Urban Agriculture as a Social Inclusion Vector
What Potential for Innovating Urban Regeneration Strategies?[1]

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Synopsis

The paper aims to explore the contribution that 'urban agriculture' (UA) in its multifaceted forms can give to urban regeneration strategies, particularly for fostering social inclusion in contemporary, fragmented communities. The US experience in such fields of research and planning practice, led by the need to improve healthy food access and eating habits, is providing new strategies to pursue a valuable framework for agricultural re-use and rezoning of vacant and derelict urban areas. The experience of 'New Roots Community Farm' within the distressed neighborhood of City Heights in San Diego, California, shows intriguing potential, matching social inclusion and physical-economic redevelopment.

1. Urban Agriculture: What Contribution for Social Regeneration of the City?

Can an 'urban agriculture' (UA) approach, within the wider framework of 'healthy food policies', innovate urban regeneration strategies and tools while pursuing a virtuous scenario in terms of social inclusion?

Since the commencement of a European Union research project that focuses on innovative tools in urban regeneration strategies[2], this has been a question faced by the author, together with some European and US research units, and is not merely rhetorical.

As evidenced by the new *Europe 2020* strategy, the European Union is increasingly interested in pursuing principles of cohesion and social inclusion through urban policies. As part of this issue, the UA phenomenon, the culture of which has its roots in the history of European settlements, can represent an intriguing vector for integrating social inclusion imperatives in contemporary urban policy. There is no doubt that this is both a complex issue and a relevant research challenge. Nevertheless it may be argued that it is possible to be moderately optimistic about successful outcomes – providing certain conditions are met.

Urban redevelopment within cities affected by economic crises currently presents a major challenge for public administrations, private investors, and an increasingly kaleidoscopic group of socially-driven stakeholders. However, the imperative of pursuing inclusive urban strategies which are faced with the exponential rise in migration has rarely been connected to the issues of limiting land consumption and boosting economic, physical and social regeneration in most developed countries. Only fairly recently within the general framework of urban/rural relationships has UA begun to emerge as a practice that could prove successful both for giving new perspectives to blighted zones of crisis-ridden and post-crisis cities, and for tackling the kind of social malaise related to the phenomenon of mass migration in western metropolitan areas.

This work focuses on reflecting on and assessing how - and to what extent - UA can drive innovation in urban regeneration strategies, not only in physical and economic terms, but also (and mostly) from the perspective of social inclusion. A specific case study of an

integrated initiative run by a non-profit organization (NPO) in San Diego (State of California), is discussed in order to support such a scenario. The *New Roots Community Farm* initiative – located in a 'patchwork community' of immigrants in the distressed neighborhood of City Heights – seems to be particularly significant for its aim of revitalizing 'rurban' spaces through the involvement of refugee groups in urban farming, community garden care, and the potential for an interesting 'chain' of connected activities. The entire neighborhood is considered a 'critical food access' area and the main engine of the initiative, an international NPO - the International Rescue Committee (IRC) - worked with other community-based associations, the City of San Diego and the San Diego County Farm Bureau to develop the project on vacant public land.

2. Towards Integrated 'Healthy food' Policies in United States

Across the US, a growing consumer demand for fresh, local and healthy food is creating new markets for urban food production. Many of these efforts specifically address the needs of residents of low-income urban neighborhoods to access food. The wider framework in which such programs are embedded is to be found in healthy food policies and proper diet habits as a way to tackle such serious and widespread social diseases as obesity, diabetes, cardiovascular problems and specific types of cancer.

Although US food production is significantly more than sufficient – almost triple the present needs of consumers (Nestle, 2007) – the entanglement of malnutrition and lack of access to fresh and healthy food is the main issue at hand. Indeed, not only does research demonstrate a correlation between the health behavior of individuals and their social and physical surroundings, but specifically shows a relationship between diseases of malnutrition and low-income neighborhoods (Morland, 2002). The lack of supermarkets and grocery stores selling affordable, fresh, healthy food may have substantial impact on low-income and

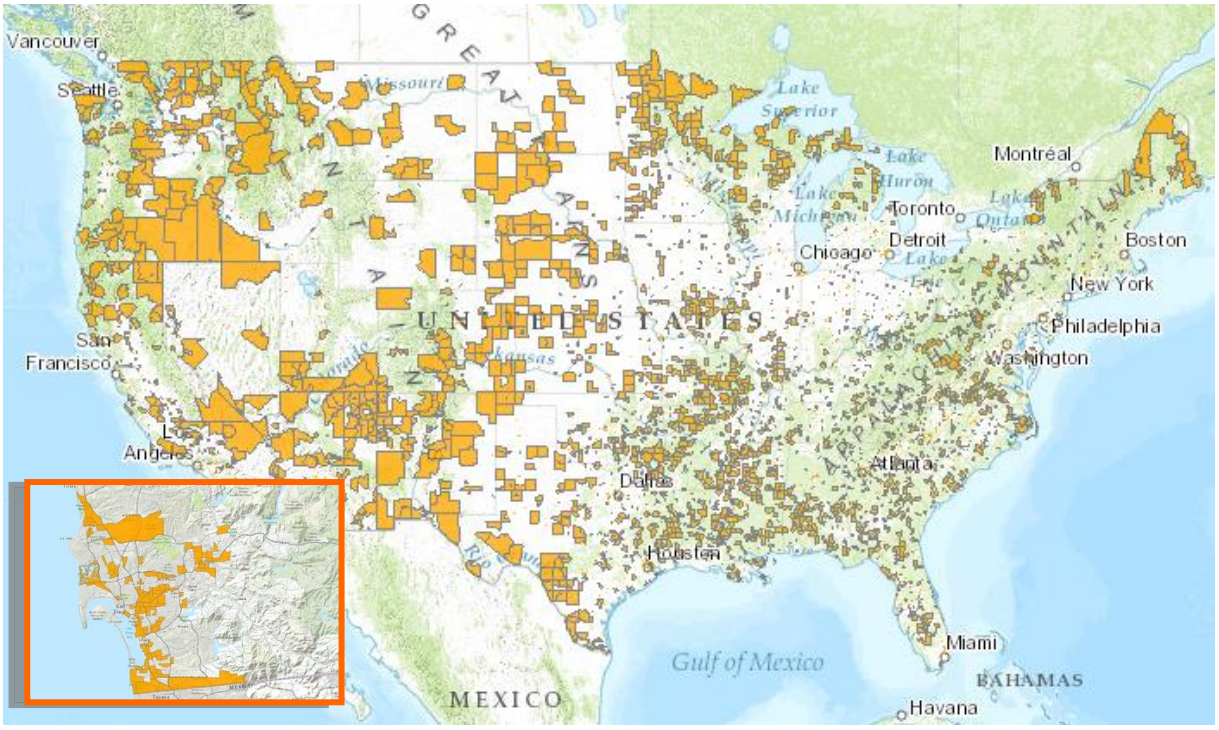

Figure 1: "Food Desert" macro-areas in USA; detail of San Diego County (bottom left); source: USDA

minority communities to have equal access to food (Morland, 2006; Flegal, 2002).

Areas where access to healthy food is critical are often identified as *food deserts*, areas "with limited access to affordable and nutritious food"[3] or *food swamps*, marked by the abundance of unhealthy food sources such as fast-food restaurants and convenience stores. Under USDA criteria defining food deserts[4], "about 10 percent of the 65,000 census tracts in the United States meet the definition of a food desert. These food desert tracts contain 13.5 million people with low access to sources of healthful food. The majority of this population — 82 percent — lives in urban areas"[5].

In this context, the United States is at the forefront of community-based agricultural and rural practices, not only for the achievement of urban physical regeneration objectives, but also in consideration of the social integration and economic development targets that such initiatives aim to attain. In fact, together with the most renowned community gardens and retail farms, there is a wide variety of different activities linked to agricultural production and fresh produce which vary from job creation with 'commercial kitchens', through food business incubators, to specific educational and growing activities and training in the culinary arts.

Planning agencies, both at local and regional level, are increasingly using urban and regional plans to address food system issues in a sustainable way. Among them, UA is one of the topics identified as an 'innovative' tool to enhance the food system, economically, environmentally and socially. Defined as "the growing, processing, and distribution of food and other products through intensive plant cultivation and animal husbandry in and around cities"[6] (Bailkey and Nasr, 2000), UA includes a number of different green- and brown-field initiatives. These projects are often inspired by NPOs with a variety of goals, including health and environmental issues, and job and income creation, as well as the development of entrepreneurial skills and the regeneration of distressed neighborhoods. Indeed, as cities spread into suburbs, inner-city buildings and lots are abandoned or demolished; UA restores vacant parcels of land to productive use in an alternative food supply mechanisms.

2.1 *California Policies and San Diego County Strategies*

In the last few years, the State of California has opened a new series of policies to promote a culture of healthy eating and access to fresh and nutritious food. The *California Healthy Food Financing Initiative Council* (CHFFIC) was established in October 2011 when the Governor signed Assembly Bill (AB) 581. CHFFIC is a public-private partnership program that was created to increase access to healthy foods in underserved, urban, and rural communities and inspire innovation in healthy food retailing. The CHFFIC Fund - using federal, state, philanthropic, and private funds - provides financing for grocery stores and other forms of healthy food retail and distribution by delivering grants and loans to eligible applicants.

In California, particularly large metropolitan areas are currently making foodshed assessments to plan for specific interventions. Recently, San Francisco, Los Angeles and San Diego have been easing procedures and changing plans and zoning codes to include UA and stimulate the cooperation of NPOs and other local actors. In particular, *The California Endowment* (TCE), a private, statewide foundation whose mission is to provide access to affordable, quality health care for underserved individuals and communities in California, is undertaking the *Building Healthy Communities Initiative*, a 10-year, $1 billion plan that funds 14 Californian communities in order to transform their neighborhoods. TCE granted funds to start the *San Diego County Food System Alliance* in March 2012. The Alliance's objectives are to strengthen local farms and improve access to high-quality healthy local food by improving infrastructure and regional food distribution.

The UA scheme in San Diego is currently prominent within both the wider political framework and the cultural shift towards more healthy eating habits and food, especially in low-income communities. UA in its various forms may therefore be seen as a complementary, concurrent

element - if not a trigger- of economic and social regeneration initiatives in blighted areas and distressed communities. Actions and initiatives related to UA take different forms and have been institutionally recognized by the city of San Diego in its municipal and zoning codes since the amendments adopted in January 2012, which were funded by a $50,000 grant provided by the *County of San Diego Health and Human Service Agency* with the aim of increasing access to healthy, local and sustainable nutrition.

These amendments and new regulations have introduced important innovations and opportunities for UA. Firstly, by the introduction of two new categories within the General Plan: 'Farmers' Markets' and 'Retail Farms'. Secondly, by removing restrictions on the keeping of chickens, goats and bees, either city-wide or in single-family areas, and making minor amendments to community garden regulations. Within the context of land use zoning, *community gardens* and *backyard gardens* are regarded as primarily for consumption by the grower, while commercial *urban farms* are for production and selling.

Within the amended General Plan in San Diego, UA is defined as "the production of food in and around cities for local consumption". The policies of specific plans aim towards a UA system that should be both economically and environmentally sustainable by:

- encouraging the use of specific UA techniques that require reduced land and water use;
- recognizing the cultural and economic benefits of providing opportunities for residents to grow healthy, affordable, culturally appropriate foods;
- developing land development regulations that allow UA uses in appropriate locations and increase opportunities for farmers' markets on public and private land;
- encouraging UA land use in underutilized vacant plots and peri-urban areas;
- exploring potential locations for UA land use as part of a long range plan.

3. The Urban Agriculture Issue: Historical Roots and Cultural Positions

The specific study this document deals with has been conducted within a broader investigation[7] of urban regeneration tools and strategies in the United States, which takes into consideration economic, social and environmental aspects in order to achieve a sustainable and 'smart' perspective on cities. Considering the adopted holistic approach to the research, and in order to explore the multifaceted nature of the issue, the research unit followed a 'grounded theory' approach fully to explore the complexity of the investigation, at both a theoretical and empirical level. This approach was adopted for the entire research model and to address the case study, in order to support the inductive rationale and adjust the research hypothesis.

Quantitative and qualitative data were collected through several methods and different sources (Glaser and Strauss 1967). Firstly, statistical analysis of selected Census Bureau tracts was needed in order to identify useful data on the demographic, social and economic situation of the city of San Diego and its diverse neighborhoods. A review of community plans, regeneration initiatives, zoning documents and maps was used to survey the planning perspective and define the critical mass of the urban fabric.

At the same time, qualitative data were gathered from interviews with selected stakeholders acting at neighborhood, City and County level, in order to fully understand the complex scaling and intertwining of different driving forces. The research unit involved municipalities and other local authorities, as well as NPOs, community-based associations and private

bodies, in order better to re-interpret the complex partnership structure of the general phenomenon, and of the specific case study.

The gradual re-emergence of urban food production cannot be regarded as an authentically innovative form of urban regeneration, either in the European or the American tradition.

Urban farming in the United Kingdom has a long history. The phenomenon of local 'allotments' for personal farming dates back to the first half of the 19th century; in 1908 specific legislation made provision for local authorities to provide land for individual urban gardening. These urban gardens existed as a way to meet the demand of newly-arrived rural workers by means of urban allotments which were to support low wages and family income (Martin and Mardsen 1999).

The total number of plots and allotments has varied greatly over time in urban areas, with a substantial rate of progressive decline after the Second World War, due to the pressures caused by high-density urbanization. However from the 1970s increased sensitivity towards 'green' issues, and awareness of the need for cities to counter issues of food security, public health, and social justice, revived interest in allotment gardening and local food growing.

In recent years there has been a growing recognition of the multitude of problems associated with the food economy and the so-called *new food equation*, a number of new and highly complex developments (high and volatile food prices, climate change effects, social and land conflicts, etc.) which affect cities of all sizes and economic levels (Morgan and Sonnino, 2010).

In the United States, high unemployment rates were tackled through garden programs in the late 19th century in Detroit (Lawson, 2005), and 'victory gardens' were promoted by the government to respond to food shortages during the World Wars. Gardens were intended to provide both food and employment and also to assimilate recent immigrants (McClintock, 2010). Today, UA refers to the "growing, processing, and distribution of food and other products through intensive plant cultivation and animal husbandry" in and around cities, within the cores of metropolitan areas, and at their edges. It is a complex activity, addressing issues central to community food security, involving also recreation and leisure, economic revitalization, health and well-being, beautification, and environmental protection (Brown and Carter, 2003).

The influence of UA and community gardens within the literature is described as threefold: firstly, the ability to promote sustainability, both physical and ecological; secondly, the socio-cultural potential of community gardens which provide a place for communities to gather, interact and share knowledge and experiences; thirdly, their contribution to the education and career development of young adults as well as those adult segments of the population willing to undertake new business activities (Stocker and Barnett, 1998).

Generally, advocates of UA (Smit and Nasr, 1992; Kaufman and Bailkey, 2000; Mougeot, 2000) envision multiple benefits to cities, such as:

- reducing the abundant supply of vacant, unproductive publicly-owned urban land and thus enhancing the image of distressed neighborhoods;
- increasing the amount of neighborhood green space and open areas with positive ecological impacts;
- supplying low-income residents with healthier and more nutritious food;
- reducing food insecurity, improving food intake of households, and developing more pride and self-sufficiency among inner-city residents.

On the other hand, detractors identify a series of impediments to the successful implementation of UA projects; however these appear to be more concerned with external hurdles rather than the limits of the practice itself (Smit, 2001; Kaufman and Bailkey, 2000).

The most relevant of these can be summarized as:

- the cost and contaminated nature of vacant inner-city land;
- the lack of resources made available by government agencies and organizations as well as little, if any, commitment to support UA from city officials;
- a lack of know-how within communities to cultivate land and grow food;
- difficulties such as vandalism, shortage of staff and lack of market opportunities;
- UA as being aesthetically inappropriate in the city, causing pollution, and being unhygienic.

Nonetheless, not only is there a growing number of committees (especially the Community Food Security Coalition) devoted to respond to these issues, but planners are becoming more involved in making connections between UA and the larger food system, as factors that depend on economic, environmental and social resources (Hodgson, 2011).

For the scope of this work, the social benefits of UA were taken into special consideration. Community involvement in the initiatives of UA provides opportunities for environmental awareness and nutritional education, as well as for social interaction across a diverse range of cultures and age groups, including minorities and immigrant farmers.

Indeed, “urban agriculture has always been enriched by the skills and technologies of immigrant populations” (Brown and Carter, 2003) who might already have experience and knowledge of raising and preserving food. In addition, they may also bring new crops from their native countries, providing market niches for ‘ethnic’ food for the benefit of both the host and other countries (Smit, 2001). Because immigrants and ethnic minorities often reside in low-income neighborhoods where accessibility to food is critical, they might become a fundamental resource for fostering and enhancing the culture of UA.

4. Case-study Survey

The potential of UA was specifically explored through the investigation of a fundamental case study in San Diego County, California, because of its contribution towards the establishment of UA in the city of San Diego as a practice for social, economic and physical regeneration.

The *New Roots Community Farm* project, managed by the IRC and located in the neighborhood of City Heights in the eastern part of the city, is most interesting because of the full involvement within the local communities of a group of refugees in the implementation and management of a community garden and connected activities. The case is particularly concerned with the social aspect of regeneration, which involves integration and inclusion of the poor and marginalized: it is directed towards refugees and people who were formerly farmers in their country of origin, with a wider social impact that represents the main objective of the initiative - and the positive effects it has on the multifaceted local community.

The discussion of the case study shows how a single UA initiative, carried out by a NPO aimed at a particular group of immigrants, empowers these new residents as producers, consumers and vendors of healthy, fresh food, and builds local economic development.

In 2009, through a strong collaboration between local authorities and other community-based associations, the project commenced on a 2.3 acres land with 85 families participating. Its

successful results are now being replicated by IRC nationwide as a way to tackle food insecurity, health problems, and economic hardship.

The project garnered national media coverage, which was boosted by the visit and the 'endorsement' of the First Lady, Michelle Obama, in 2010. It is considered the first attempt to establish legislation about new community gardens in San Diego and, more generally, a new food-related trend - especially in low-income neighborhoods. Following a 'place-based' strategy, the 'New Roots' project attempts to connect a rural framework to an urban redevelopment policy.

4.1 The Melting Pot of City Heights

City Heights is one of the largest and most populated neighborhoods of San Diego and it has historically been a destination for immigrant communities. Flows of refugees started in 1974 with an influx of Vietnamese people – followed by Cambodians and Laotians - and continued in the '80s and '90s with the resettling of immigrants from civil wars in Central America, the former Yugoslavia, and Iraq. At the beginning of 2000, immigrants began to arrive in City Heights from East Africa, and according to a review of contemporaneous census data, 44 percent of the neighborhood's population was foreign-born by that time.

Demographics of the neighborhood reveal a different structure compared to the average of the city of San Diego, and cast light on the history of immigration in the area. About 60% of the city is made up of white people, with 7% African-Americans and 15% Asians making up the other major ethnic groups. By contrast City Heights is 32% white, 15% African-American, 16% Asian and 29% of 'other races'. Also, as is common in many developing countries, the population structure is very young and heavily concentrated in the 5-35 age group, which indicates high birth rates and larger families.

Once a dynamic business neighborhood, City Heights has experienced a dramatic change since the late '50s, with the opening of large shopping malls elsewhere in San Diego that deprived small shopkeepers of customers. The need to attract shoppers back to City Heights was crucial to the approval of the Mid-City area plan in 1965. Indeed, business interests endorsed the idea of a densification of the neighborhood's residential area to broaden its customer base. The substitution of multiple-family dwellings for single-family residences, and the construction of large complexes of low-quality apartments, changed the aspect of the neighborhood and exacerbated problems of viability, parking, and public services.

From the 1970s onwards, as the population dynamic changed, grocery stores left - both because of high crime rates and due to the rigidity of the supply system of full-service grocery stores and supermarkets, making access to fresh food more difficult. The lack of healthy, fresh and ethnic food in the neighborhood had a significant impact on the livelihood of immigrant communities, most of whose members were agrarian in their native countries.

A study conducted in 2011 highlighted that the entire neighborhood suffers from being a 'critical food access' area as far as supermarkets are concerned, both in terms of distance from the nearest full-service grocery store, and the available grocery retail space.

Access to nutrition has become a major issue in City Heights for at least two reasons.

Firstly, the lack of affordable fresh and healthy food in low-income neighborhoods, particularly where issues of public and private transportation occur. Secondly, immigrants and refugees tend to prefer food from their own culture, which may be very difficult to obtain in an already under-served area. This too must be taken in consideration, as the majority of affordable groceries throughout the whole city of San Diego are from the Mexican culinary tradition.

4.2 'New Roots' Initiative

Aware of the food-related problems in the area, the IRC – an important international NPO working on refugee resettlement in the US – began organizing meetings with local communities around this issue. Many immigrant families suffered high rates of obesity and other health problems due to the lack of affordable fresh and healthy food.

IRC started a bottom-up process, working with refugee communities, other residents and local groups to tackle food insecurity and malnutrition. They identified a vacant brownfield public lot and asked the city for permission to farm that land. Because the City did not yet have a policy for urban farming, IRC – together with residents and non-profit advocates – focused on finding solutions by promoting changes in the laws about land use, community gardens, farmers' markets and other grassroots initiatives. After several years of bureaucratic process, in 2009 the City of San Diego approved the project and released an 'occupancy permit' on the designated vacant plot. A significant development in this process was the approval of a city ordinance in January 2012 that dramatically streamlined the city's community garden regulations.

Since many refugees were farmers in their countries of origin, the strategy was less oriented towards technique, and more towards a better understanding of market dynamics, business and marketing. The *New Roots Community Farm* is the first of several initiatives put in action by IRC under the broader umbrella of the *Food Security and Community Health* (FSCH) Program. Other initiatives comprise The *New Roots Aqua Farm*, an aquaponics system that employs a closed-loop cycle of tilapia farming with hydroponic vegetable growing. The Aqua Farm is also a small-food-business incubator that gives entrepreneurial residents additional space to grow.

New Roots growers from both the Community and Aqua Farms sell their produce on a weekly basis at the City Heights Farmers' Market. Also within the same program, the City Heights Community and Remedy Garden is located in the heart of City Heights with 16 gardening plots for community residents and a herbal medicinal garden, where two high school garden programs train youth in urban farming and food justice advocacy.

This incremental strategy is to ensure that refugees and residents are able to obtain affordable fresh organic food to feed themselves and their families, and also gradually to introduce them to the food business. Training programs are organized by the IRC, and because the community farm has been certified, they are able sell their surplus at City Heights Farmers Market and to restaurants, making it a potential secondary income for a

Figure 2. Some pictures of the "New Roots Community Garden Initiative", San Diego (CA). On the left, Michelle Obama visiting the refugees in Chollas Creek, San Diego 2010. AP Photo.

family. This is especially pertinent to women, who generally are more involved in the process. Some farmers have turned this activity into a business, through a food business incubator located in Pauma Valley, 50 miles into San Diego County.

From a micro point of view, the initiative is proactive in meeting its community needs, primarily in terms of food security and nutrition. In a 'critical food access area' such as City Heights, farmers not only have land to farm and access to fresh ethnic food, but also technical assistance, credit facilities and training to improve their business knowledge. Locally grown food from New Roots may allow households to enhance their income and achieve a better diet. Training programs improve business capacity building, and microenterprises are sustained by a number of IRC facilities.

Broadening the perspective, *New Roots* has widened its specific impact via a step-by-step process, and now comprises a network of initiatives serving communities' needs, and developing local economies both within the neighborhood, and beyond its urban borders.

5. Towards an Integrated Approach: Perspectives and Limits

Coming full circle back to the initial question, what is the role of UA within the policies of urban regeneration? And could it be used to foster virtuous socially-inclusive strategies in contemporary fragmented communities?

As it was argued in the first section, there is no doubt of the increasing success of UA initiatives, considered within the general framework of 'healthy food policy', at the moment a core issue not only for developing countries, but also reflected in policies and strategies both at central and local institutional levels in the US and other OECD countries.

The San Diego *New Roots Community Farm* case study is to an extent emblematic of the potential of setting up a proactive set of initiatives in terms of actors, partnerships, social value, community involvement, economic sustainability, mixed functions, and new identities. However, it would be an illusion to think that such a 'recipe' can be imported 'sic et simpliciter' into other contexts. In fact, its relevance as best practice is obviously related to specific conditions of space, time, and civic and juridical culture.

The current impetus in the US – and particularly in California – is clearly different from the European context. US communities are operating in a post-crisis context, and a new horizon of project initiatives with a moderately confident vision for boosting local economies and pursuing 'fair redevelopment' is emerging. San Diego City has its General Plan (2008) which was honoured by the American Planning Association (APA) in 2010 for emphasizing the "City of Villages" and the multifaceted nature of communities. Its sensitivity towards the UA approach was stressed in the latest amendments (2012) permitting the spontaneous creation of "Community gardens" and "Retail farms" to encourage a 'new deal' in terms of green, smart and socially inclusive urban and peri-urban spaces.

The quality of the project, in terms of complexity, assured its relevant potential as a catalyst for urban regeneration in its multifaceted interpretations, emphasizing social, cultural and symbolic dimensions without neglecting concurrent economic, physical and environmental aspects.

In some respects the project is part of a more systemic vision that emphasizes the priority of revitalization programs in the neighbourhood of City Heights: local strategies and projects are carried out by the Price Foundation (an important grassrooted non-profit charity) and shared by the public administration, the community and the majority of local stakeholders.

In terms of the regenerational impact of the initiative, the Community garden phenomenon may be considered only the 'tip of the iceberg'. More complex 'critical mass' can be found in

the potential of related activities (farmers' markets, aqua farms, commercial kitchens, kitchen incubators, culinary art training centers, ethnic grocery stores and restaurants, and connected peri-urban agri-farms) which are becoming increasingly socially and economically relevant, and offer new opportunities for both the inclusion of immigrants and new forms of social cohesion. The success of the initiative is mirrored through the potential to implement virtuous forms of dialogue between the fragmented identities of the Community: healthy and ethnic food implications can be a powerful vector in terms of programs and perspectives of social inclusion, proactive education, and limited but socially significant economic rebounds.

Conversely, however, the *New Roots* case and other parallel experiences in the US reveal some problematic issues, weaknesses and threats.

Sometimes the risk of delaying or paralyzing the 'project cycle' is evident, due to 'difficulties in dialog' between non-professional proponents (e.g. some specific non-profits or local civic associations) and the public government.

The project follow-up by the public administration has the typical advantages and limits of the 'common law' juridical culture: in general the public sector represents a 'referee', limiting its action to managing the rules while 'waiting' for the proposals of the actors. This differs from the 'civil law' culture of some European Countries (e.g. France and Italy) in which the public sector is often an 'engine' with a more proactive role.

Returning to the initial question about the role of UA strategies in regenerating cities, looking at the lesson of San Diego and at the general dynamics within other US contexts, it is possible to say that this approach may take on a concurrent, complementary role with intriguing potential, if – and only if – some specific conditions are respected.

Land and plots devoted to UA should be conceived and planned as integration activities, and not in competition with 'powerful land uses' in terms of development rights; looking towards a post-crisis horizon it is not unlikely that community gardens in the inner parts of cities will quickly be replaced with new high-density development projects as soon as the economic cycle allows developers to pursue new profit by filling 'vacant' land resources. From this point of view, a low density urban fabric with a relatively large amount of vacant 'interstitial' land can represent an advantage, keeping together UA patterns, open space systems and denser areas.

The spaces dedicated to UA and its connected activities should be conceived and planned as part of the overall 'greening strategy' of settlements. Community gardens, urban farms, farmers' markets and so on should be designed as elements of a complex open space system, included within its public parks, private gardens, urban and peri-urban woods, hydrographical, and environmental systems of the city and its metropolitan domain.

References

Bailkey, M., Nasr, J. (2000) “From brownfields to greenfields: Producing food in North American cities”, Community Food Security News, Fall 1999/Winter 2000, p. 6.

Brown, K., Carter, A. (2003) Urban Agriculture and Community Food Security in the United States: Farming from the City Center to the Urban Fringe, Venice, CA: Community Food Security Coalition’s, North American Urban Agriculture Committee.

Flegal, K. M. (2002) “Prevalence and Trends in Obesity Among US Adults, 1999-2000”, JAMA: The Journal of the American Medical Association, vol. 288, no.14 (October), pp. 1723–1727.

Glaser, B., Strauss, A. (1967) *The Discovery of grounded theory: Strategies for qualitative research*, Chicago: Aldine Publishing Company.

Hodgson, K., Caton Campbell, M., Bailkey, M. (2011) Urban Agriculture: Growing healthy sustainable places, Planning advisory service Report 563, Chicago: American Planning Association.

Kaufman, J., Bailkey, M. (2000) *Farming inside cities: Entrepreneurial urban agriculture in the United States.* Lincoln Institute of Land Policy, Working Paper. Lincoln Institute

Lawson, L. (2005) *City bountiful: A century of community gardening in America,* Berkeley: University of California Press.

Martin, R., Mardsen, T. (1999) “Food for urban spaces: The development of Urban food production in England and Wales”, International Planning Studies, vol. 4, no. 3 (October), pp. 389-412.

McClintock, (2010) “Why farm the city? Theorizing Urban Agriculture through a lens of metabolic rift”, Cambridge Journal of Regions, Economy and Society, vol. 3, no. 2, pp. 171-175.

Morland, K., Wing, S., Diez Roux, A. (2002) “The contextual effect of the local food environment on residents’ diets: The atherosclerosis risk in communities study”, American Journal of Public Health, vol. 92, no. 11 (November), pp. 1761-1768.

Morland, K., Diez Roux, A., Wing, S. (2006) “Supermarkets, other food stores, and obesity: The atherosclerosis risk in communities study”, American Journal of Preventive Medicine, vol. 30, no. 4 (April), pp. 33-39.

Mougeot, L. (2000) “Urban Agriculture: Definition, Presence, Potentials and Risks” in Bakker N., Dubbeling M., Gündel S., Sabel-Koschella, U. and de Zeeuw, H. (eds.) Growing Cities, Growing Food: Urban Agriculture on the Policy Agenda, Feldafing, Deutsche Stiftung für internationale Entwicklung (DSE), Zentralstelle für Ernährung und Landwirtschaft.

Morgan K., Sonnino R. (2010), “The urban foodscape: world cities and the new food equation”, Cambridge Journal of Regions, Economy and Society 3(2), pp. 209-224.

Nestle, M. (2007) *Food politics: How the food industry influences nutrition and health*, Berkeley, Los Angeles; London: University of California Press.

Stocker, L., Barnett, K. (1998) “The significance and praxis of community-based sustainability projects: Community gardens in western Australia”, Local Environment: The International Journal of Justice and Sustainability, vol. 3, no. 2, pp. 179-189.

Smit, J., Nasr, J. (1992) “Urban agriculture for sustainable cities: using wastes and idle land and water bodies as resources”, Environment and Urbanization, vol. 4, no.2, October, pp. 141-152.

Smit, J., Nasr, J., Ratta, A. (2001) *Urban Agriculture: Food, jobs and sustainable cities*, 2001 Edition, The Urban Agriculture Network, Inc.

Notes

[1] This work represents an author's personal evolution of a paper preprinted in the Proceedings of the 49th ISOCARP Congress, representing a piece of research carried out by the author, together with Enrica Polizzi di Sorrentino, Enzo Falco, Alessia Ferretti, and Alessandro Boca.

[2] The general goal of the research project 'CLUDs' (Commercial Local Urban Districts), Seventh Framework Programme, Marie Curie Actions People IRSES, 2011-2014 (www.cluds-7fp.unirc.it), is focused on exploring the potential of new tools for urban regeneration through the strategic role of small retails, reinforcing the sense of community, reducing transportation costs and contributing to the creation of attractive urban environment, thus increasing private investments. The main axes of the research program deal with the evolution of innovative 'Public Private Partnership' forms and 'Urban-Rural' relationships for regenerating urban deprived areas and their 'territorial milieu'. The program implementation is based on networking University units, four from European Union ("Mediterranea" Reggio Calabria, "Sapienza" Roma, "Aalto" Helsinki, "Salford" Manchester) and two from USA (Northeastern University Boston and San Diego State University).

[3] United States Department of Agriculture (USDA) Farm Bill 2008; in 2011 the USDA definition is: "a low-income census tract where either a substantial number or share of residents has low access to a supermarket or large grocery store".

[4] USDA: "Tracts qualify as 'low access' tracts if at least 500 persons or 33 percent of their population live more than a mile from a supermarket or large grocery store (for rural census tracts, the distance is more than 10 miles)."

[5] Source: USDA, retrieved on 29 November 2013 from: http://www.usda.gov/

[6] Quoted in Friedman, E. (2000) "Meanwhile Back at the Ranch", Health Forum Journal, Vol. 43 No. 6, (Nov/December), p.6.

[7] See note 2.