

# **COST Action TU1201**

# Urban Allotment Gardens in European Cities Future, Challenges and Lessons Learned

# Thessaloniki Joint MC and WG Meeting March 16 - 19, 2016

**Event Report** 



Faculty of Agriculture, Forestry and Natural Environment School of Agriculture Laboratory of Agricultural Extensions & Rural Sociology Thessaloniki, Greece





ILS – Institut für Landes- und Stadtentwicklungsforschung







# Editors:

Nazila Keshavarz Runrid Fox-Kämper Date of Publication: April 2016

# Abbreviations:

AG	Allotment Garden
CG	Core Group
COST	European Cooperation in Science and Technology
MC	Management Committee
STSM	Short-term Scientific Mission

WG Working Group

# Disclaimer

The editors are not responsible for the contents of the articles that are presented in this report or for the contents of any linked site or any changes or updates to such sites. The copyright for any material created by the authors of the articles is reserved. Any duplication or use of material is not permitted without the author's agreement.





# **Program of Event**

Thursday, March 17

09:00 - 09:30 Registration and morning coffee

09:30 - 11:30 Opening session

Moderator Maria Partalidou, Aristotle University of Thessaloniki, School of Agriculture

Welcome Addresses

- Dimitrios Kovaios, Dean of the Faculty of Agriculture, Forestry and Natural Environment of Aristotle University of Thessaloniki
- Yiannis Boutaris, Mayor of Thessaloniki

# Introduction

Runrid Fox-Kämper, Chair of COST Action TU1201

# Keynote

• Integration of Urban Agriculture into Urban Planning. Examples and Recommendations from Regions beyond Europe Marielle Dubbeling, Director RUAF Foundation, Netherlands

National Presentations

- Urban Gardening in Greece: Not just Food but a Sense of Belonging and Self-respect Theodosia Anthopoulou, Panteion University of Social and Political Sciences, Athens
- From Zero to "Hero"!, Antonis Karagiorgas Dimitris Theodosiadis and Representatives from the group PERKA, Thessaloniki, Greece
- Urban Gardening in Arid Climate Francesco Orsini, University of Bologna, Italy

13:30 - 14:30 Lunch

14:30 - 15:00 Plenary Session

- Briefing of Working Groups
- Status of Special Issue
- Instruction for Word Café with Factsheets

15:00 - 17:30 World Café with Factsheet Authors based on Posters of Factsheets

17:30 - 18:30 STSM reports

 The institutional Organization of Urban Allotment Gardens in the UK: The Case of Birmingham
Maria Sousa, University of Trás-os-Montes and Alto Douro, Vila Real,

Portugal, (presentation held by Sandra Costa)







• The Meaning of Urban Gardening in Relation to local Peculiarities Alisa Korolova, Riga Technical University, Latvia

# Friday, March 18

09:00 - 11:30 Work in 4 Parallel Working Groups

- 11:30 12:30 STSM and other reports (continue)
- Post Earthquake Community Gardens in Christchurch, New Zealand Daniel Münderlein, University of Kassel, Germany
- *KIPOS<sup>3</sup> Project: A garden for Thessaloniki* Eleftheria Gavriilidou and Maria Ritou, Aristotle University Thessaloniki
- 12:30 13:30 Lunch
- 13:30 14:30 MC Meeting
- 14:30 15:00 Coffee break
- 15:00 17:00 Networking and Future Collaboration Session
- 17:00 -18:00 Green spaces and the New Waterfront of Thessaloniki: a walk to the inner side of the coast and a visit to thematic "gardens"

# Saturday, March 19

09:00 - 12:00 Field Trip

- Urban allotment gardens- City as a resource KIPOS<sup>3</sup>
- The first Greek Urban Vineyard
- Thessaloniki University's Urban Allotment Gardens







Contents   Pa     Nelcome Address	Page
Welcome Address	6
Introduction	
Keynote Integration of Urban Agriculture into Urban Planning. Examples and Recommendations from Regions beyond Europe	
National Presentations	
Urban Gardening in Greece From Zero to "Hero"!	
Simplified Soilless Systems for Water Efficient Urban Gardening	
STSM Reports	
The Institutional Organization of Urban Allotment Gardens in the UK The Meaning of Urban Gardening in Relation to local Peculiarities	
Post Earthquake Community Gardens in Christchurch, New Zealand KIPOS <sup>3</sup> Project: A garden for Thessaloniki	45 
Parallel Working Group Meeting Summary Reports	
WG1 Policy and Urban Development	64
WG2 Sociology	
WG3 Ecology	
Poster of Thessaloniki Urban Gardens	
Field Trip	74







**Dimitrios Kovaios** 

#### Welcome Address

# ORGANIC URBAN ALLOTMENT GARDENS AT THE SCHOOL OF AGRICULTURE OF AUTH

#### **Dimitrios Kovaios**

Dean of the Faculty of Agriculture, Forestry and Natural Environment, Aristotle University of Thessaloniki

The allotment gardens of Aristotle University of Thessaloniki are located in the Campus Farm of the School of Agriculture in the eastern exit of Thessaloniki. They are considered a very successful initiative covering a huge demand of urban dwellers in the big center of Thessaloniki to grow their own food.

They were first announced in April 2012 within the ecological strategic plan of the University towards enhancing environmental sustainability and environmentally friendly practices on the campus and becoming the first green university in Greece. It is worth mentioning that during the first open public call for a plot, applications came up to 4,700.

The main aim of this initiative, amidst the economic crisis is also a social offer of the University and especially of the School of Agriculture, to the city of Thessaloniki. Apart from bridging the gap between University and society our aim is to raise awareness of people to organic farming, help towards the production of high quality products and vocational rehabilitation.

Gardeners pay a small annual fee and everyone is eligible to apply without any criteria. The plots are allocated annually but people may keep the same plot for max 3 years time. The principles of organic production are followed and users are obliged to have a series of seminars in regards to sustainable- organic practices. People are responsible of bringing their own tools but are provided with free water by the University, which must be conserved. Seeds can also be provided, by the School, at a very low price. The seeds are from Greek local vegetable varieties dry resistant, produced under strict control in order to be "pest free". For plant fertilization humus is used. Students and staff from the School of Agriculture provide everyday agronomical advice and support the gardeners with the help also of a bio-agronomist. Hence the benefits are two sided as it is a great opportunity for the students of the school to practice by helping the urban dwellers to grow their own food.

Today, more than 620 plots (of 100m<sup>2</sup>) provide almost 2,000 urban dwellers with the joy and fulfillment of "getting your hands dirty" as well as a great amount of fresh vegetables for their family and friends. Produce is for consumption only and not for sale. In regards to the growers it as an amazing mixture of different people from all different backgrounds (educational, origin, profession, age, skills etc). Their profile is: Civil servants 25%, Private employee: 30%, Unemployed: 30% and also Retirees: 15%. For some of them its all about pleasure for others its mainly a way to have access to fresh and organic vegetables, and they are those that see this as an opportunity to be educated on agricultural practices that might be useful to them on a professional basis later.





This effort is self-financed and there is a great willingness to continue to incite interest in organic farming and keep this project sustainable. Only a few days ago on the 7<sup>th</sup> of March 2016 another open call was launched for all urban dwellers of Thessaloniki for another 150 allotments of 100 m<sup>2</sup> each.





Photos courtesy of Dimitrios Kovaios







#### Introduction

Good morning to you all and I also wish you a warm welcome to Thessaloniki!

My first thanks go to Maria Partalidou, to Dimitrios Kovaios, Dean of the Agriculture Faculty of Aristotle University, who gave us a warm welcome and for enabling this meeting in this phantastic KEDEA building. It will be a pleasure to assemble and work in these rooms.

BTW: I noticed we had phantastic buildings for all our meetings and many of them were just opened when we came. Obviously we can be rather optimistic for the future of Europe's scientific community. At least the quality of the infrastructure in many places seems not to offer reasons for complaining.

I also want to express my sincere gratitude to the organisers of this event, the team round Maria Partalidou. Since our recent meeting in Birmingham the Core Group

and me had our hands full as besides the usual preparation of the next event, the finalization of the book and other "normal" issues we started the preparation of the final conference, the GROWING IN CITIES conference this September in Basel. Those among you who already had the pleasure to prepare such a scientific event will agree that it consumes a lot of working time and that a lot of tasks, issues have to be considered beforehand. I sincerely hope that Maria and her team did not feel neglected and that we supported the local organizer as we did before in recent events.

This is already our 7<sup>th</sup> plenary and working group meeting and if some of you asked yourself, is there still something of interest to present and discuss I can assure you that we have not run out of topics.

If our meeting this morning needed a headline I would suggest: Challenges and opportunities of urban gardening in Southern countries.

In recent meetings we have learned from our Action members from countries around the Mediterranean sea that urban gardening as phenomenon emerged after these countries were affected by the recent economic crisis.

We also have learned from history - and our soon expected final book dedicates the introductory chapter to the history of urban gardening in Europe – that the emergence of urban gardens is closely related to the reorganization of cities after some kind of crisis. Especially economic crises have shaped urban allotment gardens in Europe ever since. The advancing industrialisation in the 19th century with labourers pouring into the growing cities favoured the emergence of allotment gardens due to food shortage and poverty. War gardens or gardens that popped up during the Great Depression also are characteristic of times of food shortage. Consequently, after the Second World War urban allotments continued to be important guarantors of food supply in Eastern European countries, while in Western Europe with the post-war economic growth and changing consumer models, for almost three decades urban allotments lost their importance. Here, in the last few decades new forms of urban allotment gardening have emerged, motivated by other factors besides concerns about food security.

Runrid Fox-Kämper, Chair of the Action



Recent developments reveal that economic crises are again strong drivers for urban gardens. The mushrooming allotments and community gardens in countries such as Cyprus, Spain or Portugal or here in Greece since 2008 in many ways repeat history. The austerity policies in many countries, as a result of the recent economic crisis, together with high unemployment rates, food poverty or difficulties in maintaining public spaces are major drivers for urban gardening initiatives all around the Mediterranean Sea.

But what brings people to start growing food on a derelict side that awaits construction that never comes?

We have seen many of these examples already and I dare to state that food supply might be a minor motivation or at least besides food supply other factors are relevant:

- First, it is the need for meaningful engagement, especially with many people and many of the young being unemployed, or in short: It is the option to DO something.

- Second, it is the need for social interaction, for collaboration in a group of likeminded people or in short: It is the option to do s.th. TOGETHER and

- Third, it is an option to pull attention of policy-makers and politicians on the social, ecological and economic situation, in short: it is a political statement.

The long-term perspectives and the long-term power of food growing initiatives in cities are an open questions still, but of course they have an influence in the city an in urban development.

I am very glad that today we are going to hear more about these backgrounds as this morning Theodosia Anthopoulu's presentation will focus on the situation in Greece with the very fitting title Urban Gardening in Greece: Not just Food but a Sense of Belonging and Self-respect.

And later presenters from the well-known PERKA group will tell us about their motivations to start their initiative. And tomorrow we are hearing more about these new projects in Greece with a presentation of the KIPOS3 project.

I mentioned that most of the projects around the Mediterranean Sea just emerged in the last 8 years, most of them in an environment with no tradition of urban gardening. So the projects might have been built on models that were developed earlier in other European countries or in North America. But it is quite clear that the limate conditions here in the South afford special knowledge about adapted forms of growing especially under conditions of climate change. And so I am glad that our Action member Francesco Orsini will tell us later about Urban Gardening in Arid Climate.

But it might also be good for these countries to look to look beyond Europe, as in Africa or elsewhere techniques for food growing in arid countries were developed. This is where the RUAF foundation comes in as a global player in this field and I am proud and glad that we managed to invite Marielle Dubbeling who is director of the RUAF foundation and who will speak today here.





Runrid Fox-Kämper and Maria Partalidou

The RUAF Foundation is a leading centre of expertise in the field of (intraand peri-) Urban Agriculture and City Region Food Strategies. It is a global network with member organisations in Africa, Asia, the Middle East, Latin America and Europe that seeks to contribute to the development of sustainable cities through awareness raising, knowledge generation and dissemination, capacity development and technical advice, research, policy design and action planning for resilient and equitable urban food systems.

One or two remarks to our further programme: I am happy that we are going to have some reports from our STSM grantees of last year. They will take us to Birmingham, Malmö and Christchurch and I am really looking forward hearing your reports.

You also may have noticed that we dedicated a lot of time to the factsheet session. In CG we felt this would be necessary as it is the last event in which we have the chance to do some work-in-progress. And the factsheets are the last joint output of the Action and are of high importance.

And, in Birmingham I reminded you that the final year of the Action is approaching rapidly and that we should start to think about the time after the Action has finished. Will there be joint projects such as proposals for Horizon 2020 that members of this network apply for? Will you go on coworking on publications? And which questions are left open? This is what we created this collaboration session on Friday for. And I only can encourage you to use this as an opportunity to identify themes, projects, and else for further collaboration.

Our local organizers have thought of different options to show us the wonderful city of Thessaloniki and its urban gardening project. Use this chance to explore the wonderful surroundings of Thessaloniki. I wish you all three pleasant and intense days of meetings, presentations, discussion round and else. Enjoy it.

# **Runrid Fox-Kämper**

Chair of COST Action Urban Allotment Gardens in European Cities





# INTEGRATING URBAN AGRICULTURE INTO LAND USE PLANNING

Marielle Dubbeling, Director of RUAF Foundation

In many urban, periurban, and rural areas of cities, agricultural activities - including animal husbandry, horticulture, aquaculture and fruit production - are practiced in various locations, usually with little regulation.

Cities also count with a larger are of productive or potentially productive areas that have not been paved over. Riverbanks and roadsides, parks, lands under high-voltage electrical towers that cannot be used for buildings, sites for future buildings make up much of a municipality's territory. This not including other potentially productive spaces like rooftops that can be used in densely built up cities like Kathmandu, Nepal or Cairo, Egypt. Planning the use and exploitation of these spaces requires first assessing their potential through the use of appropriate management tools.

Incentives for producers to invest are compromised by the lack of security concerning land tenure and the fear of eviction. Why erect terraces, improve and fertilize the soil, or build irrigation reservoirs if there are no guarantees by the government that benefits will be reaped from those investments? Taxation rules and legal frameworks are therefore necessary to provide security and incentives for producers.

To reconcile the needs posed by urban growth with the need for activities of high economic and social value, urban agriculture (UA) should be included in urban development plans and be regulated by municipalities.

RUAF Foundation has developed a methodology for land use mapping and planning for urban and peri-urban agriculture. The methodology ahs been applied in various cities like Rosario, Argentina; Kathmandu, Nepal; Bobo Dioulasso, Burkina Faso, Kesbewa, Colombo and several other cities.

# 1. Actions needed to define a land use policy

The first step in defining a land use policy is to examine the existing situation, establish a municipal committee, and initiate a process of public consultation.

# Examining the existing situation

The study should address such issues as (by-laws governing) ownership and occupations of land for farming or with the potential for farming, land reserves, and profiles of all those involved. It must also include a study of the type and description of existing and potential spaces (area and costs).

#### Creating an intra-municipal committee

A municipal committee should be created within the local government, inviting directorates, secretariats, and decentralized municipal units to participate in the above mentioned study. To the extent possible, the debate should include relevant national agencies responsible for land management.



#### Consulting the public

The results of the diagnosis and the work done by the municipal committee could inform the drafting of a policy, which could then be presented for public consultation. This policy should include several components: the regulatory framework, the legal framework, and planning and management tools. Proposals should include suggestions by the farmers, the business community, and civil society. At the end of the consultation process, the policy proposals should be submitted to the Municipal Chamber or Council for approval.

# 2. The regulatory framework

Urban agriculture can be included in both municipal and sub-municipal or district land use plans:

#### Introducing UA in municipal land use plans

These plans need to be studied to determine if spaces can be allocated for cultivation, aqua-culture, animal husbandry, and forestry, among other activities. Depending on the country, these municipal plans can be part of strategic plans, urban development plans, or land use plans.

As a result of a consultation process in Rosario (Argentina), UA was included as "use of urban soil" in the City Land use Plans.

#### Including UA in sub-municipal/local land use plans

Land use plans exist not only at the overall municipal level, but also at lower levels, such as neighbourhood improvement plans, subdivision plans, district development and urban renewal plans. They can include elements of microplanning to delineate spaces that could potentially be used for UA. In Rosario, a specific land use category "garden-parks" was established to support community gardens and multifunctional activities in several of the city's public park areas.

In Rosario, participatory community design workshops were organised by city and University landscape architects to advance in the design of the garden-park and productive streets. The workshops served to get to know the needs and aspirations of the community regarding their future use of the park, analyze conflicts and potential solutions, decide on the components and spatial design of the areas and elaborate final site plans. The garden-park now integrate growing areas (community gardens), soccer-fields and a playground for children as well as a series of community footpaths. The design took into account criteria such a requirements for production (fencing, irrigation), public safety (lights and a small watch-house) and development of activities related to input supply and commercialization (a small greenhouse and a market-space).





*Left: Design of a garden-park; Right: view of the garden-park in 2007* 



# Municipal land use regulations

A municipal policy should include regulations for developing both municipal and local land use plans. These should be included in the country's legal system and should provide for the following:

Urban, periurban, and rural-municipal zoning

Urban, periurban, and rural-municipal zoning makes it possible to adapt the general standards to the demands of urban growth. In 2014, Rosario doubled its protection zone for peri-urban horticulture from 400 to 800 hectares in its city development plan.

"We see the importance of preserving and expanding areas for local food production. The municipality has included a new land use category in our urban development plan being 'land used for primary production'. We have currently doubled the peri-urban agricultural protection zone from 400-800 ha"— Mónica Fein, Mayor, Rosario (August 2014)

In order to protect low-lying agricultural lands in and around Kesbewa, located at 25 km from Sri Lanka's capital Colombo, protection of these lands is included in city zoning plans.

Located at 20 km from Sri Lankás capital Colombo, Kesbewa Urban Council (KUC) with its 152,657 inhabitants is rapidly being developed and urbanised. Ever increasing traffic congestion and industries have contributed to increased environmental pollution. Next to that, projected increase in average rainfall as well as heavy rainfall events, resulting in increased flooding risk and related damages to infrastructure, utility supply and city economy, are key challenges for the city. The flooding of the Weras Ganga basin that includes the city of Kesbewa and its bordering Bolgoda Lake is due to inadequacy of the drainage systems, poor operation and maintenance, illegal construction on canal embankments, illegal filling of low lands, dumping of solid wastes into canals and waterways and increase unplanned urbanisation.



Images of 2012 flooding (www.defence.lk/new.asp?fname=Weras\_Ganga\_Developing\_Project\_20130726\_06)

Notwithstanding urbanisation, KUC still maintains a large area of agricultural and paddy lands. Most of these lands are located in low-lying areas. However, rapid filling and conversion of these lands to residential and commercial lands have significantly altered the natural water flow and drainage in the area. This, coupled with increases in rainfall, has resulted in common recurrent flooding in some parts of KUC, affecting tourism facilities, surrounding roads and residential areas. This may be aggravated in areas were paddy lands are abandoned and drainage systems not maintained.

For this reason, the Agriculture Ministry of Western Provincial Council of Sri Lanka, KUC, the NGO Janathakshan and other local and provincial actors are promoting two different UA models. One such model involved the productive rehabilitation of low-lying flood zones and wetlands to create a buffer zone in order to reduce the effects of floods and enhance storm water storage and infiltration. This is achieved through rehabilitation of paddy fields with 50 farming households cultivating vegetables on raised expanded bunds mixed with salineresistant paddy. The project involved a considerable level of transfer of improved, more sustainable and climate-smart agricultural technologies and farming techniques and provision of extension services.



# Rules and standards for open and agricultural areas

The municipality of Bobo Dioulasso, Burkina Faso, included the multifunctional agro-forestry use of urban greenways in its regulations for management of these open spaces.

Situated at crossroads between Ivory Coast and Mali, Bobo Dioulasso (800,000 inhabitants in 2012) is one of the fastest growing cities in Burkina Faso. Located in the dry savannah zone it is vulnerable to specific climate change impacts such as more irregular rainfall, increasing temperatures, dust and wind. The projected increase in extreme hot temperature days is predicted to have severe impacts on energy demand for cooling and heat-related illnesses. The city is also characterised by high levels of urban poverty and food insecurity.

Despite pressure from illegal construction and other land uses as well as waste dumping, brick-making and illegal cutting of wood, the city has still managed to maintain 64 hectares of so-called Trames Vertes (greenways), large open spaces in different parts of the city. In order to promote a more sustainable urban development model, the Municipality of Bobo Dioulasso and the various decentralised state services for agriculture, urban planning and environment have agreed to preserve and protect the border zones between the city and its forests and to preserve and redesign the Trames Vertes as areas with multi-functional and productive land uses.





*Left: The Trame Verte currently used as waste dump. Photo: Moussa Sy Right: Green lines depicting the city's greenways and their connection to the peri-urban forests* 

In consultation with the population and current land users, a multi-functional design has been elaborated for one entire greenway, measuring in total 6.4 hectares. The area will be surrounded by trees providing shade, acting as wind breaks and producing fruits; while the central parts of the Trames Verte include home gardens and space for recreational and educational functions such as sports activities; a kiosk for the sale of agricultural produce; an arboretum and school gardens. A municipal by-law formalised the set-up of a Technical Committee to manage this and other greenways. Additionally, management and land use guidelines were developed and put forward to the municipal council in order to formalise future agroforestry land use of the Trames Vertes.

The preservation of the greenways is expected to contribute to mitigation of the urban heat island effect, serve as "green lungs" for the city, and to provide food production and income opportunities for poor urban households. The project will also have beneficial impacts on maintaining of urban biodiversity and other ecosystem services.





Municipalities should reserve a percentage of municipal parklands or neighbourhood land for farming purposes and specify the type of activities allowed.

# **Building regulations**

Since 2014, the city of Kathmandu promotes rooftop gardening in densely built-up urban areas. This requires the revision of building codes to allow for control and safe use of such rooftop spaces.

Uncontrolled and rapid urbanisation in the Kathmandu Valley, Nepal has resulted in an increase in environmental pollution, ground water scarcity, waste and water management problems as well as a rapid decrease in agricultural land. Loss of these production areas, that traditionally provided Kathmandu city with rice, grains, vegetables, poultry and dairy made it more vulnerable to disruptions in food supply. The city now has to depend on the produce of either rural areas or imports from India or China. The only major access road is often blocked due to floods or landslides, while the changing climate is likely to increase the frequency of such natural disasters. Climate change has also already affected rural production, resulting in steep increases in vegetable prices in 2012. Protection and preservation of remaining peri-urban agricultural lands is deemed highly necessary. Next to this, the potential of using built-up spaces, and specifically rooftops, could provide an interesting opportunity to grow food in inner-city areas, otherwise often lacking (open) space for food production.



Left: Kathmandu: a built-up city with no space for growing? Photo: P.S Joshi, UN Habitat-Nepal Right: Vegetable prices increase as supply drops. Republica, April 2-2012

# 3. Defining a legal framework to facilitate urban agriculture

Municipal Councils or Chambers should approve a series of access laws and regulations together with land use plans.

A key element of a facilitating framework is to allow access to land suitable for UA or to bodies of water (for fish farming) under land tenure arrangements.

Studies have shown that the lack of such arrangements is the main obstacle to the development of UA, with negative effects on women in particular. Land tenure does not mean automatic land ownership. At local and international levels there exist abundant legal solutions for granting permanent or temporary guarantees for those farming the land.



# Issuing transfer land titles for temporary use

Guarantees of land tenure rights can take the form of "leases" for institutional and public spaces, renewable for 2-5-year periods. The issuing of land titles for temporary use has the advantage of allowing producers to invest and modernize (e.g., fruit cultivation). It also provides the government with a clear mandate for changing land use according to urban development and public needs.

#### Defining land taxation and tax exemptions

Fiscal policy should provide clear rules for its application at the municipal level (land taxes) and to poor urban farmers. Tax exemption rules should also be introduced or licenses granted for public land at a nominal price. The value of taxes and exemptions are important instruments to promote an inclusive urban land policy.

In Rosario, private land owners can temporarily cede their land to the municipalities against a reduction in property tax. The city then signs temporary user right agreements with interested producer(groups) for a period of 2 years, that can be extended.

# 4. Planning and management tools

The following tools allow the aforementioned legal and regulatory frameworks to be implemented.

#### Registration of land and spaces under cultivation (including bodies of water)

To the extent possible, Geographic Information Systems (GIS) should be used for registration purposes, for improving land use monitoring and evaluation activities, and as a basis for a transparent taxation system.

# Urban agriculture round-tables or mixed committees

Formed by various social actors, producers, and government representatives, these committees provide a pluralistic space for establishing a link between policy and the requirements of each of the actors involved. They also represent the institutional base needed to monitor the implementation of the policy agreed upon, and to find solutions to potential conflicts of interest.

#### Municipal land banks

In Rosario, a municipal land bank was established, permanently monitoring the availability of agricultural land and open spaces in the city. In this way, interested producers(groups) can be easily directed to available land close to their residences.

# 5. Inclusion of urban agriculture into other sectoral policies

It is recommended that urban agriculture is also included into other sectoral policies. Urban agriculture in Kesbewa and the Western Province is now considered as one of the climate change adaptation strategies for the province. The current Climate Change Adaptation Plan 2015-2018 of the Western Province of Sri Lanka (Ministry of Agriculture, 2014) now specifically includes action lines regarding the expansion of urban and peri-urban agriculture and agroforestry, the management of paddy lands as a flood risk reduction strategy and the reduction of food miles by promoting localized production.





# URBAN GARDENING IN GREECE. NOT JUST FOOD BUT A SENSE OF BELONGING AND SELF-ESTEEM

Anthopoulou Theodosia, Panteion University of Social and Political Sciences, Dept of Social Policy, Athens, Greece

# Introduction

Urban gardening has recently become a popular topic in public discourse in Greece. Either through the lens of a new form of social protest and claiming vacant spaces as a common good for non-profit productive uses, or as an institutional initiative, mainly in the form of municipal allotment gardens intended to cope with economic and food insecurity of citizens, urban gardens are an innovative and peculiar form of collective action in the country. They represent different components of social resilience in cities such as a re-appropriation of public spaces, environmental action, food sovereignty, social inclusion, cooperation, reconstruction of the social fabric in neighborhoods. In any case, newly emerging dynamics of urban gardening in Greece are embedded in the crisis context which impacts on all aspects of city life. In this presentation, urban gardening is conceived as a form of social resilience in cities in a time of severe social, economic and political crisis (Cangelosi 2015).

Outcomes from our fieldwork in Greece highlight the fact that being involved in gardening is not just coping with economic hardship through growing your own food. It is also and above all, a way to rebuild social bonds and reshape a space/ place of belonging and self-esteem in a rapidly changing world. It should also be noted that emerging urban gardening in Greece is part of new forms of alternative food networks (Renting et al., 2012) -also connected to the crisis context- along with the first food baskets of CSA in metropolitan Athens and the so-called "without intermediaries' food markets all over the country. In other words, the boom of urban gardens has to be analysed through the lens of an emerging solidarity economy as a position resulting from the need to cope social and economic external threats such as layoffs and unemployment, loss of social security and welfare, neo-poverty, stress and loss of self-esteem (Anthopoulou and Partalidou, 2015).



Photo 1. Whithout intermediaries market in the metropolitan Athens, May 2015. Photo: T. Anthopoulou



#### Social context and dynamics of urban agriculture practices in Greece

In Greece, there has never been a previous experience in urban collective gardens. This could be explained by the fact that the urbanisation phenomenon is relatively recent -after World War Two- and therefore links with the rural origin, nature and local food had never been substantially ruptured. On the other hand, the economic growth and social prosperity of the country have radically changed lifestyle and consumer diet patterns towards convenience foods and standardised quality of food products derived from modern agribusiness.



Photo 2. CSA in Athens city, April 2012. Photo: T. Anemos



Photo 3. Municipal allotment garden in Maroussi, metropolitan Athens, May 2015. Photo: T. Anthopoulou

The current multidimensional crisis is leading –inter alia- to a general revision of the consumer model and of the relationship of urbanites with their food. According to relevant studies, the crisis leads to a relative rationalisation of the "household basket"; that is, avoidance of unnecessary and junk food (minimising food waste) and a tendency towards improving the cost/ benefit ratio (shift to quality fresh food; street vegetable markets; informal producers' networks). A shift towards Greek/local products has also been documented reflecting an emerging societal demand for re-localisation of agrofood systems as well as a relative willingness of consumers to support Greek producers and family farming in a time of crisis (Anthopoulou et al., 2015).

The deepening crisis and exceptional phenomena of socio-economic deprivation generate alternative food networks and civic grassroots movements to supply fresh affordable food to urban dwellers suffering from (neo)poverty; the first CSA baskets are mobilised in the metropolitan Athens area; the "without intermediaries" movements are spreading all over the country after the so-called popular activist initiative of the "potato movement" (2012) cutting out middlemen in the food chain through direct sales, NGO, citizen's collectivities and municipal initiatives take actions to relieve vulnerable social groups through soup-kitchens, social groceries etc. In the general context of a multidimensional crisis (financial, political, economic, and humanitarian ) with hard austerity measures, urban agriculture is now shifting more from claiming free spaces to claiming subsistence farming for livelihood (Anthopoulou and Partalidou, 2015).

The most prevalent form of collective gardens is the municipal allotment gardens. Having first appeared in 2012, they spread quickly across the country's major urban centres, prioritising the economic relief of depleted households and the reinforcement of the social bond in a Greek society already very socially aware in this respect. Characteristically, urban vegetable gardens have been integrated, since 2013, in the "Social Structures for immediate fighting against poverty" within the National Strategic Reference Framework co-funded by the European Cohesion Fund and managed by the Ministry of Labour, Social Security and Solidarity (along with social groceries, social dispensaries and pharmacies, homeless care etc). Municipal authorities also promote environmental education/action (composting, organic agriculture) and city landscaping through

<sup>1</sup> In 2013, 23.1% of the total population was at risk of poverty; the unemployment rate was 27,2% and people living in households with very low work intensity amounted to 19.6% of the population aged 18-59 years old, according to" Statistics on Income and Living Conditions 2013", Hellenic Statistical Authority, Press Release, 13 October 2014.



the vegetable garden project as the crisis also contributes to the environmental degradation of the city in the absence of available public funds. Under the social policy agenda, municipalities use social criteria for selecting the gardeners (pensioners, unemployed, low income, single parent families, etc) and they try to cultivate social awareness by asking the users to offer a percentage (10-15%) of their production to the municipal social grocery for citizens in need. Despite their success, they remain a "temporary plan" and in the realm of informal land use as none have been integrated into the city plan, nor has a relevant amendment to legislation been planned.

Drawing on field work findings from a municipal allotment garden in the greater Athens area (Demos of Aghios Dimitrios), the presentation focuses on two main questions: i) what a vegetable plot represents for the city growers and what added-value an own-produced vegetable incorporates, ii) whether the gardens are viable in the longer term as a vivid part of the neighborhood, regardless of the current urgent conditions of the crisis and as another perspective in urban planning.

# Empirical evidence from municipal allotment gardens in Greece. The case of the Municipality of Aghios Dimitrios (metropolitan area of Athens)

Fieldwork results from three municipal allotment gardens, among the pioneering collective gardens in Greece<sup>2</sup>, show that the main motives for citizens to get involved in urban gardening and to apply for a plot are: i) to "produce my own food", i.e. "to know what I eat" (fresh, safe, nutritious, tasty, 'as in my village') amid various risks of globalised food, and ii) economic relief of the household's budget on food, given the stifling situation created by the crisis, particularly in urban households. Focus groups with gardeners after their first harvest, i.e. their first lived experience in the garden, revealed that vegetable gardens are -beyond food safety- a place for creative engagement, socialisation and escape from the stress of the crisis.

In the allotment garden of Aghios Dimitrios, also among the first generation of municipal gardens in Greece (since 2012), we wanted to further deepen the question "what does the garden mean for you". The selection of this case was made because its growers (45 in number) already count a relatively long



Photo 4. Municipal allotment garden of Aghios Dimitrios, March 2016. Photo: T. Anthopoulou

<sup>2</sup> Namely the municipalities of Alexandroupolis and Thermi in Northern Greece and of Maroussi in the metropolitan area of Athens (Partalidou and Anthopoulou, 2015)



experience in gardening (3-4 years now) and also because they belong to the most vulnerable social groups hit by the crisis in their entirety; i.e. unemployed/ redundant, low income/ pensioners, and many children and single parent families, since the municipal services strictly comply with the social criteria for selecting beneficiaries.

Regarding the gardeners' socio-demographic profile, in a total of 45 respondents (18 men and 28 women) most of them are: i) unemployed (33 persons, 68.9%) and low income pensioners (11.1%) versus working people (20.0%); ii) at a very active age (51.1% between 20-49 years); iii) of basic educational background (88.9% compulsory/high school versus 11.1% university graduates), iv) with mostly rural roots (51.1%), and v) low income households: 20 households (44.4% of the total) have a disposable monthly income lower than 500 euros (net) and 37.8% an income ranging from 501-1000 euros (Sougela, 2015).

Responses in questionnaires in association with focus group discussions reveal that for growers, the vegetable garden does not represent just one thing, a single reason why they remain in there but a constellation of emotions, meanings, relationships, places of belonging, and identities intertwined with each other and creating a composite surplus value within the garden's multifunctionality. That is:

i) creativity and a sense of self-actualisation at a time of social alienation and disintegration of identity, especially for those who violently lost their jobs because of the crisis and found themselves worthless/ "doing nothing useful". Engaging in the garden comes to compensate for this loss by creating new skills and enhancing self-confidence.

"The garden is like a member of my family I must take care of. I worry. The other day when it rained a lot at night, I told my husband 'I wonder how our tomatoes are doing?'. In the morning, I got up early and ran to take care of them. They are like my children.", (Stella, young self-employed/ unemployed woman).

"The garden reminds me of my village, when we used to work in my father's fields and those were indeed difficult years... the vegetable garden brought back everything... but now comes the corrective emotional experience and it drives out the unpleasant memories. Because now it is a pleasure. In fact, it makes me remember those years with nostalgia, I give new meaning to my experiences and forget the rest... because now it is mine, I enjoy it." (Kalliopi, young low income woman with a young children).

**ii)** improving the daily family diet by eating more healthily (dietary diversity, fresh and seasonal fruits and vegetables) avoiding harmful industrialized food derived from the global market.

"I have learnt to preserve and store food to have my own food all year round. I put my peas in the freezer, pickle my unripened cherry tomatoes, make portions of moussaka from leftover aubergines, I throw nothing away. My children learned eat all; no supermarket junk food enters our house" (Yorgos,



Photo 5. Trails, Aghios Dimitrios March 2016. Photo: T. Anthopoulou



Photo 6. Vicinity, Aghios Dimitrios March 2016. Photo: M. Kaplanidis





Photo 7. Harvest, Aghios Dimitrios, March 2016. Photo: M. Kaplanidis

male pensioner with two young children).

**iii)** physical exercise, which gets you out of the house and the inertia of your microcosm as well as contact with earth that makes you "re-sprout along with your vegetables"; especially at a time when neo-poverty, the crisis deadlock and despair have contributed to the rapid increase in mental illness and suicide trends in recent years in Greece.

"In the garden you dig, you exercise...you fight with the garden, you don't fight with others and that is a benefit." (Kostas, male unemployed/ fired)

**iv)** economic relief on the cost of food through wider change of the dietary pattern, both qualitatively and quantitatively: consumption of fresh over packaged and often off-season vegetables at the supermarket, processing of the garden's overproduction(sauces, pickles, storing in the freezer, etc.), valorising of the surplus through new recipes (discovered via the internet or exchanges between growers).

"A cabbage seedling which costs me 50 cents and then takes 3 months to grow is not worth cultivating. So instead I'll go to the market and buy some for 38 cents, no big deal. In the garden, I'll plant something more expensive and more nutritious, which will hold me... cauliflower, broccoli for my salads, not to mention that I can also cook and get a real meal out of them." (Katerina, unemployed/ fired young woman with unemployed husband)

"The garden has costs... but I think it's worth it, it gives us an economic incentive. On the one hand we pay, but look, if we add up all the benefits, in the end it's worth it. What we eat can't be replaced, because you don't know what is in what you get from the market... You eat your own and you're happy. Plus you save on psychiatric drugs, which is also an indirect benefit" (Panagiotis, male pensioner widower)

**v)** socialising and creating a place of belonging where the growers and their neighbors in the garden share a familiarity as well as common unprecedented experiences brought on by the crisis, and the shared adventure of tackling it without guilt or taboos.

"For those of us who like earth, even the energy we get from it... I was locked away at home for a long time after being fired, I socialised, I spoke to strangers in the garden. It's easy to start chatting because you have something in common, you say to your neighbor "can you pass me the trowel?" and they'll say "Oh! What are you going to dig?".What could be simpler? The strength you get from the garden makes you bloom outside it too" (Stella, young selfemployed/ unemployed woman).

Concluding the discussion of the focus group with the gardeners, to the question "tell us in a word, what it means for you the garden?" Responses converged in:

The garden is life; my support; my daily routine; a part of my identity; a school in creation; Even if the crisis ends I will still be there. I have discovered a new way of life.



#### **Conclusion - Discussion**

This presentation aimed at exploring whether urban gardens actually meet basic food needs of depleted households or whether they are mainly part of inter-related benefits leading to a reconsideration of our subsistence needs and to a renewed appreciation of nature and earth. Our basic assumption was that urban gardens above all trigger processes that redefine the identity of individuals/growers themselves, not only through the sense of belonging to a local collectivity, but mainly via new roles and responsibilities such as that of caretaker of the land and its fruits. Empirical evidence from the municipal allotment garden of Aghios Dimitrios revealed that the food produced in the garden not only reflects a use value by covering the basic nutritional needs of the household, but a composite value of a product of specific quality incorporating high nutritional value, creative occupation, mental health, self-esteem and a sense of belonging to a community. That was also a major finding in all gardens we have studied.

Under this scope, an approach to urban agriculture as an emergency action to fight poverty and food insecurity is simplistic and obscures the multiple functions and benefits of gardens to urban sustainability. Solely intended as an anti-poverty tool, urban gardening is doomed to informality and restricted by the willingness of municipalities to establish vegetable gardens. In this way, authorities and policy makers at a central and regional level are relieved of the responsibility of recognising agriculture as a (valid) land use in cities and of integrating it into urban planning.

#### References

- Anthopoulou, T. and Partalidou, M. (2015) Alternative agrofood networks and new solidarity partnerships between the city and the countryside. Exploring the community supported agriculture, Geografies, No 25, pp. 13-23. (in Greek)
- Anthopoulou, T., Nikolaidou S. and Kolokouris, O. (2015) "Aux arbres citoyens! Le mouvement d'agriculture urbaine, une forme participative d'appropriation de l'espace public » in G. Vianey, M.Requier-Desjardins, J.C. Paoli (eds.) Accaparement, action publique, stratégies individuelles et ressources naturelles : regards croisés sur la course aux terres et à l'eau en contextes méditerranéens, Options Méditerranéennes, Série B, No 72, pp. 339-349.
- Cangelosi, E., (2015) Reshaping spaces and relations. Urban gardening in a time of crisis, PACO, Issue 8(2), pp. 392-416, doi:10.1285/i20356609v8i2p392.
- Partalidou, M. and Anthopoulou, T. (2015) Urban Allotment gardens during precarious time: from motives to lived experiences, Sociologia Ruralis (accepted article), doi:10.1111/sour.1217.
- Renting, H., Schermer, M. and Rossi, A. (2012) Building Food Democracy: Exploring Civic Food Networks and Newly Emerging Forms of Food Citizenship, Intl. Jrnl. of Soc. of Agr. & Food,19(3): 289-307.
- Sougela, S. (2015) "The contribution of urban agriculture to social inclusion of vulnerable social groups. The case of the municipal allotment garden in Agios Dimitrios", Master thesis, Panteion University, Athens, 114p. (in Greek)







www.perka.org



# FROM ZERO TO "HERO"!

Antony Karagiorgas, founding member of PERKA, Pavlos Melas, Thessaloniki, Greece

#### Introduction

What is the group Perka (Urban Farming), Suburban Cultivators in Thessaloniki, Greece? The group PERKA was created in the beginning of 2011 by people living in the city whose goal was the communal and in season cultivation of vegetables, fruits, flowers and herbs in a field or an appropriate space near the city of Thessaloniki.

The group PERKA created the first self-organized Communal Garden in Central Macedonia, based only on personal work and expenses of its members. In addition to this, in a very short time period we obtained, human substance, a sense of collectiveness and – the most important – we realized with optimism that we can, after all, cooperate, and enjoy our common existence, in stark contrast to the pessimism and apathy of our times. The creation of PERKA Karatasou was quickly spread within Greece, but also in other countries, and formed an example to be mimicked for the creation of similar projects/ ventures/efforts.

With the support of the local Cultural Club, the group began cultivating a small part of the 689 stremma (68.9 hectares) expanse of the former military encampment Karatasou. The cultivation/farming is not for profit, it covers part of the members' needs; it supports vulnerable social groups and is based on the principles of organic, biodynamic or natural farming, using heirloom seeds and plants, while at the same time we enjoy the benefits of working with and being in contact with nature. The foods produced are clean, safe, nutritious and generally beneficial for the human body, while at the same time we respect the local flora and fauna which has sprung up in the region during the past few years.

At the moment, PERKA's activities are the most active volunteer action in the former military encampment since two years after the first effort, there are now four new PERKA teams, which operate based on the same principles of respecting natural and human resources. Our daily presence in the camp has reduced instances of robberies, ransacking of the buildings and tree cutting, making the area a safer place for visitors.

On a social level, this activity has two basic aspects:

1. Through the principles of communality, self-management, egalitarianism, continued education and outside any political party lines, the cultivation becomes a research "lab" which helps bridge the gap between urban dwellers and farmers and which brings city folk closer to nature. With our positive attitude and actions, we try to understand the natural cycles, learn from them, and finding a cooperative way for escaping the crisis, especially the social one.

2. With sensitivity towards the natural ecoscape which has developed since the



abandonment of the military encampment by the army, the PERKA groups recognize the enormous natural value of the region for the city of Thessaloniki. The PERKA groups are against the privatization, segmentation, selling out of the land, and its development. They support the public character of the area, as well as the various efforts of the Cultural Club of Karatasou and all other organizations, groups or people with common goals. Not only we do not want to take over the area, but by maintaining its open spaces and buildings, we function like a temporary bridge between today's official abandonment of the camp and the realization of a complete and integrated plan for turning the camp into a free and open green space for the citizens of the Pavlou Mela municipality, but also of the entirety of Thessaloniki, who we call to create here the next farming group, or take part in other actions supporting our common cause.

3. We are not pursuing or antagonizing the perfectly correct proposal to make better use of the space and we are in support of proposals for the mild use and exploitation of the camp. Our actions are open and obvious to all and have found a great positive response among the citizens of the Municipality and visitors. We simply form another aspect of the spontaneous, alternative and cooperative economy of the region.



Left: Location map, Right: access map of Perkas



From left to right: Initial situation in 2011, site preparation and result in few months later







Very first sketch of the garden



Gardeners drew for the winners of the plots



Constructing the irrigation system





Building stone furnace











All photos courtesy of Antony Karagiorgas and Perka website











# SIMPLIFIED SOILLESS SYSTEMS FOR WATER EFFICIENT URBAN GARDENING

Francesco Orsini, Giuseppina Pennisi, Giorgio Gianquinto Research Centre for the Urban Environment on Agriculture and Biodiversity, Agricultural Sciences Department, Bologna, Italy

#### Introduction

Urban horticulture represents an opportunity for improving food supply, health conditions, local economy, social integration and environmental sustainability altogether. Although its relevance varies among locations, urban horticulture is present throughout the world in a diversity of farming systems. It is estimated that worldwide, about 25 to 30 % urban dwellers are involved in the agro-food sector and it is expected that this agricultural activity will gain in recognition for its benefits and services in a near future since towns and cities are growing on an unprecedented scale and rural-urban migration is still increasing. The scarcity of scientific literature available on the subject up to date has somehow hindered the relevance of the sector. Nevertheless, urban agriculture plays today a major role in the city food security (100 to 200 million urban farmers worldwide providing the city markets with fresh horticultural goods) and safety (where nutritional benefits should be counterbalanced by safe growing and post-harvest management practices) (Orsini et al., 2013). Moreover, since the poor are those who spend up to 85% of their income in food purchase and the great majority of urban farmers belong to the most indigent fractions of the population, the impact of the sector on the development of local economies becomes of extreme relevance. From sociological perspectives, urban farming represent a mean for both social inclusion and reduction of gender inequalities (65% of urban farmers are women). Finally, urban agriculture may play ecological functions by reducing the city waste, improving urban biodiversity and air quality, and overall reducing the environmental impact related to both food transport and storage. Among the different sub-sectors of urban agriculture, main advantages are associated to the production of horticultural goods. Fruit and vegetable crops present high yields (up to 50 kg m-2 year-1), a more efficient use of agricultural inputs, high added value and rapidly perishable products that can easily substitute the rural production in the local market (Drescher, 2004). Consistently, the high cost of urban land altogether with the need of high water- and fertilizer-use efficiency make urban horticulture as the most competitive branch in urban farming.

# Climate change and urban agriculture

The Oxford dictionary defines climate change as "a change in global or regional climate patterns, in particular a change apparent from the mid to late 20th century onwards and attributed largely to the increased levels of atmospheric carbon dioxide produced by the use of fossil fuels". As a consequence of these changes, climates becomes erratic and unpredictable in the short term, where extreme meteorological events (e.g. floods and drought) are experienced, while a general increase of temperatures along years results in the so-called global warming (Trenberth et al., 2014). Recent studies have addressed the effects of climate



change on the distribution of climatic zones, with an estimated 8% increase of areas experiencing drought in the first decade of the current century (Dai, 2013). In Southern Europe, the increased aridity is associated with reduced precipitation, whereas in Northern latitudes warming-induced drying results from increasing evaporation (Dai, 2013). Previsions for 2060 indicates aridity to increase and becoming severe drought (with a Palmer Drought Severity Index, PDSI, below -3) in Southern Europe and Middle East (Dai, 2011).

In cities, the effects of climate change are already evident and overall connected with urban agriculture. The "urban heat island" effect found in cities, where temperatures are always higher than the surrounding countryside (Jonsson, 2004), may seriously affect plant survival during warmer seasons. As cities grow, soil sealing reduces water drainage, and urban agriculture is generally confined to marginal areas normally subjected to flooding and characterised by low fertility that, other than limiting the productivity, strongly reduce the choice among species to be cultivated. Under these conditions, plant cultivation should make use of water efficient growing systems among which simplified soilless systems have shown to efficiently adapt to a range of different city contexts (Tixier and de Bon 2006; Orsini et al., 2013).

#### Simplified soilless cultivation

With the steady increase of soil erosion and the loss of arable land, the importance of soilless cultivation is likely to increase in the near future, especially in urban areas. (Eigenbrod and Gruda, 2015). The diffusion of simplified soilless systems for home and community gardening is strongly encouraged by international bodies (e.g. FAO), and they are nowadays found in several countries of Africa, Asia and Latin America (FAO-micro gardens, 2010; Institute of Simplified Hydroponics, 2011). This term usually indicates both the hydroponic systems in which the roots float in the nutrient solution (e.g., floating system) and the systems that require the use of different types of substrates watered with the nutrient solution. The latter can easily be adopted in diverse climatic and environmental conditions, while the former are hardly used above certain temperatures for the concentration of oxygen in the nutrient medium is inversely related to the temperature and consequently root oxygenation may be affected. The floating system is also discouraged in regions where diseases such as malaria, which is transmitted by mosquitoes, are found because the vectors may lay their eggs in the cultivation tanks (Klinkenberg et al., 2006).

The sustainability of hydroponic systems has been reported in several situations and countries (Bradley and Marulanda, 2001; Izquierdo and Marulanda, 2003; Izquierdo, 2007; FAO, 2007; Gianquinto et al., 2007b; Rodriguez-Delfin, 2008; Orsini et al., 2010). In Trujillo (Peru), the time for the return of the initial investment was defined in less than 1 year for both substrate and floating systems (Orsini et al., 2010b and c). Similarly, less than 1 year was needed to pay-back the initial cost of a Garrafas pet hydroponic system in Teresina (Brazil) (Orsini et al., 2009). In the same study it was shown how both the quantity and the diversity of vegetables in the diet were improved by participation to a programme promoting simplified



hydroponics. Furthermore, a multi-criteria analysis was applied for the evaluation of relevance, efficiency, effectiveness, impact and sustainability of these practices with a final score of 94/100 (Orsini et al., 2009). Nonetheless, it should always be considered that crucial for the technique to provide appreciable results is the identification of appropriate technologies to both the financial condition and the skills of the farmers. The main features of simplified soilless systems may be listed as follows :

- Cheap (start-up may be possible with few euros) and easy-to-learn techniques. Farmers can experience applied results within just few weeks.
- Reduced labour required; systems are easily accessible to women and elders.
- Soil-free production of a broad range of vegetables ideal for a balanced family diet, but also for flower and aromatic species.
- Reduced incidence of soil-transmitted plant diseases, typical of traditional cultivation;
- Use of low-cost recycled materials to build growing containers, e.g. wood and disposable containers, and use of by-product locally available at low cost as growing media (coconut fiber, rice husk)
- Allow cultivation in urban and suburban areas, by making productive courtyards, small gardens, walls, balconies, and rooftops. Moreover, these systems allow ecological intensification, since plants are provided with safe nutrient and water upon their needs;
- Improved quality of the production as a consequence of better water and mineral nutrition and reduced use of phytochemicals as a consequence of reduced soil-borne diseases;
- High efficiency in the use of water and nutrients, by adoption of closed cycles;
- Income generation from the production of high value horticultural crops;
- Short chain between harvest and consumption with reduced depletion of the product and transport costs.

Simplified soilless systems may provide abundant vegetable production, as well as flower and aromatic, medicinal or ornamental plants. They are usually utilised by individuals and families, but also by associations and cooperatives. Experiences of cultivation with women groups, carried out in Peru and Brazil (Gianquinto et al., 2007a; Fecondini et al., 2009; Mezzetti et al., 2009), have confirmed the suitability of these systems since they are easy to understand, set-up and manage (Caldeyro-Stajano, 2004; Fecondini et al., 2010). At present, they are becoming very popular in several Latin American countries (Rios, 2003; Tabares, 2003). Experimental trials conducted in Teresina (Brazil) have shown that the mean daily water needs for a lettuce crop grown on a Garrafas PET system (Gianquinto et al., 2007a,b) are about 2.0–2.5 l m-2, as compared to the 10–12 l m-2 of the conventional on-soil cultivation (Ferreira da Silva, personnal communication). This result is even more relevant when considering that cropping density in soilless cultivation is about twice the density on-soil cultivation (22 and 12-15 plants m-2, respectively) and



that the duration of the growth cycle may be significantly reduced (Tixier and de Bon, 2006). Water use efficiency (WUE, expressed in g l-1) is a measure of the ratio between edible yield (expressed in grams of fresh weight) and the irrigation water required to obtain it (expressed in liters). WUE enables understanding the efficiency of irrigation water and compare it among different crops species and/or growing systems. In Table 1, experimental results on WUE obtained on soilless systems in Italy (Bologna) and Brazil (Teresina) are illustrated, also providing comparative figures for contemporary on soil cultivation. Accordingly, the high adaptability of soilless cultivation to water scarce environments can be confirmed, as also shown in Figure 1, where picture from existing projects in Asia, Latin America and Africa are included.



Figure 1. Water-efficient simplified soilless systems in Asia (Myanmar, top left and right), Latin America (Brazil, centre left and Peru, centre right) and Africa (Ivory Coast, bottom left, and Mauritania, bottom right). Photos courtesy of Francesco Orsini



Table 1. Water use efficiency (g fresh weight I-1 H2O) of vegetable crops grown on simplified soilless systems or on soil. Unpublished data from experiments in Bologna (\*), Italy, or Teresina (\*\*), Brasil.

Species	Scientific name	Soilless WUE (g l-1)	Soil
Eggplant	Solanum melongena*	20	-
Watermelon	Citrollus lanatus*	14	-
Cantaloupe	Cucumis melo*	13	-
Tomato	Lycopersicum esculentum*	11	-
Chili pepper	Capsicum annuum*	6	-
Quinoa	Chenopodium quinoa*	15	-
Purslane	Portulaca oleracea*	10	-
Lettuce	Lactuca sativa*	25	-
Lettuce	Lactuca sativa**	47	5

# References

Bradley, P., and Marulanda, C. (2000). Simplified hydroponics to reduce global hunger. In World Congress on Soilless Culture: Agriculture in the Coming Millennium 554, pp. 289-296.

Caldeyro-Stajano, M. (2004). Simplified hydroponics as an appropriate technology to implement food security in urban agriculture. Practical hydroponics and greenhouses: 76 (6).

Dai, A. (2011). Drought under global warming: a review. Wiley Interdisciplinary Reviews: Climate Change, 2(1), 45-65.

Dai, A. (2013). Increasing drought under global warming in observations and models. Nature Climate Change, 3(1), 52-58.

Dziegielewski, B. (2006). Interdisciplinary in IWRA. International water Resources Association. Water International 31(2): 143-144.

Drescher, A. W. (2004). Food for the cities: urban agriculture in developing countries. Acta Horticulturae, 643: 227-231.

Eigenbrod, C., and Gruda, N. (2015). Urban vegetable for food security in cities. A review. Agronomy for Sustainable Development, 35(2), 483-498.

FAO, Micro Gardens (2010). With micro-gardens, urban poor "grow their own". http://www.fao.org/ag/agp/ greenercities/en/microgardens/index.html. Accessed 9 Nov 2012.

FAO, (2007). Profitability and sustainability of urban and peri-urban agriculture. Agricultural management, marketing and finance occasional paper no. 19. FAO, Rome. ftp://ftp.fao.org/docrep/fao/010/a1471e/a1471e00.pdf. Accessed 9 Nov 2012.

Fecondini, M., Casati, M., Dimech, M., Michelon, N., Orsini, F., Gianquinto, G. (2009). Improved cultivation of lettuce with a low cost soilless system in indigent areas of north-east Brazil. Acta Horticulturae, 807: 501-507.

Fecondini, M., Damasio de Faria, A. C., Michelon, N., Mezzetti, M., Orsini, F., Gianquinto, G. (2010). Learning the value of gardening: results from an experience of community based simplified hydroponics in north-east Brazil. Acta Horticulturae, 881: 111-116.

Gianquinto, G., Michelon, N., Orsini, F. (2007a). Idroponia in un area povera del nord est del Brasile. Un esempio di cooperazione decentrata. Regione Veneto-FAO. In: Franceschetti G (ed) Agricoltura e ruralità nei paesi ad economia povera. I Percorsi dello Sviluppo. CLEUP, Padova, pp 95-106.

Gianquinto, G., Orsini, F., Michelon, N., Ferreira da Silva, D., Damasio de Faria, F. (2007b). Improving yield of vegetables by using soilless micro-garden technologies in peri-urban area of North-East Brazil. Acta Horticulturae, 747: 57-65.



Klinkenberg, E., McCall, P. J., Wilson, M. D., Akoto, A. O., Amerasinghe, F. P., Bates, I., Donnelly, M. J. (2006). Urban malaria and anaemia in children: a cross-sectional survey in two cities of Ghana. Tropical medicine & international health, 11(5), 578-588.

Institute of Simplified Hydroponics, (2011). http://www.carbon.org/. Accessed 9 Nov 2012.

Izquierdo, J., and Marulanda, C. (2003). Manual Técnico, La huerta hidropónica popular. FAO, Buenos Aires Johnson, Peny (2001) "Hidroponía y nutrición, ¿ Es un producto hidropónico más nutritivo.

Izquierdo, J. (2007). Simplified hydroponics, a tool for food security in Latin America and the Caribbean. Acta Horticulturae, 742: 67-74.

Mavrogianopoulos, G., Vogli, V., Kyritsis, S. (2002). Use of wastewater as a nutrient solution in a closed gravel hydroponic culture of giant reed (Arundo donax). Bioresource technology, 82(2), 103-107.

Mezzetti, M., Orsini, F., Fecondini, M., Michelon, N., Gianquinto, G. (2009). Women and simplified hydroponics: community gardening as a way of emancipation in Trujillo, Peru. In II International Conference on Landscape and Urban Horticulturae 881, pp. 169-172.

Orsini, F., Michelon, N., Scocozza, F., Gianquinto, G. (2009). Farmers-to-consumers: an example of sustainable soilless horticulture in urban and peri-urban areas. Acta Horticulturae 809: 209-220.

Orsini, F., Morbello, M., Fecondini, M., Gianquinto, G. (2010). Hydroponic gardens: undertaking malnutrition and poverty through vegetable production in the suburbs of Lima, Peru. Acta Horticulturae, 881: 173-177.

Orsini, F., Fecondini, M., Mezzetti, M., Gianquinto, G. (2010b). Simplifiedhydroponic floating systems for vegetable production in Trujillo, Peru. Acta Horticulturae, 881: 157-162.

Orsini, F., Mezzetti, M., Fecondini, M., Gianquinto, G. (2010c). Simplifiedsubstrate soilless culture for vegetable production in Trujillo, Peru. Acta Horticulturae, 881: 163-68.

Orsini, F., Kahane, R., Nono-Womdim, R., Gianquinto, G. (2013). Urban agriculture in the developing world: a review. Agronomy for sustainable development, 33(4), 695-720.

Rodríguez-Delfín, A., Hoyos, M., Chang, M. (2001). Soluciones Nutritivas en Hidroponía: Formulación y preparación. Centro de Investigación de Hidroponía y Nutrición Mineral, Universidad Nacional Agraria La Molina, Lima

Rodríguez-Delfín, A., Valverde, K., Chang, M. (2008). Effect of the light quality on the nitrate reductase activity in lettuce plants grown in NFT. In International Symposium on Soilless Culture and Hydroponics 843, pp. 89-96.

Tixier, P., and de Bon, H. (2006). Urban horticulture. Cities Farming for the Future, Urban Agriculture for Green and Productive Cities. RUAF Foundation, IDRC and IIRR, Silang, The Philippines. Available from: http://www.ruaf.org/node/961.

Trenberth, K. E., Dai, A., van der Schrier, G., Jones, P. D., Barichivich, J., Briffa, K. R., Sheffield, J. (2014). Global warming and changes in drought. Nature Climate Change, 4(1), 17-22.

UN-HABITAT, (2008). State of the World's Cities 2008-2009: Harmonious Cities. Earthscan.



THE INSTITUTIONAL ORGANISATION OF ALLOTMENT GARDENS IN THE UK – THE CASE OF BIRMINGHAM - A PRACTICAL TOOL FOR THE IMPLEMENTATION OF URBAN ALLOTMENT GARDEN ASSOCIATIONS IN PORTUGAL

Maria Inês leal de Sousa, University of Trás-os-Montes and Alto Douro, Vila Real, Portugal

#### Introduction

The study focuses on the institutional organisation of different types of urban gardens in Birmingham and seeks the understanding of their structure, role and the benefits of their existence, in order to provide a tool for the implementation of allotment associations. For research purposes the main types of urban gardens and types of institutions (national and local) were identified, allowing the selection of 4 cases studies. Data collection derived from on site go-along interviews with a member of staff and from a photographic survey and the results will demonstrate that there are several institutional organisations whose main role is to rule, manage and support these gardens.

Urban allotment gardens (UAG) are well established in most European countries, although more in some countries than in others. In the Northern European and Scandinavian countries these spaces are an important component of the urban landscape demonstrating to have several uses. They are organized by community organisations or associations supported by national and local regulations who establish rules and ways for their operation and management.

In Southern Europe, and for example in Portugal, the reality is a bit different. UAG in Portugal have first emerged in Lisbon, responding to social changes that were related to migrations and immigration movements towards the city. But was in the past decade, which the implementation of UAG in Portuguese cities has increased



significantly. In Portugal, UAG are often planned and managed by public or private entities at a local level. Some cities have created programmes to encourage their implementation and in some cases they are integrated in the green infrastructure, or allocated under the land use category of "production and recreation zones".

Each entity wishing to design and implement an allotment creates its own regulation framework or relies on existing programs, such as the "Horta à Porta" programme by LIPOR, the waste management company of Greater Porto. Portugal, like in many other Southern European countries, has not yet developed national legislation/policies or national or local associations to guide, implement and manage the operation of these areas. If public or private entities wish to implement UAG in their cities, they are responsible for establishing the operating rules.



Taking account this contextual situation, this study pretends:

- To develop a detailed study of the associations of UAG in the UK, and particularly in the city of Birmingham (which has a large number of UAG and several other types such as community gardens), regarding their emergence, the reasons and motivations for their constitution, their organisational structure, goals and derived benefits;

-To explore UAG associations or similar organisations of urban gardening in order to provide a guiding tool which could serve as a support for countries which want and need to learn from well established good examples in the UK.

In order to achieve these goals was defined a methodology which is divided into 4 phases:

#### 1. General assessment

This phase included a short literature review about the reality of urban gardens in Europe with regard to their organisation and maturity as well as the collection of information about the city of Birmingham - the different types of urban gardening and the different types of institutional organisation that support them. Additionally, key terms are defined.

# 2. Case studies and their selection

For research purposes, four case studies have been selected intending to represent the main different types of existing urban gardens in Birmingham; at this stage the contacts with the sites were also established.

#### 3. Preparation of the go-along interviews and running the interviews

The formulation of the interviews has taken into account the aims of the study and the different entities to be interviewed. These were carried out during a walk along the gardens selected for the study, with a member of staffs responsible for its management who had previously accepted to be interviewed. The interviews were audio recorded using a digital recorder. The go-along interviews were accompained by a photographic survey of the site.

#### 4. Analysis

During the fourth and final phase, all data were processed, organized and analysed. The transcriptions of the interviews were coded and the themes established aimed at achieving the objectives of the study.

Birmingham is one of the top UK cities with high quality of its parks and urban green spaces. The amount of green spaces is reinforced by the great expression that allotment gardens have in the city. Birmingham has the largest provision of allotments of any Local Authority in the UK with 115 sites and nearly 7,000 plots. In addition to these classic allotments and their associations, there are also other ways of practicing "urban gardening", emphasizing the ways through which people can grow food and interact with nature as well as taking all the other benefits associated with the practice of this activity . Community gardens, brownfields/ pop-up gardens and market gardens, are examples of sucessful spaces where these practices can take place.



Taking into account the selection criteria listed above, for research purposes the main types of urban gardens and types of institutions (national and local) were identified, allowing the selection of 4 cases studies - Martineau Gardens, Edible EastSide, Salop Drive Market Garden and Walsall Road Allotments:





# MARTINEAU GARDEN

Martineau Garden, a community garden, provides a calm environment for everyone, a place to learn, to heal, to contact with nature and play. This is a place where Birmingham inhabitants can engage in a more sustainable lifestyle and find out more about organically grown food.

#### SALOP DRIVE MARKET GARDEN

A site working as a market garden and a local food project which supplies bags of freshly grown vegetables to local families. It looked at the benefits of using the land, growing food, physical activity, mental well-being, therapeutical gardening, to community.

#### EDIBLE EASTSIDE

As pop up garden was chosen Edible Eastside. It is a private initiative which consisted in transforming a brownfield site into an exciting and contemporary urban garden for people to learn how to grow plants and food.

# WALSALL ROAD ALLOTMENTS

Walsall Road Allotment established in 2004 is a large multi-cultural allotment garden site. The Walsall Road site has proven to be a real meeting place for people of all backgrounds – who otherwise would not have the opportunity to grow own products.

In the first approach carried out at these places it is clear that these spaces are organized in local, regional and national Associations or communities that are supported by Allotments legislation in UK. In this study was considered:

**NSALG** - National Society of Allotments and Leisure Gardens: is the national representative body for the allotment movement in the UK.

**FCFCG – Federation of City Farms and Community Gardens:** is the representative body that represents and promotes community-managed farms, allotments and other green spaces, creating opportunities for local communities to grow across the UK.

**BCC - BIRMINGHAM CITY COUNCIL:** The BCC, similarly to other local authorities across the UK, has responsibilities with these spaces and their duties are detailed in legislation regarding allotments existing in the UK.

**BDAC** – **BIRMINGHAM AND DISTRICT ALLOTMENTS CONFEDERENTION:** The Birmingham and District Allotments Confederation is a council partner organisation and work with allotment associations in Birmingham, allotment holders & city council officials towards the benefit of allotments.

In order to be able achieve the proposed aims in this research selected a method of work based on interviewsmore specifically the go-along interview method.



#### How this method Work?

To sum up the "go-along" is a technique of data collection in which the researcher moves alongside informants while interviewing them to collect information (Carpiano, 2009). It involves participating in movement while conducting research, and is based on the notion of "following the people".

#### What are the beneficts of this method?

Interviews are more personal, and allow asking follow-up questions in order to explore the answers of the respondents.

The next step was structured interviews.

1<sup>st</sup>: The interviews targeted a member of staff responsible for those sites. These were held on site, allowing also for a photographic survey.

Members of the BCC and the BDAC due to logistics were interviewed by email. These interviews were considered to be very important as they allowed having the point of view, and thus another perspective of the process, of the institutions which have the role to coordinate theses spaces at a municipal level.

2<sup>nd</sup>: Preperation of the interviews: For the interviews two groups of questions were prepared targeting both the local associations and the institutions that coordinate local associations. Regardless of their intended audience, all the questions were organized into three parts:

PART 1: The starting process for creation of the project/association – aspects concerning of their emergence, the first steps to run the project/associations; the reasons and motivations to develop the association.

PART 2: Institutional organisation – aspects about their institutional organisation (responsible team, rules/regulations and aspects concerning the regulation/rents, management, maintenance, funding, work with outsiders and other relevant aspects.

PART 3: Benefits and future advices – aspects regarding the benefits of being an institution or of being organized and main factors to take into consideration when creating and running allotment or community gardens projects and associations. The tables presented below compiles the main aspects associated with the aims of this work which derived from the interviews (and small informal conversations), and from the literature review and online content. These are organized according to the different types of institutional organisations verified, and structured according to the aims of this study. The table considers the following aspects:

- 1. the type of institutional organization
- 2. the role of organisation
- 3. how are they structured
- 4. the reasons for the emergence
- 5. benefits of organizational structure
- 6. future advices for future organizations


The table includes both the case studies sites that were visited, and some of the national and local institutions that play an active role in the studied area and are fundamental to the successful operation of local / individual associations.

The results of this study reveal that in Birmingham there are several types of institutional organisations serving the allotment gardens and other urban spaces that hold growing activities.

They are organized across different levels, from local to national organisations. Thus, there is a hierarchy in how these spaces are organized and supported. However, this pyramidal organisation is only clearly observed in the allotment gardens and community gardens. To note that in this study other types of urban growing spaces which show differences from the previous mentioned two were also included.

Focusing on their institutional organisation different types can be revealed:

- National Institutions Regional representatives;
- Municipal Institutions City Council working with another institution municipally organized;
- Associations Local or Individual associations that manage different spaces or private landowner.



As mentioned, this organisational structure starts on a national level down to a local level, and all constituent bodies have different functions. It was also found that in addition to official and organized institutions, the existing national planning laws are an important tool to guide and legally support the implementation process and management of allotments, as well as to protect them and plot-holders in, for example, processes of governing the sale for land development.

In short, the legislation requires local authorities and their agents to assurance that all policies, practices, procedures and decisions taken respect the law. Besides giving some power and duties to local authorities these acts also safeguard the interests of plot-holders, particularly regarding their interests in matters related to the leasing contracts.





Regarding their roles, it can be noted that the national and municipal institutions have a more focused role in guidance, support and development of these areas, while the local associations have a more active role in the daily management of the spaces, in their protection and conservation and look for their users' interests. This is a clear distinction that can be put into practice in the Portuguese and other similar cases. The local associations create their own regulations, although based on regulations made by municipal institutions, and are also responsible for carrying out activities in the spaces.

Regarding the struture of difference organization, there are some disagreements regarding the different levels of organizations: remuneration of their committee or staff and in the way they are organized internally.

For exemple, national institutions have normally paid members of staff and have regional bodies and local mentors to move and act faster and closely to the local communities. The municipal institutions work with other types of organized institutions that operate closer to the groups interested in the activity. Local associations are usually organized by unpaid staff or committee, constituted by a Chair, Secretary and Treasure.

One of the advantages of using open-ended interviews as a method for data collection is the freedom that the interviewees feel to respond openly to any subject. This point was beneficial to the results of this work, allowing revealing the interviewees opinions of the many benefits that these institutions bring to the management and support to these spaces.

Among others, what stood out was the regular presence of the staff responsible. For example, daily monitoring – allows problems to get solved and doubts cleared in the moment and to work on possibilities for raising funds to improve the space including employing skilled people to guide gardeners and to respond to their different and specific needs.

The benefits pointed out for the existence of local and/or national institutions emphasize the importance of the support they provide, especially in an initial phase, where there are many doubts and uncertainties.

Finally, it was possible to obtain some information about the aspects which should be kept in mind when someone wants to create an association. The National / Municipally institutions advise to have regular meetings, to be monitored by the Local advisor and to have contact with other existing associations for exchanging experiences. On the other hand, local associations essentially indicate that there are main three important things: People (qualified people, interested people), Funding, and Land.

In conclusion it's possible say that the allotments legislation is put into practice through the existence of bodies/ associations local and national, as well as the benefits of the existence of such organized structures.



Finally, it is concluded that each institutional organisation has an important, and to a great extent, a distinct role in contributing to the creation and management of these types of spaces and that a having a hierarchical organisation seems to be also important for their success.

These results can give insights about the aspects to be taken into consideration for emergent allotment gardens, community gardens and similar in countries where this type of space has not a tradition and wish to organize themselves around structured societies or associations.

As previously stated, Portugal has not yet a legal national framework regarding these places. At present, it is notorious the increasing interest in this activity especially provoked by the current economic situation and consequent social changes in the country. These are the factors responsible for a great number of UAG, in different contexts and aiming to provide social support and help the family economy, but municipalities are starting to recognize the importance and benefits of allotments as contributing to the resilience of the city, landscape valorisation and social integration. However, there are some gaps relating to public awareness about these areas that are still not in line with efforts to frame allotments in general policy and sometimes even within local regulations. Nonetheless, some of the local public and private entities have been making major efforts to counter this situation ("Horta à Porta" and similar organized programmes), but lacks a deeper involvement in management of those engaging in the activity and holding a plot. It is within this context that this study can be a major contribution to the Portuguese recently emerged formal allotments. Why not begin by developing a structure that can start organizing people and authorities to work together to create something more solid in order to achieve the good examples coming from the UK example? Initially making plot-holders aware of the importance of an association, what are the main benefits for them and how social and spatial conditions as well as the general activity can ameliorate. Then, these local associated groups together with municipal promoters (or private promoters) can create a local lobby in order to attempt influencing decision-makers, regulatory agencies, or governments.



#### References

- BCC: Birmingham City Council. Web. Available at http://www.birmingham. gov.uk/greenfingers (04.05.2015)
- Carpiano, R.M. (2009): Come take a walk with me: the "go-along" interview as a novel method for studying the implications of place for health and wellbeing. Health & place, 15(1), pp.263 –72.
- Crouch, D, Sempik, J. Wiltshire, R. (2005): Growing in the community A good practice guide for the management of allotments. London- Local Government Association.
- Costa, C. (2012): "Allotment gardens a component of green infrastructure: allotment gardens in Germany and their urban, ecological and social aspect". In: URBE:1. 103 – 122. Web:. Available at http://www.scielo.br (consultado em 2 de Novembro de 2013)
- Damin, A. Palmer, J. (2002): "Rural life in the city: The chalet garden in Denmark". In: Proceedings of the 2002 Northeastern Recreation Research Symposium. New York: The Sagamore.
- Howe, J., Bohn, K., Viljoen, A. (2005): "Food in Time: The History of English Open Urban Space as a European Example". In: Continuous Productive Urban Landscapes: Designing Urban Agriculture for Sustainable Cities. Oxford: Architectural Press: 95-107.
- Jankovska, I., and Panagopoulos, T. (2010): "Challenges and Prospects of Urban allotments in Latvia and Portugal". In: Advances in Urban Rehabilitation and Sustainability : 3rd wseas International Conference on Urban Rehabilitation and Sustainability (ures ,10). University of Algarve. Faro: 113-118
- Matos, R., Batista, D. (2013): Urban Agriculture: The Allotment Gardens as Structures of Urban Sustainability, in: Ozyavuz, M. (Ed.), Advances in Landscape Architecture. InTech.
- Matos, R. Fundevila, M. (2011): The Esthetics and the Ethics of Allotment Gardens. ECLAS conference Sheffield.
- Rodrigues, F., Costa, S., Silva, B., Fernandes, L., Sousa, M., e Silva, M.. (2014): Towards the classification of Urban Allotment. In ECLAS Congress 2014 Proceedings "Landscape: a place of cultivation".
- URGE- Team (2004): Making Greener Cities A Practical Guide. Leipzig: UFZ Centre for Environmental Research Leipzig – Halle.
- Viljoen, A.(2005). CPULs, continuous productive urban landscapes designing urban agriculture for sustainable cities. Oxford: Architectural Press Elsevier.





# THE MEANING OF URBAN GARDENING IN RELATION TO LOCAL PECULIARITIES

Alisa Korolova, Riga Technical University, Latvia

#### Introduction

The presentation offered an overview on the process and results of the Short Term Scientific Mission handled in 2015 in Malmo and in Riga. The aim of the research was to investigate the role of urban gardening in revitalization of residential areas in both cities. In the case of Malmo research focused on community gardening impact on health and well-being of people living in residential neighborhoods of Seved and Annelund. As Riga is rich with allotment garden areas, in the case of Riga it was decided to focus on the role of allotment garden in people's everyday life. This study was also focused on the role of community garden as a place that promotes social engagement, and on possibility of allotment garden to adjust such function.

Despite the fact that Riga with 641007 inhabitants and the area of 304 km2 is almost twice as big as Malmo with 317930 inhabitants and the total area of 158,4 km2, similarities in climate conditions and similar location of community and allotment garden within the neighbourhood made it possible to compare the role of urban gardening for residents of residential areas in both cities (Central Statistical Database, 2015; Stadtskontoret, 2015).

# Methods

In order to find out which role does the urban gardening play in people's everyday life it was decided to use participatory approach as an empirical research method that involves researcher in the knowledge-production process (Bergold & Thomas, 2012). In the case of Malmo it was decided to join the community garden group to take part in everyday activities, and to make observations also from a community gardener's point of view. In the case of Riga it was decided to visit allotment gardens several times to meet more gardeners and to interview them. Both quantitative and qualitative research methodologies were used, choosing semi-structured interviews to collect qualitative data, and surveys to get the statistical data. Qualitative and quantitative methods interact in social research practices and are both considered to be a useful tool (Kvale, 1996).

# Findings

Research in Malmo showed that community garden is relatively new trend there (Eriksson, 2013). In total there are three community gardens. The first community garden project was initiated in 1997 in Slottsträdgården (Malmö stad, 2015). However, being located in the city center and having a function partly of a botanical garden and garden exhibition place it doesn't now fit into the definition of neighbourhood community garden. That is why it was decided to focus on two community gardens located in neighbourhoods of Seved and Annelund.

Results of literature studies and statistical data analysis as well as observations showed that inhabitants of both analyzed neighbourhoods have different social, economical and cultural backgrounds. However, the building environment in





Seved and Annelund differs. So differ also the visual appearance of community gardens: "transparent" community garden plot with a low fence, a community garden with small personal plots and a vertical garden structure in Seved, and community garden with high fence and hidden entrance doors in Enskifteshagen (Annelund).

In order to have the data comparable with the findings from Malmo, in the case of Riga it was decided to focus on the smallest allotment garden located inside the neighbourhood called Mežaparks. The chosen neighbourhood is characterized as green, clean and prestigious residential area with welcoming outdoor environment. The garden consists of approximately 50 plots and is managed by "Mežaparks Development Community" (Central Office of Northern District, 2015). The garden area has a high fence and all entrance doors are closed, as every garden member has his own key. According to the interview data such solution helps to prevent theft and vandalism in the garden.





Photos courtesy of Alisa Korolova

#### **Discussion and conclusion**

Results of the research in Malmo showed that community (neighbourhood) gardens are perceived by their users to have a positive impact on human health and well-being, to give possibility to be physically active and to promote social engagement. In turn, in both cases (neighbourhoods of Seved and Annelund) possibility to get additional fresh food supply didn't play the most important role, as the amount of vegetables grown in the garden is not very big. According to survey and semi-structured interview data the majority of community garden members are residents of Seved or Annelund (two neighbourhoods where gardens are located). This fact proved that community gardens have a positive impact on neighbourhood strengthening.

Observations', surveys' and interviews' results also proved the importance of community garden as a place for integration. In case of community garden in Seved, community garden members have different cultural background (in general representing 7 different countries). In the case of community garden Annelund majority of gardeners are native Swedes, however according to the interview data everyone is welcome to join the community regardless age, gender and ethnicity.

Comparative case studies of Seved and Annelund community gardens showed how the differences between the arrangement of community gardens can affect the way gardens are used, promoting both welcoming environment for work and relaxation, or vice versa creating an unused space for spending free time. In the case of Seved garden, low fencing and lack of shrubs promoted creation of "transparent" space, which is one of possible reasons for recreational space to be unused. In the case of Annelund, garden has about 1.5 m high metal net fence, and









Photos courtesy of Alisa Korolova

the entrance door hidden in tangled vegetation. Such organization of community garden gives the feeling of the area being private. However, when spending time inside the garden it provides the feeling of privacy in a good sense. This makes gardeners feel more free while working, but especially while having a rest, sitting around the table and drinking coffee. These facts prove that organization of space is of importance when providing place for recreation.

In turn, the answers from gardeners in Riga showed that possibility to get fresh vegetables, grown using only natural fertilizers is of importance. However, many gardeners pointed out, that growing own vegetables is not always cost-effective.

Results of the interviews in Riga showed that majority of respondents are not interested in having a space for common recreation in the allotment garden area. This fact shows that allotment garden users are not interested in social engagement while spending time in the garden.

Comparative analysis of the outdoor quality in the neighborhoods, from which gardeners come, show that Mežaparks is characterized as more prestigious, cleaner and safer neighborhood, with welcoming outdoor environment, while the outdoor environment of other analyzed neighborhoods is characterized by poor condition of roads, paths and courtyards. Allotment gardens in Mežaparks are easy accessible and provide clean and nice place for both active and passive recreation. Results of this research show that for some people, having an allotment plot means having an access to a clean and welcoming outdoor environment in close proximity to their home.

Comparative analysis showed, that both community and allotment garden have a positive impact on human health and well-being, and promote physical activity. However, community gardening, following its general idea is focused on social engagement. Allotment garden do not provide a direct opportunity for people to communicate. Furthermore, the majority of allotment garden users are not interested in spending time with their fellow gardeners. That's why, when solving problems of social segregation and to promote cross-cultural and intergenerational dialogue, it is recommended to develop a community garden's pilot project.



# References







Photos courtesy of Alisa Korolova

 Bergold, J., Thomas, S. (2012). Participatory Research Methods: A Methodological Approach in Motion. Forum: Qualitative Social Research. Volume 13, No. 1, Art. 30 – January 2012. http://www. qualitative-research.net/index.php/fqs/article/view/1801/3334 [2015-07-15]

- 2. Central Statistical Database. (2015). http://www.csb.gov.lv/ statistikas-temas/iedzivotaji-datubaze-30028.html [2015-11-20]
- 3. Central Office of Northern District. (2015). Interview data.
- Eriksson, A. (2013). Odla dittbostadsomrade! Stadsodlingensbetydelse, drivkrafter och genomförande - en fallstudie av Odlingsnätverket Seved i Malmö. Examensarbete i landskapsarkitektur, 30 hp Landskapsarkitektprogrammet Självständigt arbete vid LTJ-fakulteten, SLU. http://stud.epsilon.slu.se/5383/11/eriksson\_a\_130429.pdf [2015-07-15]
- 5. Kvale, S. (1996). Interviews: an Introduction to Qualitative Research inteviewing. Sage Publications, Thousand Oaks, California.
- Malmö stad. (2015). http://malmo.se/Kultur--fritid/Idrott--fritid/ Natur--friluftsliv/Parker/Parker-A-O/Slottstradgarden/Historik.html [2015-08-02]
- 7. Stadtskontoret. (2015). Befolkningsprognos 2015 2025. http://malmo.se/download/18.12bec02c14db49ab84d52e 3f/1435302086619/befolkningsprognos20150626.pdf [2015-07-15]





# POST-EARTHQUAKE COMMUNITY GARDENS IN CHRISTCHURCH NEW ZEALAND

Daniel Münderlein, University of Kassel, Germany

# Introduction

Community Gardens in New Zealand share many similarities with communal greening projects in Europe or North America. But due to several reasons, including geographic situation of the country, colonial heritage and post-colonial development, it is a unique breeding ground for community based gardening projects.

Christchurch is the second largest city in New Zealand and is located on the South Island. It is surrounded by a flat terrain called Canterbury Plains, which is strongly characterized by agricultural land use. When the city was founded in 1850 the topic of food resilience was a crucial aspect for the new colony. A For this reason a food hub was set up and the organizer William "Cabbage" Wilson grew a wide range of food plant in the inner city district. Furthermore the English settlers imported their garden culture and implemented elements like avenues, botanical gardens and central parks in the blueprint for their new home. Due to the oceanic climate and the quality of the soil, a rich garden scene developed, based on the traditions of the city's founding fathers. Christchurch prides itself for the rich offer of parks and public gardens and became well known as "The Garden City" in the 20th century. Although this nickname does not refer to urbanistic models like Ebenezer Howard's vision of an urban rural fusion, it reflects the general affinity for gardens and green spaces.

Even though the imported idealized garden ideas left distinguishing marks on the visual appearance of green spaces in Christchurch, the types of gardens differ from Europe or North America. The grid structure of the city with the characteristic urban subdivisions is closely connected to the vision of the individual house. This form of land use provided sufficient open space for tenants to grow their own vegetables and fruits. For this reason, the system of allotment gardens does not really exist in New Zealand, although it has a long tradition in Britain. However, the concept of communal cultivation of food existed in the Maori culture long before European settlers arrived (Trotman & Spinola 1994).

The first community gardens in Christchurch were established in the 1970s with no clear vision in mind or additional background knowledge, so it took several years until a collective garden movement became apparent. In the 1990s, the Organic Garden City Trust was created as an outcome of the International Federation of Organic Agricultural Movements with the objective to create the world's first organic city, which was supposed to be Christchurch. This umbrella organization should promote healthy, sustainable organic living and included a community and home garden group. In 2002 the Canterbury Community Garden Association derived from this garden group, which is the state of the art garden network with 29 registered gardens at the present day (CCGA, 2015).



Since 1999 the Christchurch City Council became interested in Community Gardens as a tool for urban sustainability and social inclusion and started to support individual garden projects. This support ranges from funding to provision of resources like land, water or expertise.

In 2003 a community garden policy was developed by the City Council and Canterbury Community Garden Association, which formally recognizes the services that the community gardens provide to the city and the local community (CCC, 2003).

# Quake city

On September 4, 2010 a major earthquake with a magnitude of 7.1 on the Richter scale struck Christchurch. This disaster caused widespread damage as brick buildings collapsed and infrastructure broke down. Further damage was caused because of soil liquefaction, when the ground lost strength and stability. The recovery works started almost immediately, when an even more severe earthquake interrupted them on February 22, 2011, with a magnitude of 6.3. Many old and multi-storey buildings collapsed and core infrastructure was damaged to large extent. Furthermore, seismic flooding occurred due to the liquefaction processes of the ground. 185 people lost their lives and almost 7,000 suffered from injuries. Several aftershocks struck Christchurch until present day, leaving the city in a state of strain. A strict zoning concept was introduced by government agencies as an immediate reaction to the earthquake. This concept constricted access to several parts of the city and became well known as the Central City Red Zone. Buildings that suffered from heavy damages were taken down, in order to prevent further problems. This led to an overall loss of urban quality and an overwhelming "feeling of emptiness" in the city center (Wesener, 2015, p.2).

The restrictive concept of red-zoning was also applied on residential areas outside of the city center, resulting in demolishment of large extents of public housing alongside the river Avon. These areas are prone to further damage, as



Figure 1. 'Feeling of Emptiness', 2015. Photo: author.





*Figure 2. 'Residential Red Zone', 2015. Photo: author* 



Figure 3. 'Green Couch', 2015. Photo: author

the ground is swampy and instable in nature and not suitable for postearthquake building projects. This enforced and controversial development lead to the establishment of the Residential Red Zone and is responsible for the displacement of thousands of inhabitants, who had to abandon their neighborhoods and move to temporary housing projects.

While the situation in Christchurch moved from initial response on to recovery and reconstruction the question arouse, which long-term vision will be pursued for the post-earthquake version of the municipal. The Central City Red Zone and the Residential Red Zone imply a strict top-down approach, guided by the Canterbury Earthquake Recovery Authority (CERA). The organization came to power based on the Canterbury Earthquake Recovery Act and was enforced by the parliament of New Zealand. This governmental reconstruction strategy contrasts countless bottom-up initiatives originating in small-scale neighborhood networks or temporary urban interventions. The local counterpart to CERA is the "Share an Idea" campaign, initiated by the city council with the aim to empower civic society to participate in the reconstruction process. About hundred-thousand ideas were collected during the campaign followed by a transcription process with the help of Danish architect Jan Gehl, to develop a sustainable comprehensive rebuilding strategy. Instead of institutionally supporting the emerging bottom-up movements and cherishing valuable ideas, CERA took over and created a blueprint for Christchurch Business District, in a singlehanded approach.

For this reason, the post-earthquake recovery process is characterized by opposing approaches which range from "[...] bottom-up dynamic [that] has aimed to rebuild individuals' lives and communities in a way that retains values from the past but looks ahead to an enhanced and more sustainable future" to "the top-down program [which] has focused upon using the reconstruction of buildings and physical infrastructure as an economic stimulus for the wider national economy" (Swaffield 2013, p.23).

#### Greening the post-earthquake city

Despite the restrictive recovery and rebuilding strategy, a vast amount of interim uses and temporary urbanism projects took advantage of the extensive vacant spaces in the aftermath of post-earthquake Christchurch. The desire to bring the city to new life resulted in artistic interventions ranging from graffiti and street art to transitional architecture.

While the first projects were spontaneous and unplanned reactions to the disaster, the need for organized bottom-up city regeneration resulted in several initiatives that facilitate temporary projects and communication processes between activists, landowners and authorities. Only four weeks after the earthquake in 2010, two groups called Gapfiller and Greening the Rubble were founded, with the purpose to create new artistic and cultural atmosphere in the cityscape and enhance biodiversity (Montgomery, 2012).





Figure 4. 'Palette Garden', 2015. Photo:

author

In 2014 the umbrella organization Edible Canterbury was formed partly as a result of the earthquake effects. The aim is to develop a more resilient food system, which is able to cope with the challenges of a post-disaster city and as well as future quakes and aftershocks. Furthermore, the sudden accessibility of a vast amount of fertile and vacant land within the city boundaries provides an opportunity to establish new ways of food growing in the urban environment. In 2015, the City Council signed up to an Edible Canterbury Charter and developed a Food Resilience Policy with corresponding action plan. One of their plans is to transform the Residental Red Zone in a large food growing park area with a central urban farm, which is surrounded by community gardens



ADRESSED BY HOSTED 2013 IN A DEDUCTIVE RESEARCH

Figure 5. 'Working Plan STSM, 2015. Source: author and orchards. For this reason, the existing fruit trees from the former backyards of the residents could be implemented in the masterplan (Edible Canterbury, 2016). This idea adopts the Garden City vision and reflects it in a post-disaster context with the aim to foster local food economy, increase overall quality of live and find new purpose for the abandoned areas.

New projects like the eat-the-red-zone initiative are highly needed in order to promote "the values of community gardening amongst the incredible upwelling of grass-roots responses to the earthquakes" (Peryman 2013, p.7).

#### Social capital and post-earthquake community gardens

Building upon social capital theory and its benefits in coping with natural disasters, a deductive research approach by Allen Hosted examined community gardens in post-earthquake Christchurch. The findings suggest that community gardens are one of many platforms that can activate and strengthen social capital. These effects differ depending on the course of the disaster and the different forms of social capital being involved. During the immediate response phase, in the first days after the earthquake, close ties among family members and friends were the most essential social networks providing information, comfort and hope. Community gardening does rather not influence these close personal relationships, characterized as bonding social capital. Throughout the ongoing recovery

phase, loose ties among close strangers and distant acquaintances became more important in order to turn back to normal and to organize collective action. Community gardens turned out to be information hubs as well as social meeting spots and furthermore, helped to establish sense of achievement, sense of place and sense of community amongst the participating individuals. In the further course of recovery, contacts between local neighborhood groups, authorities, NGOs and governmental representatives could be established through the existing garden networks, which is referred to as linking social capital (Hosted, 2013).



# Selected case studies

#### New Brighton Community Garden



*Figure 6. 'New Brighton Community Garden', 2015. Photo: author* 

Local people of New Brighton established New Brighton Community Garden in 2005. The initial motivation was to create a sustainable community initiated project. The first plots were individually organized, but soon a shared garden plot system took over. There are about 120 volunteers involved and one paid coordinator. The participating people have a diverse background ranging from teenagers who have to work of hours of community service to elderly people with a passion for gardening. The project has an extensive garden infrastructure including propagation areas, greenhouses, compost area, seedlings sale and a gardenhouse. New Brighton is a district of Christchurch, which is inhabited by lots of low-income families. Furthermore, large parts of this area have been hit very badly by the earthquakes and became Residental Red Zone, so the problem of displacement was very prominent. Therefore, 60% of the members come from New Brighton nowadays, but several people drive long distances from all over Christchurch to visit the garden on a regular basis and to keep in touch with their old neighborhood. Organized workshops on several topics are an essential element of the community work in the garden. The topics include basic gardening skills, sustainable living and natural health. This education aspect is very important for the local community. Over 70 people took part in a workshop of building compost toilets after the quakes destroyed sewage lines and buildings. The New Brighton Community Gardens Trust organizes monthly meetings to coordinate future activities and areas of operation.



Figure 7. 'New Brighton Community Garden', 2015. Photo: author





Figure 8. 'Agropolis', 2015. Photo: author.



Figure 9. 'Agropolis', 2015. Photo: author.

# Agropolis Urban Farm

The Agropolis project is a new approach to community gardening in a post-disaster context. An urban agriculture enthusiast and an architect initiated the project in 2013 during the Festival of Transitional Architecture. It is located on a post-earthquake site with the idea to integrate temporary urban greening solutions in the rebuilding process of Christchurch. Agropolis Urban Farm was developed as a legacy project, carrying on the vison of transitional architecture after the Festival in 2013. The farm was meant to be part of experiment on how different patterns of communal greening would emerge, develop and stabilize during the transitional state of Christchurch. The project was forced to relocate a while ago, as the old vacant site became unavailable. It is now located on Litchfield street in the Christchurch Business District and thus the most "urban" community garden in the city. One paid garden coordinator and a steering committee, which is responsible for decision-making, operate it. Because of the exposed location, the project is visited by many people and serves an information hub. Furthermore, it reflects the contrasting quality of temporary urbanism when businessmen meet urban gardens with rubber boots. The Agropolis project ceased to exist in early 2016, as the involved persons decided to pursue new paths in the future.

# Visual research method for the Short Term Scientific Mission

"Photographic methods seem particularly well suited to the understanding of place meaning and attachment. They offer something new, as communication of attachment and meaning via visual images is fundamentally different from that accomplished solely via text and/or numbers" (Briggs, Stedman & Krasny, 2014, p.114).

Previous publications on post-earthquake Christchurch indicated and described research fatigue amongst survey participants and further symptoms of over-research. For this reason, a new visual research method was developed for the mission, in order to further understand qualities like sense of place as well as to investigate important key elements in community gardens in Christchurch and to further characterize the emotional bonds. As existing methods lack the component of immediate feedback and direct accessibility of the pictures, instant cameras were given to the interview partners. People were asked to have a little walk and take pictures of the three most important elements in the community gardens. After the photos were taken and the development process of instant camera was finished, people were requested to write keywords down on the pictures including possible emotional associations.





Figure 10. 'Discussing Pictures', 2015. Photo: author

The method was used in combination with semi-structured interviews and helped to overcome research fatigue and facilitated transcultural communication.

#### Results

The pictures generated by application of the visual research method, were divided into categories. This selection process was based on the pictured physical elements. Additionally the (emotional) associations of the photographers and their comments during the development process have been linked to these pictures. This content analysis of the visual research method aims at presenting the most important garden elements of the interview partners and showing the spectrum of possible emotional experiences.

The socializing aspect and communal production of food appear to be among the most important factors for taking part in the garden projects. Collectively built features of community gardens like compost areas and allotments are also regarded as key elements. Collective learning by doing and gaining practical skills were also seen as essential quality of community gardening and represent interlinks between local communities and collectively build features.

It becomes obvious, that many physical elements embody emotional experiences or bonds and deeper symbolic meanings. The produce as fruits of the collective labor is associated with freshness and quality of life. A picture of allotments was associated to the process of empowering while other plots awake memories of former garden members and the development of the garden project. Surprisingly, the aesthetic dimension did not influence the individual attachment process. None of the garden members mentioned appearance or design as important element.

# Acknowledgement

This presentation is derived in part from the Short Scientific Report on the Short Term Scientific Mission. The full report includes further explanations and theoretical background information. Available online:

DOI: 10.13140/RG.2.1.3138.0561

www.urbanallotments.eu/fileadmin/uag/media/STSM/RSTSM/Post\_ Earthquake\_Community\_Gardens\_STSM\_final\_report.pdf



Figure 12. 'Results', 2015. Source: author





BRIGGS, L., STEDMAN, R. & KRASNY, M. (2014). Photo-elicitation methods in studies of children's sense of place. Children, Youth and Environments 24 (3): 154-172.

CANTERBURY COMMUNITY GARDEN ASSOCIATION (2015).

http://www.ccga.org.nz/

CHRISTCHURCH CITY COUNCIL (2003). Community gardens guidelines policy. http://www.ccc.govt.nz/assets/Documents/The-Council/Plans-Strategies-Policies-Bylaws/Policies/CommunityGarden-Policy.pdf

EDIBLE Canterbury (2016).

http://edible.org.nz/

HOSTED, A. (2013). Social Capital and Disaster Recovery: An Exploration into the Role of Community Gardens. Honours Dissertation in Environmental Management and Planning, Faculty of Environment, Society and Design. Lincoln University.

MONTGOMERY, R. (2012). Greening the Rubble in Christchurch: Civic Ecological Reclamation Efforts during a Crisis. Lincoln Planning Review 3 (2): 3–13.

Peryman, B. (2013). A discussion document on community gardening in the Greater Christchurch area. Prepared by Bailey Peryman for the Canterbury Community Gardens Association (Inc.)

SWAFFIELD, S. (2013). Place, Culture and Landscape after the Christchurch Earthquake. In Sykes H Space Place and Culture, Future Leaders Australia, pp.144-172

TROTMAN, R. & SPINOLA, C. (1994).Community Gardening: A Literature Review. 35pp plus appendix, September. Auckland: Alcohol & Public Health Research Unit. D101

WESENER, A. (2015). "Temporary urbanism and urban sustainability after a natural disaster: transitional community-initiated open spaces in Christchurch, New Zealand."JournalofUrbanism8(4):406-422.doi:10.1080/17549175.2015.1061040.





# **KIPOS3 PROJECT: A GARDEN FOR THESSALONIKI**

Eleftheria Gavriilidou, Architect, MLA Landscape Architect, Aristotle University of Thessaloniki, Greece Maria Ritou, Agriculturist, MLA Landscape Architect, Aristotle University of

#### Introduction

Thessaloniki, Greece

In front of the great socio-economic uncertainty the cities of the 21<sup>st</sup> century have to face up, the emergence of urban green commons (collectively managed green spaces) within the urban fabric responds to a contemporary need of urban resilience. As a form of "commons", the urban community gardens can be seen, except for productive landscapes and "foodscapes", as grounds of a new kind of urbanity, giving space to spontaneity, social coexistence, activism, bottom-up decision making and self-awareness around the role of the metropolis citizen. Approaching the urban community gardens as "commons" generates a hopeful correlation. The "Commons" can be everywhere, in the most degraded site of this world, in the most vague spaces of the cities of the 21<sup>st</sup> century defining that "no territory is hopeless", as part of the urban liveability and resilience goals (Barthel et. al., 2013, Dubbelling et. al., 2009). If urban resilience concept describes the capacity of a city to evolve within crisis, then a collectively managed landscape as a garden in the city, with its cultural, social, economic dimensions, consists a ground of resilience also (Gavriilidou, 2015).

These new emerging landscapes charge decision makers, planners and designers to work with and for communities. In this framework, especially landscape architecture, treating public space in parallel as an ecological, social and also perceptual entity, uses design tools to contribute in the cultural regeneration, social welfare, ecological renewal and economic empowerment (Corner, 1999, Schwartz, 2010). Thus, considering urban community gardens as parts of the urban landscape, as a kind of new "urban commons" we need to approach them as fields of deliberation among the involved actors as well as fields of design and architectural practice which can generate the formation of a space experience for the users and create identity, a sense of place and belonging.

With this approach, this presentation discusses the story of the creation of the first urban garden in the city center of Thessaloniki as a "common" landscape and an urban experiment. Mostly it discusses the story of an idea, a vision of transforming the last remnant spots within the city into "commons", into urban community gardens. It discusses the story of an academic project meeting reality, the evolution of a social commitment, the process of working with the Municipality of Thessaloniki for a new strategic goal to work with communities, the process of mapping the city and counting people's willingness to contribute in the transformation of their green, the process of reactivating one neighborhood creating a garden out of scratch, the process of keeping this garden alive after one year, investing on the team building. Finally, this presentation discusses a resilience story of Thessaloniki, how a tiny but enthusiastic initiative can create





Figure 1. Kipos3 garden view Photo: E. Gavriilidou



Figure 2. Lachanokipi context Photo: E. Gavriilidou



Figure 3. Lachanokipi context Photo: E. Gavriilidou

in contrast with the inaction of the past, a broader impact, how now, in deep recession, this city is a virgin ground again for innovation.

The story of Kipos3 is not special for the self-sufficiency it provides, nor for its capacity to fulfill the everyday food needs. It is on the point of focus about its success to bring citizens around a common nature, a co-owned landscape. It concentrates interest about its success to exist, to get established, to be communicated, to persuade municipality, assistants and citizens to work together. The story of Kipos3 is also special because it was conceived and designed as a garden, as the everyday neighborhood landscape, collectively cared and managed (Figure 1).

Could "commons" define a new era of urban prosperity? The change is spreading from scale to scale:

# Kipos3 story. From a vision to Thessaloniki's reality

#### The incentive.

# "Thessaloniki Red & Green Project": Urban gardening as a red & green infrastructure, as a matter of landscape planning & design.

A semester before Kipos3 vision be born, in the design studios of the Joint Postgraduate Program of Landscape Architecture (School of Architecture and School of Agriculture) at the Aristotle University of Thessaloniki, the concept of landscape design and planning around the urban gardening practice emerged as an efficient solution in times of crisis, when the expensive top-down masterplans cannot be supported by municipality's budgets. Then the role of landscape architects was reviewed in front of the challenge of working with existing ecological resources, community dynamics, creativity and design.

The studio used as a case study a degraded area in the west entrance of Thessaloniki, 130 acres of a postindustrial brownfield close to middle and low class housing (blocks of flats) and among infrastructure networks. The name ("Lachanokipi") derives from the 18th century, when the site was the first urban agriculture area in the peri-urban landscape (lachano=vegetables, kipos=garden) of Thessaloniki. Today, "Lachanikipi" is full of traces of the agricultural activity of the past, industrial remnants, and a huge and pressing building system of the city that spreads to this direction (Figures 2 & 3).

There, the idea of urban agriculture was introduced as a key factor in the design process, instead of promoting a residential outspread or an industrial reset. The investment on a new urban multifunctional "red" (community design) and "green" (landscape) infrastructure (Thessaloniki Red and Green project) was revealed as the challenging concept of the studio. In the design process, the first part was organized as a public accessible thematic park with research facilities around the food production and food products' management, while the second part was planned to restore and evoke the sense of community and products' exchange, as it was "given" to the residents as common landscape of vegetable gardens, orchards olive trees and wheat cultivation area. Combining the two parts, one given to the research and the other devoted to the production, could operate as a generator for socio-economic transformation towards a green economy (Gavriilidou, Kleinman et. al., 2016) (Figure 4).



Figure 4. Thessaloniki Red & Green project, "Agri Labor School" design proposal for a community managed landscape (E. Gavriilidou, D. Dedousi, E. Oureilidou, M. Ritou, 2013)

According to Professor Holm Kleinmann "the project aimed through design to investigate new solutions in urban and landscape planning. The basic assumption of the studio was the belief that UA can be a center for new energies, a source and initial point for social, economic, educational restart with impact to new forms of integration. "Green" represented interventions of green infrastructures, large scale parks or small individual gardens, fruit and vegetable markets, pavilions for leisure, communication and education, places for garden cafes, shadow – spending areas, orchards and olive groves. "Red" played a role model in relation with the social identity, the community living, the political statement. Students were called to start with an urban, architectural, landscape, a social and poetic analysis of the place, to pass from tradition to contemporary, recognizing new identities and current needs for a new typology of urban development, and of urban and landscape design" (Kleinmann, 2013).

#### **The Research**

#### From urban voids to urban green commons. Emerging landscapes in changing cities.

With the enthusiasm of this new urban green typology both as a bottom-up and topdown process, we started a research and case studies' review in order to record this concept's integration as a strategy in contemporary and historical urban contexts. Overleaped by the need of food security, on the occasion of economic crises, as a response to urban densification and as a reaction to the missing or residual urban green, this new type of common ground appears in urban cores worldwide (Figure 5).

More than the characteristic images from Cuba in economic stress of '80s, the vision of self-sufficiency is transferred as a kind of heterotopia in the center of Manhattan in this prophetical collaz of Agnes Denes for Manhattan in 1982 (Figures 6 & 7).



Figure 5. Montpellier, Les délaissés en resaûx, COLOCO, 2009, Miguel Georgieff, Fabien David www.coloco.org/300510/3804330/galerie/les-dlaisss-en-rseau



Figure 6. Havana 1980 (Viljoen, A., Bohn, K., Howe, J. (eds), Continuous Productive Urban Landscapes: Designing Urban Agriculture for Sus-tainable Cities, Architectural Press, Oxford.



Figure 7. Manhattan, Wheatfield, Agnes Denes 1982 (http://www.agnesdenesstudio.com/)





Figure 8. Manhattan, Agnes Denes vision at the Battery Park, 2014 Tortello M., 2014, Are They Nuts?. NY Times. 28/5/2014 (photo by E. Andrews) (http://www.nytimes.com/2014/05/29/ garden/are-they-nuts.html?\_r=0)



Fig. 9. Gezi park, Istanbul, 2015 (McQuirk, 2015. Urban commons have radical potential – it's not just about community gardens, The Guardian, 15/6/2016) (http://www.theguardian. com/cities/2015/jun/15/urban-commonradical-community-gardens)

These landscapes emerged earlier on the occasions of great urban crises, as in the period of I and after II World War in London to New York City (victory gardens). They also accompanied every great utopian vision, in the garden city movement till the vision of self-sufficiency in China's communism movement. The emphasis lies either on the self-sufficiency or on the aesthetical form of the garden in the city, till 70s, when a handful of sunflowers seeds from the activist Liz Christy transformed a residual site of a neighborhood in NY into an alive community garden setting the beginning of guerillas movement. That was probably a milestone for the "urban garden" as "community garden" as decision for social coexistence.

Nowadays, examples are detected in every city as part of the cities' strategic goals. There, the community's engagement, the activism lies above the volunteerism. The idea that the residents can improve the surroundings of their neighborhood, they can act to form a livable community brings a new layer in urban planning and design know-how. A plasmatic idea of democracy or not, the new emerging landscapes create a ground for self organization, demand and formation of everyday life landscape, with interesting cultural and political dimensions (Arnstein, 1969). Posing food as the incentive, they reveal the community power, restoring a motivation for the engagement with the public space, offering in parallel new aesthetical and spatial qualities in the city; colors, flavors, interesting textures and natures, an interesting space of dialogue around ecology, food production, work with the land, a collective memory and knowledge (Barthel, et. al., 2013) (Figure 8).

The ephemeral landscapes of the "commons" change continuously season to season. They are organized in bags (Prinzessingarten, Berlin), in roofs (NYC), or in every vacant lot within the city, for recreation, as a strategy or policy for urban transformation or as grounds of art, political manifestation, social or cultural practice (Svendsen, 2013). Above all, they consists new urban landscapes subject to design as multifunctional infrastructures. In each case, the "commons" open a discussion around the sustainable city, the ideal city, the experience of public space, the quality of open space, and mainly the role of the 21st century citizen - instead of resident -, and its active role on the formation of the urban environment (Bohn & Viljoen, 2005) (Figure 9).

In Greece, we have a lack of urban policies and strategy on this issue and a lack of trust that these landscapes could operate as fields of synergies between authorities and communities. Thus, we meet either totally top-down examples like the Aristotle University's allotments out of Thessaloniki and the allotments of several Municipalities in Greek cities, or totally bottom-up, like Per.Ka's gardens in a former military campus in the west Thessaloniki. Either in the first case or in the second, design is totally not involved in the process, while by nature they consist landscape interventions. The allotments in both cases are considered as a resource for self-sufficiency and social policy, thus in Greece, we don't have "commons" as landscape design projects (Gavriilidou, 2015).



# KIPOS3 Project 2014-2016 The opportunity, the commitment and...the miracle!

The project KIPOS3 came to fulfill this defect: a platform guiding the reactivation of vacant lots within the Greek city, starting from the city of Thessaloniki, a module that could appear everywhere, in spots of the dense urban environment, in roofs and yards, everywhere within the city, accessible by feet, under every housing. In the Greek city of 2,5 sm of green, much lower than European standards, where the 70% of this green remains in same form for decades without urban regeneration projects, the idea of collaboration among municipalities, groups of residents and designers in order to reactivate their green could be the Greek way to "Commons". That was the idea of Kipos3 project referring in Greek as "garden in the cube": the "garden", as the archetype of the designed nature as a common meeting ground with aesthetical, productive, educational, cultural dimensions, the "garden" as the module for the transformation of unformed spaces and urban voids into spots for common gardening and alive community activities driving a broader impact on city's everyday life. It aims to fill, reshape and determine the leftover sites, to bring life and identity instead of vagueness, to bring the idea of the "citizen" upper the "individual". It shows how the authorities are required to guide citizens' action and how citizens should take initiatives, becoming more active in relation with their neighborhood. The proposed spots aim to operate as a green but mainly "red" infrastructure with ecological and social value, exactly as "Thessaloniki Red and Green project" promoted.

The idea was awarded for its social impact by the Angelopoulos Clinton Global Initiative Fellowships Program in 2014. Kipos3 travelled in Arizona in to elaborate through the Clinton Global Initiative University Network and returned in Thessaloniki in order to get implemented. Then the "battle" with the staus quo began as we had to persuade the Municipality to work with communities and communities to work with their public space.

In the first phase, we had to select the space to intervene. In collaboration with the Municipality of Thessaloniki we mapped several sites within the city center, some of them belonging to the Municipality, some of them where private (most of them were parking areas so profitable so we could not have access), and some of them, were belonging to the Church, Orthodox or Catholic, but it was rather difficult to be provided (Figure 10). Moreover, the idea to engage restaurants in the formation of the first garden was proved visionary as the feedback we had at the beginning could not combine the private company's profitable cultivation with the needs of a neighborhood for self-sufficiency and co-existence. Private companies were rather willing to exempt communities from the process.

So, deciding not to get disoriented from the goals of Kipos3, in the second phase a neighborhood campaign began, hanging up posters in 6 neighborhoods of Thessaloniki and counting down people's reactions and votes in front of the scenario to collaborate in order to transform their neighborhood. 6/6 neighborhoods responded positively. The only neighborhood that was negative was that one



Figure 10. Thessaloniki, mapping remnant lots (E. Gavriilidou, E. Oureilidou, M. Ritou, 2014)



near the Municipality's vineyard (Figure 11). As they were not engaged from the beginning in the concept of the collective management of an edible landscape they found the idea not useful, and rather away from their needs for a public park of a playground area. We had to take a decision. Either we would do it or we had to leave the project and our enthusiasm also. So we decided to dare and make the

experiment. 300 m2 with 15 raised beds, one common toolcase ,water provided

by Municipality, and a common bed for herbs and aromatics.

Here the longest phase started, that of working with communities (Figure 12). In a neighborhood alerted only when the first planting pots were set up, the remnant green is managed today, after hard work of coordination and team-building, by 12 neighbors - previously not knowing each other. It operates, after one year with the same people, much more enthusiastic than in the beginning as a social space, a park, the evening walk, a "foodscape", a hobby, a meeting point, the everyday coffee hour, a landmark for the city, even an "encyclopedia" of a different nature in the urban environment (Figures 13-15).



Figure 11. Voting Posters – Neighborhoods Campaigns. "Vote to see your neighborhood change – cut your vote and we count" Photo: E. Gavriilidou, 2014



Figure 12. May Day poster for neighborhood meeting (photo: E. Gavriilidou, 2015)



Figure 13. The garden (photo: E. Gavriilidou, 2015)



*Figure 14. The garden (photo: G. Karatakis, archive E. Gavrilidou, 2015)* 



Figure 15. The garden (photo: E. Gavrilidou, 2015)



# Conclusions

#### Kipos3 towards Thessaloniki's resilience challenge

Kipos3 is more than a garden, a symbolic initiative, an incentive to move the discussion about the cityand the public space in the neighborhood's level, to cultivate an aesthetical culture also, in the small scale of the everyday landscape. The story of Kipos3 garden consists finally a useful lesson on the reactivation of institutions and communities, a resilience lesson in crisis, a discussion on the top-down and bottom-up blending, and a didactic instrument on the trip of an academic project towards reality. The "food" in the case of KIPOS3, at the minimum scale of urban intervention, was used as the "carrot" to bring change, as the new, hopeful, unusual in the Thessaloniki's reality, idea, powerful to activate a discussion into the Municipality's offices and also in the city's streets, appealing more than 3 other neighborhoods, schools, even other Municipalities. For the landscape architecture students, it became a new field of study, the minimum turning point, the very first "taste" of an upcoming "landscape of change".

Kipos3 aims to get extended and create impact in the broader area of that first neighborhood, incorporating the public vineyard, an orchard, a seating area and a playground in an inclusive design project, as a strategic scenario for the green in the city of Thessaloniki. It has accepted proposals for implementation in 3 other neighborhoods and other municipalities in Greece. It concentrates research interest as a an initiative that was born from scratch, while recently reaches school gardens in the framework or environmental education programs.

#### References

1. Arnstein, S.,1969. A Ladder of Citizen Participation. Journal of the American Institute of Planners. In LeGates, T.R. & Stout, F. (eds), The City Reader (1st ed. 1996), Routledge, Bristol.

2. Barthel, S., Parker, J., Ernstson, H., 2013. Food and Green Space in Cities: A Resilience Lens on Gardens and Urban Environmental Movements. Urban Studies 2013, URL: http://dx.doi:10.1177/0042098012472744.

3. Bohn, K. & Viljoen, A., 2005. More space with Less space: An urban design strategy. In Viljoen, A., Bohn, K., Howe, J. (eds), Continuous Productive Urban Landscapes: Designing Urban Agriculture for Sus-tainable Cities, Architectural Press, Oxford.

4. Corner, J., 1999. Recovering Landscape as a Critical Cultural Practice. In Corner, J. (ed), Recovering Landscape: Essays in Contemporary Landscape Architecture, Princeton Architectural Press, New York

5. Dubbeling, M., Cambell, M. C., Hoekstram, F., van Veenhuizen, R., 2009. Editorial: Building Resilient Cities. In Urban Agriculture Magazine, issue 22, June 2009, pp. 3.

6. Gavriilidou, E. 2015. Urban Resilience: Crisis as a Challenge for Urban Landscape Architecture. An insight on the contribution of landscape architecture in designating evolutionary resilient cities. Dissertation Thesis, supervisors: Tsalikidis, I.A. &



Papakostas, G. Joint Postgraduate Program Landscape Architecture, School of Architecture – School of Agriculture, Aristotle University of Thessaloniki, Greece (in Greek).

7. Gavriilidou E., 2015. The urban landscape as a lever for democracy. Incentives for re-envisioning the landscape in times of crisis. The case of Thessaloniki, Greece. In Defining Landscape Democracy Conference Proceedings, Centre for Landscape Democracy (CLaD), Norwegian University of Life Sciences, Oscarsborg, Oslo, Norway, 3-6 June 2015.

8. Gavriilidou E., Kleinmann H., Oureilidou E., Zafeiropoulos G.Z., 2016. Urban Agriculture in Thessaloniki. An Academic Project meets reality. In Ri-Vista Journal (Richerche per la progettazione del paessaggio), issue "Foodscape" 2015 (2), pg. 60-85, ISSN: 1724-6768. Available online at <URL: http://www.fupress.net/index.php/ri-vista/article/view/17588 >.

9. Gavriilidou, E., Oureilidou, E., 2014. City as a resource. Urban Agriculture in Thessaloniki. Proceedings, International Conference Urban Regions under Change: Towards Socio-Ecological resilience, Hafen City University, 26-27 May 2014, Hamburg, Germany.

10. Kleinmann, H. 2013, The Thessaloniki project – Red and Green, Syllabus and program of the Project, Joint Postgraduate Program Landscape Architecture, Aristotle University of Thessaloniki, pp.1-2,6.

11. Schwartz, M. 2010. Ecological Urbanism and the Landscape. In Mohsen Mostafavi (ed.), 2010, Ecological Urbanism, Baden.

12. Svendsen, E., 2013. Storyline and Urban Design: How Civic Stewardship Shapes Urban Design in New York City. In Pickett, S.T.A., Cadenasso, M.L., McGrath, B. (eds), Resilience in Ecology and Urban Design. Linking Theory and Practice for Sustainable Cities, Springer, New York.









# WG 1 POLICY AND URBAN DEVELOPMENT SUMMARY REPORT

Chairs: Nazila Keshavarz, Matthias Drilling

#### Participants

- Nazila Keshavarz, ILS Research Institute for Regional and Urban Development, Aachen, Germany
- Maik Netzband, Ruhr-University, Bochum, Germany
- Martin Sondermann, Leibniz University Hannover, Germany
- Theodosia Anthopoulou, Panteion University, Athens, Greece
- Alisa Korolova, Riga Technical University, Latvia
- Kristine Abolina, University of Latvia, Riga, Latvia
- Malou Weirich, Office International du Coin de Terre et des Jardins Familiaux, Luxemburg
- Werner Hermann Heidemann, Office International du Coin de Terre et es Jardins Familiaux, Luxemburg
- Ans Hobbelink, AVVN, Netherlands
- Giorgia Silvestri, Dutch Research Institute for Transitions, Erasmus University, Rotterdam, Netherlands
- Lidia Ponizy, Adam Mickiewicz University Poznan, Poland
- Renata Giedych, Warsaw University of Life Sciences, Poland
- Nerea Morán Alonso, Technical University of Madrid, Spain
- Simone Tappert, University of Applied Sciences and Arts, Basel, Switzerland
- Matthias Drilling, University of Applied Sciences & Arts, North-western Switzerland
- Tanja Kloeti, University of Applied Sciences and Arts, Basel, Switzerland









# Agenda

Friday, March 18, 9.00 – 11.30

- Welcome and overview; final agenda setting
- Status report by the participants of WG1: What is new? What happened meanwhile?
- Presentation 1: Problem Solving Through Urban Gardening Initiatives A Systems Thinking Approach, Nazila Keshavarz
- Presentation 2: Urban Gardening and the Culture of Cooperation -Interactions within Shared Systems of Meaning, Martin Sondermann
- Round up (what lessons learned)

#### **Issues Discussed**

As part of the agenda, two presentations were delivered each was followed by a Q/A discussion on the contents of the presentations. One topic of discussion was embedding urban gardening and urban agriculture as a problem-solving tool into policy making and city planning agendas. One example that was discussed was iceberg<sup>1</sup> concept as a systems thinking model and how planning issues related to urban gardening can be viewed in the same way.

Then participants shared their thoughts on WG1 activities and achievements such as on-going factsheets development, the Action's book chapters and other achieved milestones during four years from the inception of the Action. The session as it was planned, was short and productive.



<sup>1</sup>As a fact, an iceberg has only 10 percent of its total mass above the water which is the tip of the iceberg while 90 percent is underwater. But that 90 percent is what the ocean currents act on, and what creates the iceberg's behaviour at its tip. www.nwei.org/resources/iceberg/





# WG 2 SOCIOLOGY SUMMARY REPORT

#### Present Chair: Susan Noori

#### Participants

- Tarmo Pikner, Centre for Landscape and Culture, Estonia
- Krista Willman, University of Tampere, Finland
- Jeanne Pourias, AgroParisTech INRA, France
- Maria Partalidou, Aristotle University of Thessaloniki, Greece
- Beata Gawryszewska, Warsaw University of Life Sciences, Poland
  - Barbora Cakovska, Slovak Agricultural University in Nitra, Slovakia
- Tim Delshammar, Swedish University of Agricultural Sciences, Sweden
- Basak Tanulku, Independent researcher, Istanbul, Turkey
- Susan Noori, Birmingham City University, UK

#### Agenda

.

#### Friday 18 March 9.00 – 11.30

- Action points from last meeting
- World Café comments on fact sheets
- Developing combined overview of WG's activity and output
- Actions to be agreed for future collaboration

#### Discussions

The meeting commenced with welcome by the present chair and a review of the agenda for the working group's activity in Thessaloniki. The session was split into two parts. In the first part comments on two factsheets of WG2 that had received during the World Café session were discussed. These were: FS 04 - What motivates gardeners: advice for practitioners and FS 05 - How to make your garden your own place? Authors of the fact sheets and other participants split into groups and each group addressed the comments by discussing them one by one and how to accept/reject/integrate them into the factsheets. Authors will finalise the fact sheets later in their home countries and latest drafts will be sent to reviewers by the end of April 2016.

Agenda for the second part was to discuss about activities and output of the WG2 in the last 4 years during the course of the Action. These were including book chapters, factsheets, presentations, scientific missions, individual research projects, stories and lessons leaned, and future plans and collaborations. The basic question for all is how we looked at urban garden within the framework of the Action and our own individual approach from a sociological point of view. The aim is to gather an overview of the outputs and how to present the overview at the end of the Action in the Growing in Cities meeting and final conference in Basel in September 2016. Participants discussed different suggestions about the content, as well as its presentation. Guidelines will be circulated among WG2 members accordingly.



The final point of discussion was surrounding WG2's visual document, which still has not been processed completely. Krista Willman has created a dropbox folder and some members have sent photos and captions. Everyone agreed to upload their visual materials in order to get it together and up on the COST website before Basel conference. One other suggestion was to create an online visual magazine using the ISSUU Inc. free platform.











Chairs: Andrzej Mizgajski, Annette Voigt

#### Participants

- Monika Latkowska, Warsaw University, Austria
- Annette Voigt, AA University, Klagenfurt, Austria
- Mart Kulvik, Estonian University of Life Sciences, Estonia
- Ari Jokinen, University of Tampere, Finland
- Béatrice Bechet, French Institute of Science & Technology for TDN, Paris, France
- Avigail Heller, Ministry of Agriculture and Rural Development, Hifa, Israel
- Francesca Bretzel, National Research Council Institute for Ecosystem Study, Pisa, Italy
- Francesco Orsini, Dept. Agricultural Scienes, University of Bologna, Italy
- Guiseppina Pennisi, University of Bologna, Italy
- Ligita Baležentiene, Aleksandras Stulginskis University, Lithuania
- Andrzej Mizgajski, Adam Mickiewicz University, Poznan, Poland
- Paulo Filipe Brito da Luz, INIAV, Portugal
- Teresa Leitão, National Laboratory for Civil Engineering (LNEC), Lisbon, Portugal

# Agenda

- Welcome and short introduction
- Summary of the essentials of the WG3 meeting in Birmingham
- Information about Core Group activities
- Adoption of the agenda
- Individual presentations
  - Mark Kulvik: allotment Gardens and gardeners: some ecological features in Estonia
  - Ari Jokinen: urban commons: how it related to the biodiversity maintenance through urban gardening







- Factsheets perspectives to finalize the issue
- How to grow healthy food, Fransico Orsini, et al
- How to enhance biodiversity in urban allotment gardens? Ari Jokinen et al
- How to select and appropriate location from an environmental perspective, Beatrice Bechet et al
- How to improve ecosystem services by creating UAGs Avigail Heller, Paulo Brito da Luz
- How to improve water management in UAGs, Paulo Brito da Luz, Avigail Heller
- News, ideas, initiatives regarding publications, research projects, future collaborations
- Preparations for the last meeting in Basal
- Final remarks







# WG 4 URBAN DESIGN SUMMARY REPORT

Chairs: Silvio Caputo, Sandra Costa

#### Participants

- Eva Schwab, Institute of Landscape Architecture, BOKU, Viena, Austria
- Runrid Fox-Kämper, ILS Research Institute for Regional and Urban Development, Aachen, Germany
- Daniel Münderlein, University of Kassel, Germany
- Dimitra Theochari, National Technical University of Athens, Greece
- Eleftheria Gavriilidou, University of Thessaloniki, Greece
- Kostas Tsiambaos, National Technical University of Athens, Greece
- Maria Ritou, Aristotle University of Thessaloniki, Greece
- Jasminka Rizovska, UKiM, Faculty of Forestry, Skopje, Macedonia
- Corinna Susanne Clewing, Norwegian University of Life Sciences, Oslo, Norway
- Frederico M. A. Rodrigues, University of Trás-os-Montes, Alto Douro, Portugal
- Andrej Erjavec, IN.KA.BI BI., Ljubljana, Slovenia
- Ina Šuklje Erjavec, Urban Planning Institute of the Republic of Slovenia, Ljubljana, Slovenia
- Cristian Suau, University of Strathclyde, Glasgow, UK
- Russel Good, Birmingham City University, Birmingham, UK
- Sandra Costa Baptista, Birmingham City University, Birmingham, UK
- Silvio Caputo, University of Portsmouth, UK

#### Agenda

- Feedback on WP4 factsheets
- Future strands for research (after these four years together, can we identify the future research agenda on urban allotments?)
- Future collaborations amongst WG4 members (projects, research proposals and so on)





#### **Issues discussed**

This work group session was particularly short due to the dense programme of the event. Three items were discussed. What follows is a summary of the participants' interventions for each item.

**ITEM 1.** Discussion on Factsheets – suggestions for improvements.

There have been other proposals for new factsheets that could cover some of the issues discussed in the course of the past WG4 sessions. In particular, Dimitra has promised to complete two factsheets. Cristian has proposed to write a factsheet on one of his projects. However, it was pointed out, factsheets are not supposed to focus on single projects, rather on broader issues. It has been suggested that this last factsheet could be centred, for example, on designing community gardens with limited resources and recycled material, which is one of the predominant characteristics of Cristian's projects.

Runrid launched the request to volunteer for the translation of factsheets in different languages, making it clear that those who commit, ideally should translate the entire set of worksheets (rather than only a few).

The possibility to merge two factsheets because of their many overlaps was deliberated (i.e FS 11 and 14).

Kostas posed the problem of the language and the style of writing, stressing the point that language should be calibrated to the audience. One of the comments in response to Kostas' remark was that factsheets are going to be available on the official website of this Action and that will be up to the visitors of the website to decide which factsheet is more relevant and appropriate to their interest.







general WORD Cafe conquier

Use a journalistic approach try to aticss a reater that is NOT locking for a PROBLEM (academic like problems, others don't).

Scontrue + 2020 to seal roum Cot ovasie of space for infactor naw Nonce / (letter to the spear for picture)

Urban gordens all Ament gardens Jonnetimes insoan agriculture -> standards + a manual are the ament OLEARLY STATING THE CHALLINGES /QUESTIONS RIGHT FROM THE BELINING:

Don't use bullet points to convey the message Bullets are use Rul to sum up the message.

Make sure that it is explicit who the subience of the different see paragrophy are supposed to be

> - questions: con't the private be address one specific and on a ? (so poly mutros?) Diet it have to deciver methods to you'area, praditions policy mutros

FACTSHEET X HOW TO MAINTAIN THE ENGAGEMENT OF THE PEOPLE OVER TIME? (WAS IN DROPBOX, WILL BE RENEWED) BY REISTINE A: **ITEM 2.** Research strands that have emerged in the course of the WG4 sessions – Definition of the forthcoming research agenda.

Cristian mentioned that projects like Todmorden (which was presented in Birmingham) are a clear indication of a new direction for food growing practices that can augment the involvement of citizens' groups.

Ina proposed to pay more attention to the involvement of industry in any future research project. She also believes that in spite of the importance of bottom-up initiatives to urban agriculture, forms of regulation should be established that could coordinate and integrate such initiatives within urban development.

Runrid mentioned the importance of researching approaches to the institutionalisation of new trends for informal community gardens. Eva agreed on this, stressing that this research strand could be highly relevant to the urban design debate generally.

ITEM 3. Discussion on possible future collaborations on joint projects.

This third discussion was, in effect, a continuation of that outlined above. Health in relationship to urban gardening was identified as one of the most interesting topic around which research proposals can be developed.

Ina mentioned that in Ljubljana, the Health Department is very interested to the benefits that urban gardening can bring, as well as its potential to augment the quality of places.

Eva remarked that, in this regard, the scale of intervention is critical to the impact on the quality of place.

Cristian proposed that a possible new research project could focus on the reasons why allotments are not as popular as they could be. In other words: what are the factors that hinder interest in urban gardening?

Rewilding and allotments was suggested as a research strand by Silvio, building on the thesis promoted by Monbiot in his latest book (Feral). In particular, are allotments (as opposed to unmanaged green areas) preventing a wider range of biodiversity to thrive in cities? And is this detrimental to an optimal functioning of urban ecology? How can the need of enhanced urban biodiversity be reconciled with productivity? Ina, however, warned that there is evidence that allergies increase with low maintenance of green areas.

The session was closed because of lack of time but the discussion continued informally.


"The case of the Regional Unity of Thessaloniki, Greece"

## Vasiliki Giatsidou, MSc Agronomist, Aristotle University of Thessaloniki vgiatsid@agro.auth.gr









### FIELD TRIP

Saturday, March, 19 (09:00 – 12:00)

Thessaloniki field trip was arranged to visit three urban gardens (see below location maps):

- 1. KIPOS<sup>3</sup> community garden
- 2. The first Urban Vineyard in Greece
- 3. University Allotment Garden

The site maps show the locations of the gardens and indicate how unevenly they are distributed across the city.



KIPOS<sup>3</sup> Community Garden & Urban Vineyard



University Allotment Garden



Location of three visited gardens in Thessaloniki



## **KIPOS<sup>3</sup> COMMUNITY GARDEN**

The project "KIPOS3 – City as a resource" is a proposal for a network of urban community gardens in the dense urban grid of Thessaloniki. The name "Kipos" refers to the Greek word for the "garden" a common meeting ground. "Kipos in cube" (Kipos3) becomes the module. The proposed spots aim to operate as a green but mainly "red" infrastructure with ecological and social value. Kipos3 initiative, considering in particular the crisis situation in Greece, approaches the concept of urban gardening as an innovative planning tool. The integration of the both top-down and bottom-up forces, permanent and temporal elements, the resident's management and the Municipality's stewardship was in the core of the project. This approach could provide a low-cost strategy for Municipality's budgets and new "events" in the urban life. The idea was awarded and supported by the Angelopoulos -Clinton GIU Fellowships in 2014 and the first experimental garden was created in March of 2015 after a long way of dissemination activities, mapping the city's vacant lots and discussions door-to-door with landowners and potential users. The story of Kipos3 garden consists a useful lesson on the reactivation of institutions and communities, a resilience lesson in crisis, a discussion on the top-down and bottom-up blending, and a didactic instrument on the trip of an academic project towards reality.



Photos of field trip by Nazila Keshavarz



#### THE FIRST GREEK URBAN VINEYARD

It was established in April 2013 on a municipal-owned land of 2000 sqm on a disused municipal garage. The expenses of running the vineyard is covered by the mayor of Thessaloniki Mr Evangelos Gerovassiliou who is the owner of the Ktima's winery and vineyard of Gerovassiliou Estate in Epanomi, Thessaloniki. The management of the vineyard was assigned to the Laboratory of Viticulture of the School of Agriculture at Aristotle University. The soil was prepared by tillage during winter 2013 and vineyard was planted on March 25, 2015 by a collaboration of municipality employees, workers of Gerovassileiou Estate and staff of the Laboratory of Viticulture of the School of Agriculture of the School of Agriculture. Four indigenous winegrape varieties including Malagouzia and Robola (white) and Agiorgitiko and Xinomavro (red), were cultivated on a quarter of the land (120 plants each).

The vineyard is managed by the municipality in collaboration with students of the School of Agriculture and volunteers that helped to clean up the place at the initial stage. The vineyard has an educational purpose open to schools, citizens and tourists. A first crop was harvested by citizens in 2014 and a more substantial one in 2015. Grapes were transferred to Gerovassiliou Estate in Epanomi were vinification took place. The first bottles will be released this year. The wine produced could be auctioned for community purposes, following the example of Paris where an urban vineyard already exists, or may be sold at social groceries. The municipality had an open call for citizens to suggest a name for the wine by online voting.





Photos of field trip by Nazila Keshavarz



# ORGANIC URBAN ALLOTMENT GARDENS AT THE SCHOOL OF AGRICULTURE OF AUTH

It is explained in full details by Professor Dimitrios Kovaios in his welcome address (see page xx). The allotment gardens of Aristotle University of Thessaloniki which are located in the Campus Farm of the School of Agriculture in the eastern outskirt of the city are considered a very successful initiative since 2012.









