
Havana's Urban Agriculture

Survival Strategies and
Worldly Engagements
in Alternative
Development

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Over the last decades, Cuba's experiments in urban agricultureⁱ have been aptly celebrated in a range of popular books and documentaries that target a global audience interested in alternative development.ⁱⁱ In these works, primarily based on official statistics and macro perspectives, Cuba's urban agriculture sites are uniformly presented as environmentally sustainable, home-grown responses to the massive food and oil crisis that followed the sudden dissolution of that country's favourable trade and aid relations with Soviet Bloc countries in the late 1980s. While contributing valuable insights in other areas, these accounts tell us little about how those family self-provisioning sites which represent the most popular expression of urban agriculture in Cuba have been made, re-made, and sustained over the years. This paper considers the evolution of these sites, known within the field by the name of *patios and parcelas*,ⁱⁱⁱ showing them to be dynamic and ever-changing products of multiple agents that reflect complex entanglements between the local and the global, the private and the public, the personal and the strictly political.^{iv} Exploring these entanglements puts into focus the evolution of Cuban urban agriculture, bettering our understanding of how different expressions of it (See Table 1) have been shaped by the shifting landscapes of power that have characterized Cuba's move from a position of "communist solidarity" to one of "communist solitary" (Eckstein 1994).

As is fitting for an analysis that focuses on an activity like agriculture that demands of practitioners a grounded knowledge and is carried out by people who are remarkably rooted in specific localities, here I follow Henri Lefebvre's (1998 [1974]) seminal work on the social production of space, considering the physical, symbolic, and everyday dimensions of some of the sites where Cuban urban agriculture has taken place over the last decades. In order to give

adequate attention to the material dimension of these sites, I outline how their creation is enabled, or disabled, by the uneven flow of needed resources resulting from shifting geopolitical alliances and internal power dynamics within Cuba. After a general discussion of the changes entailed in Cuba's move to urban agriculture, I highlight the distinctive political import of patios and parcelas and consider the specific transformations in physical layout, design, and infrastructure of a patio garden. This case allows me to illustrate, through a concrete example, how the making of even the most private of urban agriculture sites connects with globally-circulating knowledge on sustainable agriculture, Cuban government projects, and needed support from national institutions and international funders.

Table 1. Main Food-Oriented Urban Agricultural Sites in Havana (based on Cruz Hernández and Sánchez Medina's description [2001])

Production Sites	Land Tenure	Area Occupied	Main Objective	Land Tenure
Fincas (farms)	private/state	N/A	Commercialization	private/state
Organopónicos Populares (popular organoponic)	state	2000-5000 m ²	Commercialization	state
Huertos intensivos (Intensive gardens)	state	1000-3000 m ²	Commercialization	state
OAR (high yield organoponic)	state	> 1 ha.	Commercialization	state
Autoconsumo estatal (state workplace garden)	state	> 1 ha.	Provisioning of workplace dining rooms	state
Parcela (usufruct plot)	state	<1000 m ²	Household self-provisioning	state
"Productive" Patio	private	<1000 m ²	Household self-provisioning	private

Drawing in part on Michel Foucault's (1979; 1991) writings on disciplinary technologies and governmentality, as well as on related reflections on the role of the state in the contemporary world (Ferguson 2006; Sharma and Gupta 2006), I use the patio case to consider how the practices of governmental and nongovernmental institutional actors, both domestic and

international, guide the conduct of Havana's urban farmers, ultimately influencing the evolution of specific urban agriculture sites. My analysis, however, does not stop there. Inspired by the ideas of Michel de Certeau (1988), who drew attention to the creative and subversive everyday practices of those who inhabit spaces that are named, tabulated, and regulated by others, I further reflect on how urban farmers contradict, unsettle, redefine, and complicate the designs and practices of government officials and NGO players working for domestic or international organizations. Specifically, I illustrate how urban farmers "insinuate their countless differences into the dominant text," (1988:xxii) and how their private, unpublicized, and underground practices reveal the ambiguities and gaps of the master plan executed by those who are presumed to be in charge.

I begin this analysis by providing a general outline of the "master plan", as conceived by key government representatives and state bureaucrats. This exposition allows me to trace the contested evolution of Havana's urban agriculture in a manner that renders evident its political import and illuminates the different status given to various sites within official circles.

OFFICIAL PERSPECTIVES: REVISING DEVELOPMENT PLANS AT A TIME OF CRISIS

Until the late 1980s, the modus operandi in the Cuban agriculture sector fit a pattern attributed to "authoritarian, high-modernist states"(Scott 1998), which privilege state-centralized, large-scale projects that rest on global abstractions and blind confidence in scientific and technological progress. For decades, the Cuban government was proud of having a highly industrialized agriculture sector, reliant on the latest scientific and technological innovations. Being dependent on Soviet Bloc imports, however, this model of development was impossible after 1989. The geopolitical reconfiguration of the world then forced Cuba to embark on what foreign specialists have called "the largest conversion from

conventional agriculture to organic or semi-organic farming that the world has ever known” (Rosset and Benjamin 1994:5).

In 2001, León Vega, the director of international relations at the MINAG, vividly underscored for me the nature and scale of the required technological shifts as he explained,

From the socialist bloc we would buy a million tons of fertilizers; two million tons of animal feed; 30,000 tons of pesticides a year; all the tractors that were needed; and the most important thing: oil. All of this was to disappear in a year and half. . . . In 1989, we used to expend 274 kilograms of fertilizer for a ton of output; now we obtain the same with 29 kilograms. We used to produce a ton with 4.2 kilograms of pesticides and now we do it with 1.1 with the help of biological products, combined with holistic pest management.

Prior to 1989, the ratio of tractors in use to population in Cuba was 1:146—triple that of the United States for the same period (Rosset and Benjamin 1994:10). In 2001, Vega commented, “We have trained 200,000 oxen [in an attempt to adapt to reduced gasoline imports]. I think we must be the only country nowadays that has a school for ox drivers. We used to have 90,000 tractors in the country. . . . We had to abandon that path.”

These technological shifts were accompanied by a literal scaling down of agricultural space as small-scale production units became the most efficient way to organize the food production sector at this time. In September 1993, Law 142, which allowed for the fragmentation of state farms and state agricultural enterprises, initiated what has been unofficially baptized the Third Agrarian Reform. This involved the transfer—through usufruct rights—of 70 percent of Cuba’s agricultural land, previously under state ownership and management, to independent individuals or to producers organized in peasant associations and cooperatives (Burchardt 2000).^v

Although it was not directly the result of laws intended for application to traditional agricultural land, the public announcement of the government of Havana a few years earlier, in

1991, to endorse the conversion of state-owned urban lots to agricultural production exemplified, at the level of the city, the reconfiguration of land tenure patterns characteristic of the move toward decentralized food production. It also illustrated the accompanying shift toward a locality-centered approach to agriculture encouraged, among other things, by the need to cut down on transportation, made difficult by the shortage of gasoline.

Reflective of these changes, in 1991, at the corner of Forty-Fourth Street and Fifth Avenue—one of the widest avenues in the city—in the municipality of Playa, in the district of Miramar, amid embassies and old mansions inhabited by diplomats, Cuban celebrities, and high government functionaries, Brigadier General Moisés Sio Wong,^{vi} then head of the National Institute of State Reserves (INRE), created a high-yield organoponic garden: a large lot of approximately one hectare with rows of raised container beds and drip irrigation used for growing a wide array of vegetables and herbs, including lettuce, spinach, and radishes (see Figure 1).^{vii} This was the first garden of its type in Havana. Created with the objective of producing and selling fresh produce to the population directly at source, this site required considerable state investment and was part of an officially-led initiative to link productivity to material incentives in the field of food production. This initiative was publicly endorsed by none other than Raúl Castro, then leader of the Cuban Revolutionary Armed Forces (FAR), who was consequently nicknamed the godfather of urban agriculture.

A veteran of the 1959 revolutionary struggle, General Sio Wong had grown up in Havana. As a young revolutionary, he had envisioned momentous transformations for his country and had enthusiastically participated in the “revolutionary process” that had aimed to turn Cuba into a modern socialist nation. At that time, he could never have imagined finding himself, at the turn of the millennium, talking to curious foreigners like me, in his office at the INRE, about

farming without tractors or chemical inputs in one of the poshest areas of Havana, on a site that was not naturally suited for agricultural production. Then again, these were exceptional times that called for the implementation of extraordinary ideas if the government was to retain its long-term commitment to ensuring national food security.^{viii}



Figure 1. A typical organopónico in the city of Havana

In the late 1980s, as imports of food, oil, fertilizers, animal feed, and pesticides from the Soviet Union plummeted, the government found itself both unable to produce sufficient food on its large state farms and unable to efficiently distribute to the cities whatever food was produced by the state or independent farmers.^{ix} Then, the state’s near monopoly over food, its production and distribution, became the government’s Achilles’ heel. As a Cuban joke circulating at the time humorously put it: “The Cuban revolution ha[s] only three problems: breakfast, lunch, and dinner” (quoted in NACLA 1995:27). That General Sio Wong understood this message well was evident, in 2001, when he told me, “The work of urban agriculture is the best political work one can do; the cadre who does not understand this is of no use.” He solemnly added, “Urban agriculture is food for the people.”

While other state representatives would agree, the promotion of urban agriculture was not without its detractors. Many within the Ministry of Agriculture (MINAG), the main institution

in charge of monitoring, regulating, and encouraging agricultural development within Cuba, were skeptical. Rogelio, one of the four individuals who, in 1994, founded the city's Urban Agriculture Department within the MINAG, told me while speaking of organopónicos: "They [other MINAG employees] accused us of being mad the first time we suggested doing [this type of] agriculture in the city. Important personalities accused us of being crazy, crazy, crazy! They even turned their backs on us. They called us the four madmen of the city." As Sio Wong explained, the main problem seemed to be that "[This] was small-scale production, about which there were many mental blocks. The idea being that it could not solve the larger alimentary problems." What was ironic about this opposition was the fact that, until the mid-1990s, when the state finally had the financial resources to invest in the creation of more organopónicos, which incidentally functioned under close state control, it was the smallest and most independent of all urban agriculture sites (the patios and parcelas) that contributed the most to alleviating the population's food insecurity.

Urban agriculture not only transferred food production responsibilities to the city but also turned everyone's attention to smaller spatial scales, such as the neighborhood, in ways that signaled an important reconfiguration of prior government practices. In the past, government-led mobilizations—including those in agriculture—had overlooked local diversity and difference in favor of macro programs designed for universal application (Fernández Soriano 1999). Then, patriotic sentiments were encouraged over affinity for the immediate locality as "the neighbourhood and the [local] community became progressively subsumed under the national" (Fernández Soriano and Otazo Conde 1996:226). By contrast, the official representations of the urban agriculture movement emphasized the locality. Whereas the motto of prior agricultural mobilizations had evoked a national landscape and had celebrated the work "of the people, by the people, and for the people" (*del pueblo, por el pueblo y para el*

pueblo), the official motto of the urban agriculture movement replaced “the people” with “the neighborhood.” To this day, in signs posted outside institutions such as the Agricultural Consultation and Input Stores,^x as well as in publications, brochures, certificates of merit, and census stickers distributed by the MINAG (see Figure 2), one can read the message that this is production “of (or in) the neighborhood, by the neighborhood, and for the neighborhood” (*del [en el] barrio, para el barrio y por el barrio*).

The revised slogan, credited to Eugenio Fuster, the municipal president of the Urban Agriculture Department in Havana, denotes a substantial rethinking of primary food production in Cuba in terms of scale and localization. What the slogan hides, however, is the extent to which this kind of government-endorsed production, especially in the early 1990s, made individual citizens, rather than local communities or the state, responsible for ensuring food security.

In a 1979 speech, Cuba’s head of state, Fidel Castro stated, “Before [the revolution] the most a citizen could aspire to was for the state to build a post office, a telegraph station. . . . Today, citizens think it is right to expect everything from the state . . . and they are correct” He added, “today, they [citizens] do not need to rely on their own efforts, and their own means, as in the past. The fact that people today expect everything from the state is in keeping with the socialist consciousness that the Revolution has created in them.”(quoted in García Pleyán 1996:186). Regardless of these expressed views on the responsibilities of a socialist state,



Figure 2. Ministry of Agriculture census door sign displaying the urban agriculture slogan

in the early 1990s, the Cuban state could no longer provide fully for its citizens. Then, the government had to encourage people to help themselves by “relying on their own efforts and their own means”. As summed up in a popular song, broadcast over radio and television during the first years of the crisis in a campaign to encourage people to get involved in urban agriculture, “Only he who sows maize may eat corn” (Instituto Cubano de Radio y Televisión 1993). Particularly when it came to those small-scale urban agriculture sites then multiplying in privately-owned courtyards, alleyways, rooftops, previous demolition sites and portions of public parks, the government at best could play a supporting role: facilitating information, as well as inputs such as land and seeds, to those who needed them. The rest was up to the individual.

Emblematic of this push for self-provisioning was *El Libro de la Familia* (The Family Manual), a book coedited by the official godfather of urban agriculture, Raúl Castro and his late wife, Vilma Espín, then head of the Federation of Cuban Women. The book’s chapters, which were published serially in the popular *Bohemia* magazine from 1991 to 1993, gave technical information on how to create a domestic garden and included survival tips, such as how to survive an entire year on a crop of potatoes cultivated in one’s home garden. The objective

was to prepare the population for survival with a bare minimum of resources under warlike conditions of total isolation. This projection, in the experience of many Cubans at the time, was rapidly becoming a reality.

With the intention of ameliorating the effects of the crisis, the government opened the way for international NGOs, as well as governmental agencies originating in capitalist countries, to support various home-grown survival efforts. Aware that some international funders were reluctant to enter into direct collaboration with institutions representing the Cuban state,^{xi} the government moved to give more autonomy to old and recently-created Cuban NGOs allowing them to run their own projects in collaboration with foreign organizations. Cuban NGOs like the Foundation of Nature and Humanity (FANJNH),^{xii} the Cuban Association for Animal Production, and the Cuban Council of Churches were then able to join forces with organizations like the Australian Conservation Foundation, the Canadian International Development Research Centre, and the German Agro Acción Alemana (AAA) to run projects in support of small-scale producers in places like Havana. While modest in their individual efforts, these organizations have, since the early 1990s, provided valuable training and, at times, necessary production inputs to thousands of urban farmers working out of patios and parcelas. They not only worked with producers that had become too numerous to be adequately reached by current government institutions and programs but also provided them with the opportunity and resources to increase the environmental sustainability of their production sites, while gaining national and international recognition.

Although always monitored by an institutional government counterpart, the work of these Cuban NGOs ultimately signaled the extent to which small-scale expressions of urban agriculture came to rely on nonstate and nonlocal sources of assistance. This situation

represented a decentering of the state in key activities involved in achieving food security and was perceived as a serious drawback by some government functionaries. While parcelas and patios were publicly exalted as veritable “trenches for *la revolución*”^{xiii}, their relative distance from the state and its control apparatus, simultaneously rendered them suspect.

THE THREAT OF CIVIL SOCIETY THRIVING IN OUT-OF-THE-WAY PLACES

I last saw Manuel in November 2008 at the Third Latin American Permaculture Convention organized by the FANJNH in Cuba. He was literally wrapped up in a vine he was exhibiting at a plant exchange, posing for a picture for a U.S. participant at the convention. Many, then, dismissed him as a madman, but those who knew him, regardless of their view of his increasingly eccentric behavior, respected him as a longtime defender of sustainable agriculture and community participation in Cuba. I had not seen him for many years, but he still remembered a long conversation we had in 2000, when he was living in the district of Santa Fé, in the municipality of Playa, a place that had acquired mythological proportions for those in the urban agriculture field.

In the early years of the crisis, Manuel, a practicing agronomist, had been appointed to act as the representative of the MINAG in the district of Santa Fé. Under his leadership and that of a couple of other residents with comparable charisma, gardening out of private or state lots in Santa Fé had turned into a community-building activity that resulted in the creation of the first horticulturalist clubs and the first agricultural consultancy offices (a noncommercial precursor of the Agricultural Consultation and Input Stores) in the city.^{xiv} Manuel playfully labeled these initial years the “prehistory” of the urban agriculture movement, for they have been carefully silenced in recent official accounts that trace the origins of the activity not to its grassroots source but rather to institutional figures like Adolfo Rodríguez Nodals (usually referred to as

Adolfito), the current national president of the Urban Agriculture Department at the MINAG, head of the INIFAT (one of the agricultural research centers on the periphery of Havana) and leader of the official organoponic movement.

Manuel, who for years worked with the community development branch of the Cuban ecumenical group known as the Cuban Council of Churches, used religious metaphors throughout our interview. He likened Adolfito to the pope, the INIFAT to the Vatican, and his own previous activities as delegate of agriculture to those of a preacher or a priest of liberation theology embedded in his or her community and having no time for the “church hierarchy.” His description of the transition between the “prehistory” and the “history” of the urban agriculture movement denoted a shift between a grassroots movement and direct community participation on the one hand, and formal bureaucratic structures and a distant official authority on the other.

Recounting the general atmosphere at the meetings of the original horticulturalist clubs, Manuel commented:

The meetings were not the classic meetings where you sit down and an individual spends two hours telling you what you ought to do. There was an opportunity for you to be heard. At first, some [producers] were suspicious that they were being called to a meeting to report on their production and that then they would be told how much of this production they would have to give away [to the state]. Gradually, they realized that was not our objective.

From the perspective of frontline workers, like Manuel, as well as that of a number of Cuban intellectuals who closely followed developments in Santa Fé (Dilla, et al. 1997; Fernández Soriano 1997; Fernández Soriano 1999; Fernández Soriano and Otazo Conde 1996), the urban agriculture movement had opened a new space for participation, redefining citizen involvement in a manner that could strengthen the socialist project and inject new life into *la revolución*. Such optimism was not shared by those used to what Manuel described as “top-

down and very authoritarian political schemes: vices that had been created and reproduced by the system.”

Some institutions with close links to the state, like the Committees for the Defence of the Revolution (CDRs) and the Federation of Cuban Women (FMC), initially felt threatened and disapproved of horticulturalist clubs that called independent meetings in the barrios without first properly informing the representatives of established grassroots organizations. According to Manuel, these institutions, which were created decades earlier to work with the population at the grassroots level, had fallen prey to “excessive institutionalization” that left no room for spontaneous participation from the people.^{xv}

This impulse toward “institutionalization,” with its emphasis on hierarchical authority and tight controls, was, not surprisingly according to Manuel, reflected in the actions of formal state institutions, such as the MINAG, which soon suggested rebaptizing the representative of agriculture *Jefe de Área* (area chief). This name change, with its unpleasant connotations of vertical authority, was accompanied by a shift in job description. Beyond supporting small-scale producers in their production endeavors, the *Jefe* now would be expected to “police” and monitor producers’ activities, even administering fines to those who violated MINAG rules regarding the use of usufruct land.^{xvi}

The emphasis on official control only intensified as the economy recuperated and the government became progressively concerned about all unregulated activities allowed to thrive in the initial years of the Special Period. A 1996 report of the political bureau, read publicly by Raúl Castro, made particular reference to these activities and their political implications. The report warned that any “openings” that deviated from the already established path exposed Cuba to “enemy subversion and external influences.” These “external influences”—among

which could be included the international funders of many new Cuban NGOs—were said to be working toward the creation of a “fifth column” (quoted in Hoffman 2000:66-67).^{xvii} The report advocated the rejection of further internal “openings” (ibid.:67).

Before the reading of the 1996 report, the political mood in Cuba had changed considerably. Along with signs of a recovering economy, there had come a renewed escalation of tensions with the United States culminating in the Helms–Burton Act, which broadened the U.S. embargo to third-party countries. At this point, local NGOs, allowed to flourish in the early 1990s as a means to draw needed foreign currency into Cuba, not only were considered less necessary to the economic recovery of the country but also were perceived to be prone to political deviations. For these reasons, a freeze was placed on their creation, with existing NGOs reminded through example that dissolution would result if, as the 1996 report warned, they “deviated from the established path.”

These measures, along with the institutionalizing policies of the MINAG, were to curtail the evolution of “novel” forms of community participation, such as those associated with the small-scale, vegetable gardens described by Manuel. Although the 1996 report of the political bureau did not directly refer to urban agriculture sites per se, it did explicitly and negatively allude to the work of those Cuban scholars (e.g., Dilla 1996) who had celebrated the opening of new participatory spaces within civil society associated, among other things, with neighborhood grassroots movements built around vegetable garden plots.

THE RESILIENCE OF PARCELAS AND PATIOS

Although after the initial years of the economic crisis patios and parcelas gradually lost the spot light of national media to the more sizable organopónicos, these smaller urban agriculture-sites continued to multiply. By the year 2002, a MINAG census reported that in

Havana alone there were 104,087 such sites covering an area of approximately 3,595 hectares.^{xviii} While the national economy had by then improved considerably and many Cubans—aided by new lucrative work in the tourist industry, remittances, or new work and study opportunities overseas—had found a way to fend off (or altogether escape) the lingering effects of the economic crisis, not everyone was so lucky. For those who were unemployed, underemployed, or retired, and had limited access to steady sources of additional income, food insecurity remained a concern.^{xix} For them, supplementing household diets through primary food production in parcelas or patios was still a viable option.

Beyond their role as subsistence sites, parcelas and patios were important for producers for a range of other reasons. For those who had gained public recognition for their production endeavors, for example, these spaces had become a source of pride and a focal point for desirable connections within Cuba and beyond. As illustrated in the remainder of the paper, these connections were not just instrumental in ensuring the longevity of these sites, they were key to guiding their evolution towards more sustainable practices.

BEING AN URBAN FARMER: CULTIVATING CONNECTIONS

In 1997, Rafael, a man in his mid-thirties, then tending a vegetable garden at his workplace, was offered a free course on that Australian variety of sustainable agriculture known as permaculture. This course, organized by the Foundation of Nature and Humanity (FANJNH) through a project funded by the Australian Conservation Foundation (ACF), was where Rafael first learnt about composting, natural pest control, intercropping, and the advantages of working with “closed systems” of production. Over the years, I watched how Rafael -- encouraged by the FANJNH, which provided him with soil, seeds, tools, advice, and additional training—applied permaculture principles to create an idyllic garden on the cement

patio of his home in the municipality of El Cerro. Placing old truck tires of different sizes one atop the other, he created terrace-like areas where he cultivated a variety of crops including taro, yams, tomatoes, lettuce, spinach, parsley, basil, oregano, thyme, tarragon, and even turmeric—a spice hardly known in Cuba (Figure 3). His love for ornamental plants, particularly orchids, could be seen in his careful placement of these among the food crops. He was proud of his orchids and also of his “sacrificial plants” which, following FANJNH teachings, he had cultivated as bait for unwanted pests.



Figure 3. Rafael's patio, 2001

As a caretaker of a garden in a nearby school and later as the coordinator of a garden at a psychiatric clinic for the elderly, he earned about 170 pesos a month. He occasionally supplemented this income with his share of his family's informal ice sales to neighbors, remittances from relatives abroad, and the sale of some of his food animals. None of this, however, was sufficient to invest in even the most modest of garden improvements. In this respect, like other patio owners and parceleros, Rafael was largely dependent on institutional assistance.

Through the years, aside from the help received from the FANJNH, Rafael was able to secure logistical and material support from a number of other officially recognized institutions, including the Cuban Association for Animal Production (ACPA) and the Group for the Holistic Development of the Capital (GDIC). In each of these cases, his garden acquired a new dimension which fit the mandate of the organization in question. For example, his collaboration with ACPA, which was able to procure rabbit cages for him at subsidized prices, was connected to his first incursions into the breeding of rabbits.

Rafael did more than rely on these organizations for support: He became central to their programs and, in collaboration with them, happily lectured on permaculture, gave talks about the advantages of raising guinea pigs, participated in television interviews, and welcomed to his garden numerous Cuban and foreign visitors. Through these activities, Rafael not only “gave back” to the institutions that helped him; he acquired public recognition for his garden work.

Considering the kind of assistance that Rafael and others received from NGOs like the FANJNH by comparison to the MINAG, which generally offered no material support, it seemed to me that state institutions were at a disadvantage when it came to influencing producers’ endeavors. That I was wrong about this became particularly clear to me in the year 2000, as I observed producers like Rafael, working out of private homes, voluntarily join the official Patio and Parcela Movement and the associated competition for the title of model garden (*patio or parcela de referencia*), recently launched by the MINAG and the CDRS.

Like many other small-scale urban farmers in Havana, Rafael heard about the Patio and Parcela Movement through a MINAG representative who visited his place and left behind a pamphlet that advertised the related garden competition. This pamphlet stated that an ideal

model patio or parcela was one that functioned as a positive example to other families in the surrounding neighborhood for the quality of the “subprograms,” or production components, it contained. These components embodied the ideal garden as a site characterized by a diverse mixture of crops and animals, the use of nonchemical solutions for problems such as soil infertility, the optimal recycling of household and production-related “waste” through practices such as composting, and the conscious promotion of other environmentally sound practices. Each of the various categories of crops—medicinal plants, salad greens, fruit trees, or root crops, for example—constituted a different subprogram. The list of subprograms also included activities like beekeeping; aquaculture; raising fowl, rabbits, and guinea pigs; soil conservation; and the production of organic matter and animal feed. There was even a subprogram labeled medioambiente (environment), created to acknowledge activities conducted on a patio or parcela that contributed to the environmental health of the surrounding community (Companiononi, et al. 2002)—a dimension of these sites that had recently gained currency in government circles.

In the year 2001, I had the opportunity to watch how Rafael transformed his patio garden in tandem with official visits related to the movement. The first of these visits took place on March and involved a national CDR-MINAG delegation engaged in the process of selecting model patios and parcelas. Weeks earlier, anticipating this visit, Rafael had calmly started planting fruit trees and coffee plants. However, on the day of the visit, and upon hearing that none other than Juan Contino Aslán, the national president of the CDRs, was expected to attend, Rafael was overcome with anxiety. He complained that there remained too much to be done and persuaded his sister and three friends, including me, to help with the preparations. Within a few hours, the garden was weeded of all “sacrificial plants” and a pond was created where Rafael could keep fish acquired from a neighbor.

Although, in the end, Contino did not show up and Rafael's garden was not selected as a model patio after this official visit, it was considered sufficiently outstanding to be included in a tour of El Cerro given to a delegation of model gardeners from Matanzas province who came to Havana in September 2001 to attend the First Annual National Meeting of the Patio and Parcela Movement. About six months had elapsed since Rafael's garden had been evaluated for the competition, and very little had changed at the site until a few days prior to the visit. Then, the garden once again underwent considerable transformations. Rafael prominently exhibited a couple of caged guinea pigs that were actually only temporarily in his care (his own, less healthy-looking guinea pigs were hidden away in an inner courtyard). Among his garden crops he had interspersed a series of didactic signs carrying messages that echoed those of the movement and emphasized the environmental dimension of the garden. One of them read, "Organic agriculture: a sustainable way of life." Another stated, "A healthy environment guarantees your health" (see Figure 4). The changes did not just involve production-related elements but also added a political dimension to Rafael's garden. In a bright and clean sitting area, recently created following the destruction of a dilapidated and long-unused chicken coop, Rafael had even hung a picture of the much revered revolutionary hero Ernesto Che Guevara.

In Rafael's case, the timing of these changes to coincide with official visits from government officials, as well as the types of transformations, made it evident that he was trying to live up to what he understood to be the expectations of movement officials. Like many other producers, Rafael understood that the criterion of "biodiversity" was measured by ministry employees through a mere count of the subprograms present in a given garden.^{xx}

Consequently, his inclusion of fish, as well as his recent addition of coffee plants, fruit trees, and guinea pigs, increased by three the already considerable number of subprograms



Figure 4. Ministry of Agriculture slogans in Rafael's patio, 2001

represented in his patio. His self-conscious attempt to re-create the ideal garden as conceived by the ministry was only underscored by his removal of “sacrificial plants” to meet the MINAG requirement for hygiene and by his strategic use of signs and revolutionary imagery. The weeding of “sacrificial plants” in particular illustrated how Rafael, like other producers I knew, was at times willing to put aside pleasing organizations that assisted him in concrete ways in order to secure the recognition of state organizations like the MINAG. Ultimately, Rafael and others understood that even though the title of model patio or parcela had no significant material incentive attached to it, it was a form of “symbolic capital” (Bourdieu 1977) that could help them advance their garden plans. While, on the one hand, this case underscores the agency of producers in fashioning their own paths, it importantly points to their awareness that state institutions (and their approval) still matters a great deal in the new Cuba. Even though NGOs with foreign sources of funding have greater material and human resources at their disposal, they do not necessarily decenter state institutions, which evidently continue to be recognized as all important by producers.

From my observations, conscious and, at times, cynical attempts to live up to official expectations were not uncommon. Yet, while there was an element of disingenuous performance in some of the changes producers made before an inspection, or for that matter before other official visits organized by NGOs like the FANJNH, it should be noted that such transformations generally had a deeper and more lasting impact. While some of the lettuce Rafael replanted near the plantains in new recycled containers quickly dried up, the containers remained and were planted with more suitable crops. The pond became for a while a fixture in Rafael's garden, and he was particularly proud of it. He was convinced that, as permaculture teachings suggested, it had improved the microclimate of the garden. It was clear, then, that while Rafael and others changed their sites just to meet the expectations of the MINAG and other organizations, they retained some of the changes because they liked them. In the case of the Patio and Parcela Movement, as the associated competition for the title of model garden continued year after year at the level of the municipality, the city, the province, and the nation, producers' approximations of the ideal were only further refined over time, their aspirations to the title undeterred.^{xxi}

Although Rafael had not received the title of model patio in 2001, he nevertheless decided to attend that year's Annual Meeting of the Patio and Parcela Movement, an event primarily organized to honor those who had been successful in the competition. He first listened attentively to the opening words of those presiding the meeting, including General Sio Wong and Contino, and then, joined in the chorus of model producers that publicly shared their production accomplishments, underscoring how they fell in line with government plans.

After the meeting, Rafael and I accepted a ride home from Vilda Figueroa and José (Pepe) Lama, a couple whose work in the municipality of Marianao had inspired Rafael to fantasize

about opening a Community Information Exchange Center for patio gardeners in his municipality whom he had organized into an informal network of producers. Years earlier, in 1996, Vilda and Pepe had started a food conservation workshop and accompanying parcela to teach families from their community the skills to cope with acute food insecurity. Their project, known as the Proyecto Comunitario Conservación de Alimentos (PCCA), had soon gained the attention of national and international institutions. Vilda and Pepe told me that they had never explicitly sought international funding for the PCCA, but a number of foreign organizations, including the previously mentioned Agro Acción Alemana (AAA) and the Australian Conservation Foundation (ACF), had approached them to offer assistance. Although this assistance was at times unduly delayed by an overzealous Cuban bureaucracy reluctant to channel foreign aid to locally run projects, it eventually reached the PCCA, allowing Vilda and Pepe to cover the cost of project publications as well as needed office equipment, from computers and printers to VCRs.

Vilda and Pepe were eager to point out the project's viability, independent of such external help. They insisted that the success of the PCCA was first and foremost due to the logistic and material support they received from state institutions and other official organisms whose logos often appeared on their published materials. The CDRs had been instrumental in helping them disseminate information on gardening and food preservation. Likewise, the MINAG had helped by printing brochures and assisting with their distribution nationwide. The official Radio Ciudad de La Habana had even given them air time for their own weekly radio show. To Vilda and Pepe, working with state institutions and in alignment with existing political structures made absolute sense. For Rafael, however, things were a bit more complicated since he had never been as integrated into the state apparatus as they had been.

As we rode back with the couple after the meeting, Rafael first congratulated them on their brand-new car, but, a while later, behind their back, he humorously referred to them as the Aeroflot couple. When I asked Rafael to tell me why he had used the name of the Russian airline to describe them, he explained, laughing, “Because they travel places!” This joke alluded to Vilda and Pepe’s worldly connections (from the ACF to the AAA), which, in the view of Rafael and others, enabled their social and physical mobility. The nickname simultaneously hinted at this couple’s previous travel experience in the Soviet Union (they had studied there) while underscoring their public allegiance to socialism and the communist party (hence the reference to Aeroflot rather than, say, Iberia). At a time in Cuba when owning a new car, having a computer-equipped office, traveling overseas, and corresponding with foreigners were rare privileges, Vilda and Pepe had achieved a great deal. Rafael’s comment only underscored how their achievements were seen to result not just from their enthusiasm, resourcefulness, and creativity but also from their positioning in relation to preexisting national power ents. There was no doubt that, at this historical juncture, connections, particularly with the “capitalist world,” were becoming more common in Cuba than they had been since the first years of revolutionary rule. Still, such connections, while unsettling established power hierarchies within the country, could not (and did not) eliminate them. As Rafael would soon find out, official government institutions and “state gatekeepers” (Corrales 2004) still retained the power to legitimate transnational exchanges and, ultimately, legalize the possession and use of things like new computers and cars in Cuba. Despite all the signs of change, these state actors could still enable—or crush—even the most painstakingly constructed of garden dreams. Here, the personal trajectory of producers and their perceived integration into the revolutionary process appeared to matter a great deal.

THE MAKING AND UNMAKING OF GARDEN DREAMS

In 2004, Rafael finally earned the title of model garden at both the municipal and national levels. By then, his production endeavors had been expanded from his home patio to his rooftop, where he was raising rabbits and guinea pigs and cultivating a variety of crops, including peppers, guavas, tomatoes, beans, and grapes (Figures 5). With the assistance of his friend Antonio, Rafael run all sorts of neighborhood-related activities, including monthly gastronomic fairs to teach good eating habits and biweekly meetings with children from three local primary schools (see Figure 6). Rafael had secured enough financial support from a range of officially endorsed institutions within Cuba to be able to create a Community Information Exchange Center in his garage. Through ACPA he had received funding from the Rosa Luxemburg Foundation to fix up the garage, and through GDIC he had tapped into international funding to secure a computer—something rarely found in the average Cuban home at the time. The center also had a television and VCR, desks, and a library where Rafael displayed books and brochures on permaculture, nutrition, and the environment. With additional funding and some support from the FANJNH, Rafael had also redone the rooftop area of his home, furnishing it with a kitchen preparation area where he hoped to one day be able to offer cooking and food preservation workshops to the community. As before, he continued to collaborate with local institutions like the Neighborhood Transformation Workshop, coordinated by GDIC, but he was reluctant to work too closely with the state, even turning down the job of representative of agriculture for his district, which would in fact have meant working for the CDR.

Rafael's garden, like many other “model” gardens in the field, had become an established stop for foreigners interested in learning about Havana's urban agriculture experience. These

foreign connections had occasionally brought in needed money for small garden-related projects. For example, Rafael and Antonio had received money directly from a European organization to produce a short documentary on Cuban permaculture, which, of course, featured Rafael's own garden. They had also managed to get their neighborhood garden network listed in a global dictionary of sustainability produced by a Dutch environmental



Figure 5. Rafael's rooftop garden, 2004



Figure 6. School children visiting street level portion of Rafael's patio, 2004

NGO and even had an Internet presence through a friend who managed a website that showcased Cuban community projects for an international audience. Inclusion in this website, as well as in the sustainability dictionary, had no money attached to it but was a source of pride for Rafael and his whole family. I recall his sister's excitement when they received a copy of the sustainability handbook. She showed it to everyone who came to the house that day, saying: "Look! Rafael's garden has now made it into an international book! Who would have thought of it? Little Rafael and his plants!"

However, Rafael's public recognition and connections, as well as his adamant "freelance" status, had also earned him a few enemies. According to Antonio and others I spoke to, the delegate of agriculture from the municipality of El Cerro, in particular, appeared jealous of the resources Rafael had been able to amass on his own. Some members of the FANJNH, in their conversations with me, betrayed disappointment at Rafael's new alliances with other NGOs in the field. Even some participants in Rafael's garden network seemed disappointed at Rafael as they noted how the garden project had resulted in considerable improvements to Rafael's own private home. One day, he was shocked to hear that he was under suspicion of running a counterrevolutionary center at the Community Information Exchange Center in his home. The accusations even made mention of foreigners from the United States and Europe visiting the site and allegedly funding "dubious activities" there. Because just the previous year the government had jailed what it described as seventy-five dissidents, some of whom were said to be running "independent" libraries out of their homes with U.S. government funding, these accusations had scary implications for Rafael and Antonio. In the end, the accusations were unsubstantiated, but they resulted in Rafael losing the computer and other equipment he had secured for the Information Exchange Center. This equipment, he told me, was transferred to

the Neighborhood Renovation Workshop in his municipality, which was seen to be better able to oversee its proper public use.

The actual source and motives for the accusation of counterrevolutionary work, and the related confiscation of equipment from Rafael's information center, were difficult for me to ascertain, but what seemed evident from the information I gathered is that Rafael's independent work had annoyed a number of state (and nonstate) actors, many of whom felt he was "duplicating" their work and disrupting the status quo. In its details, what happened to Rafael was certainly unique among the producers I knew, and yet it seemed to fit a pattern that applied to other community garden projects perceived to be encouraging different modes of citizen participation, independent of state institutions. There was, for example, Manuel's account of the horticulturalist clubs in Santa Fé, which in the early 1990s, when their popularity was at their peak, were also regarded with suspicion by state actors. According to Manuel, established state-endorsed neighborhood organizations, like the CDRs, not only were threatened by neighborhood meetings that did not report back to them but also simply did not understand the clubs' encouragement of "direct" community participation in decision making. In this context, it is difficult not to think that Rafael was in part punished for his different vision of community participation, one that circumvented official organisms like the CDRs, which Vilda and Pepe said were a building block of their successful program. Rafael's case further suggested a renewed cycle of political vigilance and control in the mid-2000s that has opened and closed many times since. Such cycles of state vigilance are, of course, not unique to Cuba and are typical of other states especially at times of perceived or imagined crisis (one need look only at government practices in the United States since 9/11 to find plenty of examples of intolerance, generalized paranoia, and a context where unfair accusations can be freely made against all sorts of vulnerable subjects). This is not to say, however, that this

incident did not have its own distinctive Cuban flavor. For Rafael, this was definitely not a universal story but his own personal story in his own country—an experience that took a toll on him but never quite dissuaded him from continuing his garden work.

Right after the accusations were made, a great chill descended on Rafael's garden site and home, and he fell into a deep depression, temporarily abandoning his patio. In a few months, however, he was back to his normal self. Over time, those neighbors who at first avoided him returned to visit his home. The Cuban NGOs that had always supported his work, in one way or another, continued to do so because, in the end, they needed Rafael as much as he needed them. Even known government bodies, such as the Grupo de Trabajo Estatal para el Saneamiento, Conservación y Desarrollo de la Bahía de La Habana (State Working Group for the Improvement, Conservation, and Development of the Havana Bay), lent support to Rafael, who, by 2007, had replaced Che's portrait with a wall-size mural that advertised this organization's environmental work in the city.

I last had a long visit with Rafael in 2009. Then, he continued to talk about the garden and about helping facilitate a network of producers, albeit without the need for an information center. People interested in his garden work, including foreigners, still frequented his patio and received his warm welcome. Such personal connections, after all, not only led to real friendships for Rafael but also, over time, made it possible for him to secure a place for himself within the urban agriculture movement in Cuba and beyond. Among other things, these connections, due in large part to his successful application of sustainable agriculture practices, had resulted in his garden being featured on the popular movie *The Power of Community: How Cuba Survived Peak Oil*, made by Faith Morgan in 2006, as well as on a range of internet websites managed by organizations like *City Farmer* in Canada, *Food First* in the United

States, and the Cuba Organic Support Group (COSG) in England. The importance of this international profile cannot be underestimated since the resilience of his garden was no doubt connected to the contributions Rafael had already made towards the global fame of Cuba's urban agriculture.

CONCLUSION

It has been the contention of this paper that in order to understand the evolution of urban agriculture in places like Havana, one must consider the distinctive trajectory of different types of sites and be willing to carefully follow the processes involved in their ongoing recreation. Through an exploration of the landscapes of power associated with those small-scale urban agriculture sites known as patios and parcelas, this paper has shown that the line between voluntary action and imposition “from above” (whether guided by the state hierarchy or by international funders working through Cuban NGOs) is not easily drawn in these cases. In the end, what is revealed most clearly at these sites is a series of complex entanglements between coercion and voluntarism, the global and the local, the private and the public, the personal and the strictly political.

The story of Rafael and his patio in particular suggests that while responsive to the wishes of governmental and nongovernmental organizations working in the field, patio and parcela caretakers are far from the exemplary docile subjects described in Foucault's (1979) writings. As is the case with all those who “must play on and with a terrain imposed . . . and organized by the law of [the other]” (Certeau 1988: 37), Havana's small-scale producers are remarkably adept at generating their own personal projects and insinuating their own desires onto “the dominant text.” As shown, producers like Rafael have even acquired the power to shape “the terrain” in which they work becoming active players in the Cuban urban agriculture field.

Evidently, the encouragement of self-help initiatives in the late 1980s, alongside with increased opportunities to connect with the outside world through official linkages with internationally funded NGOs, have allowed some citizens not only to acquire a certain degree of independence from state institutions but also to tap into sources of power previously unavailable to those located at the conceptual margins of the Cuban economy. The fact that urban agriculture has gained the status of “poster child” for the Cuban revolution, celebrated by many global citizens as an admirable example of alternative development, is perhaps the best insurance Rafael and other small-scale producers may have against the disappearance of their beloved garden sites.

Notes

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- ⁱ I here use the term urban agriculture as it was used in the early 1990s in Cuba, to refer solely to primary food production activities in the city. My emphasis on edible products here departs from more encompassing definitions of urban agriculture that include the production of nonedible products, such as ornamental plants, for commercialization purposes (United Nations Development Programme 1996). Although a similarly comprehensive definition is also used at present in the Cuban context, I have chosen to retain the initial definition because it still reflects the way in which the majority of those I work with use the term.
- ⁱⁱ Among the books dedicated to the subject are the texts by Companioni et al. (2002), Murphy (1999), and Rosset and Benjamin (1994), and Wright (2009). The documentaries include the widely-circulated movie *The Power of Community: How Cuba Survived Peak Oil*, made by Faith Morgan in 2006 and the 2007 TV series *The Accidental Revolution*, hosted by the renowned Canadian environmentalist David Suzuki.
- ⁱⁱⁱ It should be noted that the term *parcela* is used in the agriculture sector to refer to individual plots of land but in the urban agriculture field the term denotes a small garden located on public land. The term *patio*, on the other hand, refers to a primary food production site located on private property that could include spaces like rooftops, home alleys, or “proper” home patios.
- ^{iv} The analysis presented here draws on material presented in my book *Sowing Change: The Making of Havana’s Urban Agriculture*, based on ethnographic research carried out in Havana between 1997 and 2011. This research primarily focused on twenty-nine patios and *parcelas* located in various municipalities and involved working with forty-two small-scale producers, twenty-nine men and thirteen women, mostly over the age of fifty-five. Only about a third of the producers interviewed (fifteen out of the forty-two) were engaged in full-time employment at the time of the research; the rest were officially retired (twenty), were self-employed (three), or were housewives with no previous connection to the formal workforce (four). The predominance of men and older people in this sample is usually reported as the demographic norm among small-scale urban farmers in Havana (Murphy 1999; Cruz Hernández and Sánchez Medina 2001).
- ^v In the past, the revolutionary government’s policy when it came to agriculture was encapsulated in the slogan “more state property, more socialism” (Burchardt 2000:71). By the late 1980s, after two agrarian reforms and a series of policies aimed at centralizing agricultural production, 80 percent of Cuba’s agricultural land was either owned or managed by the state.
- ^{vi} When referring to public figures whose opinions are part of the public record, I first give the true proper name and then, follow common usage in Cuba, which often involves using the first name or nickname of the person in question. Although there are exceptions to this usage (Sio Wong, for example), I incorporate it into my writing because I feel it reveals a very different conceptualization of those in positions of power within Cuba (at least at the rhetorical level). To ensure anonymity, all other individuals cited in the text are referred to only by pseudonyms.
- ^{vii} Although, as noted in Table 1, there are two types of organoponic gardens: the high-yield organoponics (*organopónicos de alto rendimiento*, OAR) and the Popular organoponics (*organopónicos populares*), henceforth, I will follow common usage and use the general term *organopónico* to refer only to the OARs.
- ^{viii} In prior decades, the revolutionary government had succeeded in eradicating hunger in Cuba. Among other things, the state rationing system, instituted on March 12, 1962, had helped ensure the equitable distribution of basic food products, national or imported, at affordable prices (Benjamin, et al. 1986; Díaz Vázquez 2000).
- ^{ix} Despite intense efforts in the early 1960s and the late 1980s to achieve self-sufficiency in foodstuffs, import dependency remained high. In the early 1990s, 55 percent of the calories, 50 percent of the proteins, and 90 percent of the fats consumed in Cuba were imported (Burchardt 2000:173). According to Mesa Lago (2009) even today Cuba continues to import up to 84 percent of basic food items.
- ^x Agricultural Consultation and Input Stores (known as *Tiendas Consultorios Agropecuarios* or *Consultorios Tiendas Agropecuarias*) were created in every Havana municipality to serve small-scale producers by providing them with easy

access to agricultural inputs, such as seeds, sold with a modest markup price (ranging from 10 to 25 percent of the wholesale price).

- ^{xi} This does not mean that there were no organizations willing to work directly with government institutions. In the field of agriculture, for example, the German Agro Acción Alemana (AAA), in the mid-1990s, collaborated with the MINAG to provide garden tools to the then newly formed horticulturalist clubs of Havana (Pelayo 1995). For a number of reasons—including political biases and the fear of unnecessary red tape—such collaborations, however, were not necessarily the preferred choice for international actors.
- ^{xii} In 1992, the revision of the Constitution permitted cultural or scientific Cuban celebrities with a patrimony that would benefit larger society to start their own foundations and run their own projects in collaboration with foreign institutions. Taking advantage of this opening, in 1994 Antonio Núñez Jiménez, who had amassed an impressive collection of artifacts from his earlier scientific expeditions in Latin America, started his own foundation. A geographer and veteran of the revolutionary struggle who decades earlier had led the First Agrarian Reform, Núñez Jiménez had a long-standing interest in all things environmental and hoped that his foundation would assist in the protection of the environment and the development of a healthier relationship between society and nature. His foundation was to become a key vehicle for the dissemination of knowledge on sustainable agriculture to small-scale producers.
- ^{xiii} The phrase *la revolución* is commonly used in Cuba to refer to the societal changes that began on January 1, 1959, when the leaders of the 26th of July Movement came to power after overthrowing the dictator Fulgencio Batista.
- ^{xiv} Horticulturalist Clubs, which numbered 850 in the city of Havana by 2002, bring together urban farmers working in the same neighborhood. These voluntary associations are independent in that they are not subordinated to any institutions, yet they do not have the legal right to administer funds. The groups facilitate the educational work of agricultural extension workers and also act as channels for material incentives given out by various institutions to producers.
- ^{xv} It should be noted that prior to 1989, there were already experiments under way to increase citizens' participation in decision making in Havana and Cuba in general. The 1986 Party Program stated, "The increasing conscious participation of the people is the decisive factor in the construction of socialism" (García Pleyán 1996:185). The Neighborhood Revitalization Workshops, created in 1988 under the guidance of GDIC, were an attempt to encourage such participation and were instrumental in the creation of the most localized instance of government in Havana: the Popular Councils (*consejos populares*). Unfortunately, although intended to effect a "democratization" of Cuba's political system, these government organs, much like the CDR and the FMC, became little more than "conveyor belts" for the transfer of information between various levels of government (Dilla 1996).
- ^{xvi} These rules included keeping the place under agricultural production and meeting minimal standards of hygiene which, as shall be explained later, included weeding practices that some felt countered good ecological management.
- ^{xvii} The phrase "fifth column" originated in the Spanish Civil War and is used to refer to a minority within a country that conspires with foreign forces to undermine a national struggle.
- ^{xviii} To give a sense of scale, the number of high yield organopónicos at the time only totalled seventeen (Cruz Hernández and Sánchez Medina 2001: 44).
- ^{xix} Provisions through the state-subsidized ration stores located in every neighborhood had previously adequately covered basic food needs, but now they met only 55 percent of an individual's nutritional requirements (Díaz Vázquez 2000). Although since the beginning of the post-1989 crisis new food supply venues had opened up throughout the city, access was far from universal. Above the ration quotas, common items, such as chicken and eggs, generally had to be purchased in dollar stores—opened in 1993—at prices that were still high for most people. For example, chicken legs were sold for a dollar a pound, which then equaled approximately one-eighth of an average monthly salary of 160 pesos. The variety and quality of produce available at agromercados—the agricultural markets where, since 1994, independent farmers and members of cooperatives have been allowed to sell directly to the population—varied from one neighborhood to another, with those located in more affluent areas better stocked. In general, most agromercados offered root crops like cassava, fruits like plantains, and meat such as pork and goat, but prices for these items

remained high for average peso-earning citizens, sometimes costing them ten times the price they would have paid for the same through the ration. Some animals, such as rabbits, were not sold at agromercados but instead at a few expensive restaurants in well-to-do neighborhoods. Organopónicos, which generally offered cheaper greens, were still few in number and located in places that were not easily accessible for those who had few transportation options open to them other than walking. In these circumstances, small-scale urban agriculture practiced in home patios or neighborhood vacant lots, offered people access to rabbits, chickens, eggs, and a range of vegetables they could not easily get otherwise.

^{xx} It should be noted that those leading the Patio and Parcela Movement at higher levels of the Ministry hierarchy emphasized the quality and complementarity of subprograms, rather than mere quantity.

^{xxi} The competition for the title of model garden appeared to be quite effective at engaging previously unaccounted for producers. Within a year of its inception, the movement had incorporated nearly 70,000 patios and parcelas throughout Havana—an impressive increase over the nearly 8,000 initially registered with the Ministerio de la Agricultura. Of these 70,000 sites, 159 were granted the title of model sites at the level of each city district. From this group came the “models” for each municipality and, subsequently, for the city as a whole.

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