

The impact of community gardening for sustainable place-shaping

-A case study in the Lucchese Plain, Italy-



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Abstract

Processes of urbanisation and globalisation have led to massive changes in the rural and urban environment in recent decades. To counteract the negative impacts on our natural and social environment that are closely linked to these changes, a transformation towards sustainability is required. For this transformation, local citizens' initiatives are advocated which are often characterized by place-based informal practices. Through this approach, increasing focus can be put on people's local resources, energies, and ideas that are manifested in their practices. The present research aims to outline the dynamic place-shaping processes of the practice of community gardening in the context of the Lucchese Plain, Italy, which is characterized by the high importance of the agricultural sector and strong interest of local initiatives and regional administrations for a participatory process around the topic of sustainable and place-based food systems. It has been deeply influenced by globalisation processes and top-down decision making leading to changes in economic activities, and loss of traditions and practices. Results suggest that the practice of community gardening is valued by its participants to re-connect with their community, local traditions, and their territory. The support of the regional government and general embeddedness in social structures (through collaborations with other associations, schools, and food-related initiatives) served as fertiliser for successful activities in the gardens. By creating a strong network between like-minded actors in the region, the exchange of (local, traditional) practices and ideas was promoted to ensure the survival of such diverse realities and to catalyse sustainable change, in and beyond the topic of gardening. In summary, the analysis of the gardening realities in the Lucchese plain illustrated, that community gardening can be successful in place-shaping if it can revive local practices that people feel connected to and embed them into sustainability discourse. My conclusion highlights that creating strong networks by combining practical knowledge, insights, and experiences, empowers local actors, which in turn leads to strengthened values and a stronger motivation to steer change towards sustainability.

Keywords: community gardening, sustainable place-shaping, place-based approach, sustainability, territory

Preface

“Tra il dire e il fare c’è di mezzo il mare” (literally: “There’s a sea between saying and doing”)

I wrote this paper as part of my master’s degree in Development and Rural Innovation. During my writing process, I decided to write a scientific article instead of a typical thesis. I strongly believe that the topic of place-based approaches to sustainability has enormous potential to explore people’s practices and ideas and encourage them to continue exploring. From my understanding, our (hopefully) common journey toward a more sustainable future includes giving voice to those who put things into practice and experience some of these possible sustainable futures. As underlined in this Italian saying, many people talk about the urgency to transform our world into a better place, but only by putting ideas and visions into practice, change will happen. With my background in nutritional and social sciences and my great passion for food, I decided to analyse the practice of community gardening.

This study is based on the general research question of **how sustainable place-making is enacted through gardening**. To answer this question, I investigated the three processes of **re-appreciation (SRQ 1), re-grounding (SRQ 2), and re-positioning (SRQ 3)** based on the sustainable place-shaping framework, developed by the European project SUSPLACE (Horlings & Vaart, 2019).

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List of Abbreviations

HLPE	High-Level Panel of Experts
NGO	Non-governmental organisation

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1 Introduction

Processes of urbanisation and globalisation have led to massive changes in the rural and urban environments in recent decades (Boonstra, 2015). Closely linked to these developments are many negative effects on our natural and social environment (Frank, 1997; Sadorsky, 2014). The idea of sustainable development arose from the need to “meet the needs of the present without compromising the ability of future generations to meet their own needs” (United Nations General Assembly, 1987, p. 43). Transformation towards sustainability can be defined as a bottom-up change across sectors aiming at altering the relations between people/societies and their environment (Westley et al., 2013). However, according to Bendell (2018), this transformation requires an adaptive and innovative approach, driven not only by practices and policy structures but also by beliefs, values, and worldviews that influence people's attitudes and actions. Leach et al. (2012) and Horlings & Vaart (2019) have argued that the promotion of sustainable and regenerative behaviour requires a shift in consciousness which can be achieved through new forms of innovations that involve the recognition and power of grassroots initiatives. In many Western countries, local citizens' initiatives are advocated as a way to re-shape the built environment through social responsibility, ultimately meeting the needs of the community (Boonstra, 2015; Ulug & Horlings, 2019).

Framed as community-led, many grassroots initiatives are characterised by place-based, informal practices (Ulug & Horlings, 2019). Through these practices, people have the possibility to position themselves and perform agency towards changes in their environment (Horlings, 2016). Furthermore, this place-based approach can be a way to put increasing focus on the potential of local resources, knowledge, capacities, and characteristics of places (Horlings & Vaart, 2019; Roep et al., 2015). Some examples of such place-shaping practices are place-specific forms of food production rooted in agro-ecological principles, place-based arrangements for the provision of eco-system services, and place-based development strategies, valorising the specific assets of a place (Horlings, 2016).

Food production systems highly influence our natural and social environment (Martín-López et al., 2020). Local food movements have produced valuable insights into how food systems can be re-shaped to counter ecological and social degradation while being rooted in the contextual realities of places (Campbell, 2009; Goodman et al., 2012; Klassen & Wittman, 2017). Proponents of this approach suggest that place-based food systems can mitigate negative environmental, economic and social developments and champion ecological resilience and the sustainable use of local resources (Klassen & Wittman, 2017).

According to literature, one possible place-based food systems innovation with the potential for transformational change is the practice of community gardening (Turner, 2011; Ulug & Horlings, 2019). While different community gardens vary from each other, Firth et al. (2011) provide a helpful description of these gardens as “a common space that brings people together and inspires shared action” (Firth et al., 2011, p. 556). Community gardens have a long history, dating back at least to the 19th century (Irvine et al., 1999), and have garnered interest during World War II as “Victory gardens”, where they guaranteed food security during difficult times (Lawson, 2004). Changes in rural and urban environments have changed the functions of community gardens, which are seen as grassroots activities teased by citizens and other local stakeholders to create decentralized place-based community reconfigurations (Cumbers et al., 2018; Meijer, 2018).

Extensive work has been done about motivations to participate in such initiatives, like the wish of people to reconnect with food, nature, and community (see, for example, Armstrong, 2000; Glover, 2004; Irvine et al., 1999). Furthermore, research has shown that community gardens can enhance social capital, inclusion, and community building. Human health, food security, and education are also identified as potential benefits (Firth et al., 2011). One perceived advantage is their unique ability to bring together people with different motivations and therefore create a collectively cultivated place for relationship building (Veen, 2015). However, critical voices name potential negative aspects related to community gardening: unintentional social exclusion (Poulsen, 2017), creation of societal echo chambers (Veen, 2015), and the outsourcing of state responsibilities to civil society (Rosol, 2012). Including the local context in the design of the gardens can potentially be a way to address the aforementioned pitfalls and increase their social impact (Veen et al., 2016).

According to Veen et al. (2016), community gardens differ greatly from each other since they are cultivated in different places, by different communities, and pursue different goals. Hence, the development of these gardens is highly dependent on the local context and needs (Firth et al., 2011; Ulug & Horlings, 2019). A place-based approach that takes into account the activities, energies, and ideas of people manifested in their practices as suggested by Marsden (2013), is increasingly being observed in community garden research (see, for example, Carolan, 2017; Firth et al., 2011; Poulsen, 2017; Veen, 2015). This approach can highlight the gardens’ potential role in empowering communities and serves as a lens to analyse changing relations between actors in the food system (Cumbers et al., 2018; Ulug & Horlings, 2019). The work of Baker (2004) and Ulug & Horlings (2019) further contribute to this place-based approach in community garden research by underlining that there is no “one-size-fits-all” equation in community gardening, but that the diversity of surroundings has to be taken into account.

Several scholars have pointed out the place-based aspects of community gardening (Baker, 2004; Marsden, 2013; Ulug & Horlings, 2019). More and more researchers perceive community gardens as a way to advance sustainable practices in and through the gardens as a place (Kingsley et al., 2009; Turner, 2011; Ulug & Horlings, 2019). However, further research is needed to analyse the place-shaping potential of community gardens, as underlined by Ulug & Horlings (2019) and Glennie (2020).

1.1 Case study

In order to study the place-shaping potential of community gardening, the Lucchese Plain was chosen as a case study for a variety of reasons. It is characterized by a long and conflicted agricultural history, resulting in many agricultural traditions, local varieties, and a great, but increasingly lost knowledge on the topic (Badii, 2013). Furthermore, in the area, there is a strong interest of local initiatives and regional administrations for a participatory process around the topic of sustainable and place-based food systems, also by supporting local initiatives such as community gardening. The great prevalence of local engagement paired with a strong historical aspect makes this a good case for place-based research. As outlined by Vasta et al. (2019), if place-based characteristics of this practice can be observed, we can assume that community gardening can have a positive impact on the local economy, social cohesion, and maintenance of traditions paired with a strong sense of identity. This in turn could potentially have major implications for sustainability development (Vasta et al., 2019).

The Lucchese Plain is located in the region of Tuscany in central Italy (see Figure 2, page 10). The plain is home to 90,000 inhabitants and consists of the municipalities of Lucca, Capannori, Altopascio, Porcari, and Villa Basilica (Citypopulation, 2020). These municipalities are rather heterogeneous in terms of dimensions, geographical features, and demographics (Arcuri et al., 2022).

Tuscany, and in particular the region around the Lucchese plain, has been characterised for decades by the high importance of the agricultural sector (Fastelli et al., 2015). More specifically, up until the end of the 1960s, the area was characterized by a sharecropping system. After the prohibition of this system, many of these agricultural fields were either transformed into large-scale monocultural production systems or hobby-style gardens (Badii, 2013). This went hand in hand with the general process of rural intensification and industrialisation in the 1970s, which was supported by top-down sectoral investments by the European Community (Badii, 2013; Vasta et al., 2019). At the same time, there was a boost in the iron/steel industry in the region (Lazzeretti et al., 2010), where a large part of the agricultural workforce was redirected (Badii, 2013).

However, in the 1980s, after working in the industry, many residents of the area returned to the countryside and farming (Badii, 2013). This trend was accompanied by the desire of many to return to their origins (so-called “neo-rurals”) (Badii, 2013). Similarly, after the initial enthusiasm for big-scale

agricultural productions, a general re-thinking of the modern production and distribution channels in the area took place (Rocchi et al., 2010). As analysed by Rocchi et al. (2010), the ongoing movement towards re-localization of food supply chains was observed globally but has been especially pronounced in Tuscany. There, a relevant share of consumers increasingly appreciated alternative organisational structures and approaches to agricultural production systems.

As analysed by Badii (2013), the end of sharecropping activities resulted in the loss of many agricultural traditions and cultivation techniques. In order to counteract this development, in 1997 the Tuscany Region enacted a law for the “protection of ancient farming occupations and for the promotion of farming methods and activities which are of particular historical, ethnographic or cultural interest and which are in danger of being abandoned and lost” (Regional Law n. 15 of 5 March 1997) (Lazzeretti et al., 2010).

What we can see here is that even though the impact of the industrial production in the area and changes in agricultural production occurred, the Tuscan region maintains a well-defined historical, cultural, and rural-agricultural identity and tradition (Arcuri et al., 2022; Bianco et al., 2019). “Food heritage” has become one of the symbols of Tuscany on an international level (Badii, 2013). Among the economic activities that have developed in the region, an important role is covered by the agro-food system (Bellini et al., 2008).

The big focus on agro-food-related activities in the region led to the creation of a multitude of networks and initiatives advocating for a diverse approach toward current food trends. The Slow Food movement, for example, is one of these initiatives being active on the topic. This now global network aims to guarantee everyone access to good, clean, and fair food by actively supporting local food cultures and traditions, counteracting the rise of the fast lifestyle (Slow Food International, 2015). More locally two important interconnected initiatives are supporting the creation and maintenance of community gardens in the region. They are called: “100mila orti in Toscana” and “Piana del cibo” and are presented below.

In 2016 a regional initiative called “**100 mila orti in Toscana**” was established and coordinated by the regional authorities of Tuscany. The local initiative promotes the “Tuscan urban garden model”, a guide to assist Tuscan municipalities in establishing or revitalising garden initiatives (Città di Lucca, 2016). However, as emphasised, an essential aspect of the model is its adaptability to the territorial and social reality in which the gardens are located. Based on these guidelines, in the Lucchese plain up until now five community gardens were established or recovered (Città di Lucca, 2016) which will be described in more detail in the methodology section. In order to receive funding under this initiative, the gardens must comply with certain guidelines and regulations set by the region, which include aspects related to the management body, specific cultivation principles, and the provision of

educational activities (Regione Toscana, 2016). Furthermore, the gardening initiatives had to apply for the bi-annual funding calls.

In order to further promote a participative process on agri-food topics in the Lucchese plain, an inter-municipal food strategy "**Piana del cibo**" (literally "Food Plain") was established in 2019 through a joint process of the municipalities, the regional administration, and local initiatives (e.g. Slow Food Lucca) (Piana del cibo, 2020). It aims to act collectively to address food issues, increase the well-being of citizens and promote the sustainable development of the area through shared decision-making power. In addition, expanding the network of actors and actions that already exist on issues related to food and sustainable food systems is of key interest. One part of the "**Piana del cibo**" initiative is the so-called thematic tables (see Annex 1) which should allow discussion among citizens on topics related to local production, school feeding, waste management, sustainable lifestyle, and community gardening. The main objective of the thematic table on community gardening is to define strategies and actions for the promotion of self-production of agri-food products by citizens, organizations, and local associations in the territory and to support the initiative "100mila orti in Toscana". The integration of the topic of community gardening in the participatory food policy tool further underlines the relevance of the chosen case study.

This thesis will contribute to the burgeoning debate and apply these notions in an empirical setting. The aim of this research is to outline the dynamic place-shaping processes of community gardening and their contribution to sustainability. The chosen case study, the Lucchese plain, represents a unique case with a long agricultural history, also concerning the practice of gardening. Furthermore, it is characterized by high local engagement, local initiatives, and actions on the topic of sustainable, place-based food systems. Through the analysis of this case study, this work can give insights into the implementation of place-based approaches and practices based on local resources and how these can potentially promote sustainable practices in and through gardening, as suggested by Jauhainen & Moilanen (2011), Neumark & Simpson (2014), and Vasta et al. (2019). The place-shaping practice of community gardening will be analysed through the sustainable place-shaping framework developed by the SUSPLACE project, which is based on the assumption that, through collective agency and the creation of networks and bottom-up initiatives, communities can be encouraged to shape places according to their needs, visions, and local resources (Vasta et al., 2019).

2 Theoretical lens

2.1 A relational approach to place

A relational approach to place forms the basis for this research. Hence, place is defined as constantly being produced and reproduced (Massey, 1995), shaped by people and by natural processes (Horlings & Vaart, 2019). Places can be considered as not defined by administrative or geographic boundaries, but as part of a wider network, linked to other places through social, economic, and political relations (Anderson, 2008; Horlings & Vaart, 2019; Massey, 2005). Further, a place constitutes a “meeting point” between ecological, economic, and social/cultural community relationships (Marsden, 2013). Adding onto this aspect of connectivity, a relational approach to place overcomes the frequently used dichotomies between “local” and “global”, “nature” and “society”, and “rural” and “urban”, as one is always a component of the other and vice versa, resulting in a hybridisation of place (Forney & Häberli, 2016; Woods, 2007). Furthermore, places are shaped by social interactions, values, emotions, thoughts, and experiences attached to them, defining the continuous process by which individuals develop a “sense of place” (Chapin & Knapp, 2015).

2.2 Sustainable place-shaping theory

This leads to the understanding that people in places are not passive actors, but rather potential agents of change who can influence their surroundings. Based on the assumption that people/societies can transform their environment to promote an inherently sustainable approach to “place-based” solutions, the European project SUSPLACE developed a framework called *sustainable place-shaping theory* (Horlings & Vaart, 2019). The aim is to analyse the processes people are involved in by looking at the place-specific connectivity between social-cultural, political-economic, and ecological processes. This is based on the assumption that sustainable place-shaping happens via processes of re-appreciation (socio-cultural processes), re-grounding (ecological processes), and re-positioning (political-economic processes), which alter the relations that shape places (Horlings & Vaart, 2019) (see Figure 1). However, while analysing these processes, it is important to understand that these three dimensions are highly interlinked and in a constant process of production and reproduction.

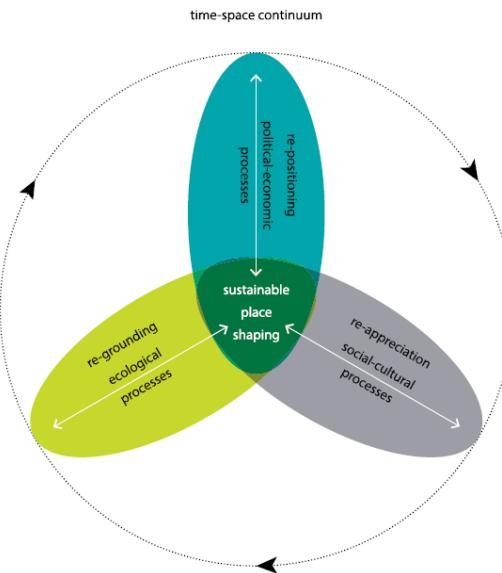


Figure 1: Processes that determine place-shaping (L. G. Horlings et al., 2020, p. 357).

The three dimensions are briefly presented below:

Re-appreciation aims to identify values and meanings one connects to a practice to understand which qualities are considered valuable and should be preserved within a practice. Furthermore, the identification of how actors can take an active lead in appreciating places is of interest according to Horlings (2016). Additionally, it is also assumed that when people become more aware of their intentions, values, and sense of place, they are motivated to commit to their place (Horlings & Vaart, 2019).

Re-grounding is about the development of practices based on the environmental and social framework. This is based on the assumption that practices are highly influenced by wider communities, cultural notions, values, natural assets, technology, and historical pattern (Horlings et al., 2020; Horlings & Vaart, 2019). By re-grounding a practice on place-specific assets and resources, values can be embedded in local realities and structures which in turn can potentially lead to greater sustainability, according to Horlings & Vaart (2019).

Lastly, the **re-positioning** dimension analyses processes and their intention to counterbalance dominant regimes, institutions, and capitalistic organisation markets (Horlings et al., 2020). It refers to alternative, diverse, or 'hidden' economies and ways of value-adding.

By applying the sustainable place-shaping framework, the place-based processes within the practice of community gardening are studied to understand how sustainable place-shaping is enacted through gardening. The framework also allows us to understand the contribution of a re-localised and re-embedded everyday life practice, such as community gardening, to support people to advance their sustainable practices in and through the topic of gardening. It can further give a better understanding

of how aspects between nature and society, the local and global, and rural and urban influence the practices in the gardens. Identifying the temporal, historical, spatial, value-led, and multi-scale aspects of community gardening help to understand what role the processes play and whether these practices can be considered to contribute to sustainable place-shaping. Ultimately, place-based research can help to understand how practices on the ground can have transformative power (Horlings & Vaart, 2019) and how place-shaping can result in seeds of change, contributing to transformation to sustainability.

3 Methodology

3.1 Design

A case study design was chosen. This is an approach in which a social phenomenon like community gardening is studied through the analysis of one or more individual cases (Kumar, 2018). The main advantage of a case study is that it allows for a holistic approach, which means that the phenomenon is studied as a whole and within its context (Baarda et al., 2005). It further gives the possibility to gain in-depth insights into complex real-life activities or particular problems or situations (Noor, 2008). The case study is therefore suitable for in-depth research of a small number of social units and offers the possibility of an intensive analysis of many specific details that are often overlooked in other methods (Kumar, 2018; Numagami, 1998). Hence, this method is especially helpful for place-based research since it takes context into account and allows to understand the participants' reality, views, and experiences in-depth.

3.1.1 Community garden selection

Five community gardens in the Lucchese Plain are the subject of this research. All five gardens were at some moment financed by the regional gardening initiative “100mila orti in Toscana” and were furthermore involved in the “Piana del cibo”. By studying these five gardens, a comparative perspective was possible (Baarda et al., 2005). The gardens are quite homogeneous in some respects (such as their organisational structure, the principles of organic farming, and the additional activities that take place in the garden) but can be very different in other respects (number of gardeners, varieties planted, location (rural/urban), ...). The five gardens were spread around different municipalities of the Lucchese Plain: two gardens in the municipality of Lucca, one in Capannori, one in Altopascio, and one garden in Guamo. A map of the gardens is provided in Figure 2, and a brief overview of the gardens is given in Annex 2.

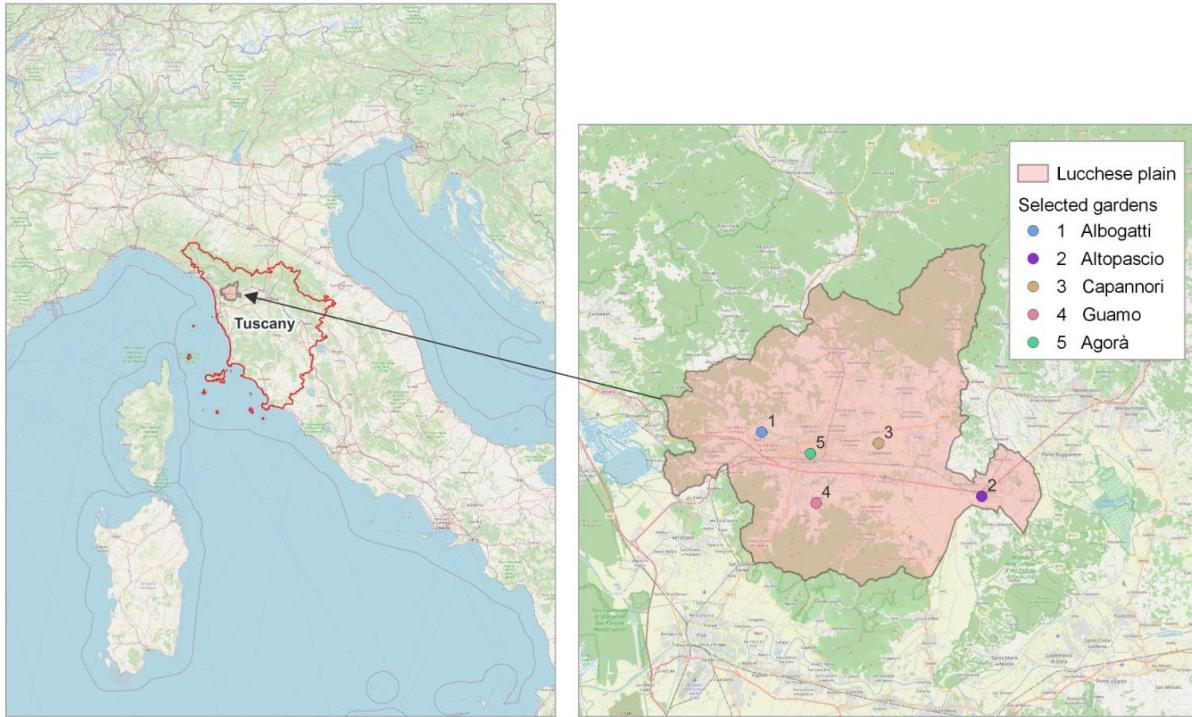


Figure 2: Map of the Lucchese plain and the gardens.

3.2 Data collection

This research consists of multiple qualitative data collection methods as is common in qualitative research (Denzin & Lincoln, 2008). Using multiple methods is a way to understand the phenomenon as well as possibly add rigour, complexity, and richness (Denzin & Lincoln, 2008). Combining different data collection methods aims at triangulating findings and hence increasing the validity of the results (Baarda et al., 2005; Poulsen et al., 2014).

During a period of three months, **observations** in the gardening sites in the Lucchese plain were conducted. Observations aim to understand how the participants interact with each other, understand the garden dynamics, and study practical activities and processes without solely relying on the participants' self-description of the activities (Gray, 2021). Further, the ability to interpret other research findings will be increased. The observations were especially important to get a feeling for the area of study and to experience the underlying values and historical aspects building the basis to understand the place-based processes happening in the gardens. During the time of fieldwork, all gardening initiatives were visited, and the researcher was in close contact with other local researchers in the area.

In addition, the researcher conducted **participant observations** by attending a meeting of the "Piana del cibo". The active participation in this meeting helped to understand the organisational structure of the overarching initiative and to get a further understanding of the topic of community

gardening in the area. Participant observation can potentially uncover power dynamics, reveal behind-the-scenes negotiations, and even realign practices and local or regional agendas through participatory research. It can further strengthen people's appreciation or re-evaluation of place and the construction of new symbolic meanings (Derkzen, 2009; Horlings, 2017).

3.2.1 Semi-structured interviews

12 **Semi-structured interviews** with different stakeholders involved in the five gardening initiatives were conducted in December 2021 and January 2022. An overview of the conducted interviews is given in table 1. Firstly, interviews with the organizers of the initiatives were conducted. As the second group of interviewees, participants in the gardens were contacted and interviewed. As a third group, different experts on the topic of food and horticulture in the Lucchese plain were consulted. Having interviews with these individuals gave a better understanding of the multiple meanings of community gardening for the diverse actors involved in the gardens, as suggested by Baker (2004).

Semi-structured interviews seem like an appropriate method as shown in the qualitative study on perceived benefits of community gardening in Baltimore by Poulsen et al. (2014). It opens up the possibility to further ask about observed processes that happened in the garden. Furthermore, an analysis of community gardens can offer possibilities to understand how individuals and groups in these gardens actively produce space and culture through their construction of place as underlined by Baker (2004). The interviews with the participants aim to understand how their practices are motivated (mainly linking to the first dimension of re-appreciation) and how the participants see the processes themselves. The interviews with the organizers of the initiatives shed some light on the organisational structures (re-grounding) around the gardens and the intentions the organizers have for the gardens (re-positioning). The interviews with the local actors, taking part in the "Piana del cibo" further helped to understand the link between the gardens and the "Piana del cibo" and the special role this connection has on the processes in the gardens (re-grounding; re-positioning).

For the interviews, three different interview guides were used since different questions need to be asked for the different interview partners. An example of a semi-structured interview guide (for the participants of the gardens) is provided in Annex 3. However, it is important to mention the guidelines in the interview guide were not strictly followed. A semi-structured interview guide was used to leave enough openness to maintain flexibility for the researcher to dive into depth depending on the response from the interviewee. Hence, the respondents were free to lead the direction of the interviews.

Table 1: Overview of the interviews

#	Name*	Age	Sex	Nationality	Garden	Position
1	Rosa	67	F	IT	Albogatti	Coordinator/Participant
2	Bruno	35	M	IT	Agorà	Coordinator/Participant
3	Andrea	44	M	IT	Capannori	Coordinator
4	Mario	25	M	IT	/	Expert/Participant
5	Sofia & Stella	40/24	F/F	IT/IT	Guamo	Coordinator/Participant Coordinator/Participant
6	Marco	31	M	IT	/	Expert/ Thematic table coordinator
7	Flavio	73	M	IT	Altopascio	Coordinator/Participant
8	Karen	71	F	US	Agorà	Participant
9	Maria	76	F	IT	Capannori	Participant
10	Luca	50	M	IT	(Capannori)	Expert/Previous coordinator Capannori
11	Luigi	53	M	IT	/	Expert/Coordinator educational activities gardening Toscana
12	Angela	30	F	IT	/	Expert/Freelancer Local and sustainable food systems

*Names changed.

3.3 Data Analysis

The data were analysed with deductive coding with certain categories in mind that emerge from the three dimensions of the sustainable place-shaping theory. These codes were supplemented by inductive codes to capture emergent themes that came up during the interviews and in this way address contextual resources (see Table in Annex 4). As practiced in the Ph.D. project of Veen (2015) on community gardening in the Netherlands, this two-fold way of analysing data allows a more holistic approach. After categorizing the memos into code groups, the researcher selected several passages of interview transcripts for initial, line-by-line coding, adopting terminology used by participants as potential codes. After comparing the code groups elicited through memos and the initial codes, a codebook grounded in the data was developed, organized by broader axial codes and sub-codes using the software Atlas/ti (Muhr, 2011). After the coding, participants' statements were organized into clusters of themes. Among these clusters, key themes were identified to highlight areas of convergence or divergence across participants. After the coding was done, a mind map of the codes was drawn to get a better understanding of how certain codes are linked. This helped to find a first structure of the findings and provided a first outline for the discussion.

4 Analytical chapters

In the following, the results are presented according to the three dimensions of sustainable place-shaping: re-appreciation, re-grounding, and re-positioning.

4.1 Re-appreciation

Re-appreciation gives space to reflect upon the values that people give to a specific practice, here the practice of community gardening. More specifically, this dimension of the analysis observes how the people involved in community gardening re-evaluate what qualities should be preserved or reintroduced into a practice because they are considered valuable. This implies that many participants perceive that the values in question are getting lost. Within the gardening initiatives, they try to give new meaning to them. The data shows that different interrelated re-appreciation processes of ideas and values take place in community gardening. This section highlights the most predominant re-appreciated values related to community building and territory, that are based on the participants' motivation to challenge the current nature-human interaction.

Throughout the interviews, several respondents described society as becoming more and more dysfunctional. Bruno, for example, had the impression that society is developing in the wrong way and that the connection between people is getting lost. Another interviewee underlined that these current developments go together with the fact that "*we lose our feeling for natural cycles and their timing*" (Andrea). As the quote illustrates, the respondents spoke of a general sense of detachment between people and their environment, but also a feeling that society is fragmented and drifting further and further apart. Respondents acknowledged the high influence that human processes have on our environment. Angela, for example, pointed out that this effect can be observed in the common food production processes due to pollution and destruction of the natural environment. Luca expressed this interaction through the idea that "*humanity is part of something bigger*" and that people influence the world around them with their actions. Luigi (53 years old) emphasized that he feels his generation has failed in caring for the planet and creating a healthy society. While talking to Flavio about current "*unhealthy developments*", he underlined the idea that if we continue with the current path, the well-being of the following generation will be highly compromised. Based on a general feeling of frustration with the current developments, participants expressed their motivation to challenge this very status quo and to participate in the development of different approaches. This way, participants re-appreciate values that according to them are getting lost in our nowadays society.

In order to act upon this underlying motivation, Angela perceived a growing interest in addressing issues of local food production and community gardening. Respondents saw that they were

able to express a perception of their reality by bringing forward initiatives such as community gardening. Furthermore, respondents mentioned the potential of creating a healthy, small society within the gardens (Bruno, Karen, Luigi). Bruno expressed that community gardens can be seen as a microcosm of society as a whole, which can be designed according to one's own values and ideas. For example, Luigi saw a great potential of the gardening initiatives to give the participants the possibility to experiment with building a life in harmony with each other and the planet. He was mentioning that by taking care of a garden, you learn how to take care of something bigger. Andrea underlined that by engaging in the topic of food and gardening, we can learn about other aspects of sustainable living. The organizer of the Guamo initiative, Stella, mentioned that while setting up the activities, they actively tried to create a sustainable project which does not compromise the wellbeing of the ground or the people, further emphasizing the necessity to re-connect the two.

According to Luigi, large parts of his generation share his view of problematic societal practices. However, he stated that a big problem is that a lot of engagement in these topics stays at a theoretical level and that there is no urge to bring them into practice. This perception was reinforced by Angela. Similarly, Mario pointed out that people always talk about sustainable food production, but that the link to practice is missing. In this context, the participants highly valued the opportunity to put their values into practice inside the gardens (Angela, Bruno, Andrea, Mario, Marco, Karen). Andrea mentioned that the best part of gardening was learning something in theory and directly applying it to the field. Participants re-appreciate values related to a different approach to nature-culture interaction and they see the small society in the gardens as a playground and learning space to learn, express, and experiment with these values.

4.1.1 Making community

“The gardens are much more than growing areas; they are a place for socializing” (Protocols of the thematic tables)

BOX 1

As seen in Box 1, for the participants, the gardening initiatives provide a space where they learn to re-value aspects of community. This goes hand in hand with the perception that this sense of community and cohesion is being lost in society. Marco, for example, emphasized that he sees that people no longer act as a community and that this sense of unity is being lost. In the gardens, participants re-appreciated that sense of community by actively trying to create cohesion among the gardeners. Luigi and Marco underlined that a garden is an ancient tool that has always brought people together and that this tool is being re-used to create a community feeling nowadays. Even though most activities in the gardens were on hold, the creation of this community feeling was especially important for the respondents during the COVID-19 pandemic, since a general feeling of loneliness was often experienced (Maria, Marco, Angela). Many even expressed a desire to intensify social interactions in the garden after the end of the pandemic (Luca, Marco, Karen, Andrea). Respondents said that they

felt the garden participants were like a "*small family committed to similar projects*" (Karen, Flavio) and that they saw the garden as a place where they could learn to communicate with each other (Karen). Respondents appreciated the gardens as they offered them the opportunity to connect with others in their community and create a sense of cohesion.

Since all the initiatives were part of the Tuscan Garden project, they were encouraged to offer educational activities (for more information about the regulations, see section 4.2.2), which often had a positive effect on the community cohesion between the different members (Luca). Different courses were offered on growing techniques, but also broader topics related to the ecosystem or mafia structures in the agricultural sector like in the project in Guamo. Some of the activities were designed to educate "*conscious consumers*" who can better understand the value of food by understanding the production processes as underlined by Angela. In summary, offering educational activities at the site facilitated the creation of a learning space where participants were able to interact and exchange their thoughts on topics related to agriculture but also beyond that, by further strengthening the social bond between them.

Another way the gardening initiatives emphasized social bonding was its inclusive design, as underlined by different organizers of the gardens (Altopascio, Agorà, Capannori), intended to guarantee the exchange between different generations, social classes, and cultures. The garden in Altopascio had already made some activities where they shared their leftover food with Caritas to promote inclusive access to locally produced food items. There were also some garden plots in the Albogatti garden that could be cultivated for free by people with lower incomes. In the Guamo garden, they organized several social evenings where they offered products from their initiatives and created a place for social exchange. Furthermore, the gardens in Guamo, Agorà, and Altopascio were having active collaborations with the schools in the neighbourhood. In the community garden in Altopascio, there was a slot in the garden especially reserved for school activities. The benefits of the intergenerational exchange in the gardens were highly emphasized by the respondents since the older generation had a great knowledge in the field of (traditional) agriculture due to the history of the area. Especially the younger participants appreciated this knowledge very much and were highly interested in realizing this exchange. As one interviewee said: "*The luck we have is that we still have many people in our territories. There are still many experiences of people who cultivate. The important thing is not to lose these experiences.*" (Sofia). For a lot of participants, the exchange between members of the garden, but also with other societal structures that share common values, elevated the re-appreciated feeling of community and belonging.

4.1.2 Territory

When talking about the values that the respondents connect with the gardening activities, the term “territory” was mentioned very frequently. When talking about territory, respondents mentioned different aspects of it being important for them. On the one hand, they talked about getting in contact with the territory referring to “*touching the soil*” and being in contact with nature through the gardening activities. On the other hand, another aspect of territory was mentioned, referring to a more cultural/historical aspect of the term.

In terms of touching the soil, some participants mentioned that the activities in the gardens allowed them to cope with stress, especially during COVID-19. However, due to high levels of uncertainty during the beginning of the pandemic, all studied community gardens were closed for several weeks, and respondents were not able to visit the gardens. Once the gardens re-opened, respondents mentioned that their interest in gardening had grown, and they were more motivated to actively participate in the initiatives (Rosa).

The participation was especially important for the people who did not have access to their own garden, for example, the ones living in the historic city centre of Lucca. Karen, for example, did not have her own garden and underlined during the interview that she perceived the garden as “*healing*”, especially during stressful times. Angela, who is actively involved in the Instagram community around the topic of local food systems, saw that a lot of people underlined the benefits of (community) gardening during COVID-19 related to mental health. She called it a “*real awakening*” which helped her to re-appreciate the practice of gardening. In general, many respondents used the gardening spaces for recreational purposes, like reading a book, having a drink, or meditating (Bruno, Rosa, Karen, Maria). Respondents said that they could relax and that getting in contact with the soil helped them to slow down and increase their mental well-being (Rosa, Karen). Moreover, participants mentioned that they were able to learn and better understand natural cycles through gardening, further intensifying their connection with nature. Participants appreciated the opportunity to reconnect with the soil and learn about natural cycles and nature as a whole through participation in the gardens, which positively impacted their mental health.

“The topic of gardening is certainly an important topic for the promotion of the territory because it can make people understand that our territories have a history, an important history that starts from the land.” (Andrea)

BOX 2

As seen in Box 2, when talking about the term “territory”, many respondents framed it through a historical lens, naming the agricultural past of the area. Andrea stressed that he perceives that the younger generation is losing the link with the territory and the history of the territory, and he stressed the importance of not losing that link. He saw great potential in garden initiatives to connect with the territorial past by involving the younger generation in activities. However, that was not only important

for the younger generation. Andrea underlined that, in general, the understanding of sustainability starts from "*understanding our territories and the origin of our food*". Many respondents stressed that through the practices in the garden, they saw a way of (re-)connecting to and thereby re-appreciating their territory, the place where they originated from (Marco, Luigi, Mario, Andrea). While for some participants gardening was a re-discovered practice, many others had a personal history to it. Respondents stated that they got introduced to gardening through their parents and grandparents since back in the days almost all families had vegetable gardens next to their houses and many people were highly dependent on their own production for their family consumption (Rosa, Mario, Andrea, Maria, Luigi). Two of the younger respondents (Angela, Mario) mentioned returning to the Lucchese Plain, where their family originated and participating in community gardening to re-connect with their families' and areas' past. Thus, there was already a connection to horticulture passed on from the parents/grandparents' generation and the respondents saw the initiatives as a way to get in contact with their (personal) territorial past.

Within the practices in the gardens, the participants re-appreciated the connection to the territory. When talking about territory, respondents referred to the connection to the soil and therefore a stronger connection to nature. Additionally, participants appreciated the territory as a tool to re-connect with their own families as well as the agricultural past of the area.

In summary, the initiatives provided space for experimentation in building a healthy, small society based on a diverse understanding of the interaction between people and nature. They were a playground where participants could learn, express, and try out their perception of reality and their recovered values in relation to the community and the territory, to take these practices and values out into the world.

4.2 Re-grounding

The previous part looks at which re-appreciated values and ideas participants associate with the practice of community gardening. Following on the participants' perception of the community gardens as a playground for their beliefs, we will now dive into the second dimension of the sustainable place-shaping framework, namely re-grounding. Putting beliefs into practice does not happen in a vacuum. Re-grounding refers to the contextualization of practices in an environmental and social framework, which will be the focus of this section. As mentioned in the previous part, the participants' motivation to engage in the gardens is highly influenced by the idea to challenge the current interaction in nature-human relations. Participants value the gardens as a place where they can re-appreciate aspects of community and territory. While talking to the participants, it became clear that the framework conditions highly influence the processes happening in the garden. These framework conditions will be the focus here. However, while talking about the processes in the gardens it became

clear that it makes sense to distinguish two different dimensions of these processes. First, it is important to analyse the social interactions between the gardeners. Secondly, the interactions between the gardeners and the specific place characteristics need some further focus. It is however important to keep in mind the interlinkages of these two aspects that cannot always be clearly separated. When we look at how these processes are re-grounded in the different gardens, it is interesting to come back to Veen et al. (2016) and Firth et al. (2011) description of community gardens that differ greatly from each other and whose development depends strongly on the local context and needs. The specific historical development of the area already mentioned, as well as the specific place characteristics, thus form the basis for the development of the gardening initiatives. Other framework conditions that played a role in the development of the gardens were regulations, the management body, and financial resources which all highly shaped the creation of the space.

4.2.1 Place characteristics

The location of the gardens and characteristics associated therewith highly influenced the re-grounding of the processes in the gardens. This influence can be observed both in the way gardeners were interacting with each other and how the space was used.

As the gardens are located very differently in the Lucchese plain (see Figure 2, page 10)), it was found that the location of the initiatives determines the composition of the participants on the one hand and influences the type of garden use on the other. For example, the Agorà garden is located in the inner part of the city walls of Lucca which is rather difficult to reach by car (a specific permit is needed to access the historic centre of Lucca). Therefore, many of the people who were actively participating in the Agorà garden were living inside the city walls. To increase the general commitment and engagement of participants, the organisers actively tried to involve nearby living residents (Bruno). The Capannori garden is located in an area with a lot of small apartments. Most active members were people living in these housing complexes with no access to a private garden (Maria, Flavio). Maria for example, who lives in an apartment directly next to the garden, visited the initiative almost every day, also just to enjoy the green space next to her apartment. Here we see that in urban settings, where most participants did not have access to a private green, the community garden was used and appreciated differently. Karen, for example, who was actively involved in the Agorà project, used the space as her personal garden, where she went almost every day to relax and get in touch with nature (see Box 4). In contrast to that, in more rural areas like Guamo, people had often their own garden at home (Sofia, Stella). Therefore, for them, the aspect of a social meeting point was more important than the gardening activity itself (Angela, Sofia).

"Those of us who live nearby the garden and can stop in more often gives us more opportunity feels like it's my garden when I go over there and I'm working all by myself" (Karen) BOX 4

Another place characteristic that highly impacted the way the garden was used, was the garden's visibility. For example, the Agorà garden is directly connected to the municipal library. This enticed the visitors of the library to experience the garden. In Capannori, the nearby farmers market held every Wednesday in the Piazza Aldo Moro attracted further visitors and interested people who might join the initiative. The location of the Guamo garden is very central next to the church with a children's playground, public toilets, and Wi-Fi which increased the visibility of the initiative (Stella). According to Sofia, by increasing visibility, many people saw the activities and therefore got further engaged and interested in the initiatives and topic.

Communication between participants and social bonding in the gardens was also influenced by the spatial setup. In all gardens, there was a reserved space for community meetings and workshops. For example, in Altopascio, a pavilion was used to organize common dinners and other social activities. Furthermore, some gardens had a children's playground in place, which incentivized parents to come and spend time with their children there. The size of the gardens also mattered. Since the gardens in Agorà and Guamo were very small, it was not possible to divide the parcels and that's why it was decided to cultivate the garden all together in a communal way. This fact made good communication and organisation among participants very important to decide what to plant and how to maintain the common space (Bruno). In the other gardens where more space was available, small parcels were divided among participants. This clearly shows that place characteristics influence the nature of communication between participants and thus community building in the different gardens.

Adding to that, these characteristics also had an impact on human-nature relations. In urban environments like the Agorà gardens, it is difficult for gardeners to grow many varieties due to the lack of sunlight. Furthermore, the initiatives located in rural settings were reported to attract members that are more connected to the territorial past. As a consequence, traditional farming methods were more present in their practices (Sofia, Stella). Altogether, it was confirmed that space characteristics do influence the way the practices are re-grounded in the gardens.

4.2.2 Regulations

Almost all studied community gardens had regulations set in place that shape the re-grounding of practices. While a set of regulations can be observed in all gardening realities, some gardens implemented their own individual regulations. Since all gardens were at some point financed by the Tuscan Garden initiative "100mila orti in Toscana", they were requested to apply specific regulations which were provided in a guide by the Tuscan region "Guida per una orticoltura pratica" ("A guide to practical horticulture", Regione Toscana (2016)). However, some aspects were mandatory and others voluntary. While the management by an external non-governmental organisation (NGO) or working group was mandatory for the garden initiatives, other aspects were merely encouraged, namely the

cultivation of local varieties, the application of organic farming principles, and the provision of educational activities (Regione Toscana, 2016).

Adding onto these guidelines from the Tuscan Region, two of the five gardens (Albogatti and Altopascio) established additional regulations (see Annex 5). These individual regulations were often decided upon together in initial meetings and hence highly adapted according to the local reality and the participants' values and ideas for the gardens (Luca). For example, Luigi, one of the garden experts, stressed that the regulations in place in the gardens need to be adapted to "*what is there, ... and where it is*". While in two gardens new participants had to sign the set of regulations before joining the initiative (Capannori, Altopascio), the other gardens relied on verbal communication on said rules and regulations (Agorà, Albogatti, Guamo).

The coordination of the application of these rules and guidelines was often coordinated by the management body in the respective gardens (see section 4.2.3 on management body). Still, establishing internal regulations for the gardens was not always easy. In the Agorà garden, for example, no internal regulation was in place due to the difficult communication between the participants and missing responsibilities. This resulted in the activities being very discontinuous and members not wanting to engage due to the missing structure (like friends of Karen). It was especially important for people to see that there was an active community in the garden which is interested in the topic and in further fostering said community (Rosa, Karen, Luca).

This clearly shows that the presence of rules promotes successful communication, responsiveness, and engagement of participants (see Box 3). It further shows that these regulations were important for the success of the garden initiatives since it helped the participants to express themselves and engage in the projects. However, it was interesting to note that the rules themselves were often based on the ideas and values of the participants (because they were able to decide on them together). At the same time, it helped new members to see the existing set of rules and understand the values underlying the practice so that they could decide for themselves whether or not they wanted to get involved. This underlined that the regulations might be seen as a powerful tool to shape this place-based practice of community gardening and support the re-grounding process.

"The introduction of the regulations has made it easier to manage the group of gardeners. The logistics have been simplified. There has been no decrease in the number of people in the gardens as a result of the regulations; on the contrary, there have been many more requests and many people in the ranking. The regulation has made it easier for Albogatti garden: people realized that there is already an active community, interested in the topic and in fostering the community."
(Rosa)

BOX 3

When it comes to applied farming methods and varieties planted, the regulations highly encouraged the application of organic farming principles and the use of traditional and local varieties

as well as the minimal use of fertilizers and pesticides. This was confirmed by all participants and organisers. In all the gardens, as mentioned above, the respondents saw the gardening activities as a way to reconnect with their (personal) territorial past. Therefore, the use of local varieties and traditional techniques was particularly important to the respondents, as they saw it as a link to the above-mentioned aspects of the region's past (Marco, Luigi, Mario, Angela). In addition to these general guidelines, the members of the Agorà garden had collectively decided (but only verbally) to apply the principles of synergistic cultivation and to base their decisions about the varieties grown on the Dirty Dozen list whenever possible. In other gardens, discussions arose about the use of certain products, which was recognized as a generational conflict. In the garden at Capannori, for example, the younger gardeners were more sensitive to issues such as low use of harmful pesticides and herbicides, which was very difficult for the older generation to understand because some of the fertilizers were products, they had used all their lives. Though the regulations and guidelines gave structure to the use of certain cultivation methods and plant varieties (especially traditional and local varieties) and, moreover, set the discourse on this in motion.

4.2.3 Management body

Closely linked to the regulations was the management body set in place, which played another important role in the re-grounding, meaning the implementation of the practices in the garden. As mentioned previously, due to the participation of the gardens in the Tuscan initiative, all projects had to be accompanied by an external working group or NGO. This created a more structured environment, established responsibilities in the gardens, and embedded the initiatives in a larger community. However, many respondents mentioned that in addition to this "*official management*" by the working groups or NGOs, it was important to have responsible persons in the gardens actively shaping the re-grounding. The SWOT analysis, conducted by Marco (the organizer of the thematic table on community gardening) highlighted that there is a need in the gardens for managers/coordinates for two areas: social relations and technical aspects, again highlighting these two dimensions being present in the garden.

The need for a responsible person in the gardens to mitigate/facilitate the social interactions between the persons in the garden was mentioned by several respondents (Luigi, Luca, Marco). Luigi, one of the gardening experts, underlined that a person who navigates the social relations within the community is especially necessary to mitigate conflicts. He underlined that this coordinator should be an external person who does not play a role as a horticulturist within the community. The importance of the neutrality of the coordinator was confirmed by different participants during a meeting of the thematic table of community gardening. In fact, in almost all gardens, there was a person responsible for social relations, often associated with the working group/NGO. This person organized the meetings

between the gardeners, and often also had a general overview of the current situation in the garden (Luca). The importance of this person in coordinating the gardens was demonstrated in Capannori, where the previous coordinator, Luca, had left the gardens during the previous season. Before giving up this duty, he tried to transfer the responsibility to other gardeners so they could organize themselves. However, this proved to be difficult since nobody wanted to continue with this task. In the Agorà garden, members also reported a lack of accountability as the coordinator, Bruno, struggled to fulfil his role and facilitate interactions among gardeners. Consequently, in both gardens, many activities were very discontinuous, highly influencing the participants' commitment, exchange, and community structure.

Next to the social coordinator, several gardens invited a technical advisor to give his/her input (Agorà, Guamo, Albogatti, Altaspasio). Especially in the beginning of the gardening projects, it was seen as helpful to invite such a person to give courses on specific farming methods and the application of traditional varieties and methods. When talking to Rosa, the organizer of the Albogatti garden, she underlined that it would be good for the technical advisor to take an active part in the garden. Mirroring the observations in the Agorà garden regarding the social coordinator, the absence of a technical advisor resulted in people being discouraged because there was no person of reference and external knowledge (Bruno).

The establishment of the management body, existing of the NGO/working group as well as the social coordinator and technical advisor, were important for the initiatives to re-ground the processes related to social and socio-ecological aspects. The absence of such structures related to the management of the social and technical structures made it difficult for the people to get involved and on the other hand also negatively influenced the techniques and ways the participants used the space.

4.2.4 Financial resources

The (non)-presence of financial resources highly influenced the re-grounding of the practices in the gardens. As mentioned previously, all researched gardens were at some moment financially supported by the Tuscan region. Nevertheless, different initiatives reported that they did not apply to all available biannual funds from the region. In the Agorà garden, for example, Bruno reported that they used the money from the region only for the initial investment at the beginning of the initiative, mainly for basic equipment and for paying a technical advisor. Afterwards, however, Bruno reported that they had financial difficulties throughout the project. Overall, as confirmed by Flavio, the Tuscan Region has a strong interest in continuing to support local horticultural projects (see the “100mila orti in Toscana” initiative).

Nevertheless, although the money was available for initiatives, it was rarely exhausted. This was due to a variety of reasons. Luigi reported that communication with regional authorities, which is

so important, was largely difficult and that there was generally too little interest from local politicians and municipalities in facilitating this communication. This led to a lack of information about possible funding opportunities and the feeling of many initiatives being left alone with their financial problems (Albogatti, Altopascio) (Marco). In addition, many initiatives stated that they did not apply for funding because, as mentioned above, they lacked personal capacity and responsibility within the gardening community. This resulted in the fact that out of the five gardens researched in this paper, only two received funding during the last funding call in 2021. The scarcity of financial resources was mentioned in all garden projects (SWOT analysis). This led to fewer activities being offered, which in turn had an impact on community building in the gardens. Similar to the processes involved in the lack of regulations and lack of communication and responsiveness, this led to a loss of interest of new members in joining and also in this type of agriculture in general, as described by Marco and Karen.

Due to the aforementioned lack of support from the local authorities and the missing capacities and responsibilities in the gardening initiatives, financial problems frequently arose. This in turn highly influenced the re-grounding processes in the garden, often restricting activities and possibilities. Financial factors leading to uncertainty and fluctuating engagement in the gardens thus have a major impact on the way communities were built within the garden projects, and ultimately certainly on the success of the initiatives.

In summarizing, we see that the context (regulations, management body, and financial resources) highly shapes the re-grounding of practices. These context conditions are highly influenced by specific place characteristics, the historical development in the Lucchese plain and are very often also shaped by the participants' re-appreciated values (such as the regulations, which not only influence the practices but are also shaped by the values of the participants), which again underlines the relational nature of these processes (see Figure 3).

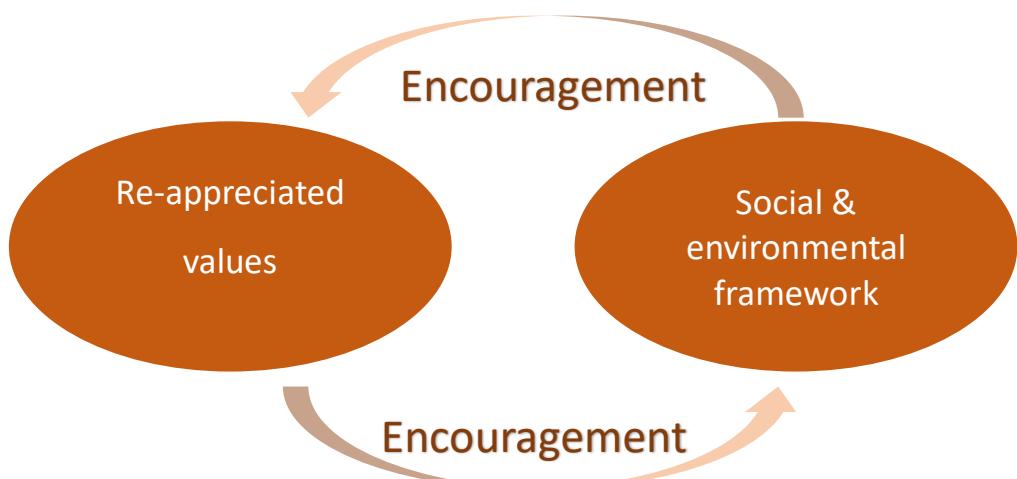


Figure 3: Interaction re-appreciation and re-grounding dimension.

4.3 Re-positioning

After presenting some re-appreciation and re-grounding processes happening, re-positioning processes within prevailing power structures need some further focus. The first dimension sheds light on the re-appreciated values that the participants associated with the processes in the garden. However, with the second dimension, re-grounding, we saw how the processes are shaped by the ecological and social structure in place. In the third dimension, re-positioning, we consider how these processes interact with existing power structures. Nevertheless, as with re-appreciation and re-grounding, re-positioning is continuous and not strictly separated from other processes. Still, to understand how community gardens are developed, it is important to observe how they are embedded and overcome specific power structures.

As seen in the previous parts, especially in the part on re-appreciation, there is a perception by many respondents that *“society does not always go in the direction that we would love to have it developed”* (Bruno). While some participants state this perception explicitly, others do so implicitly by holding on to traditions, which will be discussed more in detail in the section on social power. Even if this feeling is very blurred and indistinct at first, the interviews reveal some of the issues involved. In the following, we will divide overarching structures into political, economic, and social power. While doing so, we analyse the participants’ opposition toward dominant regimes and institutions. In a second step, we describe how processes in the garden are intended to counterbalance these.

4.3.1 Political power

Throughout the interviews, referrals to *“the political power”* stay rather vague. Participants do not define what exactly political power means to them and they do not allude to specific institutions or government bodies, but in the course of the interviews, it became clear that respondents perceive the prevailing political system as non-inclusive. Some respondents said that they feel disconnected from the political arena, that they feel they have limited access to decision-making on food issues and that ultimately only a few benefit from the decisions made (Karen).

In order to re-position themselves in the political system, the initiatives try to create alternative systems and realities as underlined by Luigi. He sees the gardens as a way to experience *“the democracy of the future”* in which everybody can bring in their values and ideas and actively influence decisions taken. The collective decisions concerning the gardens are considered *“a mini parliament”*, in which all members of the community are heard (Luigi). Participants underline that they appreciate the participatory and deliberative approach present in the gardens and underline their wish for more participation in other decision-making processes. Luigi was underlining that creating these kinds of small communities around the garden gives a point of departure for future sustainable systems. He was underlining the potential to discuss problems that have global significance but to

practice these ideas on a local scale. Successful implementation of such a participatory system could therefore serve as a model for other initiatives and other areas of life. Similarly, Stella sees their project as the rejection of a certain type of society with the aim of building or participating in the construction of a new one.

The overarching structure combining the different initiatives, “Piana del Cibo”, describes itself as the collective response to the challenges and opportunities of food policy. It connects like-minded actors and actions already in place on topics of sustainable food systems to defend their interests through deliberative bodies, such as the food agora and the food council (see Annex 1). Through shared decision-making powers on food-related topics the well-being of citizens should be addressed and in the long term the sustainable development of the territory (Piana del Cibo, 2020). That way they try to shape municipal and regional food policy. Marco sees great potential in the thematic tables he coordinates, as theoretically all citizens have the opportunity to participate and thus shape their local food policy. However, as he underlined during the interview, the inclusion of a wide variety of actors turned out to be rather difficult. Mostly, citizens who were already highly engaged in the topic of food and gardening got engaged. Adding onto that, especially during COVID-19, where the meetings were held online, participation declined. Even though the full potential of the thematic tables might have not been reached currently, it entails a great possibility to support the creation of a local, participatory food policy process as underlined by Angela.

We can summarize that the initiatives do not only promote participatory decision-making in the gardens but also try to influence and shape the political system through networks such as the “Piana del Cibo”. That way they re-position themselves in the wider political context.

4.3.2 Economic power

As described in the previous paragraph, several respondents criticised the lack of a voice on food-related issues in our global food system. They feel that the topic of food is taken from them (Karen, Mario). Karen, for example, underlined that our fast lifestyle heavily decreases the time we spend on food-related topics. Next to the political context, this majorly relates to the dominant economic system in place which respondents describe as profit-driven, commercialized, and centralized (Karen). According to them, this capitalistic logic leads to a number of problems such as loss of traditions, environmental degradation, missing sustainability, and low quality of food. For example, Sofia said that we are still not living in a society where the topic of sustainability and the protection of the environment, is widely discussed. Even in the rare case, it is taken into account, such as in the current trend toward a green economy, profit and economic growth are central (Angela). According to Angela, unlimited growth is unsustainable in the short term, and impossible in the long

term. Generally, respondents see the nature-human interaction as deeply flawed and want to re-position themselves to right this wrong through participation in the gardens.

In order to provide a “*healthy*” alternative to centralised and commercialised food production, it is, therefore, necessary to reduce production and think locally, according to the respondents. In addition, respondents mentioned that many local traditions have been lost in the last decades, which was seen as very critical. Hence, Bruno, for example, was mentioning that in his vision of the Lucchese plain and its economic development, going back to small, local (traditional) food production systems, such as community gardens, could be one solution. Angela also emphasized the idea of coming back to simplicity. She stressed that instead of centralising food production in the hands of a few large farms, local producers and their fresh and healthy products should be promoted. The gardens can catalyse such developments since topics of sustainability and alternative and/or traditional production systems are being discussed and put into practice. Furthermore, participants see the gardens’ potential in building a better network between businesses, canteens, and restaurants to address topics of circularity (Luigi, Marco). Additionally, farmers’ markets and the local producers empowered by these should be supported. For many respondents, it is clear that it will never be possible to sustain their life without supermarkets, but that improving things in the current system is possible. Mario’s vision of the future supermarket system, for example, includes more local products. Still, respondents have no illusion about the difficulties of keeping a sustainable system alive in a profit-driven environment. To circumvent these contradictions, they exchange best practices and ideas with like-minded local, national, and international initiatives. This was highlighted by Stella who underlined the importance of such networks to spread the idea of the Guamo garden project and to “*make it survive in the outside world*”.

The participants saw the initiatives as a place to set an example and to provide an educational space. For example, through the gardening practices, they created knowledgeable consumers and producers. Flavio, for example, concluded that gardens can be a good tool for conscious, sustainable consumption. Likewise, through their educational activities, they helped spread this knowledge to other parts of society. For example, common events and training activities for interested actors were organized to open the floor for discussion on food quality, biodiversity, and sustainability in the Plain. Furthermore, respondents also saw the gardens as a point of departure to achieve sustainability in other aspects of life through discussion and dissemination (Flavio).

In summary, garden initiatives are re-positioning themselves in the economic system by offering an alternative to the prevailing system, supporting local actors, and initiating sustainable change, also beyond the issue of food. Here again, the creation of a strong network between the

different like-minded actors was core to increasing the exchange of best practices and ideas aiming to guarantee the survival of such diverse realities.

4.3.3 Social power

From the point of view of many respondents, capitalistic-driven market economics not only influence production methods but also put a toll on social relations. A trend toward individualism and a loss of cultural traditions was described as the dominant trend around them (Mario, Karen, Luca). Marco, for example, underlined this development is happening in our society nowadays, resulting in a loss of community feeling. According to him, this became even more evident during COVID-19, when social interaction in the Italian context decreased, which was supported by social distancing measures (Tropea & De Rango, 2020).

As in the section before, the garden initiatives present themselves as a viable alternative to these dynamics. Marco pointed out that the little societies inside the gardens represent a stark contrast to the consumer society. For many, these "*little families*" represent a way of coming back together, creating bonds, discussing problems, collectively finding solutions, and not the least, having a common ground (both literally and figuratively). Flavio underlined this feeling of being part of a chosen family. Many hope that developments such as these can increase societal cohesion and lead the road toward a broadly defined common good (Luigi). That being said, it often stayed unclear what this common good implied. However, what became clear is that participants look for harmony in this world in one way or another and hope to find it in the gardens. Luigi and Karen, for example, mentioned this wish for harmony and "*building a parallel world, where things work the way, they should*" (Karen).

The mention of creating a family also corresponded to another sphere in which some respondents wish for re-positioning, namely the loss of traditions. Karen was saying that there once was a great appreciation of food in Italian culture, as meals were a focal point of families and communities. She sees a decline in this appreciation and cites modern fast-food culture as the reason. She also contemplated that women are nowadays often unable to cook at home due to financial pressures, which leads to the loss of recipes and food-related traditions. Even if this aspect of the traditional gender roles, where women are mainly responsible for preparing the food, is critical from a feminist perspective, it might be surely one reason for recipes and traditions getting lost in Italian culture (Avakian & Haber, 2005). In contrast to these developments, Karen sees a local desire to preserve traditional recipes and practices, which is also expressed in participation in community gardens.

To make this re-position in social relations possible, participants see the need for the aforementioned strong networks, not only between gardeners but also between different initiatives. According to them, these networks have several functions and benefits. First of all, collaborating with

other initiatives strengthens the community and helps to disseminate ideas and best practices. They learned from each other and as Luigi said, *“you can have the best idea in the world, but if you don’t communicate it, it does not have any value”*. This was confirmed by Stella, one of the organizers of the Guamo garden, who said that she highly valued the exchange with other realities in the plain, especially during COVID-19 since this brought major difficulties to the initiatives. The networks reached beyond the hedges of the community gardens. In the SWOT analysis, which was conducted by Marco, it was said that there is a big presence of many collaborative associations in the Lucchese plain, such as CARITAS and SLOW FOOD. The initiatives were actively reaching out to other members of the society, earlier mentioned as an aspect of inclusion to make their projects an integral part of the city’s reality.

The creation of the network between the initiatives in the Lucchese plain was highly facilitated by the “Piana del Cibo” and the thematic table. Respondents were in contact with farmers abroad to exchange knowledge and best practices (Mario). The potential of combining local and foreign knowledge was underlined during the thematic table, also by inviting (foreign) experts to give workshops. These networks often benefitted from existing structures and participants’ previous involvement in other initiatives around the topic of agriculture and food (Luca, Marco).

For the participants, re-positioning of social relations means re-building and strengthening a sense of community they perceive has been lost. For them, the topic of food and gardening has great potential to bring people together. In order to make use of that potential, social bonds in the gardens, but also in the wider communities, need to be encouraged. Only in that way, they believe, undesirable developments on the societal level can be corrected.

In summary, we see that concerning political, economic, and social structures surrounding the initiatives, the respondents are highly critical of current developments and regimes. Through this logic, re-positioning means creating an alternative system that addresses the perceived problems and tries to find solutions to them. It exists in parallel to the currently prevailing structures but seeks to gain support through networks and the dissemination of ideas. This highly relates to the re-appreciated values discussed earlier.

The practice of community gardening is valorised in the Lucchese Plain in a number of ways. A summary of the results concerning the three dimensions of the sustainable place-shaping framework is given in Table 2.

Table 2: Summary of sustainable place-shaping practices in the Lucchese Plain

Re-appreciation	The practice of community gardening is highly valued by its participants to re-connect with their community and their territory. The agricultural practices in the gardens paired with the possibility of a learning space for the new generation and a way to take care of a common good allowed the participants to re-connect with the people around them and their common traditions.
Re-grounding	While financial problems limited some activities in the gardens, regional support and general embeddedness in social structures served as fertiliser for successful activities in the gardens. This in turn greatly influenced successful communication between the garden participants and other social actors, which promoted community building and exchange on the application of traditions around gardening (e.g., plant varieties and methods used).
Re-positioning	The garden initiatives re-position themselves in the economic, political, and social system by aiming to provide an alternative to the dominant regime, supporting local actors, and catalysing sustainable change, in and beyond the topic of food and gardening. Here again, the creation of a strong network between the different like-minded actors was core to increasing the exchange of best practices and ideas aiming to guarantee the survival of such diverse realities.

5 Discussion

5.1 Place-based aspects in community gardening

The analysis of the community gardens in the Lucchese Plain illustrated that under the right conditions, community gardening brings a fruitful opportunity for sustainable place-shaping. This became evident through all three dimensions of the applied framework since it helped understand which aspects of this practice make use of local resources and are grounded in the local place. The re-appreciated values were an important topic for the participants of the initiatives. These values relate to the territory and its traditions, both abstractly and through specific cultivation methods and planted varieties. Community building and (intergenerational) learning also played an important role. The participants felt that in the gardens, they can communicate these values and put them into practice. The overall valorisation of these values in the area has encouraged the local administration to actively support initiatives such as the "Piana del Cibo" or the "100mila orti in Toscana". This in turn resulted in the dissemination of urban gardening initiatives in the area. Through this structural environment of the regional administration and the strong network of local community gardens and other societal initiatives, the re-grounding process was highly facilitated and shaped. By taking a relational approach to place, the theory allows us to analyse the creation of the network mentioned above. Going beyond geographical boundaries helps disseminate the values associated with place-shaping and can strengthen the feelings that the participants hold regarding their place.

Since most actors in this network subscribe to similar (place-based) values, they reinforce each other in their convictions and create the space to exchange and enact these, again underlining the mutual interaction of the dimensions (see Figure 4). Through collaboration with other societal actors, these place-based values are brought forward. According to Massey's relational approach to place (Massey, 2005), gardens can be seen as an example of place constituted by networks that extend beyond the materiality of the gardens, as do the values associated with them. They are embedded in wider social networks and are both an outcome of these values and their generators. Through these re-grounding processes, embedded in local resources and knowledge, the practices in the gardens can be seen as an example of sustainable place-shaping. This confirms the findings of the research by Vasta et al. (2019) on the place-shaping practice of traditional linen in a Portuguese village. Within the re-positioning dimension, we saw that through these practices, actors in the gardens try to provide an alternative, practical examples to the status quo, which was generally seen as harmful to people and the planet. By building these "*small, healthy societies*", participants in the initiatives re-position themselves in the broader social, environmental, and political system. Even though a clear sociological definition of the term "*society*" remains contested (Schwietring, 2020), Fichter (1957) provides a broad idea of society "*defined as a network of interconnected major groups viewed as a unit and sharing a*

common culture" (Fichter, 1957, p. 4). According to that idea, the initiatives provide at least some aspects of a society where members share a common cultural background and values. One question that remains, however, is to what extent these small societies are "healthier" than their reference point, or whether this perception of "health" is simply due to the homogeneity of the participants, relating back to the possible creation of echo chambers, as mentioned in the literature review (Veen, 2015). It is important to note how the re-positioning highly depends on the values that are being re-appreciated, further demonstrating the interconnectedness of the dimensions (see Figure 4).

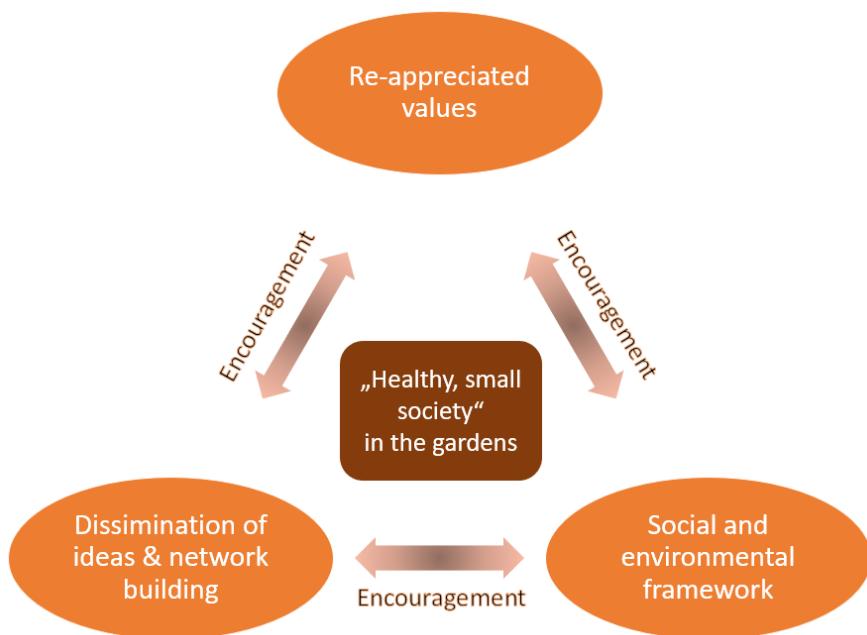


Figure 4: Interaction of the three dimensions.

The aforementioned aspects show that all three dimensions have been tackled within the initiatives, underlining their place-based nature. The research on the gardens shows that these initiatives offer possibilities for participation in the transformation of the food system and social activities, aiming at the empowerment of the community. Through collaboration, coalition building and sharing of values by all types of actors, the conditions for bottom-up transformation are in place, as highlighted by Horlings & Vaart (2019). Ultimately, the initiatives can also reinforce social cohesion and territorial identity, embedded in the realities of the Lucchese plain. This is in line with recent work on community gardening and other place-based practices (Baker, 2004; Cumbers et al., 2018; Horlings & Vaart, 2019).

5.2 Towards sustainability

Sustainable development is often described as the balancing act between the planet, people, and profit (Kuhlman & Farrington, 2010). A complete and holistic notion of place needs to incorporate all these three notions (Bullen & Whitehead, 2005; Hudson, 2005; Marsden, 2013). When looking at the impact community gardens have on the sustainable practices of participants in the Lucchese Plain, it has become clear that aspects concerning people and the planet are being addressed. The gardens provide an opportunity for education, community building, and social cohesion among participants and wider actors in the Lucchese Plain by sharing responsibility for common goods. This can potentially lead to a call for action and collective care, transforming the relations between people and the environment (Bieling et al., 2020). The planetary dimension is further emphasized by incorporating sustainable practices regarding gardening. This further confirms the findings of the SUSPLACE project (Horlings & Vaart, 2019). However, while analysing to what extent the gardens address the economic dimension, some questions remain. While ideally, economic benefits help build resilience against global pressures (European Commission, 2022; Horlings & Kanemasu, 2015), participants are neither self-sufficient through the gardening produce, nor are they financially remunerated for their work in their gardens. Furthermore, the success of the initiatives is highly dependent on external financing (especially by the regional initiative “100mila orti in Toscana”) and volunteer work. In this respect, the initiatives are still far from creating an alternative economic reality. However, it is also not uncommon for place-based practices to first focus on “inner” connections to identity and traditions before establishing markets and products, therefore tackling the economic dimension (Vasta et al., 2019). Nevertheless, as underlined by Vasta et al. (2019), a holistic path to sustainability must offer economic opportunities, as a place-shaping practice could lose ground if (especially young) people do not find the right economic conditions to stay in a place. Therefore, in order to create a resilient, alternative food system, this dimension needs further focus (Vasta et al., 2019). At the same time, introducing economic benefits should be carefully examined since research has shown that in other cases, neglected places have become targets for capitalist development, undoing most of the work done through place-shaping practices (Eizenberg, 2012).

The importance of a strong engagement by local actors and the structure they create for re-structuring the food system was underlined by many authors (Merçon et al., 2019; Walker & McCarthy, 2010). As underlined in the present case, the creation of a network that involves farmers' markets, gastronomy, and other local stakeholders can be what Forney & Häberli (2016) call “seeds of change”. The regional initiative “100mila orti in Toscana” as well as the local network “Piana del Cibo” have fostered collective agency by different local actors to encourage the development of a place-based food system in the area (Merçon et al., 2019; Walker & McCarthy, 2010).

Community gardens are seen as a way for people to be part of the shift towards ecologically, economically, and socially just food systems (Baker, 2004; Hassanein, 2003; Wekerle, 2004). In the gardens, this could be observed when participants perceived the gardens as a way to put their ideas into practice and transfer it to other aspects of life. This supports the evidence of Armstrong (2000) and Turner (2011), who describe community gardens as a catalyst for addressing broader issues. Scientists confirm that further research is needed to verify this assumption, again underlining the importance of the present research (Firth et al., 2011; Turner, 2011).

Still by addressing all three dimensions of sustainable place-shaping we see that in order to address sustainability issues in all their complexities, local place-shaping relies on a strong coalition of interests as suggested by Carmona (2016) (**re-grounding**). As Cumbers et al. (2018) underline, creating new forms of relations around food can enable the creation of these relations which ultimately leads to social empowerment for individuals. This building of networks and awareness as it is happening in the initiatives in the Lucchese plain can therefore serve as an agent of change. After all, transforming sustainability does not only mean changing political structures (**re-positioning**), but also changing individual and communal values, worldviews, and attitudes (**re-appreciation**) (O'Brien, 2012, 2013; Turner, 2011). Hence, by addressing these three dimensions, it becomes evident that sustainable place-shaping is enacted through gardening in the context of the Lucchese plain.

6 Conclusion

Like many regions in Europe, the Lucchese plain has been deeply influenced by globalisation processes and top-down decision making leading to changes in economic activities, and loss of traditions and practices. However, the present case study demonstrated that community gardening closely matches the local reality by providing potential for sustainable transformation. Community gardening can be successful in place-shaping if it can revive local practices that people feel connected to and embed them into a sustainability discourse. They can create a unique opportunity to combine aspects of food, place-making, and belonging (Turner, 2011). That way, even people that so far have been uninterested in global concerns such as climate change can find an entry point through community, traditions, and learning. Creating strong networks by combining practical knowledge, insights, and experiences also show actors that their voices are heard and their opinions matter. This leads to these actors being encouraged and empowered, which in turn can lead to strengthened values and a stronger motivation to steer change towards a more sustainable future (Horlings & Vaart, 2019). The research reverberates the findings of the SUSPLACE project, underlining the potential of civil society actors and the concept of shared ownership in making sustainable change happen (Horlings & Vaart, 2019; Pereira et al., 2019; Vasta et al., 2019).

The analysed case underlines how a sense of belonging and identity can encourage actors to perform agency via place-shaping practices. The success of these initiatives could potentially be replicated in other, similar areas. Still, as mentioned before, the sustainable place-shaping framework puts local resources, values, and practices at the centre. It also enables a closer understanding of local needs and perspectives, allowing to study the *“nexus of functions that one space can contribute to community life”* (Ulug & Horlings, 2019, p. 163). So, when we talk about how the results of this case can benefit other places, local context, structures, and the engagement of local administration and actors always have to be taken into account. Still, this case and the analysis of other place-based practices can serve as a model to understand how place-specificities can be taken into account in the design of local initiatives. Furthermore, these revelations can also be especially important for policymakers and local governments in creating the right framework conditions for these initiatives to flourish. However, as other researchers have mentioned, not all places necessarily hold locally embedded, untapped potential (Barca, 2009; Varga, 2017). In these cases, top-down interventions (solely or combined with place-based approaches) can represent a valuable addition for sustainable change, further underlining the need to carefully examine local realities.

This study clearly exposed the need for more holistic, place-based research to examine practices that propose solutions against the backdrop of current sustainability challenges. Since these are becoming more and more pressing, research must be intensified in this regard (Waddell, 2016). As

Horlings & Vaart (2019) and Mehmood et al. (2020) indicate, there is still a lot to learn about people's motivation for transformation and how to identify practices best suited to achieve change. Furthermore, the economic dimension of such place-based practices needs further focus in order to analyse their potential as viable and resilient alternatives.

7 Reflection

The process of writing this paper has been an intense journey, but one that has brought me many personal and academic insights for which I am very grateful. I began to reflect on my own values and ways of life as I explored those of my participants. In what follows, I will elaborate on different aspects of this journey.

The beginning of this research was somewhat challenging. When I arrived in Tuscany, I had a clear idea of what my research should look like. However, it became clear very quickly that my chosen focus was not relevant to the case study. This was a bit frustrating at first, as I spent most of my fieldwork not conducting interviews but rewriting and redefining my approach and focus of my work. At the same time, however, it allowed me to easily and curiously immerse myself in local life and absorb everything that was happening around me. I cooked traditional tomato sauce with my 75-year-old neighbour, exchanged best tips for growing lemon trees in the garden, and discussed what the future of Tuscan cuisine might look like.

After spending two months in the small village of Collodi in the middle of the Tuscan hills, I returned to the Netherlands somewhat disappointed because I was not able to do all the data collection I had wanted. At the same time, I felt further encouraged to continue my work and my journey. In conversations with various people I met during my time in Tuscany, I sensed a lot of enthusiasm and commitment to preserving, but also rethinking, Tuscan food culture and heritage.

After my return to the Netherlands, I had to organise my interviews online. Although I had already drawn up a list of people I wanted to interview during my stay in Italy, it proved very difficult to reach them by email. After initial difficulties, I got support from one of the researchers at the University of Pisa, who was very well connected in the area, which eventually enabled me to conduct the interviews. Even though it was certainly a very stressful moment, I learned to stay flexible, not to get stuck on initial ideas, and to always be open to new suggestions and approaches.

In addition to these challenges during data collection, the application of my theoretical framework was another personal challenge. While having a purely quantitative bachelor's background, I found it difficult to apply the chosen qualitative theory to my case. It was complex for me to understand how the analysis of my case could lead to concrete outcomes through the chosen approach. I felt that the theory encompasses many different aspects and fields, making it difficult to bring it all together into one coherent story. Nevertheless, week after week, I had the feeling of "growing into" the theory. While, at the beginning of the study, I only understood some aspects of it, I became more and more immersed in it over time. I started to analyse the extent to which certain practices in my environment are place-based and I started to discuss with some friends how we can

apply a relational approach to place in the world around us. This "immersion" helped me to better understand the approach and usefulness of the chosen theory.

I further frequently questioned how the local community could benefit from my study findings and approach. After some time, I understood for myself that the use of such an explorative theory can be a very powerful tool to show people that their opinion, ideas, and practices matter (also to an international researcher like me). This was certainly a very important moment during my research, which was further underlined in my interviews where I received a lot of positive feedback and enthusiasm from the interviewees for my chosen topic and the approach of my work, which emphasised the relevance of my work for me personally. While talking to one of the participants, she told me: **"I want to thank you again for this wonderful work you're doing. I think it's very important, and I think this is a huge piece in the puzzle for how we continue to create sustainability in this world."**

As a concluding remark, it is important to acknowledge that I am personally very much involved in finding alternatives to the current ways of producing our food and in how our society is shaped. Hence, I realized that I often brought my "whole self" into the research, my personal background, and values. For example, while writing my results, I tended to write "we think" instead of "the participants think", underlining that I was very often sympathizing with the participants' opinions. Throughout the process of analysis, however, I have tried to improve my ability to distance myself from the results and also reflect on certain aspects critically. For example, even though the fact that many of the activities in the gardens are based on traditional practices and the agricultural heritage in the region was a very important aspect, some other elements of it had to be taken into consideration. In a conversation with a participant about the role of women in local agricultural and food traditions, it became clear to me that not all aspects of traditional practices should be preserved. Re-connecting to traditions can be a potential tool to anchor specific practices in society and introduce a wide variety of actors into the sustainability discourse. However, it is important to always stay critical and to question and reflect on how specific practices might be improved or re-introduced to guarantee their sustainable impact.

To conclude, throughout the process of writing this thesis I highly reflected on my own personal and academic path and many questions arose: Am I doing enough when it comes to finding ways to our sustainable future? Why am I doing research instead of going out and putting some of my values into practice? How can we really join forces to change something out there?

I am curious about where my future will take me and want to understand what role I can play in the change I want to see around me.

...to be continued...

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Annex

Annex 1 Overview of participating bodies in the “Piana del cibo”

An overview of the participating bodies of the “Piana del cibo” is presented in the following:



1. The **Food Agora** is a space for discussion open to all citizens on the topic of food and the implementation of food-related policies. The Food Agora meets at least twice a year and is held by the president of the “Piana del cibo” Giorgio Dalsasso, also involved in the Slow Food Movement Lucca, who was elected in the first meeting of the Food Agora in January 2020.
2. The **Food council** has a strategic role in supporting and promoting food policies, representing the territories of the Lucchese plain.

The participants of the Food council are:



- Giorgio Dalsasso (President)
- Eight experts on the topic of food from the five participating municipalities of the Lucchese Plain
- Five Coordinators of the thematic tables



3. The **Thematic Tables** are meant to be lively rooms for discussions starting from the needs and problems of the communities. Five different areas of action were identified:

- local production,
- food in schools,
- food access and waste,
- lifestyle,
- and community gardens.



4. The **coordinators of the thematic tables** who are experts in the respective fields organize a variety of meetings throughout the year on different topics.



5. The **assembly of mayors** is made up of the mayors or councillors representing the different municipalities of the “Piana del cibo”. Its aim is the supervision of the implementation of the Inter-municipal Food Plan, by taking into consideration the proposals of the Food Council, the follow-up and support of the activities of the Agora, and the thematic tables.

Annex 2 Community Garden sites

Fattoria degli Albogatti in Lucca:

Via del Callarone, 350, 55100 – Lucca
Managing organisation: Precorso in fattoria
Total area: 11,000 m² (45 individual plots)
Number of current members: 35 (age 35-65)
Start of the initiative: 2010



Garden of the Agorà in Lucca:

Biblioteca Civica Agorà, 55100 – Lucca
Managing organisation: Giardini del futuro
Total area: 500 m² (commonly managed)
Number of current members: 6 (age 30-65); open to everybody
Start of the initiative: 2018

Social gardens in Altopascio:

Via Regione Emilia Romagna, 55011 - Altopascio
Managing organisation: Auser
Total area: 3,000 m² (40 individual plots)
Number of current members: 40 (age 30-65)
Start of the initiative: 2018



Social gardens of the Municipality in Capannori:

Via per corte Fontana, 55012 – Capannori
Managing organisation: Odyssea
Total area: 1,000 m² (20 individual plots)
Number of current members: 20 (age 30-60)
Start of the initiative: 2017

10 100 1000 gram Guamo:

Via Nuova di Guamo, 55060 - Guamo
Managing organisation: 10 100 1000 gram
Total area: 450 m² (commonly managed)
Number of current members: 10 (age 21-37)
Start of the initiative: 2019



Annex 3 Interview guidelines

Interview Questions for participants of the garden initiative

Introduction

Hello. My name is Sarah Kohane, I am a master's student at Wageningen University, and I would like to interview you for my thesis on "The impact of community gardens for sustainable place-shaping." Through these interviews, I want to dive into your perception of the gardening initiatives and understand your role in them. Do you have any questions before we start?

I wonder if I have your permission to record this interview. If yes, I want to tell you that at any time, you may ask to stop the recording. All answers will be anonymized.

Participation in the garden

First, I would like to know something about your membership in the garden.

- Of which community garden are you part of?
- Tell me, how did you start gardening?
- What is your function in the garden?
- Do you ever participate in the activities that are organised around the garden (e.g. open day/course)? Why (do you)? Which activities?
- How often do you go to the garden?
 - What is your routine when you go to the garden (like watering the plants, walking around, ...)
 - Do you usually go with somebody else to the garden?
 - Do you go to the garden to have a drink or just to sit for a while?
 - Did the participation/routine change in the past time?
 - Do you want to change it in the future?

Re-appreciation

- What does it mean to be part of this garden for you personally?
 - Did you think that your motivation/value has changed since you started to participate in the gardens?
 - If yes, why do you think that was the case?

Re-grounding

- What types of vegetables/fruits are you planting in the garden?
 - Why did you decide to grow these varieties?
- How do you manage the garden and what do you need to do it?
- Where do you get the seeds/material/knowledge from?
 - Do you exchange these things with other members? If yes, how?

Re-positioning

- Where do you usually buy your food? Supermarket? Specialist shop? Natural food? Community garden?
- When you go to buy food, what aspects are important to you?
 - Why?
 - What role do the products from the garden play here?

Sustainability

- What does "caring for the planet" mean to you? What does it look like?

- Is gardening a part of that?

Participation in other organizations/ initiatives

Now I would like to know something about your involvement in the local food system:

- How do you see your role in Lucca's local food system?
 - When did you get involved?
 - What was your motivation for getting involved?
- Are you involved in any other organisation/initiative on the topic of food or agriculture?
 - If yes, why?
 - Are you involved in the 'Food Plain'? (Yes/No)
 - Are you participating in the thematic tables of the "Piana del cibo"?
 - What does this mean for you and how does it relate to the community garden experience?

Future aspects

- How would you like the gardens and the things happening in the garden to develop in the next years?
- How would you like this topic of horticulture/urban gardens to develop in the future?
- How would you like the Lucchese Food system to develop in the future?
 - What could be your role in it?
 - What aspects are important to you?

General

Finally, I have a few short general questions.

- What is your age?
- What is the name of your municipality? How long have you lived in this neighbourhood?

Closing-up

- Is there anything I have not asked you that you would like to share?

Annex 4 Overview codebook

Category	Code group	Code
Sustainable place-shaping theory	Re-appreciation	Sustainability
		Practical application
		Tradition/heritage/regional revitalisation
		Nature-connection/Mental health
		Quality of produce
		Community building/ Intergenerational exchange/ Cultural exchange
		Self-production
		Education
		COVID-19
		Re-grounding
General codes	Re-positioning	Place characteristics
		Toscana funding
		Resources (knowledge/material acquisition/ Varieties, ...)
		Farming methods (Traditions, customs, ...)
		Regulations
		Social reality (conservative values, ...)
		Individuality <->standardisation
		Initiative Network
	Piana del cibo	Role Piana del cibo
	Information gardens	Information Agorà garden
		Information Capannori garden
		Information Guamo garden
		Information Altopascio garden
		Information Albogatti garden

Annex 5 Overview individual regulations garden*

Category	Albogatti	Altopascio	Capannori	Guamo	Agorà
Farming methods	<u>Voluntary</u> -Cultivation of local varieties <u>Mandatory</u> -Use of organic fertilizers -Prohibition of specific pesticides and herbicides -GMO varieties forbidden	<u>Voluntary</u> -Cultivation of local varieties <u>Mandatory</u> -Use of organic fertilizers -Prohibition of specific pesticides and herbicides -GMO varieties forbidden -Varieties that are too tall and cast shade on other plants	No additional regulation is set in place.	No additional regulation is set in place.	No additional regulation is set in place.
Use of resources	-Water use -Waste disposal -Use of gardening tools	-Water use -Electricity -Waste disposal -Use of gardening tools	-	-	-
Allotment of plots	<u>Based on ranking list**</u> -Age (18-40 years preferred) -Unemployment -More children in the hh -People with disabilities -Previous experience in gardening -Lower economic income <u>Additionally</u> -8% of the area is reserved for educational activities, schools, etc.	<u>Based on ranking list**</u> -Age (18-40 years preferred) -Unemployment -More children in the hh <u>Additionally</u> -5% of the area is reserved for educational activities, schools, etc.	-	-	-
Annual fee	0-60€ depending on income	Decided each year by the Management Committee	-	-	-
Responsibilities	<u>Management committee</u> -coordination of activities -relations with the municipality <u>Assembly of gardeners</u> -approval of the annual program -election of the management committee	<u>Management committee</u> -coordination of activities -relations with the municipality <u>Assembly of gardeners</u> -approval of the annual program -election of the management committee	-	-	-

* In addition to the regulations of the Tuscan initiative “100mila orti in Toscana”.

** If one of the following criteria is met, the chances of obtaining a plot in the garden increase.