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Effects Of Community Gardens on Local Society

The Case of Two Community Gardens in Szeged



ABSTRACT The evolution of community garden movements has roots in the late 19th century, however they became popular only after the Oil crisis of the 1970's. A blossoming movement evolved on the historical ground in the USA and Western Europe and three decades later the first community garden opened its gate in Hungary, Budapest in 2011. In the last decade increasing number of publications interpret community gardens as alternative environmental, economic and social developments in urban areas. In Hungary, despite the above mentioned development potentials only few decision makers consider these urban features as a tool for development and nor researchers are examining them.

In the first part of the paper we briefly introduce the historical evolution of the community gardens focusing on the main features and functions. Thereafter the study aims to introduce the organisational and operational schematics of Hungarian community gardens, highlighting the differences and similarities to western practices. For this reason this paper researches two community gardens, namely Megálló and Makkosház Community Gardens in a regional centre, Szeged, using empirical data. Interviews made with the gardeners and the coordinators represent the opinion and perspectives of the real users of the rehabilitated urban space. Subjects were asked in October of 2014 and in January and March of 2015.

According to the results, the community gardens of Szeged are considerably differing from an average American community garden, but there are several common features with European gardens. In the case of Megálló community garden, a civil organisation is managing the garden. The community forming of the garden was recognised and more and more focus have been put on the garden, not only the civil organisation. Gardeners have multiple motivations, on the one hand to live a rural-like life in the city and on another hand to belong to a community. The Makkosház garden has different operational structure. The idea of the garden was a grass root initiative which had been encouraged by the local government. The community garden also offers different ways of recreation. The two gardens' cultivation is similar.

Both of the gardens are top-down directed and controlled which is opposite to the American and European practices. The empirical research highlighted that several positive effect was detected on the gardeners (e.g. stress release) and local community development started.

Keywords sustainable urban development, urban agriculture, community green fields, urban green

DOI 10.14232/belv.2016.3.7 https://doi.org/10.14232/belv.2016.3.7

Cikkre való hivatkozás / How to cite this article: Bende, Csaba – Nagy, Gyula (2016): Effects Of Community Gardens on Local Society – The Case of Two Community Gardens in Szeged. Belvedere Meridionale 28. évf. 3. sz. 89–105. pp.

ISSN 1419-0222 (print) ISSN 2064-5929 (online, pdf)

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Introduction

In the recent years the interest in urban agriculture – including the community gardens -, has increased significantly among the scholars. The reason of this growth is the appearing consequences of rapid urbanisation and its impacts on the nature and environment such as pollution, degradation of ecosystems and the exploitation of resources of city's hinterland. To solve these issues alternative solutions are needed. This has led to the analysis of cities in terms of sustainability.

The worldwide population growth of cities has two main sources, the natural birth and the constant inflow of rural migrants. The demand for resources – including agricultural products –, increases and meeting these demands is only possible with incorporating farther territories. As a result, the so called "food-mile" increases as well and as a side effect the urban population alienates from the consumed products (MORRIS ET AL, 2003).

The growing population of urban areas results in the increase of density of urban built-up areas and urban sprawl (Kovács 2009). Meanwhile the area of urban green spaces decreases thus the places for citizen's interactions decreases as well. As Jane Jacobs emphasised in *The Death and Life of Great American Cities* that the people form and create the cities and its places thus it is a social product (Lefebure 1991; Harvey 2009, 2012, Boros 2010a), and she also shed light on the importance of streets, squares and parks as places of interactions and places of community forming (Jacobs 1961). Her lifelong fight for community places was a lot criticized but fundamental part of human science's paradigm shift, the so called "humanistic turn" (Boros 2010b). That's why the decrease of green spaces affects the citizens and cities life.

Nevertheless, in the evolution and cycles of cities one may always find vacant lots, brownfield areas and unused plots. These vacant lots appear as a consequence of constant change in urban economy and society, but also can be the outcome of wrong urban planning and developing policies (Boros – Garamhegyi 2009, Nemeth – Langhorst 2014). In Hungary the appearance of vacant lots and brownfields became more significant after the transition and mean continuous problems for the local governments today. In many cases the change of brownfields is led by the market forces (Kiss É. 2009), and the local governments intervention is limited, due to financial, legal and ownership matters (Jankó – Bertalan 2009). But it is not simply a problem, an opportunity for city rehabilitation with creating multifunctional places in brownfields (Berki 2014, Kádár – Kozma 2011, Kukely et al. 2006). In many countries – including Hungary -, the number of community gardens is soaring. The demand for community gardens is clear; the new generation of community gardens appeared mostly in vacant industrial and residential lots, in back yards, and in churchyards (Lawson 2005).

The community gardens are not just simply places for food production, but urban green spaces, community spaces and also can be a fundamental element of city or neighbourhood rehabilitation. In this nexus researchers examined and found out that most of the North-American metropolitan cities could be self-sufficient in food production thanks to urban agriculture (Grewal and Grewal 2012) and improve their sustainability through the application of community gardens in urban development policies.

In Hungary only a few studies appeared in the topic of community gardens – for example Faurest (2007) and Kovács (2013) –, thus we deem it important to examine from different aspects. In this paper firstly we frame the theoretical background of community gardens, then describe their history and local effects on the community. Later on we present the results of our

empirical research and answer our main questions – What are the differences and similarities between Hungarian and "Western" community gardens? Are there any Hungarian characteristics? And what kind of effects the gardens have on the local community?

Community gardens: their history and conceptual background

The first gardens have appeared in the middle of the 19th Century in Europe with the aim of education and recreation. While in the USA the community gardens appeared as an answer to the economic crisis in 1894. The roots of community gardens date back to the so called *potato gardens* in the United States of America. The researcher of historical backgrounds of community gardens Lawson (2005) considers all type of Northern-American urban agriculture activity as community gardening. Although we accept that there were many gardens that were operating on the bases of communities but they have not so much similarities to the current community gardens. In Lawson's case the gardens were considered as "community" gardens on the ground of their operation, not on the ground of their initiative. Thus we emphasize that community gardens got their current form later.

Today's community gardens appeared in the 1970s, as a result of the first urban and urban green movements. While in the first half of the 20th century community gardens – such as Victory Gardens or War Gardens - appeared as a result of state intervention today's gardens are local bottom up initiatives and based on the will of individuals (LINN 2007), and important criterial are the self-organizing ability of groups and individuals volunteering. As Fauerst (2007) describes, community gardens appear in many cases as a result and answer to the negligent local governments. In many cases at the turn from fordist to post-fordist economy and still the local governments created limits to the growth of community gardens sprawl due to business investors claims (Staehell 2002).

In general, community gardens are urban initiatives, the gardens are cultivated by a community and use it for vegetable, fruit production and flower planting. "The gardeners share the tools of gardening, they give financial support for maintenance, determine common goals and from share the results" (GLOVER, 2003: 264). Although to synchronize the goals between the coordinators and gardeners is not always easy (GHOSE 2014).

Many scholars think about community gardens as it has been described above, but the notion "community" can be misleading as PUDUP (2008) and KURTZ (2001) state. According to them it is not always obvious whether the community garden was created by a community or spontaneously and later becomes a community (PUDUP 2008). Kurtz also adds that in most of the cases the gardeners are even not from the same neighbourhood (KURTZ 2001).

We can consider the community gardens as an innovation of city rehabilitation tools. It appears in many places of the World, its number is rapidly increasing and becomes a worldwide fashion. But there are many questions. Whether after the community garden "boom" this innovative model for urban green spaces, urban agriculture and community place is sustainable or not? What will happen to the community garden after the peak of the innovation cycle? It will be replaced by a new innovation with the foundation of a new function in the former place of the community garden? And how the attitude of gardeners will change towards the community garden with time? Maybe the later discussed Bassett work will answer a couple of questions.

To summarize, according to us the community gardens are urban features that recycle

urban vacant lots, the cultivating is done by a self-organized group or volunteers and it has a certain goal. Among the goals we can find community building, healthy life and living, and revival of urban vacant lots. The use of the unused urban lots is a common goal of citizens of a certain neighbourhood.

Historical background of community gardens

The evolution of community gardens

As Bassett [1979] pointed out in his unpublished but widely-known and cited Master's thesis, the community gardens appear in cycles in history with strong relations to economic and social changes and crises. The up and down turns similar to Kondratev's economic circles. When the crises are over, the number of community garden decreases, because the financial situation of the society stabilizes, the need for vegetable production disappears, and the temporary unemployed persons find job (Rosta 2009, 2013). Bassett separated 7 main eras in the history of community gardens (1. table). These eras refer to the American garden movements, not to the European that appeared later, after American influence. The American and European garden movements have significant dissimilarities. The characteristic of American gardens is the fact that the gardens were the properties of a certain community, for instance the local government, the state or civil organization.

Appearance from	Period	Reason of appearance
Potato gardens	1894 – 1917	1893 economic crisis
School gardens	1900 – 1920	Integration of migrant's children
Garden cities	1905 – 1920	City beautification
War gardens	1917 – 1920	I. World War
"Hope" gardens	1930 - 1939	Great Depression
Victory gardens	1941 – 1945	II. World War
Community gardens	1970 – 2008	Urban social movements
Community gardens	2008 – (new era?)	City rehabilitation

TABLE 1. & Eras of the community gardens (Edited by the authors according to Bassett 1979)

The modern community gardens have appeared in the 1970th in the North-Eastern industrialized cities of the USA, after the recession. The post-fordist transition had a great impact on the economy of these cities. The heavy industry has disappeared, the unemployment rates skyrocketed, and this led to the polarization of society and conflicts between the individuals and the power. The deindustrialisation of cities left many vacant plots that diminished the quality of urban environment. In this significant crisis, the community gardens appeared as an answer to the social problems – with community building -, as an answer to economic difficulties of the unemployed – with the produced vegetables. Meanwhile the community gardens became the seed bed of new political organizations – such as greens and local patriots – and became the symbols of the protests against the neoliberal city (Lawson 2005).

The economic crises of 2008 opened a new chapter in the history of community gardens. The state and local governments understood the importance of gardens, and became the sup-

porter of the movement. Michelle Obama reopened the community garden of the White House in 2009 (Flaccus 2009). It was a symbolic event of a new governmental attitude that supports the community garden and alternative development ideas. Besides, Sutter (20099 pointed out that the number of community gardens has started to increase in the USA due to the crises, thus confirmed the cycle theory of Bassett.

Community gardens in Hungary

The first Hungarian community garden was opened in 2011 in Budapest at Millenáris Park. The organizer of the so called *Lecsós kert* community garden was the KÉK non-profit and innovation supporter organization. After opening the Lecsós kert community garden many others were opened in the city and elsewhere in the country thanks to the fast experience and good practice exchanges (Fig. 1).

These community gardens have not appeared as an answer to the economic crises as we could assume, but the main motivation was rather the rebuilding of the fragmented post-socialist communities. Furthermore, Kovács (2013) points out that the majority of gardeners are young adults, member of the higher-middle class, follows western values and fashion. Thus the gardeners are not from the most vulnerable classes of society who suffered from the general economic crisis of the country.



FIGURE 1 & The location of some community gardens in Budapest (Edited by the authors)

Most of the Hungarian community gardens were created in a top-down way, but the bottom up characteristics is also common. The differences between the before mentioned types we can find in the way of the starting the initiative, whether it has organized by a local citizen or groups of citizens, or it is governmental or institutional. Although we can discover many other forms of organizing between these two types (Fig. 2).

First of all, the gardens can be created in a top down way, because in a certain environment of economy and power the civils cannot implement their idea

without external support, independently. In this cases a patron (mostly the local government) supports the realization of the idea, the aim - creating a community garden - comes true, they have motivation – votes, marketing etc. -, and the garden can be sustained in long terms. The patron in these cases partly or entirely a maintainer, but one may find different examples in the role of patrons regarding to the level of intervention. In such a case in what the locals create the operating regulations, we can consider that a bottom up initiative. Here the patron trusts in the

knowledge and capabilities of locals. However, if the operating regulations is created by the patron, without involving the locals, creates the regulations in the spirit of "money rules the world", the garden becomes a despotic, and the goals of community building, and long term sustainability can be endangered.

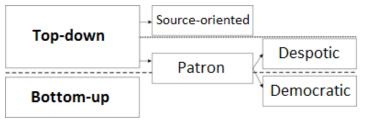


FIGURE 2 * The possible ways of top-down and bottom-up initiatives (Edited by the authors)

We can also consider

top-down initiative if the main goal of creating the garden is gaining financial support. For the founders, the community building is just a secondary or tertiary aspect. In many cases they overwrite the needs of the community, just to gain the support. The disadvantage of this model is the fixed operating regulations that does not fit to the needs of the gardeners. The decision making process is less democratic, and the garden tends to cease when the financial support is over. In this model the gardeners are just users not equal members.

In our work we have drawn up a model of creation and operation of the community gardens (Fig. 3). Our approach separates the top-down and bottom-up organizing methods, though the result in both cases is a functioning community garden. In the top-down organizing method there is a fixed organization that maintain the garden, but it is also possible that later on non-or for-profit organizations can join. Although the top-down method can be seen as a "worse"



initiative but if the organizer ensure the involvement of gardeners to the decision making it can be sustainable and democratic as well.

FIGURE 3 & The model of organizing community gardens in Hungary (Edited by the authors)

Effects and impacts of the community gardens

There is a wide range of literature about the positive health and social effects of community gardens (Staeheli 2002; Tanaka et al. 2004; Kingsley et al. 2006; Alaimo 2007, 2010; Firth et al. 2011; Agustina-Beilin, 2012; Ghoose-Pettygrove 2014).

Many studies have confirmed the positive effects of vegetables and fruits on the individuals' health. By regular consumption of vegetables, they decrease the risk of cardiovascular diseases and cancer. Furthermore, previous researches show the gardeners consume more vegetables and fruits, but less sweeties and alcohol and preserving their health by this (Blair et al. 1991; Alaimo 2007).

Besides the gardening has a positive effect on the mental health of people. As Puddp (2008) describe the case of inmates of San Francisco City Jail. There an Afro-American lawyer created a garden in the yard of the jail and experienced fast improvements among the gardeners. They started to have positive thoughts and said "I am not just a simple prostitute or thief, now I can grow my own cabbage and salads" (Puddp 2008: 7). The lawyer assumed that "the cyclic change of vegetables made them to believe they can change as well" (Puddp 2008:7).

The community building effect of gardening is also well known. It provides a common hobby and conversation topic for the gardeners [Firth et al., 2011]. The strengthening relationships can replace the lack of social support from state. Belonging to a community can mean a crucial help for marginalized groups, thus decreasing their dependence (Corrigan 2011).

The garden community can help integrate the immigrants as Augustina (2011) described in cases studies from Australia. It creates a sense of new home among immigrants where they can produce the vegetables that they knew from their origin country. They have the opportunity of meeting other immigrants and solve their problems together. It also helps in getting to know the new culture of the country.

Many scholars examined the economic effects, the relationship of urban environment and local climate and the community gardens. One fundamental result of these studies is the positive effect of increasing urban green places, and through it the decrease of urban heat island, the improvement of cities ventilation and infiltration (FÓRIÁN–HAGYMÁSSY 2009; LELOVICS et al. 2014; Moscow 1999; Derscher et al. 2006)]. In Berlin many community gardens were founded because of the need for more urban green area (Rosol 2010). The community gardens also enhance the biodiversity, with appropriate cultivating the quality of soils can be improved and they provide possibility for green waste recycling (Rado 1983, 2001), besides they have a significant aesthetic value.

Although community gardens always have a critique because of urban pollution. In the 1970th American scholars examined urban soils and discovered the high concentration of lead. But also pointed out that with keeping the soils pH balanced between 6,5 and 7 the vegetables do not take up the lead, and with washing them properly the polluted dust can disappear as well (Lawson 2005; Szolnoki 2014). Thus the polluted soils do not have bad effect on consumers through the consumed vegetables.

The community gardens thanks to their multifunctional role could be implemented in local development. They could be the part of brownfield redevelopment and social inclusion programmes. Further in this research we introduce the community building and city renewal effects of community gardens in Szeged.

Study area and methods

The study area of this research were two community gardens of a regional city, Szeged – the *Megálló Community Garden* and *Community Garden and Leisure Centre of Makkosháza* (Fig. 1). These community gardens are located in a middle-sized city where urban agriculture

is traditional. There are many allotment – or Schrebergarten-like (German) gardens, that are in close relationship with the Russian *dachas*, as a socialist heritage. The local situation is specific, because Szeged has many neighbourhoods of family houses with gardens that provides opportunity for urban gardening as well (Boros 2009). But as we assumed a high demand for community gardens in the city exists.

We carried out a structured interview research in what we intend to discover the effects of community gardens on the local community. The research took place in the community gardens in two different periods. Firstly, in October, 2014 we have conducted a research in Megálló Community Garden, where from 11 gardeners 7 took part in our research. Furthermore, we carried out an in-depth interview with the coordinator of the garden. The coordinator helped us to reach the gardeners, so our sampling method was snowball-like. In the Community Garden and Leisure Centre of Makkosháza the research started at the end of February in 2015 and finished in May 2015. There from 18 gardeners 11 took part in our research, and we carried out interviews with the coordinator of the garden and with the Local Council Member of Makkosháza neighbourhood as well. Thus all together 21 interviews were recorded, and in both of the community gardens the response rate was above 60 per cent.

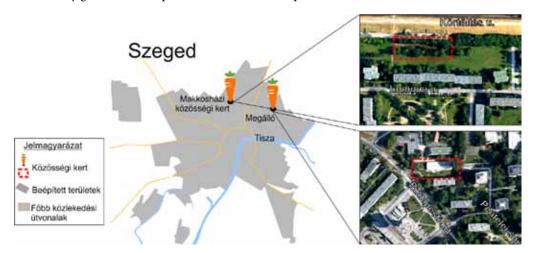


FIGURE 4 * The researched community gardens in Szeged (Edited by the authors)

The questions of the interviews were related to several key topics. The coordinators were asked about the foundation and functioning of the gardens. The gardeners were asked about their motivations of joining, the positive effects of gardening, and we examined as well the gardener's community's interior relationships and its structure.

The institutional and operational background of the gardens is unique. The Megálló Community Garden has a background institute, a non-profit orientated organization, called MASZK organization that has an aim of creating innovative and acting communities in Szeged. The institute is currently working on the creation of a living community in the neighbourhood of Tarján - where the garden is located -, in an area where mostly prefabricated block of flats exists. The organization intends to reach its aim with the creation of a community house but with the financial help of a European support they opened a community garden in June 2014. The

financial support includes the maintenance costs of the garden till the end of 2015. This fact already led us to a question, whether this will mean the end of the community garden and the community of gardeners as well? Or will the gardeners and the MASZK organization cooperate to maintain the garden in the future?

The Community Garden and Leisure of Makkosháza situates in block of flats area as well (Fig. 4). The creation of the garden came up a couple of years ago as an idea of a local citizen whose idea came true thanks to the support of the local government in October 2014. The operator of the garden is the Local Government of Szeged. Another unique fact of the garden that its leisure function is rare among the community gardens.

Results

The organization and operation of the community gardens

Both examined community gardens are located in a block of flats area, where the minority of the buildings were renovated but a significant number of buildings are still deteriorated. Hence only a couple of green areas were renovated, thus the area for community building is limited and has bad quality. The immobile members of the society and young families need to spend their free time passive in their flats. In both of the study areas the lack of local events is also a problem. These complex problems lead to the alienation of neighbours, the weakened social trust and cohesion.

The Megálló Community Garden (Fig. 5) is situated in Szeged Tarján neighbourhood. The community garden is located behind a renovated storage – currently the place of the community house. The renovation of the house and creation of the community garden we can consider as a brown field investment. The total number of the plots is 12 – including a plot for the entire gardener's community –, each of them are $7 \, \mathrm{m}^2$, the seed beds are lifted, the top of the soil has been changed.

As previously was discussed, the organizer of the garden is the MASZK non-profit civil organization which aims to create a well cooperative local society. Though the organizing of the community garden was financed through European support scheme, and we could identify it as a top-down finance-orientated project, but the organization provides democratic decision making, by involving the gardeners in the operation and maintenance of the garden.



Figure 5 * The Megálló Community Garden (Source: own photo)

The opening of the garden took place in the beginnings of June 2014 due to elongating landscape planning and constructional works. On their first meeting there were more than a dozen applicants, but later few of them resigned their application. According to the coordinator of the garden they resigned after realizing that it requires responsibility and continuous presence. A community garden works well if the gardeners can share the burdens of gardening so the responsibility is not just for the individual – if one cannot do gardening for a week, he can ask others to look after his garden. The distribution of parcels happened according to the application time. Since the garden is functioning well, the demand for plots has increased and now there is a waiting list for the new parcels. The MASZK civil organization provides all the necessary equipment for cultivation, provides practical assistance in gardening and handbooks and do not require any monthly fee.

In the near future the cease of financial support could cause significant problems. During the research period the organization has already started a consultation with the local government of Szeged to cover the maintenance costs but until no definite answer was received the community of gardeners is endangered.

The Community Garden and Leisure Centre of Makkosháza is located in a block of flats area, in a previous area of water plant (Fig. 6). The location is unique because just a hundred meters farther an allotment-like or dacha area is situated. But as it has turned out in the interviews the community garden is not just a cheaper but an easier option for small scale agriculture for citizens since elderly cannot sustain and handle few hundred m² allotment plots.

After the demolition of the water plant, the top part of the soil has been changed, and 18 piece of 8 m² plots and an herbal garden has been created. Besides the creation of the plots few fitness machines have been planted. The organizing and maintaining costs of this community garden is covered by the local government of Szeged.

Regarding to the goals of the Community Garden and Leisure Centre of Makkosháza it is different than the Megálló Community Garden. Firstly, in the case of Megálló the main goals were the formation of a community and promotion of eco-friendly lifestyle. At the same time, in Makkosháza the main goals are healthy living and preservation of health. The fitness machines are available for the wider community and used by many citizens. The garden was organized by the local government thus it is a top-down investment but at the time of our research the garden was in a too early stage to say whether the local government will make the decisions or there will be an inclusive decision making system.



FIGURE 6 & The Makkosház community garden and fitness centre (Source: own photo)

The organizer of Megálló community garden, the MASZK organization takes part in organizing local events in Szeged. But this phenomenon comes up with a problem. Though the organization has the capital to organize events and create an opportunity for

more people to interact but this model has a lack of local initiative. Due to the top-down organized events the local communities and groups are not organized by themselves. Meanwhile the main aim of these bigger events is to create a self-sufficient community.

The Megálló community garden and the community house offers wide range of programs for the local citizens. These programmes can be interesting for every age groups, from young parents with babies to elders. Besides the topics of these programs is very diverse. We can find baby-mother programs, trainings of handcraft works, yoga, legal and psychological advising. Special trainings such as "Globalization forum" and "How to recycle?" are organized also often. Promoting healthy lifestyle is also fundamental as we can assume from the "Run, run, never stop" running event. Thus we can conclude that the community house provides diverse programs that promote eco-friendly and healthy living that are the elemental foundations of modern living.

Many of these programs – such as baby-mother programs -, are related to a specific age group. These age group specific programs do not allow the interaction between different age groups, rather creates communities inside a specific age group. However, the non-age group specific programs can enhance the links between different generations thus allowing the exchange of different experiences and the building of social capital.

There are no concrete quantitative feedbacks from these programs yet, but as we got to know from the coordinator of the garden the local citizens inclined to attend to these programs. Although the number of participants is fluctuating, but the health preserving related events are usually popular, especially among the younger generations. As the coordinator mentioned, this generation has lack of outdoor entertaining facilities. Only a recently renovated jungle gym and a roller skating park is available for them, thus the community house deems that the involvement of this generation is important.



FIGURE 7 * The result of a joint activity in Megálló, a scarecrow (Source: own photo)

The Megálló Community Garden offers special programs for the gardeners. They organize lectures about gardening and organic farming and invite lecturers from other community gardens. These lectures can be a good place for exchanging the different opinions and experiences of gardeners – so they provide a place for know-

how exchange. Furthermore, these events can function as a knowledge-based innovation hub where the different experiences and knowledge can lead to a constructive talk and innovation of new techniques and methods. Thus we believe this is a crucial element in the reviving the urban agriculture.

Besides the community of gardeners made some attempts to organize events for themselves. For this a good example is the creation of garden furniture, a scarecrow cooking events and barbeque party (Fig. 7). These programs have positive effect on the gardeners' community and can be understood as team building events.

The case of Community Garden and Leisure Centre of Makkosháza is different. The scale of community developing is smaller, because here there is no community house that could hold bigger events and lectures, thus we assume that the community building process only affects the gardeners. Although during the research period, since the garden was in its initial phase there were no community building events yet.

However, we can see that the Community Garden and Leisure Centre of Makkosháza meet the demand of the wider neighbourhood with its investment in fitness machines since no such a facility for exercise has been in Makkosháza before. These machines have a positive effect on the users – whether a gardener or a local citizen -, thus they affect the entire neighbourhood.

To conclude the two community gardens have different trajectories. While in the case of Megálló Community Garden the community house and its programs can include a significant part of the local neighbourhood but in the case of Makkosháza the involvement of citizens occur in a smaller level. However, it is also possible that in the future the Community Garden and Leisure Centre of Makkosháza will become a place for sport events and through that a place for a wider community building.



FIGURE 8 & The fitness machines in the Makkosházi community garden (Source: own photo)

The gardeners' community and their motivations

The motivations of joining to the community garden among the gardeners are similar in

both study cases and similar to the results of international literature. Many of the gardeners were living in family houses in the past and but later moved into a prefabricated building. They cultivated the gardens of the houses and continued a small scale vegetable gardening in the balconies of their flats in the prefabricated buildings. In the case of Makkosháza they planted even flowers in the vicinity of the buildings. Thus gardeners intended to revive their previous gardening experience and also spend more time in a green area. The young parents wanted to teach their children gardening and the love of vegetables. We assume they intend to give their cultivating knowledge to the next generation. Furthermore, many of the gardeners joined to the garden to become a part of a community.

In our research we got to know that the key motivation was the need for being the part of a community. Most of the gardeners emphasized this in the interviews. Belonging to a community helps integrating the ones who moved later to Szeged and also incorporates the individuals inside a social network.

"We got to Szeged because of the university, there are no relatives here. Since our baby was born we really miss our family, and here in the garden I am happy to be the part of a community." (Gardener 01)

This shed light on the fact that the weakening relationship with the wider family members – due to the geographical distance -, generates a need for a community. Interestingly, outside the community gardens not so many gardeners meet. In the case of Megálló Community Garden the young parents mentioned that they meet with other young gardeners outside the garden, but most of the gardeners meet only in the community gardens.

"It is really good (the relationship between the gardeners). Especially the young parents (we) have a good relationship, we stick together. So it's good." (Gardener 02)

Although the gardeners do not meet outside the garden, but we believe the reason behind this phenomenon is the fact that the community garden became the place for the meetings. In the gardens they can meet daily and in the case of Megálló Community Garden the programs of the community house provides issues for meetings as well. This is confirmed by the fact that the gardeners usually take part in these programs.

"No (we don't meet outside the garden) because we meet here." (Gardener 03)

One of the key element in the formation of a gardening community is the frequency of cultivation. This has a basic effect on the frequency of the interactions among the gardeners and on the relationships (Darper 2010). But since during the vegetative period the plants require daily care, the number of interactions is high. In the case of Megálló Community Garden the gardeners visit the garden daily during the vegetative period. But as autumn arrives the frequency of visitation decreases and during winter is very limited. Although the exact hour of cultivation can be various most of the gardeners come after the work hours, at the afternoon and spend usually approximately an hour in the garden. In the case of Makkosháza the gardeners visited the garden 3-4 times a week during spring. But since most of the gardeners are retired, they can manage to go to the garden in the morning. According to our observation still the peak hours are at the afternoon.

In our research we also tried to shed light on the evolution of the relationships among the gardeners from the beginning. The experiences are various. Most of the gardeners were satisfied with the relationships but it was obvious that some smaller sub-groups have formed during a short period. As one of our interviewees has mentioned the young parents have formed cliques.

As Darper (2010) claims in most of the communities these kind of differentiating processes appears sooner or later along shared attributes. But this do not have a negative effect on the community, the gardeners can work together and solve problems. The best examples are the followings that we experienced in the gardens: the joint care of herb gardens, cleaning, mowing, collecting the leafs and the care of each other's gardens.

This last one is particularly important. When someone is away the gardeners take care about his garden, they sprinkle it and collect the ripe vegetables. This care and common responsibility makes the members of the community gardens a community (DARPER 2010).

Effects of the community gardens on the individuals

The gardening has many positive effects on the gardeners. Improves the health quality of gardeners thanks to the continuous work and fresh vegetables, sustains the mental health since they spend time in a community. Thus, their overall quality of life is improving. Only a few gardeners knew about these effects but they usually mentioned the work, the free time spent outside their flats, their fresh vegetables as benefits of community gardening;

"I believe it is a good way of recreation. It helps me to calm down and lose my stress, we can be outside in the fresh air that is something priceless." (Gardener 04)



With gardening they could find a good way of spending their free time. So we can assume that the gardening is a kind of recreational activity.

We have noticed that the cultivation triggers a learning process as well. Although many of the gardeners already have knowledge in gardening but in the interviews they have mentioned that they exchange their experiences, give advices to each other and they can learn a lot from each other. This helps in community building, sustaining the mental health, improving the communication skills and forms the mind of gardeners.

"We see many things in a different way, in terms of gardening and human relationships. We look for more information about the vegetables and about gardening online and learn from there how to care about them properly…" (Gardner 02)

Thus we conclude that gardeners see more conscious the world around themselves, their horizon has widened and they start looking for answer and solutions to some specific problems. In many cases they use internet as a tool. Furthermore, we claim that these are questions that previously they did not need to ask, since they did not do gardening. Thus we can assume that gardening provides always an inspiration for them.

Conclusions

Based on our results, the community gardens in Szeged have similar or the same effects on the gardeners as in the case of so called 'Western' gardens. They only differ in the way of their organisation and formation processes. The main aim of the community gardens in Szeged are the community building and health preservation. This appears in the case of western community gardens as well but there the goals of community gardens are more divers. In Western Europe and the United States, the motivations of creation can be the revitalization of vacant lots or brownfields to create a better urban environment; the provision of fresh vegetables and fruits for marginalized groups; the increasing of urban green areas. Thus we can see that behind the creation of "Western' community gardens there is a more complex motivation system. While in Hungary the motivations are limited only to few key aspects.

In the Hungarian cases the community building is the most important reason, and health preservation has just secondary role. The need for local communities can be a post-socialist phenomenon and this need is especially visible in block of flat areas, that we can see as areas of social crisis.

The organizational background of Hungarian community gardens is unusual, including

the two examined community gardens. The Megálló Community Garden was organized by a 20 years old civil organization that provided knowledge and social capital to create the garden. In Makkosháza the idea of the garden came up in a local citizen and was organized by the local government. Thus we can conclude that they were organized in a top-down way – however, this top down structure can be also good if the decision making process is inclusive.

We have examined the effects of community gardens on the local society. They have elemental role in the creation of community from the local citizens. This is particularly valid in the case of Megálló where community programs are hold in the community house, while in Makkosháza the strengthening of the wider community starts from a small group – from the gardening community. We can also mention that the Megálló also actives the inactive members of the neighbourhood.

Our results are in accordance with the results of international literature. The Hungarian community gardens just slightly differ from the Western ones but we need to mention that all the community gardens can be understood only in its context, thus we believe that each of them are unique. The main differentiating characteristic of Hungarian community gardens is the fact that they were organized by a civil organization or by the local government in a top-down way. The positive effects are similar in each case. To summarize, we can interpret community gardens as a multifunctional tool for urban development and rehabilitation that can help in community creation, in health preservation and greening the urban environment.

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