



#### RETURN TO THE IDEA OF HOMELY CITY

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Key words: agrarian urbanism, contemporary city, agricultural landscape

### Abstract

Homeliness is associated with something friendly and well-known. The idea of homeliness in architecture and urban planning does not mean only people-friendly space. First of all, it means the city that is familiar to the citizens, what cannot be realized without specific conditions creation of the feeling of being part of the community, possession and identity. The antithesis of the city - agricultural landscape - seems to be the perfect basis for them. Can the idea of homeliness be created based on the relationship between the town and its opposition? How can the "lost" agricultural landscape" work as a catalyst of the idea of homeliness and community integration?

In the article, there will be the attempt of answer to these questions given. New ideas, such Agrarian Urbanism or Urban Horticulture will be presented and discussed. Throughout the world, research is on-going to develop techniques for assimilating agriculture into an urbanism acceptable to the expectations of modern life. The ability to grow food has implications for communities on multiple levels: from food security and health issues, to ensuring a local economy and to the social benefits of a productive activity in which all members of a community can engage. In Agrarian Urbanism a whole society is involved with the growing of food: people



can have gardens instead of yards, or community gardens and even window boxes if they live in an apartment. Can these ideas create new ways of thinking about the contemporary city?

# Introduction: Agrarian Urbanism – traditions and definitions

Charles Waldheim<sup>1</sup> looks back at earlier approaches to merging agriculture and urbanity, at the way that urban farming might affect urban form: "The categories of agrarian and urban are usually understood as distinct. Across many disciplines, and for centuries, the country and the city have been defined in opposition to one another. But today, in striking contrast, design culture and discourse abound with claims for the potential for urban agriculture. As environmental literacy among designers and scholars has grown, so too has enthusiasm for agricultural production in and around cities. Fueling this trend is rising public interest in food and its production and distribution in a globalized world."

(http://landscapeandurbanism.blogspot.com).

Traditions of urban gardening and agriculture stem, on one part from the so called urban allotment gardens dating back to the beginnings of 19<sup>th</sup> century<sup>2</sup>, but also from the projects of ideal cities of the first half of the 20<sup>th</sup> century, among which Waldheim (Waldheim 2010) lists the projects of "Broadacre City" by Frank Lloyd Wright (1934-35), "New Regional Pattern" of Ludwig Hilberseimer (1945-49) and "Agronica" by Andrei Branzi (1993-94).

The "Broadacre City" of F.L.Wright deserves special attention – as the "totally de-urbanized" project (Szpakowska 2013). The futuristic concept was an answer to the problems of ever growing cities of the first decades of the 20th century – the architect proposed the creation of decentralized metropolis in which every inhabitant would have one acre of soil for his/her disposal. Broadacre was to connect city and rural environment, form a unique landscape. According to Wright the historic city – concentration of inhabitants and buildings, concentration of capital (and the connected poverty) was a symbol of social injustice. His Broadacre City project proposed a vast structure, connecting a village and a city, thus conveying the social ideas of Jefferson. The basic unit of the city was a family inhabiting a farm. Public utility buildings, educational institutions that in traditional cities are grouped in centers, were spread evenly throughout the terrain in Wright's idea. This decentralization principle also applied to trade, services and industry. Orthogonal system formed the basis for the plan of the city, based on land division system that divided the terrain in sixteen square miles fields (that hosted farms of equal area), and further divided into two to sixteen smaller ones. It was presented as the basis for democracy and economics of rural areas, and in Wright's case - connected with influences of the American Wild West, the love of individualism and nature. The development of wheeled transport allowed Wright - a supporter of calm life in natural environment - good access to selected locations, and thus creation of de-centric city (Szpakowska, 2013). Szpakowska also

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<sup>&</sup>lt;sup>1</sup> Charles Waldheim, Chair of the Department of Landscape Architecture at the Graduate School of Design at Harvard.

<sup>&</sup>lt;sup>2</sup> First allotment gardens were created in 1823 in Denmark, then in Germany in the first half of 19<sup>th</sup> century. In 1864, on initiative of E. Hauschild, a garden with patches for plant cultivation and also recreation grounds were founded in Leipzig. The first allotment gardens for workers in England were created in 1720 – these were the Guinea Gardens in Birmingham, and they enjoyed growing popularity throughout 18<sup>th</sup> century (Asanowicz 2012).



quotes the statement of Kosiński, who believes the Broadacre City directly invokes the idea of a village: "It is hard to say that it involves urbanism, it is rather suburbs (...) or even ruralism. De facto it presents a checkerboard (literally – with its square fields) village with a minimal subcomplex of low residential buildings (Kosiński 2011, p.99). Broadacre is a community without experts. Everyone does everything. Everyone is a farmer – industrial worker – artist.

Currently the definition of agrarian urbanism appears in many contexts and is subject to ever more precise detailing. At the begin of the 21<sup>st</sup> century de Zeew described agrarian urbanism in the following way: Urban Agriculture refers to producing food and fuel within city or town areas directly for the urban market (including street vending and home consumption). The products are usually processed and marketed by the producers and their close associates. It includes: crop and animal production on roadsides, along railroads, in backyards, on rooftops, within utility rights of way, in vacant lots of industrial estates, on the grounds of schools, prisons and other institutions, etc.; aquaculture in tanks, ponds and rivers; orchards and vineyards; trees in streets and backyards, on steep slopes and along rivers; and the recycling and use of urban organic wastes (waste water and solid waste) as resources, i.e. converting open-loop, disposal systems in closed-loop systems. (de Zeeuw, Dubbeling, Waters-Bayer 1998).

The agrarian urbanism ideas found its fullest expression in characteristic by one of the pioneers of New Urbanism and also author of *Garden Cities: Theory & Practice of Agrarian Urbanism*, at the 19 Congress for the New Urbanism in Madison in 2011 Andreas Duany<sup>3</sup>:

"Urban Agriculture: Urban Agriculture incorporates agriculture into the existing cities in two scenarios. 1. If the city loses population, similar to what has occurred in Detroit, Michigan. 2. Through retrofitting suburbia in abandoned shopping centres, deserted or never occupied subdivisions, etc.

Agricultural Urbanism: Agricultural Urbanism locates the farm so that it is adjacent to the community. The community contracts out to a second party to provide the food. With Agricultural Urbanism, the society does not have to grow the food, but they do purchase and consume it.

Agrarian Urbanism: Agrarian Urbanism occurs when the society grows the food for consumption within the society.

Agricultural Urbanism creates a walkable urban form surrounded by large-scale food production, while urban agriculture simply refers to growing food in empty lots or backyards." (Duany 2011).

Among the presented definitions the one most closely matching the idea of a homely city is the idea of Agrarian Urbanism with its basis in form of common work of local community. The effects of this action is not just the production of food, but also building the feeling of ownership, esprit de corps and identity in the city landscape that was so anonymous to date.

<sup>&</sup>lt;sup>3</sup> Andres Duany breaks down the methods of incorporating agriculture into urban environment in a Pecha Kucha format in video from CNU 19 in Madison, source: http://www.goodfoodworld.com/2011/07/andres-duany-explains-agriculture-and-urbanism/ (access 03.03.2016).

11<sup>TH</sup> CTV back to the sense of the city

# Agrarian Urbanism in the urban space

Unconventional agricultural solutions are the reply to the increasing ecological awareness of societies and the worsening condition of nature, the increased demand for fresh food in cities, and also to the search of homeliness, esprit de corps, that can be built on the basis of the traditional values of the agrarian culture.

We currently observe different forms for introduction of elements of agriculture in the urban landscape, starting from the one known for years – and celebrating it renaissance in many countries – that is the urban allotment gardens, through community gardens, urban farms up to container and vertical farms, and ending with mini-farms of the "window farm", "light farm" types or the more technologically advanced systems of the "Inka Biospheric System" type.

## Urban farms

Existing objects, such as: abandoned buildings, building roofs, empty containers, unused swimming pools, post-industrial sites, etc. can be used to create ecological urban farms, that do extremely well in small spaces of huge agglomerations.

Brooklyn Grange is the leading rooftop farming, operating the world's largest rooftop soil farms, located in New York City. Brooklyn Grange's farms include two rooftop vegetable farms, totalling 2.5 acres and producing over 22 000 kg of organically-grown vegetables each year. (http://brooklyngrangefarm.com/about/farms). The flagship farm is situated on Northern Boulevard on the building named Standard Motor Products (erected in 1919), which hosts lots of businesses, including the original American car parts manufacturer, Jim Henson studios, and a newly opened restaurant, Coffeed, which features products from the rooftop farm. The second farm, located on the top of Building no. 3 at the historic Brooklyn Navy Yard, is a massive 6 000 sq m roof. That farm manage over 380 000 l of storm water each year and ultimately reduce the amount of waste water that overflows into city's open waterways.

#### Container farms

The idea for container farms came from Jon Friedman and Brad McNamara, who used metal containers used in maritime transport to cultivate plants. The technologically advanced, digitally controlled "intelligent gardens" were located in those, that can be cared after and fertilized without the need to leave the comfort of one's home. Additional advantage of the isolation of those crops from the environment are the perfect conditions inside the container, which allows for elimination of pesticide and herbicide use and also makes the atmospheric conditions no longer an important factor, which makes the cultivation possible throughout the year, providing fast access to fresh fruits and vegetables (Pohojski 2015). Apart from the measurable benefits connected with limitation of transport costs and shortening the path that the fruits and vegetables have to travel from the garden to your table, there is also a minor disadvantage of those solutions, in form of lack of contact with neighbours, sort of dehumanization of this agriculture, that is connected with exactly that isolation of its space.

11<sup>TH</sup> CTV back to the sense of the city

### Vertical farms

Vertical agriculture is an ever more popular solution in the cities in which every square foot of space is precious. One of the leaders in introduction of vertical farms in the urban fabric is the Swedish Plantagon company. The building that they started to construct in 2012 in Linköping, Sweden has the target to produce 300 to 500 tons of food per annum, on a space of 400 square meters. The object is to connect both the agricultural function and the recreational – walks, and educational – Centre of Excellence for Urban Agriculture – ones, attracting young people to engage in the process of sustainable agriculture. In the urban space it is to play the role of a new dominant. Other building projects based on the Plantagon Greenhouse idea are to be places of symbiosis of humans and plants – perfect conditions inside the building (appropriate ratio of insolation and shade, system for air purification in office section utilizing the plants of the production area) will allow for integration of agricultural production and office, administrative, educational and other functions.

### Mini farms

Designers Saranga Nakhooda and Devin Lafo formed the *GrowingCities* group in 2010, calling "a research and design think-tank for urban agriculture." (Alter 2010). Searching for small spaces that are suitable to start farming cultures in the city they started their Five Prototypes for Urban Agriculture, among which we find the following: bench farm, tray farm, sill farm, desk farm and light farm. According to their designers those proposals are to encourage city dwellers to produce their food *by the way* of their everyday life. What is of special interest are the farms that are the easiest ones to introduce and keep in city space, that is "window farms" (in this case referred to as the "sill farms") and the "light farms".

"Window farm" is the simplest and smallest one, which mixes a mini-greenhouse with an aquarium. "Designed for the compact city apartment, this prototype fits into a standard residential window sill. The aquaponic unit features a small greenhouse that sits on the window sill and a suspended fish tank that provides organic nutrients for the plants. In turn, the plant life filters the toxic fish waste". (Alter 2010).

The "light farm" is a miniature garden suspended some 3 meters above the pavement and attached to the structure of street lamp. Those gardens hanging from the lamps were to be cared after and fertilized by the same workers, who currently care about the city greenery, waste disposal and street cleaning.

Projects developed by GrowingCities, frequently naïve as they may be, provoke to a redesigned thinking about the possibility of introduction of mini gardens in the city, forming a pulse for the dwellers to search for their own solutions. Example of such a project is the "Inka Biospheric System" presented during the 2009 San Francisco Green Festival – the completely integrated "micro-farm" system. This vertical mini farm provides herbs, grasses, fruits or vegetables grown on a vertical "bio-quilt". Because the fish tanks need cleaning and aerating and the vertical farm needs pumped water, which requires power – that comes from wind turbines and solar panels, stored in a battery bank. The fish aquarium provides nutrients for the garden, all powered by the sun, using 10% of the water of conventional farming. No soil is used in the growing process.



Plants are planted as seedlings and provided with water and nutrients from the fish aquarium, which aids vegetation production rather than root production (Alter 2009).

This type of mini farms may be introduced in the city fabric almost in every place – in places, squares, pavements, etc. contributing to enrichment of the urban landscape with new elements of greenery, not just decorative in this case, but most importantly – also edible. Although these projects are based in their principle on ecological solutions, the food produced by them will be hard to classify as *eco food*, due to environmental contaminants it is to grow in.

#### EXPO Milano 2015

How important the current ideas connected with introduction of agriculture or the gardening in the urban spacer really found its manifestation in the main theme of the last World EXPO 2015 in Milan - Feeding the planet. Energy for life. The aim of the expo was to find the answer to one of the basic needs of humanity - provision of healthy food to everyone, with respect to balance of Nature and without overproduction and injustice. What was also the aim was to develop solutions of global problems connected with food, the ever shrinking natural resources, the growing demand for energy and increasing volumes of waste (Skolimowska 2015, pp. 38-46). Vast majority of objects presented during the exposition invoked the ideas of the so called ecological architecture, in both using the recycled materials, and also various green roof and wall solutions, and also decorative plants, but most importantly the usable plants: orchards, fruit bushes, vegetables, herbs and spices used for decoration, but also for eating. The most interesting among the presented buildings were the organization of the space of the Slow Food pavilion (design by Herzog & de Meuron) and inspired by a traditional farm (It. Cascina) from the Lombardy region, with a courtyard surrounded with a roof supported on high poles, usually located in the middle of the field of crops. The project also resembles the local food and craftsmanship markets that took places on long rows of roofed tables. The high roof of three wooden pavilions hosts the exhibition, consumption and meeting and lecturing spaces, while the central yard is surrendered to cultures of herbs and vegetables, placed in raised wooden boxes<sup>4</sup>. The idea of Slow Food finds its fulfilment in this place, as does the Agrarian Urbanism idea on a micro scale (recalling to the traditional use of cascina in the local rural landscape), according to which the vegetables cultivated commonly in the community can be sold practically on the spot (recalling the markets) or prepared for eating and eaten, further boosting the integration of local community. Clear, legible composition and form of the object may form inspiration for introduction of gardening or farming elements in urban landscape, perfectly fitting the geometrized space of a place, square, etc.

# Urban integration gardens

Planted in the spirit of Agrarian Urbanism the urban edible or utilitarian gardens adopt different forms: among others of the aforementioned: urban farms, mini farms, container and vertical

<sup>4</sup> After EXPO 2015 the pavilion was dismantled and is to be used for copletion of the Orto in condotta (food and environment) project – for construction of school gardens. Herzog & de Meuron presents Expo pavilion, *Dezeen Magazine*, 02.06.2015., www.dezeen.com (access 10.02.2016).



farms, but also allotment gardens and gardens accompanying institutions for education, culture, hospitals, hospices or even prisons.

Community Gardens Community Gardens growing food Community Gardens O Community Farms Commercial Farms □ NYCHA Gardens School Gardens

Figure 1. Community gardens are extremely popular green enclaves for integration – locations of community gardens in New York.

Source: Five Borough Farm http://www.fiveboroughfarm.org/ (access 01.03.2016).

Independent from their form and function of the accompanying building the integrative value of edible gardens is put in front of any other feature. Use of edible gardens as means of integration stems from the huge and beneficial influence of nature on the mental sphere of the individual (through enhancement of one's self esteem, bettering the mood, lowering the stress levels, improving the humour, preventing depression, enhancing the feeling of control and calmness,

softening the emotions) and the member of social group (through shaping collective social contacts, stimulation of cooperation, participation, resocialization and preventing social exclusion or even acts of violence). Community gardens are extremely popular, especially in the United States, Canada, Great Britain, but their popularity grows also in some of the countries of western Europe. The majority of gardens are located on public grounds and managed by volunteers from the local community. Model examples of organization and functioning of community gardens include the Full Circle Farm, a garden started in Sunnyvale, California that was created in the framework of the Urban Agriculture Research and Demonstration project. The 11-acre garden, apart from the individually-cultivated mini-allotments, also features organized places for meetings and integration of neighbors, and demonstration gardens, backed with educational facilities suitable to conduct lectures and workshops. Some of the allotments were adopted to needs of elderly and disabled people (Czałczyńska-Podolska, 2012). As the website of the association for promotion of the urban agriculture in New York, the Five Borough Farm states there are currently over 490 community gardens (Fig. 1) in New York, of a total area of over 100 acres (source: Urban Design Lab, 2011).

Apart from their productive functions and provision of different forms of recreational activities for the inhabitants the main offer of these gardens is integration, spending time together and acting for public benefit, e.g. through giving the surplus crops to the poorest families of the respective community. Similar mode of action and integrating functions characterizes the private housing estate garden establishments of the edible estates or yardshare type, that allow several neighbouring families to cultivate vegetables and fruit in the common yard and share their crops. Such establishments are found, among other in Napa Valley in California, where a hotel and neighboring villas are integrated with vineyards, integrating the whole in the surrounding rural landscape (St. Regis Napa Valley Project, 2009). Such investments usually concentrate, in their programs, on ecology through promotion of ecological solutions and healthy lifestyle – creating new quality of residential environment has the role of the element that brings the community together.

Institutional farms and gardens means gardens affiliated with an institution (such as hospitals, churches, prisons, schools, public housing, whose primary mission is not food production, but which have goals that urban agriculture supports. (Five Borough Farm za: GrowNYC, August 2011). The sources of the edible schoolyard idea are to be sought in organic gardening and promotion of healthy nutrition developed by Alice Waters in the Edible Schoolyard Project garden started by her in Berkeley, California (Philips, 2013). The school curriculum connects gardening activities with the practical training of healthy nutrition (the school is equipped with a kitchen in which meals made of the vegetables and fruits from its garden can be prepared, as well as places for open air classes and workshops in the garden) and integrative character (local community actively participates in the school life, with picnics and cyclic events organized) (fig.2). This canon gathered enormous popularity and as of today the Berkeley school is a model for other schools wishing to follow its pattern, especially in the United States and Canada. Where the limitations of space prohibit the organization of traditional school garden, the roof gardens become a growingly popular choice, sometimes connected functionally with a cafeteria (Philips, 2013), in order to stimulate the integration of local community even more

effectively. There are an estimated 289 New York City schools with active gardens, of which, 117 grow food (Five Borough Farm za: GrowNYC, August 2011).



Fig. 2 Meeting and class grounds in the school garden of Matrin Luther King Middle School.

Source: Czałczyńska-Podolska M.

What may come as a surprise among the gardens started on the basis of the Agrarian Urbanism idea are the gardens started and cultivated by prison inmates. The cultivated vegetables and fruits are used in prison kitchen, but the main motive behind starting those gardens is, in their case, their social role. In Poland the use of active gardening as a therapeutic, resocialization and integration (socio-gardening) tool is still a rare sight. Recent times saw the completion of such project at the Lubliniec Prison, where 23 training sessions were completed, and 274 of imprisoned women trained in new, gardening skills. Starting with April, 2014 the Lublin Detention Center completes the "Gardenia" and "Magnolia" projects, that stress the therapeutic contact of the inmates with nature, mediated through active gardening (Służba więzenna [Polish Prison Guard Service], 02.03.2016).

The other interesting forms of integrating gardens inspired by the idea of Agrarian Urbanism include, among others: research/experimental gardens (developed by a learning facility such as a university to test plants that might be suitable or more productive characteristics for the local environment and are open to the community to learn from), food pantry gardens (the main



feature is the donation of fresh healthy food to local food pantries for family in need) or restaurant seed to table (urban agricultural landscapes often as small as raised herbed beds outside a restaurant) (Philips, 2013, pp. 127-128).

# What does Agrarian Urbanism teach us? - Summary

The terrain management examples described above are different forms of completion of the Agrarian Urbanism idea. What is essential is that they could not actually influence the functioning and image of modern city, at least not significantly as standalone implementations, but as systemic actions they gather efficiency, acting on several planes and in several directions on the city and its dwellers.

The value of solutions implemented on the basis of Agrarian Urbanism concepts is not homogenous (Table 1) and as such it functions best as a complex project of investments and actions that mutually supplement themselves, both in spatial organization of the cities (private, public and institutional gardens and farms), transport system (public transport system, ecological transportation, pathways for pedestrians) and the natural resource management (retention systems for precipitation water, renewable energy sources) with tools such as placemaking used to integrate the aforesaid. Placemaking – "as a tool placemaking is based in listening to, looking at and asking the questions that matter of the community and users when designing or planning space" (Philips, 2013, p. 64), food as a platform – "food become a platform or layer from which we address other important elements of community, ecology, and liveability" (Philips, 2013, p. 65), ecosystem planning, urban open space design, circulation and connectivity, human scale agriculture, artisan agriculture, connecting urban, peri-urban and rural to a regional system and permaculture (Philips, 2013).

Table 1. Benefits of different examples of land uses based on agrarian urbanism idea

	Key programmatic			
Example	Key physical features	features	Benefits	
Brooklyn Grange	Rooftop vegetable farms	Growing and distributing fresh food, agriculture, workshops	Food for community, promoting urban agriculture	
Plantagon Greenhouse, Linköping	Vertical garden	Recreation and agriculture, training and workshops, green infrastructure	Healthy living environment, food for community, biodiversity & habitat improvement	
Inka Biospheric System	Vertical "bio-quilt", wind turbines and solar panels, fish aquarium	Agriculture, green infrastructure	Food for community, biodiversity & habitat improvement	
EXPO 2015, Milano	Exhibition gardens, demonstration plots, roof	Education, recreation and agriculture spaces,	Promoting healthy food, demonstration	

	gardens, vertical gardens, model restaurant, pavilions, boulevard, restored historic local farm, agro-ecosystems in outdoor fields, greenhouses	entertainment,	of agricultural process and technology, food production processes and innovation at any stage of the food production
Matrin Luther King Middle School Bekeley, CA	Model gardens, beds, outdoor/indoor kitchens, planters , outdoor classroom	Education, culinary classes, training and workshops, food pantry,	Youth education and development, building relationships and community cohesion, food for students and their family, physical activity,
Full Circle Farm, Sunnyvale, CA	Raised beds, learning gardens, kitchen, recreation area	Charity/food pantry, education, training and workshops, community plots	Building relationships, education and community cohesion, food for community, physical activity
St. Regis Hotel	St. Regis hotel, villas, winery, vineyard, preserved wetland, event pavilion, event lawn, signature restaurant, cottage unit, main pool, spa/fitness	Vineyard, winery, open space: recreation and agriculture, resort	Healthy living environment, community cohesion

Such complex investments and programs of actions form the pathway for new development of the cities, setting them in a new role and new direction for changes. The modern city that derives benefits from the best agricultural practices, and preserves its urban character, gives enormous possibilities to its dwellers to actively participate in decisions regarding the spaces they inhabit, thus not longer forming the opposition to nature and humans. What is characteristic here is the balancing of what is urban and what is rural, not with the principle of competing opposites, but as complementary features. By living in sort of symbiosis with its antithesis – the rural landscape, the city becomes a complete city, a living city in the broad meaning of that and a city that is close to its inhabitants – a homely city.

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