

Agronomical and collective knowledge: comparative analysis of two urban gardens in Greece

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Abstract

Urban gardens in Greece are not only about food and coping with economic hardship. Gardeners gain also a sense of accomplishment and belonging within a community created. This paper goes on a step further to research the intangible benefits of urban gardens and especially the creation and diffusion of agronomical and collective knowledge. A grassroots community garden and a municipal allotment garden in the city of Thessaloniki in Greece were researched. We used participant observation from January 2015 to February 2016 and a structured questionnaire to 131 gardeners. The conceptual framework of Communities of Practice (Bendt *et al.* 2013) was useful in explaining the collective and learning dimensions in the gardens. According to our results, in the first garden people share the management of the commons and develop collective skills apart from agronomical ones. It is in this garden that CoP are created based on shared identity, commitment and common practices on solving problems. The challenge now lies on the cohesion of the community between old and new members and the level of their involvement in managing the commons. In the second garden, embedded in the public strategy to tackle poverty, no CoP was established. Gardeners depend on the agronomical support provided by the municipality and learning is done individually referring only to agronomical knowledge. They see the garden as their personal shelter amidst the crisis and a means to have access to fresh-affordable food. The critical issue is the role of the municipality and the goals they will set for the garden in the future. What can be derived from both cases is that urban gardens in Greece have manifold benefits and may also serve as a tool for agronomical and collective learning but only in the case that communities embedded in trust and reciprocity are created.

Key words: Communities of Practice (CoP), collective learning, Greece, knowledge.

1. Introduction and theoretical background

Urban gardens in Greece are developing since 2009 either as bottom-up civic initiatives claiming public space, or as top down public policy action to tackle economic deprivation through food provisioning. There are a handful of gardens within the guerilla gardening paradigm (Moran 2014) but the prevailing type of urban gardens is that of a municipal allotment garden in which vulnerable groups of urban dwellers (especially unemployed) grow their own vegetables on public land under the supervision and support of public servants, agronomists and social workers. Nevertheless, urban gardening in Greece is not only about food and coping with economic hardship; as one might expect especially considering the current economic crisis. Recent research (Partalidou & Anthopoulou 2016) argues that gardeners gain apart from economical benefits, a sense of self-respect, accomplishment, educational benefits and a sense of belonging within a community created. In fact, within the gardens multiple places are created amongst which places of community and knowledge seem quite important.

Sharing information about growing methods, putting them into practice through the physical activity of working in the garden during the season, and taking communal responsibility for

the care and use of common tools and public area are three ways community gardening structures the social acquisition of natural human capital among community members (Macias 2008). In regards to agronomical knowledge Voigt and Leitão (2016) note for the case of Berne in Switzerland that people often grow up without learning any basic gardening skills and would benefit greatly from expert gardening knowledge and gardening educational courses tailored to their interests and level of expertise. Towards this direction Mars and Ball (2016) also note that adults develop a level of agricultural literacy through informal knowledge exchanges that occur in settings such as community gardens, community supported agriculture etc. In Greece people still have strong links with the rural, either by having a small piece of land in their village of origin or by having someone in the extended family involved in agriculture (Anthopoulou *et al.* 2013). Therefore, the level of expertise in gardening skills amongst urban dwellers is quite common. However, little empirical evidence exists that confirms this argument especially when it comes to contemporary urban gardens and dwellers. Additionally one of our research questions, apart from the profile of the urban gardener (especially in terms of demographics and motives), was if gardeners have access to agronomical knowledge and how is this knowledge diffused. Another critical question posed by this research was if collective skills are developed as an outcome of social interaction and whether collective learning takes place in the gardens.

To answer our aforementioned questions we followed the conceptual framework of Communities of Practice (Bendt *et al.* 2013) as a suitable concept to examine the exchange of ideas, knowledge and needs, enhancing cooperation and innovation between the members of a community. According to Bailey (2014) Communities of Practice are “groups of people who share a concern, a set of problems, or a passion about a topic, and who deepen their knowledge and expertise in this area by interacting on an ongoing basis”. Looking into urban agriculture from this theoretical concept we hope to gain insight on the sustainability of the gardens in Greece and see why some gardens thrive and some others don't. Our hypothesis is that urban gardens act as CoP within which knowledge is created and diffused, both agronomical and collective one. In other words the aim of this paper is to highlight the implications of the interactions and diffusion of knowledge, the building of social capital and the cohesion of the community through a comparative analysis of two urban gardens in our case study.

2. Methodology

The first step was to collect data on all urban gardens in the region of Thessaloniki; an urban centre in the northern parts of the city with a total of 790.824 inhabitants (2011). Through web search and personal contacts with all municipal offices and other local organizations we elaborated on a map of all the gardens in the region presenting basic figures (year of establishment, location, number of gardeners, type of garden etc). As we can see (Fig. 1) there are ten gardens in the city with different profiles and motivations out of which we selected two case studies: one is representing a public initiative (top down) and the second one is representing a civic initiative (bottom-up) of urban gardening. The main characteristics of the two case study gardens are presented in Table 1.

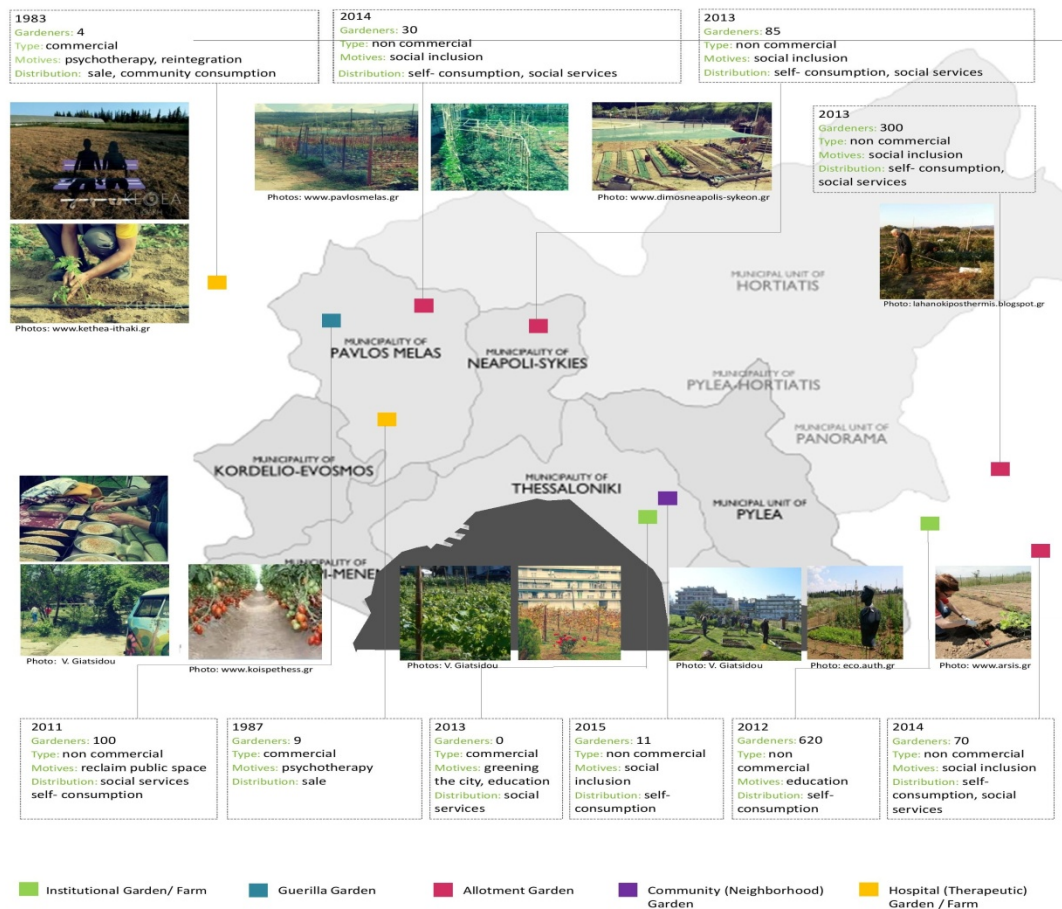


Figure 1: Urban gardening initiatives in the Region of Thessaloniki, Greece which formed the basis of the case studies selection.

Table 1: Description of the two case studies

	Municipal garden	Community garden
Year of establishment	2013	2011
Number of Gardeners	85	100
Total area	0.5 ha	1 ha
Strategy /aim	Tackle poverty and enhance social inclusion of vulnerable groups	Claim the right to fresh, affordable food and reclaim public space
Configuration of space	3 different parcels 2 or 5 Km far away from each other	7 different smaller parcels where the most distant ones are up to 200 m
Ownership of the land	Municipal	An abandoned military encampment (Public – State)
Distribution of food produce	Self- consumption and voluntary contribution to the social grocery	

Using on site participant observation from January 2015 to February 2016, in depth interviews with key-stakeholders and a well-structured questionnaire to 131 gardeners we collected data from both gardens in order to elaborate on motives for engaging in the garden, personal characteristics of gardeners but above all to answer to our basic research questions that remain unanswered for the Greek case: How do gardeners choose what to grow, where do they find the seeds, how much time they spend in the garden, what tools do they use, do they feel in need of technical support, how do they learn how to grow, what technical or other collective problems do they face and how do they solve them? Do they have social contacts with co-gardeners in and outside the garden? Hence the main objective of the research was to shed light to the creation and diffusion of agronomical and collective knowledge.

Basic statistical descriptive analysis (SPSS version 22) was used for the profiling and motivations of the gardeners whereas personal notes from the observation were recorded, transcribed and analyzed using discourse analysis and a grounded theory approach (Farges 2015).

3. Results

3.1 Profile and motivations of gardeners

The results of the frequency analysis of the quantitative data obtained from the 131 questionnaires from the two gardens are summarized in Table 2. The majority is married male gardeners in their early 50ies and 28% hold a University degree. In regards to the motives the need to “grow my own food” (fresh-organic) motivated a 27% of the gardeners, “economic hardship” due to current economic crisis motivated a great percentage of 37%, whereas “re-connection with nature” 26%.

Table 2: Profile of the gardeners in the two case study gardens

Sex	Male	62%
Origin	Thessaloniki	57%
	Other parts of the country	28%
	Abroad	15%
Marital status	Married	67%
Gardening activity done with	Family	47%
	Friends	13%
	Individually	40%
Motives	Grow my own food	27%
	Economic hardship	37%
	Re-connection to nature	26%
	Socializing (get out of my home, make friends etc)	4%
	Several	7%

3.2 Agronomical knowledge and gardening skills

Results of the descriptive statistics from the questionnaires showed that 63% of the gardeners have previous experience in gardening, mainly from their home village garden. Interesting enough is the fact that 55% of the urban gardeners have also a farmer next in kin and the majority (78%) has followed short-term seminars. In the case of the municipality it was at the beginning of the season or throughout the year organized by civil servants and for the case of PERKA by volunteers and PELITI (a seed bank in Greece with traditional preserved seeds). The topics of the seminars referred to good practices based on ecological agro-technical means e.g. composting, promotion of beneficial animals on site.

In regards to how to decide what to grow, gardeners do not put a lot of thought into what to choose. 44% of them decided on the mixture of the crops to plant according to the family's preferences and dietary needs. 4% were advised by a fellow gardener, 10% were advised by the agronomist whereas 25% were just given some crops for free. The rest 17% either experimented or followed the seasonal calendar to choose the plants randomly. When it comes to the origin of the plants they use, there is a clear difference between the two gardens. In the municipal garden all of them were given commercial seedlings, whereas in the PERKA case the majority makes the seedlings themselves or gets them from PELITI.

Some of the gardeners (21%) overcome everyday agronomical problems through interaction with other gardeners, some others through the internet (2%), books (12%) and agronomists (44%). In the case of the municipal garden, the agronomist is a civil servant appointed to support the gardeners by physical presence for about 6 hours per day. In the civic garden there are some member gardeners with a degree in agriculture (either by a university or technical school) that others turn to for advice.

To sum up, between the gardens lies a different approach to agronomical skills and ways to have access and diffuse technical knowledge (Figure 2). In the civic garden people trust their fellow gardeners to advise them on options to protect the plants and also books on permaculture and organic growing. The majority of them doesn't trust the mainstream agronomical knowledge provided in schools of Agriculture due to the fact that it is perceived as depended on chemicals, heavy inputs and not consistent to a sustainable environmental approach. Most of the gardeners on the municipal garden trust the agronomist in charge and their own personal experience. Finally, a crucial role in this difference plays the fact that there is a greater level of interaction amongst gardeners in the PERKA garden which is not found in the municipal garden.

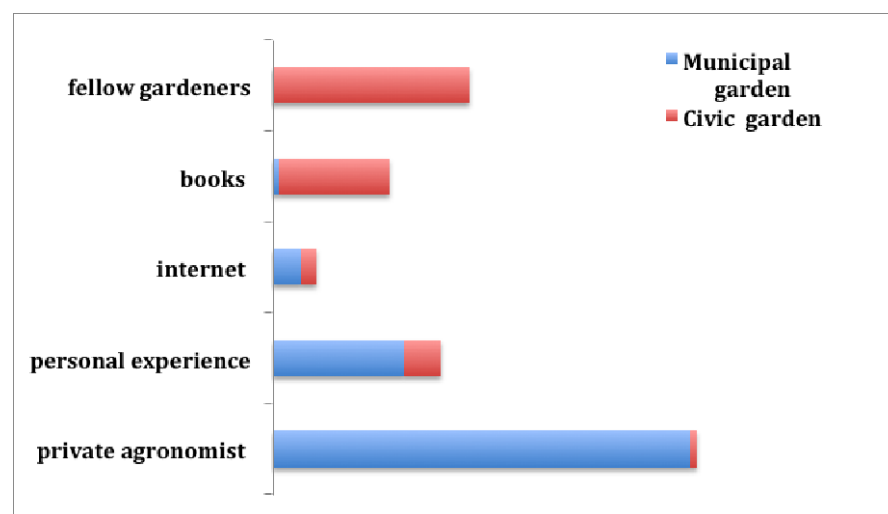


Figure 2: Selected technical means for access to agronomical knowledge in the two urban gardens

3.3 Collective learning and social cohesion

Most of the gardeners (60%) perceive urban gardening as a collective activity among family members, friends etc. Towards this direction cultivating tools are communal (64%), in an effort to enhance cooperation among the gardeners and not only for practical or economic reasons. 88% of the gardeners have a peaceful co-existence with neighbors and only in few cases they have reported problems such as bad use of the irrigation water or lack of respect towards privacy. For the case of PERKA the general assembly was responsible for finding solutions whereas that role was played by the agronomist in charge, in the case of the municipal garden.

The creation of communities that share, not only food but also experiences, ideas, feelings and knowledge is highlighted in the outcomes of our research and appreciated as of great importance but there was a clearly different perception between the gardens. The PERKA garden is a meeting place for friends and families during the day and everyone is welcome to just walk around the gardens, talk to the gardeners and connect to nature. High level of social interaction in PERKA garden can be explained by many factors such as scheduled activities and events, no gate hours, the openness of the community to the public access to the gardens. Whereas in the municipal garden the lower level of social interaction can be partially explained by factors such as the great distance between parcels, spatial structure and the rules regarding the opening of the gate as well as the presence of an agronomist. Finally another very interesting outcome of this research was the fact that in the municipal garden we found a group of migrants; those identified previously as Greeks from former ESSR and migrants from Albania, Armenia, Georgia etc. It is a distinct group amongst the gardeners with different needs and attitudes, as noted from our participant observation. They are more restrained and have a great lack of trust towards any other gardener. They have their own way of solving problems and clearly state their differences and opinions even with the agronomist in charge of the garden. They brought their own seeds and agronomical techniques from their places of origin and only interact socially with each other. The lack of trust is clear towards both the other gardeners and the municipality.

4. Discussion

In regards to the motives and general profile of the urban gardeners (which was our first research question) the results of this study confirm previous results in Greece by Partalidou and Anthopoulou (2016). In regards to access and diffusion of agronomical knowledge and the development of collective skills and learning in the gardens this research has provided some interesting findings to discuss.

Many gardeners have a rural background and some kind of technical knowledge for growing vegetables but the use of virtual communities of sharing knowledge (on the internet) and mostly the physical interaction in the garden and the everyday socialization provide the framework for all types of information to be channeled even to those with less experience and skills. Newcomers seek for experienced gardeners, others are learning by doing and collective tacit knowledge is created along the way, besides the technical knowledge. People share the management of the commons, norms, personal experiences, memories and develop collective skills apart from the agronomical ones. This however happens extensively only in the one case study garden; the PERKA civic initiative which is characterized as a Community of Practice. It is in this garden that a shared identity is created, commitment is high and common practices are adopted on solving problems. The challenge now lies on the cohesion of the community as the old members keep loading themselves with more initiatives in leading and moderating despite the fact that new plot members enter the garden. The latter are not eager in taking part in the management of the commons or expressing any new initiatives thus eliminating the creation and diffusion of knowledge among core members and newcomers putting the cohesion of the community in jeopardy.

On the other hand, the municipal garden embedded in the public strategy to tackle poverty does not work as a CoP. Gardeners see the garden as their personal shelter amidst the crisis and a means to have access to fresh-affordable food. They depend on the agronomical support provided by the municipality and learning is done individually referring only to agronomical knowledge. There is no shared identity and a lack of community building. Especially for the ethnic group that takes part in the municipal garden, the community gardens might enhance the sense of belonging by creating a connection to the new community (Agustina & Beilin 2012) however this takes time and in our case it is too early to fully understand such a process. It goes without saying that collective learning in the urban

gardens is a dynamic process that results in the production of knowledge and social cohesion but after a period of time and under specific conditions. Nevertheless, a high level of social interaction and learning processes is not only a privilege of bottom-up initiatives but can be reached in the municipal context too in order to bring gardeners together into a community of practice.

In conclusion, what can be derived from this research is that the collective learning that takes place in the gardens, the bonding and building of social capital and the shared rules are according to Bendt *et al.* (2013) a benefit of urban gardening also found in our case studies either in a great extent or in sole examples. Urban gardens in Greece have manifold benefits and serve as a tool for both agronomical and collective learning but only in the case that communities embedded in trust and reciprocity are created.

References

- Agustina, I. & Beilin, R., 2012, 'Community gardens: spaces for interactions and adaptations', *Procedia- Social and Behaviour Sciences*, 36, 439-448.
- Anthopoulou, T., Nikolaidou, S., Partalidou, M. & Petrou, M., 2013, 'The emergence of Municipal Garden allotments in Greece. New social functions of agriculture in times of crisis' *In Book of Abstracts of the 5th Conference on Sustainable Food Planning Innovations in Urban Food Systems Land: Farming for the city*, Montpellier, France. <https://dl.dropboxusercontent.com/u/33661829/AESOP-book-of-abstracts1.pdfq> (p.23).
- Bailey, A., 2014, 'Once the Capacity Development initiative is Over: Using Communities of Practice Theory to Transform Individual into Social Learning', *Journal of Agricultural Education and Extension*, 20(4) 429-448.
- Bendt, P., Barthel, S. & Colding, J., 2013, 'Civic greening and environmental learning in public-access community gardens in Berlin', *Landscape and Urban Planning*, 109, 18-30.
- Farges, G., 2015, 'Convergence on Sustainable Lifestyles? Mechanisms of Change and Resistance in a French Allotment', *Sociologia Ruralis*, 55 (1), 1–21.
- Macias, T., 2008, 'Working toward a just, equitable and local food system: The social impact of community-based agriculture', *Social Science Quarterly* 89(5), 1087-1101.
- Mars, M.M. & Ball, A.L, 2016, 'Ways of Knowing, Sharing, and Translating Agricultural Knowledge and Perspectives: Alternative Epistemologies across Non-formal and Informal Settings', *Journal of Agricultural Education*, 57(1) 56-72.
- Moran, N., 2014, 'Urban agriculture springs up in Greece', *Urban Agriculture Magazine*, 28 RUAF <http://www.ruaf.org/sites/default/files/p31-34.pdf>.
- Partalidou, M. & Anthopoulou, T., 2016, 'Urban Allotment Gardens During Precarious Times: From Motives to Lived Experiences', *Sociologia Ruralis*, on line version DOI: 10.1111/soru.12117.
- Voigt, A. & Leitão, T., 2016, 'Lessons learned: indicators and good practice for an environmentally-friendly urban garden' in Bell, S. *et al.* (eds.), *Urban Allotment Gardens in Europe*, 165-197, Routledge.

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With a degree in Plant Production and a MSc in Agricultural Economics her research interests fall within urban agriculture, organic farming, governance and solidarity movements. She is currently involved in a Local Network of School Gardens in Thessaloniki and EU projects "Food Smart Cities for Development" & "Map Your Meal".