this field, and worried she’d be incompetent or unable to advance in this work. Instead, she decided to work in service jobs, cleaning rooms that Cubans rented out tourists, with hopes that this work – if more physically grueling – would at least earn her more income than another job would through tips in hard currency. When we met, she was new to one such job, and optimistic that it might improve her quality of life. She had been in another housekeeping position.
previously, where she said that the owner of the home mistreated her workers, and sometimes failed to pay them promised wages. After leaving this job, she had been out of work six months before she found another. Her partner, a decade her junior, was not working at the time. He was receiving a small remittance from family abroad, and could not think of a type of work that he could do that would be worth the labor he would be put through; physical work was a concern, because he was struggling through the pain of kidney stones as he waited his “turn” at the hospital for an operation to remove them. A year and a half after I met Yanelis, she had fallen out with her employers. They too, under paid her and she believed that they kept tips that clients left for her for themselves. As she learned that wage-labor for high-income earning employers was no more lucrative or secure than working for a state salary, she began to seek opportunities to emigrate illegally – with or without her partner – with very vague notions of what life abroad would be like, but a firm sense that she could not comfortably sustain her family or lead what she called a “vida tranquila” (peaceful life) in Cuba.

The Future, Hope, and Orientations to Them

The disillusionment provoked by the Special Period and the frustration that lingers in its wake constitute a powerful structure of feeling that shapes the affects with which contemporary Cubans move through daily life, and the ways in which they approach and respond to work opportunities, life plans, and creative pursuits. Anthropologist Heather Settle, who conducted fieldwork in Havana in the early 2000s, provides further insight into the enduring impacts of the Special Period on Cuban subjectivities, and on how this has impacted orientations toward the future. In analyzing the “crisis” in Cuba, she noted that people’s frustrations and feelings of deprivation were not simply about economic loss, but more profoundly about the loss of the
“feeling they once had of having a future” (2007, 44). The Marxist theory of social progress, on
which Cuban revolutionary ideology was constructed, supports a conceptualization of Cuba as a
society working through a teleological sequence of progressive development. Under this
framework, struggle or deprivation could be rationalized as a necessary stage of development,
through which society would ultimately pass through. However, as the challenges of the Special
Period stretched forward through the years, it became clear that Cuba’s path of gradual progress
had been disrupted. The crisis was not just a temporary “period,” but a new “era” (Taylor 2009).
For many of Settle’s informants, the realities of post-Soviet Cuba gradually shifted from fixable
hardships to elements of perpetual difficulty. Without a clear cultural narrative or political path
available to chart out new courses forward, a profound sense of hopelessness and uncertainty
emerged (Settle 2008a).

In examining the ephemeral concept of “hope,” anthropologist Ghassan Hage (2003)
found that the only consistent thread in his participants’ depictions of it was its connection to
expectations and aspirations for the future. He suggested the concept of “societal hope” to refer
to a society’s ability to distribute and equally allocate positive sentiments regarding the future,
either through actual social and/or economic opportunities, or through ideological messaging
about them. In Cuba, the Special Period left the state unable to do either of these, and so the
population’s ability to conceive of a positive future was drastically limited.

This society-wide sense of let-down was perhaps made even more acute by Fidel Castro’s
long-standing insistence that Cuba is “exceptional,” and that Cubans are special within the global
stage of politics and development (Settle 2007). As Cuban-American scholar Damían J.
Fernández writes in an analysis of desire and disenchantment in the Cuban Revolution, the
revolutionary struggle emerged from a long-brewing sense of frustration coupled with a feeling
of possibility, as well as by the belief that Cubans were capable of something more. At the same time, the fact that the nation has repeatedly failed to achieve the level of greatness to which it aspired has provoked what he calls a “cultural pessimism” (Fernández 2000). This paradoxically supports a sense of the Special Period as both another inevitable failure, and acutely incongruent with how things should be. Moreover, the idea of Cuba as a society on a thwarted quest supports an aspirational imaginary of greatness that includes both social progress and justice, and high levels of material and consumer comfort. Indeed, as Settle points out, when Cubans evaluate their standard of living, the tendency is to use the US upper- or middle-class as a point of comparison (and measure of failure), rather than use low-income US citizens or the realities of daily life for average citizens in neighboring Caribbean countries as a point of reference (2007). Thus, the gulf between the material conditions of middle-class life in the US and Cuba fuels additional frustration.

The sense of disappointment Settle and the others describe for post-Special Period Cuba, and that I suggest is an under-acknowledged factor in Cuba’s alternative agriculture movements, is similar to what James Ferguson (1999) refers to as “abjection” in his ethnography of Zambia during and after economic crisis. Ferguson writes that the promise and then collapse of mining in Zambia, “is an experience that has left in its wake both a profound feeling of loss, as well as the gnawing sense of a continuing affective attachment to that which lies on the other side of the boundary” (238).

Hannah Garth’s (2013) research on food provisioning in Santiago de Cuba emphasizes the ways in which disjuncture between expectation and reality manifest at everyday, psychological levels. Her research participants almost always had enough food to avoid physical hunger, but they experienced extreme distress in their inability to consistently locate the foods
they most desired, including items that they considered traditional, had fond memories of cooking with in the past, or needed for religious ceremonies. In the time-consuming and exhausting searches they engaged in to find these special foods, they reported having to “desconectar la mente” (disconnect the mind) to block out the frustration they felt, and avoid psychological anguish.

The bureaucratic limits of state jobs in Cuba; the sense that everyday is a lucha; the forces that push people away from their professions toward petty labor; and the challenges of moving into more fulfilling work projects make the lamentations of those like Yandi, Reinaldo, and Yanelis common. They constitute a profound sense of frustration with the status quo, and a concomitant longing for something different. As Settle suggests, “The revolution no longer provides the template for discourse and dreaming… [nor] the possibility of transcendence through sacrifice, solidarity, and socialist values” (2008a, 4). And so, this dreaming and desire take different forms, as people seek ways to give meaning to their lives. There is a wide spectrum of pathways that people take, but I suggest that many of them take one of two general directions: consumption and spiritual pursuits. I will describe engagement with alternative agriculture paradigms as connected to the latter direction.

The Direction of Consumption

Although it might seem logical to assume that living amidst scarcity would prompt a decreased level of time and energy spent on material and consumptivist pursuits, “On the contrary, in times of economic crisis, consumption becomes more important as it occupies greater proportions of people’s time and money (Pertierra 2011:31).” To conseguir (get or achieve) desired food items, clothing, household appliances and other goods, Cubans regularly spend significant time, money
and energy as they investigate availability and costs in both formal and informal economies. This daily battle is widely referred to as *la lucha*, literally, the struggle. As friends and neighbors greet and ask after each other in the streets, one of the most common responses is “*estoy aquí en la lucha*” (I’m here in the struggle). As Anthropologist Cristina Pertierra writes, “Many of the most common and most problematic struggles of urban residents are related to the acquisition and maintenance of material objects, specifically mass-produced consumer goods” (2011:3). For many Cubans, the increase in conspicuous consumption amongst those with access to hard currency, and the simultaneously increasing disparity between those who do and do not, has caused many Cubans to experience deep feeling of desire and longing for consumption, and a sense that they are substandard if they do not achieve it (Porter 2008). “To live well in Cuba,” Pertierra writes, “and to demonstrate that one is living well, requires wearing good clothes, eating at restaurants, being impeccably groomed and sharing generously with loved ones” (13).

While much has been written about the scarcity of food and household products brought on by the Special Period, many people experienced frustration over lack of variety more than absolute lack of products (Garth 2013; Wilson 2014). As Settle writes, “[Cubans] want more consumer goods, to be sure, more and better food, but they also want more choices” (2008a, 9). Indeed, a Cuban friend once told me that her greatest fantasy, when and if she ever makes it to another country, is to enter into a supermarket and “to see all the different types of bread. The different kinds of chocolate. And then to buy them all!” She, like many other people ages 20-50 that I met in Sancti Spíritus, is making plans to attempt emigration.

Others spend high portions of their incomes on products like keratin treatments for hair straightening (made infamous in a song by the salsa group los Van Van), expensive sneakers, or wifi access cards, which they can, as of 2015, use to access the internet and post photographs to
Facebook. I once visited a friend after she had recently lost her job, and undergone a painful dental surgery. She spoke longingly of the new hair treatment she was still saving up to purchase, and excitedly showed me new skincare products a friend had brought her from North America.

While these diversions can offer a portion of joy and distraction, they also cause frustration and moral ambiguity. Many of my more “bohemian” (to use their terminology) friends and acquaintances often complained about the materialism of their peers, and made jokes about the *cosas cheas* (tacky things), such as gold jewelry and gaudy clothing, that others in their town dedicated much time and energy to obtaining. On various occasions, people shared complaints with me that they did not believe their fellow Cubans read anymore, and that they are only interested in earning money and buying products available for *convertibles* (the second and much more valuable Cuban currency, which is pinned to the US dollar) for the purpose of showing superiority to others. “Have you heard about the genie in the bottle?” an acquaintance once asked me. “A North American, a Russian, and a Cuban found a genie, who granted them each one wish. The North American asked for world peace. The Russian asked for revolution. The Cuban said, ‘Hmmm, you know Fulano, my neighbor. He’s putting in a pool. Can you make sure he doesn’t have it?’” Laughing, he explained: sometimes *el Cubano* does not even want something for himself; he wants to make sure others do not have more.

Another common complaint is that those who emigrate forget those they have left behind. “They take on an air of superiority,” a Cuban friend once explained to me. Settle recounts the story of a friend who said that her husband “drank the Coca-Cola of forgetting” after moving to the United States, achieving a high quality of life, and then failing to send any gifts or money home. She said that when the economic crisis arose in Cuba, “*el amor se acabó*” (*love ran out*) (2008, 173). In other words, some people perceived that the desperation to achieve consumption
came to take precedence over offering family and friends mutual support, care, intimacy, and sincerity.

**The Direction of Philosophical or Spiritual Pursuits**

However, consumption is not the only response. The Special Period also gave birth to many efforts to sustain and increase these social goods and sentiments. Today many Cubans – whether dissidents, doubters, or still-loyal Revolutionaries – are looking for hope in new places, including philosophy, religion, art, and sustainable food production, and are finding ways to build new life projects around these interests. During the period of my fieldwork, I encountered people participating in a surprising range of organized, creative endeavors for a relatively small city, including tai chi, metaphysical philosophy, short story writing, theatre, Asian dance, animal welfare projects, cave exploration, rock n’ roll, and drag performances to name but a few.

Although this wide spectrum of play, art, and passion projects were not the focus of my own fieldwork, it sat constantly at the periphery of my conversations, and is further described by Settle’s exploration of hopelessness and the new modalities that people turned to in order to navigate uncertainty. In addition to art, she describes “faith” as one of the most important respite from disillusion, and also described philosophical study as another pursuit (2008, 4). Although her participants were not able to effectively engage in political processes that could directly impact their everyday lives, she says that many moved deeper into spiritual practices, such as Regla de Ocha (commonly referred to as Santeria), after the Special Period, and described finding satisfaction in daily spiritual acts of faith and kindness.

In Sancti Spíritus, evangelical Christianity is also on the rise. Each time I have visited over the past several years, I have observed new churches. Many of the people who participated
in this study have family members who have “become Christian” in recent years. One participant, a woman in her 50s, who remains dedicated to anti-religious ideals of the Cuban state and socialism, described how her young adult son had become very active in a protestant congregation in recent years. She was troubled that instead of marching with his co-workers in the annual July 26th parade, celebrating la Rebeldía Nacional (National Rebellion) and commemorating the start of the Castro-led insurrection, he participated in church activities. However, she took comfort in the fact that even if he did not find social support by engaging with compañeros/colleagues from state-employment during patriotic celebrations, that he still engaged in and valued community participation with his church congregation.

In addition to organized religious practices, non-western spiritual and alternative health practices have risen in popularity since the Special Period. Reiki, tai chi, and other forms have all been popularized and have even been integrated into some state programs (Gold 2015).

The increase in spiritual and religious practices is reminiscent of the rise of so-called “magic,” “occultism,” folk healing, and various “new age movements” observed in perestroika and post-perestroika Russia (Lindquist 2006; Rosenthal 1997; Davidov 2015). As the country engaged in economic reformation, much of which prompted more confusion and uncertainty than improvement, many scholars pointed out a rise in “magical thinking” and alternative spiritual practices. As these practices may have helped some people in post-Soviet Russia to regain a sense of agency in the face of a failing state and troubled new markets, spiritual practices and philosophical meditations have allowed some Cuban practitioners to transform the “meaning” in their lives away from the social/political realm, and toward the personal, family, and community levels.
Disillusionment, Alternative Food and Farming Projects, and Hope

The sense of fulfillment found in new forms of ethical and spiritual reflection is not always confined to the strictly personal or psychological; these pursuits can motivate engaged, creative, and transformative behavior. The intent of this chapter, in describing the feelings of frustration with work, labor, and possibility in post-Soviet Cuba, has been to describe the social sentiments that are part of the cultural context in which alternative food and farming projects exist in order to contextualize some of what – beyond basic material and food needs – has constituted them as meaningful and valuable to people. The rest of the section elaborates these connections.

At the top of this chapter, I described Francisco, one of the core participants in my interviews on alternative and sustainable agriculture in Cuba, who became disillusioned working in a cooperative. Francisco grew up in one of Cuba’s eastern provinces. His parents, like his wife’s parents, were farmers. Francisco, himself, taught classes, worked in the local Casa de Cultura (Cultural House), and authored poetry and children’s books. In the 1990s, an economic “re-ordering” (elimination of work that could not be supported in a time of resource scarcity), put an end to his position, and he moved to central Cuba in search of new opportunities, which he found through work in a CPA (agricultural cooperative). Francisco said that he did not mind returning to agricultural work: “I’ve been linked to the campo since I was a boy,” he said, “and I like to work.”

Before beginning his new job, Francisco travelled to the Escuela Nacional de l’ANAP (the small farmer association’s national school), where workshops are held in agricultural production, agroecology, and ways to improve the country’s small farms. “I was well prepared,” he said. “I had gotten experience at the national school, and I came with a determined
perspective.” But as he began working at the cooperative, he said that the president and administration were not interested in his ideas or knowledge. “They didn’t aprovechar [take advantage of] it. Really, they didn’t take advantage of all that I had learned.” Francisco was frustrated that he had not been able to put what he had learned into practice, and disappointed with the management of the cooperative. “When you see that you aren’t being directed well, and you see that things aren’t being done with perspective, that they aren’t flourishing, you will generally become disillusioned. This happened to me.”

His enjoyment in work declined. At the same time, he sustained an injury to his back. Labor in the cooperative became difficult, and he quit. But Francisco’s curiosity for new information had not completely diminished. He paid close attention to television programs that talked about agroecology and sustainable agriculture. He collected magazine articles on the topic when he could, and he envisioned ways that he could put sustainable agriculture into practice as a fusion between his love for art and nature.

In the time that I’ve known her, Xiomara, like Francisco, has expressed a relish for hard work. She described herself as loving her country and expressed patience for the meticulous, grueling work often necessary to establish a home and career in it. As a young woman, she obtained a technical degree in plant hygiene, and went to work for the agricultural cooperatives of Banao, a town outside her city. The work was hard; she had to make management plans for massive tracks of land, implement new irrigation technology, and direct large numbers of workers, including university students and former-prisoners. As a woman, she said, this work was not always easy. But she thrived on the challenge and her sense of success in it. She met her husband, an engineer in agronomy, doing this work. They married, and she became pregnant. She lost the baby. “It was because I was working on a tractor; plowing the land and applying
fertilizers with machinery.” She got pregnant and miscarried once more, and this time, she and her husband realized that the losses were likely caused by chemical exposure. “There came a moment when I knew all of the chemicals without seeing their names,” she reflects of her close and daily proximity to them, “I could just touch them or smell them, and that may really have influenced my first pregnancies.”

When she got pregnant for the third time, she went on bed rest, delivered a healthy daughter, and then went straight back to work. But it was grueling traveling early in the morning to work, and returning when her baby was already asleep. Though she enjoyed the work, she decided she needed to take a leave of absence. Eventually, she found another job working for a state agricultural company – Fruta Selecta. She traveled to farms, giving advice, and working with farmers to ensure they could meet their contracts. Again, she enjoyed the work, and the pleasure of providing advice to farmers, and successfully bringing good produce into distribution channels. But she was on the road a lot; often overburdened. One morning, rushing her children – she now had two daughters – to nursery school, she raced into the street, and the three of them were nearly hit by a truck. She toppled off her bicycle along with her two children. Although they were all unhurt, she decided that she could not continuing exposing her self and her children to the very real, physical risks associated with the busyness of her working life. She decided she would have to quit again. Like Reinaldo, described above, she felt that the work was not worth the duress.

Ana Maria, another research participant, studied for a career in human resources. Her husband, Carlos, is a veterinarian. Combined, they have four children together, each bringing two from a previous marriage. Their home struck me as busy, boisterous, and loving. Although Carlos still practices animal medicine, the couple earn the majority of their income and are able
to support their family through odd jobs in carpentry and wood carving that he takes on, and from her business selling cookies and sweets, which she has developed instead of continuing a career in human resources. “It is sad,” she said to me with pain in her eyes, “when you cannot work in the profession you love, doing what you have been trained to do. It shouldn’t be that way.”

Francisco, Xiomara, and Ana Maria each reached moments in their life when they could not continue in the work they had done. They were met with economic re-ordering, exposure to dangerous materials, disinterest from bosses, insufficient financial compensation in their chosen professions, and challenges to juggling their families’ lives. They experienced disillusionment and frustration. They longed for jobs and careers that were no longer feasible. And yet, they did not give into discontent. As they experienced these dissatisfactions and set backs, new discourses, paradigms, and practices in sustainable agriculture – as will be described in Chapter 4 – were being introduced and developed in their province. They, like many others who will be described in Chapters 5 and 6, became permaculturists, agroecologists, and urban farmers, and found new ways to garden and farm that also gave them greater sense of creative engagement, fulfillment, agency, and hope in their lives. They kept disillusionment at bay.

It is often said that Cubans took up sustainable agriculture because they had no other choice, and because they needed a new way to feed themselves. However, these participants, like those religious practitioners mentioned above, were also in search of new ways to “satisfy the soul” (satisfacer el alma). As they created new garden and farm spaces, they also made new areas to sit and to “reflect,” to write, and to create art; to think of something beyond the daily lucha.
In following chapters, I will describe the sustainable agriculturists of Sancti Spíritus who participated in this study. Although they are, indeed, deeply interested in transforming and improving the material realities of their everyday lives, they are engaging with ideological and philosophical questions about what they want these realities to be, and how they can ethically be achieved. They are using epistemological and ontological tools learned in their studies of alternative agriculture, and in doing so, they are participating in forming alternative cultural worlds built around the practices and discourses of permaculture. Ethnographic details and analysis in the next chapters will elaborate how these worlds constitute a hopeful and active pathway – one that they are both blazing and following – that enables them to turn away from daily frustrations, take food production and household well-being into their own hands, and to actively contribute to new directions for a thriving post-Soviet Cuban society. Frustration and disappointment do not define these people’s lives; creativity, celebration, and hope characterize many of their activities. And yet it is the presence of a disillusioned sentiment – the threat that it could overtake them, too – that makes such optimistic activities as permaculture and agroecology valuable to their lives.
PART II:

ALTERNATIVE AGRICULTURE MOVEMENTS IN SANCTI SPÍRITUS
CHAPTER 4

BRINGING ALTERNATIVE AGRICULTURE TO SANCTI SPÍRITUS: LOCAL ACTIVISTS AND ORGANIZATIONS

The previous section examined the national social, political, and cultural structures within which alternative agriculture emerged in Cuba in the 1990s and 2000s. This section turns to Sancti Spíritus, a province in central Cuba, with the intent to analyze how paradigms and programs in alternative agriculture have been introduced – and continue to be engaged in – at a local level. While the following chapter will move into an ethnographic exploration of the practices, pathways, and perceptions of the growers involved in alternative agriculture in Sancti Spíritus at the time of my fieldwork – 2014 – this chapter draws on my interviews with those growers, agronomists, researchers, and program coordinators who have been involved in this movement since the 1990s in order to construct a history of catalyzing events, people, and organizations. It presents two important arguments: first, that key activists who went beyond the basic requirements of their job functions were responsible for disseminating and generating interest in the alternative paradigms that organizations like ACTAF, FANJ, ANAP, and CIC were promoting at a national level (see Chapter 2); and second, that the timeline of alternative agriculture projects in Sancti Spiritus does not directly correlate with the timeline of political-economic events that are often assumed to be responsible for incentivizing or dis-incentivizing them. Both of these findings support the argument being developed across the chapters of this manuscript that alternative agriculture in Cuba is more strongly characterized by movement dynamics and ethical commitment than is often presumed.
Methodological Note

The history presented in this chapter has been constructed based on my interviews with growers and staff members/retired staff members of key agricultural institutions. During interviews with 45 sustainable agricultural practitioners (discussed in greater detail in Chapter 5), I asked them about their introduction to ideas of sustainable agriculture, and the groups and organizations that they were part of. From these interviews, it became clear that several organizations and individuals played central roles in connecting growers with paradigms of alternative agriculture, and so I also interviewed these individuals/organizational representatives. In December 2014, at the conclusion of my principal fieldwork period, I held a meeting in which I presented preliminary findings and a “timeline of sustainable agriculture in Sancti Spíritus,” to many of these participants, who discussed and added to the timeline until it was collectively considered to be accurate.

Early Promoters of Alternative Agriculture in Sancti Spíritus

As state institutes, grassroots organizations, and individuals coalesced, overlapped, and sometimes struggled against each other to form a national discourse on sustainable agriculture in Havana, similar processes unfolded in provinces, municipalities, towns, and cooperatives across the country (though this level of diffusion has received much less attention or documentation by either journalists or academics). In Sancti Spíritus, as is the case in all provinces, various efforts in “divulgación” (divulgence/spreading) were carried out in coordination between national and provincial offices in order to bring country-wide programs to the local level. Additionally,
In the early years of the Special Period, as national associations like ACTAF and ANAP were just beginning to develop areas of work in agroecology, Héctor Luis and Emigdio Rodríguez 11 of the Estación de Pastos y Forrajes (Pasture and Forage Station, referred to as “the Station” hereafter), a state-mandated and funded research institute located in Sancti Spíritus, began to explore agroecological methods for integrated animal and plant production. This area of interest emerged organically from the agricultural problem they were tasked with investigating; the maintenance of productive, pasture-fed dairy cows. Long, dry seasons in Cuba present an ecological challenge to maintaining pasture-fed dairy without significant commercial feed supplements. When stocks of grain-based animal feed dropped off after the Soviet Union’s collapse, the need to develop novel forms of sustainable pasture management became even more urgent, as the Cuban state and society still considers milk and dairy to be important parts of the national diet. Thus, in 1992, the station began to explore agroecological methods for producing alternative pasture crops including king grass, moringa, and various legumes. This area of research was also close to the heart of Fidel Castro, who always maintained a public concern for dairy production (his older brother, Ramon, was a rancher and agricultural advisor to the communist party) and wrote missives on the importance of alternative forage crops (Castro 2012; “Fidel Castro Praises Nutritious Properties of Moringa and Mulberry” 2016).

In 1993, Héctor Luis and Emigdio began to collaborate with Dr. Marta Monzote of the Cuban Association for Organic Farming (ACAO, see Chapter 2) on a project titled Desarrollo de diseños para la integración ganadería-agricultura a pequeña y mediana escala sobre bases

11 In this section I refer to sustainable agriculture leaders by their actual names, because they are public figures deserving of credit for their work, and this information is public knowledge. It should be noted that Héctor Luis, who no longer lives in Sancti Spíritus, did not participate in this study, and was not interviewed.
Agroecológicas (Development of designs for the integration of livestock and agriculture at small- and medium-scale with agroecological bases). As one farmer recalled during an interview in 2014, Héctor Luis had a talent for visiting farms, observing the challenges, and working with farmers to make research-based recommendations for improvement. In 1997, the Station formed a group to support the five campesinos that had participated in the investigation in their ongoing experimentation. It also prepared them to become promoters of agroecology. They regularly met at each other’s farms, discussed practices, and shared lunch together. Their circle began to expand as other campesinos, urban farmers, and agronomists joined in their conversations, and these five farmers soon became recognized leaders of sustainable and traditional small-scale farming in Sancti Spíritus.¹²

Emigdio, too, who took over directing the Station when his boss, Héctor Luis, moved to another province, became recognized as one of the most knowledgeable proponents of agroecology in Sancti Spíritus. An interview participant working for another agricultural institution in the province noted to me that he is one of the “personas más preparadas en la agroecología” (most educated people in agroecology) in the region. National agroecology leaders I was in touch with regarding my project in Sancti Spíritus also urged me to speak with Emigdio, explaining that they knew him to be one of the most important “instigators of the agroecology movement in Sancti Spíritus.” When I first met Emigdio, he asked me “¿Sabe usted quién es Quixote?” (Do you know who Quixote is?). I replied that I did. “Yo soy un Quixote” (I’m a Quixote), he declared, laughing and explaining his dedication to chasing ideas that others around him think of as unrealistic. Over the years he has continued to support and provide guidance to a wide range of agroecology projects in the province, even though their widespread promotion – considering that some leaders still prefer conventional agroecology – may be

¹² At the time of my fieldwork these campesinos were very elderly and unavailable for interviews.
Quixotic tasks. Although one research informant told me that the Council of Cuban Churches was the very first organization to do work in sustainable agriculture in Sancti Spiritus, the majority of my interlocutors view Emigdio, Héctor Luis, and the campesinos who worked with them as the founders of the local agroecology movement, and my review of local newspaper articles indicates them to be the first to receive public acknowledgement for such work.

In 1996, not long after the Station began to convene work and experimentation in agroecology, ANAP (the small farmers association) began to conceptualize and develop a Campesino-a-Campesino (CAC) movement (see Chapter 2). Sancti Spiritus was not one of the provinces included in the initial CAC pilot projects, but one of the key founders of the CAC movement in Cuba, Braulio Machín Sosa, was born in Sancti Spiritus and eager to bring this “social process methodology” to his home province. Machín grew up in Cabaiguán, a tobacco-growing and cigar-producing municipality of Sancti Spiritus. Although he has not lived or worked on a farm for many years, he identifies as a campesino, and believes strongly in the important social function played by a campesino sector in a socialist society.

Machín left his family’s farm as a young man to pursue a degree in sociocultural studies. At school, he read Marx, Gramsci, and Freire, and was trained to become a political leader. He went on to work at the national and later the provincial offices of ANAP, and was a participant of the initial meetings between ANAP and La Via Campesina. Agroecology and CAC resonated with Machín as a way to support both a thriving campesino sector and the autonomy and self-determination of these growers. Thus, his passion for agroecology is not strictly in the practices associated with it, but also in the social processes that can be used to develop local leadership and public pedagogy surrounding it.
In 2000, with the help of his wife, a former administrative worker for ANAP’s national office, Machín organized a tour around Sancti Spíritus’s countryside, and invited a group of campesinos to participate. They visited various farms where agroecological practices were implemented, and had meetings at which they shared their hopes and also doubts about the efficacy of agroecology. José Antonio Casimiro, now a nationally known figure in agroecology, family agriculture, and permaculture, was a participant of this tour. Machín recalls that Casimiro was initially very doubtful about the extent to which agroecology could support high productivity and economic security for growers. However, he was intrigued by the practices he saw on other farms during the tour, and inspired to run his own trials at home (a process that CAC encourages) so that he could personally validate whether they would be valuable for his farm. Now, he is an avid practitioner and promoter of both agroecology and permaculture.

Machín also collaborated with Emigdio during the years that CAC was launching in Sancti Spíritus. As he recalls, Emigdio had organized a strong group of agroecology promoters, but they lacked a “methodology” and philosophy for spreading their work more widely. Machín brought training in agroecological principles and the CAC theory of horizontal knowledge transmission to the nascent agroecology movement cultivated by Emigdio. He urged growers and administrators throughout the region to see CAC as a process to diffuse already-existing agricultural knowledge, not a way to enact more top-down agricultural recommendations. He also stressed that it was important for the movement to embrace a cohesive philosophy of agroecology. “If someone uses agroecological practices,” he says, “they can still do environmental damage if these practices are not thoughtfully selected following the broader philosophy, which considers systematic impacts.” CAC funding and ANAP structure allowed for greater diffusion of the agroecological capabilities being developed by the campesinos affiliated
with the Station. As Emigdio explains, the Station has a state mandate specifically to conduct research, and so is limited in the time and resources it can invest in capacitation (training) and direct outreach to farmers.

By 2002, CAC had identified key agroecology promoters (campesinos) and successfully supported the spread of agroecological knowledge to every municipality in Sancti Spíritus. Today, though Machín is retired, he continues to be recognized as a key resource in the province and he and his wife both work as contractors for ANAP on various projects including low-energy transport of milk from farms to processing facilities via horse-cart, and collaboration between cooperatives so that they can collectively access training on marketing and business planning.

Around the same period, another group associated with agroecology came together in the city, under the guidance of Roger Santiesteban. Roger has an engineering degree in agronomy and began his career working in sanidad vegetal (vegetable sanitation, or pest and disease control) in the cooperatives of Banao, located outside of Sancti Spíritus city. In 1994, he gave up his work in the countryside in order to join the emergent urban agriculture sector. With the support of his wife, Ismar Garce, who was also a professional in sanidad vegetal, he founded an organopónico near their home in the city of Sancti Spíritus. Several years later, Roger was offered a job as the municipal director of Urban Agriculture, and Ismar decided to leave her job providing assistance to fruit and vegetable farmers in the countryside, so that she could work closer to home and manage the organopónico full time.

When they first began as urban farmers, the couple farmed conventionally using non-organic inputs. Roger explains that he had an interest in “naturaleza” (nature) since college, when he received some instruction in agroecology and worked briefly in re-foresting projects. As he describes “[this interest in nature] has accompanied me since I studied. They say the cultivator
needs to know [conocer] nature. The sicknesses, the whims of plants and animals. In this thinking – which comes from Jose Martí – is a call to work closely together with nature, to observe, to think, to reflect more.” Despite this, he and Ismar were also trained in and accustomed to using chemical pesticides and fungicides. They used these initially in attempts to combat problems with pests, lizards, and the diseases brought on by water build-up at their farm site. However, their neighbors complained about the smells of these chemicals, and Roger and Ismar realized that the practice of applying chemicals was untenable in city locations. They sought out knowledge on alternative practices, and gradually began to learn more about agroecology and sustainability. Roger associates this process with his identity as a life-long learner.

One day, while accompanying his sick mother to the hospital in Havana, he passed by a newsstand selling permaculture magazines. He recalls that he studied them, and used the readings to deepen his own practices. As he describes, he was a highly advanced practitioner of permaculture before anyone from FANJ – the foundation promoting permaculture in the country – ever came in contact with him.

Although his formal duties as director of Urban Agriculture did not require Roger to organize anything other than obligatory monthly meetings for fellow urban farmers (at which they would receive updates on state mandated guideline and production goals), he decided to organize his own independent club, the Grupo de Sustentabilidad Urbana (Urban Sustainability Group), using the relationships with and access to urban farmers facilitated by his position. Six people, including Roger and Ismar, all urban farmers, got together regularly to share a snack and conversation about sustainability in urban farming. They watched videos regarding environmental issues, discussed techniques, and sometimes participated in workshops or
meetings with the members of the group organized by Emigdio and the Station. Several members of the urban sustainability group are still active in Sancti Spíritus’s alternative agriculture movement, and participated in this study (their perspectives are included in the following chapters). They describe this group as highly important to their having developed an interest in sustainable agriculture, and also indicate that they would likely never have enrolled – or decided to dedicate additional free time to such meetings – were it not for Roger’s endurance in regularly inviting and encouraging them to participate. This group also went on to become the first trained permaculturists in Sancti Spíritus, and to play active rolls in recruiting other friends, neighbors, and farmers to permaculture philosophy (see Chapters 6 and 7).

In 1999, as Roger’s urban sustainability group and Emigdio’s group of agroecological campesinos were generating interest in the province around agroecology, the Sancti Spíritus branch of ACTAF elected a new president (see Chapter 2 for a description of ACTAF’s role in agroecology, and the incorporation of the Cuban Association of Organic Agroecology, ACAO). There had been just one previous provincial president since the association’s establishment in the late 1980s, but as interview participants reported, this person had not played an influential role in the agroecology movement. Paula Quintana, the new president, had a background in the administration of rice production, and she was also the director for Science and Technology in the province. She took over at the local office of ACTAF as ACAO was expanding its influence in ACTAF programming, and she worked diligently to organize workshops and scientific events on agroecology, and to incorporate rural and urban farmers from the province into these events. Paula, like Machín, came from a campesino family, and she believes that agroecology has always existed in Cuba – amongst the campesino sector – and now only needs to be “rescued.” She sees the state as a source of supportive infrastructure for this “rescue mission,” and sees the
role of organizations like ACTAF as one of helping to change people’s “mentalidades” so that they are open to re-embracing low-input agriculture.

Although ACTAF was never as active as ANAP in direct grower outreach, they organized larger exchanges, conferences, and scientific meetings than had existed previously to discuss agroecology in public forums, and provided growers with various opportunities to present the results of agroecological experimentations they were running on their farms to larger audiences. One urban farmer and permaculturist, for instance, explained that by facilitating participation in such events, ACTAF and Paula were very important in influencing her and her colleagues in the early years of the agroecology movement, and leading them toward information on organic production. Paula, via ACTAF, also formed the Mesa Agroecológico to help support the development of agroecology in the province, and Emigdio was asked to help coordinate it, thus bringing ACTAF and the Station into close collaboration. During this period, he, Paula, Machín, Roger, and Ismar often worked together and participated in the same events. They and the farmers they worked with became a core group from which the alternative agriculture movement of Sancti Spíritus emerged in the early 2000s.

After the Grupo de Sustentabilidad Urbana was invited to participate in a permaculture course in Havana, FANJ hired Roger as a permaculture promoter, and the Sancti Spíritus office of the organization began offering permaculture courses. Together with Roger and other permaculturists, FANJ also created a network of support for permaculturists and aspiring permaculturists in the region (see Chapter 6). FANJ’s entrance into the local sustainable agriculture movement coincided with a gradual decline of ANAP and ACTAF’s ability to provide direct material aid or even ongoing outreach, caused, in part, by declining resources in the mid 2000s. Therefore, FANJ offered an important institutional home to growers who were
already engaged in alternative agriculture, and were seeking support for their work in it. Many of the city’s leading urban farmers – who had engaged in agroecology through ACTAF and, to some extent, the urban agriculture department – became permaculturists in the 2000s (as will be discussed in much greater detail in Chapters 5 thru 7). As one interview participant described, “projects fall,” and organizational centers of the alternative agriculture movement shift, even as core members of the movement remain relatively consistent over the years.

During the late 2000s, with Cuba now well established as a rich site of alternative agriculture exploration, there was a proliferation of foreign-funded agricultural sustainability projects in the region. These projects were conceptualized and instigated by foreign NGOs and aid organizations, and carried out in partnership with Cuban institutions. In 2007, the Programa de Innovación Agropecuaria Local (Program for Local Agricultural Innovation, PIAL) was founded at the Instituto Nacional de Ciencias Agrícolas (National Institute for Agricultural Sciences, INCA) with support from the Canadian International Development Agency (CIDA) with the goal to support economic development on agricultural cooperatives through sustainable and agroecological techniques. Although this project operated nationally, its impacts were very localized. Emigdio, a colleague of his from the university, and several other local actors were the coordinators of the local branch of the project in Sancti Spíritus, and they focused primarily on gender equity in their work. The group hosted workshops on food preservation (drying, pickling and canning), and participants continue to offer demonstrations and samples at the weekend agricultural market, which serves to encourage other producers to diversify their food output.

In 2008, the BIOMAS project was founded at the Estación Indio Hatuey, another national agricultural investigation center, located in Matanzas, with a specialization in pasture crops and, more recently, alternative energy. The project has received funding from the Swiss Cooperative
Development Agency (SDC), and works to build biodigesters on small farms. The biodigesters use pig or other animal waste to produce energy for gas stoves, lamps, and other household appliances, and the residual waste product of the process can be used as an ecological fertilizer and pesticide. Growers are also experimenting with probiotic-heavy animal diets (formulated with non-dairy yogurts produced on-farm by fermenting yucca and other materials) to make the waste matter less foul smelling and more effective as a fertilizer. In Sancti Spíritus, this project, too, is coordinated by Emigdio, along with an engineer living in the municipality of Cabaiguán. As of June 2014, they had already built biodigesters on 34 farms. At the time of writing, the project has not publically released the most recent numbers, but they are reportedly much larger. Although the project is focused specifically on energy production, rather than agriculture, growers report that it significantly improves their quality of life and ability to farm agroecologically, and thus plays a central role in supporting alternative agriculture as a viable livelihood strategy.

Other projects that occurred in this time period include an OXFAM funded project, initiated in 2006, to support sustainability in the Valle de los Ingenios (between Sancti Spíritus city and Trinidad city to the south), which is the former site of a colonial tobacco plantation, a UNESCO World Heritage Site, and the current location of many small farms. Some farmers from Sancti Spíritus have also travelled to other provinces to participate in agriculture projects of the United Nations Development Program (UNDP), including the Programa de Apoyo Local a la Modernización del sector Agropecuario en Cuba (Local Support Program for the Modernization in the Agricultural Sectors, PALMA), which includes an emphasis on agricultural sustainability and food sovereignty.
Although most of the projects mentioned in this section have central bases in the provincial capital city, they have also variously expanded into or emerged in other towns in the province. In Banao, for instance (one of my research sites, as described in Chapter 1), the cooperatives still use relatively large quantities of chemicals, particularly for onion and garlic production. However it is widely reported that the amount has dropped significantly over the past decade, as farmers explore and adapt agroecological practices. These practices have been diffused throughout Banao through the work of CAC and ANAP, and now to a lesser extent by FANJ. Research participants in Banao also pointed to “Alfonso,” who works for Sanidad Vegetal as the key promoter for agroecology on these cooperatives. Although his state-salaried position does not specifically require him to promote agroecology (“Vegetable Sanitation” is a field traditionally based around the use of chemical pesticides and fungicides), he is known for walking the hilly region on foot so that he can stop in for visits and discuss agroecological practices with whoever has the time and interest. His activity is notable, because it diverges from the basic job requirements, which entail regularly schedule visits with farmers and availability upon request from farmers. His active work visiting farmers, arranging meetings so that they can speak with agroecologists, and helping them to implement new practices constitute him as a highly motivated promoter and movement member.

In the municipality of Fomento, a small group of research participants describe that early movement toward agroecology was catalyzed primarily by ANAP, which organized a local group for discussing agroecological practices. Some of the group members have now gone on to work with FANJ to bring permaculture to household patios and rural farms in the municipality, and with the Cuban Council of Churches to promote sustainable peri-urban farming (see Chapter
5 for how one participant explains that permaculture now offers “more” to area farmers than agroecology).

In the town of Tunas de Zaza, the primary industry is fishing, so most residents were not connected to ANAP and other agricultural associations during the years that agroecological philosophies and practices were introduced to other parts of the province. The state department of Urban Agriculture attempted to improve food security in the coastal town by introducing organopónicos and encouraging household-level urban farming in the 2000s. However, they found that the salinized soil, salty winds, and occasional hurricanes provided a significant challenge to this work, and they called on FANJ for assistance. FANJ stepped in at the department’s request to encourage container gardening (so that plants can be re-located during storms) and composting (to build up organic soil matter), and local permaculture meetings have now cultivated a core group of key local leaders (see section on “Rosa,” Chapter 5).

The history of the alternative agriculture movement in Sancti Spíritus underscores the importance of both organizational structures and activist individuals. The interest demonstrated by ANAP, ACTAF, the Station, and later, FANJ, in promoting alternative agriculture created a supportive infrastructure for alternative practices and imaginaries to emerge. However, the personal dedication to these practices by various individuals was also essential for catalyzing the resources of these groups. With Roger and Ismar organizing the Grupo de Sustentabilidad Urbana; Paula coordinating more agroecological workshops and events than expected of her position (and thus becoming one of the provincial presidents most connected to the national agroecology movement); Emigdio generating the agroecological group of campesinos and taking place in the Mesa Agroecológico; and Machín helping to found the nation’s CAC movement, there existed a strong group of central movement figures who went far beyond either the minimal
requirements or direct responsibilities of their salaried jobs. The personal attachments they felt to the family farm sector or to “nature” and sustainability motivated them personally to work toward generating a movement in alternative agriculture. That Sancti Spíritus is now known nationally for having a more active history and contemporary movement in agroecology and permaculture than many other provinces is evidence of the importance of their generative activities, in comparison to the activities of people in parallel positions at ACTAF, ANAP, and agricultural research offices in other provinces.

**Understanding the Timeline of Alternative Agriculture in Sancti Spíritus**

As this chapter has described, activity around agroecology developed in Sancti Spíritus in the early years of the Special Period, along with the national emergence of alternative agriculture paradigms and interest in low-input farming techniques as a solution to material and economic scarcity. However, beginning in 2000 – as the country began to stabilize economically – the promotion of alternative agriculture accelerated, with the unfolding of the campesino-a-campesino movement and other projects and programs for sustainable agriculture. The timeline below (Figure 4.1), prepared collaboratively with research participants, tracks important dates in the emergence of alternative agriculture and sustainable farming paradigms in Sancti Spíritus, and plots them against the major events of national political-economic relevance that are generally considered to influence the country’s agricultural system and the impetus for alternative techniques. It indicates that the interest, research, and experimentation around alternative agriculture that emerged in the Special Period sparked an unfolding movement that continued to generate activities even when the Gross Domestic Product (GDP) was no longer in
decline, and when a deal with Venezuela introduced a new supply of subsidized oil imports. In other words, as the “necessity” for low-input agriculture diminished, enthusiasm for alternative paradigms continued to build.

To understand official dispositions and state-sponsored discourse on alternative agriculture, I also conducted a content analysis of newspaper articles relating to agriculture published in *Escambray*, Sancti Spíritus’s provincial newspaper, between 1990 and 2014. I tracked articles relating to alternative agriculture (defined as ones discussing urban agriculture, sustainable agriculture, agroecology, reduction of chemicals, biological-pest management, animal-traction, and worm-composting) as well as articles on more conventional themes, such as increasing sugarcane production or rice harvests. Figure 4.2 depicts the varying percentage of articles relating to agricultural topics within the total articles on agricultural between 1990-2014. It indicates that even the official discourse on alternative agriculture (as represented by the relative volume of articles pertaining to it in the state-run newspaper) was much lower in the 1990s, the most critical years of material scarcity, than it was in parts of the 2000s. Between 2000 and 2014, relative volume of articles on alternative agriculture was highly variable, but reached highpoints in 2003 and 2006 (in low years, such as 2014, discussion of sustainable agriculture was overwhelmed by coverage of sugarcane production and harvest).

The timeline of alternative agriculture events suggests that the promotion of alternative agriculture was characterized by movement dynamics, including the gradual snowballing of interest around a new imaginary, and the analysis of public news on the topic indicates that even formal engagement and support for it was determined by a more complex suite of factors than Soviet collapse. Together, they hint at the existence of dynamic personal and social motivations
for investing in alternative agriculture. These subjective experiences, which also give endurance
to alternative agriculture paradigms, are analyzed further in Chapters 6 and 7.
Figure 4.1: Timeline of alternative agriculture in Sancti Spíritus against national political-economic factors

Blue boxes represent key events in Sancti Spíritus’s alternative agriculture history. Green boxes represent national events usually considered “supportive” of alternative agriculture and yellow boxes represent national events that would generally be considered “supportive” of conventional agriculture. Source: Author.
Figure 4.2: Percentage of articles relating to alternative agriculture in total articles relating to agriculture published in Escambray 1990-2014

Source: Author.

Conclusion

As described in previous chapters, the material scarcity and ideological rupture introduced by the Special Period opened the doors to new agricultural experimentations, expectations, and imaginaries in Cuba. Because the collapse of the Soviet Union instigated the agricultural transformation that unfolded, it is often assumed that the new state programs that emerged in the Special Period were the primary bolsters of alternative agriculture, and that this movement will fade away as the political-economic climate shifts, leaving institutions with less motivation to maintain them. However, the history of alternative agriculture in Sancti Spiritus reveals a more complex scenario. Here, major programs, like those associated with ACTAF and ANAP’s campesino-a-campesino movement, unfolded after the most severe years of the Special Period,
as the successes and enthusiasm of institutional leaders in Havana calcified into nation-wide programs, and local leaders expanded their contacts with international food sovereignty and agroecology movements. As the nation of Cuba encountered new opportunities to rebuild conventional production systems – principally through deals oil with Venezuela – agroecology advocates still saw alternative agriculture as a productive and viable option for small-scale, island agriculture. Alternative agriculture snowballed, with more international aid organizations sending funding to sustainable farming projects in Cuba, and more Cuban growers gaining access to information about agroecology and permaculture.

This chapter has also highlighted the central role of key individuals in spearheading projects of agricultural experimentation and promotion. When individuals describe their entry into sustainable agriculture (as described in the next chapter), they do not simply describe the institutions and programs that promoted it, but also the individuals spearheading these initiatives. Emigdio Rodriguez, Paula Quintana, Braulio Machín, Roger Santiesteban, Ismar Garce, and Alfonso from Banao are all recognized as instigators of Sancti Spíritus’s agroecology movement because they used the organizations they were part of, or formal job positions they held as supportive structures for mounting wider campaigns of alternative agriculture promotion.

That they took on this work, and that the alternative agriculture paradigm continued to spread even after the worst years of the Special Period, indicates that material need was entangled with more complex intimate, social, and subjective reasons urging individuals to practice or promote sustainable agriculture. Building on this finding, and keeping in mind the national structure of sentiment of frustration described in Chapter 3, the following chapters examine these motivations.
CHAPTER 5

TRABAJANDO CON AMOR: THE ALTERNATIVE AGRICULTURISTS OF SANCTI SPÍRITUS

The previous chapter describes the emergence of alternative agriculture paradigms and practices in Sancti Spíritus province. The chapter before described life in contemporary Cuban as characterized by a widespread sentiment of frustration, and a longing for a way to move beyond or past the status quo of daily life. It suggested that some people – rather than succumbing to feelings of disappointment – are creating new practices and ways of being in the world. This chapter describes the alternative agriculturists who are taking up new imaginaries and practices, and analyzes the ways in which they come into and become committed to such projects.

I began my fieldwork in Sancti Spíritus with the task of identifying growers – whether urban or rural, based on large farms or in small apartments – who identified and were recognized by their communities as sustainable agriculturists. Here, I describe the diverse set of individuals who emerged in this process as comprising the core group of sustainable agriculturists in Sancti Spíritus; describe the contexts in which they farm; consider the varied pathways through which they came to alternative agriculture; and discuss their reasons for continuing to practice and promote it. While many of these people were first prompted by their material circumstances, happenstance exposure to alternative agriculture networks, or an inchoate interest in *something different* to take up agroecology or permaculture, they have gone on to develop a commitment to these worlds of alternative agriculture because they are convinced that the philosophies of sustainable agriculture are both ethically superior, and capable of providing a more fulfilling
lifestyle. Additionally, the chapter will provide details on these growers showing that the majority currently identify with permaculture and the Fundación Antonio Nunez Jiménez (FANJ) as the philosophical and institutional bases, respectively, for their work.

**Identifying Sustainable Agriculturists in Sancti Spíritus: A Methodological Note**

To locate the sustainable farmers – urban and rural – of Sancti Spíritus, I began by asking staff at two of the organizations described in Chapter 2, FANJ and ACTAF (the Cuban Associations of Agricultural and Forestry Technicians), to provide names of the growers they work with who practice sustainable agriculture. Through these original contacts, I began to snowball out with additional recommendations. Ultimately, I interviewed 45 people in four communities (Sancti Spíritus city, Banao, Fomento, and Tunas de Zaza) whom other community members described as sustainable agriculturists (and who themselves identified as either agroecologists or permaculturists). These 45 sustainable agriculture practitioners – along with six people working in Sancti Spíritus in institutional/professional capacities to promote sustainable agriculture – are the key informants of this research.¹³

I do not argue that these informants constitute a complete sample of people practicing alternative agriculture in Sancti Spíritus at the time of my fieldwork. To acquire such a sample would have required a list of names from ANAP, the small farmers’ association, and they do not provide such records to external researchers. Instead, ANAP referred me to a retired staff member and leader of the campesino-to-campesino movement. He was able to suggest some

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¹³ I also interviewed six additional farmers/cooperative presidents who have familiarity with sustainable agriculture programs in their cooperatives, but do not exclusively practice or advocate for these methods. These interviews provided additional context for the wide swatch of agriculturists in the province as well as points of comparison against the more devout sustainable agriculture practitioners. Further, much of the analysis in other chapters is also based on informal interviews with a much larger sample of participants.
names, but mostly of elderly farmers who are no longer active in sustainable agriculture networks. Had ANAP been available to collaborate in this study, they likely would have directed me to a greater number of rural growers than I ultimately interviewed, and also to more farmers who identify as “agroecologists” rather than “permaculturists.”

Nonetheless, my observation at meetings and conversations with participants indicates that this group of participants, the majority of whom consider themselves permaculturists rather than agroecologists, is a large proportion of those farmers who are most widely considered successful and active in sustainable agriculture in Sancti Spíritus. Many of the interview participants were referred to me not only by FANJ, but also by ACTAF (which promotes agroecology), and include the growers most likely to participate in provincial, national, or international sustainable agriculture events. The external recognition that they receive indicates that they are among the growers who have most actively embraced and pursued identities and livelihoods connected to alternative agriculture. Nonetheless, it bears emphasizing that other Sancti Spíritus farmers practice and experiment in sustainable agriculture techniques without either claiming them as a principal identity, or receiving equal institutional and social acclaim for them.

Demographics and Farm Types

The 45 sustainable agriculturists interviewed include 17 women and 28 men. Although women are increasingly active and influential at various scales in sustainable agriculture practice and administration, the larger number of men in this interview sample reflects the continued prevalence of men as the recognized actors in the agricultural sector. For example, many of the
wives and partners of sustainable agriculturists are knowledgeable and conversant on topics of farming and ecological sustainability, but do not participate as actively in events or associations connected to these topics, nor claim public roles or identities connected to these sectors. On the other hand, some couples comprise male and female partners who are equally active in farming activities and sustainable agriculture communities. In these cases I interviewed both husband and wife (eight couples are included in my interview sample).

Reflective of the “aging out” of farmers that is taking place both in Cuba and around the globe, my interview sample is composed of a slight majority of participants over the age of 50. In fact, many of my key research participants were in their 70s and 80s. Of the 45 participants, 25 were over the age of 50, 19 were between the ages of 30 and 50 (though many were approaching and at the time of writing have passed 50), and only one was under 30. Nonetheless, there is hope within the agroecology and permaculture movements that these numbers will soon begin to shift. During the period of my fieldwork, FANJ held a youth course in permaculture (for young people ages 15-30). In the two years since, many of the attendees have gone on to participate in additional permaculture courses, and/or to begin to set up their own permaculture sites. I also informally interviewed a group of students involved in the first university-based permaculture course, and worked with them to develop an onsite organopónico, where the school hopes to train future teachers, who will go on to share permaculture knowledge with additional generations of students. Additionally, ACTAF has begun to organize groups of young agroecologists around the country. Though there is not yet an active group in Sancti Spíritus, it is possible that one may be forming in the near future.
Although agroecology is, at a national level, the most widely recognized and accepted term for the science and practice of sustainable agriculture in Cuba, the growers I identified as active sustainable agriculturists and promoters in Sancti Spíritus mostly associate with the philosophy of permaculture and with FANJ, the organization that promotes it. Thirty-nine of the participants are connected to permaculture in some form. Within this number: the majority of them actively affiliate with it and claim “permaculturist” as an identity; three have been trained in permaculture, but do not consider this identify to trump that of “agroecologist” or “urban farmer”; and several are only beginning to affiliate with FANJ and learn about permaculture. The remaining six growers do not affiliate with permaculture at all, and consider themselves to be agroecologists.

Among the 45 participants there is a wide diversity in terms of the spaces and places where they carryout sustainable farming. This is important to note because food production using alternative agriculture methods does not always take place in the rural settings most frequently associated with farming. Furthermore, it is important to describe the scales and locations at which people farm, because these correspond with the administrative/state organizations to which farmers belong to, and the conventions within these organizations provide both the
constraints within which growers operate and norms from which they seek to deviate. In other words, they are the source of conventions that growers are forging alternatives too. Moreover, the small-scales at which alternative agriculturists operate, and the diversity within the spaces where they farm, is indicative of the fact that sustainable farming is not a set of practices that one particular agricultural sector or state organization promotes, but, rather, is a paradigm and discourse that gains strength outside the typical administrative boundaries of agricultural production.

I will use three categories – Rural Farms, Urban Organopónicos, and Home Sites – to describe the types of sites where sustainable agriculture takes place. Although there is diversity within each of these categories, they serve for outlining the basic differences between farms in terms of relationship to the state, the other farming organizations/administration to which they pertain, the markets served, and the full-time professions of the growers. Because the sample of 45 growers contains within it eight couples plus one father-son pair who grow food and developed commitments to sustainable farming together, there is a smaller number of 36 farm sites included in the analysis. Thirteen of these sites are in rural or semi-rural areas, 10 are organopónicos or urban farm sites incorporated in the Urban Agriculture Department, and 12 are home sites.¹⁴

Rural Farms

The rural farms run by my core research informants are all small-scale, diversified operations. The smallest is only half a hectare and the largest about 10 hectares. Some of these farms are located in relatively remote areas, while several sit on the immediate outskirts of town, in areas

¹⁴ The remaining participant has neither a home site nor a farm, but collaborates with an organopónico to assist with production and run the neighborhood compost program. He hopes to one day create a small neighborhood, or commune, of houses that farm together.
that were once rural but now are slowly being encroached upon by expanding urban zones. Five of these farms are located on land owned by the farmer(s) or his/her family members, six are located on land held in usufruct (as described in chapter 2, usufruct rights are long term use rights granted without rent obligations by the state in 10 year terms), and two are comprised by a combination of privately-owned and usufruct land.

Each of these farms belongs to a CCS, a Credit and Services Cooperative, and are thus members of ANAP, the small farmers’ association. Through the cooperative, all but two farms deliver to Acopio, the state procurement and distribution company. Although CCS’s often guide farmers’ planting decisions, as they encourage them to organize their farms in ways that the cooperative president and administrators believe will enable them to meet production goals while staying within their allocated resources, the 13 farms represented in this study exert a high degree of independence and autonomy. They tend to eschew the conventions of their cooperatives in order to pursue practices that they believe will be the most beneficial.

For instance, one distinction between these farms and others in their cooperatives is crop diversity. All 13 farms have a diversified base of plant and animal production. Most grow a variety of fruits, vegetables, condiments, and animal products for the family’s personal consumption in addition to a mix of marketable crops. The latter include coffee, milk, fruit, pork, and eggs, all of which are sold primarily to the state. Many of these farms are also relatively forested with fruit trees, trees that provide forage crops for livestock, and other trees that provide shade and soil retention.
Urban Organopónicos

Another group of research participants farm in urban locations. These growers do not belong to ANAP. Instead, the state administers and governs them through the department of urban agriculture. Just as ANAP members are required to attend monthly meetings, urban growers are required to attend monthly municipal urban agriculture meetings, and they are also subject to regular inspections and rankings following the national guidelines for urban agriculture. Following these conventions, the urban growers typically plant rows of vegetables, condiments, and medicinal herbs in long raised beds, often utilizing the areas bordering their plots to grow fruit trees. Some also keep small animals on the farm, though others are not allowed to do so (because of limitations on livestock in cities). These growers receive services—including accounting, some seeds, and compost—from the urban agriculture department, and have contracts through this administration to sell low-cost food to nursery schools, homes for the elderly, and hospitals. Additionally, they sell directly to neighborhood residents.

The urban farming participants of this study were all knowledgeable in agroecology and additionally trained in permaculture. While other organopónicos in the area (whose operators were not included in this study) demonstrate basic principles of diversified, low-input production and sustainability, as is required by the urban agriculture department, the growers reflected here consider those basic requirements to be very minimal, and they strive to go beyond them in order to seek out new solutions for ecological sustainability, community-integration, and productivity. As a result, their farms are also more productive, and tend to rank highly against state guidelines.
Home Sites

Finally, some research participants farmed at home sites, mostly in urban areas, and all in residential zones. They use rooftops, courtyards, backyards, and balconies to grow vegetables, fruits, medicinal plants, and condiments. Many of them also keep animals, including chickens, guinea pigs, rabbits, and pigs. Their production is geared largely toward the family’s self-sustenance, with a goal to improve their health and diets. Although they do not live or seek to live exclusively from their production, they report having their household budget improved significantly by reducing the need to purchase food outside the home. Some also produce certain products to sell. For instance, several couples that maintain small animals sell the offspring when they reproduce. While many produce surpluses of fresh fruits and vegetables, they largely use this to trade or give gifts to friends, family, and neighbors. Some remarked that they would not feel “correct” selling this food for profit.

Figure 5.3: Participants by Farm Location
Beginning to Farm

All of the growers interviewed entered or re-entered agricultural pursuits (whether careers or household growing projects) during or following the Special Period. Eight of the urban farms were started soon after the institutionalization of urban agriculture in 1994. Some of the growers who started them were retired from other types of work, and in pursuit economic activities that would give them greater material security during the Special Period. Others were still of typical working age, but believed that urban agriculture would be both more appealing and more economically beneficial than the work they had been engaged in. The two urban farmers who entered into urban agriculture later (2005 and 2012, respectively) did so for similar reasons.

Of the rural farmers, six growers/couples returned to family farms during the Special Period in pursuit of self-sustenance and economic security. Three started farms in 2000s, because they either wanted to return to agricultural lifestyles they knew as children, or believed that they could find more peace and security in this work than in other jobs in the city. The other four came from campesino backgrounds, and became young adults during the early Special Period, when they began their adult careers in farming. A couple of them pursued studies or other jobs, briefly, but never left farming for any significant duration of time.

The 13 participants who farm/garden at home sites largely came into the practice beginning in the mid-2000s. Interestingly, this time of entry indicates that household-level sustainable gardening does not only exist in Cuba as a direct reaction to the Special Period.
Four Portraits of Alternative Growers in Sancti Spíritus

To provide deeper descriptions of the motivations and farming practices of alternative agriculture advocates living and working in Sancti Spíritus, I turn now to four portraits of sustainable farming. The stories of these five growers (three individuals and one couple) provide details for the discussions to follow about growers’ pathways into central senses of themselves as alternative agriculturalists; motivations for learning such alternative practices; and reasons for maintaining them. The four portraits represent the broad array of contexts in which diversified, sustainable agriculture is being practiced: one couple operates a commercially successful small, rural farm, one person operates an *organopónico* in the city, and a third grows in her small backyard. Additionally, I include a grower who maintains a small family-scale plot outside the city, and defies easy categorization, in order to indicate the wide diversity of growers. Each portrait represents a grower/pair of growers who actively sought alternative practices to enrich their lifestyles, and in the process, encountered permaculture and developed strong ethical formations around sustainable societies and ecologies.

**Gilberto and Josefa**

Gilberto and Josefa live in a well-kept, three-bedroom apartment on the second floor of a building perched next to their farm just outside the center of Fomento, a small town that sits at the base of the Escambray mountains. They are in their fifties and have three university-educated, adult daughters. The oldest is a doctor, the middle daughter works in cultural affairs, and the youngest is a psychologist. Although Gilberto grew up in a farming family, he studied automation and mechanization as a young man, and went on to work for the local *central* (sugar
mill and processing factory). Up until the Special Period, Gilberto says, this was good work. He only made 14 pesos a week, but this – combined with benefits and the social services provided by the state – was enough to take care of his family and even go out to a restaurant on weekends. The young family lived comfortably, he recalls.

This all changed in the 1990s, as the Cuban sugarcane industry began to unravel. “In 1995, in the center of the Special Period, I decided to come back to the farm because la economía was not giving me enough to maintain my family. So I came for the farm. I started to work in the traditional form that my father did… that I had known all my life.”

Gilberto’s family began tobacco farming in Fomento in 1890. They continued farming – predominately tobacco – until the Revolution, at which point they were encouraged to convert to sugarcane production. The family continued farming sugarcane until 1973, when they converted the land to the production of beans and rice. As Gilberto describes it, the farm went from monoculture to monoculture to monoculture, with each crop further deteriorating the soils, which were already prone to erosion due to the land’s inclination.

When Gilberto decided to put the farm back into operation, he determined that the climate and economy were well suited for the production of fruit tree saplings, which he could sell to other area farmers, as well as to state farms and institutions. After he got the nursery up and running, he was able to have 7,100 saplings under cultivation at any given time. However, the farm was once again operating by the logic of mono-production. The intensity of production was depleting the soils, and the nursery eventually began to collapse.

Through ANAP, the small farmers’ association, Gilberto joined a small group of agroecologists and began to learn about alternative production methods:

I realized that if I continued to farm this way… well, my father had [already] made the soil poor. He tried to improve it with what he could do, but the land became poor. If I
continued to impoverish the soil, impoverish the land, I wouldn’t have land, I wouldn’t have food, I wouldn’t have anything. So I dedicated myself to improving the soils.

Gilberto began to reduce his use of inorganic inputs and to rebuild the organic material in his soil. “It was a lot of work (*me costó mucho trabajo*),” he says. “Lots of work and it still isn’t finished. I think the work of recuperating soil never ends.”

As Gilberto worked to transform and diversify the farm, Josefa was also expanding her knowledge about food production. Though an educated and broadly competent woman, her work had become largely confined to the home. Even as her children grew up and became adults, she remained a full-time caregiver for her elderly, ailing mother. These domestic duties took an emotional toll on Josefa, who was simultaneously struggling with thyroid-related health problems. She did, however, enjoy gardening and took on an organizing roll in a small local club that shared an interest in collecting and growing local, ornamental as well as medicinal plants and cooking herbs.

As Gilberto and Josefa’s interest in sustainable food and farming grew, they found that ANAP’s interest and ability to support them had plateaued. Moreover, the farm was still suffering economically, even as Gilberto worked to rebuild the soil structure. Then, in 2009, the first permaculture course was offered in Fomento, and Gilberto and Josefa – identified based on their interests in agroecology and kitchen/medicinal-herb gardening – were both invited to participate. Permaculture immediately resonated with their developing interests in environmental sustainability and health, as well as the family’s need for an alternative economic model. “When I incorporated in permaculture, the nurseries had started to fall apart and the economy was beginning to affect me. I had to search for another way to live,” Gilberto describes. “I saw in permaculture an opportunity to live together with nature and to preserve my environment. Well, I
started to plant fruit trees, and to better conserve the soil and to look for sense in things… and to try not to waste.”

One of the first things Gilberto did after attending the permaculture course was to start composting, which helped him to accelerate his work in soil recuperation. The couple was also very inspired by the permaculture principle of closing cycles in order to minimize waste, and they decided to begin a small business conserving and pickling food. This allows them to sell aesthetically unattractive fruits and vegetables (like organic cabbage with holes nibbled by pests in the leaves) in a more appealing form and to also make use of bumper crops that cannot all be sold fresh. What began as a home-kitchen operation quickly scaled to a minindustria (mini-industry) housed in a rustic, open-air building behind the apartment building. They employ six people, including five women who wash, peel, chop, boil and preserve vegetables and one man who manages the business and marketing end of operations. More recently, Josefa has also been experimenting with the production of dried spice and herb packets that can be used in place of artificial seasoning packets, onions, and garlic in traditional society, all of which are associated with the high occurrence of gastritis in Cuba.

Gilberto also began planting new varieties of fruit crops on the 1.8 hectares of their original family land, and he introduced a new rotation of seasonal vegetables. Together with a farm manager he hired to assist him, he has worked to reforest the banks of the river that runs through the farm, which not only keeps the river cleaner, but also helps to prevent erosion. As the farm became more productive, Gilberto was able to successfully petition for an additional 6.25 hectares to use in “usufruct” (10 year renewable use rights). This amount of land, farmed with agroecological practices and permaculture principles, has been enough to satisfy the family’s economic needs and pay relatively high wages to their employees. The women who
work in the mini-industry make 40 pesos a day (allowing them to make up to around 800 a month) and a general farm manager earns 1,000 a month plus 20 percent of all farm profits. This work is considered extremely desirable in a province where, as mentioned in Chapter 3, the average monthly salary was documented that year to be 487 pesos (Oficina Nacional de Estadística e Información 2014).

One shady section of the land is dedicated to coffee production, and another area to intercropped fruit and *viandas* (starchy root crops like yucca and malanga). The original section of the farm now includes several small vegetable beds and a scaled-down nursery where the couple raises ornamental plants that can be sold to state-run hotels for landscaping. Josefa maintains a wide array of medicinal plants near the nursery, and when I visited in 2014, the couple – as a teaching exercise – asked me to participate with them to re-design their “zone 0,” the piece of land closest to the apartment building, where they wanted to introduce additional vegetables and herbs for household consumption. “Today,” says Gilberto “my soils are rather improved. Well, you’ve seen the quantity of green beans I am producing in a small space, and the marvelous coffee… and I have fruits all year! And at the same time I’m conserving nature, conserving the environment. This land has been converted into a forest and I want to continue converting it further.”

Gilberto and Josefa are very involved in community-outreach and permaculture promotion. They are the leaders of their municipality’s permaculture group, and Gilberto says that he likes to regularly visit other permaculturists’ sites. At the 2015 national permaculture conference, the couple presented that through their outreach they have brought 25 people into permaculture (17 women and 8 men), including their employees and 15 young people (8 women and 7 men). They are also hoping to start a permaculture project at the local school for disabled
children, where their youngest daughter briefly worked. They believe that engaging in permaculture will help emotionally and cognitively challenged students to feel productive in society and engaged in nature. In 2015, the couple (who are not, themselves, part of a church) began working with the Consejo de Iglesias (Council of Cuban Churches) on a project of peri-urban agricultural development. Through this project, Josefa had the opportunity to attend a conference on agroecology and permaculture in South America.

Now, Gilberto says that he was an agroecologist – an identity that he sees as pertaining largely to farming practices related to input-reduction and soil maintenance – and is a permaculturist – which he understands as a more integrated set of philosophies and practices around sustainable living and farming. He believes that although FANJ has traditionally promoted permaculture for small-scale urban production, it has strong potential for traditional, rural farms, where it can help to alleviate existing material scarcity and poverty:

> What has happened is that I now see in permaculture more opportunities than in agroecology. Agroecology gives you an opportunity to conserve soils, you see? And it teaches you to conserve seeds and these things… in the campesino tradition. But permaculture gives you más allá [it goes above and beyond]. Permaculture gives to the family, it includes things like soil conservation, but it also includes how to take advantage of nature and how to live together with nature. And another important thing is that it teaches you how to close cycles between you and Nature.

He is a strong advocate for training more campesinos in permaculture and believes that FANJ currently has the potential to offer more possibilities and training in sustainable agriculture to them than either ANAP or ACTAF do.

As Gilberto, Josefa, their daughter and I chatted about the permaculturists of Fomento one Sunday afternoon in their home, Gilberto said that he believes everyone in permaculture has some sort of problem from which they are trying to escape. He divulges that one permaculturist farmer they are friends with is rumored to be gay, though is not openly so. Another friend and
neighbor is, like Josefa, tied to her home where she cares for her elderly father-in-law. All of these are deep personal struggles from which Gilberto says permaculture offers respite. Their daughter interjects: “Maybe it isn’t an escape. It’s something to identify with.”

Images 5.1 and 5.2: Tillage by animal-traction and women working in the “mini-industry” on Gilberto and Josefa’s farm

**Gustavo**

Gustavo grew up in Sancti Spíritus and had little direct agricultural experience until he was around 18 years old, in 1983, when his father acquired and began farming tobacco and other crops on a small piece of land. Of his seven siblings, Gustavo explains that he was the only one who was “interested or was worried about helping him with his land.” Gustavo had studied nursing, and worked at the hospital, but on the days when he did not have to work, he went out to his father’s land to help.
In the 1990s Gustavo says that he began to “compare the hospital to urban agriculture.” He explains that he was earning a fairly good salary at work – especially with a nursing specialization he had added on to his degree – but that urban agriculture also seemed full of possibility, even at its initial messy start-up phase. With the food he could provide for his family, it also provided a way to save extra income. Moreover, he says, “Since I was small, I have always loved the land.” He didn’t know anyone working in urban agriculture, but he made a request to the urban agriculture department, and was given access to a small plot of land that he describes as being – at the time – highly unworkable, with no soil.

He drew on the agricultural knowledge he had from helping his father, and began making visits to the various organopónicos in the municipality to see what other people were doing. He initially farmed conventionally, using chemical pesticides and products to ripen fruit, but he soon transitioned away from this. “When urban agriculture first started, people were using lots of chemicals, all over Cuba,” he explains, “but we began to fight against this, always thinking about the centers associated with the organopónicos, the schools, daycares, hospitals, and other entities, where they eat almost all of their food raw [and therefore with chemical residue]. So we began the fight in agroecology, against chemicals.”

Gustavo explained that, although he had an attraction to working the land, he was not previously oriented toward environmental concerns or spending time in “nature.” Reflecting on his orientation toward the environment, he told me that, “the change from working in a specialty wing of the hospital, with only six beds [of patients to attend to], television, air conditioning – all very comfortable – to working in the organopónico was a bit brusque.” But Jorge Luis, who was then the head of urban agriculture for the municipality, helped him adapt to the work, and encouraged him to learn more about agroecology and organic agriculture. Over the years, he
encouraged Gustavo to participate in a permaculture course. Gustavo insisted that he didn’t have time for more meetings, but in 2007 he finally relented, and participated in a permaculture course.

He was thoroughly convinced of the ethical superiority and economic rationality of permaculture. Of his response to first learning about permaculture, Gustavo said:

It was all very *impressionante* [impressive]. If you only put yourself to thinking about it a bit, you see that permaculture is taking care of people, of the land, and of the planet. We have ruined the ozone later, and done many barbarities, myself included, and look at all the climate changes we have. How to describe it: I’ll say it’s a disaster. So let’s see what we can do to recuperate it. It will take a lot of work. Not everyone has the same idea. A lot of people burn their fields... others contaminate the environment. There are still bad utilizations of chemicals. If you don’t take care of the environment, if you don’t take care of people, if you don’t take care of animals, you are dis-equilibrating the whole planet.

After passing the permaculture course, Gustavo worked to apply the lessons he had learned to his organopónico – adding more water collection devices, applying rice hulls in between beds to keep weed and pest populations down, saving seeds, and eventually constructing a composting toilet at the site. Although he says that when he first started in permaculture, there were not “projects” (funded by foreign NGOs) or resources associated with the courses (as he says attracts some people now), he appreciated how it improved his life: “*coño* [damn] it’s true! How I save energy, how I relax more, how I have some small pieces of equipment that allow me to use the system better! Even though we continue to cultivate in linear rows [in the organopónico] and are not able to transform the beds [due to the restrictions of the Urban Agriculture Department].”

He says that in his work, he has regularly pushed against the national authorities in urban agriculture, who have, for instance, urged him to pull out long cycle crops (like beets) when they weren’t interspersed in the recommended way with shorter cycle crops (like green beans, which provide food for the population at a faster rate). “[In the Urban Agriculture department] you have to have this, and you have to have that,” Gustavo said to me, in regards to the particular
guidelines enforced by the department, “and yes, I can have this, and that, and the other thing, but in my way [emphasis added]. You have to have bees [according to the guidelines]. I bring my hive to the organopónico once every month or two, and leave it on site for a month to pollinate. Why? Because of the outbreak of mosquitos. Many hives have been lost because of the fumigation against mosquitos.” As Gustavo describes it, the realities of urban locations prevent the guidelines from being uniformly adaptable to all farms. To him, it is rational to pursue his own way of meeting objectives. He refers to Jorge Luis, Esteban (another permaculturist and organopónico operator) and himself as the “incorrigibles” who regularly defy the norms of urban agriculture and push for a deeper pursuit of agroecology and permaculture.

In keeping with his desire to innovate and carry things out “his way,” Gustavo noticed an unused plot of land at the end of his block, and began to dream of using it to build a small, independent permaculture site. In 2010, Gustavo had received permission from the city to use the land, and he and the Foundation settled on an agreement to use it as the location for that summer’s practicum for visiting Canadian permaculture students. Gustavo wanted the site to be a family project he could collaborate on with his young adult son, Reinier, who had not yet participated in a permaculture design course, but was onsite watching and assisting as the Canadian students began the work of preparing the site for planting.

Now, Reinier is a permaculturist in his own right, and Gustavo has passed much of the work at this secondary site on to him. The two also closely collaborate on various home improvement projects, all of which they see as part of permaculture. “In our house, we have a joke,” Reinier once told me. “My dad and I always save everything, so whenever we do use something that we’ve had stored away for a long time we always say ‘This is permaculture!’”
Together, the two also keep up a rooftop garden of kitchen herbs and vegetables at their home, and they have used the same space to develop various inventions including a solar dryer (for dehydrating vegetables and herbs) and a panel for collecting energy for a large light that illuminates their backyard during neighborhood gatherings. Gustavo has also become an expert in the construction of composting toilets. He has made one for his organopónico, helped many other permaculturists construct one at their site, and described the “satisfaction” it has given him to have people from the eastern region of the country seek him out for help in building composting toilets in their community. Gustavo says that permaculture “woke something up in me, that I have to make stay. I have to continue in permaculture. It has pleased me, and I’m always inventing something, trying to save energy.”
Rosa

Rosa, who was around 40 at the time of our interviews, grew up in Tunas de Zaza, a fishing village on the coast of Sancti Spíritus. Tunas is economically important. The residents fish and farm a significant portion of the seafood that supplies the country’s tourist outlets and small export market. However, the privileges of being located next to these valuable resources are not felt here (aside from easier access to black market seafood). The small town is only 49 kilometers south of the provincial capital, but it feels much further. The road is rural and indirect. As you approach the coast, it turns to dirt, is rutted with holes, and produces a large quantity of dust that aggravates the lungs and eyes of travellers. There is a train, but it is very slow, hot, and smells of the fish that passengers use it to transport. Several people in Sancti Spíritus referred to it when talking to me as “the worst train in Cuba.” Many household goods are unavailable in Tunas and the infrastructure is poor. In addition to bad roads, the drinking water is heavily salinized. Rosa has ongoing kidney problems that she attributes to the water. When she gets sick, she has to take the train to Sancti Spíritus for treatment.

When Rosa, who was raised by her mother and grandparents, was growing up in Tunas, money and goods were tight. The common economic challenges faced by all residents of Tunas were amplified by the absence of their father, who immigrated to the US and never sent remittances or goods home. As a young woman, she moved to Sancti Spíritus city and then Cienfuegos to study business and accounting. She married in the latter city, and worked in the tourist sector for several years until her marriage ended and she decided to move home.

Back in Tunas, she secured a job as the ecónoma (economist and accountant) for the Biological Station for Flora and Fauna, located along the mangrove-lined estuaries of Tunas de Zaza. She enjoyed learning about the station’s work, and soon asked to transfer out of accounting
and into a position with a new national project of environmental education that would be operating locally out of the station. She had to study extensively for her new role, but found great happiness teaching schoolchildren, circulos de abuelos (grandparents clubs), and groups of disabled people about environmental conservation. As she found professional happiness in this work, she also found personal happiness in a new romantic partnership and eventually marriage to the director of the station, who shares her gentle demeanor and interest in the environment.

Rosa has always enjoyed planting ornamental plants and growing her own vegetables. When she lived with her mother, immediately after returning to Tunas, she planted a small garden. Later, after her grandparents passed away and she married, she moved with her husband to their home. There, she enjoyed the fruit trees that they previously planted, but in consideration of the very poor soil and salinization, did not take the time to establish a new garden.

One evening, she and her sister, the head of her neighborhood’s Comité de Defensa de la Revolución (CDR) stopped by their mother’s house. She shared with them that the president of a neighboring CDR had come looking for the three women, to tell them that a group was looking for local people to get involved in a permaculture project. The president of this other CDR had thought of Rosa and her family because of their interest in ornamental and food plants. Rosa agreed readily, imagining that participation in such a project could enrich her work in environmental education.

Soon thereafter, a group from FANJ’s office in Sancti Spíritus came to host a get-to-know you event in Tunas, and to introduce the idea of permaculture. They explained that through permacultural techniques of composting, people in Tunas de Zaza could create the necessary soil amendments necessary to grow in local conditions. Up until this point, high levels of soil
salinization had made urban agriculture and all other gardening and agricultural projects in the area unsuccessful. Rosa, like most of her compañeros were intrigued:

It seemed great to me, like something very good. It called my attention and sparked my curiosity, and I desired to become familiar with (conocer) permaculture and to know (saber) how to do it. It was like seeing my world from another point of view. It was something very good for many people, something spectacular.

In the following year, she went along with several others from Tunas to a permaculture course in Fomento, and then later to one FANJ held in Tunas.

These were exciting times for Rosa. She enjoyed – and still enjoys – the opportunity to travel to other places to participate in permaculture events and to meet new people. At a workshop at FANJ’s farm, Rosa was the only woman beside myself to stay and camp out all weekend. “I love to do something different,” she has told me many times. However, the years leading up to and following her integration into permaculture have also had their dark moments. Her kidney problems eventually necessitated surgery, which led to complicated infections that kept her in the hospital and in bed for eight months. During this time, neither she nor her husband, whose time became divided between work and caring for her, could attend to the patio garden, and some plants died. However, she says that her permaculture friends offered help and made trips periodically to check on the patio and prevent it from becoming entirely overgrown.

She has spent the past several years gradually recovering and sometimes having relapses of bad health, but describes her permaculture practices as providing great inspiration and comfort. Her patio is a now a lush and verdant space. Immediately outside their back door is a patio filled with orchids, succulents and other colorful ornamental plants. Beyond that are two vegetable beds that have been enclosed in fishing nets in order to keep crabs and neighbors’ chickens away. Here, Rosa and her husband grow eggplant, malanga (taro), peppers, garlic, chives, herbs, cabbage, lettuce and other plants. They have a small bed for worm composting, a
larger compost pile, and a small patch of sugarcane, which Rosa enjoys sharing with visitors as a treat. The level of production is impressive for a small, household patio run by a couple with demanding work schedules and health concerns. But as Rosa describes it, maintaining the garden is beneficial on multiple levels:

First, spiritually, it is a great satisfaction and it is helpful to me to see the plants growing and fruiting. But apart from this, I can also eat better; I can collect my own foods and cook with fresh garlic, cabbage and chives to make fried rice or some other dish. You can’t ever find these things for sale here, but all the permaculturists have planted them.

For Rosa, working in the patio is emotionally and psychologically restorative, even after a draining day at work. When visiting with other permaculturists, she and they often discuss the relief that stepping into their patios provides them from daily stresses. Additionally, the food she is able to grow contributes significantly to their household diet and economy, allowing them access to foods they could not purchase otherwise. As Rosa describes, making ends meet on their two state salaries (which combine to around 600 pesos – 24 dollars – a month) is extremely difficult, and would be impossible without outside work, help from friends, and their own garden production.

Although Rosa no longer works in environmental education for the Biological Station (that project has since come to a close and she now works as a cook at the station, where she prepares meals for visitors), she continues working informally to share information about permaculture with neighbors. “There are many people who are loco (crazy with enthusiasm) to get involved with something like permaculture. They come and ask me about it, and we exchange plants.” She takes pride in mentoring a younger woman from the area in permaculture, and in sharing information and seeds with other permaculturists whenever she can. For Rosa, being a permaculture practitioner soothes her personal life, gives her a satisfying local role in the community, and also connects her to new opportunities outside of the community.
“I’m from the city, but I have always loved nature… plants and animals,” says Armando. “I decided when I was a boy that I would live in el campo when I was big. Well, I never became
big, but I do have a farm!” he jokes. At 76, Armando remained short and trim. Though he often remarks that he is “too old” to farm, he continues to work long days, mostly by himself. He often rides his bicycle the five un-shaded kilometers from his house to the city center for meetings and visits, and is enthusiastic about teaching permaculture to both adults and children.

Armando’s father was a “serious Communist,” a fact which Armando says never agreed with him. “Communism is good on paper and bad in reality,” he once told me. “When Communists come to power, they forget about the poor.” Nonetheless, he describes his youthful self as having been politically engaged and critical of the Batista-regime. “I was political; disgracefully so,” he says. “I was in the Revolution. In the mountains. All five of my brothers were. I don’t want to be part of politics now.”

After the war, the revolutionary struggle, Armando went into hiding. He was afraid that remaining counter-revolutionaries would retaliate for the acts of war he and his associates had committed. He developed a drinking problem. Armando describes these as dark years, and says he regrets the acts of violence that he took part in during the war. But as the Revolutionary government stabilized and the dust settled, he re-joined a Christian church, gave up drinking, and began to work as a professor at a local sports college, where he trained young cyclists. In 1969, Armando married Lydia, who grew up on a plantation in the neighboring city of Trinidad. He said that he had always wanted to marry a campesina. Soon after, they acquired a half-hectare of land located between two highways and across the street from the provincial asphalt factory. At the time, the sale and purchase of private property was illegal. But he worked out a legal transfer of land from an older man who no longer wanted to live there:

I have had the little farm since 1970. Almost 45 years. I didn’t have agricultural knowledge then… I knew very little about agriculture, but I liked it. The land was full of weeds. The state didn’t give me permission to work the land, but I built a small house in the middle and planted some fruit trees. I didn’t plant them very well.”
He continued for several years to make modest and mostly failed attempts at agriculture, until the nearby sports center where he worked offered to rent the land. They needed a new parking lot. Armando agreed, and the land was paved over. Some years later, the organization decided the lot was no longer necessary, and Armando worked painstakingly to break-up and remove the asphalt. He dreamt of attempting to farm again. But, “It was like a desert!” He explains: “I couldn’t grow any sort of plant because the soil was so compacted and contaminated.”

In the mid-nineties he heard that the local medical school was offering a postgraduate course in Cultura Alimentaria [food culture]. The topic resonated with his long-standing interest in growing food, and with a newer dedication to natural foods; after suffering through an extreme crisis of gastritis, he found relief in a traditional plant-based cure, which sparked a passion for natural medicines and diversified diets. He signed up for the course, and began learning about the social, environmental, and health impacts of industrial food production. “This motivated me to produce my own food.”

Soon after taking the course, he and his wife, a long-time schoolteacher, both quit their jobs in order to sell sweets, juices, and other snacks out of their home. As described in Chapter 3, the real value of state wages for public employment was sinking during this period. Quitting deprived them of their future retirement benefits, but offered them a better livelihood in the near term. This gave Armando more time to dedicate to farming. In 2000, he took a course in Community Health from the Consejo de Iglesias, which also covered issues of sustainable food production and access, and then he took another in traditional and medicinal plants, and one in sustainable development. Eventually, he attended a permaculture course through the Fundación Antonio Núñez Jiménez de la Naturaleza y el Hombre (FANJ). “I didn’t really have time for so
many courses,” Armando reflects, “but they capacitated [trained or enabled] me and helped me to use my land.”

“Poco a poco [bit by bit],” Armando worked to restore biodiversity to his land and to make the soil workable. In addition to the compaction and contamination left behind by the parking lot, toxic emissions and particulate matter from the nearby asphalt factory regularly drifted over to the land, sometimes covering leaves and soil with a thin, dusty layer of toxicity. Armando has a longstanding interest in raising goats, but the first time he tried, the animals died after eating contaminated plants. The many trees Armando has planted provide the only shelter there is from this ongoing pollution. “I now have about 40 varieties of fruit,” he explains. “Six varieties of mango, various guava, peach, grape, pear, orange, tamarind, starfruit and more. I also have close to 80 varieties of medicinal plants. I like this very much. I also have vegetables. I grow root vegetables, corn, and beans. All of it is to eat in my house. I have chickens and rabbits too.” In 2015, Armando was able to complete construction of a wooden goat pen – that confines the animals and limits them from eating contaminated foods – and is once again raising goats for milk.

Although Armando has not been trained by the foundation to be a “national promoter” of permaculture (which would qualify him, by the foundation’s criteria, to teach permaculture courses) he works actively and independently to spread and promote permaculture knowledge (note: the following chapter will discuss processes of permaculture promotion in more detail). Along with a doctor friend, he formed a club called Amigos de la Naturaleza: La Peña Verde (Friends of Nature: The Green Gathering) to discuss natural medicine and environmental issues with likeminded friends. The group was small and independent, apparently without ambition or intent to scale-up, take on projects, or acquire funding. In 2013, however, he received – as an
individual – a two-year grant of $2,000 from the German organization Bread for the World to teach permaculture and local sustainable development to members of his church organization and buy them the implements needed to set up household patios. “I don’t want to do this for money,” he explains, “It is for friendship.” Indeed, despite his access to foreign organizations, he and Lydia continue living mostly off the farm’s production, with very little access to either Cuban or international currency.

Although Armando’s farm is very small, even by Cuban independent farming standards, he is part of an agricultural cooperative, and for several years he attempted to help promote sustainability through ANAP. As a result, he was asked to be his cooperative’s facilitator for the agroecological farmer-to-farmer movement. “But what happened…” he says, “well, sometimes plans can be very beautiful, and people can talk about them a lot, but then they are never carried out.” During this work, Armando grew equally frustrated with growers in ANAP that he believed were only interested in profit as he did with ANAP’s structure, which he sees as having become overly political and bureaucratic. Armando was not interested in attempting to make his way up through the ANAP ranks or in working with an association that he believes often stands in farmers’ way, rather than at their assistance. He similarly critiques the Department of Suburban and Urban Agriculture (which he could also register his farm with) for being overly bureaucratic and prescriptive. He complains that when the State became interested in developing strawberry production, for instance, the department mandated that every urban farm, regardless of location or other commitments, put in strawberry plants. It’s illogical, he says, “but you can’t argue with a dictator!”

Armando had the opportunity to re-design and improve his farm in 2011, when FANJ sent half of that year’s visiting group of Canadian permaculture interns to complete their
practicum at his site. Their labor and collaboration allowed him to add a large semi-circle for hosting meetings at the center of the farm; a new Cuban flag-shaped bed for medicinal plants; and another large bed for vegetables and fruits in the shape of a bicycle. In addition to these spaces, Armando has now also added an area for row crops, which he divides between the cultivation of beans, *viandas* (starchy root crops such as yucca, cassava, or sweet potato), and oilseeds, which he uses to produce vegetable oil. He has also constructed a small cement pond for raising freshwater tilapia. He almost always has a new project underway. The vast majority of Armando’s cultivation goes to supply his wife’s and his household consumption, and some of the fruits and herbs are used to make teas, juices, and sweets to sell. He often gifts plants cuttings, saplings and foods to family members, friends and other permaculturists. “About 50-60% or more of my family’s food is from what I produce. We have to buy other things, sugar and salt. But a majority of my food is produced here. Our health is not damaged. When we eat a fruit, or a food, we know it is healthy because I produced it.”

Lydia and Armando’s home is a regular gathering spot. I visited their home many times during my fieldwork and on each occasion I witnessed visitors regularly stopping by to sit in the small shaded oasis outside their backdoor. Sometimes it is their elderly neighbors – who live on very meager economic resources – who moved from the eastern end of the island to find more opportunity in the outskirts of Sancti Spíritus. Sometimes it is a woman who works as a cook at the nearby maternity home. Other times it is the local representative from *seguridad social* or one of the local teenagers that Armando mentors. “I have lots of pictures of children visiting here,” Armando says with pride. “It motivates them. They love the *campo.*” Almost always, visitors engage in casual conversation with the couple about the various unusual plants growing or ask for recipes to make natural infusions and *refrescos*. Armando and Lydia never were able
to have children, so having a network of close family and friends is important to them. “We may not be rich,” he says “But we are rich in plants and in friends.”

Image 5.6: A section of Armando’s small farm dedicated to growing medicinal plants

Image 5.7. A small area of Armando’s farm dedicated to row crops.
After tracing the particular pathways that the growers profiled above have taken to become alternative growers – and in their cases permaculturists (or for some, first agroecologists, then permaculturists) – this section will move discuss the varying dynamics that have moved these people toward sustainable food production, and led to their recruitment into imaginaries of alternative agriculture. The pathways of the participants described above point to several aspects to consider in analyzing the process by which people engage with and adapt alternative agriculture philosophies and techniques: previously existing interest and motivation in gardening/farming; the desire to creatively move beyond the frustrations of contemporary Cuban life; and the organizations or institutions involved in educating and training participants.

All of the research participants involved in this study recall particular moments in which they made contact with an individual, enrolled in a workshop, or were recruited by an organization that promotes alternative agriculture. They identified these moments as defining events in their pathways toward becoming permaculturists or agroecologists. For just under half (21) of the 45 study participants, these moments comprise interactions with FANJ or permaculture promoters connected to FANJ. For 20 percent (9), it occurred through ANAP, and for just one person it happened through contact with ACTAF. Interestingly, considering that previous literature on Cuban agricultural transition points to these three groups as the most relevant organizations in sustainable agriculture, the remaining 31 percent (14 people) of the growers attribute their introduction to sustainable agriculture to other individuals, family

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15 This information was elicited by the questions, included in the interview guides for this research: “When did you first hear of sustainable agriculture/agroecology/permaculture”? “How did you first hear of it?” and “who talked to you about it?” Often asking just one of these questions would be enough to elicit a detailed reflection on how people began to learn about alternative agriculture, how it changed their way of thinking, and commentary on the importance of certain people or events in this process.
members, groups, or associations. These other groups include the Department of Urban Agriculture, the Estación de Pastos y Forrajes, a local gardening club, the small organic farming interest group started by Roger Santiesteban (see chapter two), or – as is the case with Armando – a postgraduate course at the university.

Figure 5.4: Growers by the organizations that introduced them to sustainable agriculture

<table>
<thead>
<tr>
<th>Number of Growers</th>
<th>Percentage of Growers</th>
</tr>
</thead>
<tbody>
<tr>
<td>FANJ 21</td>
<td>47%</td>
</tr>
<tr>
<td>Other 14</td>
<td>31%</td>
</tr>
<tr>
<td>ANAP 9</td>
<td>20%</td>
</tr>
<tr>
<td>ACTAF 1</td>
<td>2%</td>
</tr>
</tbody>
</table>

Some growers discussed their first contact with an organization as the watershed moments that prompted their interest in and practice of sustainable agriculture, but a significant portion of them – 40 percent – specifically highlighted not a program, group, or movement itself, but an interaction with a charismatic individuals as most important. For example, several permaculturists indicated that FANJ was the organization that taught them permaculture, but mentioned an encounter with Jorge Luis, specifically, as prompting their work with FANJ. Mercedes says that she and her husband had been seeking sustainable practices to make their farm more productive for many years, attributes ANAP as the organization that first oriented them to agroecology, but specifically recalled her interaction with “Lydia,” the ANAP agroecology facilitator with the province, as inspirational, and discussed the details of the family’s relationship with Lydia. As discussed in Chapter 2, key activist individuals have played a tremendous role not only in recruiting individuals to sustainable agriculture, but also in
forming the programs that enable individuals to continue practicing and promoting sustainable agriculture to still more people.

In 44 percent of the cases analyzed for this chapter, the organization or individual promoting sustainable agroecology – rather than the farmer – instigated the encounter. In these cases, the growers were not actively seeking out information about alternative agriculture. For instance, as described above, Gustavo, who is now recognized as a leading permaculturist, started in urban farming after he quit his job in nursing. At the time, he was not particularly interested in or aware of the ecological considerations of farming or the benefits of organic food; he was simply interested in a pursuing a new economic and livelihood opportunity. When his colleague and friend Jorge Luis convinced him to come to a permaculture meeting, he was exposed to an entirely new philosophy of both life and farming, which he reports as dramatically changing his way of thinking (“it awakened something in me”). Other recruits, like Rosa, did have pre-existing interest in environmental sustainability, but were not actively aware of or looking for information regarding possibilities to scale up gardening/farming activities. It was only because FANJ located her that she began to learn about and become dedicated to permaculture.

About 53 percent of the participants, on the other hand, were actively seeking out new information on alternative agriculture when they had these encounters. This was the case for Armando, who was already interested in finding ways to make his small-farm productive when he joined the university course, and for Gilberto, who was seeking ways to overcome soil depletion when he joined the ANAP agroecology group. Francisco’s story is another example. Over the years, he had learned about environmentalism and sustainability through various television shows, radio programs, and books that he happened to come across. When he left his
job in an agricultural cooperative, and decided to start an urban farm, he was already somewhat familiar with the needs and reasons for low-input, diversified farming. However, he lacked an organization to provide additional training and resources. He found his way, through a friend who had heard of their work, to FANJ, whom he credits for giving his vision more form and providing him greater knowledge and opportunity.

Six of the research participants neither encountered alternative agriculture through either their own nor an organization’s volition. They encountered it by coincidence. Two people, for instance, worked for journalistic agencies, and happened to hear about FANJ and permaculture through their work. Another was involved in the cave exploration programs supported by FANJ, and became interested in permaculture when she happened to hear that the foundation also worked in that field.

Many of the more recent entrants to alternative farming in my sample were introduced to sustainable agriculture through FANJ, and remain affiliated with the organization. However, others have passed through multiple organizations and associations in their years pursuing alternative agriculture and seeking the support to carry it out. Gilberto, for instance, as described above, first learned about agroecology through ANAP and later joined FANJ and began to identify himself as a permaculturist. Armando, too, has passed through various organizations as he has pursued training and opportunities to continue promoting permaculture, natural medicine, and sustainable farming. The prominence of FANJ and CAC – an independently funded program of ANAP – in both recruiting participants and providing professional homes to individuals who have been independently important in recruiting participants to alternative agriculture indicates the strong role of non-state entities in supporting growth in the alternative agriculture movement.
In addition to the 45 alternative agriculturists discussed in this chapter, I also interviewed six growers who did not actively associate with alternative agriculture movements. Although this is too small a number of people to yield conclusive analysis, their responses to my interview questions lends to the idea that targeted contact with individuals and organizations promoting alternative agriculture can be determinate of whether a person transitions their production practices and develops commitment to alternative paradigms. These six individuals comprised the president of a UBPC cooperative specializing in livestock; a member of that cooperative specializing in both goat and mango production; a small farmer and current president of a CCS cooperative specializing in mixed crops; a tobacco and cattle farmer; the current president of a sugarcane producing CPA cooperative; and a farmer who had been hired to maintain and live on land (growing mixed crops) while it was in transition to another project. All of these farmers expressed receptivity, respect, and interest in low-input, sustainable agriculture, though they did not actively identify with it or exclusively practice it. The woman running the goat and mango farm, for instance, told me she had not heard of agroecology or organic agriculture, and yet she later said that in her mango production: “Everything is natural. The same liquid that could kill pests could also hurt the fruit.” When I shared with her a questionnaire about conventional agriculture inputs (such as pesticides and fertilizes) and about agroecological practices (like worm composting, and intercropping), she said that she could not say she employed any from either list. The tobacco and cattle farmer said that he thinks farming without chemicals “is a very good thing. I know many campesinos that use agroecology. It is sano [healthy],” but explained that he has problems with pests in his tobacco production, so uses some chemicals on his farm. The presidents of the three forms of cooperatives expressed how their cooperative members are implementing certain agroecological methods, though not exclusively. That ideas of growing
“naturally,” or appreciation for the health or production benefits of growing agroecologically were familiar to these farmers who do not actively identify with sustainable agriculture indicates that they are in the position that many of the alternative agriculture participants were prior to being recruited by a promoter. Their receptivity to multiple growing styles and paradigms suggests that, if an organization had the capacity to reach them and provide support in agroecological/permacultural transition, they too could potentially be brought into the alternative agriculture movement.

**Initial and Underlying Motivations for Entering into Sustainable Agriculture**

The encounters described above between growers and the individuals or programs that trained them in the philosophies and practices of agroecology or permaculture mark the moments at which these individuals began transitioning into the alternative agriculture movement. The four portraits offered above illustrate many of underlying motivations that encouraged them to either seek out or to respond positively to these encounters – including economic need, desire for access to better food, or a feeling that these types of agriculture were environmentally or socially imperative.

Indeed, many of the 45 growers were interested in finding ways to resolve particular material challenges; either by growing food to supply household economies or to improve their pre-existing farming practices. To the six households represented by research participants from Tunas de Zaza, for instance, permaculture offered access to scarce and costly vegetables, herbs, and fruits. To the participants who were already engaged in farming, agroecology and/or gardening, permaculture offered an opportunity to further pursue their interest in low-resource
and environmentally minded farming. Many of these farmers faced the challenge of farming on small plot and in ecologically marginal areas. Mercedes and Fernando, for instance, were struggling to make a rocky and sloped piece of land productive. They began experimenting with various low-input solutions. When the provincial ANAP agroecology facilitator told them that what they were doing was essentially agroecology, and offered them additional information on the topic, they found new ways to achieve productivity, and also a lens for thinking about the ethical value of their work.

Several participants mentioned how they appreciated finding in agroecology or permaculture a way to return to and value the sustainable practices that their grandparents carried out.

Others, like Jorge Luis and Xiomara, were seeking solutions to very specific problems at the time they began to learn about organic agriculture. Their urban farm site was overrun by a number of severe infestations, and as specialists in plant disease control, their first reaction was to spray chemicals. However, their neighbors complained about the foul smells and impelled them not to use these techniques in the city.

For some, the philosophies of permaculture and agroecology resonated with a pre-existing desire and perceived importance of providing healthy food for people. This is particularly true for several of the older participants, who were previously engaged in urban farming as a civic task (associated with the post-Soviet maintenance of the Revolution) rather than ecological activity. The notion that sustainable methods could allow them to produce a greater abundance and diversity of food – and that this food would be “natural” – gave agroecology and permaculture automatic appeal.
Many of the participants that were not farming or growing prior to learning about permaculture voiced pre-existing affinities for gardening or interest in spending time outside with “nature” and plants. The idea of growing food appealed to a notion that they could escape stress and enjoy the environment by spending time outdoors with plants.

Still more were compelled by the possibility to do “something different.” Rather than remain stuck in the regular frustrations and inadequacies of everyday life, they were compelled to take action to find new interests and contribute to the making of new lifestyles and new societies. This was very much true for Rosa, who emphasized how much seeing “the world from another point of view” compelled her. Luisa too, a journalist and practitioner of martial arts, is always looking for a new ways to think and act. When she heard of permaculture, she realized it could help her to redesign and produce food from her home. Similarly, Leodonis, an attorney, student of metaphysics, and practitioner of tai chi, was intrigued by the opportunity to adopt a new lifestyle practice through permaculture.

**Ongoing Commitments to Alternative Agriculture**

The interview participants stepped into the worlds and took up the practices of permaculture and agroecology because they saw in them opportunities to improve their agricultural production and/or food security, while also fulfilling latent values connected to “nature,” healthy food, and self-sufficiency. As they have become more deeply integrated into networks of sustainable agriculturists, these values have coalesced and formed into strong value structures that link these research participants to either agroecology or – for most participants – permaculture.
Most continue to speak about the material and economic benefits that they gain through these practices, as they have resolved their production problems, diversified their output, and improved their diets. However, none describe the economic or utilitarian aspects of their practices as the prominent or exclusive reason for maintaining them. Rather, environmental stewardship and ecological balances have come to take precedence in their valuation of the practices. As described above, Gilberto, began practicing agroecology to save a failing farm, but he now talks ardently about how important it is to “convivir con la naturaleza” (live together with nature) and “conservar el medioambiente” (conserve the environment).

Many of the growers also have come to develop strong appreciation for the autonomy and self-sufficiency that these production styles offer them. They cannot imagine returning to reliance on the foods sold in the street, or to the necessity of spending all their expendable income on food. They also value the ability to supply themselves with the foods and natural medicines their health statuses necessitate, as is the case with Josefa, who suffers from diabetes.

A year after my primary fieldwork period, Armando experienced a health crisis related to kidney stones and a complicated kidney infection. After spending a month in bed, he and his wife considered moving into the city center in order to be closer to family members and health services. In the end though, they decided they could not give up either the tranquility of living “among the plants” in their small farm, or the access they have to abundant and diverse food products. Purchasing them, they say, would be prohibitively expensive, and their diet would likely become significantly less healthy.

Although the majority of the research participants do not claim to be religious or religiously affiliated, many describe their practices as having a “spiritual” element. Rosa, for
instance, says that she finds a deep and spiritual satisfaction in the peacefulness and respite that her backyard patio provides.

Moreover, all of these participants take pride and find enjoyment in the fact that they are taking action to build the solutions they seek to either their own or perceived social problems. While the everyday challenges and disillusionments that confront contemporary Cubans may, as discussed in Chapter 3, push many toward listlessness and inactivity, the sustainable agriculturists who participated in this research are not content to do so. Gilberto and Josefa were at the forefront of a recent rise in small-scale food product fabrication and commercialization. Rosa is always on the lookout for “something different” from her daily routine to do,\(^\text{16}\) and derives satisfaction from the role she plays in facilitating the creation of a permaculture community in Tunas. Armando is regularly offering new workshops in permaculture to his acquaintances, or starting a new project on the farm.

**Conclusion**

The alternative agriculturists of Sancti Spíritus find their way to these philosophies and practices through different paths. Some are most interested in continuing to farm in the face of ecological challenges. Some seek to improve household economies. Others have sought something different and more fulfilling than the lifestyle they previously knew – though they didn’t expect to find it in agriculture. They come from long-time farming families, professional careers, and city neighborhoods. Also diverse are the ways they ultimately found support, additional training, and community; with some people actively seeking it out, and others finding it through the good luck of coincidence or a charismatic promoter. While just over half of the participants were actively

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\(^{16}\) See Chapter 8 for further discussion of the idea of “something different.”
seeking information on alternative production methods when they came in contact with
organizations and discourses of permaculture and agroecology, the rest were recruited by an
organization, or came upon programs of alternative agriculture through happenstance encounters.
This split emphasizes the importance of both (1) pre-existing interest in the environment and
sustainable agriculture (cultivated through complex life histories and experiences) and (2)
organizations and individuals with the capacity to engage in promotion and outreach in the
growth of an alternative agriculture network or movement.

Once individuals entered into worlds of alternative agriculture, they were met not only
with a set of useful techniques, but also with salient cultural worlds organized around alternative
approaches to agriculture that conceptualized ecology, community, food production, and health
differently than mainstream society. As various participants described to me, emphasizing the
meaning this work holds for them beyond material gain, “we do this work with love”
(trabajamos con amor). For the majority of participants, the specific cultural world they
encountered was that of permaculture, which I turn to in the following chapter.
PART III:

PERMACULTURE IN SANCTI SPÍRITUS
CHAPTER 6

MÁS QUE AGRICULTURA: FIGURED WORLDS OF PERMACULTURE

During my first interviews with Esteban, a successful organopónico operator in Sancti Spíritus, I was unsure if he was among permaculture’s most loyal practitioners, or its most lucid critics. He both remarked on permaculture’s superior capacity for design, and said that it was not any more productive than other approaches to urban agriculture. He told me that permaculture practice pushes one to consider the systematics of sustainability, and said that this helped him to rethink where he purchased manure and organic matter for his beds. Then he said that agroecological methods “are very good too.” During an interview, his wife stopped by the farm to collect vegetables to bring a friend who was sick with cancer. He explained that she wanted to share these vegetables with her friend because they were chemical-free and, thus, good for her health. But worse than having food produced with chemicals, Esteban then added, is “going to bed hungry.”

One part of Esteban’s organopónico – the center of activity and production – is laid out in long, raised-bed rows made of cement. Alongside of it, farther from the main street, there is a sloping area of meandering pathways and curved beds made of collected rocks that are filled with hearty vegetables and medicinal herbs; plants that need infrequent attention. Hidden even further away, behind both of these areas, is a forested area dense with fruit trees of many varieties. He tells me that the first area, which conforms to Cuban urban agriculture norms and regulations, is the most productive. He says that because of its straight rows, it is not really
permaculture, although he manages it using permaculture philosophies. The other two areas, he says, are completely permacultural. “Except,” perhaps not, he added, because the site doesn’t yet have all of the “appropriate technologies” associated with permaculture, like a solar dryer for preserving spices and medicines.

Because Esteban did not use permaculture design throughout his entire organopónico, and he readily acknowledged ways in which permaculture was not superior to other forms of production, I thought at first that he must not be fully committed to permaculture, as opposed to agroecology, state-supported forms of urban agriculture, or conventional production. However, over time, as I continued to interview, visit, and see him at meetings, I heard his repeated self-identification as “a permaculturist,” his positive commentary on permaculture, and his consistent participation and leadership in the permaculture network, I realized that he was, indeed, quite committed. During the time of my study, Esteban was receiving some funding from the local university for participation in agroecological trials and collaboration with students, so was not singularly dependent on FANJ and the permaculture network for supplementary institutional and economic support. Yet he continued to participate in their events, support their efforts, and help others to become permaculturists. His acknowledgement that his urban farm was not entirely permacultural, then, did not reflect a dis-interest in permaculture, but rather, an ongoing reflection on what being authentically “permacultural” means. His unwillingness to claim that permaculture is more productive, I learned, reflected not only a personal hesitancy to appear fanatical, but also pointed to the more complex meaning and value that he and others assign to permaculture. “Permaculture is guided by ethical principles, not by productivity,” Esteban said. “I see permaculture as more integral, because it isn’t only about agriculture. No, it has to do with people.”
It can be confusing, upon first encountering the worlds of sustainable Cuban agriculture, to understand the relationship between permaculture (the approach most common among my research participants) and agroecology (the approach to sustainable agriculture more widely embraced by mainstream Cuban agricultural organizations). Many people initially assume that the difference is one of scale, and associate permaculture with small spaces and agroecology with larger areas. While the Cuban organizations promoting agroecology, and the projects they spotlight, are most likely to be found in rural, agricultural zones, the lead organization promoting permaculture in Cuba has city offices, and its most well-known projects are in relatively small, urban spaces. However, the national urban agriculture department also embraces agroecology (so organopónicos like Esteban’s can be guided by both agroecology and permaculture), and an increasing number of rural farms are adapting permaculture. Further muddying the waters, “agroecologists” and “permaculturists” share many agricultural practices and philosophies in common, such as intercropping and biological pest management. And yet, Cuban permaculture adherents assert that it is a unique approach. Although they practice at a range of scales and their garden/farming operations take many different forms, they hold in common a complex set of practices, assumptions, and social relations, as well as a strong identification as “permaculturists.” When asked to explain what makes permaculture distinct, many respond, similar to Esteban’s comment, that, “permaculture is like agroecology, but más amplia [broader].” It is broader in the sense that they feel it to be more comprehensive, or as some say, “más complejo” [more complete].

The “comprehensiveness” of permaculture can be seen in the complex set of ethical principles that comprise its formal training, the sense of community that permaculturists work to create, and the ways in which permacultural thinking extends beyond growing food to wider
facets of social, personal, and material life. My research participants describe permaculture’s distinctness in the bearing it has on family and personal relationships, its approach to planning and systems design, and the horizontal and supportive relationships it purports to foster among practitioners. It bears stating that this dissertation does not attempt to advance an argument that the ideology or practices of permaculture are in some way superior to those associated with other forms of sustainable agriculture, such as those based in the scientific principles of agroecology, nor to claim that projects called “permaculture” are necessarily and in all contexts more transformative than those referred to as “agroecology.” However, it does argue that, in the particular time and place in which this study was situated, permaculturists were able to form a cultural world that was more encompassing, and therefore more generative, than any that was being produced in the name of agroecology or sustainable agriculture. In the process of materializing, performing and participating in this world, research participants experienced subjectivity shifts and developed identities that further bonded them to the pursuit and promotion of ecologically minded agriculture.

The Roots of Permaculture

The concept of permaculture was developed in 1970s Australia by Bill Mollison and his student David Holgrem. They described it as a creative design process that, following a set of social and ethical principles (described in more detail below), guides practitioners to imitate natural patterns in the construction of sustainable habitations (Mollison 1991). The philosophy and the practices associated with it were popularized in various sites of activism, creating numerous niche communities in Australia, North America, Europe, and the United Kingdom. From there,
permaculture travelled to the Global South, including locations throughout Asia, Europe and across the Americas, where some promoters and practitioners conceived it of as an alternative development practice. Although permaculture is most commonly associated with small-scale organic gardening and farming, the philosophy extends to architecture, construction, and other forms of planning and design. Many of the specific agricultural practices embraced by permaculture – including composting, intercropping, the integration of animal and plant-production, and biological pest management – are drawn from agroecology, traditional or indigenous techniques, and other techniques of sustainable agriculture.

In the English-speaking world, permaculture is popularly associated with a “hippie” lifestyle. It is relatively common in the San Francisco Bay area, my current home, where it tends to conjure up images of long beards and Birkenstocks; a picture somewhere in between a 1970s “back-to-the-lander,” a “new-ager,” and a contemporary “anarchist.” Even as sustainable agriculture, agroecology, and organic agriculture enter into mainstream US discourse, permaculture discourses and practices remain on the fringes, and they are often dismissed as unscientific (see Ferguson and Lovell 2013).

Moreover, US permaculture, which is largely practiced by white people of middle- to upper-middle class origin, has increasingly come under fire in the food justice community for the lack of diversity among its members, and in its cultural representations. Reflecting on her experience as a Black woman in permaculture, food justice advocate Kirtrina Baxter says she has wondered, “How is it that these permaculture principles speak to me, yet the movement does not?” (2015, 6) Beyond issues of diversity in participation, she and other food justice advocates have been disturbed by some permaculture groups’ lack of attention to the political and structural factors that limit food access and people’s opportunities for engaging in sustainable practices.
Some activists and growers have decided to align themselves with “agroecology” instead, which they see as more actively politicized and more sensitive to food justice issues. Additionally, in various conversations and meetings about food systems and justice in the US, I have heard discussants point out that permaculture draws on many indigenous traditions without explicitly recognizing or crediting them as sources of knowledge. In short, various actors in food justice and sustainable agriculture spaces in North America have dismissed permaculture as – at best – somewhat fanciful and out of touch – and at worst, guilty of social exclusion and the dilettantish appropriation of cultural knowledge.

In Cuba, in contrast, permaculture does not carry the same associations that it does in the United States, nor are its implications for transformation limited in the same ways. The difference between the Cuban and US iterations of permaculture is underscored in a comment made by Esteban, introduced at the top of the chapter, after he met several North American permaculturists at the 2013 international permaculture convergence in Havana. It seemed, he told me, that some US permaculturists spend significant amounts of money in order to create technically complicated permaculture systems that, he supposed, were designed to assuage those people’s guilt for living lives that were previously and otherwise unsustainable. As far as he could tell, many of these projects were self-serving, individualistic efforts of global elites, not “community- or socially-engaged projects.”

In Cuba, on the other hand, a diverse blend of practitioners see permaculture as an intelligent and ethical way to optimize available resources while building collective, individual and ecological well-being, as well as the local capacity for securing it. They associate permaculture with the Cuban proclivity to “inventar,” or to find solutions to material and other problems based on their own resourceful creativity (Pertierra 2011). In this way, the Cuban
movement, like the US iteration, focuses on autonomy, local projects, and the ability of individuals to create their own sustainability. However, it is also framed in the Cuban ethic of responsibility to and dependence on the collective.

**Permaculture’s Arrival in Cuba and Sancti Spíritus**

As discussed in Chapter 7, permaculture arrived in Cuba in 1993, as the grip of the Special Period tightened, through a visit of an Australian and New Zealander solidarity brigade. It did not map neatly onto the regimented and formulaic model that state-sponsored urban agriculture would come to take, and thus was not adopted by officials from state ministries. However, the Cuban NGO FANJ adopted it as a model to achieve their goals of environmental sustainability and community-based development. After securing international funding to support permaculture development, FANJ began to offer resources, support, and training courses to gardeners and farmers in Havana. The program incorporated a number of the pre-existing urban projects that had previously emerged as spontaneous, grassroots endeavors (Gold 2014) and undertook new projects to spread the philosophy and practice to new individuals and families (Premat 2009). Now, there are permaculture networks and projects across the island including in Pinar del Rio, Havana, Matanzas, Sancti Spíritus, and several *oriental* (eastern) provinces.

As FANJ began to promote permaculture, the staff also began publishing a small newsprint magazine titled “*Se Puede Vivir en Ecopolis*” (You Can – or It is Possible to – Live in Eco-polis), which includes updates on permaculture projects, fruit and vegetable-based recipes, and reflections on global environmental questions. In 1997, Roger Santiesteban (introduced in chapter four), an agronomist, urban farmer, and sustainable agriculture advocate from Sancti
Spíritus, was in Havana accompanying his sick mother on a hospital stay, when he came across the magazine on the racks at a librería (bookstore). The magazine, and the philosophy of permaculture, captured his interest and moved him to make contact with FANJ. Several years later, in 2002, the organization invited him and several other espirituanos (those from Sancti Spíritus) to take part in a permaculture course. Coincidentally, FANJ’s second and only additional headquarters outside of Havana was already located in the province, making it a strategic point of contact for the permaculture movement. Up until this point, the Sancti Spíritus office focused largely on espeleología (cave studies) and natural history, and was not active in permaculture. However, in 2003 the Havana office created an official position for a permaculture promoter to work from Sancti Spíritus promoting the philosophy in the center through the eastern side of the island, and the office’s organizational priorities began shifting toward this work.

Image 6.1: FANJ’s book on permaculture  Image 6.2: FANJ’s permaculture magazine

As discussed in Chapter 2, there were already several organizations working toward sustainable agriculture in Sancti Spíritus during this time. However, FANJ offered an unusual level of material, institutional, and intellectual support. After passing courses, the newly declared
“permaculturists” were eligible to receive costly water collection tanks, bicycles, wheelbarrows, and other agricultural implements. Additionally, FANJ had the capacity and enthusiasm to organize regular gatherings as well as offer an intriguing and coherent philosophy. Thus, when permaculture arrived in Sancti Spíritus, many members of the pre-existing sustainable agriculture movement took courses and converted to permaculture. By 2014, when I began the major fieldwork period of this study, the permaculture movement was the most active force in Sancti Spíritus recruiting new local participants to alternative agriculture practices and philosophies in the area.  

**The Permaculture Network of Sancti Spíritus: An Emerging Community of Practice**

After the first *espirituanos* attended the 2002 permaculture course in Havana, FANJ began planning a course for the following year in Sancti Spíritus, and these original four permaculturists worked to recruit additional attendees. Residents of the provincial capital, plus others from the municipality of Fomento attended this first course. The local network continued to grow over the years, and in 2007, the national head of Urban Agriculture asked FANJ to consider working in coastal Tunas de Zaza, where he hoped they would have more success in helping people grow food in a challenging ecological setting than his department had. The foundation partnered with the *Mi Casa Verde* program run through local Committees in Defense of the Revolution, and convened a meeting to introduce the idea of permaculture to Tunas. In 2009, an advanced course was held in Fomento and attended by residents of Sancti Spíritus,

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17 I describe permaculture as the most active force because it has consistently attracted and maintained new “recruits” since 2003; because my research participants described it as such; and because, as described in Chapter 4, the growers who are socially recognized as local practitioners of sustainable agriculture were almost all permaculturists and associates of FANJ. There are other projects, such as PIAL and BIOMAS (described in Chapter 2) that are growing, relevant to farmers, and may very well become increasingly influential in upcoming years.
Fomento, and Tunas. Along the way, additional new participants of the movement joined courses in Havana, and residents of the farming town of Banao, just outside of Sancti Spiritus city, began incorporating as well.

As of 2015, FANJ reported to me that 123 people from the province of Sancti Spíritus have passed permaculture courses. This number represents those individuals who have had opportunities to be fully immersed in permaculture training and establish formal ties to FANJ, but the actual scope of the movement is more complex. Some of these graduados never fully move into their practice of permaculture; they become daunted or frustrated by the inadequacy of their space, or they lack the free time to build a permaculture system. Others move away from permaculture for a period of time, perhaps because of an ailing family member or increased work responsibilities, and then rejoin the community when they are able to.

Beyond these formally trained permaculturists, there are many who have learned about the practice and philosophy from friends, family, or acquaintances. FANJ and the permaculture community support the incorporation of entire families into the movement, even though it is not always feasible for multiple members to participate in courses. In many instances, spouses, children, in-laws, cousins, uncles, and aunts become familiar with permaculture through their family members and begin to take up the philosophies and practices themselves. Additionally, neighbors and friends often seek out permaculturists for their knowledge and begin to be informally incorporated into the community. At an organizational level, FANJ is beginning to recognize the importance of this informal means of outreach and growth. They refer to people who have been brought into the community, but who have not yet had opportunities to pass courses, as acercados (those who have been “brought in” – this process will be analyzed more thoroughly in the following chapter). FANJ estimates, based on the reports of permaculture
promoters in various communities, that there are 67 acercados in the province of Sancti Spiritus, but I estimate that there are many more who have become animated by permaculture through exchanges with acquaintances or friends, but have not yet interacted sufficiently with other members of the local permaculture community to be noticed and counted by FANJ. For instance, I visited three households in Fomento that were practicing permaculture with the support of local group leaders, but whom the provincial office and administrators were apparently not aware of.

Various permaculturists and the FANJ staff have estimated at my request that out of the larger number of graduados, there are approximately 30 permaculturists in Sancti Spiritus city who are currently active. In other words, they maintain a permaculture system and regularly participate in activities and events organized by the foundation. Tunas de Zaza reports 21 active participants and Fomento 23. I interviewed and visited the sites of almost all of the permaculturists that I encountered at foundation events, plus additional individuals that various permaculturists referred or introduced me to. As will be discussed further in Chapter 7, these permaculturists form the core “community of practice,” (Lave and Wenger 1991) or group of people with a shared endeavor and craft, who are working together to continually learn, reproduce, and expand permaculture practice and identity in the region.
Thirty-nine of the 45 primary research participants of this study (described in the previous chapter) are affiliated with permaculture. Thirty-three of them were formally trained in FANJ permaculture courses and regularly participated in the permaculture gatherings and exchanges that took place during my fieldwork. Six considered themselves to be permaculturists and were incorporated in local permaculture groups, although they had not yet been formally trained as permaculturists.

Economically, permaculturists occupy the middle of the Cuban socio-economic spectrum. None come from the extreme, lower-income margins of society, nor are any wealthy (although some FANJ staff could be considered to be).\textsuperscript{18} Many do, however, hold at least some degree of class status and cultural capital through college education and affiliation with the

\textsuperscript{18} In 2014 and 2015, the Cuban permaculture movement was quickly expanding into the eastern provinces of Cuba. Eastern Cubans face greater risk of poverty due to a variety of social and historical factors, plus the geographic distance that isolates them from the capital and major infrastructure projects. Many new permaculture practitioners here, I am told, are coming to the practice from a position of greater precarity and necessity than those in Sancti Spiritus.
“professional” class of Cubans. I did not explicitly ask interview participants to identify racially. The majority of the province of Sancti Spíritus is white or mulatto, and the majority of the permaculturists phenotypically appeared to me to fit these categories. Only one participant was described by others as Black, though several participants mentioned over the course of interviews and other interactions, having an Afro-descended parent or grandparent. Deeper analysis of racial representation in Cuban permaculture and alternative agriculture would be a very important topic for future research in this field.

**Figured Worlds and Permaculture Identity**

When permaculture arrived in Sancti Spíritus, it brought with it a generative vision for transforming both food production practice and subjectivities. As people appropriated the philosophy of permaculture, they changed their relationship to growing food; some have started intensive home gardens for the first time; some have moved away from conventional practices on their farms; and some have delved further into their interest in sustainable, ecological farming.

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19 According to the 2012 census data (which has been widely critiqued for under-representing Afro-descended Cubans due to various social and cultural factors which prompt self-identification as “white” in census reporting), Cuba’s population is 64 percent white, 27 percent mulatto/mestizo, and 9 percent black. The most recent annual report of population statistics available at the time of writing (representing the year 2014) does not include statistics by race, and to my knowledge no formal statistics on race are available for Sancti Spíritus province. However, it is widely recognized that the population of Sancti Spíritus (much of which can trace their ancestry back to Spanish-Galician immigrants from the Canary islands, or to other European migrants who came to run cattle operations) is relatively white in comparison to Havana or the eastern provinces. The exception is the city of Trinidad, which emerged alongside plantation-style sugarcane production, which remains the home to an Afro-Cuban community descended from formerly enslaved people. The complexities of racial categorization in combination with the exclusion of race from census reporting make it difficult to analytically discuss race in relation to Cuban permaculture. Although those who identify and are identified as Black do not seem to be significantly under-represented in the membership of the permaculture network, it may be worth noting that the Cuban permaculture movement has not intentionally worked to include racial diversity, or to operate in communities, such as some in Trinidad or Sancti Spíritus city itself, that are predominately Afro-Cuban and could be said to be experiencing the generation and structural impacts of a history of slavery or racism. The failure to directly discuss or consider race is in keeping with a national context in which racism is widely considered to be “extinct” and structural or historical racism has barely been confronted.
As they’ve changed their daily food production and farming practices, I will argue, their subjectivities on food, farming, the family, and the future have also shifted. As Regla, a permaculturist in Tunas de Zaza, said to me “Muchacha! I have changed my life [with permaculture]… I have changed a lot… My family is more integrated… I am more human. I share more.”

As described in the previous chapter, some participants came to permaculture because they were already interested in “nature” and sustainability, while others were previously unfamiliar with or indifferent toward these issues, and found their way through the coincidence of introduction by a friend, colleague, or promoter. Permaculture prompted a particularly large shift in practice and perspective for this latter group, but it also changed those in the first, prompting them to deepen their interest in ecology and sustainability and encouraging them to expand it to wider areas of their lives. For each of the participants, regardless of the role that sustainable agriculture and environmentalism previously played in their personal ethics and senses of self, permaculture has provided a clearly articulated philosophy, community, and set of practices that they have used to frame their self-understandings, and to present this identity to others. This identity helps to consolidate their sense of what Hannah Wittman (2009) refers to as “agrarian citizenship,” people’s conceptualization of their relationship to food and agricultural systems, understanding of this system’s role in society, and their sense of obligation to actively contribute to it. Or, as described by Caridad Cruz of FANJ in Havana, permaculture is about active and local engagement in the pursuit and practice of “otros caminos” (other pathways) in food and agricultural paradigms.20

20 As described during a presentation to a Food First Food Sovereignty Tour on January 3, 2017 at FANJ’s offices in Habana.
This interlinked imaginary of philosophy, community, and practice constitutes a “figured world” of Cuban permaculture. As such it provides participants a cultural platform for relating and coordinating action. Holland et al. describe figured worlds as “socially and culturally-constructed realm[s] of interpretation” (1998, p.5). They are often built around mutually held interpretations of the past, shared moral values, and aligned visions of the future, in this case, with respect to food and farming. In the case of Cuban permaculture, this includes a particular understanding of the Special Period as a time that illuminated the unsustainability of large-scale, centralized, industrial production, a belief that individuals should actively promote the well-being of themselves and their environments, and an expectation that doing so can lead to social progress.

As discussed in Chapter 3, agriculture – like all facets of social life – is deeply shaped by associated cultural formations, the social locations that practitioners occupy, and the social processes through which they learn to interpret and respond to these formations. For instance, an elderly worker in an organopónico in Sancti Spíritus, who considered his life to have been greatly improved by the Cuban Revolution, and who had worked to support a socialist society ever since, thought of urban agriculture – even flower production – as an important part of the lucha (struggle) to maintain a thriving socialist society. In another example of cultural assumptions affecting agriculture, a local CDR (Comité de Defensa de la Revolución) president first sought out and recruited women when he was enlisted to help invite people to a permaculture meeting. He initially failed to extend communications about this opportunity to men, because he associated home gardening with “corte y costura” (sewing, or housework).

When cultural resources cohere into a figured world such as that of permaculture, participants, interpreting and acting from the figured world, value certain practices over others,
and develop moral positions aligned with the figure world. Alongside these processes, people develop intimately felt identities, or senses of self, as well as identity-markers that they use to interpret and evaluate both themselves and others. For instance, expectations about order and aesthetics encourage farmers in the United Kingdom to maintain clean, even rows in order to maintain their identities as “good farmers,” even when doing so does not directly affect productivity or return on labor (Burton 2004). In Bolivia, cultural definitions of “good living” (buen vivir) have prompted some farmers to re-embrace peasant identities, and affect their decisions about allocating time between commodity markets and locally-valued crops (Kerssen 2015).

While Cuban permaculture (like “good farming” and buen vivir) could also be referred to as a philosophy or ideology, the concept of figured worlds is useful because it focuses on the performance or materialization of the cultural world in the local spaces where participants form senses of the world and senses of self (identities) within it. The term “identity” is often used (in both academic texts and common conversation) to refer to structural social categories such as gender, ethnicity, race, or nationality. However, social practice theories of identity draw on practice theorists of the self such as Mead, Vygotsky, Bakhtin, and Bourdieu, in order to consider how selves form in practice and in relation to a much broader spectrum of activities than structural social categories. Thus, “permaculturalist” is recognized from this theoretical perspective both as an important social identity (a collectively recognized type of actor) and a potentially important intimate identity (a sense of self to which one has become emotionally attached). Social practice theorists treat identities, social and intimate, as complex, multiple formulations that develop and shift across lifetimes. “Intimate identities” can be based on collective moral affiliations, political, social, or work-based identifications, and are, especially
when developed in practice, usually attached to and articulated within locally performed figured worlds. Individuals commonly engage with more than one figured world.

Figured worlds, the shared imagined realms in which practice-based identities emerge, can be connected to everyday mundane activities or to highly politicized and explicitly ethics-based formations. For instance, in an ethnography by Terre Satterfield (2002), she describes a highly publicized conflict between environmentalists and loggers. The conflict became deeply entrenched, she argues, because the parties were embedded in two distinctive figured worlds, with profoundly different valuations of the forests and human relationships to them. It was not only the ultimate use of the forest that was at stake, but also the work-based and ethical identities of the participants. In another zone of contestation, Escobar (2008) describes how the *Proceso de Comunidades Negras* (PCN – Process of Black Communities) were drawing on historic as well as newly emergent ideas to create a figured world of Blackness in Colombia that inspired activists’ actions in relation to territory, industry and the environment. Writing on a very different topic – “romance” as carried out on two southern US college campuses in the late 1970s/early 1980s – Holland and Eisenhart (1992) describe how two different culturally-constructed figured worlds of dating, romance, and marriage steered young women’s daily practices and personal goals related to marriage, family, and career.

Figured worlds and their related identities are often caught up in dialectic relations with broader cultural trends and patterns – including emerging structures of sentiments (as described in Chapter 3) – that affect their participants, and in contentious dialogic relations with proponents of other worlds, as in the Satterfield case of loggers versus environmentalists. Below, I describe how the principles, recommended practices, and ethical formations of permaculture
constitute a salient and meaningful figured world for a relatively small, but diverse and growing group of *espirituanos* who have developed intimate identities in performances of that world.

**Permaculture Principles, Practices, and Design**

One of the most distinctive characteristics of permaculture, as opposed to other forms of sustainable agriculture practiced and promoted in Cuba, is its conceptualization as a design practice. Permaculturists believe that a permacultural system should be carefully planned and designed so as to best correspond with the surrounding ecology and fit the needs of the people who dwell and/or work within it. In this process, permaculturists – whether in Cuba or other parts of the world – strive to follow a set of principles in the design, maintenance, and transformation of their systems. Ideally, permaculturists believe that a “system” should include a home that is integrated into a farm/garden. In practice, not all Cuban permaculturists are able to live at their farm sites, so a farm/garden may also be thought of as its own system. The common set of principles promoted by the English-speaking permaculturists who have visited Cuba consists of 12 design principles said to revolve around three core ethical principles: “earth care,” “people care,” and “fair share.” In Cuban permaculture, 11 principles have been emphasized in the key text authored by affiliates of FANJ and their permaculture courses. Translated into English they are (Cruz, Sánchez Medina, and Cabrera 2006):

1. An element (e.g. the herb oregano) supports various functions (e.g. providing a harvestable cooking ingredient and warding off pests);
2. A function (e.g. bringing water to the garden) is supported by various elements (e.g. rainfall collected in a tank, plus a local stream);
3. You should look for opportunities rather than see problems;
4. Cooperate instead of compete;
5. Use energy efficiently;
6. Close cycles in order to minimize waste;
7. Obtain benefits;
8. Use natural resources without depleting them;
9. Use border areas and value the marginal;
10. Guarantee diversity; and
11. Respect natural cycles and succession.\(^{21}\)

Cuban permaculturists have distilled the core ethics as “take care of people, and take care of nature” (or, sometimes “nature” is replaced with “land”).\(^{22}\)

Although Cuban permaculture emerges from and is in regular conversation with the original Australian and transnational forms of permaculture, Cuban permaculture discourse also emphasizes that it has been adapted to the unique Cuban context. For this reason, Cuban permaculturists call their practice – following the title of the book authored by FANJ staff members – “permacultura criolla.” In particular, they emphasize Cuban resourcefulness and the tendency to *inventar* as key elements that allow permaculture to thrive and be particularly innovative here, as opposed to “first-world” contexts in which practitioners are able to buy supplies and pre-fabricated materials.

The design principles and core ethics are presented at Cuban permaculture design courses, “interiorized” during group activities designed to help permaculturists put them into practice, and utilized verbally as a common discursive structure when permaculturists get together to plan or discuss the progress of a permaculture system. They provide rules of thumb for the design and maintenance of permaculture systems, and because they are open to interpretation and dependent on context, they avoid the rigidity that “standards” or “guidelines”

\(^{21}\) An additional principle in international permaculture missing from the Cuban iteration (but, as discussed below, still very much part of the Cuban permaculture figured world) speaks to the importance of observation.

\(^{22}\) Although Cuban permaculturists mentioned to me on multiple occasions that Cuban permaculture did not include “observation” in the design principles, none indicated seeing or being aware of a difference in the core ethical principles, or mentioning the absence of “fair share.” I, myself, was unaware of the “fair share” ethic before my research was already completed, so never asked Cuban permaculturists or FANJ why it was not directly translated into the Cuban schema. It may be that the idea of “faire share,” is considered under-elaborated in comparison to the principles of sharing and fairness already existing widely within Cuban society, and therefore unnecessary for inclusion.
can impose on a practice; permaculturists are able to creatively adapt them to varying situations. Jorge Luis, a leading permaculture promoter described the philosophy and principles to me as such:

Permaculture is a methodology to understand and to work… or you could call it a way to manage content. You come to better manage the content, whatever kind of content it is. Say it’s money. Depending on the form in which you manage this money, you will end up with more money, or you will lose it all. So when you apply this methodology, or the principles – which aren’t exactly the same in the entire world – you are going to end up being more functional, or more efficient from the energetic point of view, the economic point of view, and the spatial point of view. When you see that permaculture is a new form to analyze what you are doing, and you analyze everything that you do, [permaculture] becomes a science. It’s a powerful science. If boys and girls were taught to think and reflect, and they didn’t have to memorize what someone else thought, the world would advance more quickly.

Far from an academic exercise of permaculture courses that is forgotten in practice, these principles provide a clear (once mastered, or “interiorized”, as described in the following chapter) and coherent set of ethics that that becomes part of permaculturists’ central language, expectations for practice, and basis for self-assessment. As Carlos, a fruit tree farmer, commented when reflecting on the difference between permaculture and agroecology, the principles of permaculture bring problems into “sharper focus” because of their “definitiveness.” At a national meeting of permaculturists in 2015, Xiomara similarly reflected on the usefulness of these principles, as she urged the network to use principles as a way to assess the progress of their own permaculture systems. Whereas FANJ had been developing additional indicators for permaculturists to use to track their progress (such as increases in number of medicinal plants a family has access to), Xiomara suggested that it would be most useful to reflect on the extent to which they were all cumpliendo (fulfilling) the principles.

Her suggestion resonated with what many permaculturists – like Esteban, described at the top of the chapter – were already doing. Esteban did not think that the part of his organopónico
arranged in long, straight cement rows was fully permacultural for two reasons. First, permaculture recommends non-linear beds, because they can simultaneously introduce more pathways through beds, while reducing the overall space dedicated to walkways, thus fitting more production into a small space and reducing the unnecessary use of human energy (principle 5) to walk between them (see Images 6.3 and 6.4 below). Second, he had been thinking intensively about the principle of closing cycles. Ideally, he believed that he should produce sufficient organic material and fertilizer in his own farm in order to make it a closed-loop system. However, urban zoning restrictions prevented him from raising animals. Many organopónicos purchase manure from rural farmers, but he believes this prevents them from “closing” their own cycles, because if they sell it, they do not re-integrate it into their own pastures, and must either seek other methods to fertilize them or purchase food for their animals in place of pastures. He got manure, instead, from horse-cart drivers (a form of shared transportation in the city), but still worried that it was not fully sustainable from a systematic perspective.

Image 6.3, linear rows
Source: “The Permaculture in Sancti Spíritus Province, Cuba,” by Edith Romero Rodríguez at the 2015 International Permaculture Convergence in the UK. In the image on the left, the urban farmer must walk to the end of the long row in order to get to the next row, Thus making work and movement in the garden inefficient, according to permaculturists. In the image on the right, he can move easily among production areas, because there are multiple pathways.
In addition to self-reflection, and the assessment of self and others, the principles are used socially as a shared language. When interacting with each other, permaculturists call on the principles to ground discussions about their farms or suggestions for others within a common framework of understanding. One Saturday morning, for instance, I participated with eight others at a workday on a farm FANJ and area permaculturists were developing to serve as a demonstration site. As we planted a new grove of fruit tree saplings, Carlos, the fruit-growing expert of the group, called out to us regularly “you have to have biodiversity!” reminding us of the tenth principle and urging us to better intermix the various species of saplings.

This principle was also one of the three that participants used most frequently during interviews, farm visits, and observations. While giving tours of their sites (to myself, other permaculturists, students, or international visitors), many were quick to point out the diversity of species present, and to remark that they are “guaranteeing diversity,” thus establishing and demonstrating their success as permaculturists. In a country with a long history of mono-crop agriculture, de-forestation, and biodiversity loss, this is significant aspect in delineating the difference and importance of their work.

Permaculturists also frequently called upon principle three, which urges permaculturists to see opportunities, as they explained the integration of permacultural philosophy into their farming practices. For example, Gladys, the manager of a well-regarded organopónico, often pointed out to visitors the multi-story apartment building that sits adjacent to her urban farm. The building releases grey water, which runs into her site, muddying certain areas and carrying dirt, soap, and food particles with it. She decided to turn this otherwise problematic effluent into an opportunity to plant mariposas (the national flowers), which thrive along waterways and also help to filter them. As she points out, this strategy is also in keeping with the first principle,
which dictates that “elements” should serve multiple functions: *mariposas*, in this case, not only clean the dirty water, they also make use of it to produce a cut flower that is popular among the population, particularly during national celebrations and holidays.

Carlos also emphasized the personal and practical meaning that this principle has to him. He described how he reduces the problem of plastic pollution, while creating new containers for his fruit tree saplings. “Everyday, that which was a problem, as is said in permaculture, I convert into an opportunity. If I throw out a plastic bag, it is a problem. If I line it with soil, and plant a sapling in it, I am enriching the legacy of the farm here” (by ensuring that it will have a diversity of fruit trees for many years to come). Carlos says that he was interested in sustainability and critical of industrial agriculture long before organic agriculture, agroecology, and permaculture were popularized in Cuba, and that he always tended toward low-input, traditional techniques. Even though this interest preceded his permaculture training, he identifies permaculture as changing his subjectivity, and helping to positively frame his activities: “I learned to see things differently after the [permaculture] course.” Previously, he said, he saw a large cherry tree located on the land he acquired as a problem. It was poorly-located in relation to other elements on the farm, produced excessive amounts of rotting fruit that fell from branches before it could be harvested, and was not easily marketable. He was frustrated. Now, he has started to raise chickens, and he happily sees the tree as an “opportunity,” because the chickens eat the fallen fruit, and produce higher quality eggs.

The third principle, emerging alongside numbers ten and three as particularly central to how participants understand the permaculture identity and ethics is number four: cooperation not competition. When a discussion of the principles first came up between myself, a third party, and Silvio, a permaculturist in the town of Banao, he immediately said: “cooperation is another
important principle in permaculture. This is what we do in the exchanges.” He eagerly launched into a pantomime of a seed swap between permaculturists “Look, this thing that you just gave me.. Damn! A little seed, bárbaro (perfect), this is good. You want a sapling for it? Good. OK, and this other person wants something else. And look! Guanábanas [fruit], I’ve given these to a ton of people.” As discussed further in chapter 6, these seed swaps are important social gatherings for permaculturists. They also demonstrate the importance of cooperation amongst permaculturists, as they share their most productive seeds and varieties, rather than retaining them for their own exclusive use.

The free exchange and gifting of seeds and saplings between permaculturists takes place not only in organized exchanges, but in more informal visits as well. As described in the portrait of Rosa in Chapter 4, she collected cuttings at every site visit she accompanied me to. When Gustavo, from Sancti Spíritus city, periodically visited Tunas de Zaza (where Rosa lives) to fish, he sometimes also brought with him seeds and saplings to share with Rosa and others in her community. Once, when I bought her a packet of flower seeds from the US, she grew them, harvested the seeds, and distributed them evenly to friends.

The spirit of exchange, which resonates with the national values held up by socialist rhetoric, as well as even longer-standing Cuban values of mutual aid and exchange is also a deep part of permaculturists’ reflections on their ethical role in society, and intimate process of personal change. Speaking on the importance of sharing and teaching others about permaculture (which is discussed further in Chapter 6), Francisco said “You have to think, in this space of land where permaculture is [practiced], what can we do to support, to give to others… The only way to reach a social equilibrium is sharing and achieving cooperation.” Regla, as mentioned previously, also reflected on her personal process of coming into line with this type of thinking:
“I am more human and I *compartir* [share/exchange] more. Permaculture taught me this. Not to compete, but to share.”

In order to successfully design a permaculture system and to put the very complex and ethically rooted principles into practice, permaculture teaches adherents to observe and identity “elements” and to consider how they will impact different “zones” of the system. This design process gives permaculture its tangible, material form, and is highly regarded by permaculturists. As Francisco said, “in terms of design, permaculture is exceptional. I consider it to be superior to any other type of design, especially for small spaces.” The “elements” of permaculture include all of the human, plant, and other organic and inorganic objects and processes that affect a system. For instance, the wind, the sun, a stream, a hill, a neighbor’s loose and interfering chickens, and car exhaust from a nearby highway can all be considered elements. In a condensed permaculture course for teenagers and young adults that I attended as a participant observer, a large portion of the first day was dedicated to developing skills for observing elements, cataloguing them, and considering their effects on a system. Jorge Luis, one of the course leaders, implored the participants to become more observant in their everyday lives: “We all just walked from the foundation to this church [where the course was being held] and passed by the *casa de miel* (honey store). Who noticed if it was open? Who noticed what was for sale?” he asked rhetorically to make a point about the tendency not to observe. Jorge Luis, himself, has also described how his family’s organopónico initially suffered because they had failed to observe the impact that the raised road running alongside the site had on it. Once they learned to acknowledge the street and the water run-off that it produced as ongoing “elements” of their system, and to observe the slope and lowest point of their site, they were able to dig a pond for water to flow into, and make plans for filling the pathways of the site with a thick layer or rice
hulls (discarded from a rice factory) that raised the ground level and prevented excessive accumulation of water into puddles.

Observation is, in fact, the international design principle of permaculture that has not been written into the Cuban version. Nonetheless, as these anecdotes from permaculture instructor Jorge Luis reveal, it is still emphasized heavily in courses. A statement from Francisco, coming a couple years after he first took a permaculture course and “became,” a permaculturist reveals the successful incorporation of this value into permaculturists’ subjectivities: “Above all else, observation is very big, because an important part of permaculture is observation, it is essential in permaculture to observe where the principle winds enter, from what direction the sun comes, where it rises and sets, from where the waters arrive, all of these are essential when it comes time to making and elaborating a design.”

Even after the initial observation of elements in a site, permaculturists stress the importance of continually watching the processes at their sites. Many told me how part of their regular practice is to walk through their farm or garden in the morning and evening “to observe” what is happening and see what needs attention, or what aspects of the farm practice might need re-thinking.

Once elements of a site are identified, permaculturists consider how they will fit into and relate to a series of six different numbered “zones.” The zone system begins with zone 0, which is the house, or if the farm is not located adjacent to a home, the central area where the farmer and workers gather, sit, eat, and rest. Zone 1 contains the garden items that need to be most regularly accessed or attended to, such as herbs and condiments frequently used in the kitchen. Zone 2 contains semi-intensively cultivated items, including some types of animals. The cultivated items of zones 3 and 4 require decreasing levels of attention and zone 5 is a sort of
“wilderness” that is maintained for observing ecological processes. In practice, few Cuban permaculture systems have the required space necessary for maintaining a zone 5. Instead of considering their farm an insulated space that requires all of these zones, many think instead about their site as a “subsystem” within the larger system of the surrounding community and ecology, so seek the “naturalness” of a zone 5 outside their own farm.

To put knowledge regarding elements, principles, and zones into practice, permaculturists create scaled maps and use colored pencils and markers to draft their “dream” systems. This kind of careful planning allows them to take advantage of existing resources, minimize the waste of space and energy, and avoid unexpected obstacles. As Esteban described of the design process, it gives permaculturists “more vision,” because it forces them to always think ahead of time about what needs to be done in order to ensure that all elements in the system are in use and working together. Although permaculturists often cannot bring their full design into reality, especially initially, the eventual vision provides something to work and plan toward. “It’s my future design, my dream,” one new permaculturist said to me, as we discussed his plan, emphasizing the sense of possibility that these future-planning processes introduce.

Within their designs, permaculturists include both “classic designs”, such as mandala-shaped beds and tipi-shaped trellises, which are common elements of permaculture systems around the globe, and their own unique designs, which are intended to take advantage of available space and reflect the “identity” of the individual or family. For instance, a family in the fishing village of Tunas de Zaza created beds in the shape of fish, crabs, and other sea life. A former cycling trainer in Sancti Spíritus created a very large bed in the shape of a bicycle. He hopes one day to create a series of small herb beds in the shape of the flags representing the nationalities of everyone who has visited his home.
Image 6.5: A mandala inspired vegetable bed with a tipi trellis in the center

Image 6.6: A bed for chives designed in the shape of a sea animal in Tunas de Zaza
Image 6.7: A design made collaboratively by Sancti Spiritus permaculturists for FANJ's demonstration farm

Image 6.8: A permaculturist showing her designs to a visiting group of students
Community, Family, and Gender in Permaculture

Esteban once said to me: “Everyone thinks of permaculture as an organopónico, or as agriculture. They don’t know that it goes beyond this. It starts in the family, in raising children… I see permaculture as more integral because it isn’t only about permaculture; it has to do with people. This is the best that I see [in permaculture.]” Indeed, what makes permaculture uniquely meaningful to many of its practitioners are how the principles extend from the farm and food production into wider facets of life. This extension reaches both inward to personal subjectivity and relationships, and outward into the community. As Gladys described it:

Permaculture, from my point of view, has a broader significance. It’s a new lifestyle. Agroecology is a bit narrower because it refers to the techniques of agriculture, but here [in permaculture] we think of the household as integral in the system. We consider the family to be part of the system. Permaculture includes all of us that have something to do with or live within the system. It includes our lives… the people. When you know permaculture, you begin to change your house… Our system is a sub-system of the grand system of the community, and we have to think about integrating things, sharing, living together to be part of this system.

The Cuban permaculture movement focuses intensively on an additional “zone” in the system, what is called “zone 00,” the self. The concept was introduced in Cuba through exchanges with foreign permaculturists, but not all branches of permaculture recognize it. Cuban permaculturists use the concept to reflect on their personal interactions with other family and community members. Currently, much of the discussion on zone 00 in Cuba is centered around the question of gender relations. Cuban permaculture, in common with several other Cuban food and agriculture programs, argues that the focus of gender work should not be on “women’s empowerment.” This would imply that the problem is women’s level of capacity. Rather, they say, the problem lies within men, or more specifically, in machismo, which they considered the root of disrespectful and detrimental gender relations.
Thus, FANJ offers courses on and discussions of *machismo*, in relation to permaculture principles. Esteban reflects: “Permaculture is a philosophy of life, and within permaculture gender is always very present. We have passed many courses on gender, masculinity, and these really make you grow, because you see things differently, you see how things have been, and then you have to see the principle of cooperate and don’t compete in gender.” Before becoming a permaculturist, Esteban recalls how he would wait for his wife to come home and cook dinner. Now, he sees this as irrational and says that if he is the first to arrive home he will begin to prepare the meal. Moreover, he realizes that taking part in domestic tasks is not a “favor” to his wife, but a mutual obligation: “If I am cleaning the floor, it isn’t just to say to my wife ‘I’ll help you’ it is for the well-being of all of the household.”

Permaculturists also emphasize the importance of gender equity through discursive practices. At group meetings and semi-public addresses, permaculturists use both the masculine and feminine form of nouns and pronouns to address the group rather than following the Spanish convention of using the masculine form to address a mixed-gender audience (e.g. “Good afternoon *permacultoras y permacultores*” instead of the typical “Good afternoon *permacultores,*” or “Hello to *todos y todas,*” instead of “Hello to *todos* [all]). When one person fails to use this gender-inclusive language, other permaculturists are not shy to correct them and call out from the audience “¡y todas!” if it is left off.

An event during a group workday at FANJ’s demonstration farm helps to illustrate the ongoing back and forth of establishing gender-based respect in the permaculture movement. Gladys and Xiomara, who is married to Jorge Luis, spent the first half of the day preparing an elaborate lunch using the recently built outdoor “efficient oven.” Gustavo, a close friend of the couple, called out to Jorge Luis, “*tu mujer* (your women) has made a good meal!” Xiomara,
always of quick wit, jumped up to reject his reference to her as “Jorge Luis’s woman”: “Here, I am a permaculturist, just like you all. In the street, I am Xiomara and he is Jorge Luis. Only when we’re in bed together am I ‘su mujer’!” In multiple conversations with me, she emphasized the importance of valuing work that is traditionally assigned to women in the overall success of permaculture projects: “Preparing the food is just as important as the other tasks we are doing today. Without the food, no one could work.”

In addition to considering roles delegated between male and female partners, permaculturists also discuss the full integration of families, focusing on the roles of young people, children, and elderly relatives in the household and garden maintenance. “If a family is not in balance,” urban farmer and permaculturist Julio said in an interview, “neither can a permaculture system be.”

Permaculture’s focus on the family resonates with a broader trend in Cuban post-Soviet society, to focus on the family – as opposed to the state – as the site for life improvement and problem-resolution (Settle 2008; Fernandez 2010). It also fits into the mantra, often repeated by permaculturists to “avoid dependency.” Avoiding dependency on external entities and inputs is part of the effort to close cycles, be energetically efficient, and reduce waste; it is the motivation of FANJ’s seed swaps, which allow the permaculture network to be self-sufficient in seed production. Some permaculturists take this ideal farther. Regla, for instance said that she could not yet say she had one hundred percent changed her life to comply with permaculture because to be sustainable, she said, “is to not depend on the electricity. To not depend on the public water system. To not depend on anything at all.”

The ethic of non-dependence includes within it an implied social critique. Being resourceful and self-sufficient is the opposite of relying on the state for support or resources.
Many Cubans, particularly those age 40 and above, including both those who strongly support state socialism, and those who roll their eyes at and critique it, commonly lament the laziness of fellow citizens who do not work. In their eyes, many are failing to either achieve their own well being or give back to society. Practicing permaculture is seen an antidote to this.

While the emphasis on ethical self-cultivation (Gibson-Graham 2006; Holland and Gómez Correal 2013) and turn from the state toward the family may sound reminiscent of neoliberal shifts (as is arguably the case of related movements in post-Soviet Russia, see Davidov 2015), the permaculture imaginary also extends to consider relationships within the community, and their ethical obligations to the wider good. Gladys, for example, describes how permaculture re-oriented her feeling of obligation not only to her own organopónico’s success, but also to an imagined global community:

When we began to learn permaculture, and to learn the principles, both the ethical and the design principles, we began to change our minds, our thoughts, and to think in a more global sense about the environment. We used to use a lot of chemicals. We realized we could do small things, but that they would affect larger things, and in this sense we began to transform our system, which previously just had flowers, to be more sustainable and to have more diversity.

To reach out to the immediate community, she and the family members and employees that work in her organopónico regularly offer workshops and classes to local students visiting from the nearby primary schools, high schools, and university. Suggesting the type of material modification thought of in order to integrate the site into the community, the site also boasts a large composting area, which serves to decompose neighbors’ kitchen scraps into rich organic matter to be regularly mixed into flower and vegetable beds. Additionally, with financial support from FANJ, they have constructed a ranchón, an open-air, thatched-roof pavilion, that is used as a meeting area whenever students or other visitors come to the site.
Esteban’s aforementioned sense that his “subsystem” should not take away beneficial materials (like manure) away from other systems, and Francisco’s sense that he has an obligation to use his site as a teaching space are also example’s of permaculture’s attention to community issues that transcend their individual sites. Additionally, permaculturists work to make their sites a contribution to the surrounding community. Francisco said “When a person transforms a space, and constructs a permaculture system, they are bringing an unparalleled contribution to the community – an extraordinary contribution to the community – because, as I always say, they are converting a trash dump into a productive system that contributes food, oxygen, beauty. And it contributes to nature because it brings in birds and butterflies.”

Together, the ethical principles, the sense of intentionality they give to the design process, and the ramifications that they have on permaculturists personal and community relationships help to define it as something más amplia [more comprehensive] or more integral in comparison to other approaches to sustainable agriculture. “I’ve been to many agroecology conferences too,” Julio told me, “but they’ve never talked about anything other than the technical parts of farming.”

**Defining an Identity: Subjective Shifts and Drawing Borders**

“When one passes a permaculture course, one learns to see things differently than before.” – Carlos

“We have passed many courses on gender, masculinity, and these really make you grow, because you see things differently.” – Esteban

“When we began to learn permaculture, and to learn the principles, both the ethical and the design principles, we began to change our minds, our thoughts, and to think in a more global sense about the environment.” - Gladys

“It wasn’t that permaculture was different [than the forms of sustainable agriculture I knew before]. It’s that I deepened the knowledge that I had before. I also learned new things” – Javier
“I have always liked nature, all of my life... I have always thought of working this piece of land, working my system, with agroecology. I have always realized that we do lots of damage to nature, consciously or unconsciously... The courses have allowed me to come closer to the problems of permaculture. I have consolidated my conception of the world.” - Francisco

The quotes above, some of which have been introduced and discussed previously in the chapter, highlight the shifts in subjectivity that participants passed through as they began to engage with the figured world of permaculture, and the permaculture community cultivated by FANJ in Sancti Spíritus. The practices of permaculture are not only agricultural practices of composting, diversifying production, and using ecological pest control, but are elements of a deeper ethical vision that, as permaculturists describe, causes them to shift their thinking and their approach to both on and off-farm practices. This process is a highly personal one, a fact highlighted by the way in which permaculturists refer to it as one of “interiorizing” the principles; an essential step, they say, to becoming a permaculturist (the learning and interiorization process is discussed more fully in the following chapter).

I argue that the shift in subjectivity common to the process of “becoming” a permaculturist includes the adaptation of more constructive and hopeful dispositions toward the future. The actions associated with permaculture – transforming local spaces, creating environmental sustainability, improving one’s diet, and identifying opportunities rather than problems – helps to grow permaculturists’ sense of agency and possibility. This sense is distinctly different than the sentiment of frustration and disillusionment described in Chapter 3 as resonating throughout contemporary Cuban society. As opposed to feeling stymied by the material scarcity, social restriction, and bureaucratic nature of everyday life, permaculturists begin to feel that they can take action to transform their lives – and to help others do the same.
Francisco’s path to permaculture is a striking example. As described in Chapter 3, Francisco worked for an agricultural cooperative, a CPA, in which he became very disillusioned. After quitting the CPA, he still harbored the hope of using a patch of unused land within it – a trash dump at the time – for making a vegetable, fruit, and herb garden. When he connected with FANJ and the permaculture network, who supported him with the resources required to do so, he was able to move past the disillusionment and to put a creative project in place. He says that this “indisputably” changed his life.

The permaculturists in coastal Tunas de Zaza also experienced a renewed sense of optimism- at a community-wide level. Before they became permaculturists, and learned new techniques of compost making, they could not produce vegetables in their heavily salinized soils, nor was it easy to purchase them, because of distance from more inland agricultural communities. Regla describes that some people tried to plant, but that it was done with little hope of success: “We didn’t have a future. Almost everything that we planted dried up on us. We planted – truly – por un gusto [only for the hell of it].” Another woman from Tunas concurred: “Here, we never thought in our lives in harvesting vegetables… We were dependent in seeds too. And look, here I have lots of radish seeds. We never, never [jamás] thought this possible. Eggplants… we never thought in our lives… cherries… pear!”

As people experience shifts in subjectivity connected to permaculture – such as a deepened ecological consciousness or renewed sense of hope – they also develop a new for them “intimate identity” – a form of self-investment in a way of being and practicing (Holland et al. 1998). Interestingly, while most Cuban practitioners of agroecology say that they do agroecology, permaculturists say that they are permaculturists. The permaculture identity also has a collective dynamic, serving to affiliate permaculturists with each other through a common
“group identity” (Holland et al. 1998). This sense of being part of a larger collective gives permaculturists a mutual stake in each other’s work, as well as the projects that they undertake together through FANJ (the extent of collective action and transformative possibility that this group or collective identity enables is discussed in Chapter 7). For instance, participants in my research often refer to FANJ’s farm outside of Sancti Spíritus, which is being designed as a demonstration farm and teaching space, as “our farm” and they discuss they work “we” have done to develop it. The group identity is also marked by characteristics that participants feel they have in common: “One of the things that we [permaculturists] have,” says Julio, “is that we always want, we have the bug to always learn, and something novedoso [new/novel] always appears [at our meetings].” At a national meeting of permaculturists in 2014 I attended, one woman mentioned during a comment to the entire group that permaculturists are seen as “bichos raros” (strange bugs) because of their deviance from various norms and their use of unusual techniques (like “planting bottles” in the soil to line raised beds). This stuck, and was used throughout the event as a lighthearted way to evoke the shared identity.

The “rare bugs” characterization of their identity also points to the fact that group identities are often reinforced through emphasis on what – or who – permaculturists are not. The first point of difference permaculturists generally draw when discussing the distinctness of their approach is with that of the Department of Urban Agriculture. They describe, point to, or, in the case of formal workshops, show pictures of the long, straight rows of concrete beds installed in many organopónicos, which is standard practice of the department. “This is not permaculture!” they exclaim, as they go on to explain that the rows are poorly designed (for reasons described above). “This is linear thinking” they say, and urge growers to make unique shapes of beds that best utilize the particular space and limit the difficulty of walking between them.
Although the Department of Urban Agriculture may be the original point of differentiation for permaculturists – whose movement began at a small and urban scale – they also draw distinction between themselves and conventional campesinos. José Antonio Casimiro, a well-known Cuban permaculturist and agroecologist who has been featured extensively on Cuban television, has written that there are three types of Cuban agriculturists. The first, a conventional producer, thinks only in the short term, uses whatever inputs he can (the archetypes or, as Packer and Goicoechea (2000) and Wortham (2006) call them, metapragmatic models are illustrated as male) to gain an immediate profit, and acquire material goods such as clothing, jewelry, a cell phone, and a car. His goal is not to sustain a farming tradition and preserve a piece of land, but to secure a more materially comfortable future. He is following the “direction of consumption” described in Chapter 3. The second type is a traditional campesino. He comes from a farming family and uses very traditional and conservative methods. This farmer is much kinder than the first type to the environment, but is more likely to preserve old habits than learn new methods. The third type – the agroecological or permacultural producer – respects campesino traditions, but is open to change and inquiry. He searches for new ways to innovate and protect the environment, and takes on new methods regularly (Casimiro-González 2007).

These portrayals, which fit widely recognized and culturally elaborated social identities, are telling of permaculturists’ identification as distinct from other growers, yet linked to – and open to including – traditional campesinos. Primarily, permaculturists differentiate themselves from a large class of producers that they view as being primarily interested in money and consumption. As Armando described it to me when I asked him why he believed more campesinos were not practicing sustainable agriculture: “There are many campesinos that are more interested in money than health.” He went on to explain that this leads them toward
facilismo – a form of living in which ones prioritizes the fácil (easy way of doing things). They will apply significant chemical fertilizers or pesticides to their fields, he says, if they believe they can grow and earn more this way, rather than using agroecological or permacultural methods of diversification that are difficult in the beginning, though rewarding in the long-term. He and his neighbor and fellow permaculturist Javier agree that within the cooperatives, campesinos regularly talk about ways to improve production of the same crops – beans and squash in this case – using chemical methods, and are very resistant to change or diversification.

Similarly, Silvio, who runs an organopónico in a rural, agricultural zone, explains that “campesinos do not have the mentality that we have. That a permaculturist has. We have to talk and explain to them sometimes.” He describes how people living nearby come to the organopónico, where they know he produces significant quantities of compost and organic material, and ask him to give them some. He asks them where they live, points out the sources of organic material that they themselves have nearby, and encourages them to make compost themselves. “In permaculture, everything serves,” he tells them, using an adage that can speak to various problems in permaculture, but here used to indicate that a wide variety of materials can be used to make compost. However, he explains to me that they do not always know enough about how things work in under to understand. “They still have the mentality,” he explains, “that everything can be resolved with some chemical, with petroleum, with a tractor, with… I don’t know what!”

Silvio’s comments resonate with the permaculturists’ conception of their collective identity as being a group of active and self-sufficient problem-solvers. In this way, they differentiate themselves not only from other producers, but from other members of society, in general, whom they see as passive and inactive. One afternoon while I was helping Armando
with small tasks around his farm, he commented to his wife that young North American women were more hardworking than young Cuban women. “That’s the bad of the Revolution,” he said “people don’t like to work.” His wife agreed, “everyone is lazy now.” Xiomara also complained to me about people who do not work hard. She fiercely recalled an encounter she had with a young man who threw a paper wrapper from the pizza he was eating out of a horse cart and into the street: “What do you do? What on earth do you do to benefit this country, this world, this society that allows you to sleep peacefully? Don’t you know that there are people who are paid to come at dawn to clean these streets, and you can’t even carry the paper to your house to throw it away? You are not doing anything. Nothing good,” she recalls chiding him. In this encounter her frustration at his act of littering was closely tied to a feeling that he must be lazy and inconsiderate of others’ hard work.

Although permaculturists draw distinctions between themselves and other producers or campesinos, it is not a rigid or impermeable differentiation. Both the idea that permaculture is a specific identity, and the fact that flexible interpretation is involved in defining it is revealed in the tendency for permaculturists to observe, “Para mí, él/ella (no) es permacultor(a)” (in my opinion, she/he is – or is not – a permaculturist). Gilberto, for instance, insists that several of his community members are permaculturists, in his eyes (“para él”) because they grow food at their households using sustainable methods and considering various lessons of permaculture, even though they have never been formally trained in it. On the other hand, Jorge Luis once commented to me that another well-known permaculturist and campesino farmer actually, “para mí, is not a permaculturist,” because of this person’s increasing emphasis on construction methods for household improvement, which Jorge Luis believed were both unsustainable and distracting from truly permacultural food production.
Many see the ability for a person to adopt a permacultural mentality as a question of “education.” As Silvio, himself from el campo in the Oriente, phrased it, the difference in mentality is sometimes caused because campesinos do not have the “cultural level” or “development” that would allow them to better take care of their own health, the environment, and the land. While this may sound derogatory, he meant it as a logical explanation for their behavior, and way of explaining the good fortune and chance by which he came to think differently. Although he believes that lack of education impedes some campesinos from agricultural innovation or ecological practice, he does not believe it to be true of all. After initially asserting during an interview that most campesinos have a different mentality than permaculturists, he continued to think, and went on to comment that there are some campesinos “of reference” in his zone with remarkably diverse and ecological farms. “I say to them,” he relays, “you are permaculturists of excellence. I don’t recall ever seeing you in any permaculture meeting or course, but you are permaculturists.”

Carmen, who also came from a campesino family, and has recently returned to farming, along with her husband, also represents the sentiment that traditional campesinos can share values with permaculturists. She uses the common phrase, “they were permaculturists without knowing it,” to refer to previous generations of campesinos. Like many other permaculturists and agroecologists who descend from farming families, she recounts how these generations did not use chemicals, but did use practices that permaculture and agroecology promote today. She is of the opinion that campesinos could be easily brought into the permaculture figured world with some exposure. When she describes her own practice it is “campesino traditions, but using the permaculture principles.”
Conclusion

In this chapter, I have described the figured world of permaculture in Cuba, and the ways in which my participants understand permaculture as something that goes beyond agriculture, and is more comprehensive than other alternative agriculture philosophies and programs. As people become sensitized to and enter into this figured world, I have argued that they undergo a further personal transformation. Some participants develop sensibilities about the environment and the sustainability of agricultural practices they never had before; others were motivated to deepen their thinking about ecology and to incorporate additional practices into their approach to sustainable agriculture. All of the participants developed new identity claims, adapting “permaculturist” as both an intimate and collectively shared identity, which they use to describe their orientation toward food production to others, and to describe their difference from those growers and agricultural programs whose conventional paradigms they critique.

Moreover, permaculture imagines agriculture and food-related practices as inseparably connected with other realms of life and society, including inter-personal relationships between people of different genders and family dynamics. The grounding of permaculture practices in principles of “take care of people, take care of the planet” constitutes permaculture as deeply ethical. Permaculture’s comprehensive and ethical concerns are what make it uniquely meaningful to permaculturists, and why many now see it as preferable to other approaches to alternative agriculture. I have attempted to argue that the very fact that permaculture is about “more than” agriculture is precisely what makes it uniquely successfully in inspiring enduring and profound commitments to ecologically-sustainable agriculture. Soon-to-be permaculturists are intrigued and inspired by permaculture’s broad attention to family, society, and environment;
as they adapt the same orientation, they are inspired to ardently pursue all of the practices – including sustainable agriculture techniques – associated with permaculture. In other words, they see that more than just farming success is at stake. This is likely a large part of why Sancti Spíritus’s permaculture network has remained cohesive – and has even grown – at a time when other alternative agriculture practices/movements/organizations are waning.

Additionally, permaculture has helped to develop more hopeful and active individuals. As people adapt permaculture techniques, they find certain material conditions on their farms, or dietary quality in their households to improve. Rather than scavenging for affordable and wilted vegetables and seasonings in the street, they are able to step into their gardens and harvest a bounty of herbs, vegetables, and fruits that allows them to make complicated meals, salads, and fruits that are unheard of in other households. The luxury of fresh lettuce in Cuba cannot be overstated. As they begin using permacultural principles, they also start to frame chronic problems and frustrations in a more positive light, and to imagine ways past, around, or outside of them. This subjectivity shift, too, which is a profound contrast to a prominent national structure of feeling (see Chapter 3), helps to solidify permaculturists’ commitment.

To lay the groundwork for considering the possibilities of permaculture for broader social transformation (discussed in the final chapter, Chapter 8), the next chapter will look at how the permaculture network imagines education and outreach, and how it works to spread permacultural thinking and practice to new people.
CHAPTER 7
PERMACULTURE PEDAGOGY AND COMMUNITIES OF PRACTICE

As described in the previous chapter, Cuban permaculture comprises a cultural or figured world of ethical behavior in regards to farming, the environment, food, and the family. From the meanings and relationships associated with this world, permaculturists fashion strong senses of collective and personal identity, including commitment to, or investment of self, in “permacultural” practices and actions. This chapter addresses how the Fundación Antonio Núñez Jiménez (FANJ) and the promoters who work with it purposively teach permaculture as a set of discourses and practices. As already noted, many people (referred to as acercados), become familiar with the figured world of permaculture through informal learning with neighbors, relatives, and acquaintances who, themselves, have had more direct engagement and contact with FANJ. However, the core members of the permaculture movement – those who most actively disseminate and promote permaculture to others – take part in a more formalized educational processes orchestrated by FANJ. This process includes a process of “sensitizing” newcomers to permaculture in a variety of activities and practices including official permaculture courses and ongoing participation in FANJ meetings, seed swaps, workshops, and advanced courses. It plays an important role in forming participants’ identifications with the permaculture movement, generating shifts in participants’ subjectivities, circulating new ideas, and teaching specific practices. The pedagogical philosophy is also of interest in and of itself. Cuban permaculturists have been heavily influenced by the writings of Paolo Freire, and thus, their view coincides with strands of anthropological theorizing about learning that were also influenced by him.
In the chapter, I draw on social practice theories of social and intimate identification, foregrounded in critical pedagogical theory, to consider how the permaculture community, through a series of pedagogical and community-forming practices that FANJ has institutionalized, attempts to reinforce and reproduce itself as a credible source of agricultural authority, an effective context of agricultural education, and as a political actor in Cuba. As will be described, FANJ and its participants, in resonance with the core themes of the permaculture figured world, place a strong emphasis on regular social exchange, mutual support, and the importance of horizontal knowledge exchange. Through participatory formal events and the informal exchanges that spin off of them, FANJ and its network act to sustain members’ interests and promote learning among new recruits.

**Social Learning and Communities of Practice for Alternative Agriculture Identities**

There is an overlapping perspective in Cuban permacultural education and theories of “situated learning” (from anthropology and related fields) that learning is commonly misunderstood as the process of transmitting knowledge and skills from one person to another. Paolo Freire referred to the conventional instructional model that arose from this simplification as the “banking model” (2000). Under this model, which is still prevalent in schools, universities, and training centers around the world, teachers are assumed to possess all the relevant knowledge and – assuming they are reasonably competent – to be able to “deposit” it into the “empty vaults” of their students’ minds. This model often characterizes agricultural extension and training, with instructors in classrooms presenting techniques and scientific results to assumedly un-knowing

The problems with this over-simplification of learning and knowledge are both political and practical. Under the conventional model of agricultural “technology-transfer,” research takes place in scientific centers, and is carried to farms by their affiliates. Unfortunately, because the techniques and technologies these agents bring to farmers are developed in isolation from the lived conditions in which farmers find themselves, they are very often ill-suited to the type of farm, social demands, and personal goals of farmers (Chambers, Pacey, and Thrupp 1989; van der Ploeg 1993; Scoones 1994; Gray, Dunn, and Phillips 1997; Bicker, Sillitoe, and Pottier 2003). Moreover, because these lessons are introduced to farmers outside of the context of their experiential and lived learning processes, they are not easily integrated into the pre-existing identities, practices, and values already embedded in farming communities.

Additionally, as Freire (2000) pointed out, instruction based on the banking model encourages passivity in students. As recipients of information who are not asked to engage dialectically with instructors as co-creators of knowledge, they develop neither the creative skills, nor the expectation or facility to transfer knowledge gained in one context to others. They are not treated as active agents in their own learning process, and so are not likely from this position to see opportunities to transform their lives and worlds (an ability that is valued in Cuban permaculture, but undercut by the sentiment of disillusionment discussed in Chapter 3). From a critical pedagogical perspective, the banking model of education is an oppressive tool, used to maintain the status quo.

On a practical level, as a guide to teaching practices, the banking model is simply an inaccurate, and therefore ineffectual, theory of learning. As Freire (2000) notes, learners’ brains
are not, of course, blank-slates, but always already contain a complex array of knowledge and life experiences. Because knowledge neither can nor need be easily compartmentalized, these experiences co-mingle with and impact reception of and relationships to new knowledge. This theory of learning, which has become a more and more pervasive academic model, is referred to as “situated learning.” As the anthropologists Lave and Wenger describe (1991), learning is characterized not only by the acquisition of skills, but also by a process of becoming, which occurs in articulation with a person’s existing knowledge, assumptions, and everyday activities.

Lave and Wenger (1991) describe this process of becoming as a highly social one, which often occurs as learners engage in “legitimate peripheral participation,” and then gradually become members of the community that society identifies with the set of knowledge and skills in question. These communities are referred to as “communities of practice,” groups of people engaged in shared crafts, professions, or endeavors, who continually and collectively learn from and with each other. During legitimate peripheral participation, newcomers act as partial members of the community, slowly becoming acquainted with a set of skills and the way in which the community utilizes them, until they are eventually recognized and recognize themselves as full members. This process is particularly easy to identify in instances of apprenticeship, such as Lave describes in her ethnography of tailors in Liberia (Lave and Wenger 1991; Lave 2011). However, it is also seen much more broadly in effective instances of learning and skill-acquisition. For instance, an ethnography of Alcoholics Anonymous (AA) treats the organization as a community of practice that teaches participants to be non-drinking alcoholics (Cain 1991; Lave and Wenger 1991). Becoming a non-drinking alcoholic, newcomers learn, is not just a process of quitting alcohol, but one of learning to see themselves as possessors of an incurable, but manageable disease, which they must alter their behavior in the world around.
Additionally, they also learn that part of this identity is being able to narrate their stories to others. When they first start to attend AA meetings, newcomers are invited to briefly speak on their experiences, and to observe as others tell their well-crafted stories of alcoholism, realization, and recovery. Overtime, the newcomers work up to telling their own stories in more elaborate ways, following the same narrative pattern. Once they are able do this, they describe that they not only “feel they belong” in the community of AA, but also feel qualified to “carry the message” to even newer members.

This analysis of “becoming” a non-drinking alcoholic emphasizes how a learning process can both propel a person to a new understanding of herself, and constitute her as socially recognizable in that role. It indicates that both of these elements are connected to the ways in which a person becomes committed to a new set of practices and moral resolutions. The case, therefore, connects the theories of situated learning, such as those described by Lave and Wenger, together with those of Holland et al. (discussed in the previous chapter), which emphasize people’s intimate identities, or self-understandings (Holland et al. 1998).

In their elaboration of a practice theory of identity and the agency that it enables, Holland and colleagues draw on the work of Russian scholars Mikhail Bakhtin and Lev Vygotsky, both of whom studied the relationship between Soviet social structures, cultural resources, and the actions of individuals. Vygotsky (1978) developed a theory of “semiotic mediation” that contends that the linguistic and symbolic tools people learn to use to interpret and operate within society eventually become the tools by which they interact with themselves. As a person continues to use these tools over time, they may become embedded within that person’s mental constructs, thus becoming an enduring element in his understanding of and operation within everyday life. Relatedly, Bakhtin (2010) considered the various “voices” and “social images”
that people internalize, and the process by which they evaluate and give preference to them. Holland et al. use these theories in combination to describe a process of “self-authoring,” by which people draw on the semiotic tools offered to them in social settings, such as the principles of permaculture, to orchestrate a sense of who they are in the community.

Although a person could conceivably go through the process of peripheral participation described by Lave and Wenger and become socially recognized as a master of a new skill without also internalizing the norms of this practice or becoming committed to it, the work of Holland et al. helps to indicate why it is unlikely that a person will not adjust her self-understandings in some way. And, as Cain’s illustrates with AA, learning programs that are developed with the intention of instilling enduring commitment can be very powerful and effective when the process of social becoming dovetails with one of intimate becoming.

In this chapter, I will argue that becoming a permaculturist through FANJ consists of an intentionally-designed situated learning process that, not unlike becoming a non-drinking alcoholic, produces several, interlinking results. First, it orients participants to the new behaviors and skills identified as desirable by the organization and its participants. Second, it does so socially, linking them to other participants and causing them to be socially identifiable as permaculturists. Third, the process also changes the way that participants think and feel about themselves. As permaculture newcomers learn to talk, act, garden, keep their homes, and interact with their partners like permaculturists, they come to be seen and to value being seen by both others and themselves in a new way. This reinforces their sense of commitment to permacultural practices.
Pedagogical Underpinnings of Cuban Permaculture

Between 2005 and 2006, Canadian scholars Erin Nelson and colleagues (2009), carried out a study with a relatively small number of Cuban farmers in order to assess the on-farm realities of the agroecological transition. They reported that, although the institutionalization of agroecology into state programs and the dissemination of certain practices across the farming population had been quite successful, the majority of the farmers they encountered had yet to commit to or internalize the values of sustainable agriculture. The reliability of their findings is limited by the small-scale and scope of the study, but they resonate with Cuban agroecologist and administrator Roberto Caballero Grande’s argument – based on the anecdotal experience acquired over decades of work in the campo Cubano – that the spread of agroecological practices is approximately double the spread of commitment to them. Nelson et al wrote:

> While a small number of ideologically committed producers specifically noted a willingness to forgo gains in yield in order to maintain the integrity of ecological production, the majority of the Cuban farmers interviewed based their production decisions on how they could best maximize yields within the framework of economic and political restrictions. As such, they would likely fall into the category of pragmatic organic producers and, should the political and economic conditions in which they live change significantly, there is reason to believe that many would gradually revert from agroecology to conventional farming methods. This information suggests that, while policy support can be a useful means of facilitating sustainable agriculture (as many advocates argue), it has limitations and therefore would function best in conjunction with other efforts (2009, 241).

Although Nelson et al. do not suggest what these “other efforts” should be or analyze the specific means by which the farmers in their study who were or were not ideologically committed to it came to know about and practice agroecology, their finding suggests a failure of social learning

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23 As described at presentations I attended at both the 2014 ACTAF Agroecology in Veradero conference and the first meeting of the Cuba-US Agroecology Network in Havana in 2016. In a conversation with me about this observation and estimation, he shared that it was also confirmed by (unpublished) research conducted by a graduate student he worked with.
mechanisms, and lack of recruitment to a figured world of sustainable agriculture that imagines such practices as necessary for long-term well-being.

The common philosophy of education in Cuba focuses, like Freire’s banking analogy, on accumulating facts learned with precision. College students, for instance, face multiple tests every week, and participate in annual exams that rank them in their fields of study. Accurate knowledge is treated as discrete units that must be learned precisely and amassed. Even in an informal community aerobics course that I attended while living in Sancti Spíritus, the instructor regularly berated students for “inaccurate” execution of exercises. As opposed to certain exercise regimes in other cultural settings, in which students may be urged to modify activities based on their physical condition or limitations, in this course, there was always one correct form.

Discipline and the transfer of a pre-determined set of knowledge or skills characterize typical teaching and learning practices in Cuba. Although it is not within the scope of this study to report on other, less successful projects of agroecological dissemination, it is apparent from my interviews and review of project reports that many have focused on the divulgación (the divulging or spreading) of booklets, fliers, and other materials that outline techniques that have been pre-determined to be superior, rather than support key ideas and the flexible processes of experimentation.

The permaculture community, too, can be demanding in encouraging each other to follow the principles, do their best, and create “good” permacultural systems (actions that qualify people as “true” permaculturists). However, its epistemology – and therefore its pedagogical approach – diverges from the conventional Cuban approach in that the permaculture community considers metrics for good systems and well applied principles to be flexible, and it treats learning as a complex process that occurs both in situ and in practice.
Cuban permaculturists learned and adapted this pedagogical approach from ANAP’s \textit{movimiento agroecológico campesino-a-campesino} (MACAC, see Chapter 2), and through various foreign sustainable agriculture and permaculture groups with which they have exchanged ideas. Ismar Garce, whose role in developing sustainable agriculture communities in Sancti Spíritus is described in Chapter 4, relayed to me that in the early years of that movement, before she and her husband became permaculturists, they often attended events and had discussions with Braulio Machín, a staff member of ANAP who helped to found the MACAC movement in Cuba, and spent extensive time documenting its methodology (see Grupo Asesor Povincial 2001). The ideas that they and others learned from MACAC have been adapted to the permaculture community. As urban farmer Francisco described during an interview: “In the case of permaculture I see a very, very strong permaculturist-to-permaculturist movement, especially with seeds and with the exchange of experience and help.”

ANAP’s MACAC developed through collaboration with La Via Campesina and their support of “peasant pedagogy” and horizontal knowledge exchange. In this perspective, 
\textit{campesinos}/farmers are treated as the agents behind the creation as well as the effective dissemination of agricultural knowledge (Rhoades and Booth 1982). Eric Holt-Giménez (2006), who documented the development of MACAC across Latin America, explains that it emerged in relation to various indigenous and Catholic Liberation notions of autonomy and self-organization, and through the influence of Freire’s work. To move beyond the banking model, Freire argued for problem-posing education, in which learners engage critically with the world in order to address problems they identify, and create new knowledge associated with it. This form of education, he says, should focus on the goal of \textit{conscientização} – the development of a political and social-critical consciousness. In this process, learners come to recognize the
problematic social structures that frame their existence, but also to understand the world “not as a static reality, but as a reality in process, in transformation” (2000; 252). Rather than act as didactic authoritarians, teachers in this process engage dialectically in the process of supporting learners to engage with and understand their world, which they do through practice and also peer-to-peer exchange.

Because the *campesino-a-campesino* movement has created and implemented successful plans for agroecological skill development and diffusion, it is often referred to as a “methodology.” However, as Holt-Giménez (2006) points out, it is actually more expansive; it is an epistemological movement that prioritizes knowledge as a common good that people should have opportunities to create, access, and exchange. Indeed, it promotes a strong sense of what campesinos who have become part of the movement in Central America refer to as the “moral compromise” to continue exchanging with other farmers, and to help them to also adapt beneficial, agroecological practices (Holt-Giménez 2006).

As ANAP’s own CAC movement was underway, its founders were very cognizant of the importance of integrating theory and practice in the learning process of spreading agroecology, and simultaneously committing people to them. In a report developed by the CAC team in Sancti Spiritus, led by Braulio Machín, they explain that the goal is not only to promote skill acquisition, but also intellectual capacity. They associate this with “praxis,” which they define as “la actividad socio-teórica transformadora de la naturaleza y la sociedad, y simultáneamente, formadora del hombre en su conocimiento y en su práctica (the social-theoretical activity that transforms nature and society, and simultaneously forms man in relation to his knowledge and his practice)” (Grupo Asesor Povincial 2001).
Although the international campesino-to-campesino movement injected ANAP with a renewed emphasis on farmer innovation, traditional knowledge, and horizontal transfer, these lines of thinking were not foreign to either the association or its membership. As discussed in Chapter 2, Cuban small farmers had a long reputation for autonomy and self-reliance. These characteristics came into conflict with the socialist state’s emphasis on centralized agricultural decision making, but it was celebrated again in the Special Period as it proved capable of driving on-farm innovation, and, therefore, production gains (Funes and et al. 2002; Wilson 2010; Simón Reardon and Alemán Pérez 2010). In fact, ANAP’s slogan, “cuando el campesino ve, hace fe,” (when a campesino sees something, he has faith, or “seeing is believing”) emphasizes the Cuban campesino’s dismissal of agricultural science or advice that cannot be materially demonstrated and observed on the farm and in practice.

Using this a departure point for the diffusion and reproduction of permaculture knowledge, the permaculture community has taken very seriously the importance of learning in practice, as well as the necessity to contextualize learning within a person’s experience and concerns. Leading permaculture promoter Jorge Luis describes his theory of permaculture promotion as one of putting its lessons in relation to a person’s interests:

When I am talking to someone who doesn’t know anything about permaculture, I don’t try to teach them with the principles or concepts or anything like that. I try to teach with things they want to hear… starting with things that worry them, wherever they would like to go, what interests they have.

His idea that learning occurs through a conversation coincides with many other permaculturists’ notion, reported to me in interviews, that the best way to further spread permaculture is simply by talking with more people about it. Francisco’s term for this is “promoción de ciudadano a ciudadano” (citizen to citizen promotion).
However, talking is only the starting point. Lave and Wenger point out the falsity of believing verbal instruction to be a uniquely superior form of information transmission (Lave and Wenger 1991). Ingold, too, says, “Our knowledgability consists, rather, in the capacity to situate such information and understand its meaning with the context of direct perceptual engagement with our environments. And we develop this capacity, I contend, by having it shown to us” (2011, p. 21).” As will be described more thoroughly below, permaculturists also stress the importance of showing – not only through demonstration, but also through shared participation. They often point out that it is better to learn in practice, than in the classroom.

For instance, during a soil workshop I observed that Armando organized for members of his church congregation (to whom he was teaching permaculture), he led participants around his small farm, showing them his worm compost, methods of crop rotation, and círculos mágicos (“magic circles” of banana trees, papaya plants, and sweet potatoes, which – when planted around a deep pit filled with rich organic material – are said to retain moisture and soil nutrients). At the end, he brought the group to an area where he had gathered fallen leaves, various weeds and plant cuttings, food scraps from his household, and wastes from a composting toilet. Under his direction, everyone worked together to build a compost pile from these materials. Afterwards, as we talked about the workshop and Armando explained his rationale for his pedagogical approach, and why he decided to build the compost pile and lead a tour instead of giving a talk on soil structure: “I know all the [soil] science, but I didn’t think that was important. I wanted them to observe and have the practice.” Echoing the sentiment that engaged activity and participatory demonstrations are superior forms of education, permaculturist Xiomara explained that she has gained wisdom through trial and error, discussions with the local permaculture
“family,” and through exchanges with international permaculturists. “Not from [reading] scientific investigations,” she says.

To help sustain and build permaculture as a community and movement, FANJ and the permaculturists find ways to intentionally support such opportunities for exchange and learning. This is done on a formal level through permaculture courses and events organized by FANJ. These events serve the important role of transmitting knowledge in an organized environment, and also create opportunities for socialization and bond creation. Additionally, informal activities and exchange help to sustain peripheral participation (Lave and Wenger 1991) in advance of courses, and maintain community ties afterwards.

**Formal Permaculture Network Structure and FANJ Events**

The international permaculture community has developed a set of norms and standards for permaculture training that expect permaculture teachers to be formally trained, and permaculture promoting institutions in one country to be accredited by an institution in another country. Several FANJ staff were originally trained in permaculture by Australian professors. This experience, in combination with FANJ’s formal standing as one of the few government-recognized Cuban NGOs (see Chapter 2), has allowed the organization to have ready access to foreign donations and to assume the role of institutional authority for Cuban permaculture. As FANJ has adopted permaculture as an organizational goal, it has also taken on responsibility for formalizing a set of procedures – specific to Cuba – for training newcomers and thus introducing them to the figured world of permaculture, thereby reproducing and expanding permaculture through communities of practice.
This process, though not codified in particular documents, was spoken of consistently at FANJ meetings and events that I attended, and also in my interviews with permaculturists. By my analysis, the training can be broken into three general phases of socialization and learning: what the permaculturists refer to as sensibilización (sensitization or familiarization); training during an official permaculture design course; and ongoing social exchange and community building through regular FANJ meetings, seed swaps, workshops, and conferences. FANJ staff working on the permaculture program, including several in Havana, and – at the time of my research – two in Sancti Spíritus, assume the primary responsibility for assuring that this process is successfully taking place for newcomers around the country, and their offices serve as meeting locations. However, permaculture promoters (farmers/gardeners who are not on FANJ’s payroll) also play active roles in reaching out to newcomers and sharing information. Their permaculture systems are primary sites of knowledge exchange.

Image 7.1: The FANJ office in Sancti Spíritus calls permaculturists together regularly for meetings, workshops, and presentations. This picture was taken during a meeting I held to discuss my research project; I modeled the meeting after others I had attended at FANJ’s office.
Sensibilización

The first stage of FANJ’s pedagogical work begins when a newcomer is identified. As described in the discussion of “pathways” to sustainable agriculture in Chapter 5, this can happen in a number of ways. In some cases, a person is seeking out new information on sustainable gardening or farming, or happens to hear about permaculture from an acquaintance, and seeks out resources at a FANJ office. At other times a permaculture member of FANJ staff may identify a person – an organopónico operator, for instance – who they believe would be interested in permaculture. In still other cases, FANJ has made institutional plans to recruit a particular geographic community to permaculture. This was true in the case of the coastal town of Tunas de Zaza. As mentioned previously, the national head of the state’s Urban Agriculture Department noted a strong challenge in developing production there, and asked FANJ’s Sancti Spíritus office to take on the role of supporting the community. In 2015, FANJ was discussing two new communities in the region where it hoped to expand permaculture practice. Regardless of how a person or community is identified, the permaculturists’ goal is initially to sensibilizar (sensitize, or familiarize) newcomers to the general notion of permaculture, and, as my theoretical concepts would put it, sensitize them to the cultural world or horizon of meaning against which behavior, practices and activities are interpreted.

In the case of Tunas de Zaza, FANJ staff and permaculture promoters travelled to the town for an initial visit and encounter before organizing a permaculture course for residents. Rosa recalled it as an event of silly games and an opportunity to intercambiar, or generally get to know each other. At this meeting, the leaders gave initial explanations of permaculture, its goals, and the impact it can have on people’s lives, but they did not launch into formal lessons or explanation of the permacultural principles.
Based on Rosa’s description, and that of the permaculture promoters involved in this first encounter, the introductory activities were similar to those that occurred at a youth permaculture event I attended in 2014. During this event, a FANJ staff was responsible for many of the presentations, but two volunteer promoters, both organopónico managers and central members of the Sancti Spíritus permaculture community, also organized talks and activities. One of them was responsible for ice-breaking activities. After an initial introduction of the day’s events, which everyone had remained seated for, she asked us to all stand in the middle of the room and then yelled for us all to stand “closer, closer, closer!” There was lots of laughter and confusion as we all pushed closer together into the center of the room trying to understand the intention of her commands. Then, she exaggeratedly used her body to plough through the group and divide us into four sections. Two of the resulting groups were tasked with discussing and coming up with a list of ways to cuidar las personas (take care of people) and two with ways to cuidar la tierra (take care of the land, or earth). Thus, the event moved from shared laughter and movement to an unstructured conversation about what students would later learn to be the two ethical principles, before moving into more formal presentations about the design principles of permaculture. Through these initial exposures to the principles, instructors hoped that students would, on their own terms, develop a social consciousness and sense of ethical obligation to caring for other people and the land; much like the conscientização process described by Freire.

In other instances, FANJ may begin the process of sensibilización by bringing a new group of potential permaculturists to visit a zone of established permaculturists. Although my study focused primarily on permaculturists within Sancti Spíritus, I heard of such visits taking place between newly recruited groups from the far eastern end of the island, and others from Havana and the west. During my primary fieldwork year, 2014, such visits occurred once in
Sancti Spíritus, with several farmers from two eastern provinces visiting various permaculture promoters and the foundation’s demonstration farm (located outside the city of Sancti Spíritus).

In cases where a newcomer is not part of a larger group or specific geographic community – for instance, if they are a resident of Sancti Spíritus city, where permaculture groups already exist – they may be invited to FANJ meetings, small group meetings (described below), seed swaps, or workdays so that they may gradually become acquainted with permaculture work through peripheral participation before they are actually invited to a course. Reinaldo, for instance, was in the process of becoming a permaculturist during my fieldwork. He had heard about permaculture through his job at the local television station, which reported on the movement, and he sought out information from FANJ in hopes of gaining skills he could apply to his family’s small plot of land. Despite being older than a “youth,” he was invited to join the youth workshop, and to attend a meeting between university students learning permaculture and visiting students from California, before he attended a full permaculture course, which gave him an opportunity to gradually understand and integrate into the FANJ community.

The process of sensibilización, although it differs for various participants, would likely be counted by Lave and Wenger’s theory (1991) as a phase of legitimate peripheral participation. During this time, participants are treated as future-permaculturists and legitimate, partial-members of the community. FANJ refers to them as acercados, from the verb acercarse, to bring in, thus giving a formal status of pertaining, if not yet fully belonging to, a permaculture community. As they engage in FANJ events and small-group meetings, these new participants hear and may begin to acquire the language that these communities use, as well as their norms of
interaction. Additionally, many begin to experiment with the agricultural and gardening practices of permaculture at their farms or gardens as they begin to see and hear about them.

**Permaculture Design Courses**

Once someone is a known **acercado** or person interested in permaculture, they are considered by the foundation to be eligible for a permaculture training course (which has no formal application or selection process aside from the foundation’s issuance of invitations). The duration of the period of **sensibilización** can vary significantly, based on the schedule of upcoming permaculture courses, and a person’s ability (based on their schedule and other commitments) to attend one. Thus, some **acercados** are already fairly close to the larger Cuban permaculture community (or even considered by some permaculturists, as discussed below, to really already be fellow permaculturists) when they take a course, while others are just starting to be familiarized.

Several times a year, the national FANJ office in Havana, in collaboration with Sancti Spíritus leaders, organizes and funds a 10-day permaculture design course for approximately 25 participants. As organizers reported to me in interviews, they believe this number to be the maximum size for effective learning. Periodically, they also organize shorter courses for young people age 15-30; these have become increasingly emphasized in recent years as the foundation has made it a priority to recruit, train, and incorporate young people into the permaculture network. With all food and housing paid for and ample time to socialize, courses are intense but enjoyable experiences that can set the stage for long-term friendships between permaculture colleagues. In 2014, one youth course and one full design course were held in Sancti Spíritus province. After some debate, FANJ staff determined that it would be inappropriate for me to participate or observe, as a foreign researcher, because my presence would take physical space
and resources away from another participant. Afterwards, one participant described the course to me as requiring intense participation and focus, but also as providing extensive time for enjoyable socializing by a pool and at local cultural facilities in the small, mountainous town where it was held. The activities she described as occurring in this course, and that other interview participants describe of previous courses, are similar to those I observed during the youth course mentioned above.

These activities included presentations by permaculture professors on the principles, classic designs, and agricultural techniques (such as composting, insect management, etc.), as well as participatory exercises, and extended collaborative work to design and map out a system to one day be implemented at each participant’s own house, organopónico, or farm. At the youth course, for instance, one of our longest activities was designed to teach us about identifying and planning for “elements” (see the previous chapter) in a system. In small groups, we were assigned to a particular location: the town square or the patio of a church. Here, we had to note and map out all physical and cultural features of the site, including sources of water, direction of sun and wind, and areas with high traffic. As we, then, presented these maps to the whole group, we received critiques on items that were left out. At the end of the course, as we turned to designing future permacultural systems, we used these same skills to note the existing features of our sites, and consider how they would affect and could be used toward the realization of our goals. By the end of this course, after moving collectively between the foundation’s office, a permaculture site, a church hall (that offered FANJ meeting space), taking part in social games, sharing meals together, and working collectively on projects, the group had developed a sense of solidarity and interest (as demonstrated in the course feedback activity during which participants were asked to share their thoughts on “the great,” the “interesting,” and the “bad” of the course,
and collectively shared that they only bad was that there was “too little time.”). Afterwards, one participant noted to me “I thought this would just be about growing techniques, but it was much more.” Although I never saw some of them again at future permaculture events, others were inspired to continue – actively arranging meetings with each other and beginning to re-design their home gardens.

Image 7.2: A youth presents his permaculture design at the end of a course

Less frequently than permaculture design and youth permaculture courses are held, training courses are offered for permaculturists to become “national promoters,” which constitutes them as potential course instructors. Five permaculturists from Sancti Spíritus are considered national promoters, after having participated in a weeklong course held at Veradero Beach. They learned how to direct groups, teach, and exchange with people by preparing lessons on topics such as “classic designs” in permaculture. Once a year, all the national promoters have a reunion in Havana to share updates on the progress of permaculture in their region.
Once a person has “graduated” from a permaculture course, they are formally considered to have “become” and to “be” permaculturists. As members of the larger permaculture community, FANJ considers them eligible to benefit from the material resources it oversees, such as bicycles donated by foreign visitors, or grants it has available for purchasing water collection tanks, wheelbarrows, and other farm equipment. Graduates are also invited and encouraged to participate in a range of ongoing events, which serve to re-solidify their social bonds and demonstrate the strength of FANJ’s network. These include seed swaps, work days at the foundation’s demonstration farm, presentations from permaculturists who have had the opportunity to participate in international conferences, the annual national permaculture conference, occasional advanced permaculture courses (such as ecological construction), and small group meetings.

To begin with the most centralized of these activities, the national permaculture conference is held once a year (when I attended in 2015, it was held in Sancti Spiritus province so that permaculturists from both eastern and western ends of the island could reasonably travel there). In certain ways, this conference reveals traces of a traditional and hierarchical form of learning. Each participating permaculturist is invited to give a presentation on their system and accomplishments of the year, following an outline – provided by FANJ’s Havana office – of key factors (at the 2015 conference, this included the size of their operation, their output, the diversity of their production, the amount of money they save by not having to purchase food from the market, and their sources of water collection). FANJ staff ask questions and provide commentary after each presentation. However, the floor for questions and commentary is also open to all attendees, who also actively respond to and engage with every presentation.
Moreover, the final day of the conference revolves around a collective and participatory effort to strategize for the permaculture community’s goals for the upcoming year.

A quote from Javier underscores the sense among permaculturists that even the national conference confers a sense of democratic learning and respect. Javier has a small farm just outside the city of Sancti Spíritus, where he raises sheep and goats, and grows fruit trees and some traditional row crops. His family has been farming that land for three generations. The day after the 2015 conference, I visited him at his farm. As we discussed the conference and his experience with the permaculture movement in general, he commented: “As you saw [at the conference], no one is above anyone else. Even if one person has more than another, they are all treated as equals. They all have something to learn from each other.” He pointed out that this is not the case at the meetings of his credit and services cooperative (CCS), where he feels that guidelines are passed down from cooperative leaders without broad conversation or debate.

The goals that Javier and his fellow permaculturists developed during the 2015 conference included a commitment to continue expanding permaculture to new geographic communities and people across Cuba, and a goal to retain newcomers in the community. The emphasis on bringing permaculture to new people, and more people to FANJ’s permaculture network, encourages every permaculturist to become a promoter and teacher of permaculture, even if they are not formally trained as a permaculture instructor. Doing so is a key aspect of the permaculture identity, and an important responsibility they hold as community members.
Images 7.3 and 7.4: A national permaculture conference ended with participants collectively charting the strengths and the weaknesses of the movement during the previous year. Then they mounted a bus to visit FANJ’s demonstration farm, with various participants standing up to tell jokes or address the group. Source: Author

Notes from the Field: A Working Course on Ecological Construction

In late November 2014, the Sancti Spíritus branch of FANJ held an advanced course in ecological construction at the demonstration farm, located just outside of Sancti Spíritus city. This site – called the Finca del Futuro (Farm of the Future) – was intended to become a demonstration site where they could show how permaculture can function in rural farm settings, and to also provide a site for future permaculture workshops and gatherings. FANJ invited all local permaculturists to attend. The main event was a three-day weekend. Twenty-two people participated, most of us arriving together in the back of the foundation’s truck, and several more arriving later by motorbike, bicycle, or various forms of public transportation.

Upon arrival, the provincial president of the foundation explained that this would be a curso de practica, a course of “practice.” There would be no presentations or talks, just work. This served a dual purpose; participants learned through their participation and also labored toward a larger goal of the foundation and its community. As the president explained, he had just recently returned from an urban farming conference in Mexico City. As he described it, the city
still had a very long way to go in introducing ecological farming into its plans, and many people at the conference were eager to see what was happening in Cuba. “This can be a place where they can come to learn,” he explained.

As soon as he finished his welcoming remarks, everyone dispersed to begin working. Jorge Luis explained some of the tasks at hand, but for the most part, work groups were self-organized. A large group, mostly men, went to assist in constructing a mirador (look out tower) under the leadership of a permaculturist who works as an artisanal bamboo craft and furniture maker. The tower was to be used to survey the farm and observe the “natural” processes occurring in the untamed peripheries. They called out instructions to each other as they worked, joking, and laughing as they used rope-pulleys to raise new levels of the tower.

Several other people went to work laying the base for what was to become a composting toilet. Two women began preparing lunch, and the rest of us wandered around partaking in various planting and weeding tasks as we came across them. Throughout work and breaks, people discussed their gardens and farms at home, and the various plants they had growing, sometimes asking each other for cuttings and seeds.

In the afternoon, I walked by the area where Francisco was working quietly on the composting toilet. He asked if I want to learn, and two other women soon joined in. We learned to mix and spread cement, and to lay bricks. After completing several rows, one called out happily “I’m a specialist. I can lay bricks! Now I know!”

By the end of the weekend, the first several levels of the mirador were raised, and the groundwork was laid for the composting toilet. Still, there was more to do, so a couple weekends later, fifteen of us returned for the last part of the “course.” Although we were largely there to complete unfinished tasks, we continued to exchange and learn. In the morning, I walked with Armando and Nelson through the area where we had all previously worked together to plant fruit tree saplings. As we spread dried grass and twigs as mulch around their bases, Armando pointed to a nearby wooden fence post: “do you know why the tops are pointed?” He asked me. I shook my head no, as Nelson listened along. “So that the rain runs off, and they don’t rot out as quickly. I didn’t know to do that when I first started my farm, but I eventually learned it in la Universidad de la Calle [the university of the streets]; you learn more there than in the other [university].” Nelson laughed and nodded in agreement.
Afterwards, I headed back to the center of the site. Xiomara, an avid cook who had taken on the role of lead chef for the workdays, was taking a break and chatting actively with another woman who I had not seen at previous permaculture gatherings. She was the neighbor of the president of the foundation, and could see his rooftop garden from her own house. This sparked a conversation between the two about gardening, which led to an invitation to participate in the day’s events. She was already very interested in gardening and healthy eating, and she brought a faded packet of paper with recipes for natural remedies that can be made from kitchen herbs to share with others. Xiomara shared many anecdotes about preparing similar recipes, as well as additional ones, with her.

Image 7.5: A group works together to build one of the walls of the mirador during the course in ecological construction

On a smaller-scale, the Sancti Spíritus offices of FANJ organize twice-annual seed swaps, with permaculturists from around the region participating to bring seeds they have saved to exchange with others. At a seed swap held in the late Spring of 2014, the permaculturists from towns outside of Sancti Spíritus travelled together in shared taxis, and everyone gathered in a park located in front of FANJ’s offices, where tables had been set-up for them to arrange the seeds they had been saving from their plants over the past year. Many had made packets, folding paper together in origami shapes to display in front of banners representing their hometown or
neighborhood. The president of FANJ’s local office stood at the center and welcomed the whole group, describing them as working together to protect nature, save seeds, and improve food.

Another staff member/promoter then led the group in a chant of “¡Viva la permacultura!” while a permaculturist played a song on his guitar. Then, the promoter urged everyone to get together in groups according to town or neighborhood, and one by one they were called to go by all the tables and collect seeds. At the end, he called everyone together again, to ensure that someone from each town had gotten every unusual seed or cutting that had been offered – with the idea that they could later propagate them and share in their geographic niche.

Additionally, FANJ holds semi-regular meetings for everyone close enough to the office to attend, where upcoming events – such as visits from Central American farmers or a workday

Images 7.6 and 7.7: A seed swap for the province of Sancti Spiritus held in front of FANJ’s office, and a seed swap held after a national conference for all permaculturists in the country at FANJ’s demonstration farm

Additionally, FANJ holds semi-regular meetings for everyone close enough to the office to attend, where upcoming events – such as visits from Central American farmers or a workday
at the demonstration farm – are announced. If a permaculturist from the area has travelled abroad (as occasionally occurred), or participated in an exclusive event (for instance, a long workshop in ecological construction held in another province), they will use these meetings to give presentations back to the group.

To disperse information and social contact across all permaculturists – not all of whom live in close proximity to FANJ – the foundation organizes permaculturists into local sub-groups. In Sancti Spíritus city there are four groups organized by neighborhood, and in the wider province there are also groups in the towns of Tunas de Zaza, Banao, and Fomento (one group each). Each group has a leader who is responsible for maintaining lines of communication between group members and the foundation. At times, groups can grow to unwieldy sizes. For instance, Esteban is the coordinator for a group that stretches from a large neighborhood of apartment buildings in Sancti Spíritus to the neighboring municipalities of Cabaiguán and La Sierpe, which do not alone have enough participants to form their own groups. Although not all members are currently active, his group technically includes 40 people.

Groups that are smaller in size and geographic location are able to more conveniently hold regular local meetings. In Tunas de Zaza, for instance, the group attempts to meet once per month, and, when possible, the meeting is organized as a shared workday. As Caridad explained:

We’ll say, caballeros, the last Saturday of the month we’ll go to Carmina’s system. If there is anything she needs help with, we’ll help her. If not, we’ll sit around and compartir [share] with each other. We’ll share the information the foundation has sent us… if there is going to be an advanced course or a youth course for example. If there is going to be an exhibition or an event. If we are going to have visitors. We get together and talk about nuestras cosas [our things] and laugh a bit.”

These small group meetings play an important role in establishing a sense of community among participants, and they also encourage additional social exchange and visits between permaculturists, by providing a site at which such instances can be planned. Meetings are also
important spaces for passing on technical gardening and farm skills. In cases where they require long distance transportation, the foundation helps to coordinate and fund the gatherings. However, whereas permaculture courses have a broad emphasis on permaculture design and principles, these more frequent exchanges are means for passing on specific experiences and skills for pest management, integrated production, or composting challenges. For instance, after a workday I attended to plant fruit trees at the foundation’s demonstration farm, a group of about six people stopped by the farm of one of the participants. He was having trouble with his squash plants, which were intercropped in rows with root crops and guava plants. Jorge Luis advised him that the soil was likely depleted, and suggested a type of bean he could plant as a green manure (crops that can be used to fix nitrogen). The farmer then showed the others his goat pasture, and talked with several were also interested in the possibility of goat rearing.

As this anecdote helps to illustrate, the permaculture subgroups constitute what Lave and Wenger (Lave and Wenger 1991) call communities of practice: collectives working together to continue learning and improving their permacultural practices through interaction and exchange. Although the groups sometimes converge – at the kinds of events described in the previous section – to form a larger community of national or provincial permaculture practice, more frequently throughout the year, these local groups work together to explore how permaculture can be enacted in their local contexts.

At times, the institutional structure that allows for these communities of practice to remain cohesive and networked into the wider community breaks down. For instance, news about an event may not be passed on, or a newcomer may be lost from the community. For instance, a permaculturist from Tunas de Zaza once complained to me that none of them – outside of the group leader – had heard about a workshop the foundation was organizing. The
leader had failed to effectively distribute the information. At other times, a person who participated in a course never fully integrates with the community or takes up the practice of permaculture. As mentioned previously, permaculturists resolved at the 2015 national conference to address this problem of poor follow-up. They planned to make follow-up visits to everyone who had recently taken permaculture course to see if they needed help or support in continuing the practice.

**Informal Networks, Promotion, and Social Support**

The practices recognized by FANJ, and therefore officially acknowledged by the permaculture community as important to the reproduction and expansion of the permaculture community – such as sensibilización, permaculture design courses, small-group participation, and, if they have now been implemented, “check-ups” – are important for creating structure and resources for the permaculture community. However, much learning and reinforcement of the community actually takes place in the informal and un-choreographed spaces of interaction between permaculturists. FANJ allows these more informal encounters to endure because, although the institution promotes the importance of formal training, it also supports materializations of the figured world of permaculture in which horizontal knowledge transmission, informal exchange between permaculturists, and the ongoing creation of new knowledge are essential.

Outside of the institutional process of permaculture promotion – described in the section above – exist a variety of social practices that support both the initial recruitment of new members to the permaculture community, and the ongoing maintenance of social networks of exchange and support. These processes, which permaculturists participate in both before and
after passing official courses, are arguably more essential to permaculture learning than the course, itself, and they bolster both the sensibilización process, and the suite of activities that keep people connected to the permaculture community after courses. As noted in the theoretical section of this chapter, neither the teacher-student relationships, nor the role of verbal instruction are as central to the learning process as is commonly associated with training in what Freire called the banking theory of learning. Although courses provide important opportunities for concentrated discussion about permaculture and presentation of permaculture principles and key concepts, they do not offer the same degree of engagement and participation as these other instances of exchange do.

Recruitment

As mentioned above, the grassroots permaculturists, as well as the FANJ staff, are very active in the recruitment of new members of the community. Permaculturists regularly discuss their practices with family members, neighbors, and co-workers. Often, these new recruits are brought to permaculture group meetings or gatherings at FANJ, and they may eventually be invited to courses. For instance, as my fieldwork was underway in 2014, the foundation was actively working to bring more “youth” into the movement. One of the youth they were incorporating into the movement was a childhood friend of the Gustavo’s son (the son, himself, had been active in permaculture for all of his life). Although neither from a farming family nor trained in an agricultural career, this young man had witnessed all the work his friend’s family was doing at their urban farm and home site, and became interested not just in acquiring the practices himself – but in gaining admittance to a new community/family group (he confided in me that he was distanced from his own family). Another one of the new youth was the son-in-law of
Xiomara and Jorge Luis, who gradually learned at home from them before deciding to formally be trained as a permaculturist.

Although family ties and close family friendships often pull participants into permaculture, other social ties and unplanned, everyday encounters are also venues for recruitment. For instance, Rosa in Tunas de Zaza (described in chapter 5) lives in a small community where social bonds are often created between neighbors and between service providers and customers. Rosa struck up a friendship with a younger woman working in the national chain of hard currency stores, and they begin to talk about gardening. As she recounted: “the girl from la shopping [dollar store] came to visit, and I taught her how to make compost.” Reflecting more on the friendship, and indicating the possibility that it would extend into the future she noted, “I need to go visit her soon, I hear she has many new plants…”

Carmen and Leodanis, a married couple in their fifties, both grew up rural areas, with campesinos as parents, but then moved into the cities as adults. They remained tied to the campo, however, as she teaches special education at a school situated in farmland just outside the city, and he works nearby by at the Ministry of Interior. Tired of city life, they took advantage of Decreto Ley 259 (allowing citizens to get usufruct rights to unused land, see Chapter 2) to obtain 2.3 hectares of land in 2000. They belong to a credit and services cooperative that specializes in cattle and mixed crops, and they farm their land with a variety of mixed crops and some animals, using what they refer to as “prácticas campesinos tradicionales y sostenibles” (traditional, sustainable campesino practices) that they had learned through their parents and through the campesino-to-campesino movement. Carmen assumed an administrative leadership position in the cooperative. Luisa, a radio reporter who used permaculture to re-design her home into an energy efficient bed and breakfast with a rooftop garden for fellow Cubans, was assigned to do a
story on the cooperative. She met Carmen, learned of her interest in sustainability, and shared her
own experiences in permaculture with her. This sparked Carmen’s interest, but she says that she
never again was able to see Luisa. Later, by coincidence Leodanis met another permaculturist
and urban farm operator in the city. He recalled Carmen’s conversation with Luisa, and learned
about permaculture course opportunities through this farmer. Leodanis was not able to
participate in a course, but Carmen did, and she shared the language and principles of
permaculture with her husband. When I visited their farm, they each explained how they had
organized the farm according to the zones and principles of permaculture. “We practice
permaculture,” Carmen said, “but as traditional campesinos.” Although she did not see Luisa
again for a long time – not until after they both participated in a national conference – it was this
chance encounter, followed by the second meeting between Leodanis and the urban farmer
permaculturist, that sparked this couple’s entrance into permaculture.

In the permaculture group located in Fomento, the Sancti Spiritus group located farthest
from the foundation’s office, recruitment outside institutional channels is particularly strong.
When I asked if they could introduce me to other permaculturists in the Fomento subgroup that
they lead, Gilberto and Josefa (profiled in Chapter 4) took me to three household patios and one
farm, none of which were the products of “trained” permaculturists. One of these people, a
neighbor of Gilberto and Josefa, shared with them a common interest in collecting orchids, and
she got to know them this way. They began to regularly visit her and exchange information on
permaculture production. Another pair of permaculturists, friends who decided to start farming
together in middle-age, met Gilberto and Josefa through ANAP, and from there entered into
discussions about permaculture and agroecology, leading to their adaption of a variety of
permaculture practices and principles. They later went on to participate in a permaculture course,
but Gilberto and Josefa’s neighbor – at least upon my last fieldwork period in 2015 – still has not, due to elder care responsibilities she shoulders at home.

Gilberto strongly contests the logic that anything beyond these participants’ engagement with the local permaculture group and exploration of its practices is necessary to become a permaculturist. “She is a permaculturist!” he contended passionately as we discussed his neighbor. “I don’t care if [others] say you have to take a course to be permaculturist; she has the mentality of one. There are other ways to learn.”

Grassroots Workshops and Acercamiento

Some permaculturists also take it upon themselves to hold community outreach events. These range from youth “circles of interest” to workshops for adults on topics such as vegetable canning or seed saving. These events spread specific skills associated with permaculture, but may also be gateways to broader participation in the community. Gilberto and Josefa, for example, have invited other people from their town to come to their food preservation center for workshops in vegetable processing and pickling. As they described in a presentation at the national permaculture conference in 2014, they also used this workshop as a space to talk about the ideas of permaculture, sustainability, and healthy eating more broadly. For those who have not taken place in a formal permaculture course with FANJ, these meetings provide an alternative space to form a sense of belonging in local permaculture groups. When I interviewed Carmen and Leodanis, they were also planning to redesign the area close to their farmhouse, where they would build both a mandala vegetable bed and a gathering space with seats to host talks and workshops on permaculture for other members of their cooperative, as well as the
school children Carmen works with. This, too, will respond to the foundation’s urging that permaculturists share their work and perspectives with the wider community.

Some permaculturists have also participated in longer-term projects of promotion outside of the foundation’s purview. Armando, as mentioned previously, taught members of his church congregation how to set up permaculture systems in their backyards, and he previously formed a club to discuss environmental issues and natural medicines. Such non-FANJ organized learning groups may become their own unique community of practice, or they may at some point move into the larger permaculture network that has FANJ at its center.

Notes from the Field: An Afternoon in Armando’s Patio

Right behind the backdoor of their house, Armando and his wife have a large fruit tree that perfectly shades an otherwise open area. They have several old chairs underneath it, where people regularly stop by to sit with them, sometimes purchasing a drink or sweet, and other times just to chat.

One afternoon, as I sat with them, a man stopped by on a break from work. He purchased a drink and stayed to chat with us. He listened as we talked about Armando’s plan to raise goats again, the difficulty of obtaining wood to build a structure for them, and also his work assisting members of his church congregation in developing backyard permaculture sites.

He thanked Armando’s wife for the drink, and they began chatting about how unhealthy typical, sugary *refrescos* (soft drinks) made from packets of artificial ingredients are. She and Armando both talked about the many different alternative *refrescos* and drinks they make from fruits, herbs, and flowers they grow on their small farm. One infusion they had recently become very fond of is made with *flor de jamaica* – hibiscus flowers. He asked her to describe the process in detail, and listened raptly, repeating back the steps and asking questions.

Not just a short break in the day, his stop at their house became a moment to consider other means of consumption, health, and gardening.
Maintaining Communities of Practice

In addition to the initial process of recruitment, acercamiento, and non-institutional efforts to bring participants into permaculture, permaculturists also work on a grassroots level to maintain their social network. This network constitutes what Lave and Wenger (1991) call local communities of practice, groups of people who are collectively engaged in processes of learning, a shared passion, and a mutual goal of improving their endeavors in that arena (in this case, permaculture), and it is essential for maintaining both the material and immaterial realities of the figured world of permaculture. As previously mentioned, course participants do not always “stay in” permaculture. After this problem was identified in some of my initial interviews and informal conversations with permaculturists, I began to incorporate a question about this into my interview guide. Some participants responded that they did not know why it happened. Several speculated that it might be because the newcomers did not have spaces to practice permaculture. Others thought that it could be because these people were overwhelmed by the initial tasks associated with starting a practice. When I asked Julio, he thought for a moment and said that a person who came into permaculture, learned what it was, and then left actually, “never entered permaculture. Or never [entendido] understood it. There are people who come to permaculture excited to know what it will get them… But they don’t understand what ‘permanent culture’ is.” He went on to describe that knowing what permanent culture is means understanding the principles. In other conversations about fully becoming a permaculturist, interview participants referred to the problem of “interiorizing” the principles and practices of permaculture, alluding to an internal process of deep learning and incorporation of the principle’s in one’s worldview and actions. However, in describing permaculture as something that a person “enters,” Julio is metaphorically alluding to the community or space of permaculture, and insightfully calling
attention to the fact that learning and becoming committed to permaculture is both an interior process (of understanding) and a social one – of understanding well enough to “enter” into membership in a community of practice.

In correspondence with Julio’s point, my observations were that newcomer participants who had not engaged in conversation with other permaculturists after their initial exposure to and training in permaculture were not able to regain access to or establish a sense of belonging in their supposed-new community. And, of course, those who do are much more likely to feel a strong sense of connection, belonging, and commitment. For instance, after we both participated in a youth permaculture course, Reinaldo was eager to implement the practices he had learned of on his family’s property, which was located in a now relatively dense semi-urban neighborhood that had previously been countryside. He and his parents hoped to reconnect with their campesino roots by expanding production in their large backyard. Reinaldo’s entrance to permaculture had been somewhat stymied by his demanding work schedule, which made the prospect of course participation difficult. After the short youth course, which he participated in since he could not go to a long course, he eagerly invited me – whom in that instance he viewed as a peer student of permaculture – to come to his house and help him plan his design. We discussed options for composting, and bed design together and walked around his property. The next time we saw each other, he told me that Jorge Luis had also been out to visit and offer advice, and he indicated pleasure with this attention and support.

The permaculture movement also treats ongoing activity and contact as essential for the maintenance of ties between those who are already well established in permaculture communities. Within each permaculture group, a smaller number of highly active permaculturists make it a priority to visit each regularly and to maintain their group’s coherency.
“We are like hermanos,” Gustavo explains of his fellow permaculturists. “If a week passes and I don’t see Julio, I’ll say ‘Hey! Julio hasn’t been by here!” His feeling of kinship is not unusual. Almost all of the permaculturists I interviewed expressed a similar sentiment. As Caridad explained it, “We feel as if we were a family.” Speaking of what I have referred to as a local community of practice, Xiomara said, “the work that we do as promoters of permaculture in Sancti Spíritus is known all around the world precisely because we are a family.” The feeling of close connection not only facilitates regular visits, but also fosters a sense of mutual responsibility, and the need to share time, materials, and other resources. As Rosa chimed in to support Caridad’s statement above, “We always support each other, help each other, share with each other. When someone needs something, someone else helps. We visit each others’ patios.”

Notes from the Field: A Visit Between Permaculturoras, 2014

I have gone to Tunas de Zaza, where Rosa has offered to host me, so that I can visit and interview all of the permaculturists in the area. Rosa generally works six days a week, with little time left over for anything more than a bit of work in her own garden, dinner preparations, and sometimes visits with family. Today, she has taken off. Together, we take the long walk from the far end of the coastal town where she lives, to the other, where Ismaida lives.

The intention of our visit is for me to conduct an interview, but that goal quickly becomes subsumed by the two women’s enthusiasm for visiting with each other. As Ismaida tours me around the backyard, explaining how she and her husband – now deceased – set up their permaculture site, the conversation quickly moves to a comparison between her and Rosa about their various ornamental plants, vegetables, and herbs they both have planted. Rosa regales her with tales about the year she and her mother had a backyard full of healthy, large cabbages, and the two lament the difficulty of producing or obtaining cabbage seeds. Ismaida shares cuttings from various plants with Rosa.

Later we step into the house, and begin the interview, which also slips frequently into an exchange of notes and information with Rosa, who sits with us. Ismaida tells us both about a new
way she has learned for making passion fruit juice, and we discuss the merits of preparing it with
or without including the skins. Rosa recounts her difficulty getting passion fruit to grow at her
house, and Ismaida shares suggestions.

When Rosa and I eventually leave she says to me, “I love making visits.”

**Telling Stories**

In a successful process of familiarization with permaculture, participants not only acquire the
technical skills of permaculture gardening/farming, grasp and value the principles of
permaculture, and establish productive social relationships within the permaculture community,
they also become equipped, themselves, to promote permaculture to others. This social mission
of promotion is central to the figured world of Cuban permaculture, in which the practice is
conceptualized not only as a means to achieve personal well-being and prosperity, but also a key
means to social, national, and ecological transformation. Therefore, the role of teacher or
promoter is inseparable from the permaculturist identity.

Quite similarly to the seemingly unrelated community of non-drinking alcoholics (Cain
1991; Lave and Wenger 1991), as participants become permaculturists, they also become
equipped to tell stories of conversion, and to use them to recruit new participants. Whenever
possible, before conducting interviews with permaculturists, particularly if we were only first
meeting, I made an initial visit to their sites, and asked them to show me around before returning
at a later time for an interview. In these initial visits, as well as visits I observed when
permaculturists hosted other permaculturists, newcomers to permaculture, or foreign visitors
interested in sustainable agriculture, I observed a strong pattern in the way in which
permaculturists would engage with visitors. Commonly, they would start the visit off with a
welcome and a description of the overall scope and attributes of their permaculture site, before moving into a description of what the land (or their homes or their lives) were like previously, and a tour of the various spaces and production elements of the farm or garden, using permaculture principles to explain them. Almost always, these narratives would stress the impressive transformation that was achieved through their adaptation of permaculture. To return back to the growers profiled in Chapter 5, Armando for instance, always tells visitors about how he had to reclaim his land from the parking lot it had been turned into; Rosa describes how her grandparents’ (now her) patio had been left without fruit trees after a hurricane, until she began practicing permaculture and replanted it, and Gilberto stresses the deforestation and soil degradation that had taken place on his family’s land.

In addition to being heartfelt stories of personal accomplishment, the stories permaculturists tell about their sites also represent the skillful adaptation of a common narrative pattern. They serve to signify the speaker’s belonging within the wider permacultural community, and they also help to convince visitors of the powerful possibilities associated with permaculture. Rather than just opportunities to boast, the narratives also emphasize the agency and creative they have engaged in to improve their farms, organopónicos, patios, and homes.

Permaculture newcomers are initially exposed to these narrative forms as they visit permaculture sites for the first time and participate in permaculture courses. As newcomers begin to receive visitors, FANJ staff sometimes introduce them, and speak on behalf of the permaculturist to give an overview of that permaculturist’s life story. For instance, when I participated with the foundation’s foreign interns in a tour of sites in Tunas de Zaza, we visited a family who had recently become acercados of the community. At this site, a FANJ staff member provided the explanation of their site and its potential. At other more established – though not
necessarily more or less impressive sites – the permaculturists narrated their own stories. The vignette below comes from a first visit I made to Francisco’s permaculture system. At the time, he did not yet know me, or the scope of my project, and gave me a tour of his system as he would a visiting national or foreign permaculturist. The introduction, explanation, and tour of his small farm reveal his mastery of permaculture discourse and techniques of presentation. Like many other permaculturists who I visited or observed presenting their sites to others, he emphasized the transformation of the space, his implementation of permacultural principles, his efforts in teaching permaculture, and some of his future expectations.

Notes From the Field: Francisco Presents his Permaculture System

On a late morning in March, my research assistant and I visited Francisco, so that I could ask him to give me a tour of his garden and schedule an interview for a later day. We found him in his house, just outside the city in an area that was once campo, but is now suburban. He greeted us with a friendly demeanor, and together we walked the short distance down the block to the area where his garden/small farm is located. The land was previously used to dump trash, but he asked the cooperative within which it is located to turn it over to him for the garden. As we walked into the site, he explained the small areas we were passing through: a space to store his tools, an area where he can lay out and sell his products, and an area for teaching:

“This small space is an area for giving small conferences, or workshops with local permaculturists or whoever wants to come. We almost always get together here. En Cuba, workshops usually take place en la base [at the base – or ground level of activity], because we apply a learning that is linked directly to production. The agroecologists call it campesino-a-campesino, or we call it permacultor-a-permacultor.”

Quickly, Francisco moved to talking about the way he originally connected with FANJ, and used the discourse of permacultural principles (seeing opportunities, not problems) to describe his motivation:
“We [his family and associates] linked up with the Fundación Antonio Núñez Jiménez – we had already prepared and cleaned up this area before, but it wasn’t yet a permaculture system. It was a space where we saw the opportunity to integrate with the community, because really, it was a problem for the community. But we saw this as an opportunity to provide services to the houses, to my house, to the three houses of my daughters, and to the whole community. So, we linked with FANJ through a colleague of mine who was working here with me. We tightened our links with the foundation [estrechamos vincula], passed a course in permaculture, passed another course in design, and began to work. We had already done some things, but we then worked with the permaculture design we had elaborated in collaboration with colleagues from Canada [permaculture interns sponsored by FANJ], and in this way, began to work with a different perspective.

“Here, we do permaculture. This is not an organopónico like generally exists [in Cuba]. You could call this a pequeño huerto [small garden], a bosque [forest], or a bosquecito [little forest]. It’s a huerto for my house, but also for all of the community, because we can’t eat everything that we grow.”

After giving this brief introduction, he asked whether I would like to ask questions or to walk around the system. I asked how old the system was, and he explained that it was one of the youngest permaculture systems in the area – only three years old – but that it was very productive, allowing him to work only two hours (which is the maximum his doctor advises him, due to health conditions), while still maintaining sufficient productivity. I then asked about his motivations for practicing permaculture:

“All of my life I have felt this love towards nature. I express it in art, and in literature, which is my principle dedication. I express it pedagogically too, with children. I share the understanding that it is necessary to acercarse [come close to] nature and produce with it. I believe that the world is very close to having grave problems with nature; they are affecting the environment, humanity, and the planet, and I believe that coming together with nature will be advantageous. It is feasible to produce without affecting human health or ecosystems.”

We began to walk around the site: “This part is a design that was made with bottles,” he explained, referring to beds made with upside down glass bottles as their borders. “We found these bottles in the dump, most of them are no longer able to be used. And since they are no longer useful for commerce, we gave them a utility. En Cuba, la permacultura criolla is
characterized by rescuing everything that could serve for production. And also to take care of nature. We respect the ethical principles of taking care of nature, taking care of people.. putting everything in the function of this. And so we aprovechamos (make use of) everything.

“This design, and you can see it in the conceptual plan [for the site], respects natural patterns. You look at it horizontally, it’s a fish. You look at it vertically it’s a plant. You look at it from the other direction, and it is an ox.

“Over here is a tank (water collection pond) that has various functions, just like everything else here. There is no element that only has one function. All are multi-functional. Another thing we have learned from permaculture is that each element that you add to a system should realize various functions.”

After explaining his system’s respect for the permaculture principle of multifunctionality, he immediately moved to explaining the garden in terms of another aspect of permaculture design: the zone system. “This is the kitchen garden, zone one, and zone two reaches all the way over there. Here we have root crops, which are a food for both people and animals. We don’t have animals right here in the garden, but they are part of the system too, in the house. We also have bees.

Pointing toward the soil, he said, “We try to cover everything here, so that the sun’s rays don’t hit the earth directly. Well, I think that if we were to stand here in this position, take off our long sleeves, and stay for two hours, we would be burnt. And so we have to think the same way about the earth – make sure that it doesn’t suffer.

“We have two tanks (ponds). One is to take advantage of borders, and the other is to give use to a type of material that we used to have a lot of here – rubber from old tires. The rubber was contaminating the environment [where it was previously]. This tank also allows us to irrigate with gravity and minimum force, which allows us to save energy. We do have a well, this well uses electricity, but the electricity we use is very minimal – it never reaches a cost of one peso or one kilogram a month. With this minimal amount of energy we water the whole system.

“The other tank has fish in it – little ornamental fish. Economically, they provide to us [they can be sold as pets], but they also make the system more beautiful – they improve the aesthetic.

“We made the design with bottles for the same reason, but it also allows us to avoid run-off. Previously that was a problem at this site, but we eliminated that with permaculture.”
He pointed to various beds and said, “All of this is intercropped. We always try to not just plant a single thing. The tipi we have there can also be planted on, and it keeps sunrays from entering the tank.

“Over there starts zone 3, and by the sugarcane is zone 5. We aren’t going to do anything more than leave the cane there – and make it a forest. A little forest at the border of the cane. There’s diversity!

“From here starts zone 4. This is an area of high production. We have four varieties of plantains, and they produce all year. This way, when there isn’t anything else, we at least have this production.

“There are 1,675 square meters here, and each meter earns an average of 80-90 pesos a month. I usually earn 1,200-1,300 pesos a month here. [This is] three times the typical salary, plus the foods we eat, which also have their price. I think the results are very productive for a family with a small space.”

My research assistant interjected to muse about the productivity that can be achieved in a small space, and how much could be produced if all land were used this way. Francisco says, “The other thing is variety! If I want to eat yucca, I have yucca. But I also have malanga and ñame [other root crops].”

After we have finished walking the small plot, following the tradition for a permaculturist to ask for feedback and commentary at the end of a visit, he said, “Well, I don’t know what you have thought of my site.” I explained that I have been impressed by the diversity and production, and my research assistant began explaining that I will be visiting many farms, even conventional ones in my research.

“Maybe a permaculturist can’t be as productive as one that plants conventionally,” Francisco mused, “But I achieve more variety, more diversity, I have more interaction with nature. And the earth is always available to offer its services – when one does conventional agriculture, in two or three years, the land is exhausted, you have to begin to apply nitrogen fertilizer, potassium, all of this. But we produce fertilizers right here on the site. That is the advantage that permaculture has – we do not damage nature.”

We chatted a bit more about his previous work, and the cooperative that his site is located within. He shared his planting plans for the spring, and then concluded: “Many visitors come
here. They come to contemplate the garden, to converse with me, to buy things. And we are already starting to work with young people [to teach them about permaculture] too.”

**Conclusion: A Commitment to Innovation and Respite from Frustration**

In Freirean theory of learning the world is created through praxis; the dialectic between action and reflection. To make change, there must not only be activity, but also a corresponding theory to give it relevance and meaning. The figured world of Cuban permaculture is powerful for this very reason; it encourages creative action grounded in material practices, but it is also engages intentionally in the process of creating cultural meaning around them. Within the figured world of permaculture, curiosity, learning, and ongoing innovation are prized. In that vein, the permaculture community finds its collective identity not only in continuing to practice established skills, but also in ongoing projects of improvement and exploration. In the two years during which I was regularly visiting him, for instance, Armando built a new goat pen, acquired a small piece of equipment for producing vegetable oil, planted rows of three new oil crops, re-designed his medicinal plant beds, and built a new area for rabbit cages. When I visited Xiomara and Jorge Luis most recently, who had been specialists in pest management for decades, they were running a new experiment for protecting cabbage from pests by letting them eat the first leaves, then placing a fine mesh net over the plants to trap and kill the bugs, so that the plant could continue to grow out.

These are the types of behaviors that the Cuban permaculture movement seeks to encourage among more and more people, and that they frame as part of the local action necessary to change Cuba’s environment and society from both a material and cultural
perspective. As they recruit more participants to the permaculture network, they are growing a movement that validates both FANJ, institutionally, and permaculture, philosophically, as legitimate actors in the authoring of Cuba’s future. But recruiting new participants and spreading permacultural behaviors more widely is not a simple question of imparting new techniques. As this chapter has shown, learning to be a Cuban permaculturist is a situated process, both highly social and very personal. It is successfully achieved because promoters intentionally avoid what Freire (2000) referred to as the “banking model” of de-contextualized, vertical instruction, and instead, employ pedagogical and social-networking practices that encourage participatory and horizontal learning. Drawing on Lave and Wenger (1991), I have shown how becoming a permaculturist is a process of affiliating with a group and putting pre-existing concerns and experiences into the framework of permaculture. In the courses, workshops, and informal exchanges that I have described people are drawn into communities of practice, through which they collectively strive to improve their permacultural practices. This happens not only at national and regional events, but also, very importantly, in smaller communities of practice, permaculture subgroups that ground permaculture in local context. Through these communities, people learn the principles of permaculture and also adopt the practices of it – learning to compost, to intercrop, or to grow things in new patterns, for instance.

To follow a second dimension of social practice theory, they also adopt discursive patterns to narrate their experiences to others, and as Vygotsky (1978) and Bakhtin (2010) suggested, they internalize these linguistic structures so that they become means for them to understand themselves. They experience subjective shifts as they learn to understand themselves and their social, ecological, and national responsibilities. In this way, as will be discussed further in the following chapter permaculture also has political ramifications.
At present, there is some tension and contradiction between the permaculture movement’s emphasis on social ties, solidarity, and promotion, and FANJ’s stance that a person must attend a formal permaculture course in order to be a permaculturist. While both the institutional and non-institutional practices are currently working to successfully transform people’s practices, incorporate them in new communities, and produce intimate shifts in identity, the formal resources of the foundation are only made available to those who have formally incorporated with the institution through courses. Moreover, some who do take part in formal courses are never fully incorporated into communities of practices, or the everyday social relations of practicing permaculturists. These limitations are discussed further in the following chapter, which considers the transformative potential of the Cuban permaculture movement. Nonetheless, the pedagogical approach that FANJ directly oversees and also encourages permaculture practitioners to take into their own hands, has successfully taught new agricultural techniques, new approaches to sustainable living, new social roles, and new ethical orientations to those who have accessed its learning spaces.
PART IV:
TRANSFORMATIVE POSSIBILITY AND THE FUTURE OF ALTERNATIVE AGRICULTURE IN CUBA
CHAPTER 8
PERMACULTURE, POLITICAL POSSIBILITY OF THE EVERYDAY, AND THE FUTURE: A CONCLUSION

This dissertation has described the permaculture network of Sancti Spíritus as a community of practice, movement, and institution that is transforming people’s relationships to food and agriculture within the context of a country that has experienced a massive agricultural transition.

A manuscript on the topic of Cuban permaculture could also have been about the devolution of responsibility to individuals, movements for gender equity, the role of non-governmental institutions (NGOs) in Cuba, or ecological housing construction. I, however, arrived at permaculture as my object of study through the same framework that it arrived originally in Cuba; sustainable food production. In this final chapter, I will retrace the steps of the preceding chapters, highlighting the two principal arguments of the dissertation and considering two final questions.

At its core, this dissertation revolves around my assertion that Cuban alternative agriculture projects, paradigms, and movements must be understood as complex amalgamations of desires, ethical concerns, and expectations, and not simply as necessary reactions to scarcity. The recognition that the projects are deeply ideological and philosophical opens room for a second key argument: that certain non-state projects to promote alternative agriculture in Cuba, namely the permaculture movement of FANJ, have become meaningful by offering not just new technical practices, but new subjectivities, hopes, visions, expectations, and identities as well.
These findings lead me to two final questions regarding political futures: if permaculture is focused on the individual as a locus of transformation, can it also be considered socially and politically transformative? And secondly, what can we expect of permaculture and other alternative agriculture movements in Cuba when, at the time of writing (2017), Cuba is facing changing leadership, economic organization, and international relationships?

**The Complex Motivations of Alternative Agriculture**

A primary pursuit of this dissertation has been to argue against the common framing of Cuban alternative agriculture as a forced, solely pragmatic response to economic and material scarcity associated with the Special Period. To do so, I elaborated, in Chapters 5, 6, and 7 an ethnographic description of the core alternative agriculture community of Sancti Spíritus, the permaculture network organized under the institutional auspices of the Fundación Antonio Núñez Jiménez de la Naturaleza y el Hombre. In these chapters I describe the participants I encountered during my fieldwork as deeply committed to sustainable agriculture practices – not only as economic tools or practicalities of growing food in post-Soviet Cuba – but as part of a larger vision they shared for healthier ecosystems, better food, and more respectful and functioning relationships between family and community members. Although they often celebrated the better food they gained access to, the more productive soils that resulted, and the healthy profits they could yield (for those who sold their production) through permaculture, they emphasized, above all else, an ethic of care – for people and for the land. The pathways through which these growers entered into permaculture or agroecological practice, described in Chapter 5, highlight the fact that sustainable agriculture was not simply a given in the face of limited
resources. Indeed, many research participants lived among neighbors and farmed alongside fellow cooperative members who farmed conventionally, growing mono-crops using pesticides, and, when possible, chemical fertilizers. Research participants’ adaptation of permacultural and agroecological techniques took place as they actively sought alternatives, were recruited by enthusiastic promoters, or by happenstance, encountered new projects.

Though some may have first encountered permaculture and agroecology as advantageous practices for improving their farms, Chapters 6 and 7 reveal that becoming a permacultural grower is about more than adapting new skills. It entails learning how to think about them in relation to a distinctive figured world, and to be members of new communities of practice. In doing so, participants grew into new subject positions and identities that motivated them to act in new ways, and to “see the world differently.”

While these chapters empirically show that alternative agriculture means something more to these practitioners than just “getting by,” Chapter 4 revealed that a timeline of alternative agriculture events and introduction of ideas in Sancti Spíritus, plotted against major national events of political economic importance, does not support the argument that sustainable agriculture would not have been implemented were it not absolutely necessary. Although state support for, and major programs in alternative agriculture and localized food systems did emerge out of the Special Period, they continued to roll-out across central Cuba years after the height of this time of scarcity, while the nation was also starting to pursue new options in re-industrialization. For instance, when subsidized oil shipments from Venezuela had increased, sugarcane factories were being rebuilt, and some Cubans were hoping for a “productivist” future, others continued to promote and successfully convince additional farmers about the benefits of low-input, diversified farming.
Moreover, Chapters 2 and 3 describe deep cultural roots and motivations for alternative agriculture. Chapter 2 argues that the movement to de-centralized agriculture in the 1990s and re-instate power in the hands of small-scale campesinos was not entirely new and unfamiliar, but took up a cultural thread that had been carried from Jose Martí and movements for Cuban independence through to the Cuban Revolution and up to the present. During these previous periods, small farmers were heroized; described as essential to Cuban nationality and necessary for maintaining a diversified economy and independent nation. Though this paradigm was cast aside for much of the 1960s-1980s in favor of one of modernized, agricultural workers working in centralized operations, the 1990s regenerated these positive cultural sentiments toward smallholders once again, in pursuit of the goal of Cuban sovereignty and survival.

Although the productivity of small-scale producers gave some people hope for recovery from economic crisis, the Special Period also reinforced a deep feeling of disillusionment and frustration, which, as described in Chapter 3, has survived across strata of Cuban society up until the time this research was conducted. This “structure of sentiment” is supported by the deep bureaucratization of everyday life, and the sense that people face constrained opportunities for overcoming the material and intellectual challenges that frustrate them. Although this sentiment has mired some in inactivity, escapism or consumerism, it has also prompted others to pursue new practices and creative outlets.

The figured world of permaculture speaks to the sense of frustration that many Cubans feel in their everyday life as a result of perceived limited economic and political agency, and encourages participants to take creative action, and to both seek and pursue “otros caminos” (other pathways) forward. Rather than depender (depend) on external forces, they seek, through permaculture, ways to address food security, health, housing, spiritual, environmental, and
livelihood challenges, themselves, and within their communities. As described in the previous chapters, farmers like Javier (7) and Armando (8) do not always feel they have input into the direction of ANAP or their agricultural cooperatives; much like many Cubans in other professions feel in their work for large agencies and administrations. In permaculture projects and communities of practice, the feeling is different. Javier, for instance, described that in permaculture conferences, everyone had a voice, and a chance to contribute: “no one is above anyone else… They all have something to learn from each other.”

**Beyond the Moral vs. Material Approach**

My argument that permaculture and other forms of Cuban alternative agriculture should not be explained as forced reactions is not intended to be an implication that the material side of food and agriculture are irrelevant to this discussion, or that permaculture exists on an ethical plane separate from these daily concerns. As mentioned in Chapter 2, the debate of moral versus material motivations for actions and behavior is both quintessential to Cuban studies, and deeply inadequate for explaining actual dynamics. In this debate, “material concerns,” like securing enough food to feed one’s family and enough building materials to maintain a safe home, are treated as existing in a separate sphere from “moral concerns,” like contributing to a flourishing society or preserving the environment. However, I have attempted in this dissertation to show how the material and moral are inseparably entangled in both the motivations for taking up alternative agriculture, and the reasons that people do or do not develop enduring commitments to it. It makes no sense to separate the two.
In the second volume of *Critique of Everyday Life*, LeFebvre (1991) defines the everyday as the space where people work to meet their needs. To do this, they access material resources, use culturally constructed practices, and operate within the confines of social structures. In this process, basic needs are transformed into desires, and desires – in the cultural atmosphere – often transform back to needs. The two exist in a dialectical process, and as such, it is impossible to truly separate or distinguish them. The same is true of the material and the “moral.” The need to grow and distribute more food sustainably was materially essential after the Soviet Union’s collapse. But there was no natural or singular path for doing so. The decision to turn to alternative agriculture marked the rise of a new imaginary, just as some people’s hesitancy to accept it marked it as failing a moralized longing for productivism and consumptivism. As certain people, farmers, and policymakers invested in an alternative agriculture paradigm in order to satisfy the country’s very immediate material and biological needs, they also embraced ethical worlds associated with food sovereignty, localization, ecological stewardship, autonomy, and desire for the types of food and livelihoods connected to them.

The sense of disillusionment and dejection experienced by many Cubans in the intervening years, like the emergence of alternative agriculture, is grounded in realities of material limitations and scarcity. However, it too is abstracted beyond this. Hannah Garth described research participants in Santiago de Cuba as becoming depressed not because they could not access enough food, but because they could not access food they most desired, dreamt of, and considered appropriate to particular occasions or ceremonies; in other words, their hunger was not physical or caloric, but one of meaning and lack of possibility (Garth 2013). Likewise, the people I describe in Chapter 3, who complain of their poor pay and challenging working conditions, are distressed not only by their current predicaments, but also by the sense
that there is not a way to improve upon them. This lack of possibility for improvement is construed as a moral failure of the Cuban state to provide opportunity to its people. In its wake, people are left with a deep sense of desire for something other than their current reality.

In their ethnography of broccoli production in Guatemala, Fischer and Benson (2006), also identify a desire for something different existing among growers. In this case, they refer to it as “something more.” Although the global chain of broccoli production is extremely risky, exposing producers to the vulnerabilities of global markets and requiring them to learn about production of a crop and food item they are not familiar with, the Guatemala campesinos these anthropologists worked with engaged in it because it represented new possibility. Though they understood the risks and limitations of the industry, it spoke to their desires to find some transformation in their lives. Not all of these farmers were sure what “something more,” would entail – perhaps more income, perhaps the chance for a child to go to college – but they did know that it must involve something other than what they were experiencing at the present. For that reason, Fischer and Benson explain that the production of desires – not just rational needs – must be examined in order to understand how agricultural decisions are made.

In a similar pursuit, this dissertation has attempted to understand alternative agriculture in contemporary, Central Cuba from an everyday perspective grounded in the needs and desires of the people who engage in it. I have looked at the meaning that people find in permaculture and agroecology, and the way these imaginaries articulate with their daily lives and future goals. From this perspective, it is clear that even the most basically material projects are guided by complex layers of morals, ethics, ideologies, and philosophies originating both within individuals and placed upon them by the social structures of the Cuban state and society.
At present, there are farmers and agricultural policymakers in Cuba who prefer conventional, chemicalized agriculture with the goal of creating a “modern” system capable of feeding both the masses, and exporting to other parts of the world. There are others, like those described in this dissertation, who want to pursue agroecological or permacultural agriculture, believing that it stands a better chance of feeding the people, healthfully, over the long term. Both have arrived at their positions based on moralized stances on the country’s current material position. To understand alternative agriculture movements, like the permaculturists, we must take seriously their ethical commitments as well as their material reasons for arriving at and pursuing them.

**Making Sustainable Agriculture Practices Meaningful: The Figured World of Permaculture**

A second central argument to the dissertation – after the importance of recognizing the ethical, social, and philosophical motivations of Cuba’s sustainable agriculture – has to do with why the permaculture movement, one small strand of the broader Cuban paradigm in alternative agriculture paradigm, has become particularly influential to growers interested in sustainable agriculture and alternative food production in Sancti Spíritus. I have argued that permaculture has become deeply influential to those practicing it not only because it offers effective practices for diversifying their food production and access, but also because it provides a compelling and comprehensive figured world that offers them an integrated way to consider their food production, social relationships, and place in ecology. As people enter into it, they develop new subjectivities, or new sensitivities and understandings of land, food, farming, and community. Many develop a strong ethical commitment not just to avoiding contaminating the earth with
chemicals, but to avoid waste in general, seeking out discarded materials – instead of concrete – to produce their raised beds and harvesting rain water instead of using municipal sources. As recounted in Chapter 6, they describe themselves as becoming “more human,” more “global,” and “sharing more.” They say they are more thoughtful in regards to gender equity and household design. They also say that they consider their actions in the long term, finding that they reap greater benefit for themselves, and also are able to contribute in a more significant way to their local communities, when they do so.

This allows them a greater sense of agency or control over their own lives. Rather than rely on external sources, they do things that are commonly considered impossible in Cuba; saving one’s own seeds in a tropical environment, or forming a community group to clean up a mangrove area and urging the head of the Consejo Popular to consider environmental preservation more seriously. This agency provides an empowering contrast to the sense of frustration that permeates many facets of contemporary Cuban life.

Moreover, as permaculturists, they acquire a new identity that marks them to others as leaders in this work of natural food production and environmental preservation. As they also grow to understand themselves in these terms, they are increasingly committed to continue pursuing the actions and practices associated with it. Many permaculturists are constantly active and engaged in new projects. Gustavo, for instance, says that he and his son redesign their permaculture site once a year in order to improve upon it.

Extending a figured world like this to new participants is complicated and long work, but permaculture is able to steadily do so because FANJ and the permaculture network also constitute a community of practice that successfully recruits and trains new permaculturists. In doing so, it reproduces the permaculture network’s position as a leader in local communities, and
the foundation as a key actor in sustainable and urban agriculture on the national stage. It does so through situated, horizontal learning practices that engage participants existing knowledge, integrating it with new frameworks, ethics, and skills.

Thus, I have argued that permaculture has become highly influential in Sancti Spíritus, where I conducted my fieldwork, and in several other parts of Cuba, not because the agricultural techniques are inherently superior to or even particularly different than those developed by agroecological or organic agriculture programs, but because of this comprehensive figured world and effective community of practice, which cement its ethical and social import. Together, they are able to demonstrate the importance of sustainable agriculture in relation to people’s lives, desires, and ethical priorities, and are also able to carefully expose and recruit people to this way of thinking.

**Permaculture and Political Potential**

Despite the intimately transformative potential that permaculture has on individuals and families who engage in it – and even on localized communities who undertake it together – it is still a relatively marginal and unknown movement in Cuba, a long second to agroecology (also not a household word) in terms of popularized philosophies dealing with sustainable food production. Sancti Spíritus is considered a core center of permacultural activity in Cuba, and yet even here, in a province of approximately 462,000 (La Oficina Nacional de Estadística e Información 2013), FANJ counted only 190 people as formal members of the permaculture movement in 2015. Moreover, permaculture is specifically focused on individual activity, rather than social
structures, as a locus of change. Considering this, I now turn to one of this dissertation’s two remaining questions: what is the transformative and political potential of Cuban permaculture?

As described in Chapter 6, permaculture has been criticized in other geographic contexts, including North America, for focusing on individualized solutions to food, housing, and environmental problems without considering the structural issues that constrain the agrifood system and limit justice within it. For this reason, some argue, permaculture is only accessible to those already privileged enough to access the resources and time to practice it, and has little potential to expand that sphere of influence. As I also described in Chapter 6, the context in which permaculture has emerged in Cuba, and the figured world that creates it there, is quite distinct from the dominant Northern iterations of permaculture. Nonetheless, the question remains as to whether Cuban permaculture is socially transformative, or merely a temporary palliative for those who practice it.

Indeed, the most identifiable impacts of permaculture can be seen on the daily lives of practitioners. Some permaculturists even directly state dis-interest in political engagement. As described in the Chapter 5 profile of Armando, for example, he recalled his engagement in the insurgency against Batista saying, “I was political; disgracefully so. I was in the Revolution. In the mountains. All five of my brothers were. I don’t want to be part of politics now.” However, his disinterest in Party politics should not be taken as an indication that his, and others, daily practices and engagement with permaculture is not without political implication.

Theorists of the everyday locate daily practices and interactions as the space from which social transformation manifests. As LeFebvre (1991) argues, true social change has not been achieved if people’s everyday lives and struggles have not been substantially affected. His argument took aim at Stalinism, and other currents in the Communist Party moving toward grand
and centralized solutions to social problems, while losing site of the human dimensions and reality of them. It is only from the starting point of everyday life, he contends, that it is possible to work, dialectically, toward meaningful structural change, and diminished alienation.

The argument that change can be generated in daily practices in theorized further by Price, Nonini, and Fox Tree (2008) who described movements attempting to do this as “grounded utopian movements.” Similar to Cuban permaculture, these movements are “grounded in visions of alternative ‘ideal places’ (utopias), and set out to establish alternative ways of living which their members find more just and satisfying than at present” (2008, 127). Some might consider these movements to be “escapist” or contrary to progressive goals, since they do not directly confront or assert participants’ rights in the face of capitalism and the nation state. However, these authors describe that they can be equally influential by building more satisfying ways of living, generating autonomy, and creating new identities in the face of various forms of repression. The Native American Ghost Dance, Jamaican Rastafarianism, the long-durée of Maya activism, and the global social justice movement are all identified as grounded utopian movements, and described as remarkable for their endurance and reliance on networking.

The Cuban permaculture movement shares these features, and is also involved in the autonomous pursuit of defining and enacting more satisfying and fulfilling ways of living. However, unlike these movements, it is not absolutely dis-engaged from the modern nation state. Rather, more like the Anastasia movement of Russia (Davidov 2015), permaculturists’ decision to act separately from the state and to sometimes portray it as insufficient has political implications. Davidov argues that the eco-spiritualist group she studied is not intentionally ignoring all power structures, but rather, is making a statement about the weakness of the state in relation to other forces at play when they choose not to highlight engagement with it. In the case
of Cuban permaculture, permaculturists and representatives of FANJ sometimes subtly and sometimes blatantly invoke the inadequacies of the state, thus asserting the importance of both permaculture philosophy and FANJ in finding solutions to social problems.

The very act of publicly acknowledging the stark difficulties of daily life and food provisioning in Cuba can be seen as political commentary in and of itself, and the permaculture movement does so regularly by emphasizing the need for better food. As described throughout these chapters, FANJ and Cuban permaculturists also engage in more targeted critique. In encouraging participants to “avoid dependency,” and to save and exchange their own seeds, for example, the permaculture movement is implying the unreliability of state seed production companies. When, as previously described, a FANJ staff encouraged coastal dwellers during a national conference to stop waiting for their local Consejo Popular to take steps against mangrove contamination, and to form a local committee, she implied the inadequacy of the strategy of waiting on the state to solve local problems. “It’s very easy to say it’s the state’s fault,” she said, “but it is you all who live here and who have the responsibility.” FANJ and permaculturists also regularly critique the state department of urban agriculture for being too “linear” in their mandate that *organopónicos* be designed as series of long, straight, cement rows. In more detailed conversations, many also reveal that they consider the urban agriculture department to also be too linear, or too rigid and simple in the overall guidelines that they prescribe for urban farms. These debates are not confined only to internal conversations between permaculturists. Rather, officials from the urban agriculture department are invited to permaculture conferences, and FANJ staff members attend urban agriculture conferences, engaging in debates about national guidelines and the role of permaculture in this state sector. In addition, permaculturists who also have formal roles in other institutions, for instance with day
jobs at the Ministry of Agriculture, administrative roles in their ANAP cooperative, or a university, also introduce their perspectives into other channels through daily conversations with co-workers, fellow cooperative members, and students.

This speaks to the type of “soft” change that can take place through movements and projects rooted in education and alternative imaginaries. As David Meeks describes of learning processes in agrarian programs, they enable people to start identifying hegemonic tendencies, as well as counter-hegemonic possibilities. As solutions to existing agrarian problems are put into place, the hegemonies causing the problems are not so much actively resisted against, as the necessary change is tacitly articulated. In this way, transformation makes its way up from local institutions into larger state structures. For example, FANJ’s success in local urban agriculture in Sancti Spíritus sparked the interest of the local pedagogical university (responsible for training primary school through university instructors), which had a practical interest in revitalizing their university organopónico and an interest in new curriculum. FANJ offered a semester-long course and practicum to a group of students, who now, presumably will disseminate permacultural knowledge to their future primary, secondary, technical, and university students.

This engagement with larger structures and critique of state institutions shows direct political possibilities, but to return to the similarities between Cuban permaculture and grounded utopian movements, permaculture is also an important narrative of possibility. The very act of opening up new imaginaries and alternative discourses is far from insignificant. In fact, “noticing” possibilities can play a very important role in supporting the pursuit of transformative practices (J. Gibson-Graham 2006; J. K. Gibson-Graham 2008; Tsing 2015). For one, recognizing possibility instills hope. The transformative potential of hope has long been debated by philosophers, with those like Nietzsche (2012) contesting that hope is an illusion that pacifies
people and lulls them into inaction, while Spinoza (1982) depicts it as a vital joy necessary for active living, and Deleuze (1988) indicates that it could be a spark generating everyday processes of creative action. In an ethnography of a schooling movement in Oakland, California, Lashaw (2008) describes a case in which hope acted in the former capacity. The hopeful expectation shared amongst families and activists that change was imminent sparked them to ignore and avoid confronting serious inequalities that were ongoing in the present. Nonetheless, in this case of contemporary Cuba, I have described how it is frustration and disillusionment, not hope, that have prompted inaction and escapism. The glint of possibility that permaculture and alternative agriculture offer serves as a necessary spark to action, and also charts a pathway forward.

Institutional Limitations

However, the generative agency of the permaculture imaginary and its ability to imply critique without sparking direct confrontation may also be constrained by FANJ, whose institutional characteristics could place growth limits on the permacultural movement. As described in Chapter 7, many people informally learn permaculture from family members, friends, and neighbors, but to be formally considered a “permaculturist” by FANJ, and offered institutional resources, they are expected to participate in a permaculture course. However, these courses – constrained by the availability of the international funding that supports them – are offered around the country only several times a year, and limited to a total of 20 participants.

Mercedes and Fernando, who are included in the analysis in Chapter 5, are agricultural producers in the campesino sector, and had been promoting agroecology for eight years at the time I interviewed them. Over the course of these and the following years, they have sought out
programs in agroecology, food preservation, and food sovereignty in order to gain knowledge in alternative agriculture and access to resources that will help them to continue developing their farm. Although they identify as agroecologists, they – particularly Mercedes – are interested in learning more about permaculture in order to expand their kitchen garden and produce more vegetables, fruits, and herbs for household consumption. Because their farm is located on very pool soils, they have had difficulty expanding vegetable production, and believe that the same techniques used by permaculturists in small, urban spaces will improve their own production.

During the primary period of my research, in 2014, Mercedes expressed her interest in attending a permaculture course, but also indicated that she felt somewhat out of place at the foundation, which she said seemed to her to be predominated by permaculturists interested in practicing in urban locations. A year later, when I was conducting follow-up research, I was surprised to run into her at a meeting at the foundation, and asked if she and Fernando had “incorporated” with FANJ. Mercedes hesitated, and said “somewhat.” Later, when we chatted at her home, she shared that she still felt that the foundation was uninterested in working with her family, because they usually did not invite them to events, and had not yet given them the opportunity to take part in a course. She reflected that some permaculturists attached to FANJ, like some involved in other alternative agriculture groups, were guarding rather than sharing their knowledge, and contended that, “they are not doing their work with love.” This accusation was ironic, considering that permaculturists describe themselves as successful because they promote permaculture “with love.”

What then, is at the root of the permaculture movement and FANJ’s failure to recruit and incorporate Mercedes and her husband Fernando? Unlike other permaculturists, this couple has spent their entire life as campesinos – never having left agriculture for other work – and they
never attained secondary, technical, or university education. This places them in a different social position, and it is certainly possible that FANJ’s failure to chose them as course participants represented a latent prejudice against them as successful representatives and future promoters of permaculture. On the other hand, it could also represent a limitation in staffing and FANJ capacity to fully reach out to all interested parties, and in the resources necessary to offer everyone a position in a course.

Although all permaculturists are tasked by the movement and the foundation with the role of recruiting, reaching out to, and training new participants, the final say in extension of institutional resources ultimately falls on the shoulders of FANJ’s staff, not all of whom have always been seen as reasonable or fair in allocating them. Moreover, permaculturists do not see some as persuasive and relatable in their recruiting methods. Like many small-organizations, FANJ has gone through periods of internal discord and disagreement, with conflict sometimes emerging between staff members, and other times between a particular staff member and participants of the permaculture community. Various people have accused one, for instance, of being too demanding and critical of farmers, without actually understanding farming. Some have accused another of being more interested in self-promotion than the values of permaculture.

In a larger organization, a board or executive structure might mediate such conflicts. However, in the foundation there is no particular oversight of conflicts. Since FANJ is the only organization in the country promoting permaculture (and one of very few organizations with even the legal potential to accept the necessary foreign currency necessary to fund it), this means that such conflicts and any periods of immobilization they lead to resonate across the country. Moreover, as Freire points out, even education intended to be radical can harden into its own form of bureaucracy, and he cautions that when this happens, the humanist dimension of a
struggle is lost, and transformation limited (Freire 2000). The participatory nature of the permaculture movement, dispersed leadership across localities, and the ongoing ability to engage in debate about successes and challenges in national meetings have prevented this sort of complete ossification from taking place, but these institutional challenges certainly introduce challenges to permaculture as a movement.

Chapters 2, 4, and 5 indicated the importance of grassroots and non-state efforts in the development of Cuba’s alternative agriculture movement. While non-state groups and individuals have had the flexibility to experiment more widely in sustainable agriculture, there is also reason to be concerned with the fact that FANJ is, at the time of writing, one of the very few highly active institutions in this area. Moreover, the very fact that FANJ, the organization supporting the permaculture movement is an NGO, rather than a people’s association, like ANAP, or branch of the state, like the department of Urban Agriculture means that it has neither the mandate nor the capacity to democratically reach all citizens. Critical scholars have commonly noted how the rise of NGOs has coincided with the expansion of global-capitalism and the decline of the nation state (Fisher 1997). It can harbor the decline of a state commitment to providing resources and knowledge equitably to a population, and to public decision making over use of key resources, by handing decision making power over to the private institutions and foreign governments that fund such organizations.

However, as Gold points out, NGOs in Cuba have simultaneously created pathways for new discourses to enter Cuba while serving as venues to co-opt global capital into the agenda of the Cuban Revolution (Gold 2015, 183). Moreover, NGOs have at times, served to highlight “the role of imagination in social life” (Appadurai 2000, 6), thus supporting alternative development and political discourse (Escobar 1992; Wignaraja 1993). Indeed, FANJ’s special position as the
privileged institution of a respected cultural leader has allowed its affiliates to engage more broadly and creatively in visioning about ecological and social futures than most other institutions and ministries are able to. Nonetheless, FANJ has limited accountability to ensure that the resources it attracts for the dissemination of permacultural knowledge and practice are equitably offered to those, around the country, who may be interested in them, and this could ultimately hamper the movements’ growth and transformative potential. Thus, FANJ is both successful and limited by its status as an NGO.

Additionally, there is a characteristic of the permaculture identity that articulates with these confined funding channels and may limit the growth of the community. Part of the permaculture identity and ethic is to become a teacher and leader, and to take on responsibility for sharing permaculture with others. In an inherent contradiction, permaculture values horizontal knowledge transfer and the equal knowledgeability of all, while also placing some in the privileged position to give talks, lead workshops, and to attend both national and international events. Because these opportunities are well regarded and coveted and the funds necessary to support them are limited, this interpretation of the permaculture mandate to teach can spark competition for “stardom” within the movement.

At times, this competition for resources also occurs at a smaller-scale. FANJ’s Sancti Spíritus office has access to wheelbarrows, water tanks, and other tools that it can purchase with international donations, and at times, bicycles and other materials brought by Canadian volunteers. These tools are divvied out to permaculturists, and because FANJ does not have a presence in all provinces, or the capacity even to bring many tools to municipalities located far from the provincial capital, they often remain geographically consolidated. A farmer I once met at an agroecology conference, who had interacted with FANJ through an international food
sovereignty program he was part of, complained to me that Sancti Spíritus “robs” other parts of the country of international resources and volunteers. In a similar vein, Armando in Sancti Spíritus complained to me that the president of the foundation would not offer a bicycle to him when his was broken. “I volunteer my time for the foundation, and have to ride all the way into the city to attend meetings, but he won’t give me one,” he said. “The foundation is a mafia!” he joked, referring to their un-monitored power over resources.

Finally, although permaculture discourse makes room for radical critiques about representation and equity, and has expanded to include transformative conversations about gender roles in Cuban society, discussions or analysis around race and class are strikingly absent from permaculture meetings and written materials. Since class differentiation and racism were supposedly and “officially” abolished by the Revolution, these topics remain taboo in mainstream Cuban institutions, and FANJ is no different in this regard. In Sancti Spíritus, the permaculture community’s racial composition is roughly equivalent to that of the general population, and the class diversity has been increasingly expanded as communities outside of the capital city are incorporated. Nevertheless, without a dialogue explicitly confronting the generational and structural lines of privilege that still prevent full equity from being reached in Cuba, the permaculture movement cannot be said to be comprehensively transformative to society, and its failure to blatantly acknowledge racism is troubling.

**The Future of Cuba’s Alternative Agriculture**

As the previous two sections have revealed, the permaculture movement is constrained by certain institutional limitations of FANJ and absences in the discourse, but nonetheless supports deep
transformation among its participants, and offers the possibility for social change. This leads us to a broader question about the future of sustainable or alternative agriculture, in general, in a transforming Cuba. As Chapter 2 described, a suite of policy changes and new state structures provided the environment in which permaculture and other alternative agriculture movements could flourish in the 1990s through the present. They made land available to those interested in farming, created municipal infrastructure for urban farms, and created national research institutions to support agroecological research.

At the time of writing – 2017 – there is heightened international speculation about Cuba’s future, and the future of its alternative agriculture. At the end of 2014, Presidents Obama and Castro announced a nascent process of normalization between the two countries, and movements have very slowly been made to lift limitations on bilateral trade and exchange. Ministries of Agriculture in the two countries signed memorandums of agreement to collaborate on research; President Obama issued a measure allowing the US to import products from private or cooperative Cuban farms; and in early 2017, Senator Boozman and Representative Crawford, both from Arkansas, reintroduced legislation that could expand the export of US agricultural products to Cuba by lifting bans that prohibit US institutions from offering credit to Cuban entities. These changes are not all met with the parallel efforts in Cuba that would allow them to manifest on the ground. For instance, in response to the announcement that Cuban coffee produced by small farmers could now be imported into the US, ANAP responded that coffee was still considered a state commodity in Cuba (though small farmers produce it, they sell it to a state company, who oversees commercialization and export), and contended that this measure contradicted Cuba’s internal sovereignty over marketing decisions and relationships between people and the state. Moreover, it is important to point out that while an end to the embargo and

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trade restrictions between the US and Cuba will have monumental changes, Cuba also has other trade partners and potential allies.

Within Cuba, policy changes have been made over the past two decades in Cuba that allow for more small business (including more restaurants and food vending) and enable farmers to sell larger percentages of their products direct to consumers (instead of to Acopio, the state procurement and distribution agency). Additionally, changes have been made allowing for greater direct foreign investment (through cooperation with the Cuban state) in tourism and other industries. Change has been gradual, but steady.

Many leftists and advocates of sustainable agriculture outside of Cuba have speculated that normalization of relations with the US will herald an end to alternative agriculture, and imagine that it will be crowded out by a growing fast food sector and the pressures of seed and chemical companies like Monsanto and Syngenta. In reality, Cuba has had relationships with both Syngenta and Bayer for many years now, and – as a centrally planned economy – the state is continuing to carefully consider what balance of sustainable agriculture and conventional agriculture will allow the country to feed its population, increase exports, and reduce expenditures on imports like corn to feed livestock, and pesticides to manage crops. Considering this, it is reasonable to expect that the future of alternative agriculture in Cuba is likely to be determined not by the imposition of Monsanto, Wal-Mart, and other US companies, but as a result of internal debates over competing paradigms that already exist in Cuba. As Juan José Leon, representative of the Cuban Ministry for Agriculture responsible for US relations once said to a group of American visitors I was working with, “Cuba has been resisting US imperialism for over 50 years now, this will not change.”
This dissertation is not an ethnography of the Cuban state or national institutions, and so it is not positioned to predict the future direction of Cuban policy toward sustainable agriculture. Rather, it has focused on the social processes of alternative agriculture, and the everyday subjective meanings and impacts of these movements on the individuals, communities, and groups who are part of them. Therefore, it does speak to the durability of the commitments that people have formed to alternative agriculture, institutional and social “ecosystems” of alternative agriculture promotion, and the likelihood that movements for it will continue.

Above all else, the growers I interviewed for this study are committed to ensuring healthy and diversified foods for their families and their communities. They are concerned with their own health, but also with that of the Cuban people. Mercedes, mentioned above, once commented to me that she and her family are proud that their farm is putting healthy, chemical-free into the Cuban food chain. It is not marketed specifically as “organic,” or “natural,” but it arrives this way at someone’s table. Many participants commented that the most important goal should always be to ensure that people have food – and that dogmatism should not come into play over pure permaculture or agroecology in feeding a society – but that they believe people can best be fed through these methods. All of the growers who participated in interviews that were already farming without chemicals stated that they did not intend to change this; that they were committed to farming this way for the environment, for the land, and for the people. Other growers I interviewed who were using some chemicals (mostly pesticides) on tobacco, onion, or other crops, in combination with agroecological techniques (like intercropping and vermiculture), also spoke positively about organic and agroecological production. They expressed openness to it, even if they had not yet been recruited by an organization promoting it.
As a state, Cuba will likely undergo various phases as it experiments with a changing economy and new international relationships. It is likely that certain projects and policies will be carried out that are not supportive of dedicated agroecologists’ and permaculturists’ visions of food sovereignty and sustainability. Chapters 2 and 4 illustrated that alternative agriculture paradigms emerged in Cuba, both nationally – in Havana – and locally – in Sancti Spíritus – through an interconnected network of state and non-state organizations and individuals. As some of these projects have diminished their efforts, FANJ has risen to local prominence, demonstrating the importance of non-state institutions and grassroots activity in this movement. FANJ has been very successful in creating and reproducing figured worlds of permaculture, and supporting long-term commitments to more sustainable relationships between human communities and the environment. However it primarily operates independently from other institutions and organizations (with the exception of specific programs in common with ANAP, the department of urban agriculture, and the Cuban Council of Churches). Its Sancti Spíritus office is currently much less involved in collaborations with other organizations than staff of ACTAF, the Pasture and Forage Research Station, and ANAP were in the early days of alternative agriculture promotion in the province (see Chapter 4). This lack of institutional networking, as well as a lack of other organizations to fill in the gap of potential alternative agriculturists who have not been reached by promoters, could become a weakness in the struggle to resist conventional agriculture moving forward. Nonetheless, there exists a strong, knowledgeable, and diversified contingent of alternative agriculturists who plan to continue promoting these methods, practicing them, and fostering dedication to them.

This dissertation opened with a quote from Carlos, a fruit farmer, descendent of a farming family, and employee of a state company of agricultural exports. “I believe that 80 years ago,
people cared more for the environment than they do now, or at least they contaminated it less by using less machinery.” After that, he said, people gained the opportunity to buy tractors and cars, and pollution increased. “But in the Special Period,” he reflected, “alternatives [to mechanization] were incentivized… people had to try anything and everything possible, and I think this served to give people awareness that it is important to protect nature.” Rather than going back to the use of conventional agriculture, machinery, and chemicals that was present before the Special Period, he sees this as the spark to a new and unfolding movement: “I don’t doubt that people will continue to better understand agroecology and permaculture more everyday. Not just in Cuba, it has to be across the entire world because we don’t have any alternative. We must take care of this problem, or humanity will fall into an abyss.”
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