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Degree of Master of Science**

**The production of new socio-environmental consciousness among urban gardeners in
Havana, Cuba: Perspective from the field**

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ABSTRACT OF THESIS submitted by:

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for the degree of Master of Science and entitled: < The production of new socio-environmental consciousness among urban gardeners in Havana, Cuba: Perspective from the field >

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Cuban urban agriculture is largely cited as a sustainable model of agriculture in urban setting. The application of agroecological model in this type of agriculture has resulted in minimum inputs and minimum environmental impacts, while contributing to national food security (Rosset et al. 2011). The system was adopted widely in the 1990s, in a period of crisis called the Special Period by the Cuban government. The majority of literatures on Cuban agroecological method focus mainly on farmers' practices (Rosset et al. 2011 ; Rosset et al. 2011). However, to fully understand the social and environmental sustainability of this model, this study is looking at the long history of Cuban agriculture, the imagining of Cuban national identity, the role of sugar monoculture, the Cuban *campesinos*, and social solidarity throughout the period of economic transformation. Therefore, this study explored whether Cuban agriculture model has created a new socio-environmental imaginary under the presence of a quasi-capitalist system. Based on a one-month ethnographic study in Havana to investigate the social imaginary and social memory among different generations of urban gardeners, it was found that the rise of urban agriculture does not necessarily produced a new form of socio-environmental imaginary. It was found that the dichotomy between monoculture which is identified with sugar industry and urban agriculture dismissed the long process in which Cuban culture and national identity has been created. This suggests the future sustainability of Cuban model lies in understanding the role of sugar industry and the current transformation of this industry.

Keywords: <agroecology, urban agriculture, social imaginary, social memory>

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Chapter 1. Introduction

1.1 Research Background and Problem Definition

Cuban urban agriculture is largely cited as a successful model of how the production of food in an urban setting with minimum external inputs and minimum environmental impacts contributes to national food security (Rosset et al. 2011). The system was adopted widely and gained its momentum in the 1990s, in a period of crisis called the Special Period by the Cuban government. Primarily due to limited agricultural inputs, the government was compelled to implement agroecological methods in urban agriculture to design a closed agricultural system where nutrient recycling is improved and minimum external inputs are required (Companioni et al. 2002). Through urban agriculture and other policy measures in agriculture, Cuba has been able to achieve food security and minimize the environmental impact of its agricultural system amidst trade sanctions imposed by the US government (Altieri et al. 2012). In recent years, US and Cuba have been moving towards the normalization of their relations which will result in a more flexible food trade and transaction between the two countries. While it might bring economic benefit to Cuban people, the opening of Cuba could also potentially undermine the progress that its agriculture has achieved for the last 20 years by implementing agroecological methods.

In terms of research on Cuban agriculture, the majority of literatures on Cuban agroecological model start with the Special Period and focus mainly on farmers' practices and the technical aspects (Rosset et al. 2011 ; Rosset et al. 2011). There are some literatures which analyze the relationship between Cuban Revolution, Cuban socialist model, and the practices of different types of urban agriculture (Gropas 2007; Premat 2003; Premat 2009). The focus of these literatures is more on the relationship between Cuban socialist ideology and the practices of urban gardeners, for example how the distribution of land for urban agriculture may contradict communitarian value or how ones' commitment to the socialist ideology is translated in the social interaction among cooperatives' members (Premat 2003; Gropas 2007). However, to fully

understand to what extent the development of this agriculture model is socially and environmentally sustainable, it has to be situated within the long history of Cuban agriculture, the imagining of Cuban national identity, the role of monoculture, the Cuban *campesinos*, and social solidarity throughout this period of economic transformation. In addition, it is necessary to understand how different generations interpret the past, share them, pass (or do not) them down, and how would they imagine the future.

Therefore, through sharing the stories of different generations of urban gardeners in Havana whose everyday lives are interwoven within these various aspects of Cuban socialist model, I would like to show whether Cuban agriculture model has created a new socio-environmental imaginary under the presence of a quasi-capitalist system.

1.2 Research Aim

The aim of this research is:

“To investigate whether the Cuban model of agriculture has created a new socio-environmental imaginary against the backdrop of the simultaneous turn to a quasi-capitalist system”

1.3 Research Questions and Objectives

In light of this aim, my main research questions:

RQ1: *How the social memory of Cuba’s past determine how urban gardening fits into the future?* (Chapter 4)

RQ2: *How cultural production and the shift to quasi-capitalist model transformed Cuban social imaginary during the Special Period?* (Chapter 5)

RQ3: *How social memories and social imaginaries from RQ1 and RQ2 is translated into the practice of urban agriculture?* (Chapter 6)

1.4 Audience

In answering my research questions and the fulfillment of these research objectives, I have the purpose of addressing students, practitioners, professionals, and activists in the field of

agriculture, environmental study, sustainable development, culture, urban study, history, and humanities.

1.5 Overview of Urban Agriculture

1.5.1 The critiques on urban planning

At a global level, more than half of the world's population lives in cities (The World Bank 2014). This phenomenon adds more pressure to the already limited welfare services, such as housing, water, and food for the urban population. Though the urban to rural proportion in developing countries is smaller than those in developed countries, these countries are experiencing the fastest rate of urban population growth (The World Bank 2014). Some of the consequences are social injustice, poverty, discrimination, and environmental degradation which have become increasingly prominent in the urban context. One of the causes of the unequal distribution of urban and rural population is the tradition of urban planning which until recently, often encouraged minimum integration between 'experts' and 'lay' knowledge in designing cities, thus neglecting the existing diverse pool of knowledge in urban space (Cohen 2012). Others also argue the eminent nature of urban planning which was signified by binary divisions between rural-urban and society-nature that, for example, positioned the city from a privileged vantage point and aimed to re-engineer this space to meet the goals of modernity (Morgan 2014 ; Amin 2011). It implies that, for example, the process of producing food which is often associated with rurality, became unknown or often ignored in urban planning, even though it has the potential to mend this rupture (Morgan 2014).

1.5.2 The practice of urban agriculture

Urban agriculture is a process of cultivating land to produce food for human consumption in urban setting. This definition often includes peri-urban zone or the area on the periphery of a city where arable land is still relatively available and not densely populated. This agricultural practice can be taken place in various settings, for instance rooftop gardens, home

gardens, abandoned lands, raised beds filled with soil and organic compounds, city parks, green space along the road, and green belt surrounding a city. The methods of urban agriculture themselves are quite diverse as well depending on local resources and contexts. Some of the typical practices are intensive cultivation with high input of nutrients and pesticide,, agroecology which applies a set of principles to increase nutrient recycling and synergisms among different components in food production without relying on external input, organic method which replaces the role of synthetic fertilizer and pesticide with biological and mechanical methods, and permaculture which aims to design a landscape of food production by mimicking the cycle of material, energy, and relation among organisms in nature (Altieri 2002 ; FAO/WHO 2007 ; Holmgren 2012). Given the breadth of urban agriculture, consequently there is a huge spectrum of both benefits and risks from this endeavor.

1.5.3 The benefits of urban agriculture

Urban agriculture generates a wide range of positive values for humans and other living entities. In terms of social process, urban agriculture is able to mend the separation between individuals and their food system, the distress amongst those who are displaced from rural lands due to commodification of labor and land, and the divide between city and countryside, therefore, man and nature as already described in the previous part (McCLintock 2010). As will be described in Chapter 6, the knowledge which is possessed by Cuban *campesinos or* peasants is equally important in conjunction with the government's policy to promote urban agriculture as a strategy to boost food production. In some cases, participation in urban agriculture offers urban population more control over ethical and better quality produce in close proximity and it often coincides with the 'local production for local consumption' movement (Hara et al. 2012). In many less prosperous communities, the presence of urban agriculture in the neighborhood increases access to fresh vegetables and fruits, thus it is considered as a strategy to cope with nutrient deficiency (Díaz et al. 2003). This is one example on how Cuban agriculture was started during the Special Period as I will explain further in Section 1.6.

Beautification of neighborhood and reversing the condition of degraded land, such as abandoned plots, landfill, and brownfield (land being previously used for industrial purposes), could also improve the livelihood of urban dwellers where urban agriculture is practiced (Miner & Raftery 2012). Furthermore, since urban agriculture is embedded in the social fabric of communities, it decreases both the distance and length of food distribution channel, thus lowers fuel consumption and reinforces exchange of information among different actors along the food supply chain (Zhao et al. 2011). When this process involves a wide range of civil society groups and government officials, quality and conviviality of urban realm is improved, while a more resilient and sustainable food system can be achieved (Viljoen & Wiskerke 2012). Allotment gardens where urban agriculture are being practiced also facilitate the regeneration and maintenance of knowledge associated with ecosystem services in a particular locality, such as pollination of certain plant species, seed dispersal mechanism, and pest management technique in which biodiversity of an ecosystem can thrive (Barthel et al. 2010).

1.5.4 The challenges in urban agriculture

Despite of all these positive values that urban agriculture could deliver, the fact that many cities are already highly populated imposes several challenges on the practicality of urban agriculture. Some of the limiting factors are competition with other land and water use, lack of financial incentive to scale up production, risk of pesticide and nutrient leachate from and into the farm through improper farm management which could potentially contaminate the surrounding area, the availability of suitable soil for growing food, and safety issue (Moglia 2014).

Land availability is one of the most challenging factors in starting urban agriculture and it closely ties with landownership and land use permission. Since the majority of public lands are owned by government, advocating urban agriculture as part of the national food security strategy could support the issuance of land tenure for growing food (Redwood 2009). In many cities, water is already over-extracted and considered as a vital resource out of which the majority is sourced from recycled rainwater, groundwater, and surface water. While most households

consume potable water, with sufficient water safety test non-potable water could be potentially used for growing food, thus minimizes competition with drinking water and replenishes groundwater reservoir (van Lier & Huiber 2010).

Another serious concern in consuming produce from urban agriculture is related to the health and safety issue since this type of agriculture is often done in various environment which seem different from conventional agriculture. The study by Attanayake *et al.* (2014) on the possible transfer of Pb (lead), as one of the most common contaminants in urban soil, from allotment gardens into humans through food ingestion shows that different parts of the studied vegetables (e.g. carrots, tomatoes, sweet potatoes, and Swiss chards) and different cleaning methods before consumption result in a wide range of Pb concentration. It concludes that the addition of compost on soil could inhibit the transfer of metal and thorough cleaning could reduce its concentration even further. Though the result of this work was limited to Pb and small varieties of vegetables, it has shown the potential transfer of metal from urban soil to human through consumption of vegetables which implies regular soil quality monitoring is crucial in maintaining the safety of produce from urban agriculture.

1.5.5 The motivations to participate in urban agriculture

In general, participation in urban agriculture is mainly driven by three factors: subsistence, financial benefit, and potential social and economic advancement for women (Melissa et al. 2015). Firstly, subsistence refers to the action of growing food for self-consumption which leads to access to a more diverse and higher quality diet. In this regard, urban agriculture allows households to have more stable food resources, for example through preservation and storage of food, thus minimizing the impacts of price and wage fluctuation on households' welfare (Gallaher et al. 2013). This is how urban agriculture can enhance the food security in the community.

Secondly, an empirical study in developing countries has shown that the proportion of income generated from urban agriculture is often higher in the least affluent households (Zezza

& Tasciotti 2010). Some of the factors that influence this financial benefit are the presence of diverse distribution channels and price regulation set up by the government (Zezza & Tasciotti 2010).

The final motivation is possible economic and social development among women who, in some cases, still encounter employment constraints (Melissa et al. 2015). This improvement can be achieved through asserting control over food production in a household without depending so much on their husbands' income (Maxwell 1995). However, all these motivations to adopt urban agriculture can be impeded under the absence of supportive policies from the government (Melissa et al. 2015). The next part of the paper explains some of the reasoning for using the example of agriculture development in Cuba.

1.6 Agriculture Development in Cuba

Cuba was chosen as a model on how urban agriculture could be integrated into national food policy to improve food security and also as an example of the practice of agroecological method in urban agriculture which includes the aspect of environmental conservation in food production. One thing that should be kept in mind is agriculture development in Cuba does not exist in isolation nor does agriculture anywhere else. Therefore, acknowledging the interrelatedness of Cuban (urban) agriculture with politics, history, economy, social life, and dynamics in the region, I divide the analysis on Cuban agriculture into 3 sub-sections in a chronological order: pre-1959 Revolution, post-1959 Revolution, the Special Period in the 1990's, and after the 2008 Land Reform.

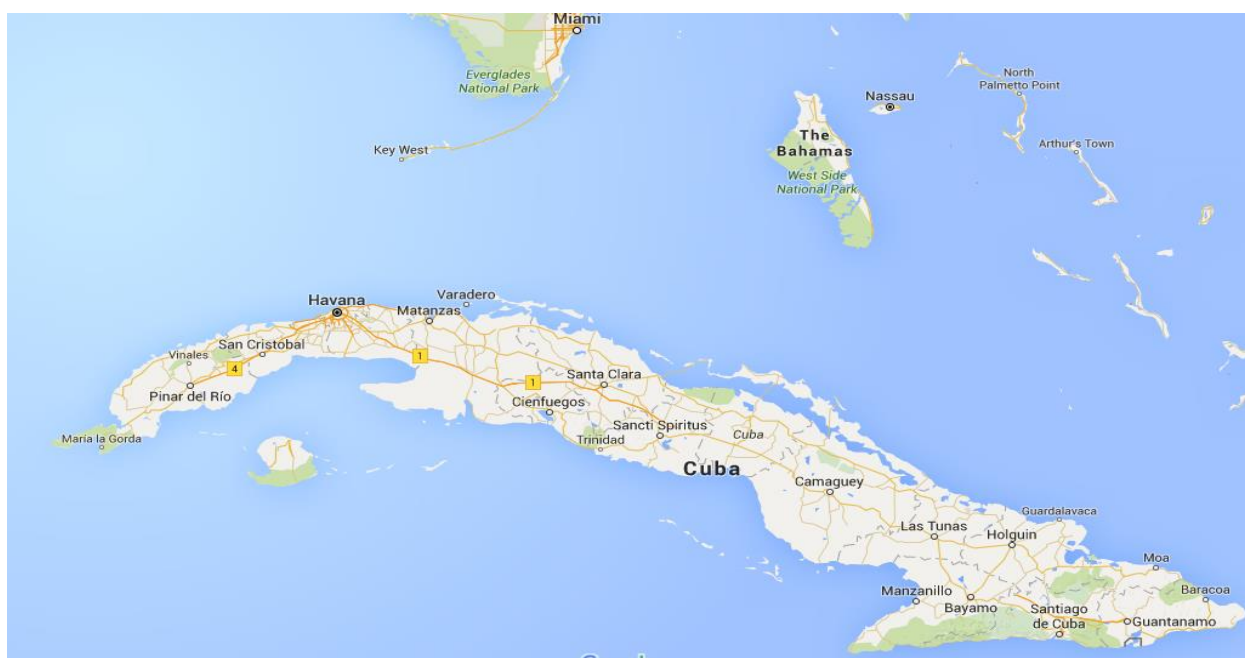
Prior to the Revolution in 1959, the landscape of Cuban agriculture had two main characteristics: the exploitation of sugar and tobacco monoculture by foreign invaders and the prevalent of slavery. Post-1959 period laid an important foundation on contemporary Cuba in terms of land ownership and national food system. This period also signified by Cuba's continuous dependency on sugar monoculture and the trade relation with the Soviet Union. In the 1990's urban agriculture began to expand rapidly and received greater attention from the

central government. This reform in food system was predominantly caused by the collapse of the Soviet Union. Towards present time, Cuban government enacted the 2008 Land Reform which aimed to stimulate land transfer for agricultural purposes to ramp up food production.

1.6.1 Country's context

Cuba with its capital Havana is the biggest island in the Caribbean. The length of the country is 1,250 km, highest elevation is 1,974, rainfall is 1,104 mm during wet season and 316 during dry season, and median temperature is 24,7 °C (ONE 2014). With total area of 110, 860 km², Cuba has rich and highly diverse ecosystems such as mountain ranges and forests that create various microclimates (Funes-Monzote 2010). Even though about 60% of the land is arable, only 11% work in agricultural sector (ONE 2004). In 2013, about 70,000 of young people in Cuba of 11.3 million are working in agriculture (Grogg 2013).

Figure 1. Map of Cuba. Source: Google Map 2016)



1.6.2 Pre-1959 Revolution (1898 – 1959)

The history of monoculture in Cuba which was characterized by sugar plantation began with the arrival of Spanish invaders in 1511 (Ferrer 2014). The whole Caribbean itself has always

been designated as the centre of sugar production and not necessarily consumption ever since the era of sea voyage and exploration led by the Europeans in the 16th century. Therefore, this commodity has always been intertwined with the rise and fall of different regimes and the migration of different cultures and people. In Cuba, the history of sugar is intertwined with the life of Africans who were traded as slaves and laboured at many sugar plantations, the immigration of Haitian sugar technicians after the Haitian Revolution, and the arrival of Chinese contract workers in many sugar plantations during the period of labour shortage, and finally land acquisition by American sugar barons (Abbott 2011). The sweetness of Cuban sugar industry never failed to draw foreign attention. In Chapter 4, I will analyse how the memory of the *long durée* of monoculture in Cuba has formed Cuban national identity and a self-defined struggle against foreign occupation since the Revolution.

At the early stage, sugar industry was not very lucrative and productive because of the monopoly by the Spanish conquerors that impeded its development (Abbott 2011). The short period of British occupation introduced this industry to global market and a more advanced technology in sugar manufacturing. At the same time, the Haitian Revolution which was erupted in late-18th century elevated Cuba to be one the main sugar producers in the world. In 1860, Cuba produced about one-fourth of the global sugar production (Scarpaci & Portela 2009).

The contradiction is while the Haitian uprising was instigated to eradicate the inequality created by slavery in sugar plantations, it allowed Cuba's sugar industry to thrive; this historical upturn on the other hand, perpetuated the same inequality in Cuba. As they say history is repeating itself. At the end of the War of Independence against Spanish colonialism in 1898, an agreement was reached between Cuba and the US as a solution to rebuild the country. Under the Platt Amendment, the US used its status as the main consumer and investor of sugar in Cuba to rebuild the country and leverage Cuban political affairs (Abbott 2011). During this period, the US consumed about 80% of sugar from Cuba.

The major consequence of this agreement is the transfer of landownership from Spanish colonizers to Americans that created feudal society where sugar barons, either Americans or white Europeans, own the land (Hoernel 1976). In addition, the US owners created a sugar estate or *centrales* that spurred the industrialization and separated the growing and processing of sugarcane. As a result, sugarcane workers became both labours and tenants who depended on these centralized mills which often owned by foreigners. Therefore, most of the profit from sugar that was created by the blood and sweat of Cubans was drained by foreigners. This situation is paralleled with the Spanish occupation (Hoernel 1976). This system generated similar injustice as in Haiti and simply deepened capitalist system.

In addition to social denigration, the industrialization of sugar industry further propelled the environmental degradation that has changed the landscape of the island permanently. More and more woodlands were clear-cut that allowed the expansion of sugar and this is what Funes Monzote (2009) called “the final assault to the forest”. Driven by this “thirst for land”, small farmers were pushed even further to mountainous area. This period of quasi-occupation and deep resentment towards capitalists provoked the Cuban Revolution (Segrera 2011).

1.6.3 Post-1959 Revolution (1959 – 1990)

Cuban Revolution signifies one of the most vital turning points in Cuban history where the new revolutionary government replaced the neo-colonial model with a socialist model. Many political decisions made at this period have had massive influence on the political, cultural, and social life of contemporary Cuba (see Chapter 4).

At the early time after the Revolution, Cuban society was underdeveloped and typified by low quality in human development in terms of illiteracy, income inequality, and unemployment (Rodriguez 2014). The agriculture sector was mainly in the form of large estates or so called *latifundias* that depend on US market; this system impeded the diversification of the economy (Rodriguez 2014). Furthermore, US trade blockade worsen the problem and marginalized peasants.

After the revolution, the socialist government did not neglect the rural development, on the other hand, they invested in human capital by increasing the availability of education and health services nationwide and this policy has been implemented up to now. For example, before the Revolution about 25% of the population was illiterate and about 53% lived in urban areas (CEE 1989). Then by 1989 about 79% of the population lived in urban areas and by 1981 illiteracy was almost completely eradicated (CEE 1989). In 2007, Cuba had one of the highest doctor to patients proportion in the world which was about 155 patients per doctor, and the mortality rate of 5.3 every 1,000 live births, and by 2007 about 92% of Cuban labor force have finished grade 9 (ONE 2008). The emphasis on human capital investment proved to be vital during the agricultural transition period in the 1990s.

In relation to agricultural policy and institutional framework, the three building blocks are The First and Second Agrarian Reform Law, the role of Soviet Union in Cuba's food security, and the state-controlled agricultural system. The First and Second Agrarian Reform Law eliminated the ownership of private farms by few individuals (mostly North Americans). Those lands were divided into smaller parcels and were redistributed to peasants to encourage diversification in food production, to alleviate poverty in the country side, to eliminate social inequality and exploitation of farmers (Valdés 2003). Between 1953 and 1980s, Gini coefficient is steadily decreasing from 0.55 to 0.22 which indicates more equal income distribution (Brundenius 1990). At the end of the agrarian reforms, about 70% of arable land were confiscated from large landholders, both local and foreign owners, and returned to the central government (Valdés 2003). The expropriation of arable lands by the state and redistributing them to peasants did not lead to decentralized food system. On the other hand, the participation of Cuba in the Council for Mutual Economic Assistance (COMECON) which was an economic bloc for socialist countries, resulted in an industrialized monoculture and centrally-coordinated agricultural system.

Some of the characteristics of this industrialized system were 50% reduction in the use of labor due to mechanization and the doubling of irrigated agricultural land from 1960's to 1985

(Funes-Monzote 2009). Knowledge in food production was exclusively held by technicians and experts from other countries, while the dissemination of this information was mainly controlled by the government. Therefore, peasants became simply the users of this knowledge. This system was also very inefficient; for comparison it required more tractors and applied more fertilizers per hectare than similar production system in the US (Wright 2012). Such system was adopted to fulfill Cuba's role as an exporter of raw material, such as sugar, coffee, and tobacco for the Soviet Union.

Under the bilateral agreement, Cuba received technological assistance in the form of tractors, artificial fertilizers, pesticides, fuels, and most importantly food products for national consumption, while Cuba exported the above commodities to the Soviet Union at a favorable rate which was higher than the global price (Espinosa 1992). This trade balance defined Cuba's agricultural landscape which was mainly dominated by monoculture of sugarcane plantations.

The political development in the region, mainly the US Embargo in 1960 and its expansion in 1963, literally prohibited all US imports from Cuba, thus further increased Cuba's dependency on the favorable trade with the Soviet Union (USDA 2015). One vital implication from this trade dependency was it jeopardized Cuba's food sovereignty and created a highly vulnerable food system (Funes-Monzote 2009). For instance, in 1988 the revenue generated from the export of raw materials (mostly sugar) was utilized to import about 57% of calorific food intake and 90% of pesticide and fertilizers for its agriculture, whereas agriculture land that was controlled by the Ministry of Agriculture only produced about 28% of nationally consumed calories (Rosset & Benjamin 1994). This vulnerability was clearly shown when the Soviet Union started to crumble and fell apart in the 1990's.

1.6.3 The Special Period in 1990 - Now

In 1990, the Cuban government declared the Special Period due to the economic hardship and massive change that the country had to face where the favorable trade between the

Soviet Union and Cuba ended. Fidel Castro gave an official announcement that Cuba was entering a new epoch:

"Without a doubt we are entering the Special Period. It is almost unavoidable that we will have to experience that special period in a time of time"

(Castro 1990 in Hernandez-Reguant 2009a)

The dissolution of this trade agreement highlighted the inconsistencies in Cuba's food system at that period. For example, when Cuba's foreign exchange dropped by about 80%, it affected the country's capacity to import agrochemical input, therefore, significantly disturbed the production of food (PNAN 1994). At the same time, the decline in food import from the Soviet Union caused severe food shortages throughout the country. This negative consequence was buffered partially by small-scale farmers whose practice did not rely on extensive external input (Funes-Monzote 2009). The caloric intake of Cubans decreased by approximately 30% and some diseases related to nutrient deficiency started to spread (PNAN 1994). In addition, economic sanction by the US government in 1992 and in 1996 through the Helms-Burton Act, restricted trading between foreign subsidiaries of US-based companies with Cuba and prohibited remittance to Cuban citizens, thus further exacerbating the issue of food scarcity.

During this crisis, the Cuban government formalized Cuban National Program of Action for Nutrition (PNAN) with some of the main objectives were to promote greater involvement of the population in agricultural activities, decentralization and diversification in food production, and the transformation of land tenure (Wright 2012). This action plan also identified 4 distribution channels for agricultural produces: the ration system, social feeding (to hospitals and schools), industries and processing facilities, and tourism industries (Wright 2012). It was argued that by assuring an equitable access to food through food rationing, Cuba managed to avoid a more devastating result from this crisis (Wright 2012). Food production was also expanded to factories and offices who were required by the government to grow food in their allotments to

feed their staffs, while the employees of the respected factories had to work the plots several hours a week.

The foundations for the structural change in agriculture were usufruct rights, farmer cooperatives, and Municipal Urban Farm Enterprise (MUFE). Usufruct rights give individuals the legal rights to use a plot of land for free and indefinite time if they could fulfill their obligation to produce food from their land within a period of time. These instruments encourage more public participation in growing food, especially in a previously abandoned area in the neighborhood. One of the main challenges was the lack of knowledge in agriculture among the urban population since most urban dwellers never engaged in farming activities before this period (Companioni et al. 2002). The role of different forms of farmer cooperatives was vital during this transition period. Different production plants with different rights and responsibilities were formed by the government to implement a more decentralized food system. Some of them were Basic Unit of Cooperative Production (UBPC) and Agricultural Production Cooperative (CPA) as collective production units, and Credit and Service Cooperatives (CCS) as an individual enterprise. Given the breadth of the discussion of these various forms of cooperatives, this paper only concentrates on UBPC as one of the most predominant types of cooperative.

In the year 2000 about 40% of land ownership was in the form of UBPC which showed a significant increase since it was formed in early 1990s (ONE 2004). By joining UBPCs, farmers in general including urban gardeners were able to receive usufruct rights, had access to government technical assistance, and could decide communally among members the manner to sell their products (Funez-Monzote 2009). Most of the marketing channels were still centrally coordinated through Acopio which was the state collection and distribution agency. UBPCs also promoted mobilization of people moving closer to the centre of food production that resulted in higher efficiency in the use of resources and shorter distribution channel which minimized fuel consumption (Funes-Monzote 2009). The presence of MUFE which provided technical advice on agriculture in many municipalities also complemented the work of UBPCs to produce food.

MUFE managed to assist this agricultural transition because of the government's investment on human capital after the revolution.

At the international level, the US export to Cuba was resumed in early 2000s through The Trade Sanctions Reform and Export Enhancement Act (TSRA) which authorized certain export of medicines and food to Cuba. The vulnerability of Cuba to natural catastrophe, especially hurricane which hits the country annually, influenced the change in Cuba's position toward US food import (Messina 2015). The majority of food commodities imported by Cuba were chicken, corn, and soybean for livestock (USDA 2015). In 2015, the import of milk, rice, and frozen chicken meat reached the value of 2000 million USD in 2015 (Granma 2015). Though clearly it is not possible for Cuba to eliminate food import entirely, careful decision making in food trade is crucial to ensure that food import complemented national production instead of competing in price, thus does not undermine the progress of urban agriculture that Cuba has achieved for the last 20 years.

1.7 Cuban Urban Agriculture

Against the backdrop of Special Period, the Cuban government decided to focus on urban agriculture to provide food which showed the strong commitment to overcome the crisis while maintaining socialist principles. The importance of the urban agriculture was exemplified by the formation of Department of Urban Agriculture at the Ministry of Agriculture whose task was to supervise the compliance of urban agriculture practice according to national guideline. The three main principles in the guideline were environmental conservation, direct marketing of produce, and rational use of local resources (Companiononi et al. 2002).

The progress made by this urban agriculture project can be seen by the increased in urban agricultural output by a thousand fold between 1994 and 2006, with an annual growth rate of 78% (Koont 2011). In 2001, Cubans cultivated 18,591 hectares of urban land; in 2006, 52,389 hectares were cultivated (Koont 2011). As a result of these efforts, the caloric intake of the population in 2005 were even higher than the pre-Special Period level (Koont 2011). The increased in

productivity was also signified by the significant growth in the number of urban farmers which was around 300% between 1998 and 2009, and this sector produced about 65 % of the national food consumption while cultivating 25 % of arable land in the country (Altieri et al. 2012).

The successful story of Cuban agricultural revolution should not be seen as simply the efficacy of new agricultural technique in the form of agroecological method, rather it exemplified a thorough social transformation of a new system of production, distribution, and consumption of food (Mészáros 1995). It was only through joined cooperation between government and support from the people that such a relatively short agricultural reform could be executed.

Figure 2: Raised bed or organopónico in Plaza de la Revolución. Raised bed is constructed to accumulate organic material and compost to improve the fertility of soil. Source: Author's photo.



Figure 3: Huerto intensivo. Under the presence of fertile soil, vegetables can be grown directly. Source: Author's photo.



Figure 4: Private garden is usually surrounded with fence. Source: Author's photo



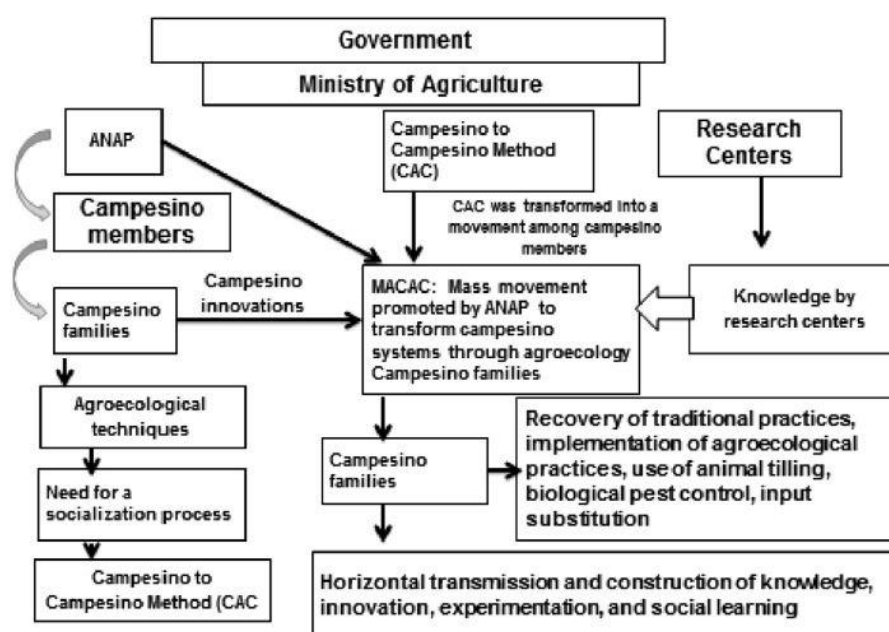
Realizing the importance and potential of urban agriculture for sustenance of urban population and coupled with the steady growth of urban inhabitants in Cuba, Cuban government passed land reform in 2008 by the means of Law Decree 259 (Ravsberg 2012). Under this reform more lands were distributed via usufruct rights and several measures on economic model were developed to attract wider participation in urban farming. The main objective of this reform was to achieve food sovereignty through facilitation of land access to a greater population, diversification of marketing channel, and reinforcement in the existing farmer cooperatives (Leitgeb et al. 2015). Nevertheless, a study on the effectiveness of this reform showed a slow increase in production volume and this mainly caused by the slow implementation of the policy and complication in bureaucracy concerning land allocation (Nova González 2012). The same study also observed that limited access to basic farming tools and machinery counteracted the original aim of the reform. While the reform provided institutional framework to improve national food sovereignty, in practice the implementation of the reform did not necessarily in coherent with the original aim (Leitgeb et al. 2015).

1.8 Agroecological Method

Agroecological method was decided as a suitable method in urban agriculture. This method was introduced to design a closed agricultural system where nutrient recycling is improved and minimum external input is required (Companiononi et al. 2002). One example of this

practice is by combining sugar cane field with cattle breeding, where the by-products from sugar cane production supplemented the cattle diet, and simultaneously manure from the herds transferred the nutrients back into the soil (Funez-Monzote 2009). Vermicompost or the product of composting organic materials by worms was widely used as growth medium because of its high nutrient content (Arancon et al. 2004). In addition, some of the remaining peasants' knowledge received more attention from the government and was crucially important in adopting agroecological method in urban agriculture (Altieri et al. 2012). For example, ox teams led by these peasants were deployed to replace tractors and the application of biopesticides to utilize the natural predators of pests.

Figure 5. This diagram shows the extensiveness of social learning process in Cuban urban agriculture. Source: Sosa *et al.* 2013.



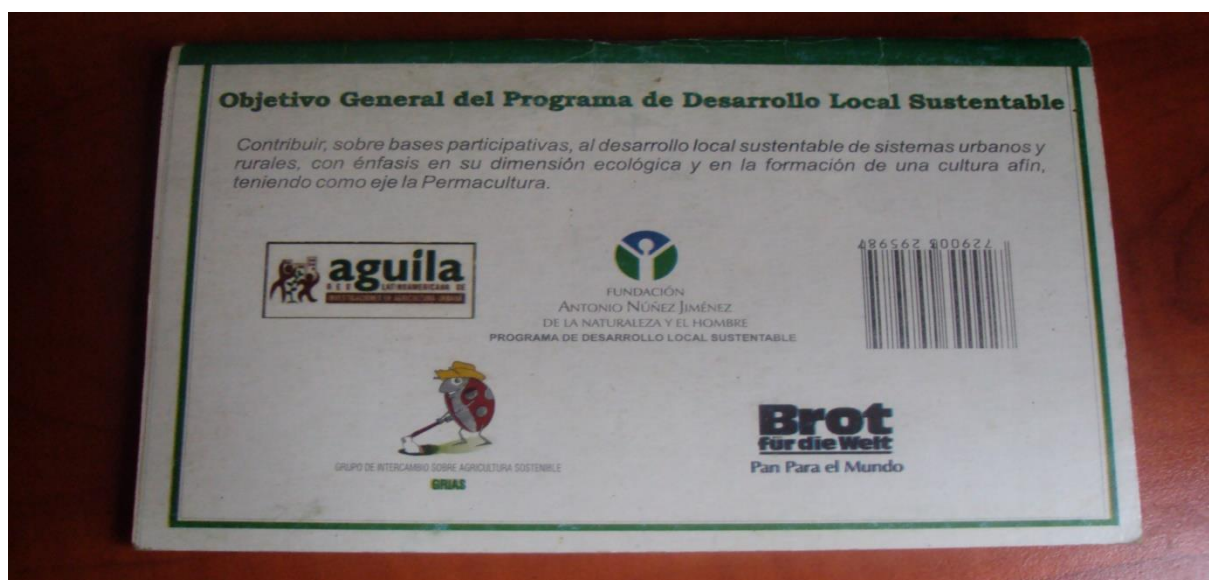
1.9 Permaculture

Permaculture was brought to Cuba by volunteers from Australia in 1994, the result was the agreement between the Green Team and the Cuban government to introduce permaculture to the country (City Farmer 2000). In 1995, the project was taken by Antonio Núñez Jiménez Foundation of Nature and Man (FANJ). Since then, they began to have pilot project both in

rural and urban settings. They also distributed *Se Puede*, a publication on permaculture and sustainable living, which is circulated widely. Though there is no statistic on the exact number of permaculture gardeners, based on my interview with the staff of FANJ there are permaculture gardeners from west to east of Cuba.

To be permaculture trainers ones have to pass several courses which are organized throughout different permaculture community in Havana. Since 1995, there have been 210 people graduated from the Introduction to Permaculture Courses (IPC) and 60 from the Permaculture Design Course (PDC) (City Farmer 2000). Completion of these courses allows them to teach others and promote permaculture to other institutions. The promotion of -permaculture activity is typically done through people-to-people interaction and the presence of FANJ is to provide better coordination among members and difference institutions.

Figure 6: *Agenda de Campo* is a booklet to disseminate the principle of permaculture. This booklet is distributed by FANJ. Source: Author's photo.



FANJ also receive a number of foreigners consistently. For example, for US citizens trips to attend permaculture workshop or conference, visit to permaculture sites can be organized through Global Exchange. This tour is open for students, practitioners, professionals, and activists in the field of agriculture, environmental study, and sustainable development.

1.10 Outline

The outline for the following parts is: Chapter 2 outlines my qualitative research methodology for this work. I will elaborate the theoretical framework based on social imaginary and social memory in Chapter 3. Chapter 4 gives a detailed account on the formation of social memory on Cuba's past (RQ 1). Chapter 5 illustrates how social memory mobilizes and transforms social imaginary at different period (RQ 2). Chapter 6 discusses some of the implications of these social memories and social imaginaries on the practice of urban agriculture (RQ3). My conclusion will be in Chapter 7.

Chapter 2. Research Methodology

In this research I applied a qualitative research approach in order to answer the 3 research questions. Chronologically, the whole research project is divided into three stages which correspond to different research tasks and activities. Firstly, I will elaborate some of the theoretical assumptions and methodological issues in qualitative research, specifically in doing ethnographic study, and my justifications for choosing this approach. Secondly, I will describe the process of doing literature research which was adopted as the main method to investigate and identify the research gap in Cuban urban agriculture and to examine the different conceptual knowledge that leads to the formulation of the theoretical framework of this research. Thirdly, I will explain some of the techniques for data collection during my ethnographic research in Cuba, namely qualitative interview and participant observation. Finally, I will describe my data analysis.

2.1 Qualitative Research

The basic assumption in qualitative research is social reality is constructed within social interaction depending on the context and meaning where the interaction is taking place (Flick et al. 2004). It carries the temporal and contextual aspect in which meaning is generated. Meanings, in this sense, are always open for redefinition and reinterpretation by people. How the interactions taking place and in what situation are some of the influencing factors in meaning creation. The interpretation of different social conditions can be understood as a way to uncover people's perception, social relationships, and their life histories (Flick et al. 2004).

Following this assumption, by applying qualitative approach I am aiming for two important qualities in my research: inclusion of the actor's point of view or "inner voice" and the thickness and breadth of my description on urban agriculture in Havana (Becker 1996). Engaging in conversation and experiencing the daily life of my informants becomes a necessary condition to record their deliberate expressive attitudes and the nuance in their daily routines, as individuals and as part of a larger social network.

The thickness and breadth in qualitative research requires full or detailed descriptions of my informants' social life and the physical space in which they are interacting with. The term "thick" refers to the amount of details taken during field observation that the process of reconstruction in which information was extracted from the field becomes possible (Becker 1996). Everyday life, or so called the quotidian becomes the focus of my study because in every set of routines that are almost automatically without much thought, lies a shared understanding that make concerted actions possible (Becker 1996). This shared understanding often intersects with the social imaginary of a community and the construction of their social memory. This is where the deeply rooted epistemological beliefs on how to go about life comes into realization; a sense of home, therefore, is created and maintain via the action of movement through space or specific sites in one's environment (Becker 1996; Ingold 2000, Chapter 8). By providing thick description, hopefully, I can demonstrate the multi-layered characteristic of Cuban urban agriculture and the life of urban gardeners in the ever-changing Cuba. At the same, I considered such accounts as invaluable sources to backup or support my arguments in the analysis.

Due to the epistemology and theoretical assumption of qualitative approach, it bears some limitations, or rather characteristics that have implications on the kind information being used for analysis. Firstly, it relies on the conscious reflective attitudes of researcher in getting people's perception which implies an imperative positionality in the research process (Flick et al. 2004). Therefore, it is not desirable to have a standardized set of tools or questions for comparison purposes; on the other hand, there is a constant back-and-forth movement from generality to particularity as such that research design should adapt to this development. Secondly, qualitative research does not explain causal relationship of a particular phenomenon; instead this approach aims to comprehend the multiplicity of voices and their complex relationships (Flick et al. 2004).

In light of these insights on what qualitative approach can and cannot perform, I adopted qualitative research approach in order to understand social processes surrounding urban

agriculture from “actually being there” and to build connections between what I had known about Cuban urban agriculture through literatures and other media, and the empirical knowledge from doing a fieldwork. To answer my research questions, I primarily searched for the personal accounts of my informants and their perceptions towards some of the issues arisen in this project. In this respect, qualitative research approach has the capacity to capture the richness of their stories.

Secondly, I would like to offer detailed descriptions of the social life of young Cubans and their neighbourhoods in relation to urban agriculture. I also paid close attention to their interactions with the older generations, especially within the context of food proficiency, agriculture, and contemporary political issues. Following this argument, I did not search for an “accurate” reconstruction of the past; rather my interest lies in the re-enactment of Cuban youths’ childhood experience of living through a nationally acclaimed period of hardship. Or how past event is told and represented in the present time. In other words, how a particular historical event drives the young people’s imagination about the past, present, and the future Cuban urban agriculture.

My particular captivation with story is because story has always been the way humans symbolize their experiences through the utterance of language (Seidman 1998). Therefore, storytelling became a tool that assists me to unravel the meaning of my informants’, simultaneously, I was consciously aware of my active participation in this meaning construction. To sum up, qualitative research allows me to study the social realities and processes in which Cuban youths are embedded in together with their historical upbringing and the unprecedented opening of the close-distant neighbour.

2.2 Pre-fieldwork

During the early stage of the research, I mainly focused on doing literature research on the background of Cuban urban agriculture, qualitative research design, and the concept of social

imaginary and social memory which allow me to analyse the creation of socio-environmental imaginary in Cuba.

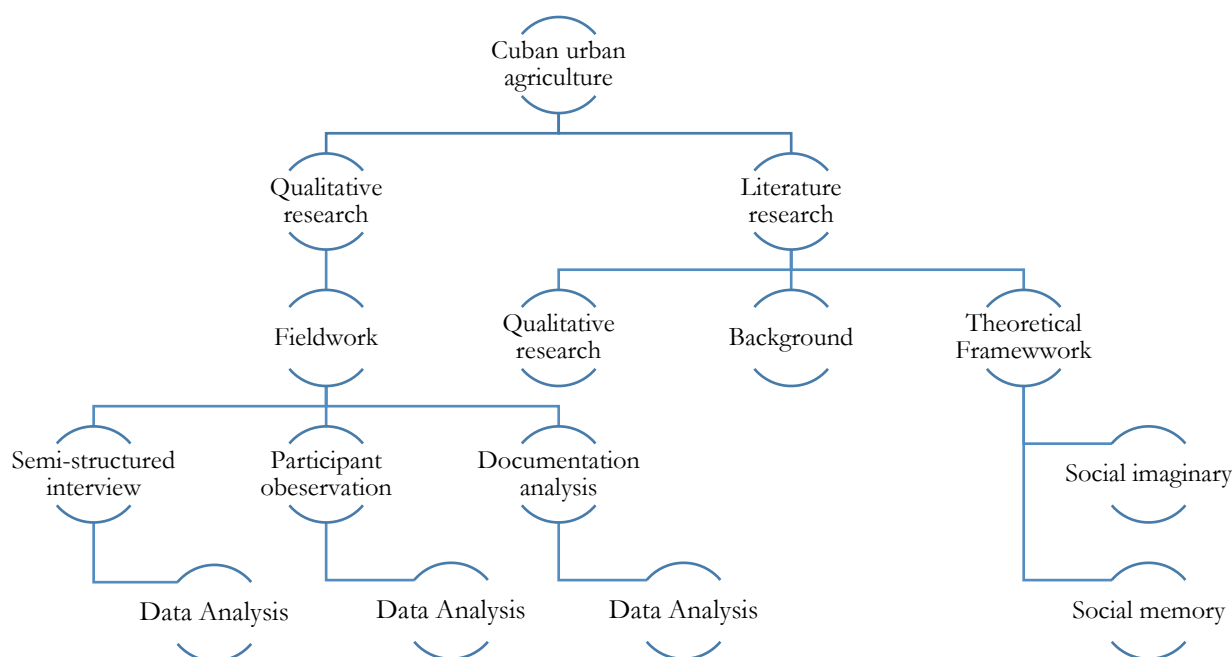
2.2.1 Literature research

In-depth literature research on Cuban urban agriculture and US-Cuba relation was carried out based on scientific journals and books. These two types of primary resources serve for different purposes. Academic journals provide rigorous analysis on specific themes around urban agriculture, whereas books offer a broader context and different perspectives to the topic. Research was started broadly from the current global condition of urban agriculture (trawling), then the scope was narrowed down to Cuba where more refined themes and corresponding literatures (mining) were identified (Hart 2001). The trawling and mining steps were repeated again when the focus was shifted to Cuban urban agriculture.

Through this two-step literature research, I decided to present Cuban agriculture from its historical perspective to demonstrate the continuity of agriculture development in Cuba and some lessons learned from the past. Emphasis was aimed towards the political, social, and cultural transformation during the Special Period that has shaped myriad social processes in contemporary Cuba with its own peculiarity and is contrasted with the original manifesto of the Cuban Revolution in 1959. Analysis on new socio-environmental imaginary is framed against the backdrop of simultaneous turn to a quasi-economic system.

This exposition serves the purpose of illustrating the interaction and perception of Cuban people towards urban agriculture and the possible future challenges as the result of the political development in the region. In addition, this method has assisted me in identifying the research gap in the current literatures on Cuban urban agriculture that motivated the pursuit of this research. To understand the principles of qualitative research methodology and some of the concepts used in this research, similar procedures were taken.

Figure 7: The working chart of this research.

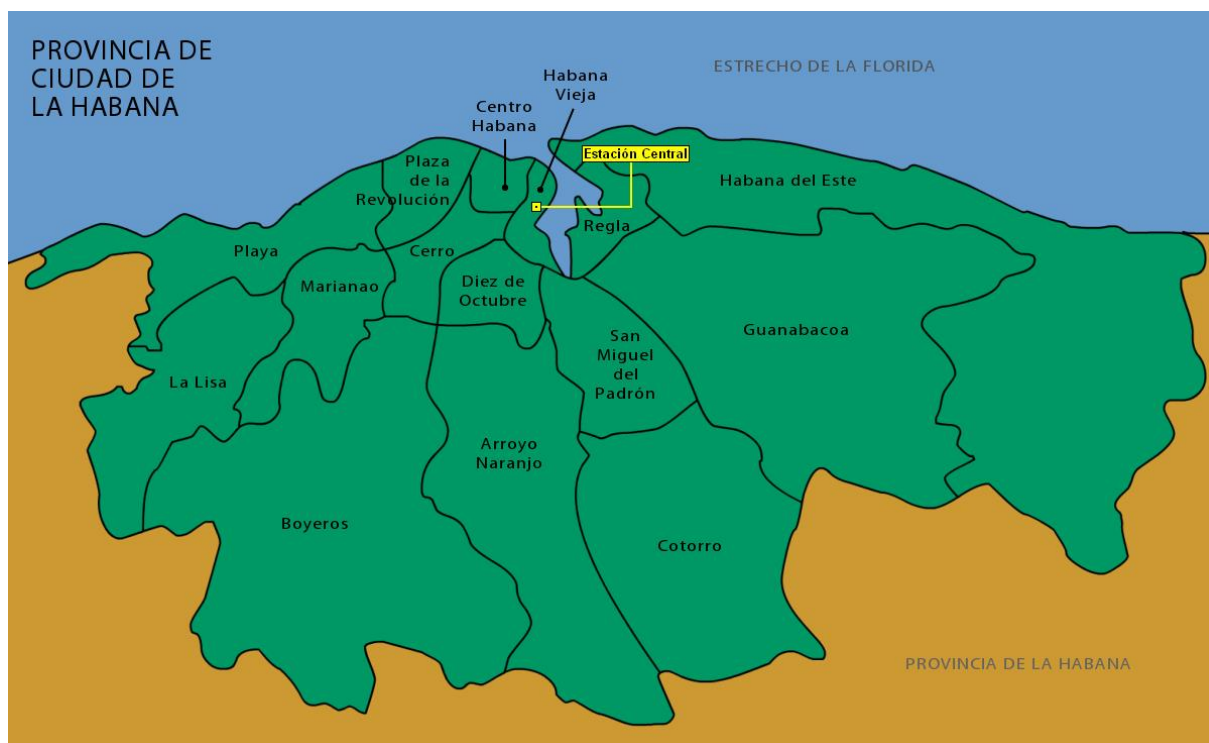


2.3 Fieldwork in Cuba

I conducted an ethnographic study in the city of Havana (as opposed to Havana province), Cuba, for about a month for data collection. The fieldwork was done to expose and immerse myself into Cuban culture, for example by living with local residents, volunteering in an *organopónico*, and actively recording my observations as texts and photos. Throughout this research I identified myself as an Indonesian student from Europe who is interested in the urban agriculture from historical and environmental perspective. However, I think the most obvious aspect which helps me interact with people is my Chinese outlook. Because of the ideological, education, and economic relation between China and Cuba, in general, Cuban people have positive impression towards Chinese looking people. This made me feel welcomed in many visits to urban gardens or people's houses.

To answer my research questions, I applied qualitative interview, participant observation, and documentation analysis. These three techniques were adopted as part of triangulation to gain broader perspective on the research subject.

Figure 8. Map of Havana. Source: Wikimedia.



2.3.1 Ethnography

Broadly speaking, ethnography is the study of people and cultures. While originally ethnographies had the purpose of studying the “natives” whose life is unknown from the western society, this preconception on doing ethnography had deeply influenced the way ethnographers position themselves in superior position. However, there has been shift in the approach which led toward a more humane and collaborative enterprise between informants and ethnographers. As Appadurai (1988) stated, “Ethnography reflects the circumstantial encounter of the voluntarily displaced anthropologist and the involuntary localized ‘other.’” It demonstrates a self-awareness and deliberate attempt by anthropologists to recognize their positionality and the presence of power imbalance in their work. Following this, reflective and open attitude have become a litmus test for the quality of ethnographies (Cho & Trenc 2014).

While it is true that fieldwork is predominantly in the form of organized talk where a certain degree of control has to be imposed by the fieldworker (Appadurai 1988), I see my role in this interaction of meaning construction as a medium in which voices from the field can resonate to larger audience while consciously striving towards maintaining the nativity my subjects' point of view. Through conversations, I tried to find the insider's or emic perspectives of my informants. During this process I was equally aware that the extraction and interpretation of information was ultimately depending on my theoretical baggage and formal training which again has certain assumptions on knowledge generation. Furthermore, this difference and tension was not limited in the person-to-person dialogue. The conversation itself carried out as well in the phase of reading and writing which made the whole project extended beyond the present (Appadurai 1988). In fact, my fieldwork and the writing process happened simultaneously and continuously, that the whole research became self-experiments with constant tests and reformulation of my initial assumptions and expectations (Burawoy 1991).

Ultimately, my challenge was to really start a dialogue that can capture the diversity of views and the meanings behind, while at the same time, to represent these encounters without undermining the many voices. In other words, the result from this approach would be discrete units that were constructed within the larger context of such processes. To achieve this result, I used the record from my ethnographic study that can be in all sorts of forms, such as voice records, field notes, diary, photos, newspapers, and other media that store the social interaction and the experience from the field. Given the variety of sources in which description of a society can be made, typically this approach involves combination of methods. In the following parts, I will elaborate some of the techniques for data collection during the fieldwork.

2.3.2 Qualitative interview

Epistemologically qualitative interview departs from several traditions; post-positivism, constructivism, and romanticism are some of them (Roulston 2010). However, during my actual research process, these different angles were not distinctly segregated; rather they were often

applied in combination depending on the dynamic of the interviews, relevancy with research questions, and the corresponding answers that I looked for. I applied this approach by using different types of interview questions (refer to Appendix for interview questions), such as open-ended, request for explanation in local terms, and role-play or scenario type of questions. The questions themselves were designed as the operationalization of the research questions.

My purpose of using semi-structured interview during the fieldwork is to understand the influence of historical, social, and culture production in the creation of social imaginary towards sustainable urban agriculture, then how different generations share this memory. To do this I situated their experiences within the larger political and social context, for example by asking them open-ended question on some of the changes that have happened for the last 20 years. I approached interview as an interactive activity of meaning construction between me and my informants (Spradley 1979). Therefore, I emphasized the context and interaction of each interview in which meaning was generated, instead of merely the answers produced by interviewees. This approach also allowed me to adapt my questions depending on the circumstances and direction of the interview, for example permaculture gardeners often referred to their gardens as permaculture system and such term I did not anticipate before. By adopting this term in my other questions I tried to establish a common understanding on the topic from the perspective of my informants.

I created three sets of interview questionnaires for difference audiences to address different contexts and interactions, not only between people but also people and their environments. The three categories are people between 15-30 years old, farmers in older age range, and people working in governmental organizations and/or NGOs. In all sets, the questions were created to operationalize the three research questions proposed for this project. I chose the first category based on the time when the Special Period occurred under the assumption that living through this period of turbulence which tightly connected with the rise of urban agricultural, might affect their perception on urban agriculture as explained by the concept

of social imaginary in Chapter 3. The category of young people included full-time and part-time urban gardeners. Older gardeners covered those who cultivated *organopónico*, *patio*, and *huerto intensivo*. Organizations included NGOs and governmental organizations who work specifically on food and agricultural issues. The interviews were done in semi-structured way, meaning the questionnaire was treated as a guideline and follow-up questions were asked depending on the direction of the interviews. In addition, through this approach informants were also encouraged to speak through their cultural background and decide which points were essential for them in relation to my research topic (Spradley 1979).

Interviews were stored using voice recorder and field notes while observing ethical research guidelines to protect their identities. I used pseudonyms to share the stories of my interviews. In terms of language, I had been studying Spanish for a few months prior to the fieldwork. Most of the interviews were undertaken by me. However, because of my language limitation, translations of my interview transcriptions into English were done by a Cuban translator. After the interviews, I would do the first transcriptions and any misunderstanding would be clarified by the translator.

Table 1: The number of interviews conducted during the fieldwork

	Young people		Old people	
	M	F	M	F
Organopónico	2	1	4	
Huerto intensivo		1		1
Private garden	2	1	2	1
Organizations			4	
Total	7		12	
Male	4		6	
Female	3		5	

In total, I undertook 19 interviews, visited 6 *organoponicos*, 2 permaculture gardens, 1 *buerto intensivo* which was utilized as a permaculture center, 1 private garden, and 4 organizations. I also volunteered at one of the organoponicos for a couple of days. I interviewed 2 of my interviewees more than once to follow up certain information. In 4 interviews, I had 2 interviewees at one instance. I interviewed them both together and separately. In terms of events, I attended one farm tour for visitors from the US and one permaculture workshop. Besides the formal interviews, I also had more casual conversations with Cuban youths and the older generation and these will be part my data as well. These interviews were organized as described below.

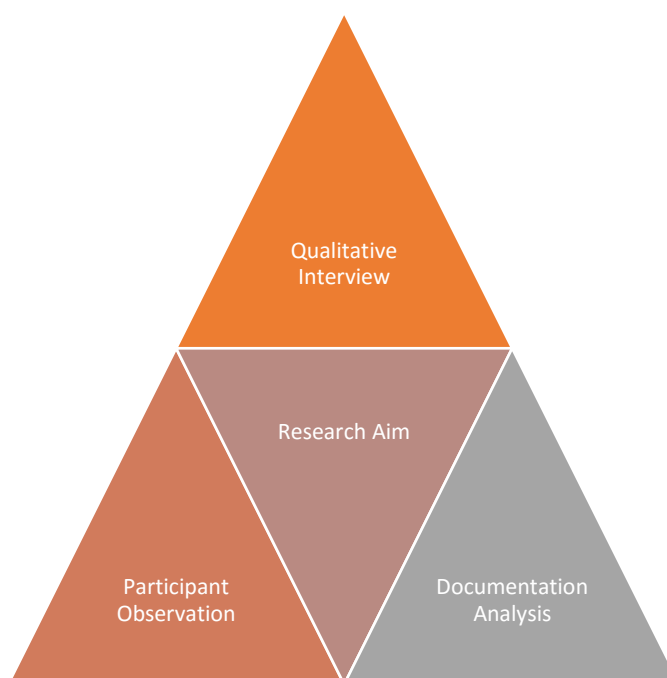
Based on snowball sampling method, I started my fieldwork by visiting some of the organizations that I had been in touch with to start identifying urban gardeners in the city of Havana for interview. Unfortunately, one of my contact persons due to an unprecedented event, was not able to involve too much during the fieldwork. From my other contact, I was referred to a number of young permaculture gardeners and some municipalities in Havana where *organoponicos* are located. Based on the recommendation of my initial interviewees, I extended my contacts to reach other urban gardeners. Some of my formal interviews were conducted when I explored the city, for instance when I encountered an *organoponico*, which is the most visible type of urban agriculture, I asked for a permission to interview the urban gardeners. In general, people were willing to be interviewed, though in one municipality visit to *organoponico* required an additional permit card. Interview with NGOs and governmental organizations normally required advance arrangement. On one occasion, they requested an introduction letter from the organization who sponsored my research permit prior to an interview.

2.3.3 Participant observation

This technique brings researchers together with their informants to get involved in the making of ethnography. Some aspects of participant observations, such as thick description, focus on everyday life, dynamic interaction between researchers and their informants in meaning construction, and the importance of reflective attitude were already explained in the previous

section without referring explicitly to this method. Therefore, in this section I would describe the application of this technique in my fieldwork. In addition, the data from my field observation influenced the interview questions, and vice versa.

Figure 9. Triangulation is one way to identify and include additional information which is valuable for analysis. It is done by applying different methods to understand the differences and similarities of different sources. Both written and oral records are vulnerable to manipulations. Therefore, by integrating my data within the larger context in which the processes and interactions occur, more coherent and richer stories can be told.



I visited and undertook participant observation in 8 municipalities (See Figure 8) in Havana to observe the presence of urban agriculture in different neighborhoods and its relative distance from the city center. I took field note and photos and I actively asked the local residents about gardeners in their neighborhood during these trips. I adopted a non-interventionist approach in this fieldwork by not consciously imposing my views on how things should or must be done, and simply learning and recording the practice of urban farming in Cuba. For example, when I talked to the gardeners around the neighborhood I was simply interested in their view on the sustainability of their gardening practices. In addition, I was actively participating in gardening in one *organopónico*. Except for the obvious reason of having a hands-on experience in farming, the other benefit of learning about urban agriculture through volunteering is I could

complement the data from interview which tend to reveal individual's mind with my observation on urban agriculture as a collectively mediated activity.

2.4 Post-fieldwork

2.4.1 Data analysis

During this stage I mainly concentrated on open coding and data analysis. Notes and voice records from the fieldwork were transcribed manually. The verbatim transcriptions were categorized based on recurring themes and placed within the larger pictures from literature, how does the information fit or does not fit into the current understanding of the topic. These categories were built upon my theoretical framework. For example, I identified several categories, such as image of agriculture, self-proficiency, memory of the past, limitations, and motivations, knowledge transfer. When they start to form a broader picture, I divide the analytical chapters of this thesis based on these categories.

2.5 Scope and Limitation

The scope of this research is the remembrance of past among urban gardeners, their social imaginary on gardening, and the interaction.

Some of the limitations of this study are not being fluent in Spanish, I spent only thirty days in Cuba, and the study is restricted to urban gardeners in Cuba. The study of social memory and social imaginary requires a certain familiarity with culture and social structure of the field. Due to my relatively short stay in Cuba and my minimum proficiency in Spanish, perhaps I have missed some important stories or nuance from my fieldwork. By saying that, I also received help from Cubans who translated my interview transcriptions and explained me some of the cultural context in particular responses. Furthermore, I could not really clarify some of the points that I might miss after the analysis. However, after comparing some of the translated interview transcriptions, field note, and literatures, these different resources have helped me to put my fieldwork experience into perspective.

As mentioned above, in total I interviewed 19 urban gardeners and experts in agriculture with a mixed gender. However, I think if I had the chance to organized formal interview with other people who do not work in this area I could have an additional perspective.

Chapter 3. Theoretical Framework

I use the concept of social imaginary and social memory to investigate the extent of the creation of new socio-environmental imaginary within the development of sustainable model of agriculture in Cuba. Based on these two concepts, I can explain how memories of different generations from their past are transferred (or not), transformed, preserved, or forgotten. These processes lead to the rise of shared ideas or understandings among different generation of urban gardeners that ultimately influence their decisions and perceptions on urban agriculture.

3.1 Social imaginary

3.1.1 The definition of social imaginary

Social imaginary represents the diversity of ideas in a community, as well as the driver which gives rise to those ideas (Taylor 2002). It is about the relation and interaction between individuals, the expectations formed from the members, and how things ought to be that underlie these expectations (Taylor 2002). Originally this concept was utilized to sketch out the rise of Western modernity. Based on the relatedness of some kinds of social imaginary and Western modernity, there are three components that became the building block of Western modernity: the market economy, public sphere, and the self-governing people (Taylor 2002). For example, moral order which determines the rights and obligations that individuals have in regard to one another, replaced the idea of law of a people which is a thing that describes a group as a people and a system of hierarchy that is based on cosmology (Taylor 2002). The new normative order emphasizes on mutual respect and mutual service among individuals who form a society. Eventually, a society aims for security and prosperity based on this social arrangement.

This concept can explain what are young people's ideas about urban agriculture and how do they come about. How these ideas came about can be explained by the interactions between young people and their popular media, their peers, and older generations. It is through observant

eyes that tangible and intangible objects, such as images, stories, and legends that reflect the way ordinary people interact with their surroundings, social imaginary can be identified (Taylor 2002).

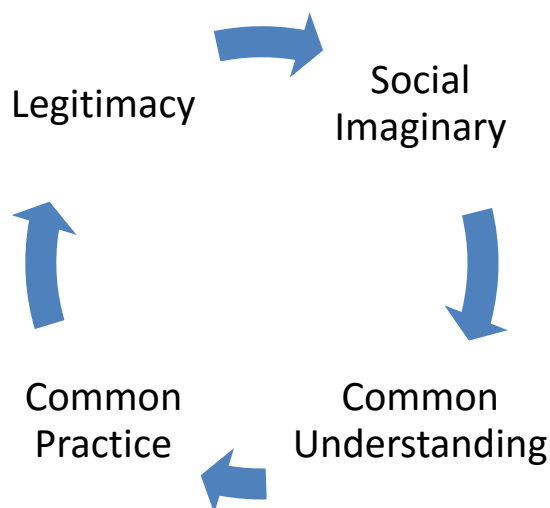
The use of imaginary instead theory is because the focus is on how ordinary people imagine their surroundings, which often means social imaginary is shared by large groups of people, where theory is usually carried by a small minority. Secondly, the word imaginary is understood as less likely to be expressed in theoretical terms. Then, social imaginary is common understanding that leads to common practice and a shared sense of legitimacy. Finally, the notion imaginary suggests that the unstructured understanding cannot be formulated as a set of explicit doctrines. In this research, this characteristic guides me pay more attention to different elements in Cuban society in which ideas are created. Therefore, to understand the social imaginary among urban gardeners, I looked into the role of government in social and cultural production and the interaction among urban gardeners within their social structure.

Social imaginary also carries both factual and normative meaning. Factual because it carries the sense of understanding in common practices or how we all fit together and normative because it also tells how things ought to go. In this manner social imaginary actively shapes the current and future society while simultaneously is being reconstructed by changes in social structure. Following this argument, social imaginary at the present indicates the trajectory of what shape it would be taken in the future. Furthermore, not only the present shapes the future, the way people imagine what the future they want to have equally affects their present social interactions (Vaisman 2013). The capacity to produce aspiration, in this sense, becomes a necessary condition in how the future is continuously being negotiated in the present (Appadurai 2013).

As I will elaborate further in the next part, it is argued that our very first encounter with social imaginary is through our family (Zerubavel 1996). Starting from this step we start building up our expectation and understanding of a certain group, even long before we become part of that group. The group that we are talking about here is most likely our peers and classmates at

school (other social groups) as they are the ones that we interact with the most outside our family circle. In Chapter 6, I will explain how memory or experience about urban agriculture is shared within a family and among peers in permaculture community. This process creates a certain assumptions or perceptions among different generations of urban gardeners.

Figure 10. The creation of new social imaginary



Social imaginary is legitimized or enhanced when our predispositions are shared by wider audience and being practiced consistently (Taylor 2002). These series of repertory actions themselves become the demonstration of our relatedness to a particular social imaginary. Not only understandings drive actions, actions also carry these understandings. Even though there is a sense of populism in this argument, social imaginary is readily penetrated by political ideology or new direction in economic policy. For example, Cuban society experienced several ruptures in the past signified by political and economic turmoil that has resulted in the immanence of socialist government in Cuban society. National solidarity and communality became and are still the characters of Cuban society amidst the process of land transfer (Premat 2003). After the Revolution, many social spaces and interactions are determined through policies of the government. The expectation among farmer cooperative members to show their commitment towards the Cuban revolutionary government in their gardening practices is one example in which political ideology penetrates the everyday life of urban gardeners (Gropas 2007).

Therefore, investigating what kind of expectation the government has in mobilizing and reshaping certain social imaginary and what actually the consequences of these policies among different generations of urban gardeners might provide some insights on people's perception on urban agriculture.

3.1.2 The process of "long march"

Long march is a term that Taylor (2002) used to explain the process in which new practice gradually acquired new meaning for people and help to constitute a new social imaginary. One example of this transition is the one which occurs in a public sphere (Taylor 2002). The term public sphere is not limited to physical space where member of societies meet and exchange ideas through face-to-face interaction, but also through a print and electronic media (Taylor 2002). This definition implies an interaction among people who never meet, that they understand themselves to be engaged in discussion and capable of reaching a common mind. Public sphere is a mutation of social imaginary that is the prerequisite for the creation of modern society. The media that exist within public sphere is effective or could lead to the rise of common understanding only if it takes the right cultural context (Warner 1990). Public sphere is not common space that is a space where people assemble with the same focus, for example funeral and sports match. Taylor (2002) called this common space in some locale as topical common space. Furthermore, the idea of public sphere can expand to topical spaces that knit a plurality of spaces into one all-encompassing space, called a metatopical common space.

The transition from one to a new social imaginary can happen either smoothly or abruptly depending on their degree of differences in retrospect to the present one (Taylor 2002). Conflict and uncertainty tend to rise from the inability to translate the same principle into a more stable and agreed set of practices, whereas certain overlap with existing social imaginary leads to a wider acceptance among the society members. Eventually, the newly adopted ideology began to define the contours of the participants' world and created a shape that was too obvious to mention. This process can be seen as a cycle that reinforces each component. Not only the new

social imaginaries are constructed within the sphere of common practice or advocated actions, the understanding can be the basis for modifying the shared ideas, thus alter the practice. Finally, social imaginary is formed when the adopted theory is indiscernible from its surrounding that it becomes such an obvious shape. In Chapter 5, I will present how socialist ideology penetrates into various aspects of everyday life Cuba.

One instance is the social imaginary of modernity in western society penetrated by the theory of economy that was advocated by a small group of individuals (Taylor 2002). According to Taylor (2002), modernity is the rise of the new principles of sociality, a mingling or merger of new practices and institutional forms, new practice, and new malaise. The economic dimension governs the exchange of service to form a society that emphasizes on security and prosperity. Both material and spiritual factors explain the gradual shift of economic to its central place, or economy creates a new consciousness of a society. In the case of Cuba, the mobilization of theory into social imaginary from socialism towards a quasi-capitalist system was carried out to adjust with the immediate need in the society rather than to abandon the old system (Alfonso 2000). However, this relatively smooth process took its toll on the socialist project and many aspects of Cuban social life and people's national identity as I will explain in Chapter 5.

One issue with modern social imaginary is there is the belief that only the existing society is possible. Such attitude normally occurs when the continuous creation of a society is forgotten. One example is viewing the rise of individualism in the expense of communality as oppose to a more traditional community (Taylor 2002). However, as mentioned above the interactive relation between social imaginary and society implies the formation of new sociality with different functionality when new understanding of individuals came about. This has important implication on how would the Cuban urban gardeners imagine their future as I will explain in Chapter 6.

3.2 Social memory

3.2.1 Definition

I use the term social memory to focus on remembrance and social aspect of the production of memory in different social institutions. Through the action of remembrance, the past is being reproduced in the present. In this respect, I do not look at the temporality of the past; history only provides me with the context or setting in which certain memory is constructed. By saying that, I do not search for the accurate reconstruction of the past, but rather I look for how the past is seen from the present. Moreover, I want to understand the relation that people have with their social imaginary of the present and the remembrance of the past which is stored in the form of social memory. In short, I will try to expose how the future is being imagined from the present under the influence of the past. In Chapter 4, I will show the formation of social memory of the history of Cuba.

3.2.2 Characteristics of social memory

Some of the properties of social memory are it consists of shared ideas, it is contextual, its formation is influenced by social institution, remembrance is a space for contestation for social memory, and people's interaction with their environments is one form of remembrance (Halbwachs 1992 ; Zelizer 1995 ; Ingold 2000). I will expand these points in the next few paragraphs.

The social property of memory means that memory is not limited to the inherent nature of individual which lies in subjective mind; correspondingly its operation is both mediated and structured by social arrangements (Halbwachs 1992). Besides being impersonal, social memory also carries a vital element that is collectiveness. In this sense social memory is not necessarily the aggregate of individual memory, rather it is the memory which is commonly shared or jointly remembered by all of them (Zerubavel 1996).

The existence of social sites of memory which is stored in the form of written documents and material culture as a way to retain the memories of a particular community is not sufficient to preserve the corresponding social memory (Zerubavel 1996). It requires an active engagement with the interpretation and reinterpretation of reading or commentary to empower historical consciousness (Assmann 1992). Otherwise, as Young (1992) says, “Once we assign monumental form to memory, we have to some degree divested ourselves of the obligation to remember.” to implicate the very form of monumentalization in the forgetting as if we have erased the burden of continuous remembrance. In a larger context, any interactions that lead to the exchange of social memory either through daily conversation or more structured interaction such as lectures and speeches, actively shape and form social memory according to the present contexts; it indicates that memory is not static and it works differently at different point in time and within different social institutions (Zelizer 1995).

The importance of family is one example on how social institutions influence the formation of social memory. According to Zerubavel (1996), the interpretations of our early recollection are simply the reinterpretations of the way they were experienced and remembered within our family. Therefore, what we remember at the early age, we did not experience as individuals. The implication is we have the ability to experience events that happened in groups and communities even before we joined them as if they were part of our own past. This is the mechanism of how we share common feelings toward a certain group even long before we become part of that group. He called this group as mnemonic community (Zerubavel 1996). This is what Mannheim (1952) postulated as the role of social and political events to shape generations through major shared experience. In this sense, collective memory is the past that actively forms our identities (Halbwachs 1992). This process is only made possible by the invention of language that has enabled the transmission of knowledge across different generations. As Ingold (2000) says, “The mobilization of meaning which otherwise confined in one’s mind is done through speech.”

Through social memory, there is a constant process of contestation and resistance, where the existence of relatively free space of action reaction, official unofficial, and public private entities are all intertwined (Olick & Robbins 1998). This process is governed by the social rules of remembrance that is the choice of information being distributed regulates what should be remembered and forgotten (Olick & Robbins 1998). For example, in the story of the discovery of America by Christopher Columbus, there is a division of the existence of particular place at a particular time while assuming the non-existent of the same entity prior to discovery (Zerubavel 1996). As I will show in Chapter 5, the mobilization of different social memories of struggle and national identity by Cuban government has resulted in the creation of social solidarity during the period of crisis.

Relational model implies that the source of knowledge does not solely exist in the minds of our predecessors, but also in the world that they point out to us (Ingold 2000, Chapter 8). This idea conveys the message that learning process follows the discovery along the paths shown by older generations. Therefore meaning can only be extracted within a particular context in which utterances occurred. It is through the tradition of living in the land that ensures the continuity of generative source of meaning (Ingold 2000, Chapter 8). At the same time, the act of remembering is performed by walking across a certain pathways and retelling the stories of ancestors related to this excursion (Ingold 2000). However, the preservation of one's identity does not imply verbatim copying of tradition, which Bjerkli (1996, 18) called as 'to traditionalize the traditional' whose existence creates a rupture between the continuity between past and present. On the other hand, to keep a tradition going, a certain improvisation is necessary to adapt to the ever changing environment.

Chapter 4. The Social Memory of Cuban History

In this section I will illustrate two symbolic values that have shaped the social memory of Cuba's past that will determine how urban gardening fits into the future. First is the formation of Cuban national identity and a self-defined struggle or *lucha* against foreign occupation. Second is the social memory of slavery and capitalist system which is associated with sugar industry. The creation of these social memories exists against the backdrop of the *long durée* of sugar monoculture and Cuban Revolution. The duality created by the history of Cuba that is the history of colonialism and the success story of Revolution in education and health services has created a duality in imagining the future of sugar industry with its long history of slavery and Revolution. This insight also hints some possible hurdles in the future of Cuban agriculture to improve food production within the current economic and political transition of the country as I will elaborate in Chapter 6.

4.1 Social memory of Cuban Revolution

From a historical perspective, the Cuban Revolution in 1959 replaced a capitalist economic model with a socialist one (Miller 2003). The Cuban Revolution values social equality, patriotism, and international solidarity (Segrera 2011; Harris 2009). Therefore, the fulfilment of social rights, for instance housing, healthcare, food proficiency, and education, was prioritized. The Cuban government has been able to maintain minimum dissent, even if the fulfilment of these rights is operated through a centralized and highly bureaucratized system (Alfonso 2002). The Revolution also consciously marked the break and rejection from past colonization through symbolic measures such as the nationalization of Havana Hilton Hotel which was owned by the US into Habana Libre or free Havana and the opening up of private recreational areas to the general public (Miller 2003).

This model managed to achieve a relatively egalitarian society, developed political culture, and extensive channels of popular participation and mobilization (Alfonso 2000). In this sense,

the post-revolutionary Cuba was dedicated to the creation of people whose commitment is to selfless solidarity and patriotic loyalty, or the so-called the New Man (Miller 2003). To satisfy this role, the government had a great capability in mobilization and cultural-ideological reproduction (Alfonso 2000). Some examples are puppet shows in rural Cuba for propaganda purposes to spread socialist ideology throughout the whole island and theatrical performances to show how ordinary Cubans interpret and deal with crisis and social transformation (Frederik 2009).

4.1.1 *La Lucha*

Since the Revolution in 1959, the everyday life Cuba was mostly associated with the perpetual self-defined *la lucha* or the struggle (Hernandez-Reguant 2009a). The notion of *lucha* was used during the War of Independence to symbolize Cuba's liberation by Jose Martí, a national hero, from Spanish colonialism (Gropas 2007). The 1959 Revolution that led to Cuba's true independence also presented the discourse of continuing struggle against US intervention (Miller 2003). In the early post-Revolution Cuba, the government fostered national unity and emotional attachment to *la patria* to cultivate the idea of continuous struggle from different occupations (Gropas 2007). *La patria* refers to Cuba as a country and not necessarily the revolutionary government. In addition, Cuban national identity was already envisioned before the creation of Cuba as nation state in 1902 (Miller 2003). Leaving *la patria* was considered as an act of treason (Hernandez-Reguant 2009a).

However, as described in the Chapter 1 the socialist system did not really solve the long-standing problem, such as dependency on monoculture and food import until the 90s. Even under such system many older Cuban generations showed their gratitude towards the revolutionary government because of the provision of well-being of Cuban population in general prior to the Special Period (Dore 2012). This sentiment is shared by an old woman from rural town east of Havana (Dore 2012):

I thank the Revolution for [everything I have], I am so grateful to the Revolution that I want to die before El Comandante [Fidel]. Before I had nothing; I lived miserably in the countryside. Now I have a roof over my head, I

have this house that was given to me, well, in fact my husband and I built it ourselves but the state gave us a title. I am guaranteed work. Although I didn't study when I was young, I can now if I want to. For all of these reasons I thank El Comandante, who has been the one and only, who has done so much for our people

Many Cubans, especially the older generations expressed similar attitudes while openly acknowledging some of the mistakes of the government (Dore 2012). For example, how the collapse of the sugar industry put the country into dire situation as I will explain in the following part.

4.2 Social memory of sugar industry

The people [cane workers] were not farmers, nor were they peasants, tillers of soil they owned or could treat as their own, as part of a distinctive way of life. They were agricultural laborers who owned neither the land nor any productive property, and who had to sell their labor to eat. They were wage earners who lived like factory workers, who worked in factories in the field, and just about everything they needed and used they bought from stores. Almost without exception, what they consumed someone else had produced. (p.xxii).

--- Sidney Mintz, *Sweetness and Power*

In one of my interviews with Dona who is a researcher from FANJ, an NGO which promotes sustainable lifestyle in Cuba, she mentioned that, “*Right now very few young people in Cuba are working in agriculture because Cuba is mostly experienced in doing monoculture, for example sugar, tobacco, and coffee for export.*” Firstly, her statement seems to illustrate that the rise of urban agriculture and agroecological method since the 1990s that demonstrates sustainable practices in agriculture does not necessarily taken by younger Cuban generations. Second, the stark difference between farmers and sugarcane workers seems to underlie her statement. In order to understand the relationship between sugar industry as monoculture and urban agriculture, I will show how social memory of Cuba’s past is influenced by the collapsed of sugar industry.

4.2.1 Sugar after the Special Period

The collapse of sugar industry in the 90s left traces of its heyday in the form of sugar mills and sugar plantations throughout the island. From 1990 until 2000 sugar industry had declined, in terms of sugarcane harvested and sugar produced (Nova 2006). Several attempts have been tried to revitalize this industry. The outdated sugar mills were closed, some of them turned into museum, so investment could be focused on fewer mills. This led to the closure of half of the outdated sugar mills in the country by 2006. To improve sugar production and investment in the industry, in 2008 the Ministry of Sugar was replaced by AZCUBA, an *empresa* or state-run holding company. As an *empresa*, it can reinvest about 65% of its revenue without having the permission from the central government and this was intended to stimulate the industry (Nova 2006). In addition, the Cuban government signed a contract with Brazilian company, Odebrecht SA, to rejuvenate this business by investing in the latest technology to increase sugar yield and production efficiency.

Figure 11. A Closed sugar mill in Ciego de Avila. It shows the chimney and elevated cane-loading belt. Source Scarpaci & Portela 2009



Figure 12. This tower allows overseer to keep an eye on slaves working at the sugar plantation. Source: Scarpaci & Portela 2009



To understand the implication of these two changes in the sugar industry, I had the chance to talk to Federica, a Cuban historian who works closely on this issue. During my fieldwork, we usually met once a week at her home which is a one-hour bus ride from central Havana. During one of my visits, I intentionally brought up this topic hoping that she would give me her latest book about generations of sugar cane workers in one province in Cuba, though I personally think it is a fascinating topic by itself:

D: I felt that when I arrived here [in Havana] I was truly surprised with this sugar culture that is so vivid, because from my research or from what I've read, this industry collapsed during the Special Period and the industry hasn't really recovered since then. At the same time, from some of my conversations, people said that Cuban people believe that they can't live with sugar.

Z: Yes you're right that's the reason I wrote this book.

(She stood up from her rocking chair to get a book from her bookshelf across the room where we had the conversation. The room itself is surrounded by antique bookshelves and piles of books occupying various sites. I always enjoyed visiting her house because I imagined myself having my own 'little library' in my future house. I felt so much comfort surrounded by books and papers that carry the scent of the past. While I lost in my own thought, suddenly she came back while holding a green-covered book. I was still hoping that she would give this book to me.)

Z: This book is written exactly about this topic. (She handed me the book while explaining the recent sugar development). What happened, was in 2002 the government closed old sugar industries. And it clearly changed the sugar culture in many of these communities throughout the country.

D: Ok you mentioned about sugar culture, I can imagine these people had been working there for many generations, but how would you define the sugar culture? Or how do you know that there's a sugar culture?

Z: Well, in the past usually it started with a sugarcane plantation then the people moved and built houses later on in the surrounding area. This created a unique social arrangement. Everybody is specialized in a set of skills in the community and they lived closely together. Their kids go to school together in the morning, that sort of thing. But now after the modernization things change, though they [the community] still maintain the same function, but they became loosely knitted or they are more far apart.

D: So what happened to the families that you worked with in your book? (Her interviews were taken place between 2004-2006 or before the Ministry of Sugar/MINAZ was disbanded)

Z: Well most of the young people, except one who is the son of the owner of the house still worked there, decided to work far away from the sugarcane plantation in other empresa or in other cuanto propia [self-employment] but not in the community. Some of them began to find a way to leave the country and some successfully did it. Most of the women dedicated themselves to work at home, and the men looked for other jobs connected to agricultural production, or any work opportunities in other activities.

At the end I did not get the book. She explained to me that her work was motivated by the need to understand the consequence of the government's decision to downsize the sugar industry. She added that the sugar cane workers in Central Cuba know pretty well the history of the sugar plantation that they worked in that was often absent in the official history. As Miller (2003) suggested that during the literacy campaign in 1961, the teaching of history was mainly about national hero and battles in the revolution to serve propaganda purposes. Federica further explained that this knowledge of their community is often shared and discussed within families and neighbours. Through this daily encounter, sugar cane workers contested their remembrance of the sugar history which was intertwined with multiculturalism and shaped the history of exploitation as Cuban cultural identity (Estrada 2009). Conversely, she also said that within the pressure from other emerging sugar exporters and the lack of competition of Cuban sugar industry, they are aware of the indispensability of foreign investment and modernization to make the production of sugar economically feasible. As an expert from Food and Agriculture Organization (FAO) said, "This product [sugar] is expanding in area but not expanding in productivity. The yield is still below an economic threshold. The sugarcane you see it is small, very low yield and the sugar content is very low". It was estimated that the cost of production for one pound of sugar in Cuba in 2000s was about three times the world market due to old facilities (Peters 2003). The result was the closure of about half of the Cuba's sugar mills in 2006 (Scarpaci & Portela 2009).

Besides the shared consciousness of limitations and the need of change in sugar industry, even under the existence of the memory of the heyday of sugar in the past, another important point during the closure is the minimum occurrence of social upheaval. This made possible by the political will of the central government to alleviate the social consequence of the downsizing of sugar industry (Estrada 2009).

4.2.2 Paco – Imaginary home

If the previous part is about the social memory of sugar history among sugar cane workers, in this section I will explore how the rurality is imagined by an urban gardener who grew surrounded by the landscape of sugar industry. This is the story younger generation of sugar cane workers choose urbanization as a solution to find a better life. However, this decision may not always indicate detachment from the image of countryside or rural landscape. His story is intertwined with the trend of internal migration from the eastern to the western part of the island.

Figure 13. The organoponico where Paco works. He said sometimes there are students from a nearby primary school come to learn gardening. Source: Author's photo



Paco is a young gardener who works in an *organoponico* in Havana. He is originally from Granma Province which is located in the eastern part of the island. It is one of the main

agriculture areas in the country and the majority of the people there work in agriculture-related occupation as he explained to me. He seemed like a reserved person, though he was willing to be interviewed without any prior arrangement. When I expressed my interest to learn about gardening at his *organopónico*, he accepted my proposal. So even though some of the answers here are quite brief, I managed to understand the context better through our informal conversations when I volunteered at his *organopónico*. Throughout the interview he often referred to Granma with its beautiful nature and his preference to live there.

D: Is there any sugarcane in your hometown?

P: The sugarcane yes. In my province there's a lot of them, near my house. There is a sugarcane factory. There's a lot of sugarcane where I live it's surrounded by sugarcane, it's everywhere.

D: What do you do during your spare time?

D: Do you think that it's easier to live here, or is it more difficult?

P: Yes to live is a bit difficult, a little bit agitated there's some people that like this way. In the countryside where I live it's not the same. Because there you may relax when you want to. But here I don't do it much because I don't have so much families and friends.

D: Why did you come here?

P: Yes because the guy who is in the business [organopónico] is my cousin. I am here helping him with the work. It's the family as you can see. (family is an important thing for him and there is a sense of duty here).

I felt a sense of longing for a way of life that is absent in Havana. In this respect, by working in an *organopónico* he could help his family and make a living, while recreating this image of 'home' which is absent in the busy street of Havana. In many cities in the developing countries, urban agriculture as a channel for self-actualization can actually improve their integration of newcomers into a relatively new society (Choguill 1995).

Therefore, under the presence of urban agriculture, urbanization does not necessarily sever the connection within families and between people and the land. Growing up with a father who used to be a farmer seems to inspire him to work in agriculture. The invitation from his

cousin which opens up this possibility of working in Havana is also equally important. Even though his hometown is one of the main agriculture regions in Cuba, family seems to play a determining role in his decision to work in *organopónico*. The presence of family who already resided in a city might act as a pulling factor for urbanization in this respect.

Putting that aside, his difficulty in adjusting with the life outside the farm deserves further elaboration. He mentioned above the difference of living in a city and his hometown. The presence of supportive community as in the story of permaculture gardeners in Chapter 6, might lessen the distress during this period of transition. When we had the interview, he had lived in Havana for about 4 months. On one morning, when I was working at his farm, I noticed the silence atmosphere surrounding the *organopónico*. He said, “Yes it’s very quiet here and I like it, even though sometimes the street is very busy”. Maybe this is one moment when he could take a temporary respite from the intensity of hustling street of Havana that seemed alien to him.

Figure 14 Sugar plantation in Valle de los Ingenios or Valley of the Sugar Mills in Central Cuba. Source:

www.celamy.com



4.3 Social memory in the city

The ability for Cuba to enter into the sugar market might be impeded by several factors on the global sugar market such as the drop of sugar price, the emergence of sugar exporting countries, and the production of high-fructose corn syrup also competes with demand for sugar (Echevarria 1995). In addition to these different factors, Cuba's competitiveness is inhibited by low productivity and technological barrier as mentioned above.

According to Federica, the Cuban population also realized all these limitations that impede the recovery process of sugar industry. What many Cubans, including former sugar cane workers, regret the most is the fact that the demise of this industry was not followed by the creation by other means of income. However, there is recognition that the application of the knowledge of these sugar cane workers will support the government's goal to improve the sugar industry in Cuba. What they possess are not only technical know-how but also the social memory of the rural Cuba that equally vital in shaping Cuban identity (Estrada 2009). As mentioned in Chapter 1, the main direction that the government pursuit in agriculture through Agriculture Reform in 2008 was to increase the national food production for national consumption, and not necessarily sugar production.

The story of Paco falls into this limbo. On the one hand, the presence of different incentives in urban agriculture has made his cousin's invitation as a possible opportunity to make a living in Havana, though he is from agriculture area. The current condition of sugar industry may not convince him to stay in his province. On the other hand, moving across different places is not always easy. The change of living environment that he has experienced creates a personal distress that emerged from inhabiting unusual space. This might be a source of tension within urban setting as the flow of urbanization is very unlikely to be reversed. At the same time, the presence of urban garden has provided him with a temporary personal space of the imagined home. As Premat (2003) proposed that too many urban gardeners fences have re-created their gardens as private space.

In short, the social memory of sugar in Cuba can be derived from bitter histories of slavery and foreign intervention on Cuban affairs. Prior to the Revolution, social inequality was pertinent that was signified by control over labors and Cuba's politics. At the same time, the achievement of Cuban Revolution in improving the country's health and education system as mentioned in Chapter 1 was made possible by sugar export, regardless of all the negative consequences. The duality is while sugar industry symbolized continuous struggle against foreign occupation to protect the country, from economic perspective it was the solution to build the country. This duality again persisted during the Special Period, though in different form.

Chapter 5. Imagining La Patria

In this chapter, I will present how social memory of the past Cuba and Cuban national identity which were shaped by the history of sugar and by the revolutionary government was reshaped during the Special Period. In this regard, the legalization of dual currency system or so called economic duality and the opening of job sectors that are independent of central planning, specifically on tourism, to foreign investment have created a quasi-capitalist system that gave rise a new model among Cuban youths. In addition, cultural production and social mobilization by the government through performance art, have created the image of *campesinos* as loyal patrons of the Revolution and the redefinition of Cuban national identity as a multicultural society that rooted from its history of colonialism.

The synthesis of various image productions from the Revolution and Special Period will show the role of political ideology in forming the social imaginary of urban gardening. This is important because there seem to be two images in Cuban society that run in parallel, that somehow prevent the participation in urban agriculture to a larger extent. One is the socio-environmental consciousness to feed the country using agroecological model, the other is hybrid economic model that favours certain type of occupation and undermine the others.

To understand how socialism as an ideology penetrated the Cuban social imaginary, I use the concept of “the long march.” As mentioned in Chapter Theoretical Framework, Taylor (2002) elaborates this concept to explain the mobilization of economy (as a theory) that governs the exchange of services into the formation of Western society whose goals (as part of social imaginary) are prosperity and security.

5.1 Social and cultural life during the Special Period

Cuban youths will not sell out our nation, not for lentils nor spangles!

-- Roberto Robaina's speech at the commemoration of the Union of Communist Youth's anniversary 1991.

According to the main official narrative, Special Period was caused by the failure of economic model not socialist model, so economic reform was a necessary condition to save the socialist project (Castro 1990). The economic restructuring during the Special Period introduced the Cuban socialist model into the world market (Alfonso 2000). The stark difference between capitalism and socialism created the necessary condition for social upheaval or radical change that led to the Revolution. The original aims of this action were to totally dismantle the preceding capitalist system and to move from individualist to communitarian society (Premat 2003). In contrast, agriculture and economic reform during the Special Period in various sectors of economy, such as tourism and agriculture, were adopted to fulfil the immediate need of Cuban people rather than to abandon the old system (Alfonso 2000). In other words, the economic adjustment aimed to complement the existing socialist model. A staff from National Institute of Fundamental Research on Tropical Agriculture (INIFAT) explained that, the application of agroecological method in urban agriculture during this period not only fed the urban population, but also improve the recycling of materials and energy in urban setting.

Cuba managed to survive the crisis period even with intensification of economic blockade through Helms-Burton Act, while preventing major political upheaval and the government's maintained its political power and the fulfilment of social rights such as education, health, and food. It was argued that ration system prevented major disaster even if with the massive drop in calorie and nutrient intake (Wright 2012). One of the biggest crises was known as the crisis of the balseros or rafters which happened in 1994 when a boat was hijacked by would-be migrants and was sink by government vessel, street protests in old town, and mass exodus that took thousands of Cubans to the US (Hernandez-Reguant 2009a). The common element during these historical junctures is the government's clear intention to mould a new form of Cuban society that I will elaborate upon further in the following section.

5.1.1 Re-creation of national identity

During the Special Period anxiety over self-identity was looming over the revolutionary government (Hernandez-Reguant 2009b). The notion of Cuba as a country was also redefined as an ethnic and cultural community that carved out social and cultural space on the basis of ethnic heritage. This process, I think is parallel with the pre-revolutionary Cuba who looked for integrity and authenticity from the past given the country's experience with colonialism; the answer lay in Cuba's long history as a point of transition that had attracted different ethnic groups (Ortiz 1995 in Miller 2003). The government began to promote a *batalla*/battle to protect national identity and rescue cultural traditions or "true" Cuban culture (Frederik 2009). In this matter, true Cuban identity was presented as culture and heritage or the shift to emphasis on multiculturalism as part of Cuban cultural identity (Hernandez-Reguant 2009b). This marked the shift in discourse of Cuban national identity from revolutionary socialism that emphasizes ones' loyalty to the Cuban revolution, towards national ideology that presented Cuban identity as multicultural Cuba both in the present time and throughout its history (Hernandez-Reguant 2009b).

In consequence, it embraced a larger audience of Cubans, both those who left the country after the 1959 Revolution, who were until then often considered as the worms of revolution or "*gusanos*," and those who continued to stay in Cuba and persevere amidst the turmoil throughout their life histories. To embrace Cuban population including the exiles whose remittance kept the country afloat, in 1992 Cuban Institution was reformed to include Jose Marti as the foremost ideological guide and proclaimed the state's duty to defend the identity of Cuban culture (Hernandez-Reguant 2009b).

To address the emergence of malnutrition-related diseases media also played a role in re-educating population through disseminating the information on a different diet, as a newspaper excerpt about this period (Vicent 1993, my translation):

"Cuban authorities have begun to recommend to its population consumption leaves and seeds of some vegetables in an attempt to alleviate the growing food shortages affecting the island. Some of the recipes offered by

official newspapers like *Granma* and *Trabajadores* and *Radio Rebelde* are "leaf salad potato", "nongat pumpkin seeds", "soup leaves with rice" and "stew with cassava leaves." Cuban television also has insisted for months on the need to educate the eating habits of the Cuban response to the real possibilities of the country. Thus, popular cooking show *Cooking with Nipza Villapol* has taught viewers to prepare "chopped banana peel" and "steak grapefruit peel," among other recipes."

As a staff from FAO explained, "Vegetable came into the Cuban diet only through this program [urban agriculture]. So the program adds up not only the benefit of bringing agriculture closer to the people but also of educating them to eat vegetables which was completely unknown until that time."

In the 90s, *teatro comunitario* or community theatre re-enacted certain images of *campesinos*, such as their love for the land, loyalty to the Revolution, and patriotism to defend the country from foreign invasion, with artistic representation to fulfil the moral responsibility among art performers to maintain Cuban-ness (Frederik 2009).

5.1.2 The image of *campesino*

I met Gerardo, a 70-year old *campesino*, on one morning during Good Friday which is a public holiday in Cuba. I had passed his *organoponico* a couple of times during my bus trips to meet Federica (see Chapter Sugar), before I finally decided to pay a visit. I was attracted by the size of the *organoponico* which I thought was relatively big given its location in the centre of Havana. Morning was still early, but the line of people waiting at the vegetable stall in front of the *organoponico* never ended. The plump black woman with braided hair animatedly talked to her customers, even when the line was getting longer as the day went by. I patiently lined up as the other customers did to ask for her permission to enter the *organoponico*. It turned out that I needed to talk to *el jefe* or the leader of the *organoponico*. After I explained the purpose of my visit, he let me enter through the open gate. He smugly said, "Here, this is our *organoponico* you can talk to anybody you want and ask any questions, if they are free. You see everybody is working." Then suddenly an old man with rubber gloves and towel around his neck, walked towards us. He

was limping. The leader introduced us. After Gerardo had a short conversation with the leader and he agreed to be interviewed.

Figure 15 The organoponico where Gerardo works. It is located in municipio Boyeros. This shading helps protect the germination of seedlings. Source: Author's photo



I was quite surprised when I asked who influenced him to do gardening, and his replied was, “Influence? What influence? No! My origin is *campesino*. I was born in the countryside and I worked with the land since I was a child. That’s why I like it”. He replied as if I asked a rhetorical question. I found his personality quite imposing. Perhaps this projection emanated from his upbringing and pride as a *campesino*. Historically, Cuban *campesinos* are integral part of the Cuban Revolution due to their involvement in fighting together with other guerrillas and supporting the war (Frederik 2009). Furthermore, as mentioned above, the image of *campesinos* is tightly connected to the Revolution. As, at the closing of the Association of Small Farmers (ANAP) XI Congress, Jose Ramon Machado Ventura, the second secretary of the party’s central committee claimed the country’s attention on the need of its peasants:

This long-promised congress has finally become a reality and we rely on our outmost confidence that the Revolution has always had on its campesinos, as campesinos were the first fighters incorporated into the Granma expedition. I commemorate the peasant struggles and the leaders whose feats never made distinctions between workers of the

factories and fields. Approaching the present, even in the face difficult moments, the Revolution has never neglected the men and women of the field.

Granma 2015, my translation

As a target of social mobilization, food production has always been treated as a national struggle associated with the Revolution by the government (Premat 2009). During the Special Period, the focus of production shifted from people- and nation-oriented to neighbourhood level that signifies the emphasis on self-sufficiency (Premat 2009). As Gerardo explained, “I’m gardening here because of the need of the people to have fresh vegetable, so, people come here and buy them fresh. But the majority of the produce goes to social centres. Do you understand? Elderly centres and schools.” Through this social feeding, *campesinos*, like Gerardo, maintain their moral duty to the Revolution. As a staff from ANAP told me that *campesinos* have played an important role in promoting agroecological method. Therefore, even under period of crisis, the government’s decision to share its responsibility in relation to food security by promoting urban agriculture, may reinforce the ideological commitment of *campesinos* towards the Revolution.

A similar sentiment was also shared by Gerardo when I asked him about the crisis during the Special Period. He explained, “It was a problem of national safety and we have to work in agriculture. We had a lot of troubles and we are surrounded by dangers and we have had embargo for 50 years from *el imperio* [the US]. We had to survive with imperialism which is only 90 miles from us. And we have to be prepared for that, we have to be prepared.” He is consciously aware of his role as *campesino* in relation to the socialist project and Cuba’s endangered national identity. His opinion falls into the government’s discourse on the continuing struggle to defend the country from US invasion. Furthermore, his image of the *campesino* is manifested and reinforced through his work in an *organopónico* to contribute to the social feeding program (Wright 2012).

Even though Gerardo consistently referred to his upbringing as a *campesino*, it seems that this identity is not really transmitted to his kids. He said, “Because my generation is farming, but my sons are studying, they work in other fields (occupation). And this is the problem for agriculture that people are studying and developing others fields. Do you understand? My grandsons are engineers. I was born in the countryside and it is [farming] what I saw from the beginning, it opened up my eyes, and I like it, but my sons have another work. They like to live in a city, because they were born here, in the city. They have another way of thinking.” He tended to emphasize the aspect of growing up in a different environment that has major influence on his kids and himself and how different they are. In addition, they grew up during very different time periods. What is less clear from my interview with him is what values of *campesinos* that reflect his commitment to the government does he share with his kids. As Paco in Chapter 4 also think that many Cuban youths are more interested in working in the tourism industry. In my interview with a successful urban gardener, she mentioned that even if she tried to provide several intensives, such as free meal and attractive remuneration, it is very hard to attract younger people to work in urban garden. She further explained that media created the image of agriculture as a back-breaking job.

As I mentioned in the previous part, the revolutionary government was able to instil the value of patriotism towards *la patria* and continuous struggle to protect social equality through fulfilling the social rights of Cuban people. When the government could not fully satisfy this role, however, some the socialist principles such as communitarianism and one’s commitment to the Revolution have been reinterpreted to accommodate social change. During the Special Period, the government modified the image of *campesinos*, restated their roles during the struggle of Cuban Revolution, then in return took a new shape as to protect the socialist project during the period of crisis. The story of Gerardo seems to indicate that the younger generation, including the children of *campesinos*, who grew up in a different environment may not necessarily share the same values.

5.2 The rise of new role model

The Special Period marks the emergence of a new aesthetic form, ethical practices, vision of the future, and considerations of the community that forever changed the landscape of what was known as the Cuban Revolution (Hernandez-Reguant 2009a). The accomplishment of the Cuban government to maintain a socialist system (counter-revolutionary act) economic collapse and acute economic crisis had its price (Alfonso 2000). The possibility of capitalism creeping into everyday life seemed noticeable when the image of cosmopolitan Havana due to tourism and foreign residents coincided with the reality of insufficient food and transportation experienced by local Cubans. For example, Cuban people started to bike along the road in Havana which was previously busy streets. But it seems that the centre area still was not that bicycle friendly, Federica described, “Immediately [during the Special Period] I started making daily trips to work on the bike through the city. It was not too far but a high-traffic area, dangerous for cyclists. I had no serious problems with traffic, however, no serious health problems.”

With all the troubles already creeping up, the government withdrew slowly from economic life and the majority of the population were left to fend for themselves. They needed to use all means to make a living and survive. To replace the export loss from sugar, the government had to shift to other means to generate foreign exchange. Some of them are the legalization of US dollar possession and circulation that led to dual currency, development of tourism industry, and relaxation of foreign artists or academia visit to Cuba for cultural and knowledge exchange that also drove Cubans to travel abroad for such purposes.

Amidst the adversity, the Cuban people saw an immense opportunity that they could harness with the flow of information and foreign money through mainly the tourism industry. In other words, the creation of a double economy – circulation of Cuban Peso and US dollars- and tourism industry as one of the channels in which one can be part of this double life through access to dollars, were seen as a path of prosperity or a means of survival and a good life. People

who managed to strive and achieved monetary success through this industry or the so-called “new showbiz elites” became new role models amongst Cuban youths (Reguant 2009a). This perception continued to propagate into contemporary Cuba, as my Cuban interlocutor reflected about the commitment of Cuban youths in agriculture. An urban gardener from an *organopónico* near the Plaza de la Revolución, explained, “Young people don’t like to work in agriculture because there is no money here compare to tourism.” Or a young permaculture in municipality Diez de Octubre, said, “Cuban people only care about consumption. Some of them don’t like to listen new idea [like permaculture].” A staff from INIFAT, described, “Young people would prefer to work in state enterprise or *empresa* with computer and air-conditioner, rather than doing farming outdoor under intense sun and rain.”

The above stories illustrate the transformation in the Cuban social life during the Special period. The long march happened when the Cuban government decided to shift the national identity from ones’ loyalty towards *la patria* or Revolution to multiculturalism that is rooted from the history of sugar. It has few practical reasons such as encouraging remittance to keep the country afloat and encouraging people to look back at the roots of what really constitutes true Cuban-ness. The opening of some economic sectors to foreign investment and the legalization of dual currency gave rise new role model among Cuban youths. The image of *campesinos* was revived through performance art as propaganda of ideal figure in Cuba. The cultural and social production during this period created certain incoherence between what was the original purpose of the Revolution and necessity to adapt to the immediate challenge. On the one hand, the government tried to grasp the situation from the ideological and cultural perspective. On the other hand, economic policy to support the country contradicted their mission. Therefore, political ideology did not necessarily give rise to a common social imaginary that is coherent with common practice.

The emergence of urban agriculture and agroecological model to feed the country may lead to the creation of new the socio-environmental imaginary. One the other hand, a hybrid

economic model created a period of ambivalence that continuously present in today's Cuba. As I will show in the next part the image tourism versus agriculture work recur quite consistently among urban gardeners in Havana.

Chapter 6. Manifestation of social memory and social imaginary

The development of Cuban urban agriculture is consistently explained with reference to the Special Period as the main driving force. The unique history of Cuban urban agriculture that originates from a period of crisis has been lauded and studied extensively as a model of sustainable agriculture in the period of peak oil, the structural change that led to joint effort between different actors to solve food crisis, and the contribution of socialist model to sustainable agriculture (Chapter 1). Therefore, I would like to investigate the connection between social memory of the Special Period and the social imaginary of urban agriculture among different generations.

In reality, my approach to investigate the connection between the remembrance of the Special Period and motivation to do urban gardening is not that simple. Firstly, my findings show that young urban gardeners do not refer to the Special Period as their motivation to do gardening, either for growing food or medicinal plants. For example Clara, a permaculture gardener who was about 3 years old during that time, said “Nothing. Very little. My parents only occasionally talk about it during a gathering, but normally no.” Marta, a young artist and permaculture gardener who was around 5 years old during that time and grew up in Villa Clara during the Special Period, also said, “ Yes there was little food, and job. I mostly remember about my music class.” When I interviewed Paco, who grew up in Granma, he said, “I was about 5 during that time. I don’t remember much. But I think I had enough food. I don’t remember.”

They tend to mention different factors such as the presence of supportive community, their first interaction with the land through voluntary work that got them interested in cultivating the land, and the benefit that they obtain from gardening. These insights suggest that the Special Period as a historical event may not that relevant anymore for young urban gardeners, even though that is how the story of urban agriculture is told by NGOs and government agencies. Even based on my interviews, this historical event is not really discussed among peers and

families. It might be possible that as Federica told me, “It was a very tough period and people prefer not to give a detailed account regarding this experience.” It indicates that the social memory of Special Period does not necessarily connected to the creation of socio-environmental imaginary. But rather it is the social institution that support the decentralization of agriculture through the participation of NGO like FANJ, have encouraged more youth involvement in agriculture.

Secondly, I identified the persistence image of tourism industry that provides more financial benefit than working in agriculture. This seems to be true as according to the national statistic, between 2009 – 2014 the number of workers in agriculture related area is at a steady level of around 900 thousand (ONE 2015). This figure has not changed that much for the last 5 years. From my everyday conversation with general Cuban population, agriculture does not seem to be an attractive occupation at least in Havana. For example, as Cuban Journalist Roberto Molina said “In the 1980s, the idea began to become entrenched that it was not worth it, economically speaking, to develop and diversify agriculture if it was cheaper to import. That idea led to an exodus of students from agriculture toward fields like medicine, biotechnology, computer science and tourism,” said journalist Roberto Molina (Gonzalez 2012). In 2013, about 70,000 of young people in Cuba of 11.3 million are working in agriculture (Grogg 2013).

Based on my interviews, there are some shared ideas among different generations on the challenges and barriers to promote urban agriculture to young people. Some of them are: agriculture is not very attractive occupation and young people are more interested in working in tourism industry, it is a hard work, and it is less prestigious than other occupations. This might be true as, based on the study by FAO (2014), in Tanzania negative image of agriculture is because young people associates agriculture with manual labor work which is the method of cultivation for about 70 % of cropping areas. Similar perception was also observed based on study in schools in the US shows negative image of farmers, such as unattractive career (hard

work and physical labor) for many and the prevalence of stereotypical traditional image of agriculture which are hard and physical labor and weather uncertainties, though they recognize the importance of farmers in producing food. (Holz-Clause & Jost 1995). While this negative perception on agriculture is widely known cross culturally, in the context in Cuba it is related to the mobilization of social imaginary and social memory that I described in the Chapter 4 and 5.

6.1 Shared practices and ideas – the story of permaculture gardeners

6.1.1 Clara and Luis – From social imaginary to repertoire

I acquired most of my contacts with young gardeners in Havana through FANJ who is the main coordinator of permaculture activity in Cuba. That is how I was referred to Clara, a permaculture gardener who is in her 20s. She is a geography student at the University of Havana and this fact has an important connection with her interest in permaculture as I will show later. We agreed to arrange the second interview to ask more personal questions as during our first meeting at her house in Vibora, she mainly explained me about different aspects and principles of her permaculture garden. Vibora is part of the municipality Diez de Octubre which is similar to the municipality Santo Suarez where her parents live. In both areas, houses tend to have small backyard or terrace. In addition, they are also less populated than the municipality Centro Havana.

In my first interview, she showed me the photos of the house that she bought recently with her boyfriend, Luis. They planned to create an ecovillage which is a human settlement designed to secure sustainable life in Pinar del Rio where the house is located by a small stream of river. The area itself is about a couple of hours away from Havana by bus so they often hike there with their friends. I was really surprised when I heard this story because as they mentioned it will be the first ecovillage in Cuba. She explained that this project is a continuation of her

interest in permaculture. I found out later that they learned about it from the internet, even though at the moment internet connection is very limited in terms of the network and expensive in Cuba. However, when they shared this idea to their friends and families, only few people took them seriously and replied that they must be out of their mind.

I met her on one hot steamy afternoon in front of her campus in Vedado area, just across from Coppelia ice cream parlour. The geography faculty building is surprisingly new compared to the main campus of University of Havana which resembles more of an antique museum with its huge pillars. We decided to have the interview at a park nearby under the shade of a giant tree as the sun did not spare us at all.

D: Have you always lived in Vibora [her current house with the permaculture garden]

C: Well, about 2 years ago I moved here with my boyfriend as you know. Previously I lived in Santo Suarez [a municipality in Havana city] which is very similar to Vibora. About my project in Pinar del Rio, well it is different from urban area. But still in terms of agriculture, people mostly grow root vegetable, rice, beans, cassava, but not other vegetables. You see it is monoculture.

D: Do your parents have a garden?

C: No [giggling]

D: No? Then what are their opinions about ...

C: About my permaculture project? My mom is very happy and she is influenced as well. Together with my sister, my mom started to learn gardening at my home [in Santo Suarez] with limited space and soil. Little by little, I help her to learn how to plant with limited soil. Yes, she is very happy now. Well, my father he is indifferent. (laughing)

D: I think the permaculture in Cuba was started in the 90s right?

C: Yes more or less. It was during the Special Period. It came as a solution for the urban problem because the majority of agricultural activities existed outside the city. This has to be implemented when there is no food input from the surrounding area. It was mainly because of the problem with fuel, as you know during the Special Period. So it was necessary to grow food no and not so much about lifestyle.

D: What do you remember about the Special Period?

C: Nothing [shaking her head]. Very little [she was about or 3 years old at that time]. I remember about the story of my mom, including my family which was not very affected because at that time my mother and father were already together. He was doing well in his job, so ...

D: Do your parents often talk about the Special Period?

C: No! Occasionally yes. Sometimes when they have a gathering, but it is relative. I do not know, as I told you before I am bad in history.

D: Did you do any gardening in your childhood?

C: No I did not

D: Did you have any gardening activities at your school?

C: No, besides I did not have any space at my home, the ground is cemented. Then when I was 15 I met Luis [her boyfriend], he introduced me to permaculture, we travelled and hiked in Cuba and that is the time when I had more contact with the land, the nature. But agriculture no. I was only interested in permaculture. Well, with my friends the first time that I worked with the land is through obligatory voluntary work [sly smirked]. For 1 or 2 weeks, students were sent to the countryside including the periphery of Havana, for example to plant soursops. Through this experience we learned about the life of campesino. But still doing agriculture means working under the sun, hard work. For example my friends from the geography department criticize this activity of harvesting potato [during the voluntary work]. But I like it. There are other things that I can do in geography, for example learning about the environment, different physical processes, and about meteorology. Geography helps to have only perspective about the land and the nature. I also have a better understanding about principles in permaculture.

D: So besides the voluntary work, your boyfriend influenced you to do permaculture right?

C: Yes completely, before I knew him I had learnt painting. My idea at that time was about art. I got to know him during a school trip. I like the idea of a good life in permaculture. This model integrates life within or from permaculture. I think it is because of him I learned about permaculture and we practice it together.

In the story of Clara, it seems that her parents have minimum influence in shaping her opinion on agriculture. While it is true that she could explain the connection between Special Period and permaculture, I see it more as a recollection of knowledge as she exclaimed she was not good in history, rather than remembrance of a particular experience. Firstly, it is true that she grew up in late 90s when Cuban economy started to recover from the crisis. This explanation might justify her limited recollection of the event. Secondly, perhaps the fact that her parents have no agricultural background and the story about the Special Period is not often discussed within the family, her social imaginary on urban agriculture is shaped somewhere else. Her reaction to quickly dismiss her parents' influence in her decision to participate in urban gardening also implies their absence in image production.

As she mentioned, her very first interaction with the land was during the voluntary work and enhanced by her travel experience together with her boyfriend. Not only had she applied the first principle of permaculture that is "observe and interact" (Holmgren 2012), at the same time, she cultivated her interest in permaculture. I would argue, the coherence between understanding and practice is one of the characteristics that sustains and expands permaculture community in Cuba. This is also how different permaculture gardeners build a sense of community. To gain a sense of legitimacy common understanding should underlie common practice (Taylor 2002). Common practice, in this sense, is also a process in which new social imaginary is created and shared by wider people.

For example, Clara's classmates also experienced the voluntary work where for some of them are their first encounter with agricultural work. However, this common experience does

not necessarily lead to positive image of agriculture work. What motivates Clara to further to explore and learn about permaculture is the presence of other figure who introduced her to an alternative type of agriculture that coincides with her interest in a model of a good life which is promoted by permaculture. Furthermore, at the early stage, both Clara and Luis participated in many permaculture courses organized by FANJ to gain practical knowledge in permaculture. The presence of a community of young permaculture gardeners with whom they share ideas and supports, further assists new gardeners to absorb and apply new ideas.

The experience of Clara points out the importance of consistency between ideas and repertoires (Taylor 2002). In her case, the presence of Luis and the principles of permaculture have brought her to adopt permaculture readily. Secondly, the introduction of new idea should touch upon a certain aspect of one person's life, in the case of Clara it is a model of a good life. In other case it can be food proficiency and environmental protection as I will describe next. While the experience of Clara exemplifies the value of social imaginary, the story of Luca not only emphasis my last point, but also demonstrates the significance of collectiveness in social memory among young gardeners.

6.1.2 Luca – Collective memory in gardening

I was referred to Luca through FANJ. Municipality Cojimar is located in East Havana, just before Alamar. We decided to meet at El Cochon. El Cochon is the name of the *organopónico* and permaculture centre, the area where it is located, and the idyllic beach next to it. On the way to the *organopónico*, I noticed a barn of goats and pigs which is not a common scenery in Havana. The farm itself is surrounded by palm trees on the edge of the fence, and interestingly, a stranded boat towards on one side. When I arrived, a permaculture workshop was being held at the centre of the farm on a cemented platform. It was attended by approximately 30 to 40 people from different age group. There was also a good mix of gender among the participants. At the beginning, people were discussing about the definition of sustainability. Then, a volunteer from

the participants read through permaculture principles and discuss among them the meaning and application of those principles. During the whole workshop I noticed that everybody paid attention to whoever was talking, regardless of their age. This is quite different from the assembly of among *campesinos* in rural Cuba with a strong sense of paternalism where older males tend to dominate the talking (Sosa et al. 2013). The instructor herself played the role of a facilitator, as she mainly stood at the edge of the stage whereas the speaker from the participants took the centre stage. She occasionally clarified some information and assisted the direction of the discussion. Explain with the principle of permaculture of people to people and use the example of maria Sylvia and sanchez Photo

At the end of the workshop, I interviewed Luca at the same place. Firstly, I asked him about his childhood experience with gardening. He replied:

Ok, most of the people here have a backyard so the children usually are related to the agricultural part of the house, but there wasn't this culture of good life [buen vivir] that you have to connect with the environment and you have to make use of the energy. So I guess that did affect the decision of these young people to do this. With all the new media and the social networks, you can see all of the damage that we, the human species, have on the environment. When were child, we have this experience with this whole permaculture project, they gave presentations and meetings. They talked about the environmental protection and how much it matters. So together with that and the experience with agriculture when we were children, I think that has brought many of us to take this course [permaculture course]. So when we saw the positive impact of permaculture on the nature and the way people live, we wanted to lend a hand. So we went there to help in the systems [permaculture garden]. Then when we get the possibility to take the course, the 3 of us went there. So when we saw it we loved it and then we kept going.

I have to clarify the phrase 'well live' which I think refers to the idea that permaculture is about a way of life or a model of good life that other permaculture gardeners called *buen vivir*. (look at Sanchez's buen vivir) My interview with Luca was conducted in English. What I find interesting from this response is his remembrance of his childhood is constantly associated

with the word *we*. He frequently used this word even when I asked for his personal experience that frustrated me sometimes. Since it was our first interview, he might not be comfortable to share his personal experience. However, once I analysed my interview transcript, I noticed several themes that convey his association with his childhood friends in his neighbourhood in El Cochon and the permaculture group in Cuba, which I would argue underlie a sense of community (clarify this). Therefore, the word *we* does not detach his personal experience, rather this imply the embedded nature of his shared memory within the social structure of his neighbourhood (Halbwachs 1992). As he explained, since he was a kid he had a number of childhood friends in the neighbourhood that went to the permaculture workshop together.

The first theme is a common practice of permaculture in his neighbourhood introduces people to permaculture gardening at the early age. This shared experience facilitated the adoption of permaculture principles among his peers. Secondly, permaculture provides an alternative perspective on the overlap between gardening practices and environmental protection. The environmental dimension enhances their awareness about this issue which they already learned through other media. Thirdly, the role of social memory is further cultivated through informal channel of everyday interaction and formalized by FANJ who organizes these workshops. The presence of this social institution clearly mediates the formation of social memory of permaculture gardeners in El Cochon.

To emphasize how permaculture has changed his neighbours, he shared some of the benefits of this gardening practice not only to himself, but also his neighbours:

In my house we have many medicinal plants and vegetables, fruits that we didn't have before and we have animals, chickens that produce eggs and if they have rabbits they kept the meat. So we have seen change. We have seen it has given us a lot of benefits. People already had plants and fruits before but mostly fruit plants and maybe some medicinal plants. But they didn't recycle or the same with leaves they didn't make compost. So now the primary change has been that they don't produce too much organic waste. Like they reuse all the leaves and the remaining

and the cut grass, you know for compost. Now people grow vegetables and spices, condiments, and they have more variety of fruits [in private gardens].

Not only permaculture complements the original tradition of gardening by combining different varieties of beneficial plants and animal rearing, it also transforms people's idea of waste into opportunity. The example is the concept of recycling and compost making from organic material. This benefit is gained through the application of the permaculture principle 'Produce no waste' that consistently demonstrates the connection between understanding and practice.

He also mentioned at the beginning that his mother started permaculture when he was a kid. While truly it has certain influence in his decision, he argues that the presence of supportive community as a whole, is equally vital for many of his friends to join permaculture. Throughout this interview he constantly expressed a sense of community that he gained from this activity and what role he could contribute as part of the community. It seems think many permaculture gardeners are more related to FANJ, not so much about the government even if they are part of the system. For example, contrary to the requirement of ANAP members to have revolutionary slogan and paraphernalia, such as Cuban national flower and flags, in their cooperative (Gropas 2007), permaculture workshop that I attended only had the sign of FANJ.

Figure 16. Permaculture workshop in El Cochon



Of course I went to the course when she [her mom] graduated [from the permaculture course]. I was only 10 years old. I didn't understood too much, but I got interested. Even though I was there as a kid I can still learn some stuff and when I got home I help her when she was applying the principle in the house. Then when I got the opportunity to get into the course I was very excited because I had the experience before. But even with the people who doesn't have the experience with parents, we have an effect because my neighbour you know that Rolando, my friend, he lives besides my house. And he always help me in the backyard because he doesn't have a backyard. And after the course, we went back to my house. We took compost and I gave it to him and we gather some pots and bottles. Yea and we always help each other. We share the seeds and we weed together. It doesn't necessarily to be someone whose parents had the experience. It can be anyone. They usually got interested because they could see all the benefits that it provides.

By showing learning by doing, and provide support, for example doing gardening together at his house. His remembrance as part of a permaculture community emphasizes this shared memory of gardening as a motivating factor, rather than looking at where memories crossed or passed. This expression exemplifies the collective element in social memory (Zerubavel 1996) and it actively shapes their identity as part of a permaculture movement in Cuba (Halbwachs 1992). From my observation on the permaculture workshop and interview with Luca, trans-generational transfer of knowledge does not necessarily occur in a family. It can take form in different contexts and what is truly important from this example is it is not unidirectional. Under certain circumstances, information can originate from the younger towards the older generations and idea is reshaped as a result. The examples are Clara's influence on her mother's interest to start gardening at her home and during the permaculture workshop where every age group is welcome to share their knowledge in permaculture.

The stories of Clara and Luca reveal the importance of social institution that leads to different processes in which social imaginary of urban gardening is taking place. Clara's experience represents the absence of shared memory that her idea of permaculture is shaped by

her encounter with Luis. On the contrary, Luca is consciously recognized his relatedness to the permaculture movement in his neighbourhood. While their stories are different in this respect, the role of communities that support these young gardeners to implement their knowledge in permaculture clearly motivate their participation in urban gardening.

6.2 Shared ideas and social reality – Challenges in urban gardening

6.2.1 Social engagement and competing image – trans-generational interaction

The previous stories seem to demonstrate a rather optimistic view on the development of an alternative type of urban agriculture in Cuba. However, there are some challenges in Cuban urban agriculture that still exist today as mentioned in Chapter 1, such as bureaucratic hurdles, limited land availability, inconsistency between policy's goal and implementation, and access to farm equipment (Leitgeb et al. 2015; Nova González 2012). When Isabel showed me around her *organopónico*, I asked how she started this project. Suddenly I had to witness her rant, “We need help to fix the irrigation system, greenhouse, the seedling but the market is empty. I don't know, maybe it's because of the control, you know government is everything and we are part of the system. At that time the government's budget was designated for other social project like health and education. It's better if they [NGOs] send us the equipment or tools, not money.” Or other times she complained about the lengthy procedure of getting permission to sell surplus vegetable. “We can sell our produce here at *punto de venta* [shop at an *organopónico*]. But last week we have a lot of lettuce and we can't sell all of these in the same moment. We have to ask permission to the government to go to another place to sell. It is through Acopio, but sometimes they don't have car”, she exclaimed.

While the above challenges have real impacts on urban gardeners, in this section, I will mainly focus on the image of farmer and agriculture among young Cubans that is a less explored. This perception, as I will elaborate further, creates social imaginaries that discourage young Cubans from participate in urban gardening.

Firstly, agriculture is often seen as less attractive for young people because other occupations, such as doctors, lawyers, or anything related to tourism provide better remuneration. Within my first week, Dona from FANJ explained to me, “Many young people are more interested in working in hospitality or restaurant and as a doctor because there are more money in those jobs and not in agriculture which has less money.” While it is true that according to data on average monthly salary for both state-owned and other types of industry in 2014 (ONE, 2015), salary in health service is higher than agriculture. However, average salary in agriculture is still higher than the national average.

Secondly, agriculture work is often represented as less prestigious and a harsh work. For example, Isabel explained, “When you see in the TV the farmer works hard under the sun. And they said to their son and daughter, to go to university and don’t be like him. That is the message that farmers tell their kids. Go to the city, be a doctor, be prepared.” The creation of this social imaginary is even for more significant due to the persistence of crisis in everyday Cuba that still exists. For example Dona explained that people still spend more than half of their salary for food to complement the food ration which is not enough. On the other hand, access to CUC, for example in tourism industry, guarantees better economic condition.

While it is true that there is a mismatch between people’s opinion on agricultural work and data from the government’s statistic that is salary in agriculture is higher than the average salary, the purpose of my analysis is not to prove which information is more accurate. In addition, the prevalent of black market in everyday Cuba even skews the actual income of different professions. On the contrary, I would like to describe the social reality of urban gardening that is perceived by Cuban youths. As I have shown above, this image is influenced by media and economic condition of Cuba that favours certain occupations.

Some of the urban gardeners that I interviewed mentioned several engagement programs that connect school kids with urban gardening. In conjunction with the economic reform in

2011, the Cuban government decided to orient young people towards agriculture in 2012 (Gonzalez 2012). When I asked Paco, whether urban gardening is a popular activity in Havana, he replied, “Some people like it, some people don’t. For example, there is a small school nearby with about 3 staffs. Sometimes kids from that school come to this farm with their teachers to learn about gardening. They are usually about 6 to 9 years old. Then when the teacher ask for their opinion, some kids like it, and some don’t.” Or when Isabel, an urban gardener who constantly welcomes foreign visitors to her *organoponico*, described, “We work with children from primary and secondary schools. With this we want to change the image of the farmer. Once a week, they would come to this farm and we show them how to grow food in organic way and how to eat well. So, once I asked one of the kids if they want to be a doctor or farmer. Then, they said doctor because doctor cures them when they are sick. Then, I explained, okay, maybe you see the doctor few times a year. But you eat 3 times a day and if you have good nutrition maybe you don’t even need to see the doctor. You know what they replied, they said it’s true but I still want to be a doctor.”

Some other urban gardeners in different parts of Havana also described similar programs at their *organoponicos*. The activities are quite varying. For example, some would include games and celebration of special environmental days, such as water day and earth day. Some will allow small plot of land in their *organoponico* to be used by the kids for gardening, and they can bring the produce home. In general, the kids enjoyed these activities because they could play with their friends outside school.

Clearly these rituals of school trip to urban gardens where certain interactions are performed with the land and plants, are some ways where the transmission of trans-generational transfer of knowledge is cultivated. This type of interaction can create a social imaginary on urban gardening through performing common practice based on common understanding. As Norma Romero, a plant protection engineer, said, “The formula [to promote agriculture] must

include education from an early age and assurances for young people that they will feel recognised, motivated and encouraged to continue working in agriculture, despite any difficulties.” Furthermore, this may create a positive shared memory on urban gardening during one’s childhood. As the story of Luca told us, the collectiveness of this memory can motivate a certain decision.

On the one hand, the Cuban government still plays an important role in providing gardening equipment and creating policies to promote urban agriculture. At the grassroots level, the stories of permaculture gardeners suggest the importance of supportive community that creates collective memory and assists the transformation common practices into a sense of community. This supportive social structure has enabled permaculture movement in Cuba to assist different age groups to do urban gardening. Despite of these various attempts from different members of society to promote urban agriculture, the creation of social imaginary on agriculture that is unattractive challenged this effort. As I mentioned in Chapter 5, the Special Period has created this ambivalence in urban agriculture through the creation of of quasi-capitalist system and the rise of the agroecological movement. In the next part I will discuss this issue within the transitioning Cuba.

6.3 Cuba in transition

After Raul Gonzalez became president in 2008, the Cuban government recognized the need to update its economic policy as a way to overcome the legacy of the Special Period and the shortcomings of the economic model that prevailed prior to 1990 (Rodriguez 2014). It is only in 2011 that the so-called “updating of the Cuban economic model” was approved. It basically lays out greater involvement of non-state enterprises and market in the management of the Cuban economy. In other words, the main aim is to increase the non-state-based sector of the economy which is meant to facilitate the construction of socialism that is by allowing the state to

concentrate on the proficiency of basic needs and let other actors manage the activities that are not strategic to the country (Castro 2011).

The term non-state refers to both private property that includes self-, family-employment, or hired workers and collective form of property such as cooperatives (Reyes & Harnecker 2012). Self-employment or *cuentapropismo* involves various economic relations that are outside the state sectors. This sector contributes to the country (social security) through tax on income and employment of labor force. The main challenge for a socialist country in relation to creating an economic model that includes non-state actors is to ensure their commitment to socialism building or so called socializing enterprise (Harnecker 2014). In other words, how to democratize and socialize the economy and materialize it as social property that leads to redistribution of wealth and inclusive human development. The creation of farmers market where urban gardeners sell directly their produce and the continuing social feeding program are some of the ways that urban gardeners keep this socialist project. The promotion of self-regulated entities are not seen as capitalism permeating socialism, rather the Cuban government made it clear that the practice of hiring does not create a form of subordination that may lead to exploitation (Harnecker 2014).

One ideal model of a more democratic and socialized non-state enterprise is a cooperative. Not only wealth distribution, other important aspect in this type of enterprise is the nature of the social interaction constructed in such relation that promotes a more egalitarian community (Rios2014). In reality, some inconsistencies such as different allocation of equipment for cooperative and private companies though both are categorized as non-state enterprise still persist (Perez 2014). It has been argued that some possible ways to go forward more efficient economic transaction are the gradual elimination of ration book and redirect such social policy to the most vulnerable group and the elimination of pay for employees (Perez 2014).

Within this economic transition, the normalization of US-Cuba international relation and possibly expansion in food trade could also potentially affect how urban agriculture will fit into

the transitional food system. The process of possible disbandment of US embargo was made possible by the US' shift in attitudes towards its counterpart and also because of the transfer of political power in Cuba (Leogrande 2015). Based on the political situation in US where the Cuban American lobby gained more influence, it is considered to be politically viable for the US government to resume the re-establishment of diplomatic relation with Cuba. The Cuban economy reorganization under President Raul Castro also implied that the strategy of engagement by the US government was a feasible option (Leogrande 2015).

However, some of the changes that potentially will occur once the trade barrier is removed and might affect Cuban food system are policy change to facilitate transaction between US and Cuba and exemptions on some food export to Cuba (USDA 2015). If Cuba decides to focus on gaining foreign exchange, there is a possibility that the country will switch back to monoculture sugar plantations and potentially alter the decentralized agricultural system.

All these political and economic development might have influence on the practice of urban agriculture. From my fieldwork, the agroecological movement during the Special Period does not necessarily create a new socio-environmental imaginary among urban gardeners. In this sense the social memory or the absence of it, means social imaginary on urban agriculture is shaped somewhere else. In the absence of parents who transmit this experience, the presence of supportive community can bridge the gap between the social imaginary of urban agriculture and social memory of past Cuba. The stories of permaculture gardeners seem to indicate more attachment towards one's community in continuing agriculture practice and spread it to larger audience, across generationally.

Chapter 7. Conclusion

I came to Havana with a modest intention of trying to understand why young people decided to or not to participate in urban agriculture. As I mentioned in Chapter 1, Cuban agriculture model is unique because of the trajectory of its development. It is through necessity that a sustainable model of agriculture was developed and it became a worldwide model of the benefit of joint effort among various actors in food production. This model also shows how government can encourage participation and innovation in agriculture in urban setting. Therefore, the agroecological method that came about around the same period has been studied widely, both at the national and global level. The general discourse is whether this type of agriculture can be or should be promoted as the future of sustainable model in producing food that brings both environmental and social benefit. Furthermore, for the promoters of Cuban agroecological method, the political development between the US and Cuba is seen as a possible disruption or threat on the survival and expansion of this model (Altieri 2016 ; Williams 2016).

Because of this historical background and the current studies, I tried to understand whether it is still the case that urban gardeners in Havana associate their gardening practices with their experience during the Special Period. Or whether the interactions among different generations of urban gardeners in sharing different aspects of their memories and experiences during the Special Period create a collective memory that perpetuates the continuous necessity of practicing agroecological method in gardening. Or how their decision to participate in urban gardening is influenced by the transformation of Cuban socialist economic model since the Special Period.

However, after seeing, observing, walking, living, and conversing with various people throughout my fieldwork, I came to realization that some of my concerns such as inequality, economic disparity, dependency on food import that still persist in Cuban society, seem to contradict my imagination on socialist Cuba that I had prior to the fieldwork. Clearly, urban agriculture and agroecological method exist within the Cuban socialist system that to fully

understand the sustainability of this agriculture model, I have to look deeper into the social element of sustainability. Based on the majority of literatures in Cuban agriculture and my observation on the present Cuba, I could not really answer some of the ambivalences that persist in Cuban society in relation to the image of agriculture in general. As I mentioned in the previous parts, there is not so much discussion on the Special Period in relation to urban agriculture among various generations, there is a negative image of agriculture among Cuban youths, and the prevalence of quasi-capitalist economic system that seems to prevent the creation or the proliferation of new socio-environmental consciousness that has been formed through this alternative agriculture model.

My theoretical framework of social imaginary and social memory assists me to analyze my fieldwork data which are in the form of interviews, field note, photos, newspapers, brochures. This analysis helps me to understand and explain some my observations and reservations during the fieldwork. Through my approach, I decided to dig into the literatures of cultural studies, on post-socialist countries, anthropology, oral history, memory studies, political philosophy, Caribbean history, and economy. After going through these processes of doing fieldwork, post-fieldwork literature research, and reflecting my experience with my broader understanding on Cuban society, I decided to refine my research questions into “*How the social memory of Cuba’s past determine how urban gardening fits into the future?*”, “*How cultural production and the shift to quasi-capitalist model transformed Cuban social imaginary during the Special Period?*”, and “*How social memories and social imaginaries from RQ1 and RQ2 is translated into the practice of urban agriculture?*”. Based on these research questions, I situate Cuban agriculture within its long history, the imagining of Cuban national identity, the role of monoculture, the Cuban *campesinos*, social solidarity throughout the period of economic transformation, the interpretation and sharing of collective memories among different generations, and how would they imagine the future. By approaching urban agriculture from humanities and social science perspective, I am trying to complement and enrich the current study on the sustainability of Cuban agriculture model.

By investigating the social memory of Cuba's past I can bring two types of agriculture that is sugar industry which is identified as industrialized monoculture and agroecological method in urban agriculture that is lauded as the model for sustainable agriculture. This approach shows the *long durée* of sugar plantation in Cuba which is intertwined with *lucha* or continuous struggle against foreign occupation that is still relevant in today's Cuba, people's understanding on inequality and hardship, the multicultural Cuba as a national identity which is an imaged re-produced by the revolutionary government during the Special Period, the rural landscape of Cuba which is longed by an urban gardener whose life in Havana is parallel with the urbanization from the eastern to the western part of the country as the result of the demise of sugar industry, and the disintegration of rural communities caused by the closure of sugar mills.

By looking at the cultural production and the shift from socialist into quasi-capitalist model during the Special Period, I could draw the connection between the agroecological movement with the transformation of social imaginaries created after the Revolution. The re-imagining of real *campesino* as a role model of true Cubanness and their loyalty towards the Revolution, was promoted by the government through cultural production of performing arts in the form of theater and puppet show. The dissemination of this image coincides with the necessity to produce food in the urban setting. Within this context, *campesinos* who have the agricultural knowledge is mobilized, while at the same time, their participation in urban agriculture and producing food for social feeding legitimized the image created by the government and the way the *campesinos* imagine themselves within this period of crisis. The sudden turn into quasi-capitalist system created certain ambivalence in the promotion of agroecological method. On the one hand, the investment in tourism and the legalization of dollar gave rise to a new role model of showbiz Cuban.

Looking at the present practice of urban agriculture in Havana, I saw the amalgam of these different pictures in Cuban society. The result of this synthesis is Special Period may not produce a new socio-environmental imaginary among Cubans across different generation. Or

even if it does, it is not necessarily transmitted among different generations. The rigid dichotomy between urban agriculture as an example of the application of agroecological method in urban setting that is sustainable and the sugar industry as an example of highly industrialized monoculture simply does not do any justice to the nation building of Cuba that is based on the long history of slavery, rich culture, continuous foreign occupation through various forms, and the mobilization and transformation of social imaginary by revolutionary government in which the everyday Cuba is tangled with.

Based on these findings, looking into the future sustainability of Cuban agriculture ones need to see the continuous role of these different sectors in urban agriculture will play and how should they be transformed.

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