Chapter 29
Gentrification Versus Territorialisation: The Peri-Urban Agriculture Area in Beirut

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Abstract This chapter is the result of a research project on the peri-urban area in Greater Beirut conducted at the Landscape Design and Ecosystem Management (LDEM) Department at American University of Beirut (AUB), and improved during the fall semester 2013–2014, LDEM design course titled ‘Site design in urban context.’ The research explores the potentiality of landscape approach using urban agriculture as a sustainable strategy capable of reconstructing brooked identity and territorialised marginalised people. Could the use of urban agriculture in Beirut play a role in the break off gentrification process?

Real estate is a major driver of the economy in many countries of the Middle East, as in other developing nations. It is one of the main barriers to the development or implementation of zoning and planning regulations that would make urban agriculture more than a fortuitous and temporary use of space (Zurayk 2010). Moreover, A-line Raad argues that Lebanese urban society is now undergoing a paradigm shift in social thought and action towards valuing heritage, public space, social cohesion, and accessibility to leisure and cultural activities recognising that these factors can enhance urban liveability. The peri-urban greater Beirut area was chosen in the design course as a case study to explore, while designing, the potentiality of the landscape approach in addressing the multiple features of those areas. The gentrification process in Beirut was identified as one of the drivers of the city development causing de-territorialisation and incongruous land use coexistence.

Keywords Landscape strategy • Nahr Beirut • Lebanon • Urban Agriculture • Real estate • Peri-urban landscape
29.1 Introduction

29.1.1 Background

Beirut is a cityscape of residues, remains produced by the uncontrolled use of the land; landscape of juxtaposed fragments that have lost value and collective identity. The phenomenon is in part related to the urban sprawl, the unplanned, uncontrolled spread of urban development into areas adjoining the edge of a city, and in part with gentrification, the increase in ground rent and the construction of high-rises for wealthier people. Sprawl and gentrification are, in Beirut, directly linked to the real estate power and the neoliberal politic, whereby land and landscape are conceived as resources to be used for economic profit, ‘colonised’ for the enjoyment of a few privileged (Makhzoumi 2011). Speculation drove prices upward and land became a commodity and a capital asset, the value of which is determined by its return on investment. Agriculture, traditionally a low-return sector stood no chance. The city invaded its surroundings, both physically and ideologically. Much of the farmland that remains locked into the expanding conurbation is just green space given a reprieve (Zurayk 2010).

Although the real estate market is showing some signs of slowing down, (Salem 2010), more than 350 real estate projects were under construction in May 2011 in municipal Beirut alone, an area that does not exceed 20 km² (Alami 2011). Economic liberalism continues to be pushed to the extreme, with no controls on business or profit making, thus intensifying the gentrification process to remain active for decades. The gentrification definition that will be used in this chapter is the one proposed by Neil Smith (1996) who emphasises the production of space, of a supply, thus anticipating a demand. Smith advanced the “Rent-Gap theory” as an explanation for this process, where the “Rent-Gap” is the difference between the actual rent for a piece of land and the potential one, if the land had higher and more profitable use. In line with David Harvey, Smith inserted gentrification in a larger process of uneven development, related to a capitalist system that keeps on reproducing itself on different geographical scales, in order to contain its crisis (Hicham el-Achkar 2011).

The lack of government initiatives and problems with land tenure and market land prices makes urban agriculture uncommon in the city. In the past 30 years most of the urban agriculture area was destroyed along with a healthy urban economical and ecological system. Productive land, in the southern and eastern parts of Greater Beirut, still continues to be replaced with construction. In Choueifat, along the southern suburbs of Beirut, there is an example of integration of food production and processing into residential area – a common practice that is disappearing.

Our question is would it be possible to establish in Beirut a *Productive Urban Landscape* working on the remnant agricultural plots and on unused open spaces to create a productive green infrastructure that includes green spaces, rural areas, open air food markets, educational areas, wetland areas, water harvesting and recycling. It is undeniable that urban agriculture practice has increased dramatically in the
world over the past 10 years. City farms, community gardens, schools farms, and allotment projects in Europe and the Detroit urban Agriculture Network, the New York’s community garden movement, the vertical city farms, and the rooftop gardens in America, are multiple examples of a wide range of urban agricultural practices that demonstrate the social and cultural benefits and enhancement of the quality of life.

Lebanon presents a totally different situation compared to other parts of the world, where Continuous Productive Urban Landscape (CPLU) is already successfully implemented. The State has, until now, shown little interest in implementing sustainable projects with high impact on the future of the city. The future is so unpredictable in this country that the only logic implemented is today’s easy profit. Arab economies continue to unsustainably deplete renewable natural resources, motivated by short-term profits, causing environmental impoverishment of scarce land and water resources while discounting the value of these resources to future generations. The average annual cost of environmental degradation in Arab countries has been estimated at $95 billion, equivalent to 5% of their combined GDP in 2010.

Nevertheless, things may change. In Iraq the city of Erbil recently completed a plan for the green belt surrounding the city that retains a large proportion of farmland in order to foster local food systems and feed the city (Zurayk 2010). In Beirut, Studio Invisible years ago proposed rooftop gardens, with plants in plots for drainage and climate control, applied at the city scale as an improvement to the quality of life by increased oxygen levels and air pollution remediation. The project encountered a high rate of civic support but faced difficulties of financial and municipality support.

29.1.2 Gentrification Versus Territorialisation: The Lebanon Case

After the Lebanese civil war, 1975–1990, the reconstruction priorities were defined according to the neo-liberal concerns of the ruling merchant elite (Harb 2007). This elite was more eager to monopolise administrative positions, a source for profits, rather than to reflect on the living environment of the people it was supposed to govern. On the other hand, Beirut’s urban development and expansion can be interpreted as a series of decomposition and territorialisation according to community’s spatial dynamics (Davie 1996).

Poor zoning and construction regulations have rendered almost all territories open to construction (coastal, agricultural, natural, historic city centres), knowing that the land is serviced by an access road. A liberal market has invited investors and real estate promoters to build in all corners of the country with lasting impacts on the urban and rural landscape, and with severe implications on energy consumption (SOER 2010).
Overtime, the lack of planning and landscape intervention has created an urban landscape in which disintegration, juxtaposition and marginality are among the elements capable of expressing its inherent qualities. Areas in search of identity alternate spaces with prevailing residential and community identity, and abandoned spaces coexist with new residential zones; spaces of old and new infrastructures circumscribe and sometimes contain the remains of ancient agricultural practice. New and traditional land uses coexist, thus creating a complex urban dynamic, difficult to confine in design categories. Projects continue to tackle this intriguing reality; projects that still consider the city as an asset to be exploited, an expression of the economic interests of privileged few. This urbanisation process calls for land-use planning that promotes the positive potentials and shapes the sustainable development of cities over the long term. This is an unprecedented task in its dimension, which assigns to the landscape architecture a unique role in urban development, as it is capable of bringing together diverse needs and creating an integrated plan for the future (Mertens 2010). A plan that not only divides the city into different areas with different rules i.e. zoning, but also focuses on more emergent needs that cities all over the world are facing, such as climate change, poverty and food production, pollution, water scarcity, social inequality.

The Schéma Directeur de la Region Métropolitaine de Beyrouth (SDRMB), which aimed to plan the evolution of metropolitan Beirut after the civil war, was completed in 1986, but was not officially approved. Later, in the early 1990s, it was heavily debated during the beginning of the reconstruction process. The SDRMB was a brilliant intellectual exercise, but the political leaders did not pay attention to it, even when they knew it existed (Verdeil 2003).

Consequently, this area has grown into an overwhelming urbanisation, in addition to the fact that future policies which predict, control, and monitor this urban development are absent. The dominant elite, that reached positions of power and authority during and just after the civil war, continues to control the development process holding or investing, as silent associates in real estate. The main form of investment by this elite is “property speculation [which] raised the price of land and imposed the construction of luxury apartment buildings” (Traboulsi 2007: 160). The concern of most politicians is directed mostly towards their personal interests. This political intervention in the realm of public institutions takes three different forms (Hicham el-Achkar 2011) by:

– Politicising the administration.
– Issuing exceptions to regulations.
– Obstructing the work of some institutions.

The result is the implementation of a gentrification process that in Beirut, as well as in some other cities in developing countries, presents variants from the common norms of gentrification seen in Europe and North America (Hicham el-Achkar 2012).

Gentrification is creating a new wave of delocalisation or displacement, similar to the one that occurred during and after the civil war, making again a tabula rasa of local cultural identity and causing the de-territorialisation, which in anthropology
refers to a weakening of ties between culture and place. In a simplistic way it can be said that gentrification and globalisation are two faces of the same process that is shaping the cityscape, in a State such as Lebanon where the debate between identities and cultures is nearly continuous and where construction is practically always given priority.

### 29.1.3 Peri-Urban Agriculture Area in Beirut

The peri-urban landscape is part and parcel of the relationship between the city and the countryside. This was once evident, when the city or town was compact and was easily recognisable as the countryside was heavily cultivated, thanks to the substantial land reclamation and construction work undertaken over the centuries to increase productivity.

Beirut peri-urban landscape is characterised by residual parcels of green land bordered by infrastructure, residential, commercial and industrial settlements unrelated to farming. In such a setting, the city has the greatest environmental impact because of its proximity and because of the lack of an identity. Informally sanctioned by the State, the rapid peri-urbanisation that is unfolding along the edges of Beirut, often in violation of master plans and state norms, (Roy 2003), is part of the expansion of the gentrification process started in Lebanon in the 1960s. This process is closely related to the neoliberal economy adopted by the Lebanese state and to the history and dynamics of Lebanon’s sectarian communities.

Nowadays the informalised way of peri-urban construction has led to a new form of territorialised flexibility that enables the self-effacing existence of different type of voids: No-Man’s-Land, agricultural plots, parking, informal open market, wild spaces. The differential value attached to what is “formal” and what is “informal” creates the patchwork of valorised and de-valorised spaces that is in turn the frontier of a primitive accumulation and gentrification. Is the real state of built process formally or informally asserted, seeing that it is mostly in deregulations of norms based on corruption and favouritism? How can we define formal and informal in a city where plans are nearly always implemented for the benefit of the rich class and mostly all the land is privately owned? Construction pressure, social and cultural changes, and market globalisation has significantly reduced the city’s agricultural area and left it in a state of neglect without development policies or protection. The absence of a national policy to protect agricultural lands from unwanted development and encourage farmers to modernise their production systems is leading to the rampant encroachment of buildings on fertile lands (SOER 2010).

The disappearance of most urban agriculture in the last 30 years brought an end to healthy urban economic and ecological systems. Today, governmental institutions ignore the city’s potential to embed agriculture, even organic farming, into its urban framework as was done throughout the 1950s, (Rishani 2011). Previously Beirut’s urban agriculture (Fig. 29.1) included (Rishani 2011):

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1. use of typical urban resources, such as organic waste as compost;
2. use of urban wastewater for irrigation as early as the 1960s;
3. direct links with consumers or vibrant healthy food markets; and
4. urban food systems which decreased urban poverty and increased urban food security.

Fig. 29.1 Ancient pictures of the agricultural character of Beirut
29.1.4 Political and Cultural Constraints

The discourse of landscape has so far been absent from public discussion, since the concept of landscape is new to the Arabic culture. Thus, planning policies that recognise and protect the cultural landscape are also absent. Landscape architecture is a new profession in the Arab world with its perception generally limited to beautification of contemporary urban settings (Makhzoumi 2011).

Current management of the land attests to the lack of governmental initiatives leading to geographies of injustice and privilege. The city must be reconsidered in terms of quality and wellbeing. Awareness must be raised to the composition and organisation of the city, the quality of public spaces and the urban cultural landscapes. Architecture and urban development play an important role in determining the conditions of life of the urban population. The design project could be considered as a cultural program that not only aims to contest a compartmentalised and elitist attitude towards planning development but to also take civic responsibilities toward public right and domain. There is a need for innovative cultural and economic projects that can succeed in attracting a young workforce and that can present sustainable development alternatives. Some already existing initiatives in Lebanon prove that there is a rise in the health services and claim for better quality of life. ‘Bioland’, a leading organic food provider in Lebanon, with farmlands located in Batroun, Jbeil and Lassa, demonstrates that there are increasing requests from consumers to ensure the health of their family and there are open windows to change and success.

For too long, quality has been overlooked in favor of the construction of spaces instead of places. The result is a mosaic in which edges are permeable and the boundaries between cities and countryside are in flux. Perhaps, today, it may make sense to talk about a landscape project based on knowledge and rediscovery of values to build sustainable processes of re-signification of territories and giving back dignity and identity to the city. This process must begin by identifying what is valued, rather than what is not and set a generative and dynamic self-adjusting feedback mechanism into motion. Such a mechanism will consider communities as protagonists of the transformation processes and active stakeholders in this planning strategy.

The peculiarities of the landscape are crucial when identifying intervention strategies and guidelines for the surrounding areas that promote awareness and knowledge, protection, management, innovation, and experimentation strategies. What is needed are planning strategies capable of managing transformations, emphasizing the identity and socio-economic values of peri-urban areas and the relationships between urban and rural areas which provide the quality of our landscape. Quality is a territorial capital that is impossible to relocate, but it can be easily trivialised and stripped of its cultural and natural values. Despite the fact that urban agriculture will never be self-sufficient to sustain the food requirements of a city, and its ecological footprint, it allows social interaction within the local environment helping to educate new generations, introducing new sustainable habits (Canbay Türkyılmaz et al. 2013).
Urban Agriculture is always part of something—some development activity. As a space user, it may be part of more strategic concepts, such as CPLU, City or Agrarian Urbanism, or other development concepts adopted by a municipality. As a food growing activity of individuals or groups, it is part of a network of processes aiming to sustain urban life—either directly by the produce grown or by the commercial exchanges it generates (Bohn and Viljoen 2014).

In 1993/1994, the Italian architect Andrea Branzi conceived Agronica as an experimental territory where the differing programs—food production, livestock grazing, and leisure—were all moveable and shifting according to demand. As Susan Carruth (2013) argues ‘While Branzi’s work is theoretical and highly conceptual, it is critical to the progression of Landscape Urbanism discourse—it suggests radical strategies and tactics for planning a relationship between landscape and infrastructure beyond normative modes and habits. It assumes the intertwining of nature and culture, and engages directly with, and learns from, the specifics of a specific landscape, moving past pure metaphor or representation, and by doing so suggests a strategic foundation for planning and adapting energy landscapes.’

This research project aims to investigate the design implication of such a practice trying to define a coherent strategy applicable in the Beirut peri-urban area. Beirut’s few remaining urban agriculture plots—the Nahr Beirut area, Haddat, Hay al Selloum, and Chouifat—are located along the southern and southeastern boundaries of the city. In this part of greater Beirut, open spaces still exist with historical connotations linked to the traditional agricultural activities in the face of advancing settlements that lead to the greatest exploitation of land (Fig. 29.2). This rural-urban landscape represents an important area of transition between the city and the river’s ecosystems, and between the river and the future expansion of greater Beirut. It forms an external “greenbelt”, a crown that in reality has different gradients of deterioration and fragmentation in relation to the different areas (Fig. 29.3).

Those spaces on the border of the city, no longer countryside, but not yet city, form a landscape which is still defining itself and is characterised by uncertainty, instability, and informality. Uncertain and unstable space potentially ripe for future transformation processes in the form of new building work, such as houses, shop-
ping centres with annexed parking lots, industrial or artisan warehouses as well as new roads and motorway junctions and/or other high-impact infrastructure (Pays Med Urban 2011).

This informality produces an uneven geography of spatial value thereby facilitating the urban logic of creative destruction. The self-organized urbanism creates spaces that are the result of misuse, a waste of natural resources; refused landscapes that are reserves of land consumed and abandoned but yet “re-naturalise” with pioneer species and as such a significant reserve for biodiversity.

Despite being subjected to high anthropogenic pressure, those areas have essential functions of environmental compensation and protection which are vital to regaining an eco-systemic equilibrium as a potential for education, recreation and cultural and historical identity.

While waiting to be absorbed by urban development and then developed into more economically valuable forms of land use, they moreover have now acquired an important strategic value for their position in the middle of the in-between places on hold, suspended between urban, suburban and rural. They act as a mitigation buffer by smoothing the transition from the canalised stretch of the Beirut River to the more natural stretch, while preserving the area’s environmental integrity. Those areas are the starting point on the creation of a green corridor from the peri-urban towards the inner city, building again an interpenetration of nature and urban. This was already done in Casablanca, Morocco (Casablanca project Urban Agriculture as an Integrative Factor of Climate-Optimised Urban Development) with the German-Moroccan research project of the German Federal Ministry of Education

Fig. 29.3 Map of the agriculture plots and the green areas
and Research (BMBF) within the megacity research program “Research for the Sustainable Development of Megacities of Tomorrow, Focus: Energy- and climate-efficient structures in urban growth centres”; indeed, a multifunctional green infrastructure will be created integrating existing agricultural use into urban development. It will address the question of how a new green infrastructure can be integrated into an existing and at the same time dynamically expanding city. As Giseke (2011) argues, urban agriculture [will be used] as an integrative factor of urban development, as an example of thinking about a broader approach to open space systems in the sense of multifunctional urban landscapes that react to the specific challenges of the megacities of tomorrow. Moreover, these spaces will represent a starting point in generating public goods through agricultural land management.

The informality created a fully capitalised domain of property and a highly effective “spatial fix” in the production of value and profits. These spaces represent a starting point in generating public goods through agricultural land management. Moreover, they act as a mitigation buffer by smoothing the transition from the canalised stretch of the Beirut River to the more natural stretch, while preserving the area’s environmental integrity.

29.2 Strategy of Design Intervention: The Nahr Beirut River Project

The strategy adopted for the Nahr Beirut River project aimed to formulate a process that starting from the peri-urban is integrated into the urban structure connecting the existing open spaces, in a game of interaction between small and larger scale, and setting the conditions for the implementation of green infrastructure (Figs. 29.4 and 29.5).

Only 3% of Beirut’s surface area is allocated for parks, a percentage that is far below the World Health Organization’s recommendations. This 3% includes playgrounds and urban forests and represents 0.8 m² per resident. In order to reduce marginalised pockets and social disparity and in order to pave the way for new immigrants to integrate more easily, we used the park as a flexible relational device between natural and artificial materials, processes, parts of the city and parts of the campaign.

We divided the peri-urban area into three sections: the Nahr Beirut river banks, the residential neighborhood of Haddat and the industrial/airport area of Hay al Selloum and we chose the river land as an area of intervention. The river has become an appetising object of attraction for future development, gentrification, and delocalisation of exiting activities and inhabitants and, we felt, necessary to our contribution in terms of research project. In 1968 the Nahr Beirut River was converted from a perennial river to a concrete canal and eventually mutated into an open sewer. The highway built on its right bank completed this conversion into an infrastructural conduit of sewage and transport (Frem 2009).
The design intervention not only aimed to weave together exiting infrastructure, agricultural land, neglected areas, sport areas, post-industrial space (old train station and rail tracks), but also to transform the overlooked river banks into a new green/ecological corridor.

The proposal intends to re-give cultural and ecological value at the water/natural element and to anticipate the urban development pressure increasing the percentage of open/public space in Beirut. It is based on:

- Identifying the constituent elements and relations that structure these places;
- Identifying values (economic, ecological; heritage, visual and perceptive);
- Identifying areas of potential; and
- Examining the key dynamics under way with a view to future scenarios.
29.2.1 Methodology/Process

The study was conducted trying to apply a methodology based on three types of approach:

- The holistic approach in order to embed and encompass the different components of the study area;
- The dynamic approach considering the different spatial and temporal scale and
- The meta design approach.

After an analysis was conducted for all the Nahr Beirut area, we divided it into four stretches (Fig. 29.6):

- The waterfront/industrial
- The urban/rurban
- The agricultural
- The valley

Students defined a topic for each stretch and organized into groups they worked on the design proposal.

At the larger scale, the park was intended as a system to create a healthy and productive environment for the community and the city, to remediate the contaminated sites, to restore the river and generate public spaces. No longer just part of nature, the Park is a driving factor and device through which we choose to re-decline the image of the city and to reinvent and reconnect fragmented sets of urban areas.

The park was organized as a system of structures and to direct urban development,
from time to time starting from the mouth to reach the valley, a wetland garden, promenade, urban garden, open air food market, bicycle path, forest, sport garden, agricultural garden, parking, orchard, educational garden, botanical garden (Figs. 29.7, 29.8, 29.9, 29.10, and 29.11).

The Park was structured as an infra-park, born and grown in the interstices of spaces, between built and non-built, a connector and zipper of entire portions of the urbanised area. We opted for the creation of a new form of urban agricultural park, considered as a pilot park that combines the conservation and protection of the territory while promoting the economic role of agriculture. It will be a green infrastructure network, which will reorganize all of the green, peri-urban, agricultural, fallow, and structured green areas, through the activation process of recovery, requalification and regeneration. This would allow a greater availability of peri-
Fig. 29.7 The agricultural area (student proposition)

Fig. 29.8 The wetland area (student proposition)

Fig. 29.9 The agricultural park (students proposal)
urban open spaces to be achieved, including them as part of a network and hinge system between urban, suburban and rural areas. The goals of this approach are to preserve the integrity and identity of the natural and cultural landscape, to maintain a sustainable, functioning ecosystem, to protect cultural treasures and to provide recreational opportunities.

Furthermore, these combined attributes meet the ever more pressing demands of urban community’s for open, usable spaces filled with cultural value.

For this park to become a reality, it is necessary, on the one hand, to change the agricultural policy of the area, and on the other hand to show the economic value of the landscape in terms of future ecological and environmental benefits and of quality of life. Only recently has it been recognised at the international level that peri-urban open spaces are important to citizens who are increasingly searching for “landscapes”, for open spaces and places where agriculture plays a renewed role in the local production of goods and food. Such spaces are also educational and multifunctional and represent a balanced relationship between development and sustainability. In the ‘Charter on Peri-urban Agriculture’ written in 2010 after the Agroterritorial Seminar held in Barcelona by the Consorci del Parc Agrari del Baix Llobregat, the Fundacio Agroterritori and the Red Agroterritorial, it is stated that the concept of agricultural parks or other similar forms of planning and design intervention are significant not only for protection against eventual incorporation into urban development process but as a means to preserve their inherent agricultural functions and foster a type of management that promotes within them the economic development of their land and farms, as well as preserving and disseminating cultural and ecological value. The Lebanese urban planning system does not adequately address sustainability, livability, environmental, spatial, and equity issues. Instead, urban plans focus exclusively on physical planning and lack strategic...
perspective (United Nations Development Program UNDP 2010). At the same time there is a need for a public and open space that is accessible and usable by different ethnic and religious groups, neutral space to gather, to stay together and to share ideas and identity.

29.3 Conclusion

The significance of this research is to try to demonstrate that landscape knowledge, more inclusive than the urban one, could be an alternative to managing the urban area, because it is flexible, relational, and participatory. We attempted to show that
landscape knowledge could represent an alternative to reorganize those territories by creating mediation between the needs of identity and naturalness of places and the needs of the people and those of production and economic activities without neglecting the aesthetic aspects that are the subject of perception and appreciation of local communities. The Nahr Beirut River became a green corridor, structured with green, path, and activities, the connective tissue able to re-establish the lost connections, and create new relations between the existing interstitial opens spaces of the city. This park, conceived as a flexible development process that incorporates multiplicity and mutability, aims to plan the expansion of this peri-urban area by bringing together the physical, economic, cultural, aesthetic, and social components in order to build sustainable processes of re-designation of territories and the restoration of identity and dignity to the landscape. Sewing the relationship between the city and its frayed edges, it will become a hybrid capable of blurring the boundaries between squares, green roads, boulevards, and gardens. It will be a relational device between things, processes, people, and parts of the city. The strategy described here could have significant positive impacts for the local residents and for the metropolitan region improving the quality of life without necessarily consuming new land, constructing new buildings and opening new roads. We will slow down the gentrification and residential densification process creating an access to open and natural spaces. We will structure a system of park and green urban networks so as to integrate food gardens as an ecological lung and source for local food production, self-organised activities and ecological education. This will increase the percentage of city’s green areas and respond to the increasing needs of the citizens.

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